SONY

Pam's Copy

3-755-053-21(2)

Graphic Equalizer

Operating Instructions



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WARNING

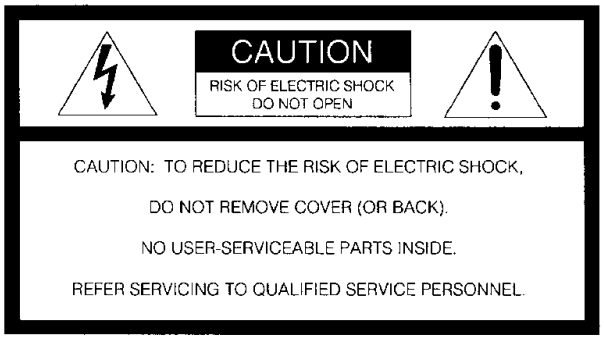
OWNER'S RECORD

The model and serial numbers are located at the rear. Record serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No.SEQ-711 Serial No._____

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.





This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

* The graphical symbols are on the rear enclosure.

CAUTION
You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

INFORMATION
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, use, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Precautions

On safety
- Operate the unit only on 120 V AC, 60 Hz.
- The unswitched socket outlets remain live, independently of power switch setting, at all times when the unit is connected to the AC power supply.
- Should any solid object or liquid fall into the unit, unplug it and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.
- AC power cord must be change only at the qualified service shop.

On operation
Before making program source connections, be sure to turn the power switch off and unplug the unit.

On cleaning the cabinet
Clean the cabinet, panel and controls with a soft cloth lightly moistened with mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

For the customers in the U.S.A
For detailed safety precautions, see the leaflet "IMPORTANT SAFEGUARDS".

If you have any question or problem concerning your unit, please consult your nearest Sony dealer.

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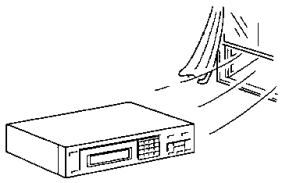
Unpacking

Choosing a Good Location

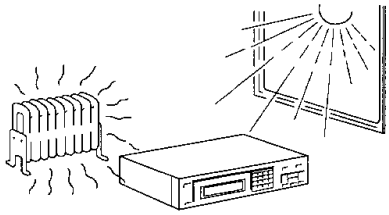
To prevent internal heat build-up in the unit,
Place the unit in a location with adequate air circulation.

Do not install the unit:
in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

This way.



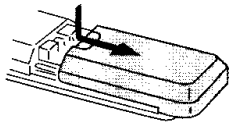
Not this way.



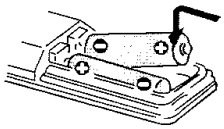
Do not throw away the carton and packing material!
It will be an ideal container when transporting the unit for repair work, etc.

Inserting the Batteries into the Remote Commander

1 Open the cover.



2 Insert two size-AA (R6) batteries with correct polarity.



Battery life
About half a year of normal operation can be expected when using the Sony SUM-3 (NS) batteries.
When the batteries are exhausted, the commander can no longer operate the unit. Replace both batteries with new ones.

To avoid battery leakage
When the commander is not to be used for a long period of time, remove the batteries to avoid damage caused by battery leakage and corrosion.

