KENWOOD

KDC-153

CD-RECEIVER
INSTRUCTION MANUAL

Kenwood Corporation

CONTENTS

Safety

WARNING
Stop the car before operating the unit.

Important to know...
■ To prevent a short circuit, never put or leave any metallic objects (such as coins or metal tools) inside the unit.
■ **Caution:** Adjust the volume so that you can hear sounds outside the car. Driving with the volume too high may cause an accident.
■ **Condensation:** When the car is air-conditioned, moisture may collect on the laser lens. This may cause disc read errors. In this case, remove the disc and wait for the moisture to evaporate.
■ This unit can only play the CDs with:

COMPACT disc DIGITAL AUDIO   COMPACT disc DIGITAL AUDIO Recordable   COMPACT disc DIGITAL AUDIO ReWritable

■ The illustrations in this manual are examples used to explain more clearly how the controls are used. Therefore, what appears on the illustrations may differ from what appears on the actual equipment.
■ If you experience problems during installation, consult your Kenwood dealer.
■ When you purchase external components, check with your Kenwood dealer to make sure that they work with your model and in your area.

The marking of products using lasers

CLASS 1
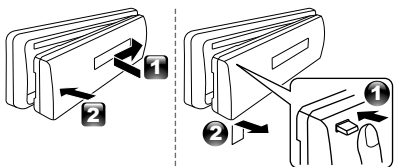LASER PRODUCT

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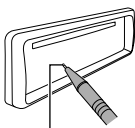
Preparation

How to attach/detach the faceplate

- Do not expose the faceplate to direct sunlight, excessive heat, or humidity. Also avoid places with too much dust or the possibility of water splashing.
- The faceplate is a precision piece of equipment and can be damaged by shocks or jolts.
- To prevent deterioration, do not touch the terminals of the unit and faceplate with your fingers.

How to reset your unit

If this unit fails to operate properly, press the reset button.

The unit returns to factory settings when the reset button is pressed.

Reset button

Maintenance

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

Cleaning the connector: The unit may not function properly if the connectors between the unit and faceplate are dirty. Detach the faceplate and clean the connector with a cotton swab gently, being careful not to damage the connector.
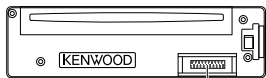
Connector (on the reverse side of the faceplate)

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

Basic operations

Loading slot

Ejects the disc

Detaches the faceplate

Display window

Volume knob

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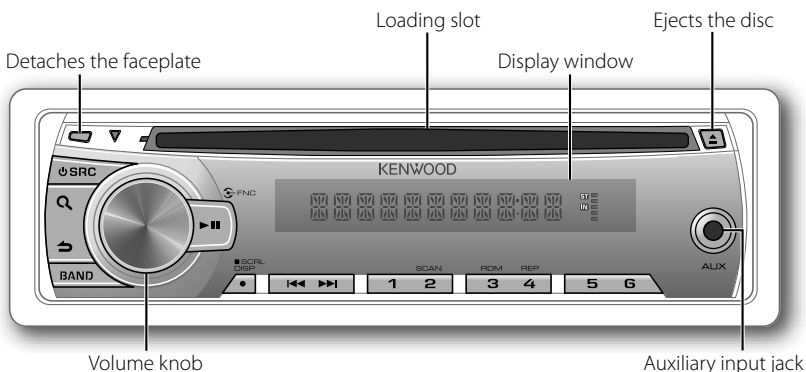
When you press or hold the following button(s)...

Button	General operation
⏻ SRC	▪ Turns on. ▪ Turns off if pressed and held. ▪ Selects the available sources (TUNER, CD, AUX, STANDBY), if the power is turned on. (If the source is ready, playback also starts. "CD" is selectable only when a disc is loaded.)
Volume knob (turn)	▪ Adjusts the volume level. ▪ Selects items.
Volume knob (press)	▪ Confirms selection. ▪ Enters **[FUNCTION]** settings.
BAND	Selects a bands (FM1/ FM2/ FM3/ MW/ SW1/ SW2).
►II	▪ Pauses/resumes playback of a disc. ▪ Mutes the sound while listening to a radio or an external component connected to the auxiliary input jack.
I◄◄ / ►►I	▪ Searches for a radio station. ▪ Selects track. ▪ Fast-forwards/reverses tracks if pressed and held.
SCRL DISP	▪ Changes the display information. ▪ Scrolls the display information if pressed and held. ▪ Enters clock adjustment mode directly (page 5) if pressed and held while in clock display screen.
⮌	▪ Returns to the previous item. ▪ Exit from setting mode if pressed and held.

