

KENWOOD

CASSETTE-RECEIVER

KRC-610

KRC-510

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 cassette-receiver.

For your records

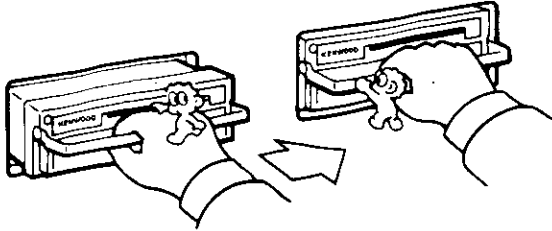
Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your KENWOOD dealer for information or service on this product.

Model KRC-610/510 Serial number _____

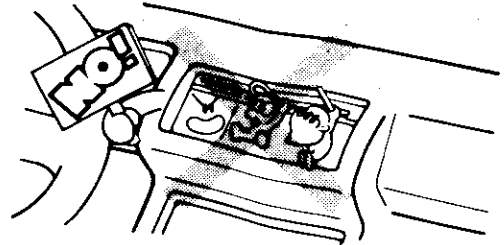
WARNING

TO PREVENT ELECTRIC SHOCK,
FIRE AND OTHER INJURY.
PLEASE NOTE THE FOLLOW-
INGS:

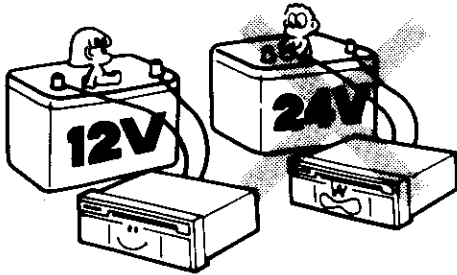
- Secure the locks on the detachable case.



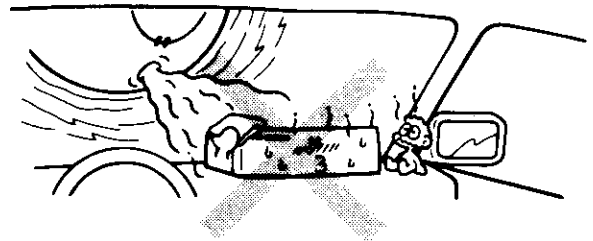
- Do not drop pieces of metal, needles, coins and other electrically conductive materials into the unit.



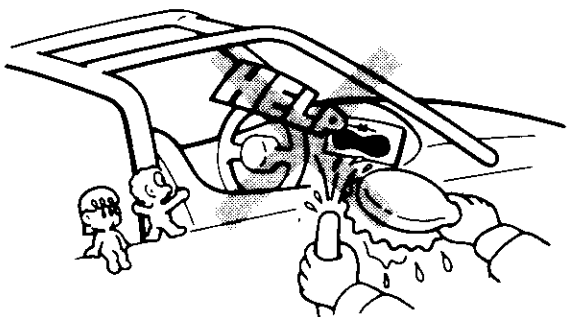
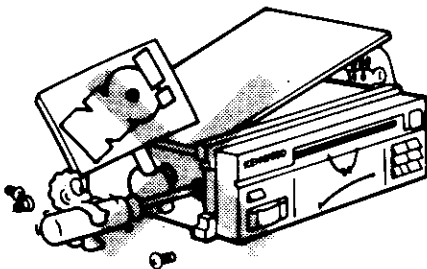
- The unit is designed to be connected 12 V DC and negative grounding.



- Do not place the unit, where it will be exposed to direct sunlight or close to heating device.



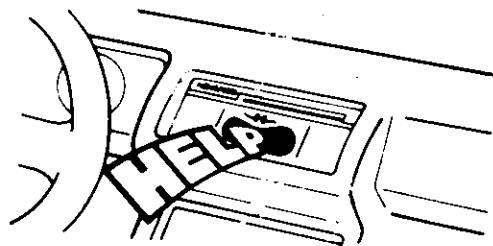
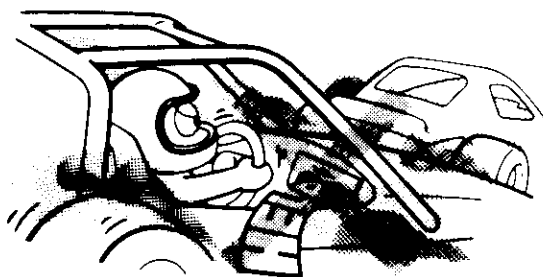
- Do not open enclosure, such as front panel, top or bottom cover.



- Do not dash water on the unit.

KRC-610

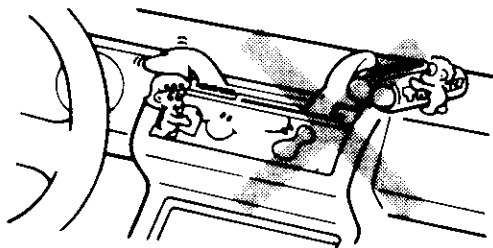
- Do not place the unit in areas of excessive dust, high humidity or on unstable surfaces.
- If an abnormal smell or smoke is detected, immediately turn the power off.



- If you have difficulty in installing the set in your car, please contact your KENWOOD dealer.

CLEANING

1. Turn the power off, before cleaning the unit.
2. Do not use any type of abrasive pad, thinner, benzine and any such kind of objects.
3. Wipe the front panel and other exterior surfaces of the unit with a soft dry cloth or a soft cloth lightly moistened with a neutral detergent.




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.

