

KENWOOD

KCA-R42FM

CONTROLLER FOR DISC AUTO CHANGER / FM MODULATOR SYSTEM

INSTRUCTION MANUAL

CONTROLEUR POUR CHANGEUR AUTOMATIQUE DE DISQUE / SYSTEME A
MODULATION DE FM

MODE D'EMPLOI

CONTROLADOR PARA CAMBIADOR AUTOMATICO DE DISCO / SISTEMA DE MODULADOR FM

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 FM modulator system.**

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 KCA-R42FM Serial number _____

©PRINTED IN JAPAN B64-1930-00 (K/M)
'01/12 11 10 9 8 7 6 5 4 3 2 1 '00/12 11 10

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Safety Precautions

▲WARNING

Take the following precautions to prevent fire and avoid personal injury:

- When extending the ignition wire, battery wire, or ground wire, use 0.75mm² (AWG18) or larger automotive grade wire to avoid wire deterioration or damage to the covering.
- Check that no metal objects (coins, tools, etc.) are left inside the unit to avoid short circuits.
- If you smell or see smoke, turn the power off immediately and consult your Kenwood dealer.
- 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

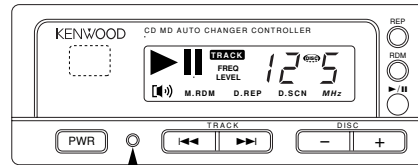
Take the following precautions to keep the unit in proper working order.

- Be sure the unit is connected to a 12V DC power supply with a negative ground connection.
- Do not open the top or bottom cover.
- Do not install the unit in places it is exposed to direct sunlight, high heat or humidity, water may splash over it, or dust exists.

- 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. on hot places such as above the dashboard.
- To prevent a short circuit when replacing a fuse, first disconnect the wiring harness.

NOTE

- If you have difficulty in installing this unit in your vehicle, contact your Kenwood dealer.
- If it doesn't seem to be working properly, first press the Reset button. If the malfunction persists, consult your Kenwood dealer.



Reset button

- Some car stereos cause the sound of the tuner to make for a moment when an engine is activated.
- The reception of the tuner may be reduced a little if the KCA-R42FM is used.
- If the sound is lower than the tuner sound, raise up the volume level of the CD/MD with using the receiver.
- Do not use your own screws. Use only the screws provided. If you use the wrong screws, you could damage the unit.

O-N selection switch

When the disc changer with the O-N selection switch is connected, set the switch to "O" position to operate the disc changer mode.

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 use hard cloths or paint thinner, alcohol, or other volatile solvents. These may damage external surfaces or remove indicator characters.

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 Class B digital apparatus complies with Canadian ICES-003.

Safety Precautions

▲CAUTION

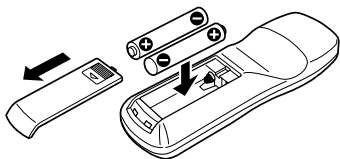
Do not set the remote on hot places such as above the dashboard.

Loading and Replacing the Batteries:

Use two "AAA" 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

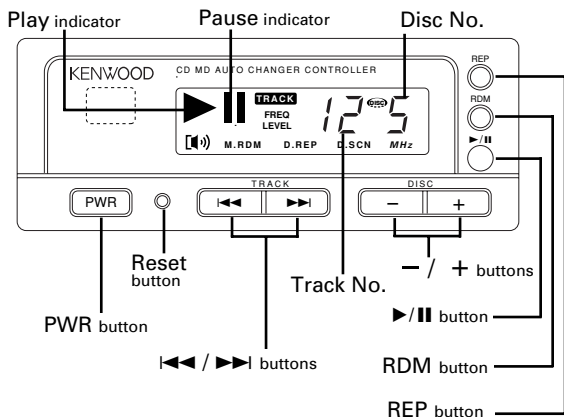
- The provided batteries are intended for use in operation checking, and their service life may be short.
- When the remote controllable distance becomes short, replace both of the batteries with new ones.

