

KENWOOD

GRAPHIC EQUALIZER

KGC-7043

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 electronic graphic equalizer.

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 KGC-7043 Serial number _____

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Safety precautions

▲WARNING

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

- When extending the battery cable or ground cable, use 0.75mm² (AWG18) or larger automotive grade cable to avoid cable 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.

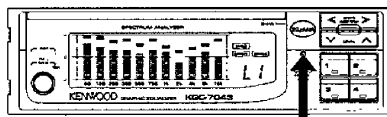
▲CAUTION

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.
- If you need to replace the fuse, make sure the new fuse is of the same type and rating. Using a fuse of a different type of rating may damage your unit. The fuse rating is normally shown on the fuse and fuse box.

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

Before use

Cleaning the unit

- If the front panel is dirty, wipe it clean with a silicon cloth or soft dry cloth with the power off.

▲CAUTION

Do not use hard cloths or paint thinner, alcohol, or other volatile solvents. These may damage external surfaces or remove indicator characters.

Features

Before use

► **Equalizer Adjustment**

Page 5

You can adjust the sound level to suit your preference among 11 frequencies: 60 Hz, 120 Hz, 250 Hz, 380 Hz, 500 Hz, 750 Hz, 1 kHz, 2 kHz, 4 kHz, 8 kHz, and 16 kHz.

► **KBS
(Kenwood Built-in Sound)**

Page 6

Four types of loudness levels and equalizer curves for rock, disco, vocal, and flat music genre have been preset. You can call up an equalizer curve for each genre at the touch of a button.

► **Switching between Display Patterns**

Page 8

You can switch between six different display patterns in order to monitor the sound level visually.

► **Demonstration**

Page 10

Demonstrates the equalizer functions. You can see how the sound quality changes with a change in frequency, as well as the effects of the equalizer.

► **Equalizer Curve Memory**

Page 11

You can store four types of adjusted equalizer curves in memory, and can call up an original equalizer curve at the touch of a button.

► **Fader Adjustment**

Page 12

Allows you to adjust the balance of front and rear speakers.

► **Subwoofer Output**

Page 13

You can install a subwoofer in addition to front and rear speakers, as well as independently adjust the subwoofer output level.

► **High-pass Filter**

Page 16

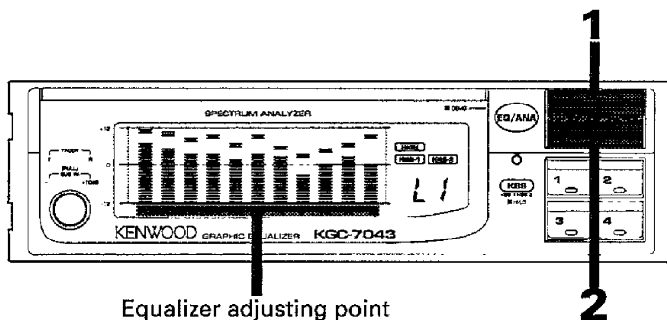
When the high-pass filter is turned on, the low-frequency range of the front and rear output is cut off. Since the high-pass filter reduces the frequency ranges overlapped with the subwoofer, you can attain frequency characteristics with including minimal peaks or dips.

► **Selectable illumination**

Page 17

Allows the illuminated color to be switched between green and orange.

Equalizer Adjustment

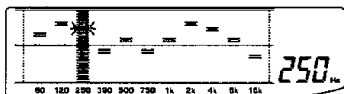


Equalizer adjusting point

1

To select a band for adjustment
Press the < side or > side of the BAND button.

Each time you press the < side of the button, the band shifts to the left (lower frequencies), while each time you press the > side, the band shifts to the right (higher frequencies).

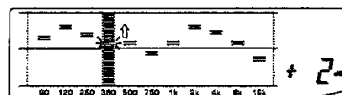


The band that can be adjusted blinks for 5 seconds.

2

To increase the level
Press the ^ side of the LEVEL button while the band indicator is blinking.

The level indicator goes up.

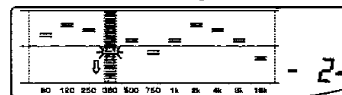


The level can be adjusted up to +12 dB.

To decrease the level

Press the v side of the LEVEL button while the band indicator is blinking.

