



Control Unit For 6 discs CD-
Changer, Car Stereo Radio RDS
E.O.N. FM/MW/LW(optional)
With Autoreverse Cassette
Player.

OWNER'S MANUAL

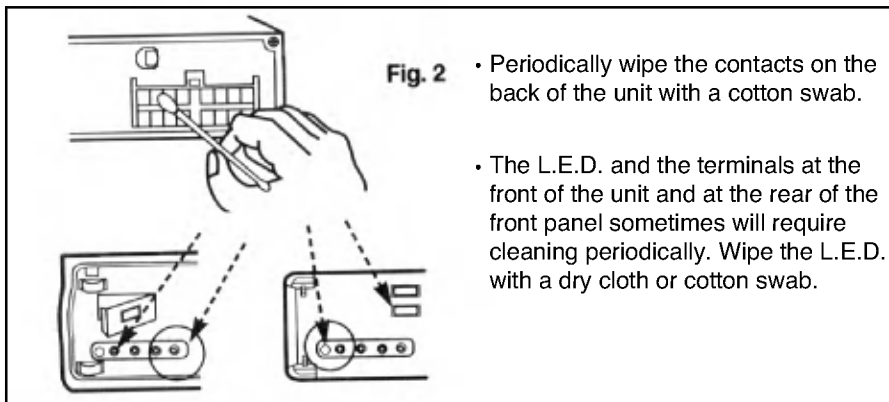
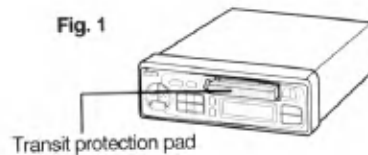
10/672/673

of this new unit,
OWNER'S MANUAL



CAUTION

- There is the transit protection pad in the cassette compartment. Be sure to remove the pad and push the eject button before operation.
- Be careful not to touch the left side panel of the unit when removing the unit from the installation sleeve, since it may be hot. On this side the cooling ribs are located.
- The unit is designed to operate only on 12 volt DC negative ground electrical system.
- When you replace the fuses, be sure to use a fuse of specified amperage for each wire as mentioned in chapter "Connections". Using a fuse of higher amperage could cause serious damage to the unit.



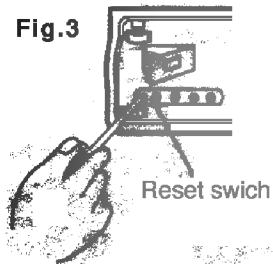
RESET Switch

Press the RESET switch.

If your unit shows abnormal symptoms such as the failure of the unit to power on, the lack of operation even when buttons are pushed, or abnormal display indications, Press the RESET switch more than 2 seconds with a thin pointed object, such as a pencil tip.

Since pressing the RESET switch erases all control settings, you will have to make the respective settings again afterwards. Settings are also erased when the car's battery is disconnected, as when replacing the battery, thus requiring settings to be made again after reconnection of the battery.

Note: Press the reset switch after the connection of wiring.



WIRE CONNECTIONS

Main connector

Connect the main connector to the female connector on the back of the car radio.

Antenna Connection

Insert the plug of the car antenna cable into the jack at the rear of the unit as shown on diagram of page 3.

Ground Connection

- Connect the black ground lead (3) to a metal part of the vehicle and secure it using the screw provided.
- If the connection is loose, or if the cord is connected to something other than a metal part of the car, noise or malfunction may result.

Power Supply Connection:

Connect the power cord terminals in the following way:

Power Supply Lead (2. Red): connect the red power supply wire to the 12V+ terminal controlled by the car ignition switch.

Memory Back-up Lead (1. Yellow): connect it directly to a 12V + terminal. The unit will not work if this lead is not connected.

Line Out Jack (9)

Connect the output LINE OUT, RCA x2 behind the car radio with the input LINE IN of an additional amplifier (if installed).

Power Antenna Lead/External Amplifier Remote Turn-on Lead

You will find a separate lead, blue (4) with a male terminal suitable to many automatic antenna. This lead is not to be used with non-automatic antenna.

If an automatic car antenna is used, when connecting the lead, the antenna will be automatically extended when the main switch is turned on.

This can also be used as a remote turn-on wire connection for amplifiers that have a remote sensing lead. Using this connection will allow simultaneous turning on/off of the radio and an external amplifier.

