

KENWOOD

KRC-402

KRC-302

KRC-202

CASSETTE RECEIVER

INSTRUCTION MANUAL

AMPLI-TUNER-LECTEUR DE CASSETTE

MODE D'EMPLOI

RADIO CASETE

MANUAL DE INSTRUCCIONES

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 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 KRC-402/302/202 Serial number _____

© B64-0684-00 (KW) (MC)

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⚠ Warning

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.

Before use

Basic operations

Tuner features

Cassette player features

Disc changer control features

Other features

NOTE

This Class B digital apparatus meets all requirements of the Canadian interference-Causing Equipment Regulations.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

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 diameter of 0.75mm² 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.
- Be careful not to drop the unit or subject it to strong shock.
The unit may break or crack because it contains glass parts.
- Do not touch the liquid crystal fluid if the LCD is damaged or broken due to shock. The liquid crystal fluid may be dangerous to your health or even fatal. If the liquid crystal fluid from the LCD contacts your body or clothing, wash it off with soap immediately.

▲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 set the removed faceplate or the faceplate case in areas exposed to direct sunlight, excessive heat, or humidity. Also avoid places with too much dust or the possibility of water splashing.
- Do not subject the faceplate to excessive shock, as it is a piece of precision equipment.
- To prevent deterioration, do not touch the terminals of the unit or faceplate with your fingers.
- 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 use your own screws. Use only the screws provided. If you use the wrong screws, you could damage the unit.

IMPORTANT INFORMATION

You cannot connect the unit directly to the following CD automatic changers. If you want to use older changers with the unit, follow the directions below according to the type of changer you own:

• KDC-C200 / KDC-C300 / KDC-C400

Use the extension cable and the control box attached to the CD changer, and the optional CA-DS100 converter cord.

• KDC-C301 / KDC-C600 / KDC-C800 / KDC-C601 / KDC-C401

Use the extension cable attached to the CD changer, and the optional CA-DS100 converter cord.

• C705i

Use the extension cable attached to the CD changer, and the optional CA-K300 converter cord.

• KDC-C100 / KDC-C302 / C205 / C705 / non-Kenwood CD changers

Cannot be used with this model.

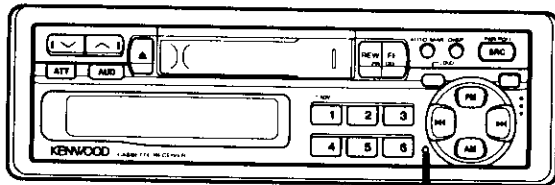
▲CAUTION

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

Safety precautions

NOTE

- If you experience problems during installation, consult your Kenwood dealer.
- Press the reset button if the CD auto changer is first controlled and operates incorrectly. The original operating condition will return.
- If the unit does not seem to be working right, consult your Kenwood dealer.



Reset button

Cleaning the Unit

If the front panel gets dirty, turn off the power and wipe the panel with a dry silicon cloth or soft cloth.

▲CAUTION

Do not wipe the panel with a hard cloth or a cloth dampened by volatile solvents such as paint thinner and alcohol. They can scratch the surface of the panel and/or cause the indicator letters to peel off.

Cleaning the Faceplate Terminals

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

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.

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 120-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.

Features

■ Tuner

- **Auto seek tuning (p. 10)**
Conducts automatic seeks of receivable stations. Useful when you do not know the frequencies of particular stations.
- **Station preset memory (p. 11)**
Stores the frequency of the station currently being listened to. You can then recall that station with a single touch of a button. Useful for stations that you listen to often.
- **Auto memory entry (p. 11)**
Automatically stores all the receivable stations in the band currently being listened to. You can then recall those stations with a single touch of a button. Useful when you do not know the stations in the area in which you are traveling. Up to six stations can be stored with this function.
- **Clean Reception System Circuit (CRSC) (p. 11)**
When poor stereo reception occurs while you are listening to the tuner, this function temporarily switches from stereo to mono reception to reduce the level of noise.

■ Disc changer control (changer optional)(Function of the KRC-402/302)

- **Disc changer control (p. 14)**
Allows control of the disc changer (when attached) from the unit.
- **Track / Disc search (p. 15, 16)**
Moves (forward or reverse) one track/disc each time the button is pressed, and plays that track/disc from the beginning.
- **Track repeat function (p. 17)**
Repeats the track currently being listened to.
- **Disc repeat function (p. 17)**
Repeats the entire disc currently being listened to.
- **Track scan function (p. 17)**
Successively plays the beginning of each track on the disc, allowing you to find the track that you want to listen to.
- **Disc scan function (p. 18)**
Successively plays the beginning of each track of each disc, allowing you to find the track that you want to listen to.
- **Random play function (p. 19)**
Plays all the tracks on the disc in random order.
- **Magazine random play function (p. 19)**
Plays tracks from all the discs in random order.

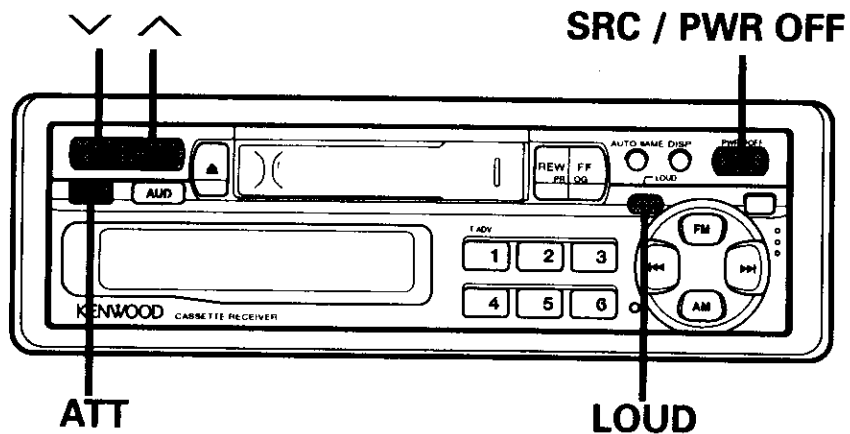
■ **Tape player**

- **Tape type selection (Function of the KRC-402/302) (p. 13)**
Select the type of tape being played, such as normal and metal (for example, CrO2).
- **Tape advance (p. 13)**
Rewinds to the beginning of the track (or fast forwards to the beginning of the next track), continuing tape playback.
- **Tuner call (p. 13)**
Switches automatically to the tuner while you are rewinding or fast forwarding the tape, allowing you to listen to the radio.

