

KENWOOD

DPX-6020

DOUBLE DIN SIZED CD/CASSETTE RECEIVER INSTRUCTION MANUAL

KENWOOD CORPORATION

**Take the time to read through this instruction manual.
Familiarity with installation and operation procedures will help you obtain
the best performance from your new double din sized CD/cassette receiver.**

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your KENWOOD dealer for information or service on the product.

Model DPX-6020 Serial number _____



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Safety precautions

⚠ WARNING

To prevent injury or fire, take the following precautions:

- Insert the unit all the way in until it is fully locked in place. Otherwise it may fall out of place when jolted.
- When extending the ignition, battery, or ground wires, make sure to use automotive-grade wires or other wires with a 0.75mm² (AWG18) or more to prevent wire deterioration and damage to the wire coating.
- To prevent a short circuit, never put or leave any metallic objects (such as coins or metal tools) inside the unit.
- If the unit starts to emit smoke or strange smells, turn off the power immediately and consult your Kenwood dealer.
- Make sure not to get your fingers caught between the faceplate and the unit.
- Be careful not to drop the unit or subject it to strong shock.
The unit may break or crack because it contains glass parts.

⚠ 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 open the top or bottom covers of the unit.
- 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 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 subject the faceplate to excessive shock, as it is a piece of precision equipment.

- When replacing a fuse, only use a new one with the prescribed rating. Using a fuse with the wrong rating may cause your unit to malfunction.
- To prevent a short circuit when replacing a fuse, first disconnect the wiring harness.
- Do not place any object between the faceplate and the unit.
- Do not use your own screws. Use only the screws provided. If you use the wrong screws, you could damage the unit.

IMPORTANT INFORMATION

About the disc changer to be connected:

To connect a disc changer having the "O-N" switch to this unit, set the "O-N" switch to "N". When you connect a model with no "O-N" switch, the converter cord CA-DS100 available as an option may be required. For details, consult your Kenwood dealer.

If a model with no "O-N" switch is connected, some unavailable functions and information that cannot be displayed are generated, such as the DNPS, DNPP, Magazine random play, and CD Text display. Note that none of the KDC-C100, KDC-C302, C205, C705, and non-Kenwood CD changers can be connected.

⚠ CAUTION

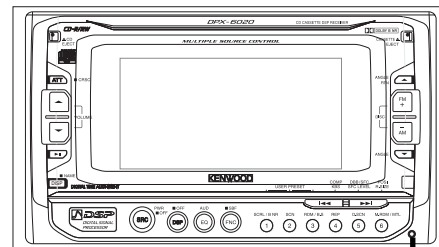
You can damage both your unit and the CD changer if you connect them incorrectly.

NOTE

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 represent something impossible in actual operation.

NOTE

- CD-Rs and CD-RWs which have not undergone finalization processing cannot be played. (For more information on finalization processing, refer to the manual for your CD-R/CD-RW writing software or CD-R/CD-RW recorder.) Additionally, depending on the recording status, it may prove impossible to play certain CDs recorded on CD-R or CD-RW.
- If you experience problems during installation, consult your Kenwood dealer.



Reset button

- If the unit does not seem to be working right, try pressing the reset button first. If that does not solve the problem, consult your Kenwood dealer.

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 neutral detergent off.

⚠ CAUTION

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

Safety precautions

Handling Cassette Tapes

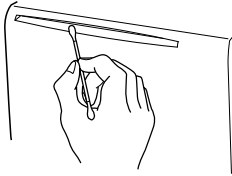
- Do not play a cassette whose tape has gone slack. In such a case, wind it tight using a pencil or the like in one of the spools. Playing slack cassette tapes can result in the tape tangling around the capstan and/or pinch rollers, causing trouble.
- Do not play a deformed cassette or one whose label is starting to come off, as it can cause the unit to malfunction.
- Do not leave tapes in hot places, such as on dashboards and other spots exposed to direct sunlight, or near heater outlets. They can deform the cassette.
- Avoid using extremely long cassette tapes, such as 100-minute-long tapes. Such tapes are very thin, and can tangle easily around the pinch rollers or other parts inside the unit, causing unit failure.
- Remove a cassette tape from the unit when not listening to it for a while. If you leave a tape in the unit too long, it may stick to the tape head and cause unit malfunction.

Cleaning the Tape Head

After you have listened to many cassettes over a long period of time, magnetic powder from the tapes and dust accumulates on the tape head, causing noise and a deterioration in sound quality. Clean the tape head using a cleaning tape or cleaning kit designed for use in car audio systems.

Cleaning the CD Slot

As dust tends to accumulate in the CD slot, clean it every once in a while. Your CDs can get scratched if you put them in a dusty CD slot.



Lens Fogging

Right after 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, CDs may be impossible 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.

⚠ Warning

⚠ CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. In compliance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

KENWOOD CORPORATION
2967-3, ISHIKAWA-CHO,
HACHIOJI-SHI
TOKYO, JAPAN

KENWOOD CORP. CERTIFIES THIS EQUIPMENT
CONFORMS TO DHHS REGULATIONS NO.21 CFR
1040.10, CHAPTER 1, SUBCHAPTER J.

Location : Bottom Panel

FCC WARNING

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

NOTE

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 may cause harmful interference to radio communications, if it is not installed and used in accordance with the instructions. 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.

NOTE

This Class B digital apparatus complies with Canadian ICES-003.

*Manufactured under license from Dolby Laboratories.
"Dolby" and the double-D symbol are trademarks of Dolby Laboratories.*

Handling Compact discs

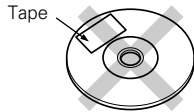
Playing a CD that is dirty, scratched or warped can cause the sound to skip and the unit to operate incorrectly, resulting in worsened sound quality. Take the following precautions to prevent your CDs from getting scratched or damaged.

Handling CDs

- Do not touch the recorded side of the CD (the side opposite the label) when holding it.



- The reflective film on a CD-R or a CD-RW is more fragile than that on an ordinary music CD, and may peel off if scratched. Fingerprints on a CD-R or CD-RW are also more likely to cause skipping when the disc is played. For these reasons, handle the disc very carefully. Detailed handling instructions will appear on the CD-R or CD-RW package: read this information carefully before using the disc.
- Do not stick tape on either side of the CD.



Do Not Load CD Accessories

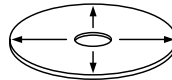
Do not use commercially available CD accessories that can be loaded into the CD slot, such as stabilizers, protective sheets, or CD cleaning discs, since they can cause the unit to malfunction.

Storing CDs

- Do not store CDs in areas exposed to direct sunlight (such as a car seat or the dashboard) or other hot places. A CD-R or CD-RW is more susceptible than a music CD to damage from high temperatures and humidity, and in some cases, may become unusable if left in the car for long periods of time.
- Remove CDs from the unit when not listening to them for a while, and put them back in their cases. Do not pile up CDs that are removed from their cases or prop them against something.

Cleaning CDs

If a CD has gotten dirty, wipe it off gently using a commercially available cleaning cloth or a soft cotton cloth, starting from the center of the disc and moving outward. Do not clean CDs with conventional record cleaners, anti-static formulas, or chemicals such as paint thinner or benzene.



Do Not Use Special Shape CDs

- Be sure to use round shape CDs only for this unit and do not use any special shape CDs. Use of special shape CDs may cause the unit to malfunction.

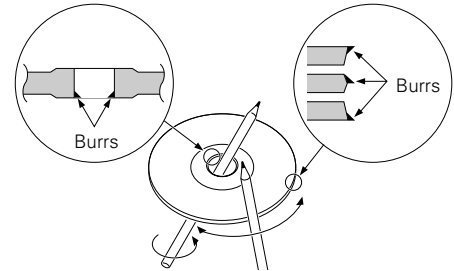


- Be sure to use CDs with disc mark only for this unit.



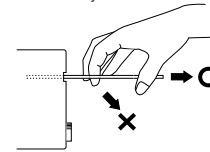
Checking New CDs for Burrs

When playing a new CD for the first time, check that there are not any burrs stuck to the perimeter of the disc or in the central hole. CDs with burrs stuck on them may not load properly or may skip while playing. Remove burrs using a ballpoint pen or a similar utensil.



Removing the CD

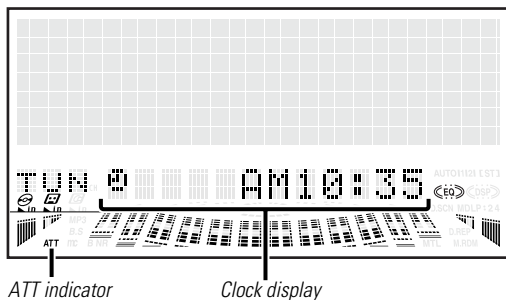
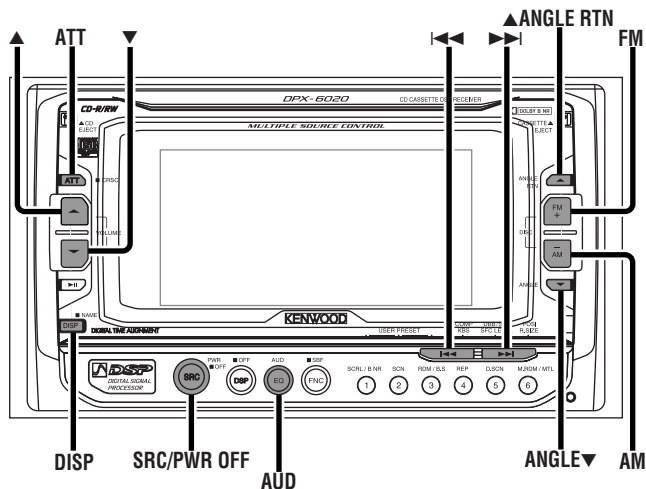
Only remove the CD from the machine in a horizontal direction, holding it flat. You may damage the surface of the CD if you try pulling it down as it ejects.



Do Not Use CDs with Sticker on the Labeled Side

Do not use the CD with the label sticker stuck on it. Using such a CD may cause the CD to be deformed and the sticker to peel off, resulting in malfunction of the unit.

General features



ATT indicator

Clock display

Power

Turning on the power:

Press the SRC (source) button.

NOTE

Turn the power on before carrying out the following procedures.

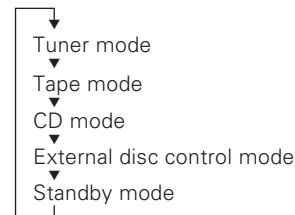
Turning off the power:

Press the PWR OFF button for at least one second.

Switching Modes

Switching Modes:

Each time you press the SRC (source) button, the mode switches as follows:



Selecting standby mode:

Press the SRC button repeatedly and switch to "ALL OFF". When "ALL OFF" is displayed, the standby mode is activated. The standby mode turns all functions off while leaving the power to the unit on. Use this mode when you want to have the display illuminated but don't want to listen to anything.

NOTE

- The mode switches to the next mode from any mode which cannot be used.
- The external disc control mode will differ depending on the unit that is connected.

Volume

Increasing Volume:

Press the ▲ button to turn up the volume.