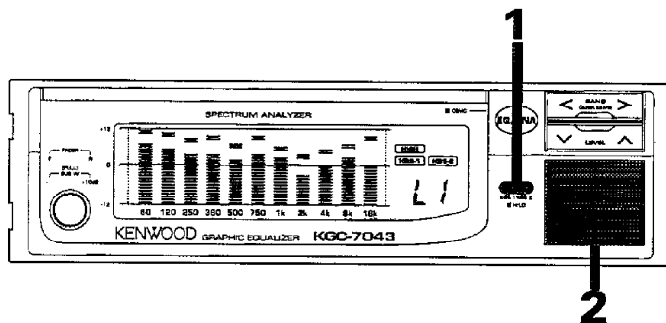
The level indicator goes down.



The level can be adjusted down to -12 dB.

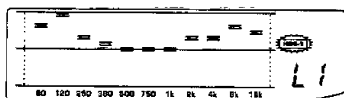
KBS (Kenwood Built-in Sound)

Operations

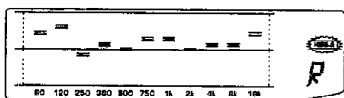


1

To switch between KBS1 and KBS2
Press the KBS/HI.LO button.
Each time you press the button, the function changes from KBS1 to KBS2 to OFF.



KBS 1 ON



KBS 2 ON

When KBS1 or KBS2 is ON, the respective KBS indicator lights.

NOTE

Initially, KBS1 is turned on.

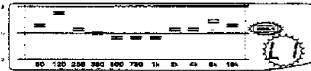
2

To select an equalizer curve preset in KBS1 or KBS2
Select an equalizer curve shown on the facing page, and press any one of buttons 1 to 4.
The selected curve is set and displayed, and the sound quality is changed accordingly.

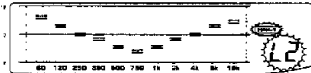
Equalizer curves preset in KBS1

There are four patterns: LOUD1 to LOUD4. The bass is emphasized and music is well modulated. They are particularly effective when listening to music at low volume.

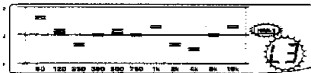
Switch 1.....LOUD1 (*L1*)



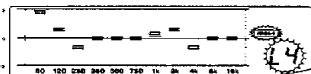
Switch 2.....LOUD2 (*L2*)



Switch 3.....LOUD3 (*L3*)



Switch 4.....LOUD4 (*L4*)

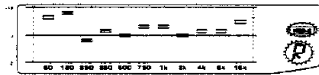


Equalizer curves preset in KBS2

There are four patterns: ROCK, DISCO, VOCAL, and FLAT. Select the one that is suitable to the type of music you listen to in order to gain the best results.

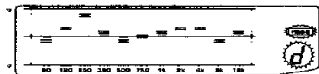
Switch 1.....ROCK (*R*)

Emphasizes the sound of cymbals and percussion.



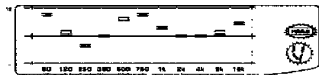
Switch 2.....DISCO (*D*)

Emphasizes the bass and better modulates the rhythm and vocal.



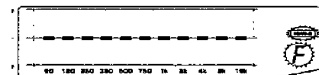
Switch 3.....VOCAL (*V*)

Emphasizes the middle range and reproduces the vocal clearly.



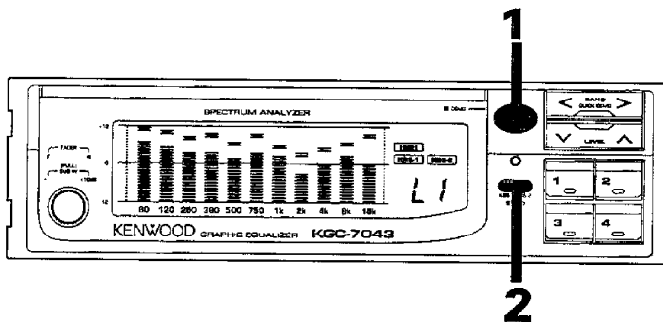
Switch 4.....FLAT (*F*)

Flattens the level without using equalizer effects so as to emit natural sound.



Switching between Display Patterns

Operations



1

To switch between display patterns

Press the EQANA/DEMO button. Each time you press the button, the display pattern changes among 1 to 6. (See page 9.)

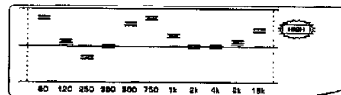
2

To change the display level

Hold down the KBS/HI.LO button for more than a second.