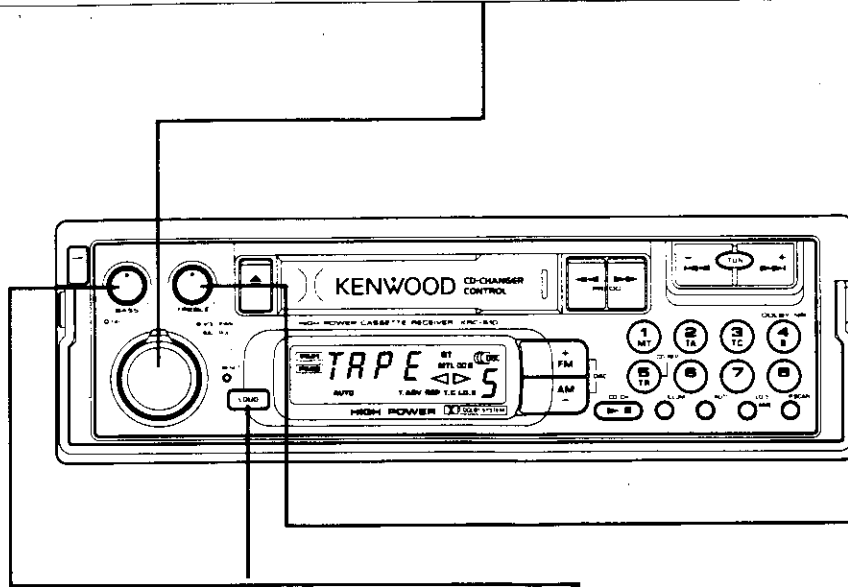
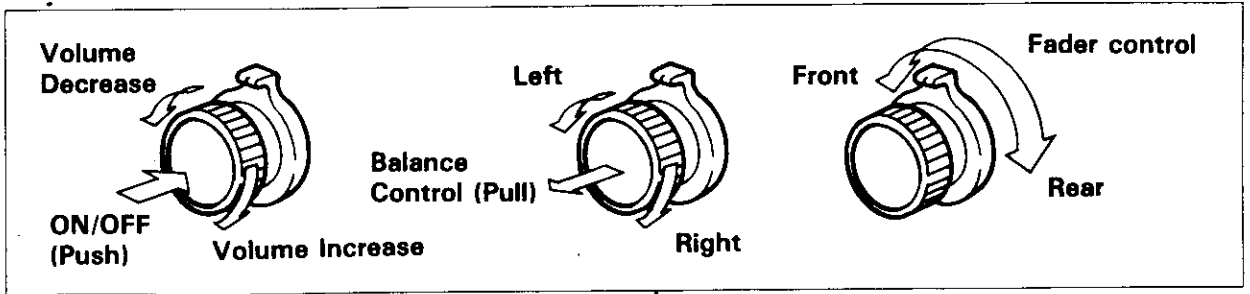
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Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

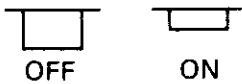
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

SOUND LEVEL AND QUALITY



LOUDNESS SWITCH

When listening at low volume levels, pressing this switch will activate the loudness circuit which will compensate for the human ear's lack of sensitivity to bass at low levels.



BASS CONTROL

Decrease



Increase

TREBLE CONTROL

Decrease



Increase



1. Turning the power ON automatically turns this unit to the same mode before turning OFF the power.
2. Explain how to operate hereafter with the power ON.

SEEK TUNING

1

Select the desired Band.

FM ← Press FM1 or FM2
AM ← Press AM

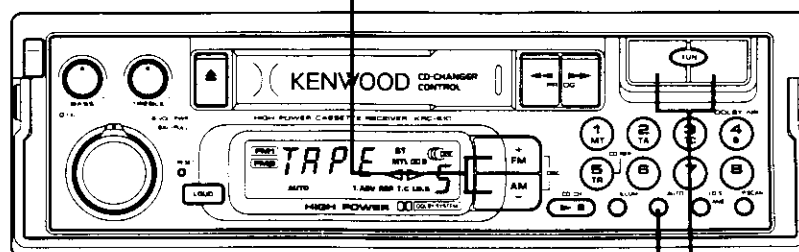
FM1 FM2

AM

2

Turn the Auto switch ON.

ON



3

Press Seek switch
(Seek starts and receives a broadcast station.)

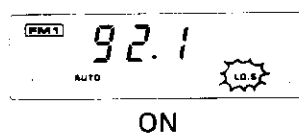
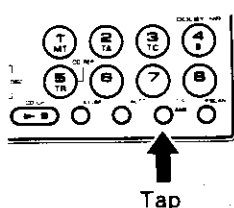
<KRC-510> <KRC-610>

Down Seek Up Seek Down Seek Up Seek

Lit when stereo broadcast is received.

Indicates reception frequency.

< Local tuning >



- If the Local switch is turned ON during SEEK TUNING and AUTO MEMORY, it will stop at stations only with satisfactory reception conditions.

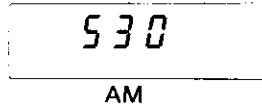
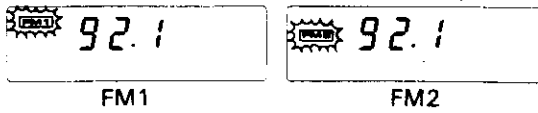
MANUAL TUNING

1

Select the desired Band.

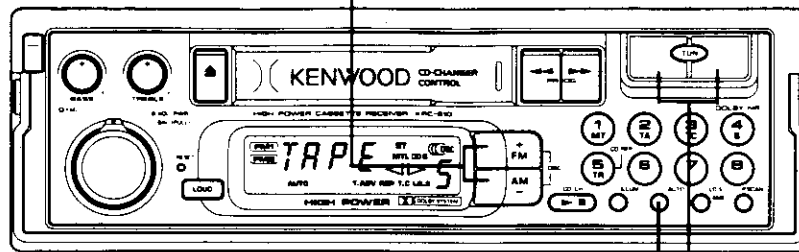
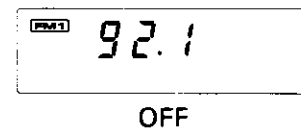
FM ← Press FM1 or FM2

AM ← Press AM



2

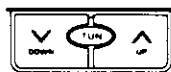
Turn the Auto switch OFF.



3

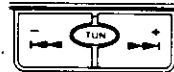
Press to select the desired frequency.

<KRC-510>



For lower fre- higher fre-
quencies quencies

<KRC-610>

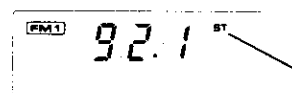


For lower fre- higher fre-
quencies quencies

(Continued pressing will change it continuously.)

4

Indicates the frequency being received.



Lit when stereo broadcast is received.

Indicates reception frequency

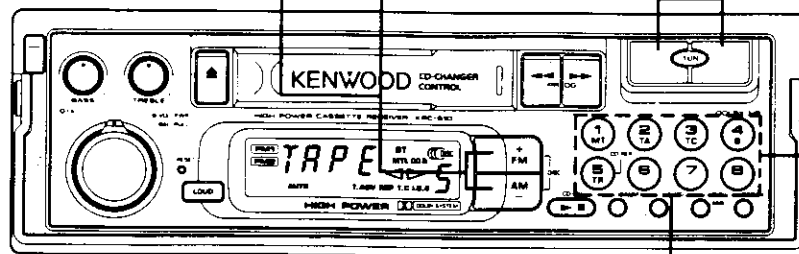
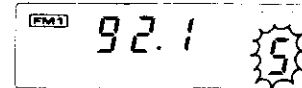
PRESET STATION TUNING

1

Selects the band and station you wish to preset.

2

Press the preset station switch you wish to be kept preset for more than 2 second. (When it is preset, the number of switch pressed will be indicated.)

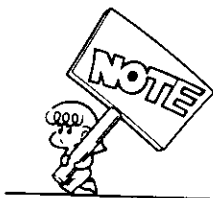
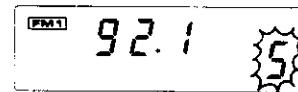


3

By repeating operation of 1 - 2 above, one station can be memorized in one switch each at FM1, FM2 and AM.

