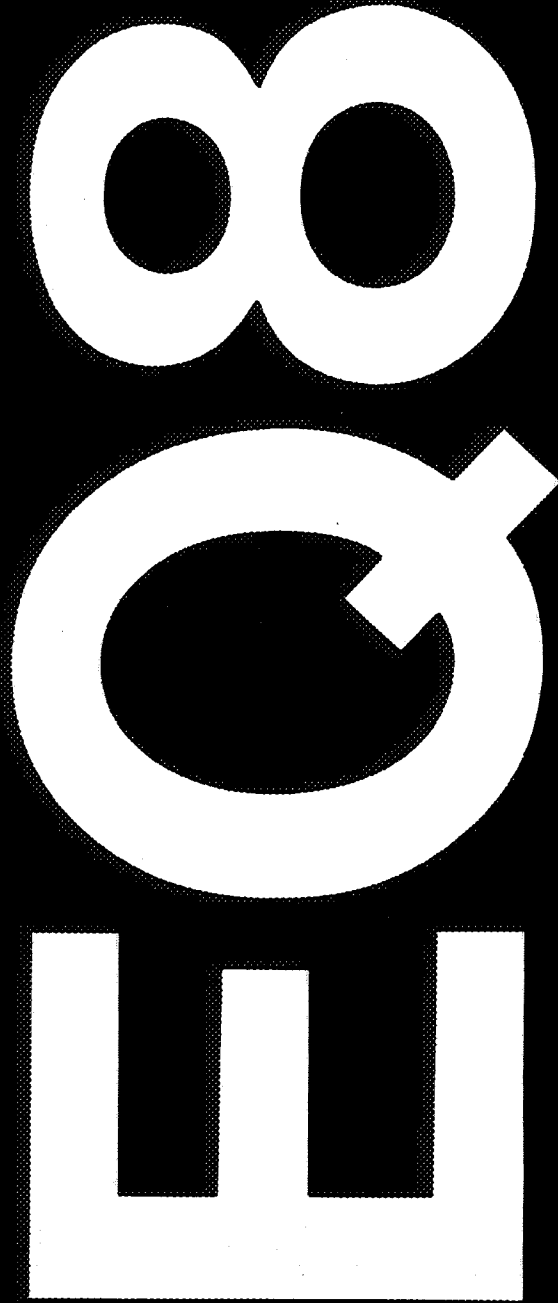
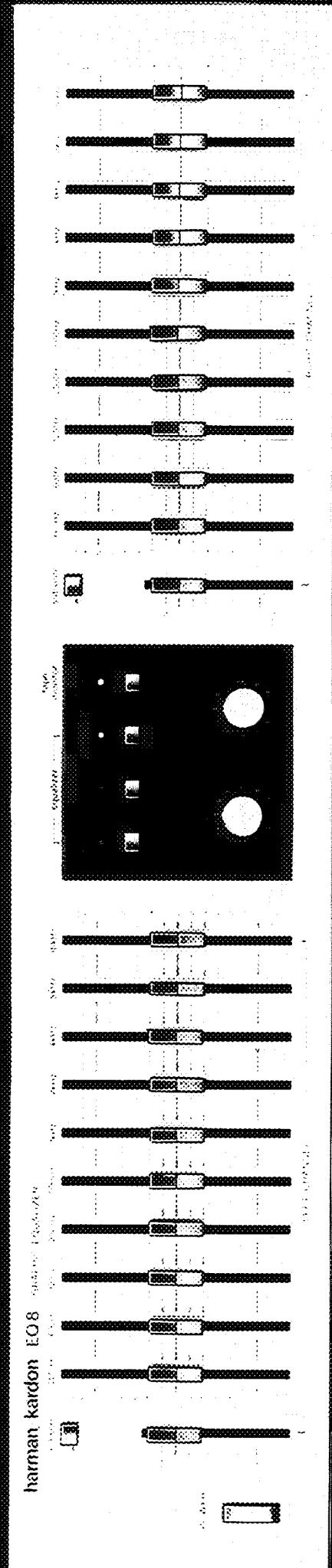


harman/kardon
GRAPHIC EQUALIZER



owner's manual



SPECIFICATIONS

Congratulations on your choice of the Harman Kardon EQ8 Graphic Equalizer.

In order to obtain the best possible performance from your unit, please be sure to read this owner's manual and use your graphic equalizer only in accordance with its instructions. Keep it in safe place for future reference.