The display level is switched to HIGH or LOW.

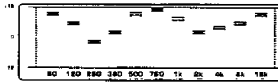
If you set it to HIGH, the HIGH indicator lights, whereas if you set it to LOW, the HIGH indicator goes off.



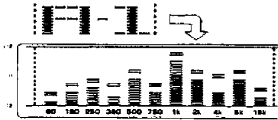
NOTE

The level is initially set to HIGH.

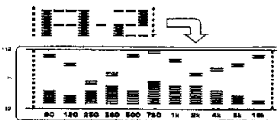
- 1 Equalizer curve display**
The adjusted equalizer curve is displayed.



- 2 Peak hold spectrum analyzer**
The spectrum analyzer uses peak hold function to display the level of each band.



- 3 Combination display of spectrum analyzer and graphic equalizer curves**
An equalizer curve is shown on the upper half of the display.

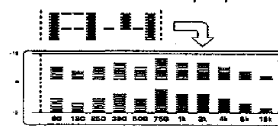


A spectrum analyzer curve is shown on the lower half.

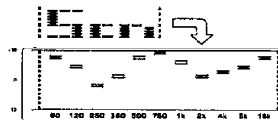
- 4 Aurora**
An auroral waveform curve is displayed.



- 5 Twin display**
A spectrum analyzer curve appears on both the upper and lower sections of the display.



- 6 Scan display**
Displays **1** to **6** are automatically shown in succession for about 5 seconds each.
A light indicator lights at the right side during scan display.

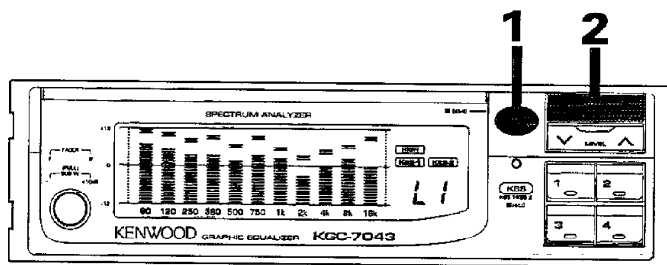


Initial state of display

Scan display (SCN) described in item **6** is initially displayed.

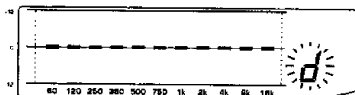
Demonstration

Operations

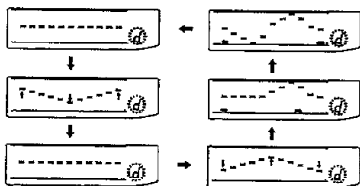


1

To start the demonstration
Hold down the EQANA/DEMO
button for more than a second.
The *d* indicator blinks, a melody
sounds, and the demonstration starts.



Demonstration curves are displayed
in succession. As one curve changes
to another, the sound quality
changes.



2

For fast-rewind or fast-forward
demonstration

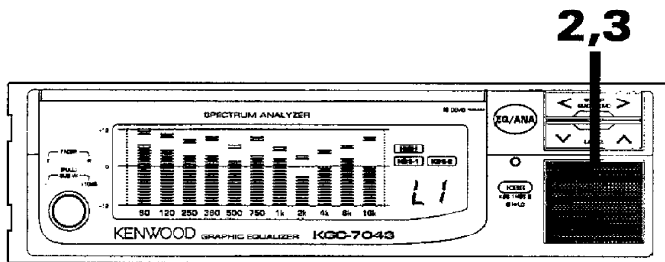
Press the < side or > side of the
BAND button.

You can perform a fast-rewind
demonstration by holding down the <
side, and a fast-forward side one by
holding down the > side.

To cancel the demonstration

Press the EQANA/DEMO button.
The demonstration mode is canceled
and the unit returns to the normal
mode.

Equalizer Curve Memory

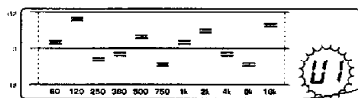


1

To adjust the sound quality to your preference
See page 5 for the adjustment procedure.

2

To store an equalizer curve in memory
Hold down any one of buttons 1 to 4 for more than 2 seconds.
The adjusted equalizer curve will be stored in memory.