■ **Other**

- **Attenuator (p. 9)**
Turns down the volume quickly.
- **Loudness control (p. 9)**
Amplifies low and high tones when the volume is turned down, for fuller sound quality.
- **Audio control setting (p. 20)**
Allows for adjustment of bass, treble, balance, and fader.
- **Selectable illumination (Function of the KRC-402) (p. 21)**
Switches the color of the display between green and amber.
- **Clock display (p. 22)**
Displays the time.
- **Theft deterrent faceplate (p. 23)**
The faceplate of the unit can be detached and taken with you as you leave the car, in order to deter theft.
- **Disabled system indicator (DSI) (p. 23)**
When this function is turned on, a red indicator will flash on the unit after the faceplate is removed, making it appear as if you have a security system operating in your car, warning potential thieves.
- **Touch sensor tone (Function of the KRC-402/302)**
A beep will sound as you press the various buttons on the unit to confirm that an operation has been completed.

Basic operations



Power

Turning on the power:

Press the SRC (source) button.

NOTE

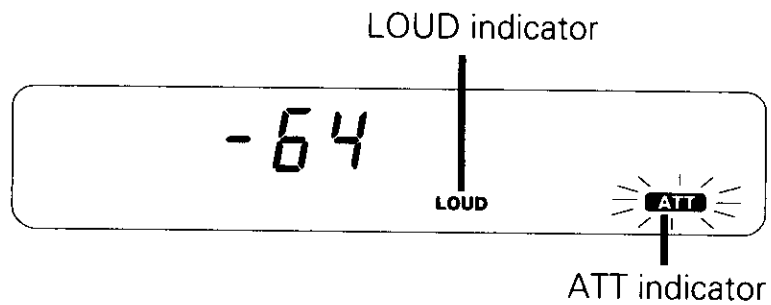
Turn the power on before carrying out the following procedures.

Turning off the power:

Press the PWR OFF button for at least one second.

Selecting standby mode:

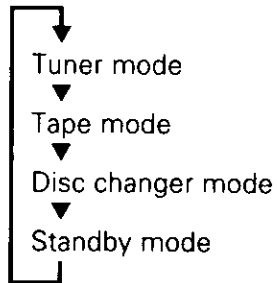
Press the SRC button repeatedly and switch to "OFF." When "OFF" is displayed, the standby mode is activated. The standby mode turns all functions off while leaving the power to the unit on. Use this mode when you want to have the display illuminated but don't want to listen to anything.



Switching Modes

Switching Modes:

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.

Volume

Increasing Volume:

Press the \wedge button to turn up the volume.

Decreasing Volume:

Press the \vee 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.

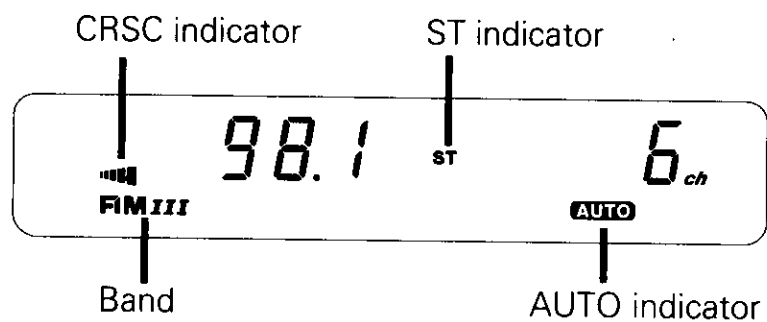
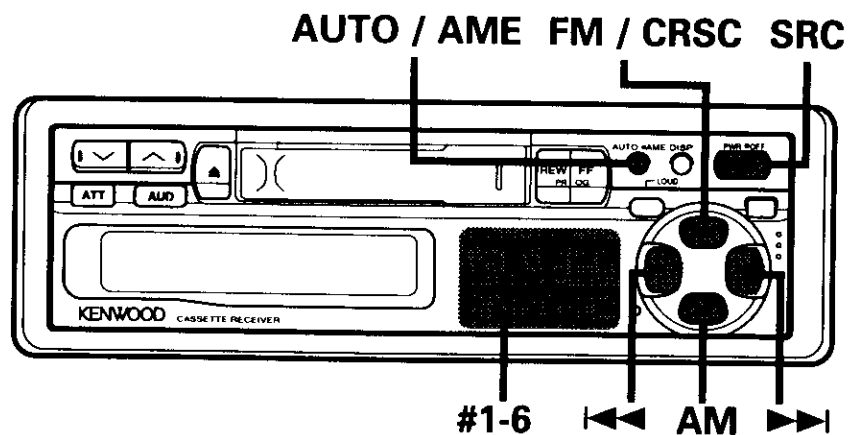
Loudness

This function amplifies low and high tones when the volume is turned down.

Turning Loudness On/Off:

Press the LOUD button to switch the loudness on and off. The LOUD indicator lights up when the loudness function is on.

Tuner features



Tuning

- 1** Press the SRC button repeatedly to select the tuner mode. "TUnE" 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 FM1, FM2, and FM3 (which are used for groups of preset stations). Press the AM button to select the AM band.
- 3** Press the AUTO button to switch between auto seek tuning and manual tuning. The AUTO indicator lights up only when auto seek tuning is selected.
- 4**
 - **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.

Station Preset Memory

Store the frequency of a station.

- 1 Select the band/frequency of the 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.