4

If tapped, the preset station can be called out. (The number of switch pressed will be indicated.)

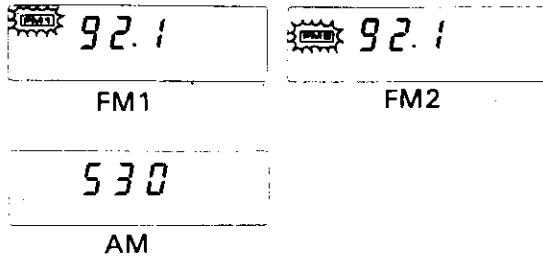


- If preset is to be made anew on the switch already preset, what was preset before will be replaced with what is to be preset.

AUTO MEMORY

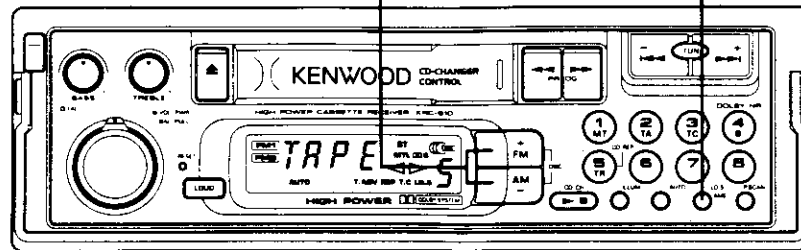
1

Select the desired band.



2

Press the Auto memory switch for more than 2 seconds.



3

The selected band is automatically scanned and 8 stations are memorized. When 8 stations are memorized, the auto memory function is automatically released.

4

The station last stored in memory is received.

PRESET SEEK

■ Functions of the KRC-510

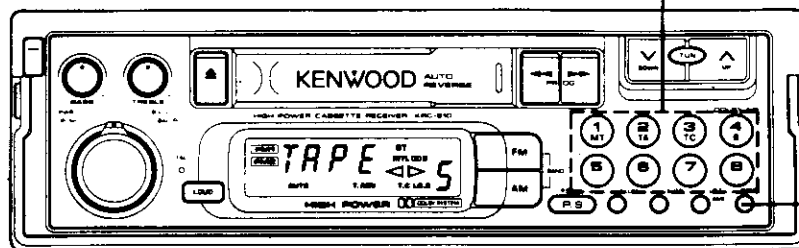
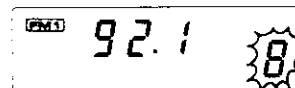
1

Store a station frequency for each one of 1 to 8 preset station switches.

2

Every time when the preset seek switch is tapped once, the preset stations will each be received sequentially.

(Indicates the number of switch that is receiving.)



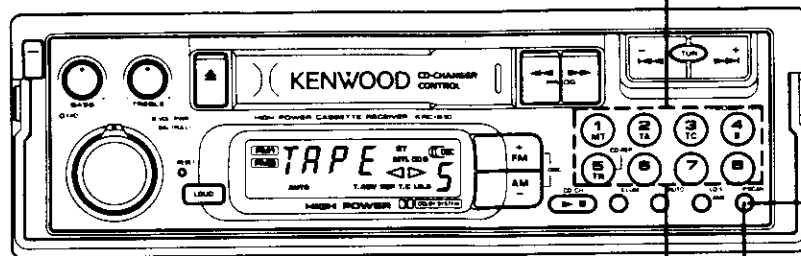
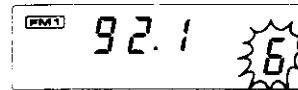
PRESET SCAN (KRC-610)

1

Store a station frequency for each one of 1 to 8 preset station switches.

2

Press the Preset scan switch.
(Preset stations will be received for about 5 seconds each one after another. Indicates the number of switch that is receiving.)



3

When the station you wish to listen to is received, press the Preset scan switch again, or press the Preset station switch under which that station is stored. (Preset Scan stops, and the station which is received when the switch is pressed continues to be received.)



- If the Auto switch is set to ON, only stations with strong signals are received.

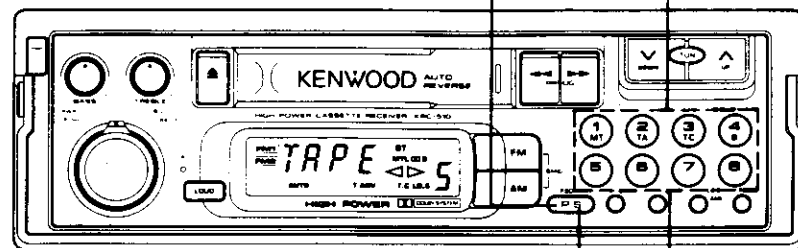
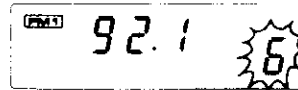
PRESET SCAN (KRC-510)

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Store a station frequency for each one of 1 to 8 preset station switches.

2

Press the Preset scan switch. (Preset stations will be received for about 5 seconds each one after another. Indicates the number of switch that is receiving.)



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When the station you wish to listen to is received, press the Preset scan switch again, or press the Preset station switch under which that station is stored. (Preset Scan stops, and the station which is received when the switch is pressed continues to be received.)

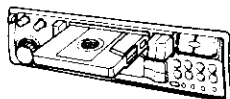


- If the Auto switch is set to ON, only stations with strong signals are received.

TAPE PLAYBACK

TAPE PLAYBACK

Insert the cassette tape.
(Playback starts.)



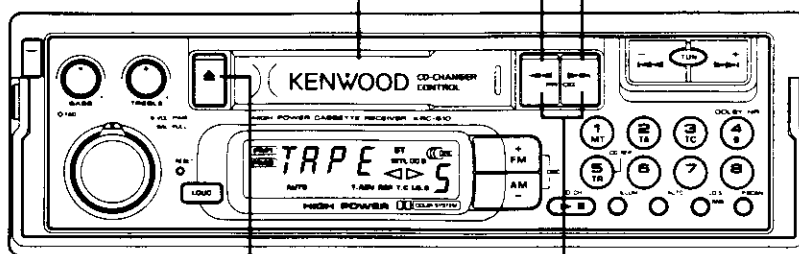
TAPE ▷

(During playback,
▷ will be indicated.)

FAST FORWARD/REWIND

Indicator	Operation	Press
▷	Fast forward	▷▷
▷	Rewind	◁◁
◁	Fast forward	◁◁
◁	Rewind	▷▷

To release, softly press the reverse switch.



PROGRAM

When you wish to listen to the reverse side, press these at the same time.
(The reverse side will be played back.)

STOP PLAYBACK

Press this to stop the playback.
(The cassette tape will come out.)

< Playback side >

When inserted with the side A up.