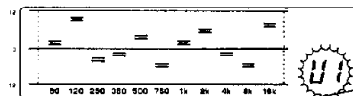


NOTE

Up to 4 equalizer curves can be stored in memory.

3

To recall an equalizer curve from memory
Press any one of buttons 1 to 4.
The equalizer curve stored by the respective button number (1 to 4) will be recalled.

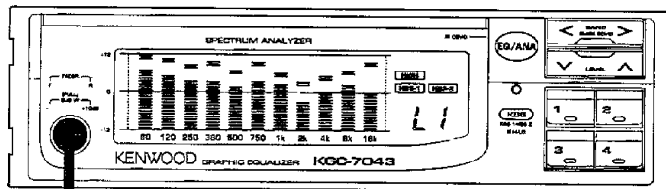


The number (1 to 4) of the pressed button is displayed.

NOTE

If KBS is ON (the KBS indicator is on), you cannot recall any preset equalizer curves. Turn KBS off as described on page 6 before you recall an equalizer curve.

Fader Adjustment



1,2

1

To release the FADER/SUB.W controller dial
Press the FADER/SUB.W controller.
The FADER/SUB.W controller projects outward.

2

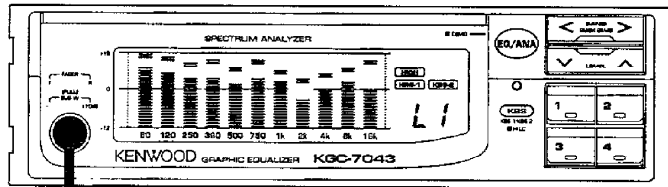
To emphasize the sound from the front side
Turn the FADER/SUB.W controller counterclockwise.
The front sound will be emphasized.

To emphasize the sound from the rear side
Turn the FADER/SUB.W controller clockwise.
The rear sound will be emphasized.

NOTE

Press the FADER/SUB.W controller back in after completing fader adjustment so as to prevent interference with operations.

Subwoofer Level Adjustment



1,2,3

1

To release the FADER/SUB.W controller dial
Press the FADER/SUB.W controller.
The FADER/SUB.W controller projects out.

2

To pull out the FADER/SUB.W controller
Pull the FADER/SUB.W controller until it stops.

3

To increase the subwoofer volume
Turn the FADER/SUB.W controller clockwise.
The subwoofer volume will increase.
It can be adjusted up to +10 dB.




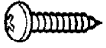

To decrease the subwoofer volume
Turn the FADER/SUB.W controller counterclockwise.
The subwoofer volume will decrease.

NOTE

Press the FADER/SUB.W controller back in after completing subwoofer level adjustment to prevent interference with operations.

Accessories

Installation

Part name	External view	Number of items
Panel frame		1
Bracket		2
Washer assembly screw (M4 × 8)		4
Self tapping screw (φ5 × 20)		4
Wiring harness		1

Installation procedure

1. Remove the ignition key and disconnect the negative (-) terminal of the battery to prevent short circuits.
2. Connect the input and output cables of the units.
3. Connect the ground cable and battery cable of the wiring harness in the order listed.
4. Connect the wiring harness connectors to the unit.
5. Install the unit in the car.
6. Connect the negative (-) terminal of the battery.
7. Press the Reset button.

⚠ CAUTION

- If the fuse blows, check cables for shorts, then replace the fuse with one of the same rating.
- Check that no unconnected cables or connectors are touching the car body. Do not remove caps from unconnected cables or connectors to prevent short circuits.
- After installation, check that the brake lamps, wipers, and wipers work properly.

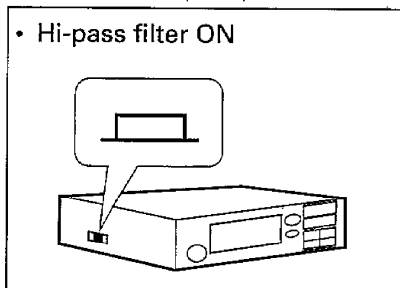
How to use the high-pass filter

The unit contains a high-pass filter each for both front and rear output. If you connect a subwoofer, turn the filter on to cut off the low-frequency range of the front and rear output. Press the high-pass filter button with the tip of a pen.

■ If you connect a subwoofer

Press the high-pass filter button to turn the filter on.