The following indicator lights up when...

ST: A stereo broadcast is received (FM).

IN: A disc is in the unit.

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Getting started

Canceling the display demonstration

The display demonstration is always turned on unless you cancel it.

When you turn on the power (or after you reset the unit), the display shows:
[CANCEL DEMO] ➡ [PRESS] ➡ [VOLUME KNOB]

1 Press the volume knob.
   [YES] is selected as the initial setup.
2 Press the volume knob again to confirm.
   [DEMO OFF] appears.
■ If no operation is done for about 15 seconds or if you turn the volume knob to select **[NO]** in step **2**, **[DEMO MODE]** appears and the display demonstration starts.

Setting the demonstration mode

1 Press the volume knob to enter **[FUNCTION]**.
2 Turn the volume knob to select **[DEMO MODE]**, then press to enter.
3 Turn the volume knob to select **[ON]** or **[OFF]**.
   If **[ON]** is selected, display demonstration starts if no operation is done for about 20 seconds.
4 Hold ⤺ to finish the procedure.

Adjusting the clock

1 Press the volume knob to enter **[FUNCTION]** mode.
2 Turn the volume knob to select **[SETTINGS]**, then press to enter.
3 Turn the volume knob to select **[CLOCK]**, then press to enter.
4 Press the volume knob to select **[CLOCK ADJ]**, then press to enter.
   Clock hour flashes on the display.
5 Turn the volume knob to adjust the hour, then press to enter the minute adjustment.
   Clock minutes flashes on the display.
6 Turn the volume knob to adjust the minute, then press to confirm.
   Press I◄◄ / ►►I to move between the hour and minute adjustment.
7 Hold ⤺ to finish the procedure.

Initial settings before operations

1 Press ⏻ **SRC** to enter **[STANDBY]** mode.
2 Press the volume knob to enter **[FUNCTION]** mode.
3 Turn the volume knob to select **[INITIAL SET]**, then press to enter.
4 Turn the volume knob to make a selection, then press to confirm.
   See table below for selection.
5 Hold ⤺ to finish the procedure.

Item	Selectable setting (Preset: *)
PRESET TYPE	**NORM***: Memorizes one station for each preset button in each band (FM1/ FM2/ FM3/ MW/ SW1/ SW2).; **MIX:** Memorizes one station for each preset button regardless of the selected band (FM1/ FM2/ FM3/ MW/ SW1/ SW2).
KEY BEEP	**ON***/ **OFF:** Activates/deactivates the keypress tone.
TDF ALARM	**ON:** Activates the alarm if you forgot to detach the faceplate when ACC is set to OFF. ; **OFF***: Cancels.
BUILTIN AUX	**ON1***: Outputs sound of the connected external component when "AUX" is selected as the source. ; **ON2:** Outputs sound from the connected external component when "AUX" is selected as the source. When you turn on the power, the sound attenuates (to prevent noise when no external component is connected). Turn the volume knob clockwise to return to the previous volume level. ; **OFF:** Disables "AUX" in source selection.

Item	Selectable setting (Preset: *)
SWITCH PRE	**REAR***/ **SUB-W:** Selects whether rear speakers or a subwoofer are connected to the line out terminals on the rear of the unit (through an external amplifier).
SP SELECT	**OFF***/ **5/4/ 6 × 9/6/ OEM:** Selects the speaker size for optimum performance.

Listening to the radio
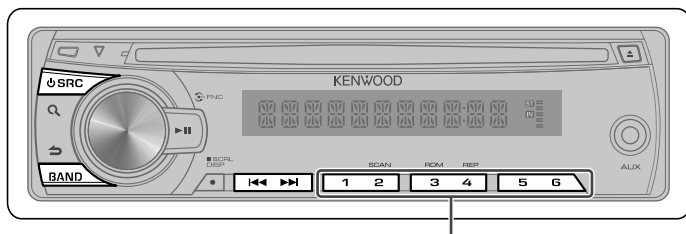
Hold for about 2 seconds to memorize the current station.