NOTE

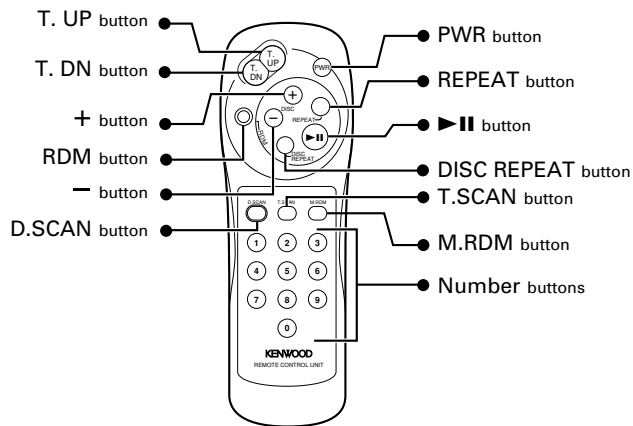
A portion of the operations may not be possible, depending on the unit that is connected.

Buttons

Display Unit



Remote Control



External disc control features

Set the car radio FM station to 88.3 MHz. See page 9 for more information on Changing the Transmission Frequency.

Playing CDs/MDs

Playing CDs/MDs :

Press the PWR button.

The power goes ON and the CD/MD play start. When the unit receives any signal from the remote controller, the mark lights up.

When the player reaches the end of the last track on the disc you are playing, it will shift automatically to the first track on the next disc. When the player plays the last disc, it will return to the first disc.

The play display blinks during disc replacement.

Disc No. 10 is displayed as "0".

Power off :

Press the PWR button.

The power goes OFF.

To listen to the radio :

Press the PWR button.

The FM modulator is turned OFF and the radio can be heard.

Pause :

Press the (▶/|| ▶/||...Remote) button.

Disc play is temporarily paused.

If you press the switch once more, the disc is replayed from the paused part.

NOTE

- Be sure to turn down the volume whenever you listen to the radio or a cassette tape after stopping the disc play.
- During the disc play is being conducted, you are not able to receive ordinary radio broadcasting because antenna output is switched into disc player's side.
- Only the two least significant digits are displayed for the tunes of the 100th or later.

External disc control features

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 depending on the model being connected. Instead, the reverse play function is cancelled when it reaches the beginning of a track, at which point normal play automatically resumes.

Track Search

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

Making a Reverse Track Search:

Press the ◀◀ (T. DN...Remote) 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 ◀◀ (T. DN...Remote) button whilst listening to track 1 only searches 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 ►► (T. UP...Remote) 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 Search

Search forwards or backwards through the discs in a disc changer until you reach the one that you want to listen to.

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.

Direct Track Search

Function of Remote

Using the remote control, make direct input of the track number that you want to listen to.

- Using the number buttons on the remote control, enter the number of the track that you want to listen to. The selected track number blinks in the display for 10 seconds. If you make no further input in the 10-second period, the number entry mode will automatically be cancelled.
- Press either the T. DN or T. UP button whilst the track number is blinking. The track specified in step 1 starts playing.

Cancelling Direct Track Search During Its Operation:

Press the ►|| button.

NOTE

For the entry of the 100th or higher tunes, enter three digits for search while only two digits are displayed.

Direct Disc Search

Function of remote

Using the remote control, make direct input of the disc number that you want to listen to.

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

NOTE

- Input "0" to select disc #10.
 - If you enter more than two numbers all at once, a search will be made only of the last number entered.
- 2 Press either the + or - button whilst the number inputted is blinking.
The disc specified in step 1 starts playing.

Canceling Direct Disc Search During Its Operation :

Press the ►|| button.

Track Repeat

Repeat playing the track currently being listened to.

To repeat track :

Press the REP (REPEAT...Remote) button.
The REP indicator will appear on the display and the Track repeat function will turn on.
The same track is played repeatedly.