Specifications

Input Impedance	: 47k Ohms
Output Impedance	: 330 Ohms
Input Level Control	: -20dB to 0dB
Frequency Response (all controls at 0dB)	: 1Hz to 140,000Hz (+0, -2dB)
Total Harmonic Distortion (at 5V output, 20Hz to 20kHz)	: 0.01%
Signal to Noise Ratio (IHF-A)	: 105dB
Equalizer Center Frequencies	: 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16kHz
Equalizer Control Range	: ± 12dB
Subsonic Filter	: 5Hz to 30Hz (-3dB point)
Dimensions (W x H x D) (with legs, knobs, terminals)	: 17-7/16" x 4" x 13-7/16" (443 x 102 x 341 mm)
Weight	: 9lbs. 15oz. (4.5kg)
Power Supply	: AC 120V, 60Hz
Power Consumption	: 8W



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.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user of 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.



The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

■ 10 Octave Frequency Bands Per Channel

Each stereo channel can be adjusted independently by ten octave level controls. This allows precise compensation for room acoustics and speaker system characteristics.

■ Continuously Variable Subsonic Filter

This unit has a defeatable subsonic filter with a cut-off frequency that can be varied within the range of 5Hz–30Hz.

■ Input Level Controls

The input level for each channel can be controlled independently. Overload indicators are provided to assist in optimal adjustment.

■ Input/Output Selector

Switches are provided to defeat equalization, equalize the main output signal, or equalize the input to a tape deck.

■ Tape Monitor Switch

The output from a tape deck connected to this unit can be monitored.

Always Use at 120V AC

This unit is designed for operation with 120V AC. Use only domestic AC outlets. Never connect the unit to an outlet supplying a higher voltage. This may create a fire hazard.

Handle the Power Cord Gently

- Do not disconnect the plug from the AC outlet by pulling the cord; always pull the plug itself. Pulling the cord may break the wire.
- If you do not intend to use your unit for any considerable length of time, disconnect the plug from the AC outlet.
- Do not place furniture or other heavy objects on the cord, and try to avoid dropping heavy objects upon it. Also do not make a knot in the power cord. The cord may be damaged and can cause a consequent fire hazard.

Place of Installation

Place this unit on a firm and level surface. Avoid installing your unit under the following conditions:

- ▶ Moist or humid places.
- ▶ Places exposed to direct sunlight or close to heating equipment.
- ▶ Extremely cold locations such as those in the direct draught of an air conditioner.
- ▶ Places subject to excessive vibration or dust.
- ▶ Poorly ventilated places.

Moving the Unit

Before moving the unit, be sure to pull out the power cord from the AC outlet and disconnect the wires to all other units.

Do Not Open the Cabinet

To prevent shock hazard, do not tamper with internal components for inspection or maintenance. Harman Kardon does not guarantee against performance degradation resulting from any modification.