Decreasing Volume:

Press the ▼ button to turn down the volume.

Attenuator

This function allows you to turn down the volume quickly.

Turning Attenuator On/Off:

Press the ATT button to switch the attenuator on and off.

When the attenuator is on, the ATT indicator blinks.

When the attenuator is off, the volume returns to the original level.

NOTE

Turning the volume all the way down deactivates the attenuator function.

Adjusting Clock

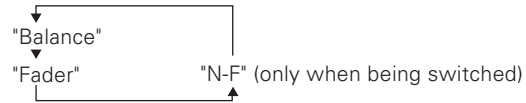
Adjust the clock.

- 1 When the clock is not displayed, first press the DISP button to display "Clock".
- 2 Press the DISP button for at least two seconds to enter the clock adjustment mode.
- 3
 - Adjusting the hours
Press the FM button to advance the hours, or press the AM button to make the hours go back.
 - Adjusting the minutes
Press the ►► button to advance the minutes, or press the ◄◄ button to make the minutes go back.
- 4 Press the DISP button to end the clock adjustment mode.

Audio Control Setting

Adjust various sound levels.

- 1 Press the AUD button twice to enter the control mode.
- 2 Press either the ◄◄ or ►► button.
Each time the button is pressed, the adjustment mode will change as follows:
Pressing the ►► button advances the display, and pressing the ◄◄ button reverses it.



- 3 Press the FM/AM button.
Look at the table to adjust the mode being displayed.

Adjustment mode (Display)	Operation of Audio control button	
	AM button	FM button
Balance ("Balance")	Left channel emphasized.	Right channel emphasized.
Fader ("Fader")	Rear channel emphasized.	Front channel emphasized.
Non-Fading Preout Level ("N-F")	Non-fading sound reduced.	Non-fading sound emphasized.

- 4 Press the AUD button to end the control mode.

General features

Panel Angle Adjustment

You can adjust the panel angle for easy viewing.

Sliding the panel:

Press the ANGLE▼ button.

Each time you press the ANGLE▼ button, the panel will slide one step at a time. The faceplate angle can be varied in up to ten steps.

NOTE

If the power is turned off, the panel will close automatically. When you turn the power back on, the panel angle will return to the adjusted angle position.

Closing the panel:

Press the ▲ANGLE RTN button to close the panel.

NOTE

The sound will be muted while the panel is sliding during the tape mode.

▲CAUTION

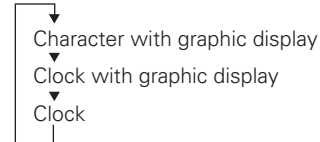
- Take care that your fingers and so on do not get caught during the slide operation of the front panel.
- When the front panel has been slid, it might interfere with the shift lever or something else. If this happens, pay attention to safety and move the shift lever or take an appropriate action, then operate the unit.
- Do not apply excessive force to the front panel after it slides.

Switching Display

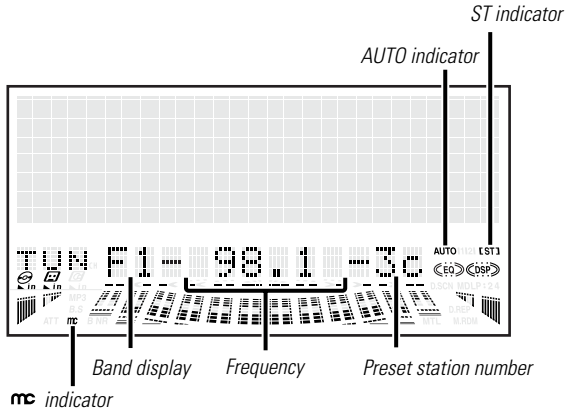
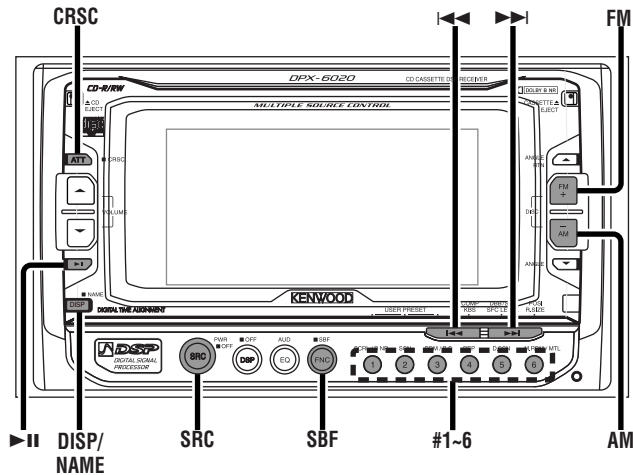
You can switch the display during the standby mode as mentioned below.

Switching the Display During the Standby Mode:

Each time you press the DISP button during the standby mode, the display switches as follows:



Tuner features



Tuning

- 1 Press the SRC (source) button repeatedly to select the tuner mode. "TUNER" is displayed when the tuner mode has been selected.
- 2 Press either the FM or AM button to select the band. Each time you press the FM button, the band switches between the FM1, FM2 and FM3. Press the AM button to select the AM band.
- 3
 - Auto Seek Tuning
 - Press the ►► button to seek higher frequencies.
 - Press the ◀◀ button to seek lower frequencies.
 - Manual Tuning
 - Press the ►► button to increase the frequency by one step.
 - Press the ◀◀ button to decrease the frequency by one step.

NOTE

- The ST indicator lights up when stereo broadcasts are being received.
- Please see the function set system about selecting tuning mode. (page 33)

Station Preset Memory

Store the frequency of a station. You can then recall that station with a single touch of a button.

- 1 Select the band/ station that you want to have stored.
- 2 Press the button (#1-6) that you want to use for the station, for at least two seconds. The button number blinks once in the display to indicate that the data has been stored.

NOTE

You can store six stations in each of the FM1, FM2, FM3, and AM bands.

Tuner features

Preset Tuning

You can recall a station being preset in preset station buttons (#1-6).

Recalling a Preset Station:

Press the preset station button (#1-6) for the desired station. The number of the recalled station is displayed.

Clean Reception System Circuit (CRSC)

Temporarily have reception switched from stereo to mono to reduce multi-path noise when listening to the FM station. The **mc** indicator lights up when CRSC is off.

Turning CRSC On/Off:

Press the CRSC button for at least one second to turn the function on/off.

NOTE

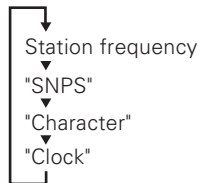
Strong electrical fields (such as from power lines) may cause unstable sound quality when CRSC is turned on. In such a situation, turn it off.

Switching Display for Tuner

You can change the display used when listening to the radio.

Changing the Display:

Each time you press the DISP button, the display changes as follows:



Direct Access Tuning

(Function of remote control)

When you know the frequency of the station that you want to listen to, you can input it directly for quick access.

- 1 Select the band by pressing the FM or AM button.
- 2 Press the DIRECT button.
"----" is displayed for 10 seconds.
If you make no input in the 10-second period, direct access tuning is automatically cancelled.
- 3 Enter the frequency of the desired station.
If you want to listen to an FM station at 92.1 MHz, for example, press 9, 2, and 1.
If you want to listen to an AM station at 810 kHz, for example, press 8, 1, and 0.

NOTE

You cannot enter frequencies above or below what a band can receive.

Cancelling Direct Access Tuning:

Press the DIRECT button again.

Station Name Preset (SNPS)

You can assign names to radio stations with the Station Preset Memory. Up to 30 stations can be assigned names.

- 1 Adjust the frequency to the station whose name you want to enter.

NOTE

This function cannot be available during the clock display.

- 2 Press the NAME button for at least two seconds. "Name Set" is displayed once the station name preset mode is entered. The cursor will blink in the position where letters are entered.
- 3 Press either the ◀◀ or ▶▶ button to move the cursor to the desired position. The ◀◀ button moves the cursor to the left, and the ▶▶ button to the right. You can also move the cursor left or right by pressing the ◀◀ or ▶▶ buttons, respectively, on the remote.
- 4 Each time the ▶▶ button is pressed, the characters to be entered change as listed below. Press the FM or AM button to display the desired character. Characters that can be displayed are as follows.

Alphabet (upper case): _ A ~ Z

Alphabet (lower case): _ a ~ z

Numerals and symbols: _ 0~9 / + - * = & " ' < > []

NOTE

Direct Alphabet Input

(Function of remote control with number/letter entry buttons)

Direct input can be made of letters (alphabetical) with the letter entry buttons on the remote control.

Example: Use the following table to enter the name "DANCE".

Character	Button to press	# Times pressed
"D"	#3	1
"A"	#2	1
"N"	#6	2
"C"	#2	3
"E"	#3	2

- 5 Continue steps 3 and 4 until all the characters are chosen for the name.

NOTE

You can enter up to 8 characters for each name.

6 Assigning Names

Press the NAME button on the unit or the OK button on the remote.

The name of the station is stored in memory, and the Station Name Preset mode ends.

Also, if you make no input for 10 seconds, the name will be stored up to the point that you have entered, and the mode ends.

NOTE

- You can assign names to up to 30 FM/AM stations in all.
- Station names remain stored even if the reset button is pressed.
- If you want to change the name of a station, first display the name of the station (following steps 1 and 2 above), then change the letter(s) that you want by following steps 3 and 4.

Tuner features

Station Name Preset Play (SNPP)

You can search for the station for any station if its name has been preset using Station Name Preset.

- Press the SBF button for at least one second. "SBF SNPS" will be displayed once the station name preset play mode is entered. The names of the stations stored in the band currently listened to are displayed in the following order for five seconds each:

→ FM1 ↔ FM2 ↔ FM3 ↔ AM ←

Each time you press the ►► button, the station display switches in the forward direction.

Each time you press the ◀◀ button, the station display switches in the reverse direction.

Stations whose names have not been stored will be displayed as frequencies.

NOTE Changing the Displayed Band

Pressing the FM button switches between the FM1, FM2, FM3 displays, in that order.

Pressing the AM button switches to the AM display.

- Once the name is displayed for the station you want to listen to**

Press the SBF button.

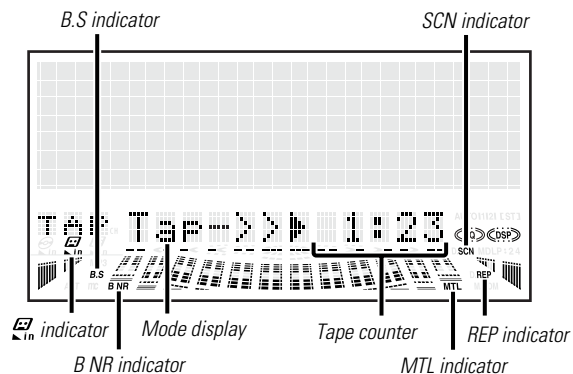
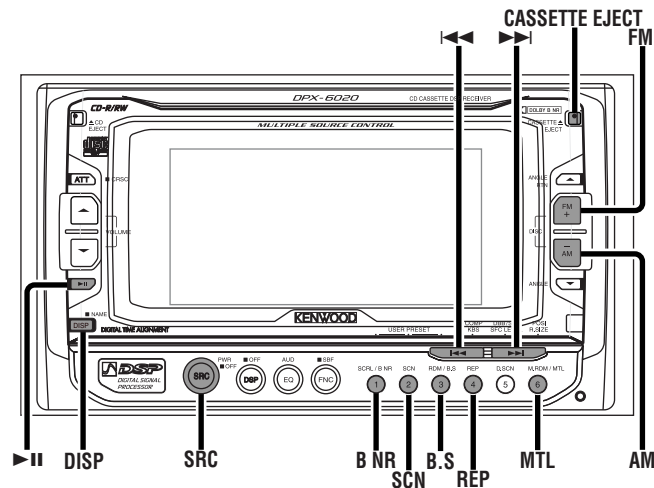
Reception starts of the displayed station, and the station name preset play mode ends.