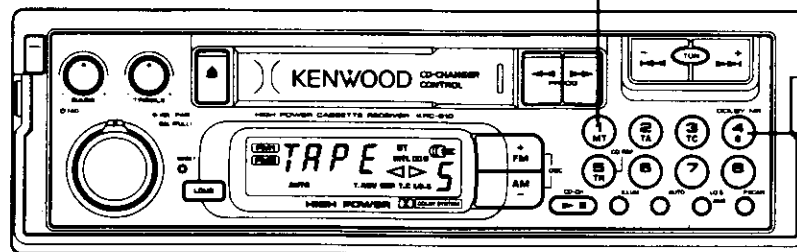
Indicator	Playback side
▷	Side A
◁	Side B

This will be reversed when inserted with the side B up.

METAL TAPE AND DOLBY B N R

METAL SWITCH

In tape play mode, press Metal switch to play back a CrO₂ or Metal tape.



DOLBY B N R

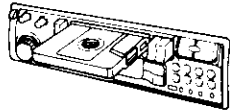
In tape play mode, press Dolby B N R switch when playing back a tape recorded with Dolby B N R system.



TAPE ADVANCE

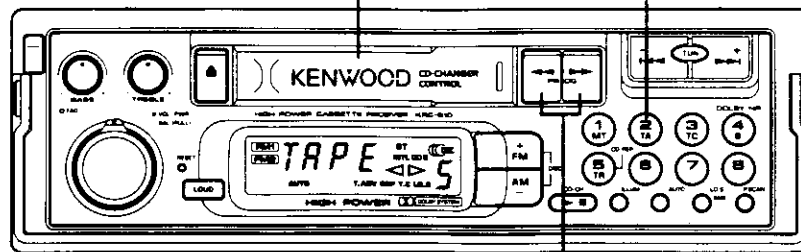
1

Play back the tape.



2

Press the Tape advance switch.



3

In case you wish to listen to the music now being played back from the beginning over again

Indicator	Press
▷	◀◀
◀	▷▷

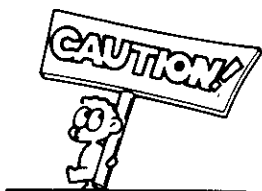
(Rewind starts and it comes to play back at the beginning of the music you are now listening to.)

4

In case you wish to listen to the next music

Indicator	Press
▷	▷▷
◀	◀◀

(Fast forward starts and it comes to play back at the beginning of the next music.)

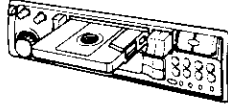


- Please note that in case of the following tapes, sometimes the tape advance does not function properly.
 1. When an interval between the music is less than 5 seconds.
 2. When a recorded portion of the low sound volume continues for more than 5 seconds.

TUNER CALL

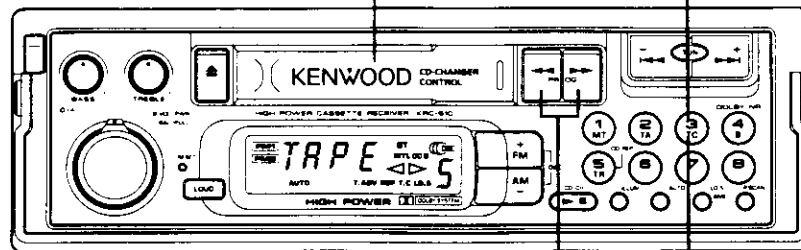
1

Play back the tape.



2

Press the Tuner call switch.



3

It will function as a tuner automatically during fast forward and rewind.

4

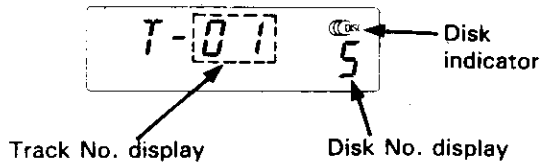
To release, press the tuner call switch again.

COMPACT DISC PLAY (CD-changer is used)

■ Functions of the KRC-610

COMPACT DISC PLAY

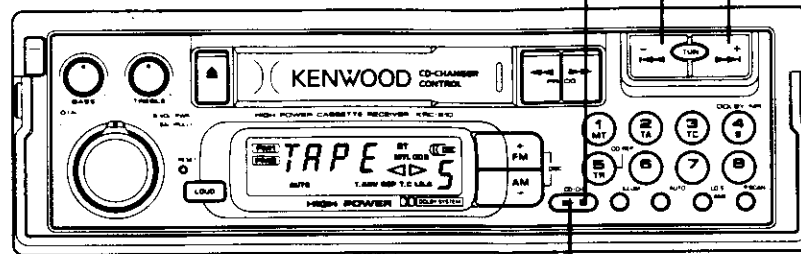
Press the CD-CH switch. (The DISK indicator lights and the CD play starts.)



AHEAD/BACKWARD (at high speed)

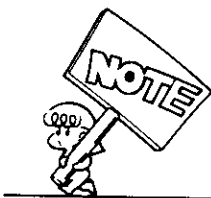
Operation	Press
Ahead	⏩ and hold.
Backward	⏪ and hold.

The Ahead/Backward play is released as soon as the finger is removed from the switch.



TO STOP CD PLAY

Press the CD-CH switch. (The DISC indicator disappears and the CD play stops.)



At the end of the disc

When disc reaches the end of the last selection of the next disc starts automatically. At the end of the last disc, the unit will go back to the beginning of the first disc, and the play will restart.


To playback a tape

To playback a tape during CD play, first, stop the CD play, then, put a tape into place.

TRACK/DISC SEARCH (CD-changer is used)

■ Functions of the KRC-610


BACKWARD TRACK SEARCH

Tap the  switch successively until the Track No. display shows the desired track No.



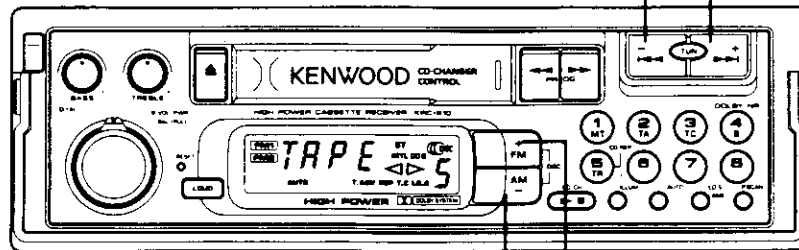
Track No. display

FORWARD TRACK SEARCH

Tap the  switch successively until the Track No. display shows the desired track No.

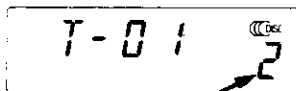


Track No. display



BACKWARD DISC SEARCH

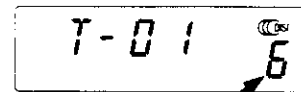
Tap the Disc - switch successively until the Disc No. display shows the desired disc No.