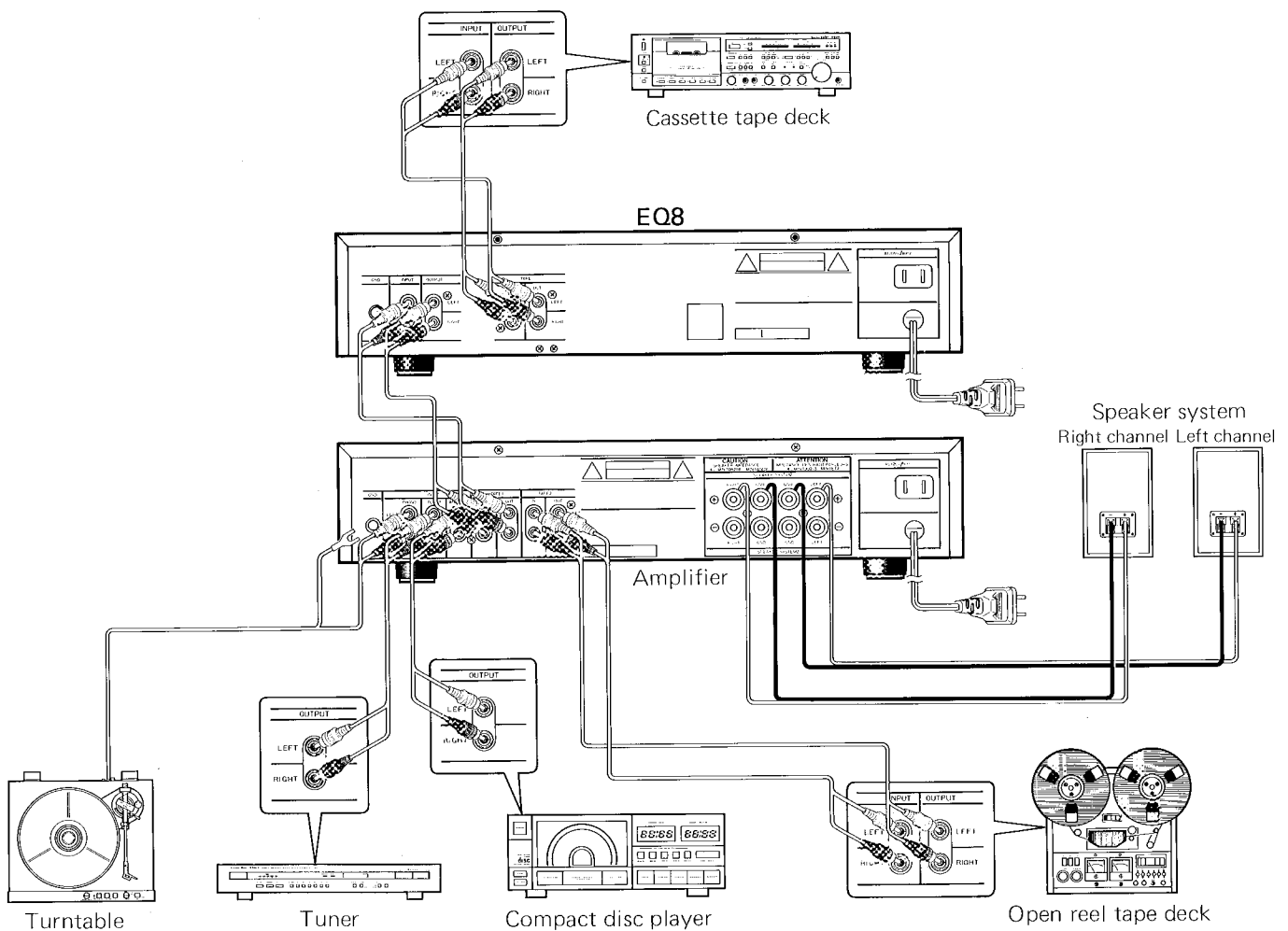
If water, a hairpin or wire accidentally enters the unit, immediately extract the plug from the AC outlet and consult an authorized Harman Kardon service station. If you use the unit with this condition, it may cause a fire or shock hazard and may damage the unit.

Cleaning

When the unit gets dirty, wipe it with a soft dry cloth. If necessary, wipe it first with a soft cloth dampened with mild soapy water and then with a dry cloth.

Never use benzine, thinner, alcohol or other volatile agents, or avoid spraying an insecticide near the unit.

CONNECTIONS



Connecting the Equalizer to a Receiver or Amplifier

- Connect the tape monitor output jacks of the receiver to the equalizer input terminals.
- Connect the tape monitor input jacks of the receiver to the equalizer output jacks.