Canceling mode during input:

Press the SBF button for at least one second.


The station name preset play mode is canceled.

Cassette player features



Playing Cassette Tapes


Loading and Playing Cassettes:

Press the CASSETTE EJECT button to slide open the front panel, showing the cassette (insertion) slot. Holding the cassette with the tape exposed to the right, insert it in the slot. The front panel will close, and the tape will start playing. The  indicator lights up when a cassette has been loaded.

Playing Cassettes Already Loaded:

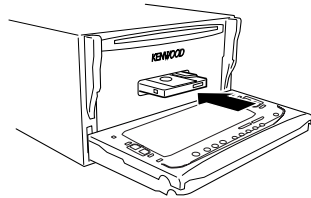
Press the SRC (Source) button repeatedly to select the tape mode. "TAPE" is displayed when the tape mode has been selected. The tape will start playing.

Listening to the other side:

Press the  button. Tape play switches to the other side.

Eject:

Press the CASSETTE EJECT button to stop tape play. The front panel will slide to eject the tape. Press the CASSETTE EJECT button to close the front panel.



NOTE

Remove a cassette from the unit when not listening to it for a while. If you leave it in the unit too long, the tape may stick to the tape head and cause the unit to malfunction.

▲CAUTION

- Take care that your fingers and so on do not get caught during the slide operation of the front panel.
- When the front panel has been slid open, it might interfere with the shift lever or something else. If this happens, pay attention to safety and move the shift lever or take an appropriate action, then operate the unit.
- Do not apply excessive force to the front panel after it slides.
- Do not use the unit with the front panel in the slid condition. Doing so will cause breakdown.

Fast Forwarding and Rewinding Cassette Tapes


Fast Forwarding Tapes:

Press the FM button.

Rewinding Tapes:

Press the AM button.

Canceling:

Press the  button. Normal tape play will begin.

Using Dolby B Noise Reduction

Listen to tapes recorded using Dolby B NR.

Turning Dolby B Noise Reduction On/Off:

Press the B NR button to switch Dolby B NR on and off. The B NR indicator lights up when it is turned on.

Switching Tape Types

Select type of tape being played.

Switching Tape Types:

Press the MTL button to switch the metal tape indicator on and off and to select the tape type. Turn the MTL indicator off for normal tape (Type I) playback. Turn the MTL indicator on for the following tape types:
CrO₂ (Type II) FeCr (Type III) Metal (Type IV)
Selecting the wrong tape type may cause sound quality to suffer.

Cassette player features

Using Direct Program Search System (DPSS)

Skip forward or backward to other tracks during playback.

Skipping to Beginning of Current Track or to Previous Tracks (Rewind DPSS):

Press the **I◀◀** button.

Press once to rewind to the beginning of the current track, twice to rewind to the beginning of the previous track, and so forth.

You can skip up to nine tracks.

Playback is continued after the tape is rewind by the indicated number of tracks.

Skipping to Later Tracks (Fast Forward DPSS):

Press the **▶▶I** button.

Press once to fast forward to the next track, twice to fast forward to the track after that, and so forth.

You can skip up to nine tracks.

Playback is continued after the tape is fast forwarded by the indicated number of tracks.

NOTE

- During the first five seconds of each track, the previous track is considered the "current" track. If you press the **I◀◀** button during that period, the tape rewinds to the beginning of the previous track and not the one you are listening to.
- The DPSS function "knows" where a track begins by detecting the blank space preceding it (the space between tracks). However, when the blank space lasts for less than four seconds or contains noise, DPSS may not operate correctly. Furthermore, quiet intervals within a song are detected as "blank spaces" if they last for four seconds or more.

Canceling DPSS While It is Operating:

Press the **▶II** button.

Using DPSS with Remote

Directly input the number of tracks to skip during playback.

- 1 Enter the number of tracks you want to skip using the numeric buttons on the remote control.
Up to 9 tracks can be skipped.
- 2 Press either the **I◀◀** or **▶▶I** button while the number is displayed, depending on whether you want to skip backwards or forwards.
Playback starts after the tape rewinds or fast forwards by the specified number of tracks.

NOTE

- During the first five seconds of each track, the previous track is considered the "current" track. If you press the **I◀◀** button during that period, the tape rewinds to the beginning of the previous track and not the one you are listening to.
- The DPSS function "knows" where a track begins by detecting the blank space preceding it (the space between tracks). However, when the blank space lasts for less than four seconds or contains noise, this function may not operate correctly. Furthermore, sections that are recorded at low levels may trigger the function if they last for four seconds or more.

Canceling DPSS During Its Operation:

Press the **▶II** button.

Blank Skip

Automatically fast forward to the beginning of the next track when long blank spaces (10 seconds or more) are detected, continuing tape playback. The B.S indicator lights up when blank skip is turned on.

Turning Blank Skip On/Off:

Press the B.S button to switch blank skip on and off.

NOTE

- If the blank space contains much noise, the blank skip function may not work right.
- Sections recorded at low levels may trigger the blank skip function if they last for 10 seconds or more.

Index Scan

Successively plays the first 10 seconds of each track on the tape.

Turning Index Scan On/Off:

Press the SCN button to switch index scan on/off.
The SCN indicator lights up when index scan is turned on.

Stopping to Listen to the Track Being Scanned:

Press either the SCN or ►|| button.
Playback begins as usual.

NOTE

- Index scan is canceled when the tape stops.
- Index scan "knows" where a track begins by detecting the blank space preceding it (the space between tracks). However, when the blank space lasts for less than 4 seconds or contains noise, this function may not operate correctly. Furthermore, sections that are recorded at low levels may trigger the function if they last for 4 seconds or more.

Music Repeat

Repeatedly plays the track currently being listened to.

Turning Music Repeat On/Off:

Press the REP button to switch music repeat on/off.
The REP indicator lights up when music repeat is turned on.

Canceling Music Repeat:

Press either the REP or ►|| button.

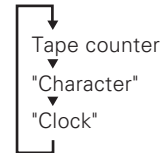
NOTE

Music repeat "knows" where a track begins by detecting the blank space preceding it (the space between tracks). However, when the blank space lasts for less than four seconds or contains noise, this function may not operate correctly. Furthermore, sections that are recorded at low levels may trigger the function if they last for four seconds or more.

Switching Display

Switching the display during the tape mode:

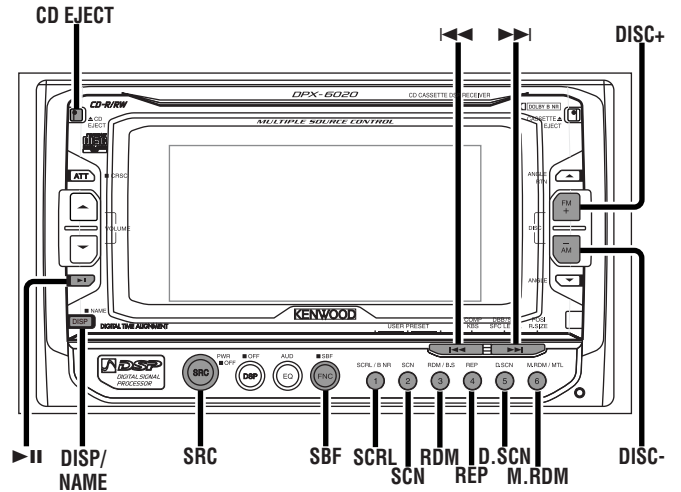
Each time you press the DISP button, the display switches as follows:



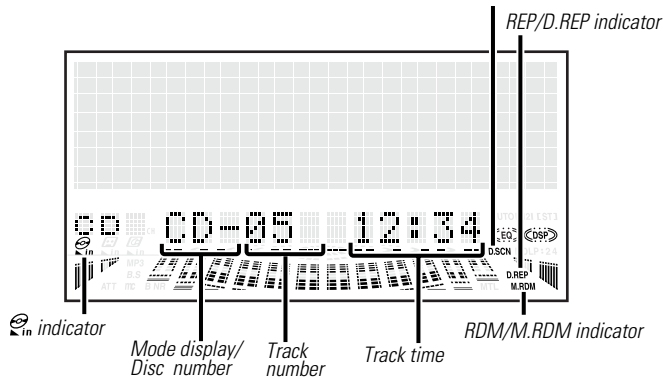
NOTE

The tape counter is not exact, but only represents an approximation of the elapsed time.

CD/External disc control features



SCN/D.SCN indicator



Playing CDs

Play:

Press the CD EJECT button to slide open the front panel, showing the CD (insertion) slot. Holding the CD with the labeled side facing up, insert it in the slot. The front panel will close, and the CD will start playing.

The in indicator will light when a CD has been inserted.

Playing CDs Already Inserted:

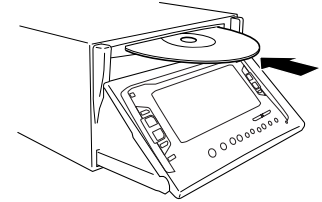
Press the SRC button repeatedly to select the CD mode. "CD" is displayed when the CD mode has been selected. The CD will start playing.

Pausing and Restarting CD Play:

Press the II button to make the disc pause.
Press the same button again to start play again.

Eject:

Press the CD EJECT button.
The front panel will slide to eject the CD.
Press the CD EJECT button to close the front panel.



NOTE

When the CD cannot be ejected even if you press the CD EJECT button, press this button for at least three seconds to eject the CD.

CAUTION

- Do not attempt to insert a CD into the slot if another one is already there.
- The eject function will operate even if the CD EJECT button is pressed while no CD is loaded. Attempting to quickly insert a CD at this time may result in scratching the CD. Wait a short time before inserting a CD.
- When the front panel has been slid, it might interfere with the shift lever or something else. If this happens, pay attention to safety and move the shift lever or take an appropriate action, then operate the unit.

- Do not apply excessive force to the front panel after it slides.
- Do not use the unit with the front panel in the slid condition. Doing so will cause breakdown.

NOTE

When you load a CD and eject it right away, the next time you try to insert the CD may not load. In such a situation, take the CD out for a moment and then reinsert it.

Playing Other Disc mode

This function permits the connection of optional players and the playing of discs other than the loaded CD (in the current unit).