Disc No. display

FORWARD DISC SEARCH

Tap the Disc + switch successively until the Disc No. display shows the desired disc No.



Disc No. display



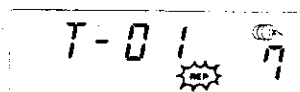
- If Backward Track Search is initiated while track No. 1 is being played, the play position always returns to the beginning of track No. 1.
- If Forward Track Search is initiated while the last track of a disc is being played, no operation takes place.
- The Disc No. display of No. 10 Disc is "0".

TRACK REPEAT (CD-changer is used)

■ Functions of the KRC-610

1

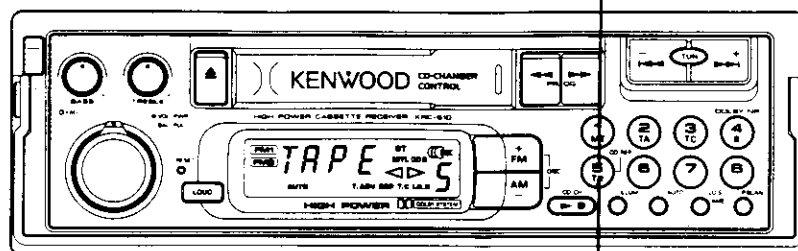
Press the Track repeat switch.



ON

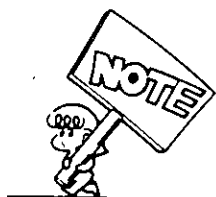
2

The track being played is played repeatedly.



3

To release, press the Track repeat switch again.

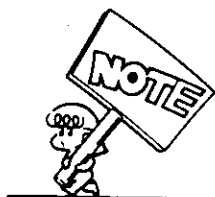
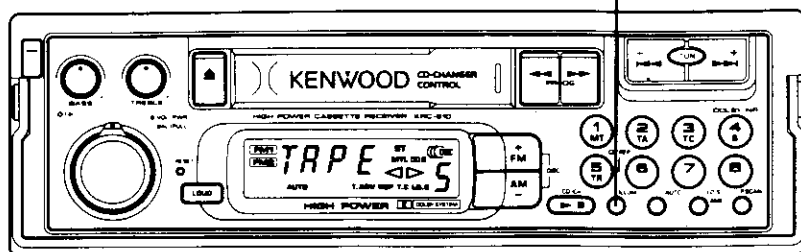


- Ahead/Backward CD Play (at high speed) cannot be initiated during TRACK REPEAT.

SELECTABLE ILLUMINATION

- Illuminations can be changed to fit the type of car or to suit your own taste.

Every time the Illumination switch is pressed, it will switch over between the colors of green and orange.



< KRC-610 only >

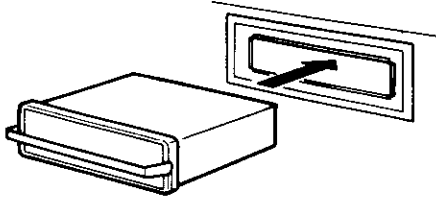
- Keeping connected the Dimmer control supply lead of the Detachable case ①, the illumination become dark synchronized with the car's headlight.
Even during the power is OFF, turning ON the car's head light control the illumination lights up.

INSERTION/REMOVAL OF UNIT

■ Insert the unit

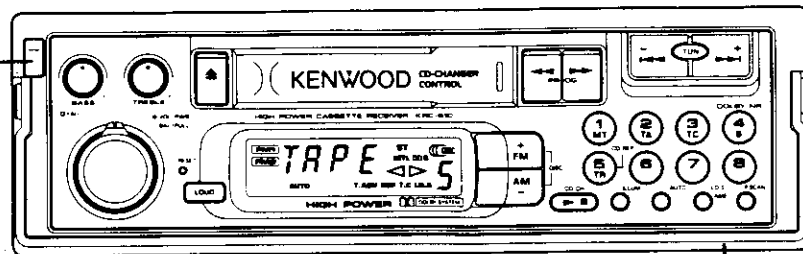
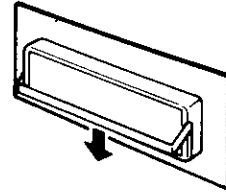
1

Insert the unit into the detachable case.



2

Lower the handle down to the bottom.



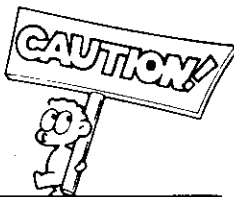
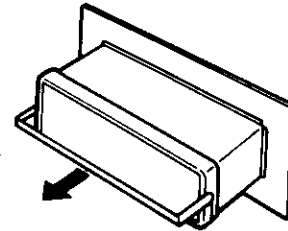
■ Remove the unit

1

Press the T.P.C. button.
Lift the handle.
(The handle lock is released and power is OFF.)

2

Hold the handle and pull it out.



- Be sure to eject the cassette tape before removing the unit.

CHANNEL SPACE SELECTION

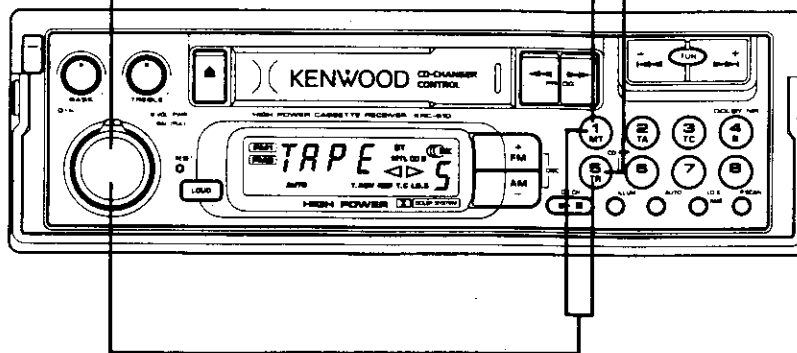
- The KRC-610/KRC-510 has a channel space select function. Two spacing frequencies are available for both FM and AM, 200 kHz or 50 kHz for FM, and 10 kHz or 9 kHz for AM.

1

Turn the power OFF.

2

Keep on pressing the Preset station switch of "1" and "5"

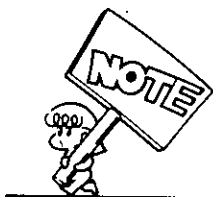


3

Turn ON the power while engaged in the operation of 2. (Channel space will turn to 50 kHz for FM and 9 kHz for AM.)

4

To bring it back the home position, carry out operations of 1-3 again. (Channel space returns to 200 kHz for FM and 10 kHz for AM.)



- When the channel space is changed, the memorized contents are stored.
- The channel space selection is not used in United States or Canada.