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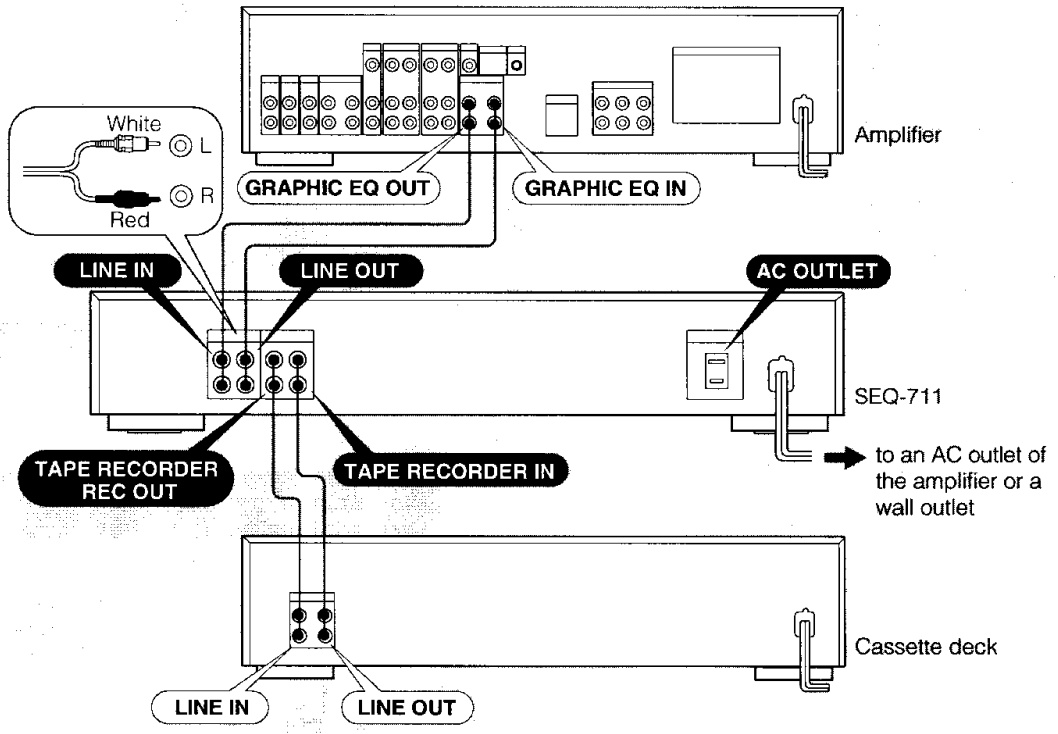
Connections

This section describes about the connections with the other audio equipments.

- Connect the AC power cord last. Make sure power is off.
- Fully insert cable connectors into jacks. Loose connections may cause hum or noise.
- The red jacks are for the right-channel (R) connections and the white jacks are for the left-channel (L).

Connecting to Your System

Connecting to the GRAPHIC EQ jacks of the amplifier



If your unit is supplied with an AC plug adaptor
Use it to connect the unit to a wall outlet. When making power connections among the Sony component, this adaptor is not needed.

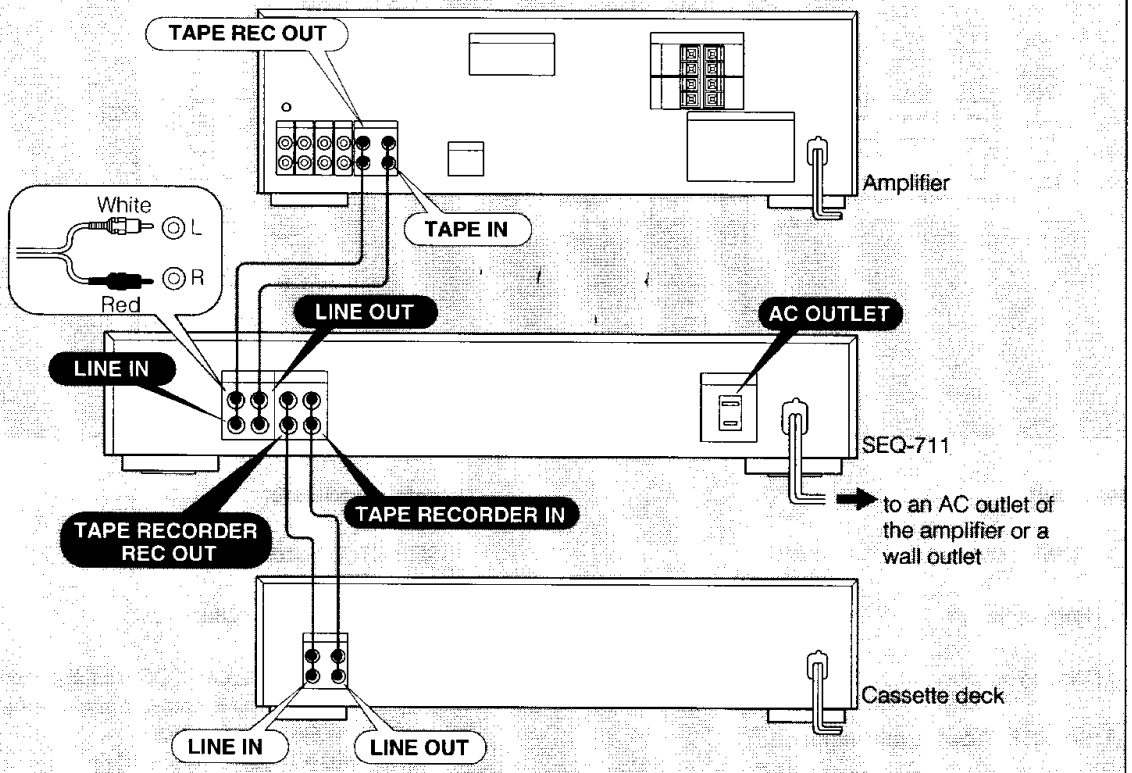
Note
When SEQ-711 is connected to the system, always keep the power on, even when the sound is not to be equalized. If the power is off, the sound does not come out.