Recalling a Preset Station:

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

NOTE

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

Auto Memory Entry

Automatically store the receivable stations in the area.

- 1 Select the band for which you want to store stations.
- 2 Press the AME button for at least two seconds to start auto memory entry. The numbers of the preset station buttons are shown 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.

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 tuner.

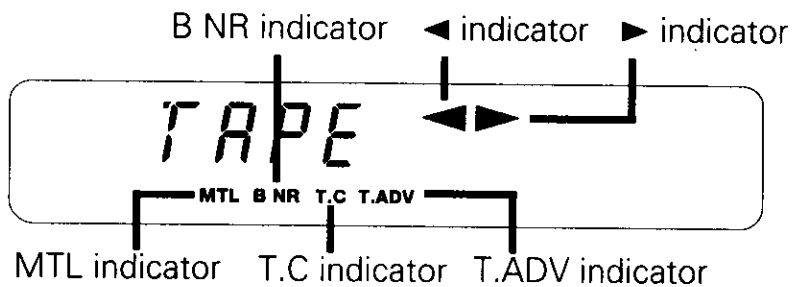
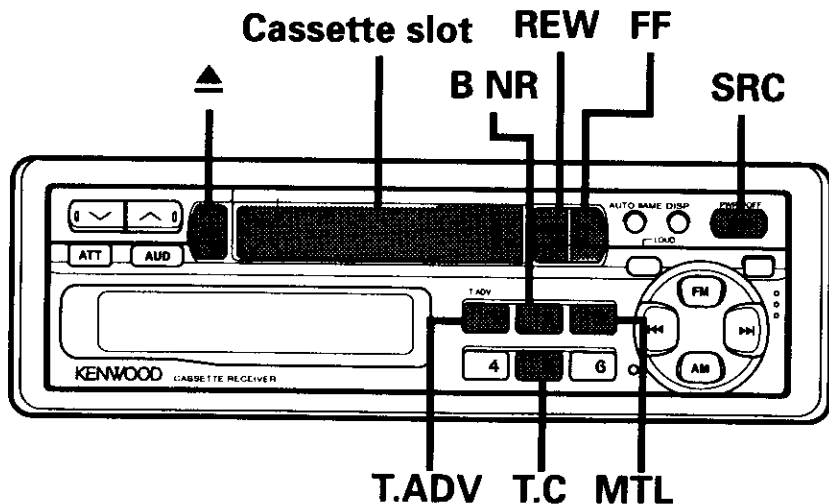
Turning CRSC On/Off:

Press the CRSC button for at least one second to turn the function on/off. The CRSC indicator lights up when CRSC is on.

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.

Cassette player features



Playing Cassette Tapes

Loading and Playing Cassettes:

Load a cassette with the tape exposed on the right. The tape starts playing automatically. With Side A facing up, the ► indicator lights up when Side A is playing, and ◀ when Side B is playing. The ◀► indicator lights up whilst play is paused.

Playing Cassettes Already Loaded:

Press the SRC button repeatedly until tape mode is obtained. "TAPE" is displayed when the tape mode has been selected.

Listening to the other side:

Press the FF button and REW button at the same time. Tape play switches to the other side.

Stopping and Ejecting Cassettes:

Press the ▲ button. The tape stops playing and the cassette ejects.

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.

Function of the KRC-402 / 302

Using Dolby B Noise Reduction

Listen to tapes recorded using Dolby B.

Turning Dolby B Noise Reduction On/Off:

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

Fast Forwarding and Rewinding Cassette Tapes

Fast Forwarding Tapes:

Press the FF button.

The tape indicator blinks in the direction of the tape as it is being fast forwarded.

If the REW button is pressed, normal tape play returns.

Rewinding Tapes:

Press the REW button.

The tape indicator blinks in the direction of the tape as it is being rewind.

If the FF button is pressed, normal tape play returns.

Function of the KRC-402 / 302

Switching Tape Types

Select type of tape being played.

Switching Tape Types:

Press the MTL (Metal) 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.

Tape Advance

Rewinds to the beginning of the track currently being listened to (or fast forwards to the beginning of the next track), continuing tape playback.

- 1 Press the T.ADV button to switch tape advance on/off. The T.ADV indicator lights up when the tape advance is turned on.

NOTE

Tape advance "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.

- 2 Press either the REW or FF button depending on whether you want to repeat the current track or move to the next one. Playback continues after the tape is rewind or fast forwarded.

Tuner Call

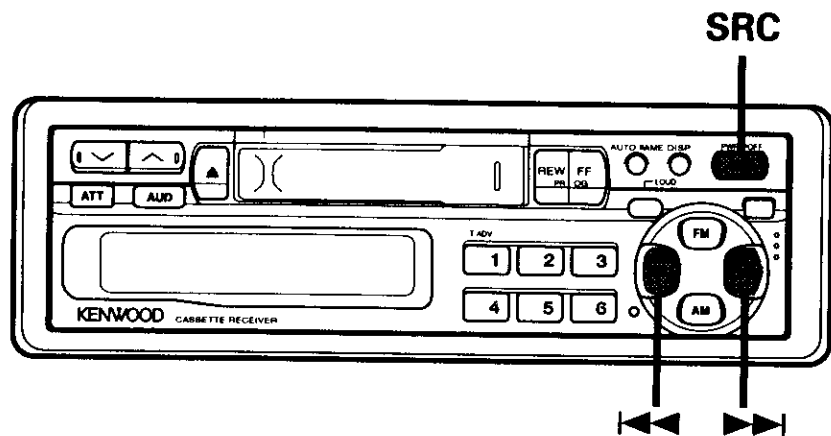
Switch automatically to the tuner while you are rewinding or fast forwarding the tape.

Turning Tuner Call On/Off:

Press the T.C button to switch tuner call on and off.

The T.C indicator lights up when tuner call is turned on.

Disc changer control features (Function of the KRC-402 / 302)



Playing Discs Using a Disc Changer

Playing Discs:

Press the SRC (source) button repeatedly to select the disc changer mode.