Connect the CD Changer

Your car radio works as control unit for a CD Changer which you can buy, if not yet done, later. The suitable cord (10) shown on Fig.4, will be provided together with the CD changer.

Connection Precautions

- Do not bring the connecting cords near places whose temperature will rise when the vehicle is driven.
- Be sure that the connectors are locked into position.

SPEAKERS CONNECTION

This stereo car radio is not designed to utilize the vehicle's chassis as the electrical return path from the speaker to the radio. Always use two conductor wire between each speaker and your stereo unit.

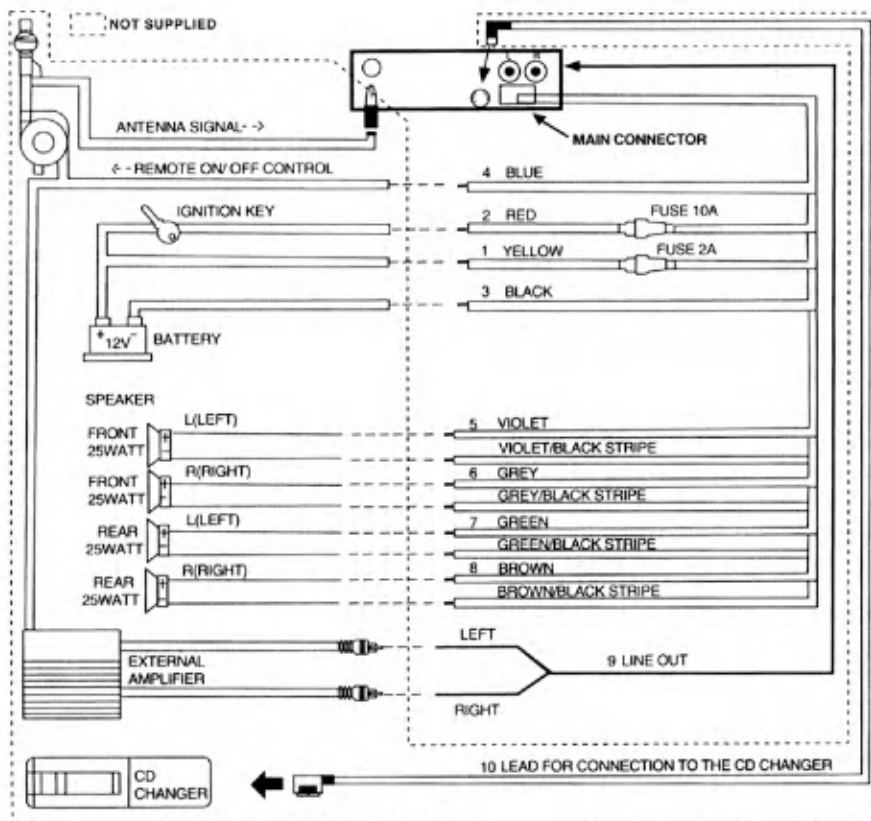
4-Speakers connection

Use only 4-Ohm impedance speakers. Refer to the following connections diagram

Precautions during connection

- Do not connect leads near parts which could overheat during car operation.
- Check all connections before switching on the car radio.
- Be sure no speaker's lead is connected to the metal chassis of the car.

Fig.4



INSTALLATION

PROCEDURE (Fig. 6/7)

1. Remove the case DIN-Sleeve (c) from the car radio (b).
2. Insert the DIN-Sleeve into the dashboard (d) and then fix it firmly by bending the claws with a screwdriver.
3. Connect the connector and the antenna to the car radio and slide it into the case DIN-sleeve.

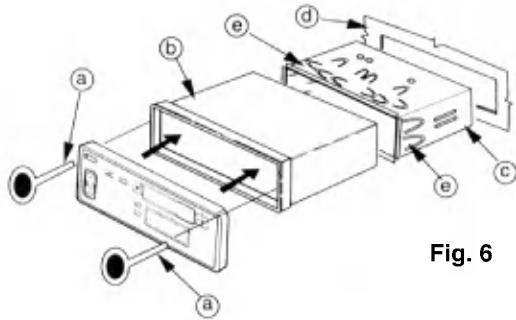


Fig. 6

TO RELEASE THE CAR RADIO:

Insert the extraction pivot (a) as shown in Fig.7 until you fix it into the sleeve (insert the extraction pivot up-slanting).