AC OUTLET (UNSWITCHED)
Use this outlet to power audio component whose power consumption is less than the wattage indicated on the AC outlets. The outlet is not controlled by the POWER switch on the front panel.

CAUTION
Do not connect any electrical home appliances such as an electric iron, fan, TV or other high wattage equipment to these AC outlets.

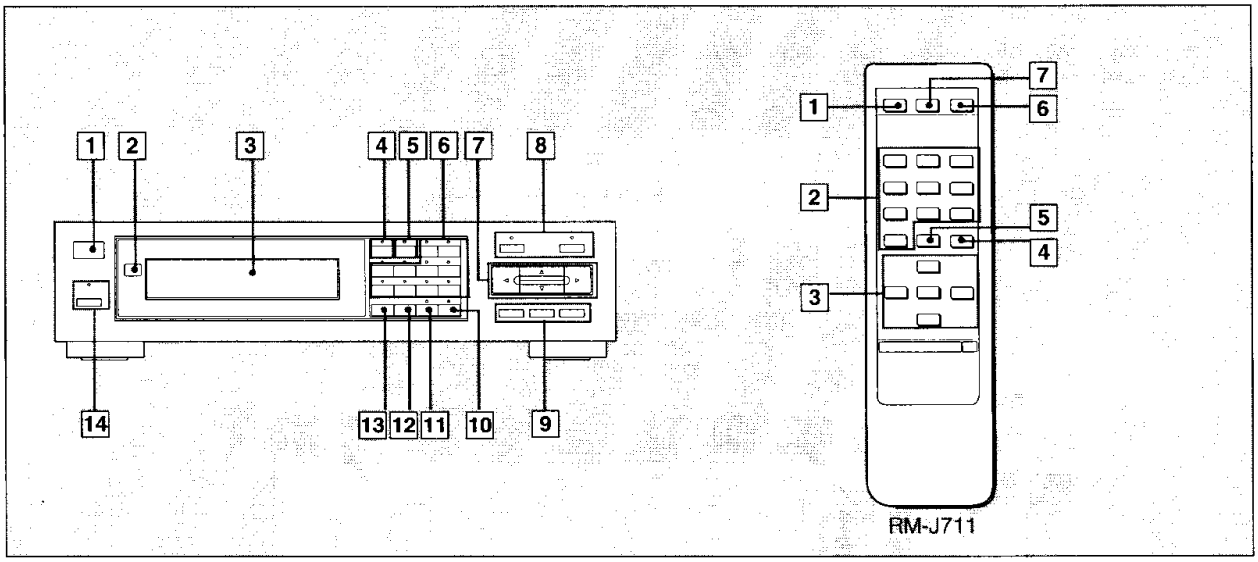
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Connecting to the TAPE jacks of the amplifier which has the tape monitor function



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Location of Controls



Main unit

1 POWER switch

2 Remote sensor

3 Display window

4 SELECT 10 button and indicator

5 PERSONAL FILE 1-5 button and indicator

6 FLAT and numeric buttons and indicators

7 CURSOR CONTROL buttons

8 TAPE/LINE buttons and indicators
When the POWER is on, the LINE mode is selected.

9 CURSOR MODE LEFT, L+R. RIGHT buttons

10 DSC (Dynamic Sound Control) button and indicator

11 MEMORY button and indicator

12 REVERSE button

13 DISPLAY button

14 EFFECT button and indicator

Remote commander

1 SELECT 10 button

2 FLAT and numeric buttons

3 CURSOR CONTROL/CURSOR MODE buttons
Each time this button is pressed, the channel mode is changed in the following order:
→L (left) + R (right) → L → R→