Playing Discs:

Press the SRC button repeatedly to select the external disc control mode.
The disc will start playing.

NOTE

The external disc control mode will differ, depending on the unit that is connected.

Mode Display Examples

- "DISC/CD/MD-CH"...when a disc changer is connected
- "DISC/CD/MD-CH1", "DISC/CD/MD-CH2"...when two disc changers are connected

Pausing and Restarting Disc Play:

Press the ►|| button to make the disc pause.
Press the same button again to start play again.

NOTE

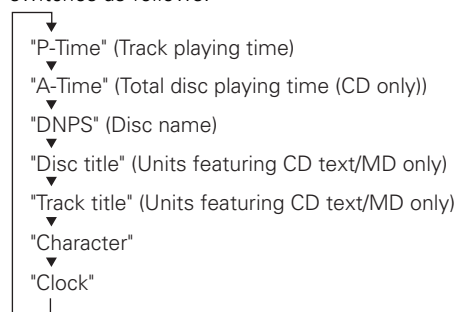
When one disc has finished playing its last track, the next disc in the changer will start playing. When the last disc in the changer has finished, the player will return to the first disc and start playing it.

Switching Display for Discs

Switch the display that appears while discs are playing.

Switching Display for Discs:

Each time you press the DISP button, the display during disc play switches as follows.



NOTE

- You can give names to discs through the presetting disc name function (see p.22), depending on the unit.
Note that depending on the unit, display may not be possible.
- If you try to display the name of a disc that does not have one, "No Name" is displayed instead.
- When there is an attempt to display the title of a disc for which the disc title/track title has not been recorded, "No Text" is displayed for CD and "No Title" is displayed for MD.
- Depending on the type of characters of the CD text, some characters may not be displayed.

CD/External disc control features

Fast Forwarding and Reversing Disc Play

Fast Forwarding Disc Play:

Hold down on the ►►I button.

Release your finger to play the disc at that point.

Reversing Disc Play:

Hold down on the I◄◄ button.

Release your finger to play the disc at the point.

NOTE

You cannot use reverse play between tracks depending on the model being connected. Instead, the reverse play function is canceled when it reaches the beginning of a track, at which point normal play will automatically resume.

Track Search

Search forward or backward through the tracks on the disc until you reach the one that you want to listen to.

Making a Reverse Track Search:

Press the I◄◄ button to display the desired track number.

Press once to search back to the beginning of the current track, twice to search back to the beginning of the previous track, and so forth.

Play starts at the beginning of the displayed track number.

NOTE (For disc changers)

Pressing the I◄◄ button while listening to track 1 will only search back to the beginning of that track. The reverse search is not "recycled" to the last track on the disc.

Making a Forward Track Search:

Press the ►►I button to display the desired track number.

Press once to fast forward to the next track, twice to fast forward to the track after that, and so forth.

Play starts at the beginning of the displayed track number.

NOTE (For disc changers)

You cannot make a forward track search when listening to the last track on a disc.

Disc Search

(Function of disc changers)

Search forward or backward through the discs in a disc changer.

Making a Reverse Disc Search:

Press the DISC— button to display the desired disc number.

Each time the button is pressed, the displayed disc number decreases by one.

Play starts at the beginning of the displayed disc.

Making a Forward Disc Search:

Press the DISC+ button to display the desired disc number.

Each time the button is pressed, the displayed disc number increases by one.

Play starts at the beginning of the displayed disc.

NOTE

"LOAD" is displayed when discs are being exchanged on the disc changer.

Direct Track Search (Function of Remote) (See page 36)

Using the remote, directly input the track number that you want to listen to.

- Using the number buttons on the remote, input the number of the track that you want to listen to.
The selected track number will blink in the display for 10 seconds.
If you make no further input in the 10-second period, the number entry mode will automatically be canceled.
- Press either the I◄◄ or ►►I button while the track number is blinking.
The track starts playing.

Canceling Direct Track Search While It Is Operating:

Press the ►II button.

NOTE

You cannot use the direct track search function while doing track or disc scans or using random or magazine-random play.

Direct Disc Search *Function of disc changers with remote* (See page 36)

Using the remote, directly input the disc number that you want to listen to.

- 1 Using the number buttons on the remote, input the number of the disc that you want to listen to.
The selected disc number will blink in the display for 10 seconds.
If you make no further input in the 10-second period, the number entry mode will automatically be canceled.

NOTE

If you input more than two numbers all at once, a search will be made only of the last number input.

- 2 Press either the DISC+ or DISC- button while the number inputted is blinking.
The disc starts playing.

Canceling Direct Disc Search While It Is Operating:

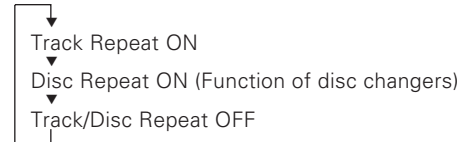
Press the ►|| button.

Track / Disc Repeat

Repeat playing the track or the disc currently being listened to.

Turning Repeat Play On/Off:

Press the REP button to switch repeat track/disc play on and off as follows:



The REP indicator lights up in the display when track repeat is on.
The D.REP indicator lights up in the display when disc repeat is on.

NOTE

Repeat play is canceled when you stop playing the disc.

Track Scan

Successively play the beginning of each track on a disc until you find the track that you want to listen to.

Starting the Track Scan :

Press the SCN button. The SCN indicator lights up and the first 10 seconds of each track will be played, in order.
The track number currently being heard blinks in the display.

Stopping to Listen to the Track Being Scanned:

Press the ►|| or SCN button again to stop the scan and keep on listening to a track normally.

NOTE

- The track scan function is cancelled when you stop playing a disc.
- The track scan function only scans each track on a disc once.

CD/External disc control features

Disc Scan

(Function of disc changers)

Successively play the beginning of each disc on a changer until you find the one that you want to listen to.

Starting the disc scan:

Press the D.SCN button. The D.SCN indicator lights up and the first 10 seconds of each disc will be played, in the order they are loaded on the changer.

The disc number currently being heard blinks in the display.

Stopping to Listen to the Disc Being Scanned:

Press the ►II or D.SCN button again to stop the scan and keep on listening to the disc normally.

NOTE

- The disc scan function is cancelled when you stop playing a disc.
- The disc scan function only scans each disc on the changer once.
- "LOAD" is displayed when discs are being exchanged on the disc changer.

Random Play

Play all the tracks on the current disc in random order.

- 1 Press the RDM button to switch random play on and off. The RDM indicator lights up when random play is turned on. The track number will change over and over in the display as the next track is being selected. When the track has been selected, play will begin.

NOTE (For disc changers)

When all the tracks on a certain disc have been played using random play, the next disc on the changer will start playing using the same function.

- 2 To change the track being heard, press the ►►I button. Another track will be selected and played.

NOTE

Random play is canceled when you stop playing a disc.

Magazine Random Play

(Function of disc changers)

Play the tracks on all the discs in the disc changer in random order.

- 1 Press the M.RDM button to switch magazine random play on and off. The M.RDM indicator lights up when magazine random play is turned on. The disc and track numbers will change over and over in the display as the next track is being selected. When the disc/track has been selected, play will begin.

NOTE

This function is not available with the following models: KDC-C200/C300/C400/C301/C401

- 2 To change the track being heard, press the ►►I button. Another disc/track will be selected and played.

NOTE

- Magazine random play is canceled when you stop playing a disc.
- The time needed for random selection depends on the number of discs loaded in the disc magazine.

Text / Title Scroll

This function permits the text to be scrolled and the entire text to be displayed. The scrolling method differs depending on the setting of scrolling in the function set system.

To scroll automatically:

Press the DISP button to display the disc title or the track title. The display of the text will be scrolled repeatedly.

To scroll manually:

- 1 Press the DISP button to display the disc title or the track title.
- 2 Press the SCRL button.
The display of the text will be scrolled once.

NOTE

Please see the function set system settings (page 33) about switching between manual scrolling and automatic scrolling.

Disc Name Preset Play (DNPP) *(Function of disc changers)*

If you have preset the name of a disc that you want to listen to in the disc changer, you can look for it by name and start playing it.

- 1 Press the SBF button for at least one second. "SBF DNPS/SBF Disc" will appear in the display, and the disc name preset play mode is entered.
The preset names/disc titles of the disc in the disc changer to which you are currently listening are successively displayed for five seconds each.
In any of the units that are connected, discs that have not been disc name preset will display "No Name".

NOTE

- You cannot use this function while doing track or disc repeat or track or disc scan or using random or magazine random play.
- Discs in the disc changer that have never been played before will appear as "No Access" when the disc names are displayed. When you cannot identify a disc because of the "No Access"

display after inserting a disc magazine, try playing it using the disc scan or a similar function to display the disc name. Also note that "No Access/No Disc" will be displayed when a disc has not been loaded.

Rapid display (forward / reverse):

Press the DISC+ or DISC- button.

Pressing the DISC+ button will rapidly display the preset names/disc titles in order.

Pressing the DISC- button will rapidly display the preset names/disc titles in reverse order.

2 When the name appears for the disc you want to play

Press the SBF button.

The disc whose name is displayed will be recalled, and the disc name preset play (DNPP) mode will end.

To cancel DNPP mode:

Press the SBF button for at least one second.

The disc name preset play (DNPP) mode will be canceled.

CD/External disc control features

Presetting Disc Names

Store the names of discs to be displayed when played.

- 1 Play the disc whose name you want to preset.

NOTE

- This function is available only for the CD player of this unit and disc changers that feature the Disc Name Preset function.
 - This procedure is not to be used to store the disc and track titles for MDs that you record.
 - This function cannot be available during the clock display and while using disc scan or magazine random play.
- 2 Press the NAME button for at least two seconds. "Name Set" is displayed and the disc name preset mode is entered.
The cursor blinks in the position where character input can be made.
 - 3 Press either the ◀◀ or ▶▶ button to move the cursor to the desired position.
The ◀◀ button moves the cursor to the left, and the ▶▶ button to the right.
You can also move the cursor left or right by pressing the TRACK+ or TRACK- buttons, respectively, on the remote control.
 - 4 Each time the ▶|| button is pressed, the characters to be entered change as listed below.
Press the DISC+ or DISC- button to display the desired character.
Characters that can be displayed are as follows.

↓
Alphabet (upper case): _ A ~ Z

↓
Alphabet (lower case): _ a ~ z

↓
Numerals and symbols: _ 0~9 / + - * = & " ' ' < > []

NOTE Direct Alphabet Input
(Function of remote)

You can directly input letters using the number/letter entry buttons on the remote.

Example: Use the following table to enter the name "DANCE".

Character	Button to press	# Times pressed
"D"	#3	1
"A"	#2	1
"N"	#6	2
"C"	#2	3
"E"	#3	2

- 5 Continue steps 3 and 4 until all the characters are chosen for the name.
- 6 Press either the NAME button on the main unit or the OK button on the remote.
The disc name is stored and the disc name preset mode is canceled.
If you make no entry in a 10-second period, the name will be stored with the characters input so far.