To cancel :

Press the REP (REPEAT...Remote) button.
The REP indicator disappears and the Track repeat function is cancelled.

NOTE

When disc play stops, Track repeat is cancelled.

Disc Repeat

Function of remote

Repeat playing the disc currently being listened to.

To repeat disc :

Press the DISC REPEAT button.
The D.REP indicator will appear on the display and the Disc repeat function will turn on.
The same disc is played repeatedly.

To cancel :

Press the DISC REPEAT button.
The D.REP indicator disappears and the Disc repeat function is cancelled.

NOTE

When disc play stops, Disc repeat is cancelled.

Track Scan

Function of remote

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 T.SCAN button.
The SCN indicator will appear on the display and the player will play the first 10 seconds of each track in session.

To select a track :

Press the ►|| or T.SCAN button.
The SCN indicator disappears and the Track scan is cancelled.
Normal playback starts.

NOTE

- When disc play stops, Track scan is cancelled.
- When all tracks on the disc you are listening to are scanned, Track scan is cancelled.

External disc control features

Disc Scan

Function of remote

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.SCAN button. The D.SCN indicator will appear on the display and the player will play the first 10 seconds from each disc in succession.

To select a disc :

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

NOTE

When disc play stops, Disc scan is cancelled.

Random Play

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

- 1 Press the RDM button to switch the random play function on and off.
The RDM indicator lights up when the random play function is turned on.
The display of the track number changes continuously as the next track is being selected.
When the track has been selected, play starts.
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 the random play function, the next disc on the changer starts playing (with the random play function still turned on).

- 2 To change the track being heard, press the ►► (T.UP...Remote) button.
Another track is selected and played.

NOTE

The random play function is cancelled when you stop playing a disc.

Magazine Random Play

Function of remote

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

- 1 Press the M.RDM button to switch the magazine random play function on and off.
The M.RDM indicator lights up when the magazine random play function is turned on.
The display of the disc and track numbers change continuously as the next track is being selected.
When the disc/track has been selected, play starts.
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 T.UP button.
Another disc/track is selected and played.

NOTE

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

Changing the Transmission Frequency

1 To set the frequency change mode

Hold down the REP button for more than three seconds. The FREQ indicator will light up and the currently set frequency will be displayed.

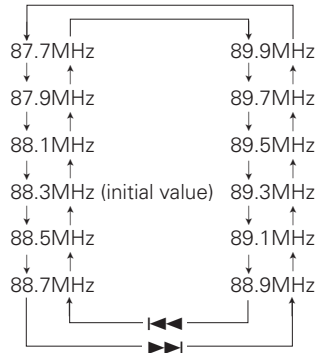


NOTE

- The initial value is 88.3MHz.
- If this function is on, the functions other than power on / off, reset, and modulation level / dynamic control, cannot be operated.
- This function is not available when the random play, repeat play, or scan play function is on. Before using this function, cancel the other functions. This function cannot be used while loading a disc (while the play indicator is blinking).

2 To change the frequency

Press the ◀◀ or ▶▶ button on the display unit. The transmission frequency will change as follows :



To cancel :

Hold down the REP button on the display unit for more than three seconds. The FREQ indicator will go off and the frequency change will take effect. The frequency change mode is automatically cancelled if you do nothing for 15 seconds.

External disc control features

Modulation level / Dynamic control

1 To set the control mode

Hold down the RDM button on the display unit for more than three seconds.

The LEVEL indicator will light up and the currently set modulation level will be displayed.

Modulation level



Number for prevention of distortion setting

NOTE

- If this function is on, the functions other than power on / off, reset, and changing the transmission frequency, cannot be operated.
- This function is not available when the random play, repeat play, or scan play function is on. Before using this function, cancel the other functions. This function cannot be used while loading a disc (while the play indicator is blinking).

2 To change the modulation level

Press the ◀◀ or ▶▶ button on the display unit.