CARE AND MAINTENANCE

Notes on handling tape

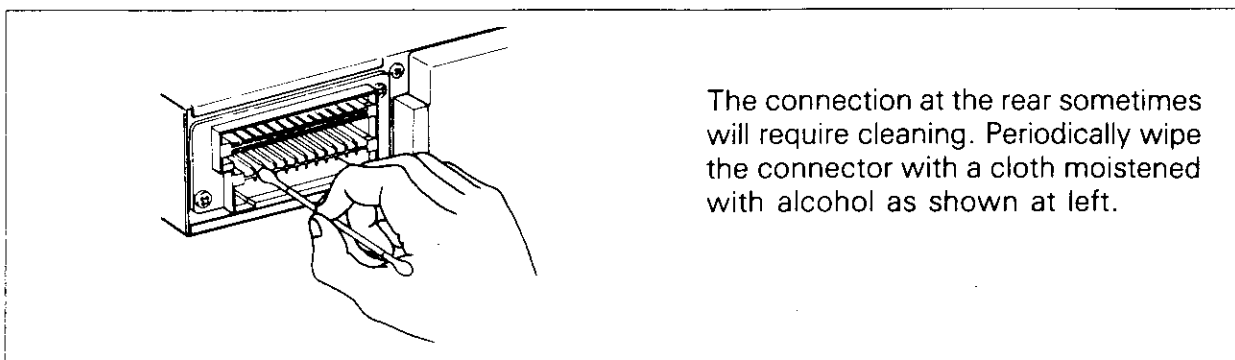
- Before loading a cassette, check the tape for slack. If there is slack tape, remove it using a pencil to turn one of the spools in the cassette shell.
- Do not expose the cassette tape to direct sunlight. Leaving a cassette at high temperature or humidity can deform the cassette shell or tape.
- 120-minute tape is very thin. Avoid its use, because it can easily be twisted around the pinch roller.

Head cleaning

Magnetic particles from the tape adhere to the head surface after a long period of use, resulting in noise and poor quality sound. Clean the head with cleaning tape available at your KENWOOD dealer. And follow the directions with the head cleaner.

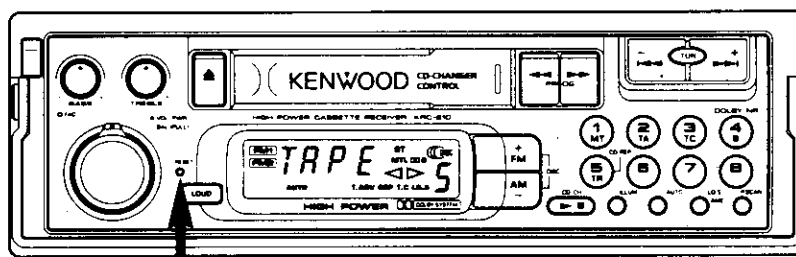
CAUTION:

- The KRC-610/KRC-510 includes a lithium backup battery to retain memory in the microprocessor. If the unit can no longer retain its memory, this lithium battery may have been discharged. In this case, bring the unit in to our authorized service center. This backup lithium battery life is estimated at about 7 years.



<KRC-610>

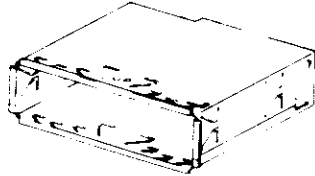
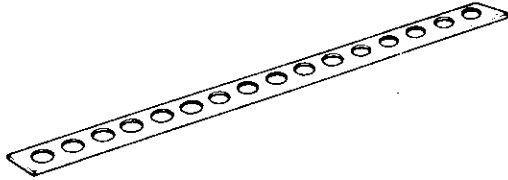

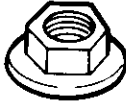
If your CD-changer malfunctions or operates abnormally, first press the Reset button. If the malfunction persists, leave the set as it is and please call your KENWOOD dealer.



Reset button

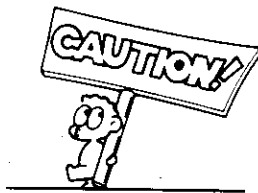
ACCESSORY AND INSTALL MANNER

■ ACCESSORY

No.	Part name	External View	Number of units
①	Detachable case		1
②	Metal mounting strap		1
③	Hex. Bolt (M5 × 20)		1
④	Hex. nut (M5)		2