1 Press ⏻ **SRC** to select "TUNER."
2 Press **BAND** repeatedly to select a band (FM1/ FM2/ FM3/ MW/ SW1/ SW2).
3 Press ⏮◀◀ / ▶▶⏭ to search for a station.

Changing the frequency steps

You can change the frequency step of FM/MW:
FM : 50 kHz to 200 kHz
MW : 9 kHz to 10 kHz

1 Press and hold ⏻ **SRC** to turn off the power.
2 While pressing number buttons **1** and **5**, press ⏻ **SRC**.
Release your fingers from the buttons after the display appears.

■ To restore the initial setting, repeat the same procedure.
■ When the frequency step is changed, the frequencies in the memory are deleted.

Adjust [SETTINGS] mode settings

While listening to the radio...
1 Press the volume knob to enter [**FUNCTION**] mode.
2 Turn the volume knob to select [**SETTINGS**], then press to enter.
3 Turn the volume knob to make a selection, then press to confirm.
See the following table for selection.
4 Hold ⏎ to finish the procedure.

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Item	Selectable setting (Preset: *)
LOCAL SEEK	**ON:** Searches only MW/ SW1/ SW2 stations with good reception. ; **OFF*:** Cancels.
SEEK MODE	Selects the tuning mode for ⏮◀◀ / ▶▶⏭ buttons. **AUTO1*:** Automatically search for a station. ; **AUTO2:** Search in the order of the stations in the preset memory. ; **MANUAL:** Manually search for a station.
AUTO MEMORY	**YES:** Automatically starts memorizing 6 stations with good reception. ; **NO*:** Cancels (automatic memorizing is not activated). (Selectable only if [NORM] is selected for [PRESET TYPE].) (page 5)
MONO SET	**ON:** Improves the FM reception (but the stereo effect may be lost). ; **OFF*:** Cancels (stereo effect resumes).

Listening to a disc

Ejects the disc. ("NO DISC" appears and "IN" indicator goes off.)
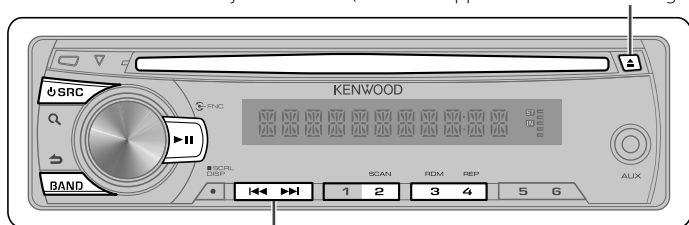
- Press to select track.
- Hold to fast-forwards/reverses.

1 Press ⏻ **SRC** to turn on the power.
2 Insert a disc into the loading slot.
  Playback starts automatically.
3 Press ▶❚❚ to resume/pause playback (if necessary).

Selecting Repeat Play

Press number button **4 (REP)** repeatedly to make a selection [TRAC (track) REPEAT, REPEAT OFF].

Selecting Random Play

Press number button **3 (RDM)** repeatedly to make a selection [DISC RANDOM, RANDOM OFF].

Selecting Scan Play

Press number button **2 (SCAN)** repeatedly to make a selection [TRAC (track) SCAN, SCAN OFF].

- If scan play is selected, the unit starts playing the first 10-second intro of the music in the disc. If "SCAN OFF" is selected, the unit resumes normal play of the current song.

Continued...

Selecting a track

1 Press 🔍 to enter Music Search mode.
"SEARCH" appears, then the current track name appears on the display.

2 Turn the volume knob to select a track, then press to confirm.

- To return to the first track, press **BAND**.
- To cancel the Music Search mode, press and hold ↰.