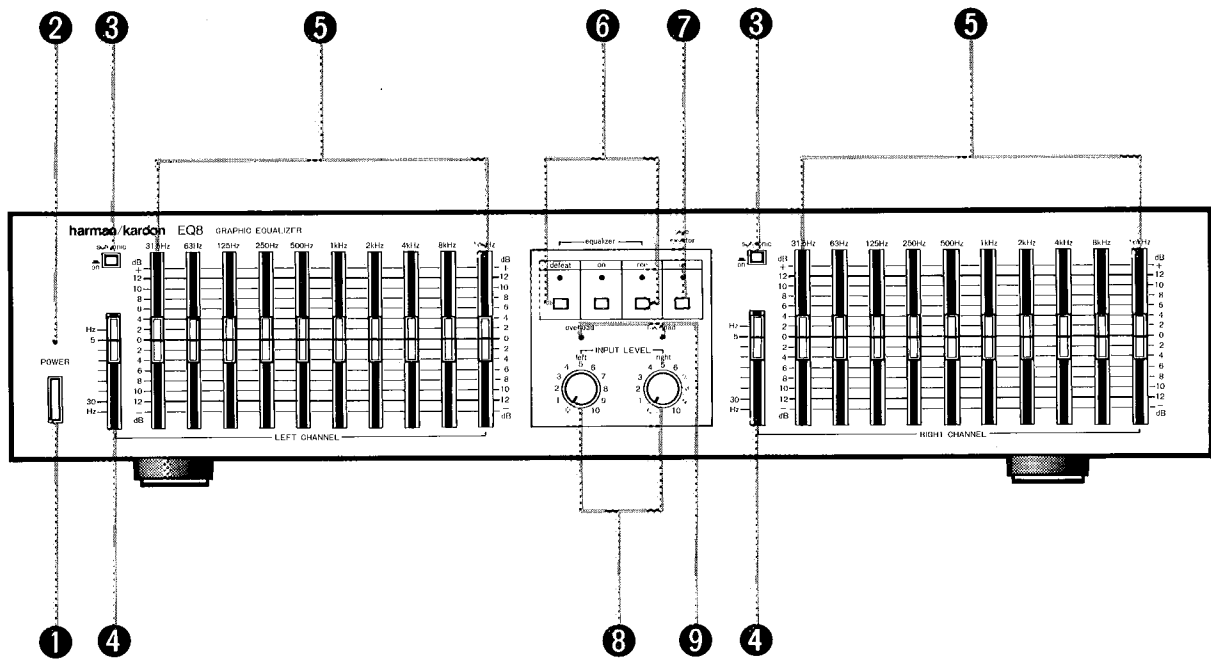
Connecting a Tape Deck to the Equalizer

- Connect the output jacks of the tape deck to the tape monitor input jacks of the equalizer.
- Connect the input jacks of the tape deck to the tape monitor output jacks of the equalizer.

NOTE 1: The AC outlet on the back panel is independent of the power switch. It has a 200 watt rating and is intended for use with a low power component such as a tape deck. Read the manual or label of the component to be plugged in to confirm its power consumption before actually plugging it in.

NOTE 2: While you are connecting your equalizer to the rest of your high fidelity system, please unplug the power cords, disconnecting not only the equalizer but all the components from the AC outlet.

NOTE 3: Plug the connecting cables firmly into the jacks. Insecure connections may result in noise or intermittent operation.



1 POWER SWITCH (POWER)

Press this switch to turn the power on. The POWER indicator will light up. Press the switch again to turn the power off.

2 POWER INDICATOR

When the POWER switch is pressed, the POWER indicator will illuminate.

3 SUBSONIC FILTER SWITCH (subsonic)

This switch turns the subsonic filter on and off. This filter is most useful when playing a record at high sound levels, or with a large amount of low frequency boost.

4 SUBSONIC FREQUENCY CONTROL

When the SUBSONIC FILTER switch is depressed, this control determines the low frequency cut-off point of the filter. It can be continuously varied from 5Hz to 30Hz, the latter offering the most filtering effect.

5 EQUALIZER LEVEL CONTROLS

For boosting or cutting the level of an octave frequency band.

The audio frequency range is divided into 10 octave bands from 31.5Hz to 16kHz. The control range is ± 12 dB for each band.

6 EQUALIZER SELECTOR (equalizer)

DEFEAT switch

When this switch is pressed, the indicator lights up in yellow and the input signal bypasses the equalizer. With the EQUALIZER switch in this position, the receiver and the tape deck connected to this equalizer are directly coupled

to each other, even when the POWER switch is turned off. Also, the signal transmitted from the amplifier to the tape deck retains its flat frequency characteristic.

ON switch

When this switch is pressed, the input from the receiver, or the output of the tape deck connected to the TAPE terminals on the rear panel can be equalized, and the indicator lights up in green. The frequency characteristic can be obtained as desired by adjusting the EQUALIZER LEVEL controls.

REC switch

When this switch is pressed, the indicator lights up in red and the output signal to the tape deck is equalized.

7 TAPE MONITOR SWITCH (tape monitor)

When this switch is pressed, the ON indicator lights up in red, indicating that one is listening to a tape or monitoring the sound being recorded on the tape deck connected to the TAPE terminals on the rear panel. Press this switch again (ON indicator goes out) to equalize the signal from the receiver.

8 INPUT LEVEL CONTROLS (INPUT LEVEL)

These controls adjust the input level for each channel. The best sound quality is obtained at the highest setting that does not cause the overload indicators to turn on.

9 OVERLOAD INDICATORS (overload)

When the input level exceeds the allowable limit, these indicators will illuminate.