"DISC" is displayed when the unit is in the disc changer mode.

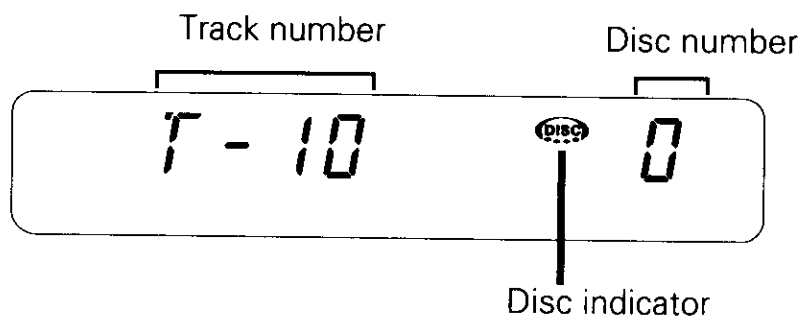
The disc indicator lights up during disc changer mode.

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.

Disc #10 is displayed as "0".

NOTE

- When a MD has more than 100 track numbers, only the last two digits will be displayed for the track number.
- The disc title and track title for MDs cannot be displayed.



Disc changer control features (Function of the KRC-402 / 302)

Fast Forwarding and Reversing Disc Play

Fast Forwarding Disc Play:

Hold down on the ►► button.

Release your finger to play the disc at that point.

Reversing Disc Play:

Hold down on the ◀◀ button.

Release your finger to play the disc at the point.

NOTE

You cannot use reverse play between tracks when listening to an MD on the MD changer. 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 ◀◀ 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

Pressing the ◀◀ 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 ►► button to display the desired track number.

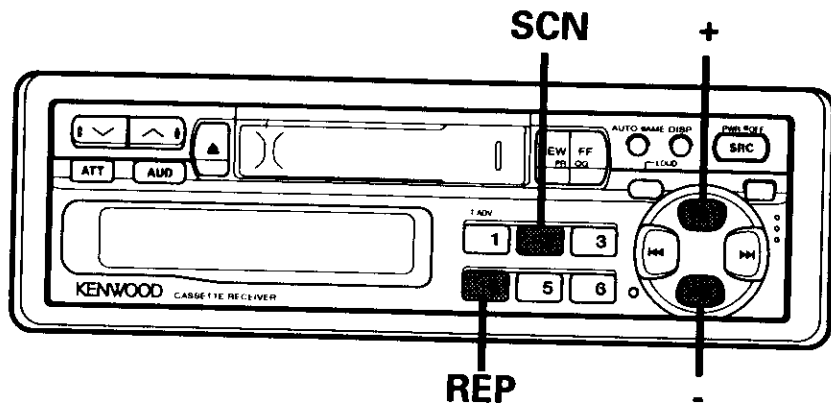
Press once to fast forward to the next track, twice to fast forward to the track after that, and so forth.

Play starts at the beginning of the displayed track number.

NOTE

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

Disc changer control features (Function of the KRC-402 / 302)



Disc Search

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

Making a Reverse Disc Search:

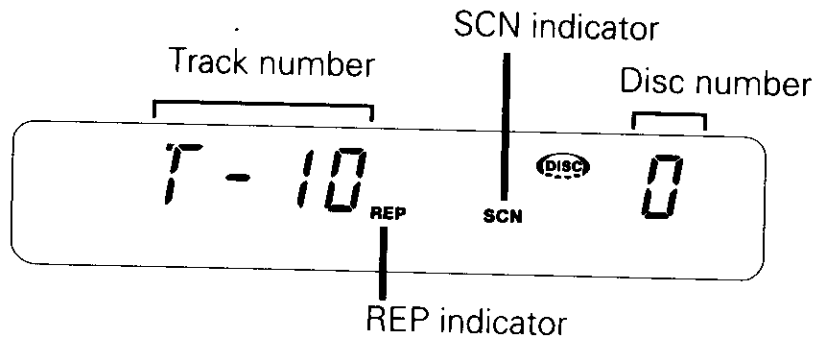
Press the - button to display the desired disc number. Each time the button is pressed, the displayed disc number decreases by one. Play starts at the beginning of the displayed disc.

Making a Forward Disc Search:

Press the + 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.



Disc changer control features (Function of the KRC-402 / 302)

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 when repeat play is turned on.
The track number blinks in the display when track repeat is on.
The disc number blinks 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.

Turning Track Scan On/Off:

Press the SCN button to switch track scan on and off.
The SCN indicator lights up when track scan is turned on.
The first 10 seconds of each track will be played, in order.
The track number currently being heard blinks in the display.

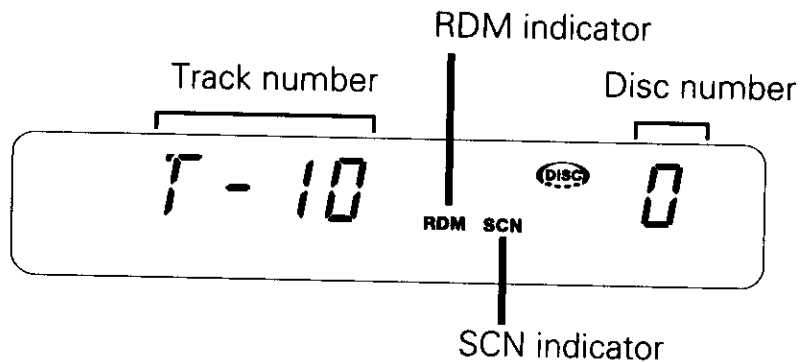
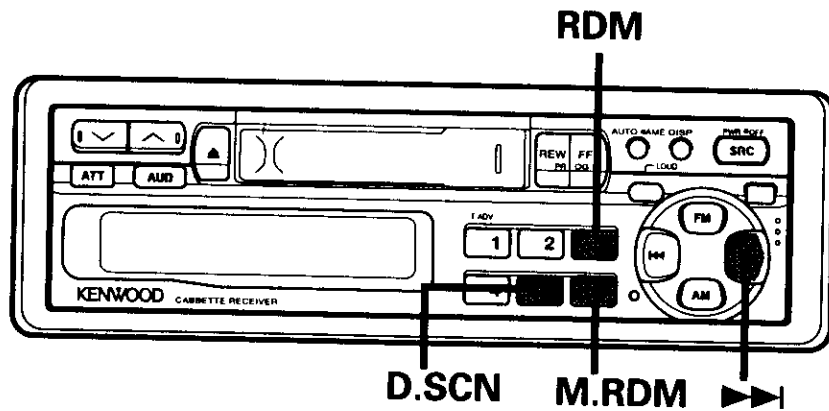
Stopping to Listen to the Track Being Scanned:

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

NOTE

- Track scan is canceled when you stop playing a disc.
- Track scan only scans each track on a disc once.