Each time the ◀◀ or ▶▶ button is pressed, the modulation level changes in the range from 1 to 4. As the number increases, the modulation level increases. The initial setting is 2.

NOTE Dynamic control

The unit comes with the prevention of distortion function to reduce sound distortion.

If the sound is distorted severely, press the + button on the display unit and then set the function to "2" (ON). If the prevention of distortion function is set to "2" (ON), the sound extension is reduced.

The initial setting is "1" (OFF).

CAUTION

If a disc with a high recording level is used, the sound may distort even if the prevention of distortion function is set to "2" (ON). In this case, reduce the modulation level.

To cancel :

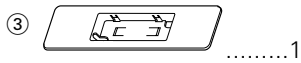
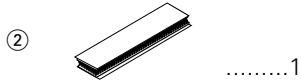
Hold down the RDM button on the display unit for more than three seconds.

The LEVEL indicator will go off and the modulation level change will take effect. The control mode is automatically cancelled if you do nothing for 15 seconds.

Accessories

External view

..... Number of items



▲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.

Installation Procedure

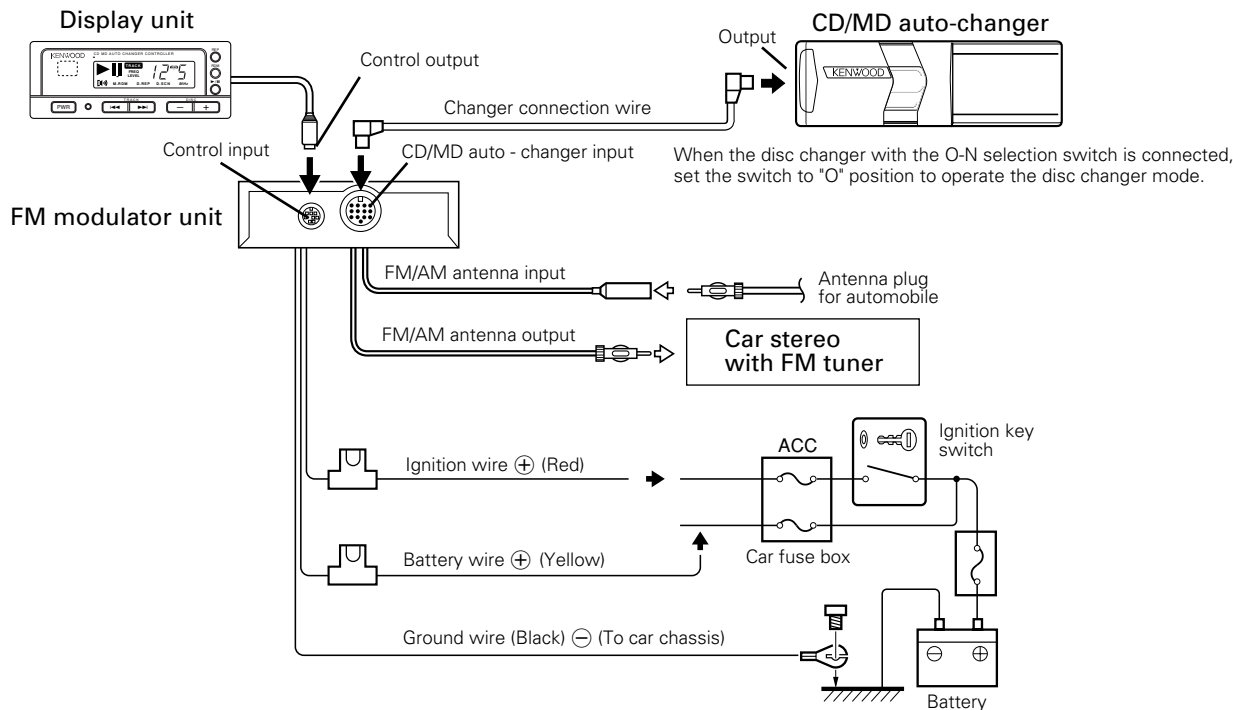
1. To prevent a short circuit, remove the key from the ignition and disconnect the ⊖ battery.
2. Make the proper input and output wire connections for each unit.
3. Connect the wiring harness wires in the following order: ground, battery, ignition.
4. Install the unit in your car.
5. Reconnect the ⊖ battery.
6. Press the reset button.