Input Level Setting

In order to achieve the best performance, set the INPUT LEVEL knobs to the proper level before each operation as per the following instructions:

1. Press the POWER switch and confirm that the POWER indicator illuminates.
2. Place the tone control knobs of the receiver in flat positions.
3. Set the function selector of the receiver to the desired source position (phono, tuner, etc.).
4. Advance the volume control knob of the receiver until the source is heard.
5. Set the equalizer's TAPE MONITOR switch to the OFF position (button out). Make sure that the tape monitor switch of the receiver is set to the tape monitor position to which this unit is connected.
6. Place all EQUALIZER LEVEL controls in the flat (0dB) position and set the SUBSONIC FILTER switch to the OFF position (button out).
7. Adjust the input level by turning the INPUT LEVEL controls until the sound level becomes the same when alternately pressing the DEFEAT and ON switches of EQUALIZER selector. If the OVERLOAD indicators illuminate, turn the corresponding INPUT LEVEL controls counterclockwise until the indicators go out.

Equalization for Listening

1. Press the POWER switch and confirm that the POWER indicator illuminates.
2. To equalize the sound of a tape deck connected to the TAPE terminals, press the TAPE MONITOR switch and confirm that ON indicator illuminates.
To equalize the sound from the source selected by the receiver, set the TAPE MONITOR switch to the OFF position (button out). Make sure that the tape monitor switch of the amplifier is set at the tape monitor position to which this unit is connected.
3. Press the ON switch of the EQUALIZER selector and confirm that the ON indicator lights up in green.
4. Adjust the EQUALIZER LEVEL controls to obtain the sound level you desire.

Equalization for Tape Recording

1. Press the POWER switch and confirm that the POWER indicator illuminates.
2. Set the function selector of the receiver at the desired source position. Make sure that the tape monitor switch of the receiver is set at the tape monitor position to which this units connected.
3. Set the TAPE MONITOR switch at OFF position (button out).
4. Press the ON switch of the EQUALIZER selector.
5. Adjust the EQUALIZER LEVEL controls to obtain the sound level you desire.
6. Press the REC switch of the EQUALIZER selector and confirm that the REC indicator lights up in red.
7. Activate the tape deck connected to the TAPE terminals on the rear panel.
8. To monitor the sound during recording, press the TAPE MONITOR switch. The ON indicator will light up in red, indicating the monitoring state.

TROUBLESHOOTING CHECKLIST

Troubleshooting Checklist

Most of the problems that customers have are due to incorrect operation of this unit. If this unit does not operate as you intended, first check the items in this list. Also

check other related components and other electrical equipment you use with this equalizer.

Problem	Cause	Remedy
The POWER indicator does not light up by pressing the POWER switch.	<ul style="list-style-type: none"> ●The power cord is not plugged in. 	<ul style="list-style-type: none"> ●Plug in the power cord securely.
The POWER indicator lights up, but no sound is heard.	<ul style="list-style-type: none"> ●The speaker wires are disconnected or breaking. ●The connection wires to other components are disconnected. ●The tape monitor switch of the receiver is set to the OFF position. 	<ul style="list-style-type: none"> ●Check the speaker wires and connect them correctly. ●Check the connection wires and connect them correctly, if necessary. ●Set the tape monitor switch of the receiver to the ON position.
The equalizer has no effect when a tape is being recorded.	<ul style="list-style-type: none"> ●The connection wires to the tape deck are disconnected. ●The EQUALIZER selector is either in the DEFEAT or ON position. 	<ul style="list-style-type: none"> ●Connect the wires to the tape deck securely. ●Press the REC switch of the EQUALIZER selector.
Sound has a large amount of interference.	<ul style="list-style-type: none"> ●The input to the equalizer has interference. ●The connection wires to the other components are improperly attached. ●The INPUT LEVEL controls are not adjusted to the best level. 	<ul style="list-style-type: none"> ●Check the other components connected to the equalizer and make adjustments if necessary. ●Make sure all connection wires are connected properly and are in working condition. ●Readjust the INPUT LEVEL controls.
Sound is distorted.	<ul style="list-style-type: none"> ●The input level is overloading. 	<ul style="list-style-type: none"> ●Readjust the INPUT LEVEL controls until the OVERLOAD indicators go out.

Warranty and After-sale Service

- Please find the warranty card enclosed with this unit when you purchased it.
- After filling in the required items and reading the contents of the warranty card, keep it in a safe place.
- The warranty term is for two years from the date of purchase.
- If this unit does not operate normally, first check this unit by yourself following the instructions provided in the "Troubleshooting Checklist" in the manual.

- If a problem persists even though you have done as suggested in the checklist, consult your authorized Harman Kardon service station.
- Repair within the warranty term is made according to the prescriptions specified in the warranty card. For details, refer to the warranty card.