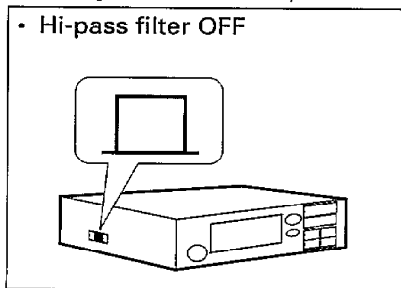
Frequencies lower than 80 Hz are cut off from both the front and rear output. Since the high-pass filter reduces the frequency ranges overlapped with the subwoofer, you can attain frequency characteristics including few peaks or dips.



■ If you do not connect a subwoofer

Press the high-pass filter button to turn the filter off.

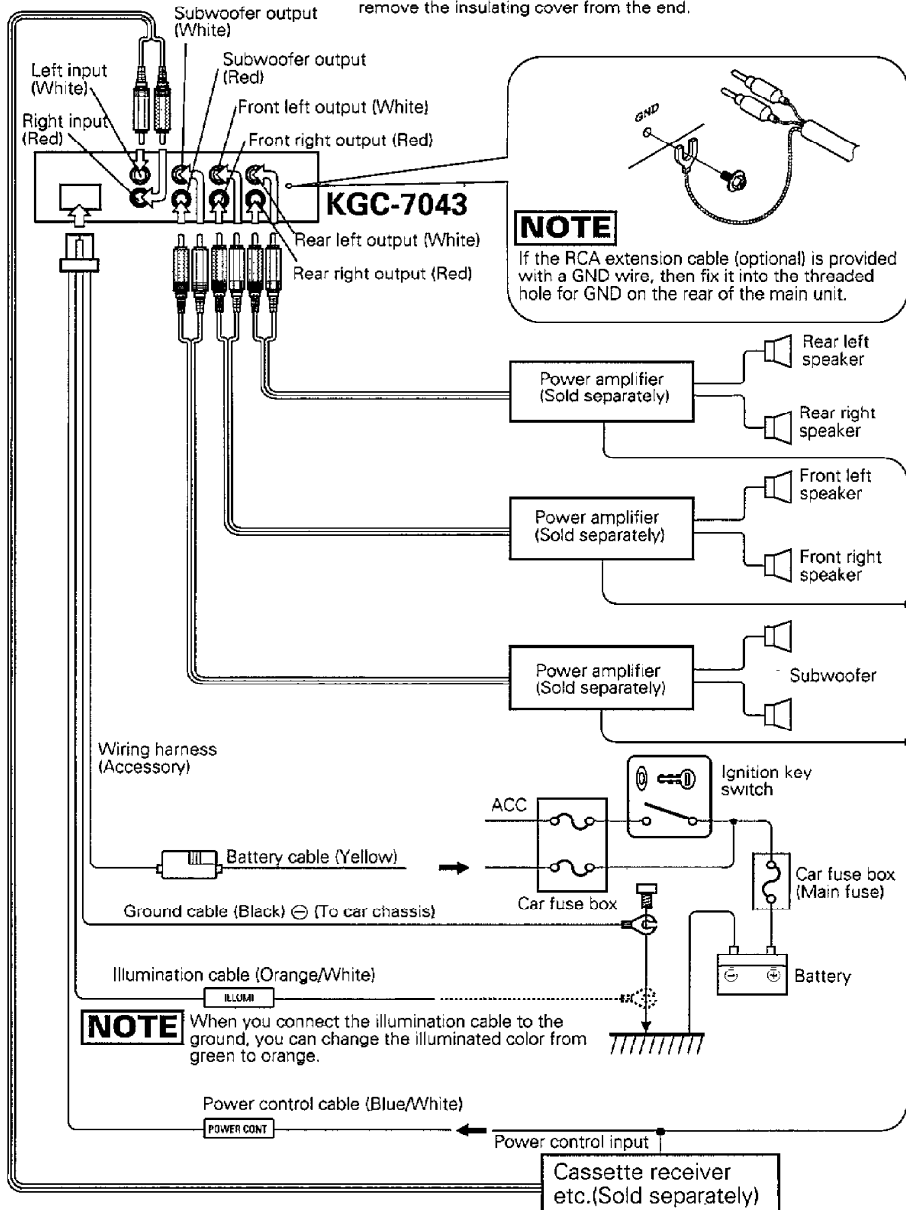
A full range of sounds is output from Front Output and Rear Output.