To release the car radio, pull the two pivots towards your.

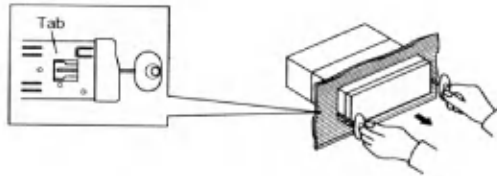


Fig. 7

NOTES:

- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest car audio dealer if installation requires the drilling of holes or other modifications of the vehicle.
- Do not use the front panel as a way of gripping the unit during installation and wiring. The front panel may come away and the unit may drop on the floor.
- If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance.



Fig. 8

LAYOUT OF CONTROLS

[TCC-670]

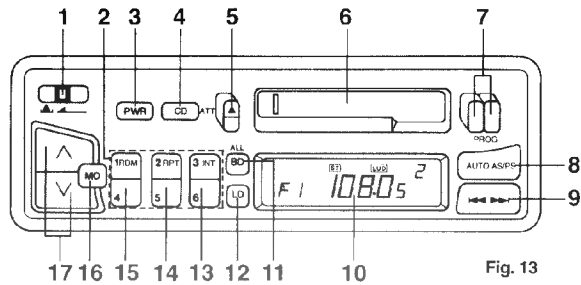


Fig. 13

[TCC-672]

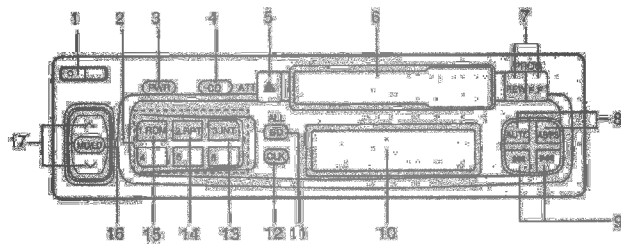


Fig. 13

[TCC-673]

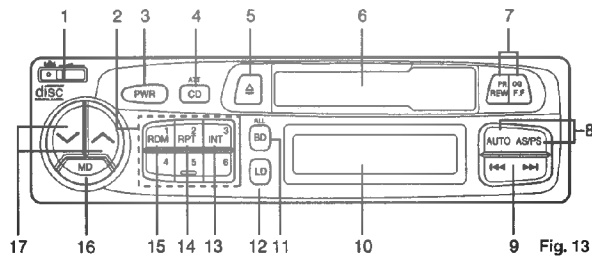
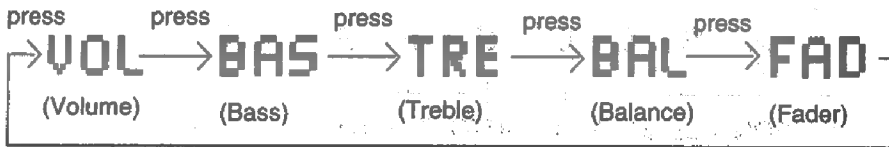


Fig. 13

- | | |
|--------------------------------------|--|
| 1. Front panel RELEASE Button | 10. LCD display |
| 2. PRESET Buttons (1 -6) | 11. BAND, ALL Button (BD, ALL) |
| 3. POWER Button (PWR) | 12. CLOCK, illumination Color (OPTIONAL) Button (CLK, COL) |
| 4. CD, ATT Function Button (CD, ATT) | 13. INTRO SCAN Button (SCAN) |
| 5. EJECT Button | 14. REPEAT Button |
| 6. Cassette Compartment | 16. MODHLOUDNESS Button (MD/LD) |
| 7. FastForward/Rewind/PROG. Buttons | 17. Level Buttons (V , A) |
| 8. AUTO, AS/PS Button | |
| 9. TUNING, SKIP/SEARCH Button | |

MODE SELECT BUTTON

Press the MODE button to change the control of volume, bass, treble, balance and fader.



LEVEL UP/DOWN BUTTONS (^ / v)

- After you have selected the proper mode by using the mode button, control the desired function by pushing level up/down (^/v) buttons within 3 seconds. After you finish selecting modes, the unit returns to the initial mode.
- Operating display in all modes:
A numeric display and bar display is converted by pushing the Level up/down (^/v) buttons, so you can see easily as shown below.