Discs that cannot be used

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

Listening to the other external components

Preparation : Make sure **[ON1]** or **[ON2]** is selected for **[BUILTIN AUX]**. (page 5)

Auxiliary input jack

3.5 mm stereo mini plug (optional accessory)
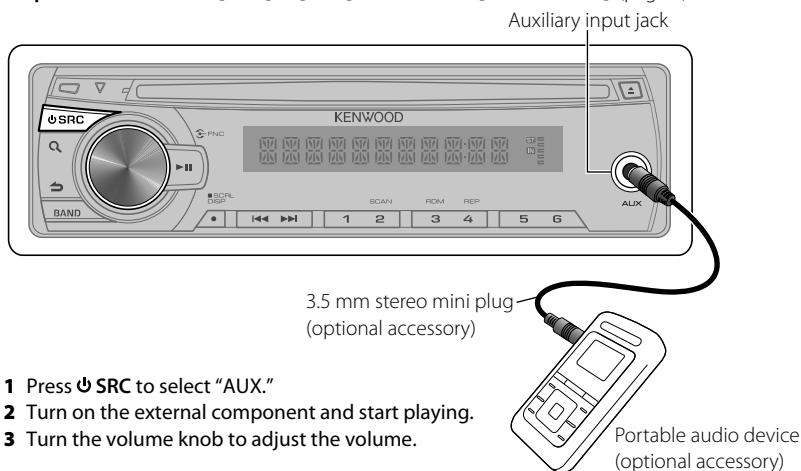
1 Press ⏻ **SRC** to select "AUX."
2 Turn on the external component and start playing.
3 Turn the volume knob to adjust the volume.

Portable audio device (optional accessory)

Muting upon the reception of a phone call

To use this feature, connect the MUTE lead to your telephone using a commercial telephone accessory. (page 12)

When a call comes in, "CALL" appears.
- The audio system pauses.
- To continue listen to the audio system during a call, press ⏻ **SRC**. "CALL" disappear and the audio system resumes.

When a call ends, "CALL" disappear.
- The audio system resumes.

Function settings

1 Press the volume knob to enter [**FUNCTION**] mode.
2 Turn the volume knob to select [**AUDIO CTRL**] or [**SETTINGS**], then press to enter.
3 Turn the volume knob to make a selection, then press to confirm.
 - See table below for selection.
 - Repeat step **3** until the desired item is selected/activated.
 - Press ⇆ to return to the previous item.
4 Hold ⇆ to finish the procedure.

[**AUDIO CTRL**] **:** While listening to any source except in STANDBY state...

Item	Selectable setting (Preset: *)
SUB-W LEVEL	−15 — +15 (**Preset: 0**): Adjusts the subwoofer output level.
BASS BOOST	B.BOOST LV1*/ B.BOOST LV2: Selects your preferred bass boost level. ; OFF: Cancels.
SYSTEM Q	NATURAL*/ USER/ ROCK/ POPS/ EASY/ TOP40/ JAZZ/ GAME: Selects a preset sound mode suitable to the music genre. (Selects [USER] to use the customized bass, middle, and treble settings.)
BASS ADJUST	BASS C FRQ: 60/ 80/ 100*/ 200: Selects the center frequency.
	BASS LEVEL: −8 — +8 (**Preset: 0**): Adjusts the level.
	BASS Q FCTR: 1.00*/ 1.25/ 1.50/ 2.00: Adjusts the Q factor.
	BASS EXTEND: ON: Turns on the extended bass. ; OFF*: Cancels.
MID ADJUST	MID C FRQ: 0.5K/ 1.0K*/ 1.5K/ 2.5K: Selects the center frequency.
	MID LEVEL: −8 — +8 (**Preset: 0**): Adjusts the level.
	MID Q FCTR: 0.75/ 1.00*/ 1.25: Adjusts the Q factor.
TRE ADJUST	TRE C FRQ: 10.0K/ 12.5K*/ 15.0K/ 17.5K: Selects the center frequency.
	TRE LEVEL: −8 — +8 (**Preset: 0**): Adjusts the level.
BALANCE	L15 — R15 (**Preset: 0**): Adjusts the left and right speaker output balance.
FADER	R15 — F15 (**Preset: 0**): Adjusts the rear and front speaker output balance.
SUB-W SET	ON*: Turns on the subwoofer output. ; OFF: Cancels.
DETAIL SET	LPF SUB-W: THROUGH*: All signals are sent to the subwoofer. ; 85HZ/ 120HZ/ 160HZ: Frequencies higher than 85 Hz/ 120 Hz/ 160 Hz are cut off.
	SUB-W PHASE: REV (180°)/ NORM (0°)*: Selects the phase angle of the subwoofer output to be in line with the speaker output for optimum performance. (Selectable only if a setting other than [THROUGH] is selected for [LPF SUB-W].)
	VOL OFFSET: −8 — +8 (for AUX) ; −8 — 0 (for other sources): Presets the volume adjustment level of (**Preset: 0**) each source. The volume level will automatically increase or decrease when you change the source. (Before making an adjustment, select the source you want to adjust.)