▲WARNING

When drilling a hole in the car chassis to install the unit, check first that nothing is on the other side.

▲CAUTION

- 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.
- 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.



▲WARNING

To prevent fire when the ignition wire (Red) or battery wire (Yellow) is short-circuited by coming into contact with the vehicle chassis (ground), only connect the power supply after making the fuse box connections.

▲CAUTION

Be sure to press the reset button after installation.

NOTE

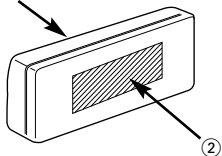
Do not install an antenna of radio equipment or distribute the antenna wire near the changer output wire, for this could cause malfunction with this unit.

Installation

■ Installation of Display unit

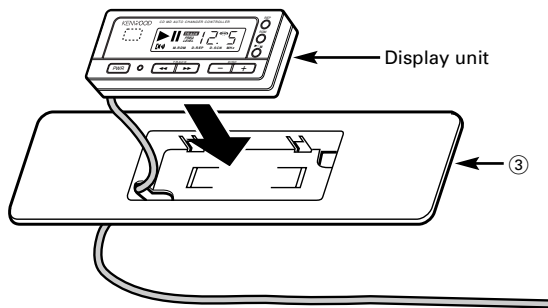
- Installation without using the trim mount plate ③

Display unit



Attach one velcro to the slanted-line of the the display units as shown above, and attach the other velcro to the parts where you wish to attach the display units. Then, put velcros together and install the display units.

- Installation using the trim mount plate ③

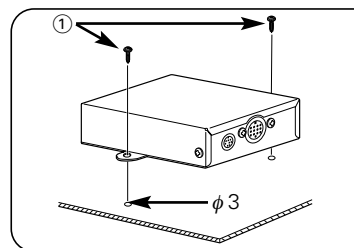


Pass the wire from the display unit through the hole on the trim mount plate and push fit the display unit into the trim mount plate until it locks.

▲CAUTION

- Be sure not to place the unit on such place as where it is exposed to direct sunlight and temperature eventually rises. It results in the deformation of the case.
- Depending on the installing location, the display unit may not be able to receive the signals from the controller unit. Install them after confirming that the signals can be received.
- Install the unit in such a way that it does not disturb driving.

■ Installation of FM modulator unit



▲CAUTION

Take sufficient care so that the wires are not caught under the seat. If they are caught, they may break.

Install the FM modulator unit beneath the front seat using Metal fixture and Bind head screw as shown in the above figure.

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 is not turned on.	The wiring harness fuse blows.	Check wires for shorts, then replace the fuse with one of with the same rating (shown on the case).
No sound or sound is low.	The O-N selection switch of the disc changer is not set properly.	Set the O-N selection switch to "O" position.
	The volume level is minimum.	Raise the volume level.
	The fader or balance is set to one side.	Adjust the fader and balance.
	The input/output wire or wiring harness is connected incorrectly.	Connect the input/output wire or wiring harness correctly. See "Connecting Wires to Terminals" (Page 12).
The unit does not work properly when a button is pressed.	The microcomputer malfunctions.	Press the Reset button of the display unit.
Sound quality is poor. (Sound distortion)	The volume level is too high.	Use the appropriate volume level.
CD/MD play does not start.	CD/MD auto-changer input is not connected to the unit.	Connect the CD/MD auto-changer input to the unit.
	Power button is not turned ON.	Turn the power button ON.
The specified disc is not played; a different disc is played instead.	The specified disc is very dirty.	Check and, if possible, clean the disc.
	The disc is loaded upside down.	Eject the disc magazine and insert the disc correctly.
	Two discs are inserted in a slot.	Eject the disc magazine and insert the discs correctly.
	The number of the slot into which the disc is inserted is different from the number of the specified disc.	Eject the disc magazine and check the number of the specified disc.
	The disc is severely damaged.	Use another disc.