4 DISPLAY button

5 REVERSE button

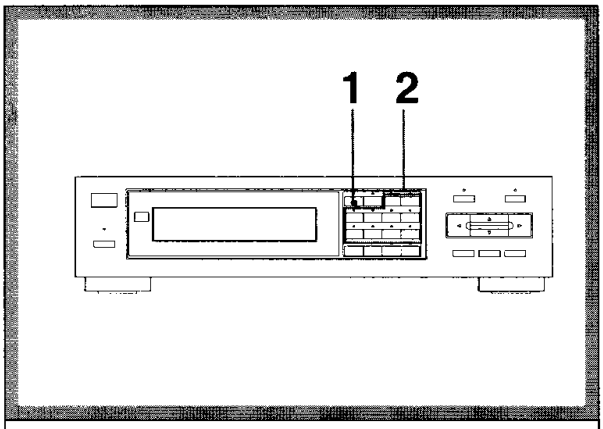
6 EFFECT button

7 P. FILE1-5 button

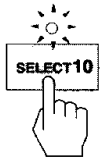
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Equalizing the Sound with Preset Settings (SELECT 10)

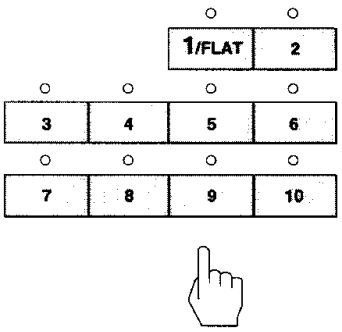
The SELECT 10 function allows you to equalize the sound, simply by choosing from 10 preset combinations of equalization and DSC (Dynamic Sound Control). See page 8 for details.



1 **Press SELECT 10 so that the indicator lights up.**



2 **Select your desired equalizer curve.**



Checking the Equalization Results

By switching EFFECT on and off, compare the results. The spectrum analyzer can be used to visually confirm the need for and effect of, equalizer adjustment.

Changing the Display

Each time you press DISPLAY, the display switches between the equalizer curve and spectrum analyzer.
Equalizer curve: Shows how the sound you hear is adjusted.
Spectrum analyzer: Shows the level of frequency band in real time.

Demo Mode

To start the demo mode, press DISPLAY twice within 1 second.
After a variety of equalizer curves is desplayed, each curve of the SELECT 10 function and the personal file is sequentially displayed. To stop the demo mode, press any other button except TAPE/LINE.
In the demo mode, each equalizer curve of the SELECT 10 is displayed in the following order:
2 → 1 → 3 → 4 → 5 ..... → 10

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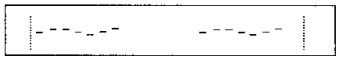
Equalizing the Sound with Preset Settings (SELECT 10)

SELECT 10 Settings

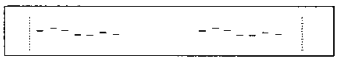
1/FLAT
Gives rich expansiveness to sources recorded with reverberation, such as classical music.



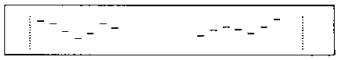
2
Gives the atmosphere of a large hall with a deep reverberation and emphasized middle-low frequencies.



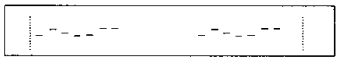
3
Gives an atmosphere similar to a movie theater in which sound effects and a voluminous bass sound is emphasized.



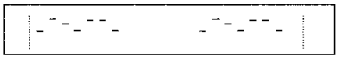
4
Gives width to a monaural program source (TV, etc.) with different equalizer curves for each channel.



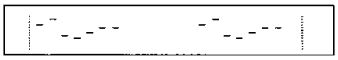
5
Gives an atmosphere similar to a jazz club in which the sound is heard brightly with expanding reverberation.



6
Gives an atmosphere similar to a live concert in a gym. The DSC function (See page 10.) modifies the equalizer curve according to the sound level.



7
Gives an atmosphere similar to a disco in which bass sound is emphasized.



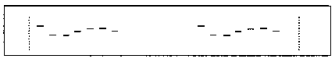
8
Improves sound at low listening levels by adding reverberation.