NOTE

- Up to 8 characters and 50 disc names can be registered in CD mode and external disc control mode.
51st Disc Name Preset is made, the oldest disc name will be automatically erased to make room for the new setting.
- Discs are identified by their total length and number of tracks. If another disc happens to have the same specifications as one that you have already stored a name for, the name will be displayed for it, too.
- If you want to change the name of a disc, repeat steps 1 and 2 to display the name, and then repeat steps 3 and 4 to input the changes.
- Disc names remain stored even if the reset button is pressed.
- This function cannot be used when an MD is played with the MD changer "KMD-D401/KMD-D400/KMD-C30".

DSP features

DSP (Digital Signal Processor)

A DSP is a device which uses digital control to correct the audio signal and produce sound effects that can compensate for the small passenger compartment of a vehicle. The DSP indicator lights up when the DSP is on.

Turning the DSP On:

Press the DSP button.

"DSP On" is displayed once and the DSP indicator lights up the DSP is turned on.

Turning the DSP Control Mode on:

Press the DSP button while the DSP indicator lights up. "DSP CTRL" is displayed and the DSP indicator starts blinking when the DSP control mode is entered.

NOTE

- Be sure to turn the DSP control mode on when performing the operations described below in the DSP features.
- If you make no button operation for 10 seconds, the DSP control mode is automatically canceled.

Turning the DSP Off:

Press the OFF button for at least one second.

Sound Field Control

This function reproduces many different virtual sound fields such as of a concert hall within a vehicle.

Switching the Sound Field Control:

- 1 Press the DSP button. "DSP CTRL" is displayed once the DSP control mode is entered.
The DSP indicator blinks during the DSP control mode.
- 2 Each time you press the SFC button, the sound field control switches as follows;
 ➡ "Stadium" ➡ "Concert Hall" ➡ "Live House" ➡ "Theater" ➡ "Disco" ➡ "Club Disco" ➡ "Jazz Club" ➡ "Studio" ➡ "Listening" ➡ "Church" ➡ "Bypass" ➡
- 3 Press the DSP button to end the DSP control mode.

Nuance Level Adjustment

You can adjust the level of the DSP sound effects.

- 1 Press the DSP button. "DSP CTRL" is displayed once the DSP control mode is entered.
The DSP indicator blinks during the DSP control mode.
- 2 Each time you press the FM or AM button, the DSP effects switch as follows;
"Nuance High" ↔ "Nuance Mid" ↔ "Nuance Low"

NOTE

- This adjustment cannot be made when the Sound Field Control is set to "Bypass".
 - The default setting is "Mid".
- 3 Press the DSP button to end the DSP control mode.

DSP Bass Boost Control Level Adjustment

This function can add the original bass sounds to the insufficient bass sounds from the rear during using the DSP effects for correction.

- 1 Press the DSP button. "DSP CTRL" is displayed once the DSP control mode is entered.
The DSP indicator blinks during the DSP control mode.
- 2 Each time you press the ◀◀ or ▶▶ button, the width of frequency band for the bass boost switches as follows;
"DBB STEP 1" (narrow band) ↔ "DBB STEP 2" ↔ "DBB STEP 3" (wide band)

NOTE

- This adjustment cannot be made when the Sound Field Control is set to "Bypass".
 - The default setting is "STEP 2".
- 3 Press the DSP button to end the DSP control mode.

Compression Control Level Adjustment

This function can compress the dynamic range of music, so that low sounds which are covered over by road noise can be raised.

- 1 Press the DSP button. "DSP CTRL" is displayed once the DSP control mode is entered.
The DSP indicator blinks during the DSP control mode.
- 2 Each time you press the COMP button, the compression level switches as follows;
➡ "Comp Off" ➡ "Comp STEP 1" (Compression level is lower) ➡ "Comp STEP 2" ➡ "Comp STEP 3" (Compression level is higher)
➡

NOTE

The default setting is "Off".

- 3 Press the DSP button to end the DSP control mode.

Position Setting

This function can set the DSP effects for various listening positions.

- 1 Press the DSP button. "DSP CTRL" is displayed once the DSP control mode is entered.
The DSP indicator blinks during the DSP control mode.
- 2 Press the POSI button.
The position currently set appears in the display.
- 3 Each time you press the POSI button, the position switches as follows;
➡ "ALL" ➡ "Front-Right" ➡ "Front-Left" ➡ "Front" ➡ "Rear" ➡

NOTE

- Be sure to set the balance and fader control to center position. If their settings are not set to center position, the Position Setting effect will not be obtained properly.
- The default setting is "ALL".

- 4 Press the DSP button to end the DSP control mode.

Room Size Setting

This function can set the DSP effects for various room sizes.

- 1 Press the DSP button. "DSP CTRL" is displayed once the DSP control mode is entered.
The DSP indicator blinks during the DSP control mode.
- 2 Press the R.SIZE button.
The position currently set appears in the display.
- 3 Each time you press the ◀◀ or ▶▶ button, the room size switches as follows;
"Room Large" (For large vans or RVs, etc.) ↔ "Room Medium" (For sedans, etc.) ↔ "Room Small" (For compact cars, etc.)

NOTE

- This adjustment cannot be made when the Position Setting is set to "ALL".
 - The default setting is "Medium".
- 4 Press the DSP button to end the DSP control mode.

DSP features

DSP Setting Preset Memory

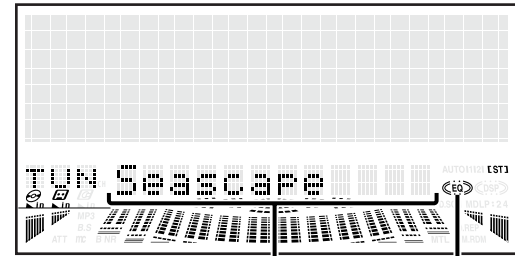
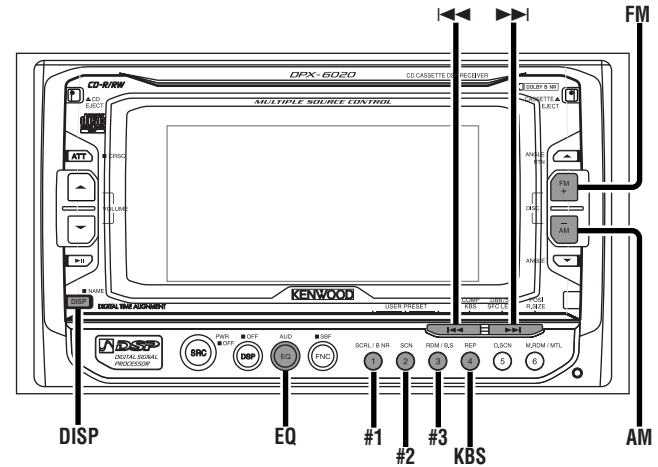
Up to three sets of the DSP settings and conditions you adjusted can be stored in the memory, and then you can recall them with the single touch of a button.

- 1 Press the DSP button. "DSP CTRL" is displayed once the DSP control mode is entered.
The DSP indicator blinks during the DSP control mode.
- 2 Make the DSP settings and adjustments that you want to store in the memory.
- 3 Press the button (#1-3) that you want to use for the DSP settings and adjustments for at least two seconds.
"DSP MEM#" blinks once in the display to indicate that the data has stored.
- 4 Press the DSP button to end the DSP control mode.

Recalling a DSP settings and adjustments you stored:

- 1 Press the DSP button. "DSP CTRL" is displayed once the DSP control mode is entered.
The DSP indicator blinks during the DSP control mode.
- 2 Press the preset button (#1-3) for the desired DSP settings and adjustments.
- 3 Press the DSP button to end the DSP control mode.

Graphic Equalizer features



EQ indicator

KBS name/Spectrum analyzer name/Equalizer frequency and level display

Graphic Equalizer features

Graphic Equalizer

This mode allows you to call up the preset equalizer curves, adjust the graphic equalizer, make the setting of the spectrum analyzer, and so on.

Turning the Graphic Equalizer Mode On:

Press the EQ button.

"EQ CTRL" is displayed once the Graphic equalizer mode is entered.

NOTE

Be sure to turn the Graphic Equalizer mode on when performing the operations described below in the Graphic Equalizer features.

Turning the Graphic Equalizer Mode Off:

Press the EQ button twice.

NOTE

If you make no button operation for 10 seconds, the Graphic equalizer mode is automatically canceled.

Preset Equalizer (KBS - Kenwood Built-in Sound) Selection

You can choose the equalizer from five settings whose sound qualities are preset to match music or vehicle characteristics.

Switching the Preset Equalizer:

- 1 Press the EQ button. "EQ CTRL" is displayed once the Graphic equalizer mode is entered.
The preset equalizer name currently set appears in the display.
- 2 Each time you press the KBS button, the preset equalizer switches as follows:
➡ "Rock" ➡ "Pops" ➡ "Dance" ➡ "Vocal" ➡ "Flat" ➡
- 3 Press the EQ button twice to end the Graphic equalizer mode.

Graphic Equalizer Adjustment

You can set the original equalizer curve which do not exist in the preset equalizer (KBS).

- 1 Press the EQ button. "EQ CTRL" is displayed once the Graphic

equalizer mode is entered.

The preset equalizer name currently set appears in the display.

- 2 Each time you press the ◀◀ or ▶▶ button, the selectable frequency band switches as follows;
"60 Hz" ↔ "120 Hz" ↔ "250 Hz" ↔ "500 Hz" ↔ "1 kHz" ↔ "2 kHz" ↔ "4 kHz" ↔ "8 kHz" ↔ "16 kHz"
- 3 Press the FM or AM button.
Press the FM button to increase the equalizer level, and the AM button to decrease it.
There are six levels for both plus and minus allowing each band to be set to one of 13 steps ("12"~"+12").
- 4 Press the EQ button twice to end the Graphic equalizer mode.

Graphic Equalizer Preset Memory

Up to three graphic equalizer curves can be stored in the memory, and then you can recall that equalizer curve with a single touch of a button.

- 1 Press the EQ button. "EQ CTRL" is displayed once the Graphic equalizer mode is entered.
The preset equalizer name currently set appears in the display.
- 2 Adjust the graphic equalizer curve that you want to store in the memory.
- 3 Press the button (#1-3) that you want to use for the Graphic Equalizer curve for at least two seconds.
"EQ MEM#" blinks once in the display to indicate that the data has stored.
- 4 Press the EQ button twice to end the Graphic equalizer mode.

Recalling a Graphic Equalizer curve you stored:

- 1 Press the EQ button. "EQ CTRL" is displayed once the Graphic equalizer mode is entered.
The preset equalizer name currently set appears in the display.
- 2 Press the preset button (#1-3) for the desired Graphic Equalizer curve.
- 3 Press the EQ button twice to end the Graphic equalizer mode.

Graphic Equalizer features

Spectrum Analyzer Display Selection

You can select the display to enjoy sounds with eyes.