Connections

NOTE

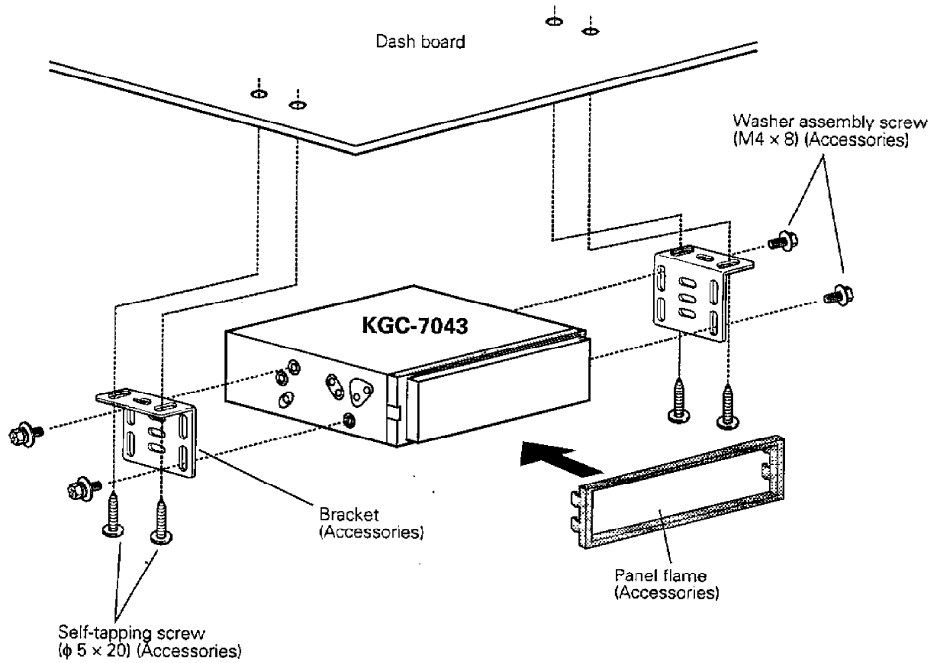
If you connect an illumination cable or a power control cable, first remove the insulating cover from the end.



Installation

Installation

Before installation, select a location in which the unit can be operated safely and easily.
Use only the accessories supplied with the unit.



Troubleshooting guide

Often, what appears to be a malfunction is due to user error. Before calling for service please consult the following table.

Symptom	Cause	Remedy
The power is not turned on.	The connected center unit is not turned on.	Turn the center unit on.
	The wiring harness fuse blows.	Check cables for shorts, then replace the fuse with one of with the same rating (shown on the case).
No sound.	The input /output cable or wiring harness is connected incorrectly.	Connect the input/output cable or wiring harness correctly. See "Connections" (Page 17).
	The preout fader controller of the center unit is not set at the center.	Set the controller to the center.
The front or rear speaker does not output sound.	The fader is set to one side.	Adjust the fader.
The display turns on, but all buttons are disabled.	The microcomputer malfunctions.	Press the Reset button on the front panel.
The 16kHz indicator of the spectrum analyzer does not light.	In particular, the indicator may not light for a cassette tape because the 16kHz level of the source is low.	If it lights when you play a compact disc, there is no problem.
Hiss noise is generated.	The graphic equalizer level is too high.	Set the graphic equalizer level to a correct level.

Specifications

Specifications subject to change without notice.

Specifications

Equalizer section

Equalizer center frequencies	60Hz, 120Hz, 250Hz, 380Hz, 500Hz, 750Hz, 1kHz, 2kHz, 4kHz, 8kHz, 16kHz
Equalizer range	-12 ~ +12dB
Subwoofer Cut-off Frequency	80Hz
Subwoofer Output Gain	∞ ~ +10dB
Subwoofer Cut-off Slope	12dB / oct.
Hi-pass Filter Cut-off Frequency	80 Hz
Hi-pass Filter Cut-off Slope	12dB / oct.

Audio section

Input Impedance	10 k Ω
Output Impedance	600 Ω
Signal to Noise Ratio	100 dB
T.H.D	0.01 %
Frequency Responce (-3dB)	15 Hz ~ 55 kHz
Gain	0 dB

General

Operating Voltage	14.4 V (11 ~ 16 V)
Current Consumption	0.5 A
Dimensions (W x H x D)	7-1/16 x 1-15/16 x 6-5/16 in.
Weight	1.0 kg (2.25 lb)