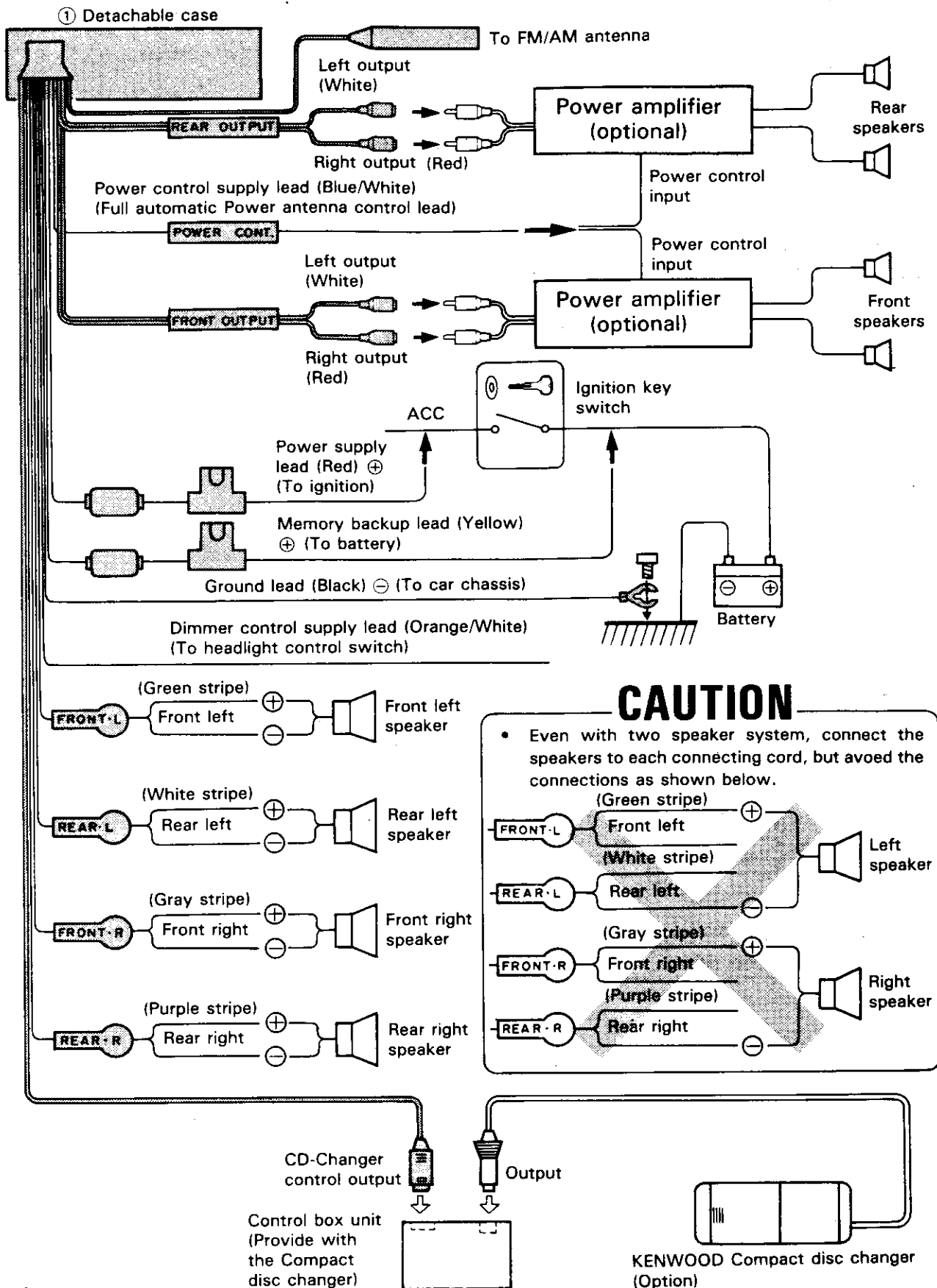
■ INSTALL MANNER

1. Before installation and wiring, remove the (–) terminal of the battery to prevent short-circuiting.
2. Connect the input and output cords of the system.
3. Connect the ground to the metal chassis of the car.
4. Connect the back-up power supply lead (yellow).
5. Connect the accessory power lead (red).
6. Install the set and after confirming the installation and wirings are correct, connect the (–) terminal of the battery.

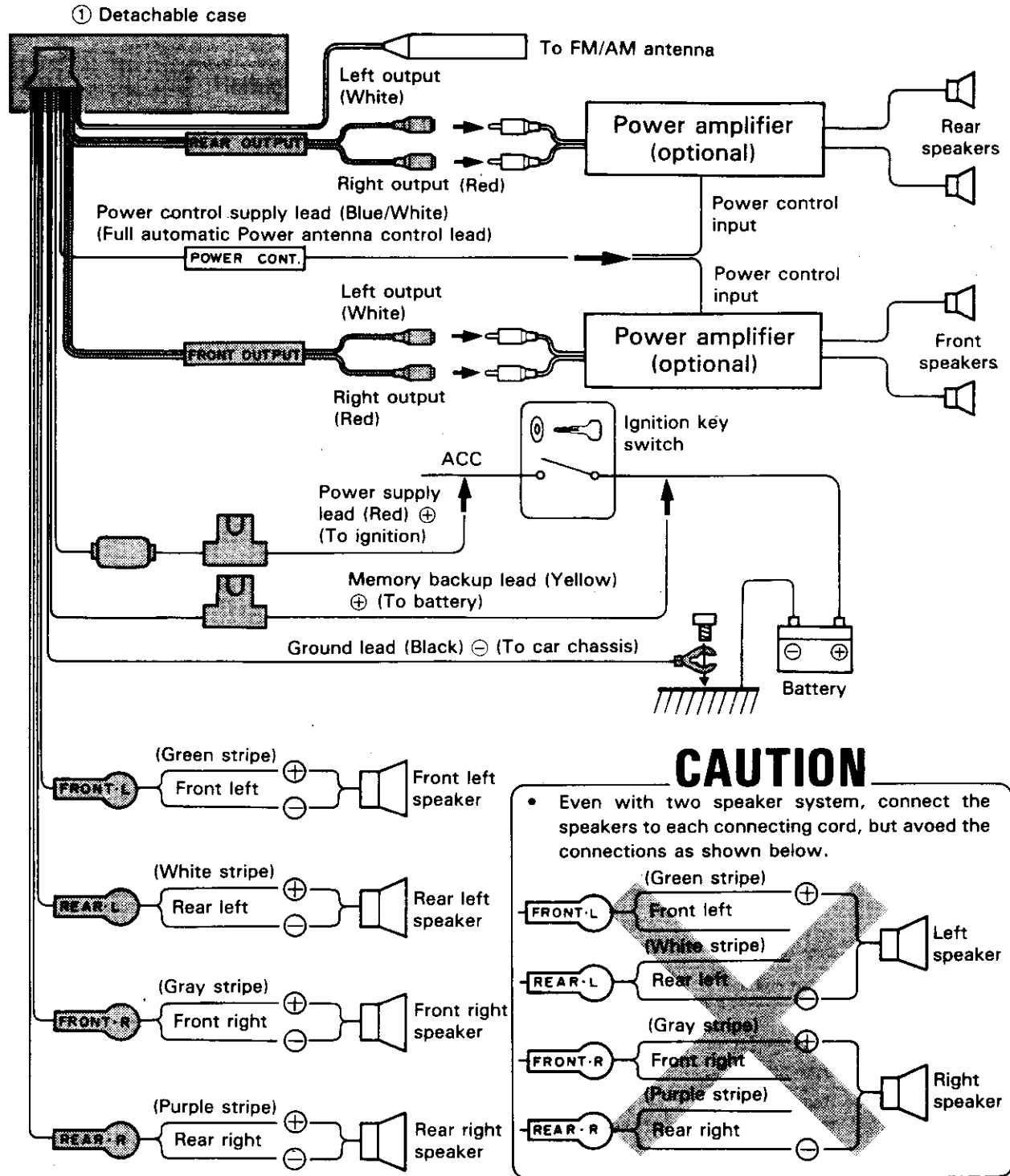


- If a fuse is blown, first check that the associated wires are not short-circuited then replace the fuse with a new one having the same capacity.
 - Secure unconnected wires properly so that they do not contact the vehicle chassis.
 - Do not remove the caps attached to the unused terminals.
- As the unit uses BTL output, always connect the without stripe speaker wires to the (–) terminals of the speaker systems. Never let the (–) speaker wires touch and never connect them to the chassis (ground). Do not let the speaker terminals come into contact with the chassis (ground). Insulate any unused output wire to prevent a short circuit.