Switching the Preset Spectrum Analyzer Display:

- 1** Press the EQ button. "EQ CTRL" is displayed once the Graphic equalizer mode is entered.
- 2** Press the DISP button.
The spectrum analyzer name currently set appears in the display.
- 3** Each time you press the DISP button, the spectrum analyzer display switches as follows;
➡ "SPEANA Scan" ➡ "Seascape" ➡ "Peak Hold" ➡ "Digital" ➡ "Hopping" ➡ "Satellite" ➡ "Atlas" ➡ "Level Meter" ➡ "3D Graph" ➡ "EQ curve" ➡
- 4** Press the EQ button twice to end the Graphic equalizer mode.

Function Set System

To accommodate a greater number of functions, a function set system has been employed for making settings. Press the FNC button to enter the function set mode and then display the function to make the setting.

- 1 Select the mode that you want to make the setting of the function.
- 2 Press the FNC button.
"Function Set" is displayed when the function set mode is entered. The function that you can adjust is indicated with the current settings displayed.

3 Selecting function to set

Press the ►► button to search through the functions until you see the one you want to adjust in the display. Press the ◄◄ button to search through the functions backward.

Example: If you want to the setting of the touch sensor tone function from on to off, first search through the functions until you see "BEEP On" in the display.

BEEP On

4 Changing setting for currently displayed function

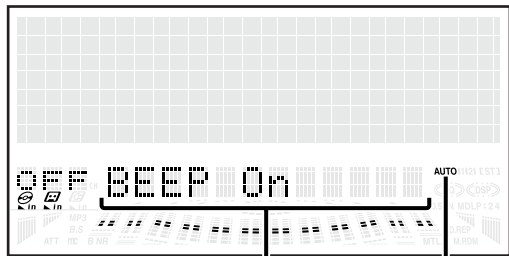
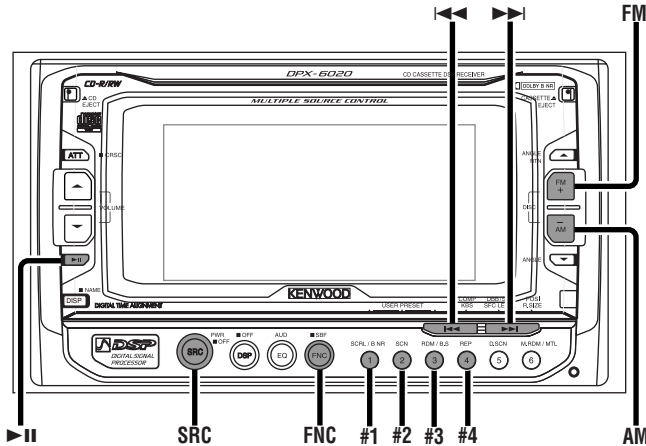
Press either the AM or FM button. The setting will change for each function.

Example: The setting of the touch sensor tone will switch from on to off, and "BEEP Off" is displayed.

BEEP On → BEEP Off

5 Ending the function set mode

Press the FNC button.



AUTO indicator
Function mode and setting display

Function set system

Function items in Standby mode:

1. Touch Sensor Tone

This function produces a beep sound that accompanies button operation. It can be switched on or off.

Display and setting

"BEEP On"
"BEEP Off"

2. Switching Preout

Switch the preout between the rear and non-fading. When you switch to non-fading, you can adjust the volume separately. The factory default is rear preout.

Display and setting

"Preout Rear": Rear preout
"Preout N-F": Non-fading preout

NOTE

- Be sure to turn the power of this unit off and on after you switch the preout.
- When this function is set to "Preout N-F", functions 4, 5 and 8 in the section "Function items in Other mode:" are available.

3. Digital Crossover Network

If this function is set to on, you can adjust the setting of the Crossover network.

Display and setting

"D.X 'over On"
"D.X 'over Off"

NOTE

When this function is set to on, functions from 1 to 8 in the section "Function items in Other mode:"(see p32) are available to be controlled.

4. External Amp Control

If this function is set to on, you can control the external amplifier.

Display and setting

"Amp Cont On"
"Amp Cont Off"

NOTE

When this function is set to on, the External Amp Control Setting function (function 9) in the section "Function items in Other mode:" is available to be controlled.

5. Opening Display

If this function is set to on, the opening display appears when the power is turned on.

Display and setting:

"Opening On": Opening display function is on.
"Opening Off": Opening display function is off.

6. Security Code

When the battery is removed from the unit's power switch, you cannot turn on the unit again unless the preset security code is input. This function helps prevent theft.

NOTE

You must follow steps 1 to 9 to be able to use the Security Code function. Turning off the power during the procedure will deactivate the security code setting.

Once the security code function has been activated, "CODE STBY" disappears from the function set system. Note that it will no longer be possible to cancel this function afterwards.

- 1 Select the four digits to use in your security code.

NOTE

The four-digit security code is very important, as you will need it to turn the unit on again when the code security function is on. Choose the number carefully and do not forget it (write it down and keep it separately in a safe place).

- 2 Press the SRC button repeatedly and switch the display to "ALL OFF" to enter the standby mode.
- 3 Press the FNC button.
"Function Set" is displayed and the function set mode is turned on.
- 4 Keep pressing the ►► button until the "CODE STBY" appears in the display.
Press the ◄◄ button to search in the other direction.
- 5 Press either the AM or FM button for at least two seconds. "CODE WRITE" will appear in the display for one second, indicating the code setting mode has been entered. When "CODE ****" appears in the display, you can start inputting the code.
- 6 Press the preset button and enter the security code that you have selected in step 1.
Example: Use "3510" as the security code.

Step	Button to press	# Times pressed	Display
1	#1	4	"3"
2	#2	6	"5"
3	#3	2	"1"
4	#4	1	"0"

- 7 Press the ►► button.
The security code will be set.
"CODE ****1" appears in the display, asking you to enter the code once again for confirmation, and then you can start inputting the code.
- 8 Press the Preset button and input the security code again.
- 9 Press the ►► button again.
"CODE WRITE" will appear in the display, with the security code function turning on. From this point on, if the unit is disconnected from the battery, the security code must be entered the first time that the unit's power is turned on. "CODE ****" will appear in the display, asking you to input the code.

NOTE

If you input an incorrect security code, the display ask you once more to input the correct one. Follow the procedure in step 6 above.

If you press the RESET button or remove the battery:

The first time you turn the unit on again, "CODE ****" will appear in the display, asking you to input the security code. Repeat steps 8 and 9 above, and input the security code. You can start operating the unit again when "CODE OK!" appears in the display.
If you enter the incorrect code, the power will turn off, displaying "CODE NG!". Enter the correct code to turn the unit on.

Function set system

Function items in Other mode:

<In Tuner/CD/Cassette/External disc control mode>

1. Frequency Setting of High Pass Filter for Front Output

You can select the frequency to be cut of the high pass filter for front output.

Display and setting

"HPF-F Off/30/60/90/120/150/180/250" (Hz)

2. Frequency Setting of High Pass Filter for Rear Output

You can select the frequency to be cut of the high pass filter for rear output.

Display and setting

"HPF-R Off/30/60/90/120/150/180/250" (Hz)

3. Filter Slope Setting of High Pass Filter

You can select the filter slope of the high pass filter.

Display and setting

"HPF Slope 12/18/24" (dB/Octave)

4. Frequency Setting of Low Pass Filter for Non-fading Output

You can select the frequency to be cut of the low pass filter for non-fading output.

Display and setting

"LPF Off/150/120/100/80/60" (Hz)

5. Filter Slope Setting of Low Pass Filter

You can select the filter slope of the low pass filter.

Display and setting

"LPF Slope 12/18/24" (dB/Octave)

6. Time Alignment for Front Output

You can adjust the delay of sounds from front output.

Display and setting

"T-Alg F Off/0.5~18" (msec.)

7. Time Alignment for Rear Output

You can adjust the delay of sounds from rear output.

Display and setting

"T-Alg R Off/0.5~18" (msec.)

8. Time Alignment for Non-fading Output

You can adjust the delay of sounds from non-fading output.

Display and setting

"T-Alg NF Off/0.5~18" (msec.)

9. External Amp Control Setting

Adjust the bass boost level of the external amplifier using the main unit.

Display and setting

"Amp Cont 1": Bass boost level is flat.

"Amp Cont 2": Bass boost level is low. (+6 dB)

"Amp Cont 3": Bass boost level is high. (+12 dB)

NOTE

As of December 2000, the power amplifiers controllable by the main unit are as follows:

KAC-X501F/PS501F/X401M/PS401M/X301T/PS301T/X201T/PS201T

<In Tuner mode>

10. Selecting Tuning Mode

Select which tuning mode — auto seek or manual — to use as the default.

When the AUTO indicator is on, auto seek tuning is selected.

When the indicator is off, manual tuning is selected.

Display and setting

"Auto Seek": auto seek mode

"Manual Seek": manual tuning mode

11. Auto Memory Entry

You can automatically store all the receivable frequencies in the band currently being listened to, and then recall them with the touch of a button later. This function is especially useful when you are travelling and do not know what stations are available. Up to six frequencies can be stored this way.

NOTE

Select the band for auto memory entry before you enter the function set mode.

Display and setting

"AME Ready"

Press either the AM button or FM button for at least two seconds to start auto memory function.

The numbers of the preset station buttons showed in order.

When all the stations in a certain band are stored in the preset memory, the auto memory entry stops. The tuner then plays the last station received.

<In CD/External disc control mode>

12. Text /Title Scroll

This function permits the text to be scrolled and the entire text to be displayed. Switching between manual scrolling and automatic scrolling is permitted. The factory default is automatic scrolling.

Display and setting

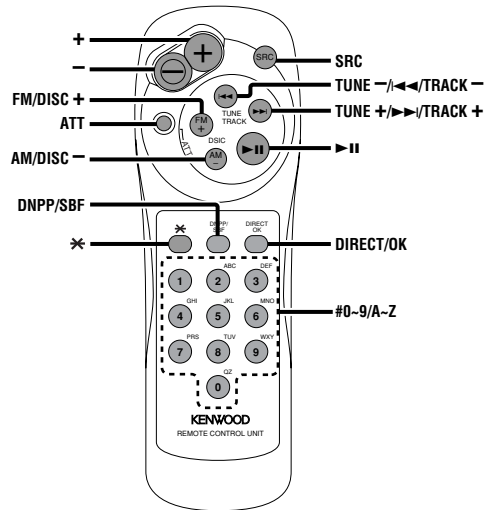
"AT. SCRL On": The text/title is scrolled repeatedly.

"AT. SCRL Off": The text/title is scrolled once when the display is switched.

NOTE

- Only units with a CD text feature and the MD supporting the title scroll permit title display.
- This function can be set separately when the MD play and the CD play.

Basic Operations of remote



⚠ CAUTION

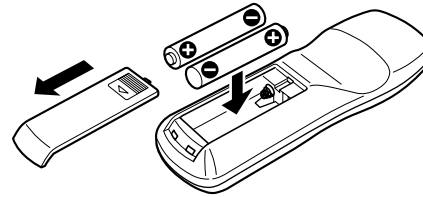
Do not set the remote on hot places such as above the dashboard.

Loading and Replacing the Batteries:

Use two "AAA"-size batteries.