 - [SUB-W LEVEL/ SUB-W SET/ LPF SUB-W/ SUB-W PHASE] is selectable only if [SWITCH PRE] is set to [SUB-W]. (page 6)
 - [SUB-W LEVEL/ LPF SUB-W/ SUB-W PHASE] is selectable only if [SUB-W SET] is set to [ON].
 - Select a source before making a source tone memory adjustment, [BASS ADJUST/ MID ADJUST/ TRE ADJUST].

Continued...

Item	Selectable setting (Preset: *)
AUX NAME	**AUX***/ **DVD**/ **PORTABLE**/ **GAME**/ **VIDEO**/ **TV:** Selects the desired name for the connected component. (Selectable only if "AUX" is selected as the source.)
CLOCK	**CLOCK ADJ:** (For details, refer page 5.)
DISPLAY	**DIMMER SET: ON:** Dims the display illumination. ; **OFF***: Cancels.
	TEXT SCROLL: AUTO*/ **ONCE:** Selects to scroll the display information automatically, or scroll only once. ; **OFF:** Cancels.

Troubleshooting

Symptom	Remedy/Cause
Sound cannot be heard.	Adjust the volume to the optimum level. / Check the cords and connections.
"PROTECT" appears and no operations can be done.	Check to be sure the terminals of the speaker leads are covered with insulating tape properly, then reset the unit. If "PROTECT" does not disappear, consult your nearest service center.
■ Sound cannot be heard. ■ The unit does not turn on. ■ Information shown on the display is incorrect.	The connectors are dirty. Clean the connectors. (page 3)
The unit does not work at all.	Reset the unit.
Radio reception is poor. / Static noise while listening to the radio.	Connect the antenna firmly. / Pull the antenna out all the way.
"IN" flashes.	The CD player is not operating properly. Reinsert the disc properly. If the condition did not improve, turn off the unit and consult your nearest service center.
CD-R/CD-RW cannot be played back and tracks cannot be skipped.	Insert a finalized CD-R/CD-RW (finalize with the component which you used for recording). (This unit does not support MP3/WMA audio file.)
Disc sound is sometimes interrupted.	Stop playback while driving on rough roads. / Change the disc. / Check the cords and connections.
"NO DISC" appears.	Insert a playable disc into the loading slot.
"TOC ERROR" appears.	The CD is quite dirty. / The CD is upside-down. / The CD is scratched a lot. Try another disc instead.
"ERROR 99" appears.	The unit is malfunctioning for some reason. Press the reset button on the unit. If the "ERROR 99" code does not disappear, consult your nearest service center.
Noise is generated.	Skip to another track or change the disc.
"READING" keeps flashing.	Longer readout time is required.
Elapsed playing time is not correct.	This is caused by how the tracks are recorded.

Installation/connection

Part list:
Ⓐ Faceplate.. (×1)
Ⓑ Escutcheon... (×1)
Ⓒ Mounting sleeve... (×1)
Ⓓ Wiring harness.. (×1)
Ⓔ Removal tool .... (×2)
Ⓕ Flat head screw (for Nissan cars)........... (×4)
Ⓖ Round head screw (for Toyota cars).... (×4)