Function	Level	Display
VOL (Volume)	Zero → Max →	00, 02, 04 99, 100 Down up
TRE/BAS (Treble)/(Bass)	Low → Up →	-10, -8, ...-4, -2, 0, +2, +4... +8, +10 LOW up
BAL (Balance)	Left ← 1 → Right 10L 1 10R	Centre L=R
FAD (Fader)	Front ← 1 → Rear 10F 1 10R	Centre R=F

Loudness Function

Press the MD/LD button for more than 2 seconds, activates the loudness circuit which boots to compensate the human ear's lack of sensitivity to bass at low levels.

BUTTON ATT (attenuation)

Press to reduce the volume level temporarily.

VOLUME MEMORIZATION

If button PWR is kept pressed for more than 2 seconds when the car radio is switched on, the volume level of that moment will be memorized. Each time you switch the car radio on, that volume level is automatically presetted.

CD CHANGER OPERATION

If the CD changer is connected as described in sections concerning connection, proceed as follows:

1. Insert a CD in th.B magazine with the sticker upwards.
2. Insert the magazine into the CO changer.
3. Swich the car radio on.
4. Press button CD for more than 2 seconds to enable the CD functions; one of the discs will be automatically reproduced.
5. Press one of the buttons from 1 to 6 to select another CD.
6. Press one of the buttons **◀◀/▶▶** (forward or review) to select another except of music from the disc being played (Check that the AUTO indicator is not visualized).
7. When one of the **◀◀/▶▶** buttons is kept pressed, you will obtain the search/listening of a special point of the piece during rewind or forward. As soon as the button is released, reproduction will restart from that point.

Note: Remember that is not possible to listen to a CD when a tape is in. Eject it before listen to a CD.

■ Button RDM

Press for more than 2 seconds to listen to the pieces of a CD in random order. The indicator RDM lights up when the function is inserted.

■ Button RPT (Repeat)

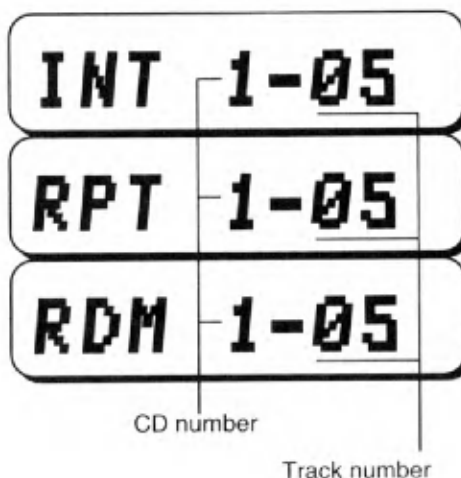
Press this button for more than 2 seconds to repeat a piece of the disc. The indicator RPT lights up when the function is inserted.

■ Button SCN (scan)

Press this button for more than 2 seconds to listen to the first 10 seconds of each piece of the CD being listende to. The indicator INT lights up when the function is inserted.

■ ALL button

Press for more than 2 seconds to extend the Random, Repeat, Scan functions to all the pieces of all the compact discs. The "ALL" indicator appears on the display when this function is activated



LISTENING TO THE RADIO

Basic Operation

1. Press the POWER button to turn the power on.
2. Press the BAND select button to select the desired frequency band.
3. Press the Tuning **◀◀/▶▶** buttons to tune to the desired station.
4. Adjust the Volume and Tone using level up/down (**^/∨**) buttons and Mode button.

NOTE: When the power is on, if a cassette tape is inserted in the cassette compartment, tape playback starts automatically.

Auto/Manual Select Button (AUTO)

This button is used to search stations automatically or manually. The AUTO indicator

lights in the display during the auto mode.

- **Auto mode:** Press AUTO button and then (**◀ TUNE ▶**) buttons and the radio will seek automatically until a station is found. If a tuned station is not desired, press either up or down again to continue searching.
- **Manual Mode:** Press the AUTO button again (the AUTO indicator disappears from the display) for the manual searching. Keeping the (**◀ TUNE ▶**) buttons pressed the searching goes rapidly.

Setting the Preset Stations

You can preset a total of 30(24) stations, 18FM, 6MW and 6LW(OPT10NAL) using the 6 Preset buttons. Consequently, by storing the frequencies of broadcast stations

that you listen to offers, you can quickly select the broadcast station you desire.