Slide the cover while pressing downwards to remove it as illustrated.

Insert the batteries with the + and - poles aligned properly, following the illustration inside the case.



⚠ WARNING

Store unused batteries out of the reach of children. Contact a doctor immediately if the battery is accidentally swallowed.

NOTE

- The provided batteries are intended for use in operation checking, and their service life may be short.
- When the remote controllable distance becomes short, replace both of the batteries with new ones.

NOTE

A portion of the operations may not be possible, depending on the unit that is connected.

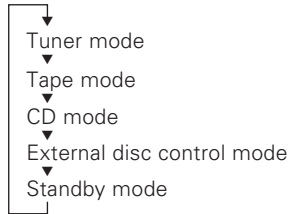
Basic operations

- VOLUME buttons

Press the + button to turn the volume up.
Press the - button to turn the volume down.

• SRC button

Each time you press the SRC button, the mode switches as follows:



NOTE

- The mode switches to the next mode from any mode which cannot be used.
- The external disc control mode will differ depending on the unit that is connected.
- **ATT button**
Turns down the volume quickly. To return the volume to its original level, press the button again. Turning the volume all the way down also cancels attenuation.
- **✖ button**
Each time you press this button, the panel slides one step at a time.
When the panel has been slid down completely, press this button to close the panel.

Tuner features

- **Number/letter entry buttons**
Press buttons #1-6 to recall preset stations.
During direct access tuning, use these buttons to input the frequency of the station.
Use to enter letters (alphabetical) during station name preset.
- **◀◀/▶▶ (TUNE) buttons**
Press the ◀◀ button to decrease the frequency.
Press the ▶▶ button to increase the frequency.
Use to move the cursor left or right during station name preset.
- **AM/FM button**
Press the AM button to select the AM band.
Press the FM button to select and switch between FM1, FM2, and FM3 bands.
During station name preset, selects digits and symbols.
- **DIRECT/OK button**
Selects the direct access tuning mode, used to input frequencies directly. Press this button again to cancel the mode while it is operating.
During station name preset, stores the already input data in memory and ends the input mode.
During Station name preset play mode, selects station.
- **DNPP/SBF button**
Enters and cancels the Station Name Preset Play mode.
- **▶|| button**
Selects the type of characters at the time of entering the station name.

Basic Operations of remote

Cassette player features

- **◀◀/▶▶ buttons**
Press the ◀◀ button to start play again at the beginning of the current track.
Press the ▶▶ button to start play at the beginning of the next track.
Press either the ◀◀ or ▶▶ button to skip backward or forward to other tracks after entering the number of tracks used in DPSS.
- **AM button**
Rewinds the tape.
- **FM button**
Fast forwards the tape.
- **▶|| button**
Plays the reverse side of the tape. When pressed during fast forward and rewind, this button stops the tape and starts playing it.
- **Number/letter entry buttons**
Use to enter the number of tracks you want to skip used in DPSS.

CD/External disc control features








- **Number/letter entry buttons**
Used to specify the track (disc) number used in direct track (disc) searches.
Use to enter letters during disc name preset.
- **◀◀/▶▶ buttons**
Press the ◀◀ button to search through the tracks backward.
Press the ▶▶ button to search through the tracks forward.
Use to move the cursor while entering disc name.
- **DISC buttons (for disc changers)**
Press the DISC- button to search through the discs backward.
Press the DISC+ button to search through the discs forward.
Select numbers and symbols while entering disc name.
- **▶|| button**
When a disc is playing, this button pauses the play.

Press the same button again to start play again.
Selects the type of characters at the time of entering the disc name.

- **OK button**
During disc name preset, stores the already input data in memory and ends the input mode.
Selects disc during the disc name preset play mode.
- **DNPP/SBF button (for disc changers)**
Enters and cancels the Disc Name Preset Play mode.

Accessories





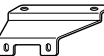
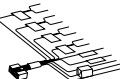
External view

	.....	Number of items
①		(M5x6mm) .....6
②		(M4x8mm) .....1
③		.....1
④		.....1
⑤		.....1
⑥		.....1
⑦		.....1

CAUTION

The use of any accessories except for those provided might result in damage to the unit. Make sure only to use the accessories shipped with the unit, as shown above.

External view

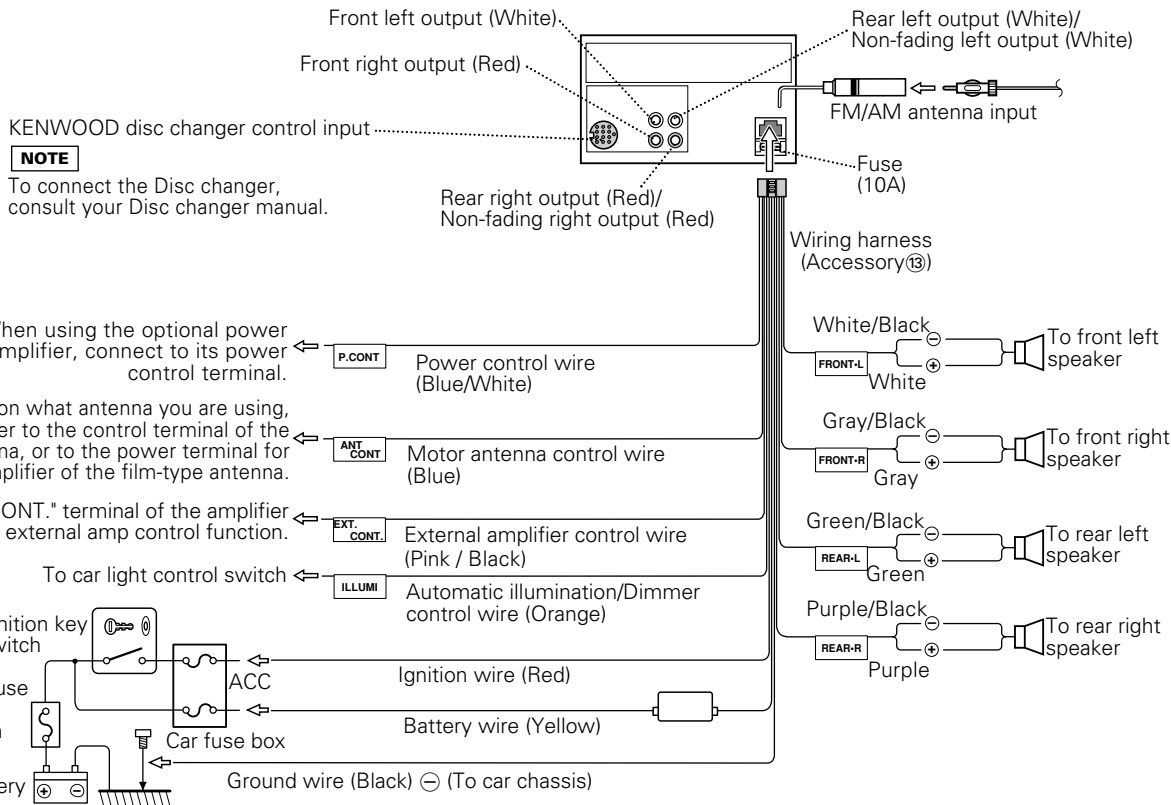
	.....	Number of items
⑧		.....1
⑨		(M3x6mm) .....2
⑩		(M5x7mm) .....6
⑪		(M5x10mm) .....2
⑫		.....1
⑬		.....1

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.

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.
- 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.
- Do not let unconnected wires or terminals touch metal on the car or anything else conducting electricity. 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.
- After the unit is installed, check whether the brake lamps, blinkers, wipers, etc. on the car are working properly.
- Insulate unconnected wires with vinyl tape or other similar material.
- Some disc changers need conversion cords for connection. See the section on "Safety Precautions" for details.
- Mount the unit so that the mounting angle is 30° or less.



NOTE

To connect the Disc changer, consult your Disc changer manual.

When using the optional power amplifier, connect to its power control terminal.

Depending on what antenna you are using, connect either to the control terminal of the motor antenna, or to the power terminal for the booster amplifier of the film-type antenna.

To "EXT.AMP.CONT." terminal of the amplifier having the external amp control function.

To car light control switch

▲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.

▲CAUTION

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.

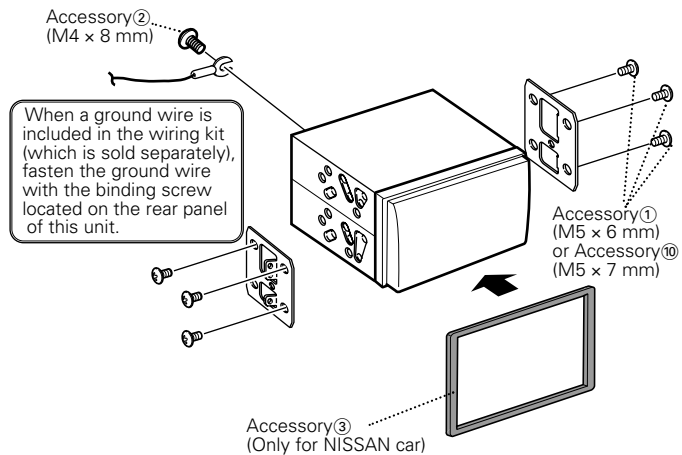
Installation (for TOYOTA, NISSAN Car etc.)

▲CAUTION

When performing a check of the CD operation prior to installation, place this unit in a horizontal position and perform a loading/eject of the CD.

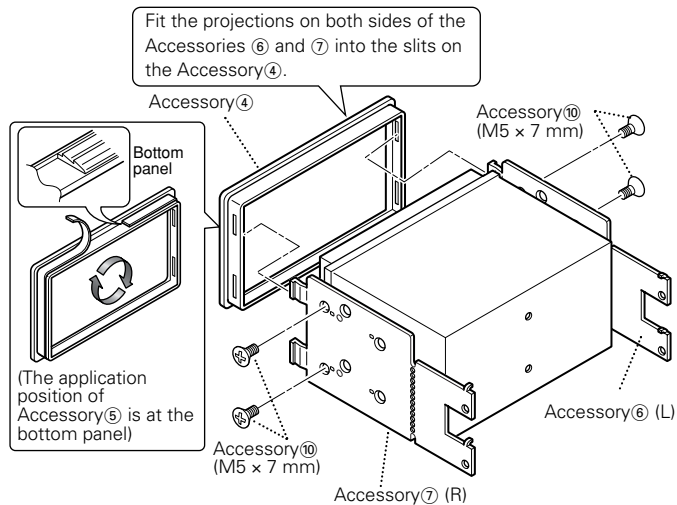
■ Installation

Install onto the car bracket using the supplied screws (M5 × 6 mm, M5 × 7 mm). The holes of the car bracket to use will differ depending on the car model.



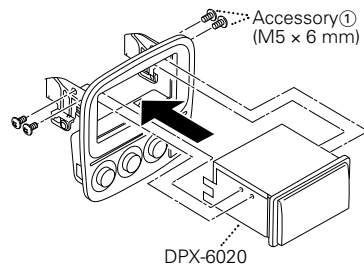
You can choose from three installation types to fit your car. Perform "Assembly" before installation.