Disc changer control features (Function of the KRC-402 / 302)



Disc Scan

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

Turning Disc Scan On/Off:

Press the D.SCN button to switch disc scan on and off. The SCN indicator lights up when disc scan is turned on. 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 D.SCN button again to stop the scan and keep on listening to the disc normally.

NOTE

- Disc scan is canceled when you stop playing a disc.
- Disc scan only scans each disc on the changer once.
- "load" is displayed when discs are being exchanged on the disc changer.

Disc changer control features (Function of the KRC-402 / 302)

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. The selected track number blinks in the display as it is being played.

NOTE

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 ►► button. Another track will be selected and played.

NOTE

Random play is canceled when you stop playing a disc.

Magazine Random Play

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 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. The selected disc/ track number blinks in the display as it is being played.

NOTE

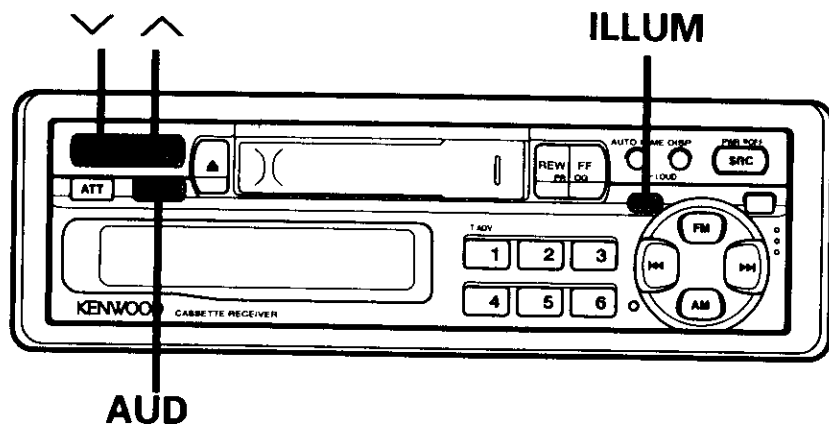
This function is not available with the following models:
KDC-C200/C300/C400/C301/C401

- 2** To change the track being heard, press the ►► 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.

Other features



Audio Control Setting

Adjust various parameters of sound quality.

- 1 Press the AUD button to enter the control mode. Each time the AUD button is pressed, the adjustment mode display changes as follows:

→ Bass ▶ Treble ▶ Balance ▶ Fader ▶ Volume

If you do not move to step 2 in five seconds, the tuner will switch back to the volume adjustment mode (that is the normal mode).

NOTE Source tone memory

Each source has its own memory in which to store the bass and treble tone settings.

The settings made for a particular source are recalled automatically whenever you use that source (for example, tape mode uses the tone settings made for tape, FM for FM, etc.).

- 2 Press the ^/v buttons to adjust the mode shown in the display. Adjust each mode according to the table on p. 21.

BL L 2

Adjustment mode (Display)	Operation of Audio control button	
	Audio down button	Audio up button
Bass ("BAS")	Bass decreased	Bass increased
Treble ("TRE")	Treble decreased	Treble increased
Balance ("BL")	Left channel emphasized	Right channel emphasized
Fader ("FD")	Rear channel increased	Front channel increased

Function of the KRC-402

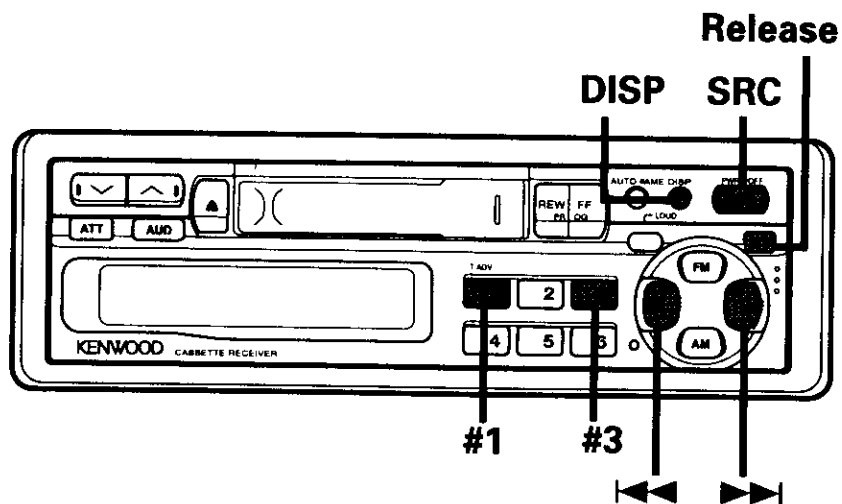
Selectable Illumination

Select the colors used to illuminate the display.

Switching the illumination:

Press the ILLUM button for at least one second to switch between amber and green.

Other features



Clock Display

Displays the time.

Switching to Time Display:

Press the DISP button to display the time.

Adjusting Time

Adjust the time.

- 1 When the time is not displayed, first press the DISP button to display the time.
- 2 While holding down the DISP button, press the ◀◀ or ▶▶ buttons to adjust the time. The ◀◀ button adjusts the hour and the ▶▶ button adjusts the minutes.