1. Select the desired band using the BAND select button.
2. Tune to a desired station using Tuning **◀◀/▶▶** buttons.
3. Press one of the Preset buttons (1-6) for more than 2 seconds. The station has now been stored at one of the preset buttons.
4. Repeat steps 2 and 3 for each of the remaining five preset buttons.

Auto-Store (AS)

Six stations in the selected band can be stored automatically.

1. Turn the power ON.
2. Select the desired band of stations to be received.
3. Press AS/PS button for more than 2 seconds, and then this function implements with a beep sound.
4. The selected band is automatically scanned and the 6 strongest stations are stored. Then the preset stations are displayed repeatedly.
5. Press the AS/PS button to stop scanning the preset stations.

How to Perform Preset Scanning (PS)

1. Store a station for each one of 1 to 6 preset buttons.
2. When the AS/PS button is pressed, the preset stations are monitored in sequence for 5 seconds each. The station number is shown in the preset station indicator.
3. When the desired station is received, press the AS/PS button again to stop scanning.

TAPE PLAYBACK

- 1 Turn the power on.
2. Insert a cassette tape with the exposed tape side to the right. If a radio broadcast is being received, cassette playback automatically begins.
3. To reverse tape direction, press the (REW/FF) buttons.
4. The tape direction automatically reverses when the tape end has been reached.
5. To stop playback, press the EJECT button and remove the cassette tape.

NOTE: Load the cassette tape with the exposed side to the right.

EJECT Button

Depress this button to eject a cassette and turn on the radio. Do not turn off the radio when rewinding as the cassette could be damaged. The tape could jam into the mechanism.

Cassette Compartment

Playback starts automatically after a cassette is inserted.

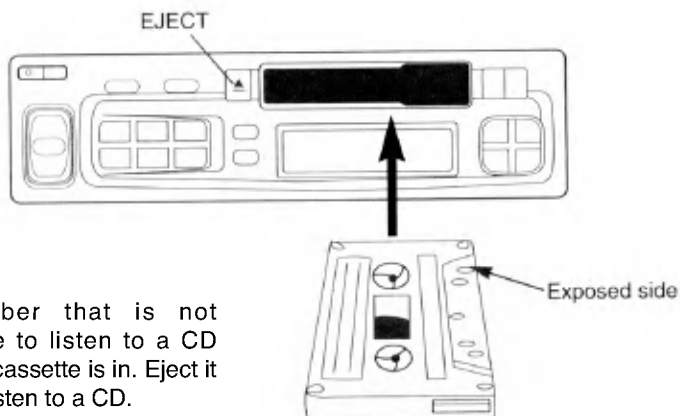


Fig. 15

Note: Remember that it is not possible to listen to a CD when a cassette is in. Eject it before listening to a CD.

Fast Forward/Rewind Direction Buttons

When the car radio reaches the end of one side of a cassette, it will automatically reverse, and playback of the other side of the cassette will start.

- The REW or FF buttons are for the rewinding and fast forwarding of the cassette (to right or left). At the end of the cassette the motion stops automatically and the playback begins.
- **PROG (REW/FF)**
Tape direction can be reversed at any time by pressing the PROG button (REW/FF together).

SETTING THE CLOCK TIME

1. Press the CLOCK button once momentarily to display the time.
2. Press and hold the BAND button.
 - Pressing the Tuning button (▶) adjusts the hour,
 - Pressing the Tuning button (◀) adjusts the minutes.

DETACHABLE FRONT PANEL

The front panel of this unit can be detached to prevent theft.

Detaching the Front Panel

1. Shift the RELEASE button to the left in order to release the extractable front panel.

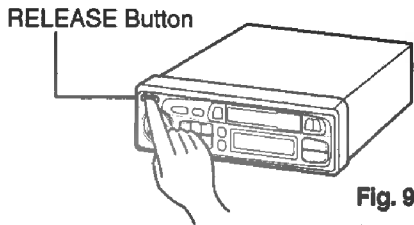


Fig. 9

2. Hold the left part of the front panel and pull it towards you gently.

NOTE: Take care not to put pressure on the display or control buttons, or drop the Front Panel.