9
Improves sound to be listened to with stereo headphones by emphasizing bass sound and spaciousness.



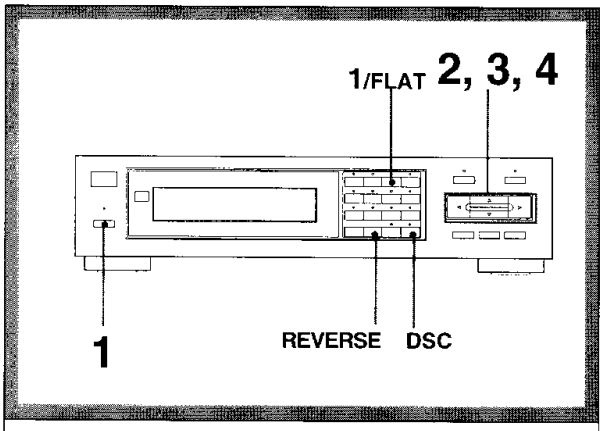
10
Improves sound to be listened to in noisy surroundings, such as in a car.



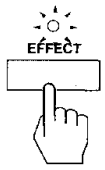
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Obtaining a Desired Equalizer Curve

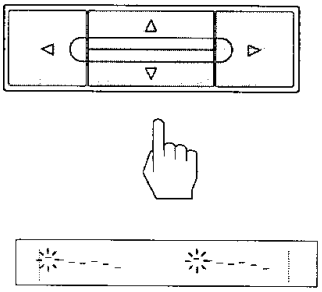
You can adjust the level of 7 frequency bands for both channels.



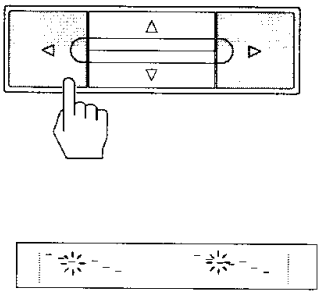
1 **Press EFFECT so that the indicator lights up.**



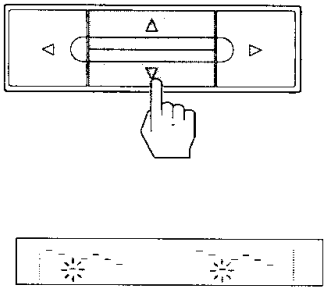
2 **Press one of the CURSOR CONTROL buttons.**



3 **Press ◁ or ▷, so that the frequency range you wish to adjust blinks.**



4 **Press △ or ▽, to adjust the level of the frequency range.**



After the adjustment is completed
Approximately 5 seconds after the adjustment is completed, the display returns to the sound level display. However, as long as the EFFECT indicator is lit, you can listen to the adjusted sound.

When a frequency range stops blinking
You cannot adjust the channels. Repeat from step 1.

When the EFFECT indicator is not lit
You can adjust sound, but cannot listen to the adjusted sound.

To Adjust Right and Left Channels Independently

1 Press EFFECT.
2 Press CURSOR MODE LEFT to adjust the left channel. The frequency range on the left channel blinks.
Press CURSOR MODE RIGHT to adjust the right channel. The frequency range on the right channel blinks.
3 Adjust the desired frequency ranges with the CURSOR CONTROL buttons while it is blinking.

To return to the mode for adjusting both channels together
Press CURSOR MODE L + R.

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Obtaining a Desired Equalizer Curve

Characteristics of Each Frequency

63 Hz: Boosts or cuts the bass.
160 Hz: Governs the low-middle range and greatly influences the overall characteristics of the sound.
400 Hz: Adjusts the power, spaciousness and warmth of the sound.
1 kHz: Provides more presence for vocals.
2.5 kHz: Boosts a brighter sound and reduces stridency.
6.3 kHz: Affects the treble. Adjusts the brightness of the sound and reduces high frequency noise, such as tape hiss.
16 kHz: Adjusts the general atmosphere rather than the sound itself. Highlights the delicate quality of instrumental sound.

To Flatten an Equalizer Curve

Press 1/FLAT.
Use this function when you want to make an equalizer curve from the beginning.

To Reverse an Equalizer Curve

Press REVERSE.
Use this function, for example, to listen to a tape recorded with the No.10 of the SELECT 10 function, in a room.
To return to the original curve, press REVERSE again.

To flatten or reverse the equalizer curve of each channel independently
Press CURSOR MODE LEFT or RIGHT, then press 1/FLAT or REVERSE within 5 seconds.
(While the frequency ranges are blinking).