4:28

Disabled System Indicator (DSI)

A red indicator will blink on the unit after the faceplate is removed, warning potential thieves. The factory default for this function is ON.

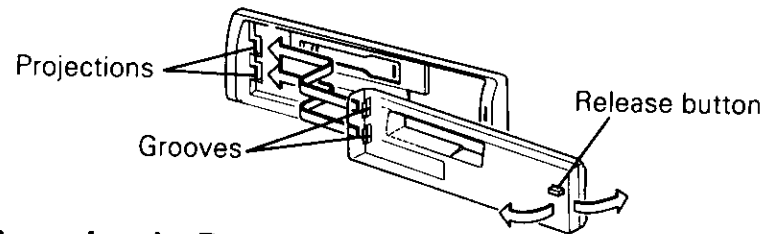
Canceling DSI:

- 1 Turn the power of the unit off.
- 2 Simultaneously press the #1 and #3 buttons as you turn the power back on.

Repeat steps 1 and 2 above to turn DSI back on.

Theft Deterrent Faceplate

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



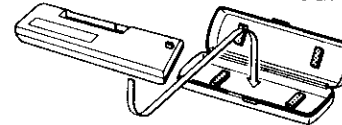
Removing the Faceplate:

Press the release button.

The faceplate is unlocked, allowing you to detach it.

NOTE

- The faceplate is a precision piece of equipment and can be damaged by shocks or jolts. For that reason, keep the faceplate in its special storage case while detached.

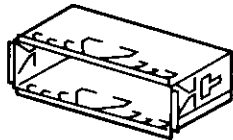

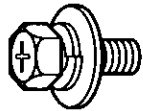
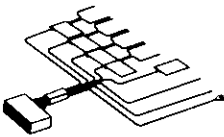

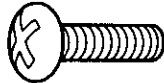

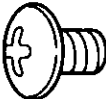


- Do not expose the faceplate or its storage case to direct sunlight or excessive heat or humidity. Also avoid places with too much dust or the possibility of water splashing.

Reattaching the Faceplate:

- 1 Align the projections on the unit with the grooves on the faceplate.
- 2 Push the faceplate in until it clicks. The faceplate is locked in place, allowing you to use the unit.

Accessories

External view	Part name	Number of items	External view	Part name	Number of items	External view	Part name	Number of items
	Mounting sleeves	1		Removal tool	2		Hex-head machine screw with washer (M4x8)	1
	Wiring harness	1		Phillips frush head self tapping screw (ø5x8)	4		Phillips pan head machine screw (ø4x16)	1
	Metal mounting strap	1		Phillips truss head self tapping screw (ø5x8)	4			

CAUTION

Do not use any accessories other than those provided with your unit. If you use other accessories, you may damage the unit.

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.