Basic procedure

1 Remove the key from the ignition switch, then disconnect the ⊖ terminal of the car battery.
2 Make proper input and output wire connections.
   ➡ "Wiring connection" (page 12)
3 Install the unit to your car.
   ➡ "Installing the unit" (page 12)
4 Reconnect the ⊖ terminal of the car battery.
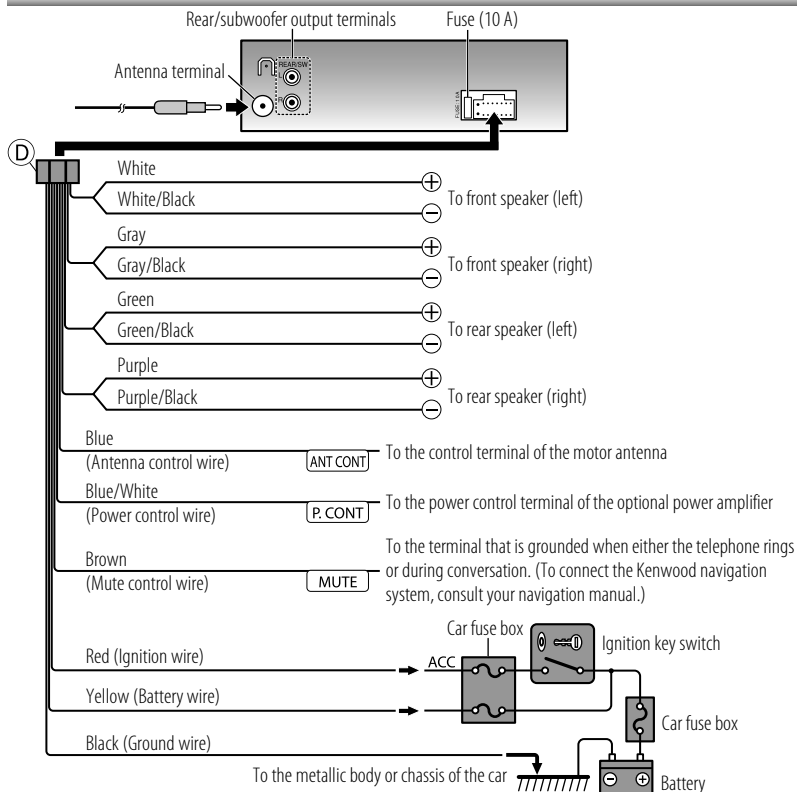**5** Reset the unit. (page 3)

Warning

■ The unit can only be installed in a car with a 12 V DC power supply, negative ground.
■ 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.
■ Disconnect the battery's negative terminal and make all electrical connections before installing the unit.
■ 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.
■ Be sure to ground this unit to the car's chassis again after installation.
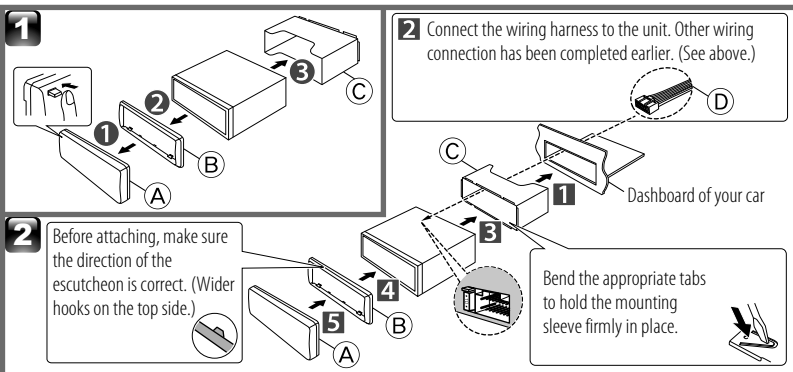
Caution

■ 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.
■ Do not use your own screws. Use only the screws provided.
■ Install this unit in the console of your vehicle. Make sure the faceplate will not hit the lid of the console (if any) when closing and opening.
■ 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.
■ 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.
■ 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).
■ Do not touch the metal part of this unit during and shortly after the use of the unit. Metal part such as the heat sink and enclosure become hot.
■ Mounting and wiring this product requires skills and experience. For safety's sake, leave this work to professionals.
   If you experience problems during installation, consult your Kenwood dealer.

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Wiring connection

Rear/subwoofer output terminals   Fuse (10 A)

Antenna terminal

D		
White	⊕	
White/Black	⊖	To front speaker (left)
Gray	⊕	
Gray/Black	⊖	To front speaker (right)
Green	⊕	
Green/Black	⊖	To rear speaker (left)
Purple	⊕	
Purple/Black	⊖	To rear speaker (right)

Blue
(Antenna control wire)   ANT CONT — To the control terminal of the motor antenna

Blue/White
(Power control wire)   P. CONT — To the power control terminal of the optional power amplifier

Brown
(Mute control wire)   MUTE — To the terminal that is grounded when either the telephone rings or during conversation. (To connect the Kenwood navigation system, consult your navigation manual.)