To Have an Equalizer Curve Re-adjusted Automatically (DSC: Dynamic Sound Control)

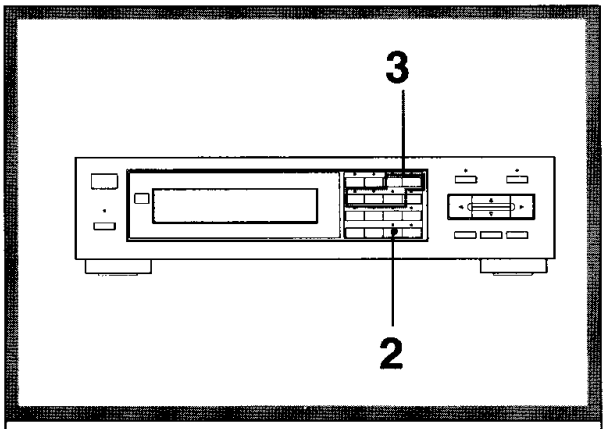
Press DSC so that the indicator lights up.
The equalizer curve is displayed in the display window.
When the input level of a sound increases, the DSC function automatically keeps down emphasized frequency ranges. This prevents distortion and damage to speakers. (The equalizer curve set under 0 position does not move.)

To cancel the DSC function
Press DSC again so that the indicator goes off.

When the DSC indicator is lit
The equalizer curve is displayed in the display window and the DISPLAY button does not function.

Storing Your Individual Settings (PERSONAL FILE)

You can store a combination of a desired equalizer curve. You can store up to 5 settings in the numeric buttons 1 to 5.

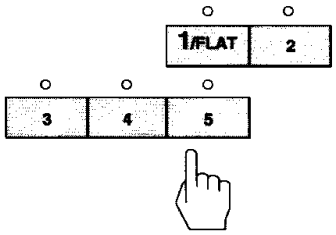


1 **Adjust the sound to the setting you wish to store.**

2 **Press MEMORY so that the indicator lights up.**



3 **While the MEMORY indicator is lit (approximately 5 seconds), press the desired numeric button (1 to 5).**



To Recall a Stored Setting

1 Press PERSONAL FILE 1-5 so that the indicator lights up.
2 Press the numeric button in which the desired setting is stored.
The settings are stored only in the numeric buttons 1 to 5.

To Clear the Stored Settings

Set the unit to the demo mode (see page 7.) and then press POWER to turn off the unit.

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Specifications

Inputs	LINE IN: Phono jacks, 245 mV (–10 dBs), 50 kilohms TAPE IN: Phono jacks, 245 mV (–10 dBs) 50 kilohms
Outputs	LINE OUT: Phono jacks, 245 mV (–10 dBs), Load impedance: more than 10 kilohms TAPE REC OUT: Phono jacks, 245 mV (–10 dBs), Load impedance: more than 10 kilohms
Graphic equalizer	Boost/cut range: ± 10 dB Center frequencies: 63 Hz, 160 Hz, 400 Hz, 1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz
Frequency response	(with EFFECT OFF) LINE IN: 20 Hz to 50 kHz, $^{+0}_{-1.5}$ dB
Harmonic distortion	LINE IN: Less than 0.01 % (at 1 kHz, 1 V output)
Signal-to-noise ratio	(with EFFECT OFF) LINE IN: Better than 100 dB (A network, 1 V output)
Power requirements	120 V AC, 60 Hz
Power consumption	13W
AC outlet	1 unswitched, 120 W/1A max.
Dimensions	Approx.430 X 110 X 265mm (w/h/d) (17 x 4 $^3/_8$ x 10 $^1/_2$ inches) including projecting parts and controls
Weight	Approx. 3.2 kg (7 lb 1 oz)
Accessories supplied	
	Audio connecting cords (2) Remote commander RM-J711(1) Sony batteries SUM-3 (NS) (2)

Design and specifications are subject to change without notice.

Troubleshooting

Before going through the check list below, first refer back to the connections and operating procedures.
Should any problem persist after you have made these checks, consult your nearest Sony dealer.

Trouble	Cause
No audio even when the POWER switch is turned on.	• The power cord is disconnected. • The connecting cord is disconnected.
No equalization	• The EFFECT button is switched off (the indicator is off). • Connections are not made properly.
The operation cannot be performed with the remote commander.	• Check that the batteries are loaded correctly. • Check if there is any obstacle between the remote commander and this unit. • Check if the batteries are exhausted.

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