■ Assembly



■ Installation type 1

1 Use Accessory ① to attach the unit which was assembled in Assembly.



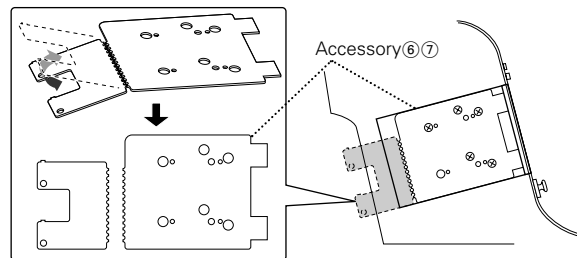
2 Install the center panel with the unit in your car.

NOTE

The illustration shows an example of installation using a vehicle bracket. The shape of the bracket varies with the vehicle to be installed. Some bracket requires three screws (Accessory ①) on each side.

NOTE

If accessories ⑥ and ⑦ hit the inside of the console, preventing the unit from being attached tightly, snap their end parts off as shown below, shipped with the unit, as shown above.



CAUTION

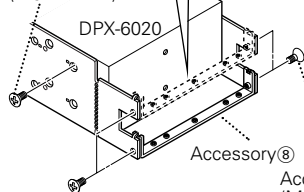
Be careful not to get injured with the new edge.

■ Installation type 2

- 1 Attach Accessory[®] which was assembled in Assembly.
- 2 Remove the factory-installed car stereo and install the unit.

Accessory[®] is to be fixed either to the center or bottom, depending on the car model.

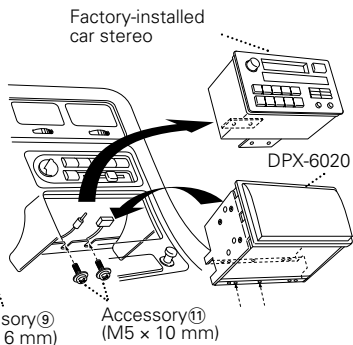
Accessory^⑩
(M5 × 7 mm)



Accessory[®]

Accessory^⑨
(M3 × 6 mm)

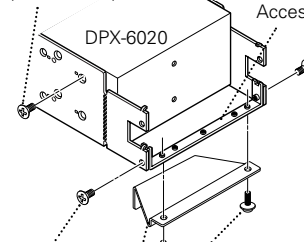
Accessory^⑪
(M5 × 10 mm)



■ Installation type 3

- 1 Attach Accessory^⑫ to Accessory[®] which was assembled in Assembly.
- 2 Remove the factory-installed car stereo and install the unit.

Accessory^⑩
(M5 × 7 mm)

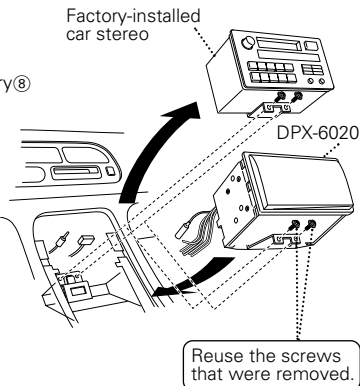


Accessory[®]

Accessory^⑨
(M3 × 6 mm)

Accessory^⑪
(M5 × 10 mm)

Accessory^⑫



Reuse the screws that were removed.

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.

PROBLEM	POSSIBLE CAUSE	SOLUTION
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.
No sound can be heard, or the volume is low.	Attenuator is turned on.	Turn off Attenuator.
	The fader or balance settings are set all the way to one side.	Reset the fader or balance settings (see p. 7).
	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".
The tape does not go in. / No sound can be heard even though the tape display is made.	The cassette tape is bad.	Try playing another cassette tape. If works fine, the first tape was bad.
	The car ignition was turned off during tape eject; or the tape was pulled out during loading, switching the mode to tape mode even though no tape is in.	Press the Eject button.
Nothing happens when the buttons are pressed.	The computer chip in the unit is not functioning normally.	Press the reset button on the unit (see p. 3).
The sound quality is poor or distorted.	The tape head is dirty.	Clean the tape head, referring to the section on "Cleaning the tape head" (see p. 4).
	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.
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".

PROBLEM	POSSIBLE CAUSE	SOLUTION
The memory is erased when the ignition is turned off.	The battery wire has not been connected to the proper terminal.	Connect the wire correctly, referring to the section on "Connecting Wires to Terminals".
	The ignition and battery wire are incorrectly connected.	Connect the wire correctly, referring to the section on "Connecting Wires to Terminals".
A CD ejects as soon as it is loaded.	The CD is upside-down.	Load the CD with the labeled side up.
	The CD is quite dirty.	Clean the CD, referring to the section on "Cleaning CDs" (see p. 5).
The sound skips on a CD.	The CD is scratched or dirty.	Clean the CD, referring to the section on "Cleaning CDs" (see p. 5).
A track will not play.	Random play has been selected.	Turn off random play (see p. 20).
The DSP effects are imperceptible.	You are using a two-speaker system.	Use a front/rear four-speaker system.
	The front and rear output are reversed.	Connect the wire correctly, referring to the section on "Connecting Wires to Terminals".
	The ⊕ and ⊖ of speakers are reversed.	Connect the wire correctly, referring to the section on "Connecting Wires to Terminals".
	The fader or balance settings are set all the way to one side.	Reset the fader or balance settings (see p. 7).

External Disc Control Mode



PROBLEM	POSSIBLE CAUSE	SOLUTION
The disc control mode cannot be selected.	No wire has been connected to the disc changer input terminal on the unit.	Connect the wire to the disc changer input terminal on the unit.
The specified disc does not play, but another one plays instead.	The specified CD is quite dirty.	Clean the CD.
	The CD is upside-down.	Load the CD with the labeled side up.
	The disc is loaded in a different slot from that specified.	Eject the disc magazine and check the number for the specified disc.
	The disc is severely scratched.	Try another disc instead.
The sound skips.	Something is touching the disc changer.	Remove whatever is touching it.
	The CD is scratched or dirty.	If skipping happens at the same place when the car is stopped, something with the CD is wrong. Clean the CD.
The display shows that the changer is being played, but no sound can be heard.	The computer chip in the unit is not functioning normally.	Press the reset button on the unit (see p. 3).
The specified track will not play.	Random play or magazine random play has been selected.	Turn off random play or magazine random play (see p. 20).

If the following situations, consult your nearest service center:

- Even though the disc changer is connected, the Disc Changer Mode is not on, with "AUX Mode" showing in the display during the Changer Mode.
- Even though no device (KCA-S210A, CA-C1AX, KDC-CPS87, KDC-CX87, KDC-CPS85, KDC-CX85, KDC-CPS82 or KDC-CX82) is connected, "AUX Mode" is displayed when switching modes.

The following messages are displayed when certain problems are occurring in your system. Take the recommended actions.

EJECT	No disc magazine has been loaded in the changer. The disc magazine is not completely loaded. ⇒ Load the disc magazine properly.
No Disc	No disc has been loaded in the disc magazine. ⇒ Load a disc into the disc magazine.

Error 04	<p>No disc has been loaded in the disc magazine. ⇒ Load a disc into the disc magazine.</p> <p>The CD is quite dirty. The CD is upside-down. The CD is scratched a lot. ⇒ Clean the CD and load it correctly.</p>
Blank Disc	Nothing has been recorded on the MD.
No Track	No tracks are recorded on the MD, although it has a title.
Error 77	<p>The unit is malfunctioning for some reason. ⇒ Press the reset button on the unit. If the "Error 77" code does not disappear, consult your nearest service center.</p>
Mecha Error	<p>Something is wrong with the disc magazine. Or the unit is malfunctioning for some reason. ⇒ Press the eject button on the unit. And then, press the reset button on the unit. If the "Mecha Error" code does not disappear, consult your nearest service center.</p>
H-Hold	<p>The protective circuit in the unit activates when the temperature inside the automatic disc changer exceeds 60°C (140°F), stopping all operation. ⇒ Cool down the unit by opening the windows or turning on the air conditioner. As the temperature falls below 60°C (140°F), the disc will start playing again.</p>
No Title	An attempt was made to display the track/disc title of the MD disc during play, but the MD has no titles.
No Name	<ul style="list-style-type: none"> • An attempt was made to display the name of the station being received but it was not set in memory. • An attempt was made to display the name of the disc being played but it was not set in memory. • An attempt was made to display the station name/disc name after the battery had been removed for a long period.
No Text	An attempt was made to display the track/disc title of the CD during play, but the CD has no texts.
Error 12	<p>The MD you tried playing is designed for use with data. ⇒ Eject the MD designed for data and load the one designed for music.</p>
	<p>The tape player is malfunctioning. ⇒ Eject the tape and try inserting it again. Contact the Kenwood dealer if this indicator continues blinking or the tape cannot be ejected.</p>
	<p>The CD player is malfunctioning. ⇒ Eject the CD and try inserting it again. Contact the Kenwood dealer if this indicator continues blinking or the CD cannot be ejected.</p>

Specifications subject to change without notice.

FM tuner section

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 (\pm 3.0 dB)	30 Hz – 15 kHz
Signal to Noise ratio (MONO)	70 dB
Selectivity (\pm 400 kHz)	\geq 80 dB
Stereo separation (1 kHz)	40 dB

AM tuner section

Frequency Range (10 kHz space).....	530 kHz – 1700 kHz
Usable sensitivity (S/N = 20dB)	28 dB μ (25 μ V)

Cassette player section

Tape speed	4.76 cm/sec.
Wow & Flutter (WRMS)	0.08 %
Frequency response (70 μ s).....	25 Hz – 22 kHz (\pm 3 dB)
Separation (1 kHz)	40 dB
Signal to Noise ratio	
(Dolby NR OFF)	60 dB
(Dolby B NR ON).....	68 dB

CD player section

Laser diode	GaAlAs (λ =780 nm)
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 (\pm 1 dB)	10 Hz – 20 kHz
Total harmonic distortion (1 kHz)	0.01 %
Signal to Noise ratio	93 dB (1 kHz)
Dynamic range	93 dB
Channel separation	85 dB

Audio section

Maximum output power	47 W \times 4
Full bandwidth power (at less than 1% THD).....	22 W \times 4
Preout level / Load.....	1500 mV/10 k Ω
Preout impedance	\leq 600 Ω

DSP/EQ section

A/D Converter	
.....	3-dimensional 20-bit $\Delta \Sigma$ system 128-times oversampling
D/A Converter	
.....	3-dimensional 20-bit $\Delta \Sigma$ system 128-times oversampling
EQ frequency	60 Hz/120 Hz/250 Hz/500 Hz/ 1 kHz/2 kHz/4 kHz/8 kHz/16 kHz
Adjustable range	\pm 12 dB

General

Operating voltage	14.4 V (11 – 16 V allowable)
Current consumption	10 A at Rated power
Installation size (W \times H \times D)	178 \times 100 \times 155 mm 7 \times 3-15/16 \times 6-1/8 in.
Weight.....	3.1 kg (6.8LBS)