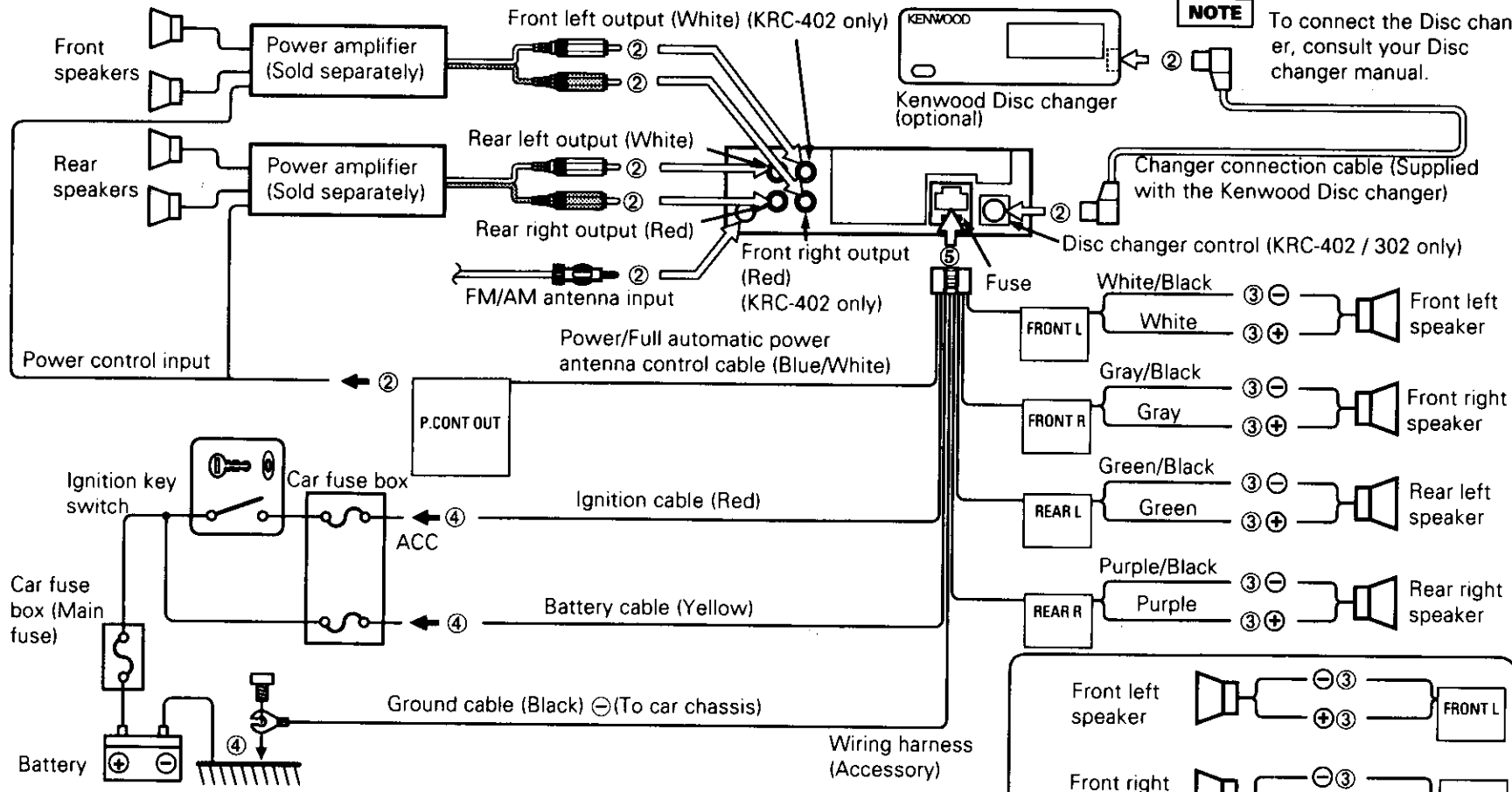
CAUTION

- 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 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 receive damage 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.
- Some disc changers need conversion cords for connection. See the section on "Safety Precautions" for details.
- Insulate unconnected wires with vinyl tape or other similar material.

Connecting Cables to Terminals

NOTE Circled numbers indicate the steps described in the installation procedure.

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

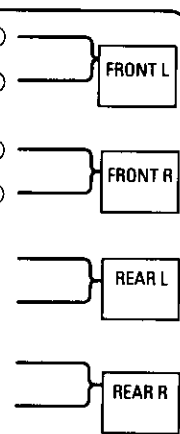


WARNING

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.

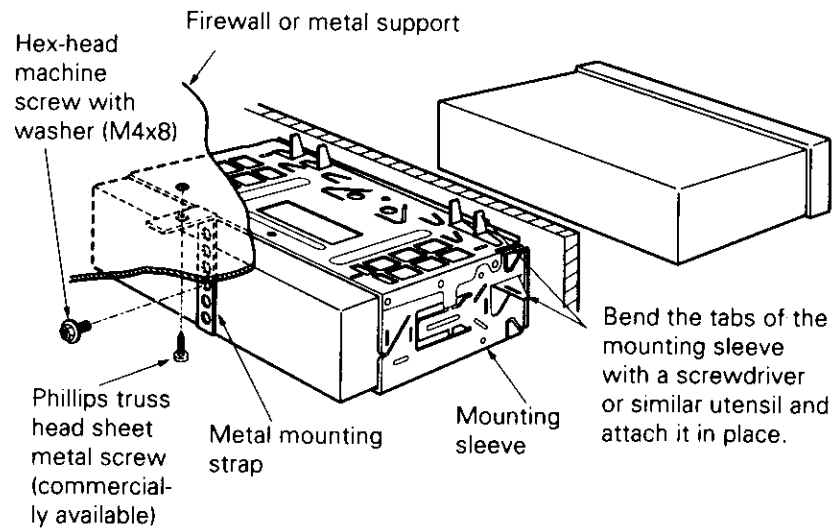
CAUTION

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

■ Installation

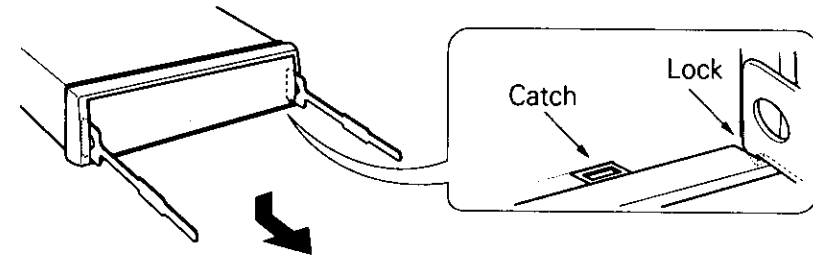


NOTE

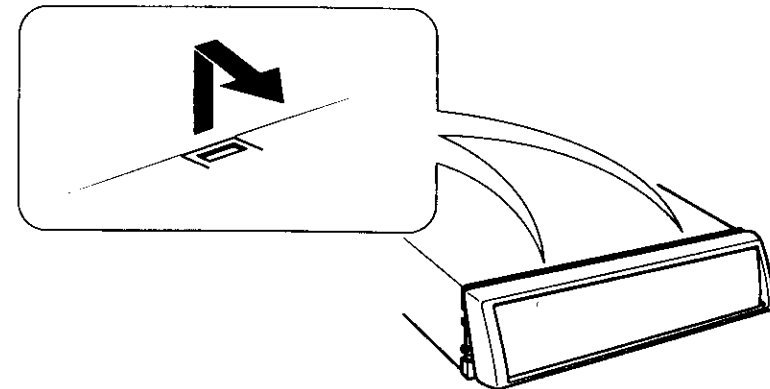
Make sure that the unit is installed securely in place. If the unit is unstable, it may malfunction (for example, the sound may skip).

■ Removing the hard rubber frame

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



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



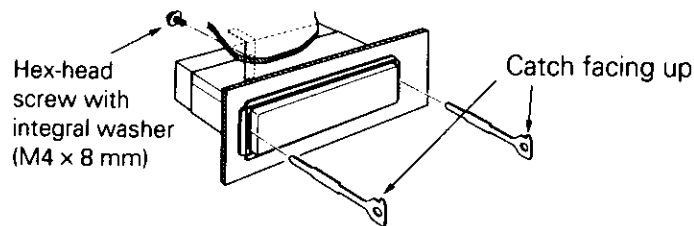
NOTE

The unit can be removed from the top side in the same manner.

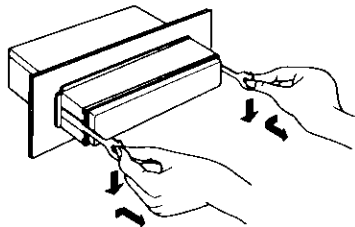
Installation

■ Removing the Unit

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



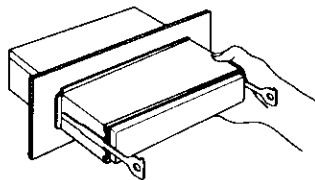
- 4 Lower the removal tool toward the bottom, and pull out the unit halfway while pressing towards the inside.



