

Graphic Equalizer

SEQ-400

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

Owner's Record

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


Model No. SEQ-400

Serial No. _____




WARNING

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



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,

DO NOT REMOVE COVER (OR BACK).

NO USER-SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



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.

Precautions

On safety

- Operate the unit only on 120 V AC, 60 Hz.
- The unit is not disconnected from the AC power source as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- 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 the plug. Never pull the cord itself.
- Should any solid object or liquid fall into the unit, unplug the unit and have it checked by qualified personnel before operating it any further.

On installation

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

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

Frequency Coverage of Each Equalizer Control

Specifications

- 60 Hz:** Use to boost or cut the bass.
- 150 Hz:** This control governs the low-middle range and greatly influences the overall characteristics of the sound.
- 400 Hz:** Use to adjust the power, spaciousness and warmth of the sound.
- 1 kHz:** Use to provide more presence for vocals.
- 2.4 kHz:** Use to boost a brighter sound and to reduce stridency.
- 6 kHz:** This control effects the treble. Use to adjust the brightness of the sound and to reduce high frequency noise, such as tape hiss.
- 14 kHz:** This control adjusts the general atmosphere rather than the sound itself.
Use to highlight the delicate quality of instrumental sound.

Checking the equalization results

Press EQUALIZATION again to OFF (released position). The equalizer circuit is bypassed, and you can hear the sound without equalization.

By switching EQUALIZATION ON and OFF, compare the results.

The spectrum analyzer can be used to visually confirm the need for, and effect of, equalizer adjustment.

Inputs	LINE IN: Phono jacks, 245 mV (-10 dBs), 50 k ohms TAPE: Phono jacks, 245 mV (-10 dBs), 50 k ohms
Outputs	LINE OUT: Phono jacks, 245 mV (-10 dBs), Load impedance: more than 10 k ohms REC OUT: Phono jacks, 245 mV (-10 dBs), Load impedance: more than 10 k ohms
Graphic equalizer	Boost/cut range: ± 10 dB Center frequencies: 60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 14 kHz
Frequency response (with EQUALIZATION ON)	LINE IN: 20 Hz to 40 kHz 0_{-15} dB
Harmonic distortion	LINE IN: Less than 0.008% (at 1 kHz, 1 V Output)
Signal-to-noise ratio (with EQUALIZATION ON)	LINE IN: Better than 100 dB (A network, 1 V output)
Power requirements	120 V AC, 60 Hz
Power consumption	5 W
AC outlet	100 W, unswitched
Dimensions	Approx. 430 \times 80 \times 245 mm (w/h/d) (17 \times 3 $\frac{1}{4}$ \times 9 $\frac{3}{4}$ inches)
Weight	Approx. 2.3 kg (5 lb 2 oz)
Accessories supplied	Connecting cords (2)

Design and specifications subject to change without notice.

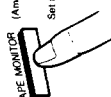
Troubleshooting Guide

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 service facility.

Symptom	Cause
No audio even when the POWER switch is turned on.	<ul style="list-style-type: none"> The power cord is disconnected. The connecting cord is disconnected. The TAPE switch setting is not correct.
No equalization	<ul style="list-style-type: none"> The EQUALIZATION switch is set to OFF (the indicator is off). Connections are not made properly.
The program source connected to the amplifier cannot be recorded.	<ul style="list-style-type: none"> The TAPE switch is set to ON.

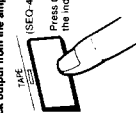
Equalizing an Input Source

1 When the equalizer is connected to TAPE jacks of the amplifier



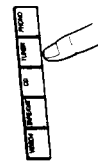
TAPE MONITOR (Amplifier)
Set to ON

2 Select the input signal to be equalized on the equalizer.
For playback output from the cassette deck



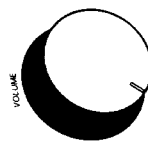
Tape
(SEQ-400)
Press to turn off the indicator

3 Select the desired input source with the amplifier, and play the program source.



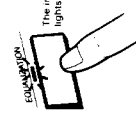
Tape
Press to turn off the indicator

4 Adjust the amplifier volume.




VOLUME
Adjust

5

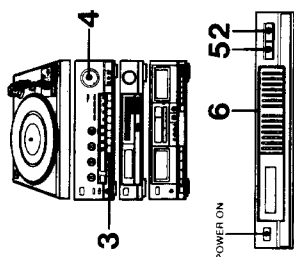


The indicator lights up

6



Adjust

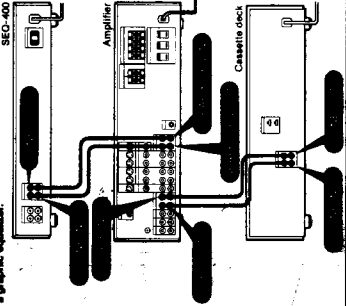


3 4 5 6

POWER ON

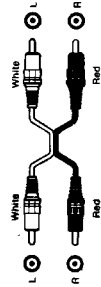
Connections

Connecting with an amplifier equipped with connections for a graphic equalizer.



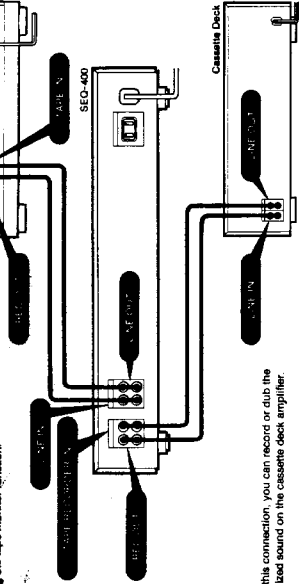
Connection Notes

- Connect the AC power cord just. Make sure POWER is OFF.
- If any input 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 with an amplifier not equipped with connections for a graphic equalizer.

The graphic equalizer can be used only with an amplifier having the tape monitor function.



With this connection, you can record or dub the equalized sound on the cassette deck amplifier.