CONNECTIONS (KRC-610)

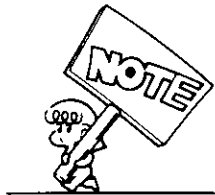
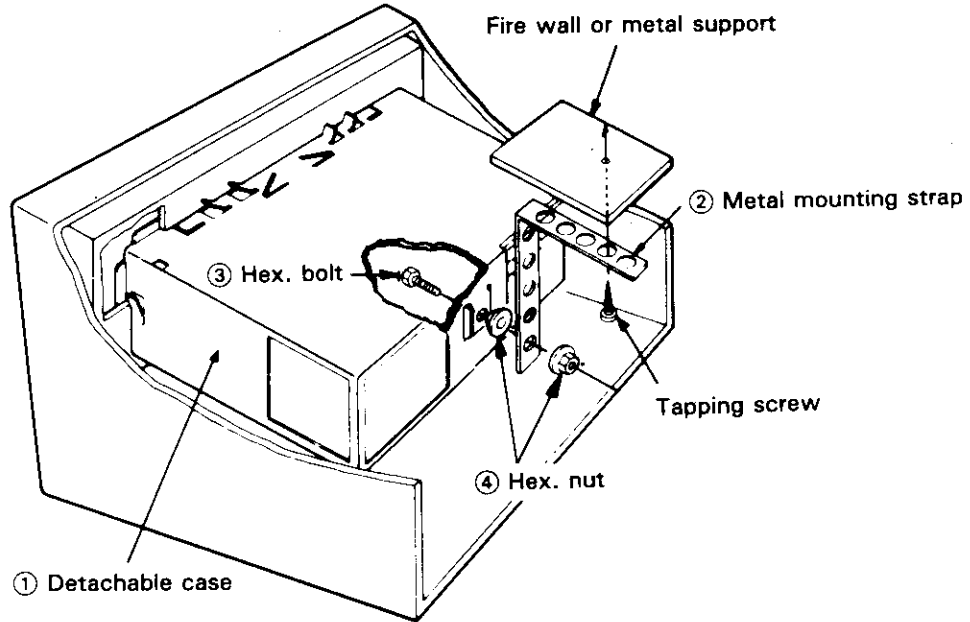


CONNECTIONS (KRC-510)



INSTALLATION

Insert the detachable case into the console and clamp with the claws. If the detachable case cannot be inserted, cut off the console with a file.



- If an "ELECTRONIC CHASSIS LOCK" (optional) is to be used with this unit, then, buy a "CK-50A".

TROUBLESHOOTING GUIDE

What often appears to be a malfunction is often due to user error in operation or connection. When trouble occurs with your unit, please check the following before calling for service.

Symptom	Cause	Remedy
No sound one channel	The balance/fade control is extremely rotated to one side.	Adjust the balance/fade control.
Poor reception	The antenna is not extended.	Extend the antenna.
Tonal quality is inferior.	Head is stained.	Carry out head cleaning.
Tape creaks.		

■ When the compact disc autochange is connected:

Symptom	Cause	Remedy
CD play does not start.	Power switch is not turned ON.	Turn the power switch ON, then press the CD-CH (▶■) switch.
The specified disc is not played and the next disc is played.	<ol style="list-style-type: none"> 1. The specified disc is too dirty. 2. The disc is placed upside down. 3. Two discs are set in the same position. 4. The specified disc is placed in a position with a different number. 5. The disc is damaged or scratched seriously. 	<ol style="list-style-type: none"> 1. Clean the disc. 2. Eject the magazine and re-insert the disc correctly. 3. Eject the magazine and set each disc correctly. 4. Eject the magazine to check the disc number and the position number, then specify again. 5. Play other discs.
No sound is output while the changer indicator is shown.	<ol style="list-style-type: none"> 1. Volume is set to the minimum level. 2. The incorporated microcomputer is not operating correctly. 3. System connections are made imperfectly (power cord, connection of pre-out jacks, or speaker connections, etc.). 	<ol style="list-style-type: none"> 1. Increase the volume level. 2. Press the reset switch of this unit. 3. Check the connections according to the instruction manual. If anything is wrong, reconnect it correctly.

Other than the previous, this unit displays various error indications to show the following messages.

E-00: The CD-changer control output is not connected.

E-01: No disc magazine in the changer, or the magazine is not set completely.

E-02: No discs in the disc magazine.

E-04: Disc is too dirty.

Condensation has occurred on the disc, or water drops are on the disc.

Disc is set upside down.

E-99: Operation incorrect due to something being defective.

Press the reset switch on this unit.

If the "E-99" indication does not disappear with this operation, consult your nearest KENWOOD Service Agent.

E-0d:

- When the temperature exceeds 60°C, the protection circuit is engaged to stop any operation. At this time, this indication will appear.
- Open a window or turn the air-conditioner ON to lower the temperature. After a while, this indication will go out.
- This indication also appears for several seconds when making connections, or when the reset button is pressed.

E-0E: This is displayed when the condition of "E-0d" is released.

load: This indication appears while a disc is being changed inside the changer.

CAUTION: Track repeat cannot be initiated while the load indication is displayed.

* When no indicator appears in this unit and only illumination appears, the cable connector may nearly be disconnected.

SPECIFICATIONS

Specifications subject to change without notice.

FM Tuner Section

Frequency Range (200 kHz space)	87.9 MHz ~ 107.9 MHz
(50 kHz space)	87.5 MHz ~ 108.0 MHz
Usable Sensitivity	12.0 dBf (1.1 μ V/75 ohms)
50 dB Quieting Sensitivity	15.2 dBf (1.6 μ V/75 ohms)
Frequency Response (± 3 dB)	30 Hz ~ 15 kHz
Signal to Noise Ratio	73 dB
Selectivity	100 dB
Capture Ratio	1.5 dB
Image Response Ratio	70 dB
IF Response Ratio	120 dB
Stereo Separation (1 kHz)	40 dB

AM Tuner Section

Frequency Range (10 kHz space)	530 kHz ~ 1,700 kHz
(9 kHz space)	531 kHz ~ 1,611 kHz
Usable Sensitivity	28 dB (30 μ V)

Cassette Deck Section

Tape Speed	4.76 cm/sec
Wow & Flutter	0.12% (WRMS)
Fast Winding Time (C-60)	100 sec
Frequency Response (120 μ s)	30 Hz ~ 16 kHz (± 3 dB)
(70 μ s)	30 Hz ~ 18 kHz (± 3 dB)
Stereo Separation (1 kHz)	43 dB
Signal to Noise Ratio (Dolby NR OFF)	56 dB
(Dolby-B NR ON)	65 dB

Audio Section

Max. Output Power	25 W + 25 W
Power Output (10% THD, 1 kHz, 4 ohms)	20 W + 20 W
(1% THD, 30 Hz-20 kHz, 4 ohms) ...	15 W + 15 W
Tone Action	Bass: 100 Hz ± 10 dB
	Treble: 10 kHz ± 10 dB
Preout level/load	1000 mV (MAX.)/10 kohms

General

Operating Voltage	14.4 V (11 ~ 16 V allowable)
Current Consumption	6 A at Rated Power
Body Size	182 x 52 x 159 mm
	(7-1/6 x 2 x 6-1/4 in.)

[KRC-610]

Weight	4.6 lb (2.1 kg)
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[KRC-510]

Weight	4.4 lb (2.0 kg)
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