▲ CAUTION

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

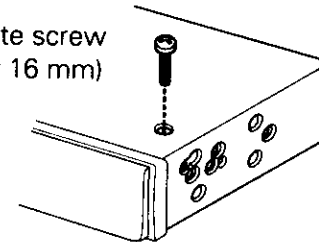
- 5 Pull the unit all the way out with your hands, being careful not to drop it.



■ Screwing the Faceplate on the Unit

If you want to fasten the faceplate to the main unit so that it does not fall off, screw in the provided Taptite screw (ø4 × 16 mm) in the hole shown below.

Taptite screw
(ø4 × 16 mm)

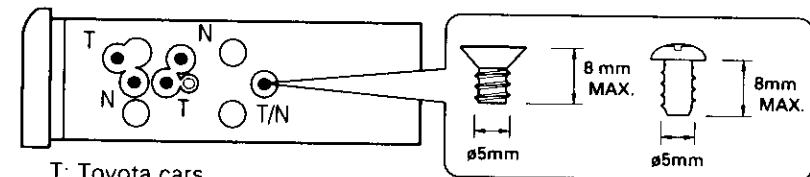


▲ CAUTION

Never insert the Taptite screw (ø4 × 16 mm) in any other screw hole than the one specified. If you screw it in another hole, it will contact and may cause damage to the mechanical parts inside the unit.

■ Installing in Japanese-Made Cars

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



T: Toyota cars
N: Nissan cars

Flat head screw: for Nissan car
Truss head screw: for Toyota car

▲ CAUTION

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

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.	The volume has been turned all the way down.	Turn up the volume.
	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.
	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 cassette tape is bad.	Try playing another cassette tape. If works fine, the first tape was bad.
The sound quality is poor or distorted.	The volume is too high.	Turn down the volume.
	The tape head is dirty.	Clean the tape head, referring to the section on "Cleaning the tape head" (see p. 5).
	One of the speaker wires is being pinched by a screw in the car.	Check the speaker wiring.
	A speaker wire is being shared by two speakers.	Reconnect the speaker wires so that each output terminal is connected to a different speaker.
A cassette cannot be loaded.	The cassette is deformed.	
	The cassette has been inserted backward.	Load the cassette with the tape exposed on the right.
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".
Tape mode cannot be selected.	No cassette has been inserted.	Load a cassette into the unit.
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".

Troubleshooting Guide

Disc Changer

PROBLEM	POSSIBLE CAUSE	SOLUTION
The disc changer mode cannot be selected.	No cable has been connected to the disc changer input terminal on the unit.	Connect the cable to the disc changer input terminal on the unit.
The disc does not play.	The power has not been turned on.	Turn the power on and select the disc changer mode.
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.
	Two CDs are loaded in the same slot.	Eject the disc magazine and insert the CDs in two different slots.
	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.
Vibrations cause the sound to skip.	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 sound quality of the disc is poor.	The disc recording is poor.	Try another disc for comparison. If it is alright, the first disc was bad.
	The CD is scratched or dirty.	Clean the CD.
The display shows that the changer is being played, but no sound can be heard.	The volume has been turned all the way down.	Turn up the volume.
	The computer chip in the unit is not functioning normally.	Press the reset button on the unit (see p. 5).
	The system has not been connected properly.	Connect the wires correctly, referring to the section on "Connecting Wires to Terminals".
The specified track will not play.	Random play or magazine random play has been selected.	Turn off random play or magazine random play.

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

- E-01 No disc magazine has been loaded in the changer. The disc magazine is not completely loaded.
⇒ Load the disc magazine properly.
- E-02 No disc has been loaded in the disc magazine.
⇒ Load a disc into the disc magazine.
- E-04 The CD is quite dirty. The CD is upside-down. The CD is scratched a lot.
⇒ Clean the CD and load it correctly.
- E-10 Nothing has been recorded on the MD.
⇒ The next MD will automatically be played.
- E-11 No tracks are recorded on the MD, although it has a title.
⇒ The next MD will automatically be played.
- E-99 The unit is malfunctioning for some reason.
⇒ Press the reset button on the unit. If the "E- 99" code does not disappear, consult your nearest service center.
- E-Od 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.

Specifications

Specifications subject to change without notice.

FM tuner section

Frequency range	87.9 MHz – 107.9 MHz
Frequency step	200 kHz
Usable sensitivity (S/N = 30dB)	9.3dBf (0.8 μ V/75 ohms)
Quieting Sensitivity (S/N = 50dB)	15.2dBf (1.6 μ V/75 ohms)
Frequency response (\pm 3.0 dB)	30 Hz – 15 kHz
Signal to Noise ratio (MONO)	75 dB
Selectivity (\pm 400 kHz)	\geq 80 dB
Image Response Ratio	70 dB
IF Response Ratio	120 dB
Stereo separation (1 kHz)	40 dB

AM tuner section

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

Cassette player section

Tape speed	4.76 cm/sec.
Wow & Flutter (WRMS)	0.12 %
Frequency response (\pm 3 dB)	
(120 μ s)	30 Hz – 14 kHz
(70 μ s : KRC-402 / 302 only)	30 Hz – 16 kHz
Separation (1 kHz)	43 dB
Signal to Noise ratio	
(Dolby B NR OFF)	54 dB
(Dolby B NR ON: KRC-402 / 302 only)	63 dB

Audio section

Maximum output power	35 W \times 4
Full Bandwidth power (at less than 1% THD)	20 W \times 4
Tone action	
Bass:	100 Hz \pm 10 dB
Treble:	10 kHz \pm 10 dB
Preout level / Load	1800 mV (Max.) / 10k ohms
Preout Impedance	\leq 600 ohms

General

Operating voltage	14.4 V (11 – 16 V allowable)
Current consumption	10 A at Rated power
Installation size (W \times H \times D)	182 \times 53 \times 154mm
	7-3/16 \times 2-1/16 \times 6-1/16 in.
Weight	1.3 kg
	2.9 lbs