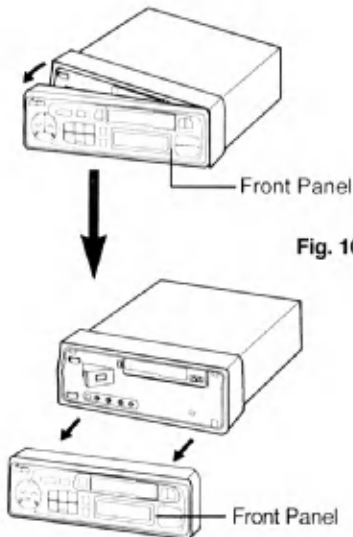


Fig. 10

3. Place the Front Panel in the supplied protective case.

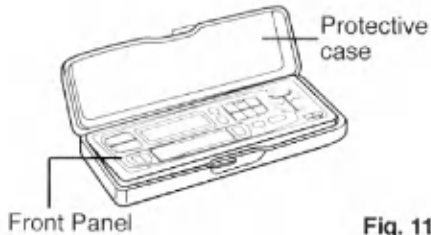


Fig. 11

Attaching the Front Panel

- Push the front panel against the main unit to reattach it.

NOTES:

- When replacing the front panel, do not put pressure on the display or control buttons.
- The control buttons may not work properly if the front panel is not attached properly. If this occurs, gently press the front panel.

Precautions when Handling the Front Panel

- Do not leave the front panel in any area exposed to high temperatures or direct sunlight.
- Do not drop the front panel or otherwise subject it to strong impact.
- Do not allow such volatile agents as benzene, thinner, or insecticides to come into contact with the surface of the front panel.
- Never try to disassemble the front panel.

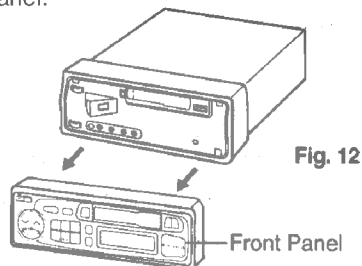


Fig. 12

SPACIFICATIONS

• Tape Player

Tape Drive System	Full Auto Reverse
Tape Speed	4.75 cm/sec.
Wow/Flutter	0.35% (WRMS)
S/N Ratio	50 dB
Frequency Response	40-14,000 Hz

• Tuner

FM

Frequency Range	65.0-74.0 MHz,87.5-108 MHz
S/N Ratio	60 dB
Distortion (T.H.D.0.5W)	1%
Channel Separation	30 dB

AM(MW)

Frequency Range	522-1,620 Hz (OPT1ONAL' 520-1,720 kHz /520-1,620 kHz)
S/N Ratio	45 dB
Distortion (T.H.D.0.5W)	1%
AGC	70 dB

LW(OPTIONAL)

Frequency Range	144` 128 kHz
S/N Ratio	45 dB
Distortion (T.H.D.0.5W)	1%

• General











Output Power	4 × 25W (Max.)
Power Source	DC 12-15V
Speaker Impedance	4 × 4
Ground System	Negative
Dimension (W x H x D)	183 × 53 × 154 mm
Weight	1.6 kg

Note: Due to continuous improvements, the features and designs are subject to change without notice.

The car radio meets the minimum requirements laid down by EEC Directive 89/336 and has been built in accordance with European standards EN50013-EN50020.

ERROR INDICAT10N (with CD changer connected)

To ensure years of listening pleasure, electronic safeguards have been built into CD player. These safeguards appear as messages on the display and indicate the following.

	Cause
	- Solution
 E-01	E1 - Loader not present - Press the Eject button and/or Reset, then try again.
 E-02	E2 - The loader is not ejected. - Press the Eject button and/or Reset, then try again.
 E-03	E3 - Loading is not complete within 8 sec - Consult your dealer.
 E-04	E4 - The ejection is not complete within 8 seconds - Press the Eject button and/or Reset, then try again.
 E-05	E5 - The CD lifter does not move. Consult your dealer.
 E-06	E6 - The player (pick-up) does not move within 8 seconds - Consult your dealer.
 E-07	E7 - The focus does not take place within 3 seconds - Consult your dealer.
 E-08	E8 - The CD does not turn at proper speed - Press the Eject button and try again.
 E-09	E9 - The playback is not coupled within 8 seconds - Press the Eject button and try again.
 E-10	E10 - Use is not possible owing to high temperature. - Wait for the temperature to become steady.