Car fuse box   Ignition key switch

Red (Ignition wire)   ACC

Yellow (Battery wire)   Car fuse box

Black (Ground wire)

To the metallic body or chassis of the car   Battery

Installing the unit

1

2 Connect the wiring harness to the unit. Other wiring connection has been completed earlier. (See above.)

D

C

1 Dashboard of your car

2 Before attaching, make sure the direction of the escutcheon is correct. (Wider hooks on the top side.)

3

4

5 B

A

Bend the appropriate tabs to hold the mounting sleeve firmly in place.

### Installing without using the mounting sleeve (Japanese car)
1 Remove the mounting sleeve and escutcheon from the unit.
2 Align the holes in the unit (on both sides) with the vehicle mounting bracket and secure the unit with the supplied screws.

T: Toyota cars
N: Nissan cars
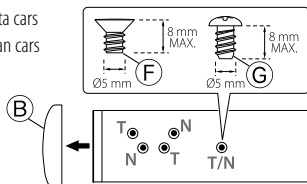
Removing the unit
1 Detach the faceplate.
2 Engage the catch pin on the removal tools into the holes on both sides of the escutcheon, then pull it out.
3 Insert the removal tools deeply into the slots on each side, then follow the arrows instructions as shown below.
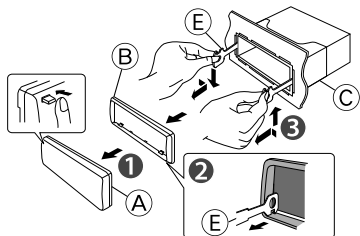
Specifications

FM tuner section
Frequency range:
  200 kHz space: 87.9 MHz — 107.9 MHz
  50 kHz space: 87.5 MHz — 108.0 MHz
Usable sensitivity (S/N= 26 dB): 11.2 dBf
  (1.0 μV/75 Ω)
Quieting sensitivity (DIN S/N = 46 dB):
  19.2 dBf (2.5 μV/75 Ω)
Frequency response (±3 dB): 30 Hz — 15 kHz
Signal-to-Noise ratio (MONO): 63 dB
Stereo separation (1 kHz): 40 dB

AM tuner section
Frequency range:
  Band 1 (MW):
    10 kHz space: 530 kHz — 1 700 kHz
    9 kHz space: 531 kHz — 1 611 kHz
  Band 2 (SW1):
    5 kHz space: 2 940 kHz — 7 735 kHz
  Band 3 (SW2):
    5 kHz space: 9 500 kHz — 10 135 kHz /
                11 580 kHz — 18 135 kHz
Usable sensitivity (S/N= 20 dB):
  MW: 31 dBμ (36 μV)
  SW: 32 dBμ (40 μV)

CD player section
Laser diode: GaAIAs
Digital filter (D/A): 8 Times Over Sampling
D/A converter: 24 Bit
Spindle speed: 500 rpm — 200 rpm (CLV)
Wow & Flutter: Below Measurable Limit
Frequency response (±1 dB): 20 Hz — 20 kHz
Total harmonic distortion (1 kHz): 0.01 %
Signal-to-Noise ratio (1 kHz): 105 dB
Dynamic range: 90 dB

Audio section
Maximum output power: 50 W × 4
Full bandwidth power (at less than 1 % THD):
  22 W × 4
Speaker impedance: 4 Ω — 8 Ω
Tone action: Bass: 100 Hz ±8 dB
              Middle: 1 kHz ±8 dB
              Treble: 10 kHz ±8 dB
Preout level / load (CD): 2 000 mV/10 kΩ
Preout impedance: ≤ 600 Ω

Auxiliary input section
Frequency response (±3 dB): 20 Hz — 20 kHz
Input maximum voltage: 1 200 mV
Input impedance: 10 kΩ

General
Operating voltage (11 V — 16 V allowable): 14.4 V
Maximum current consumption: 10 A
Installation size (W × H × D):
  182 mm × 53 mm × 158 mm
Weight: 1.3 kg

Subject to change without notice.

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