Troubleshooting guide

PROBLEM	POSSIBLE CAUSE	SOLUTION
Sound skips due to vibration.	Something is touching the CD/MD auto-changer.	Keep it away from the CD/MD auto-changer.
	The disc is dirty or damaged.	If sound skips at the same part, the disc is faulty. Check and, if possible, clean the disc.
	The unit is mounted at a slant.	Mount the unit so that is level.
	Changer unit is mounted in an unstable place.	Mount the unit in a stable place.
	The angle adjustment switches are set improperly.	Set the angle adjustment switches to the correct positions.
Nothing appears on the display.	The control output of the display unit is not connected properly.	Connect the control output properly.
Sound distortion.	A disc with a high recording level is used.	Change the Modulation level / Dynamic control setting.(Page 10)
Sound quality is poor.	The recording of the disc is poor.	Try playing another disc. If the sound is good, the fault was with the original disc.
	The disc is dirty or damaged.	Check and, if possible, clean the disc.
No sound is heard even though the information concerning the CD/MD auto-changer is displayed.	Volume is set to minimum level.	Raise the volume level.
	The microcomputer does not function correctly.	Press the Reset button of the display unit.
	The system is not connected properly.	Connect the system properly. See "Connecting Wires to Terminals" .(Page 12)
The specified track is not played.	The player is set to Random Play / Magazine Random Play.	Turn off Random Play / Magazine Random Play.

Troubleshooting guide

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

- 01 E:** No disc magazine has been loaded in the changer. The disc magazine is not completely loaded.
⇒ Load the disc magazine properly.
- 02 E:** No disc has been loaded in the disc magazine.
⇒ Load a disc into the disc magazine.
- 04 E:** No disc has been loaded in the disc magazine.
⇒ Load a disc into the disc magazine
The CD/MD is quite dirty. The CD/MD is upside-down.
The CD/MD is scratched a lot.
⇒ Clean the CD/MD and load it correctly.
- 10 E:** Nothing has been recorded on the MD.
⇒ The next MD will automatically be played.
- 11 E:** No tracks are recorded on the MD, although it has a title.
⇒ The next MD will automatically be played.
- 12 E:** Now reading the data in the disk.
⇒ Normal playback is resumed upon completing the reading of the disk data.
- 77 E:** The unit is malfunctioning for some reason.
⇒ Press the reset button on the unit. If the "77E" code does not disappear, consult your nearest service center.
- 99 E:** Something is wrong with the disc magazine. Or the unit is malfunctioning for some reason.
⇒ Check the disc magazine. And then, press the reset button on the unit. If the "99E" code does not disappear, consult your nearest service center.
- 0d E:** 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.

Modulating Frequency (200KHz STEP)	87.7, 87.9, 88.1, 88.3, 88.5, 88.7, 88.9, 89.1, 89.3, 89.5, 89.7, 89.9 MHz
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General

Operating Voltage	14.4 V (11 ~ 16 V)
Current consumption	1.4 A
Operating Temperature	-10 ~ 50 °C

Size (W x H x D)

Controller	50 x 145 x 24 mm (1-15/16 x 5-11/16 x 15/16 in.)
Display unit	105 x 40 x 18 mm (4-1/8 x 1-9/16 x 11/16 in.)
FM modulator unit	150 x 30 x 80 mm (5-7/8 x 1-3/16 x 3-1/8 in.)
Trim mount plate	188 x 58 x 2 mm (7-3/8 x 2-5/16 x 1/16 in.)

Weight

Controller	60 g (0.14 lbs)
Display unit	125 g (0.28 lbs)
FM modulator unit	600 g (1.3 lbs)

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