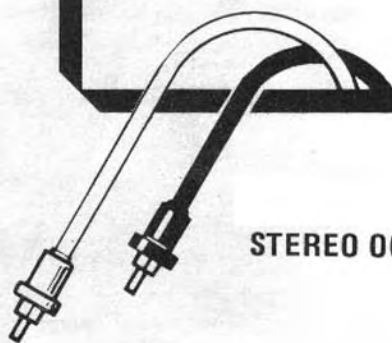
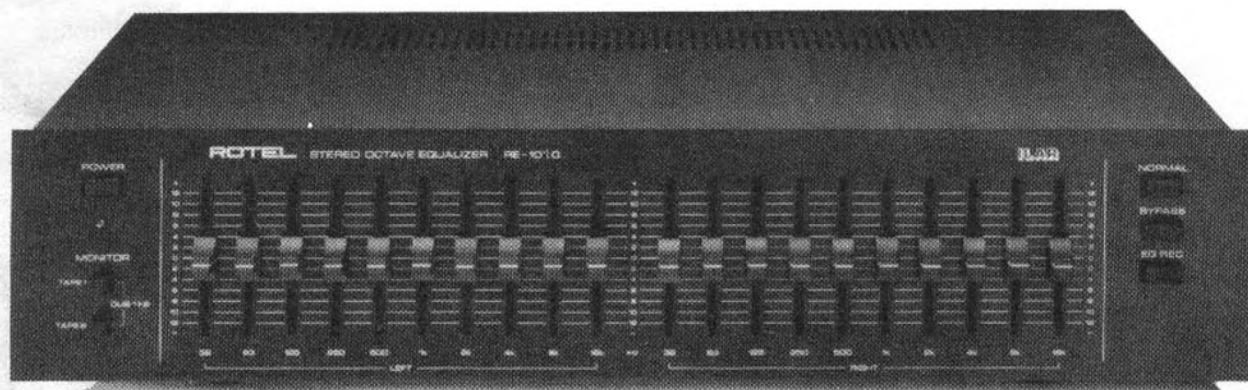


OWNER'S MANUAL

Quality. Uncompromised.

ROTEL®



STEREO OCTAVE EQUALIZER

RE-1010

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

Write your SERIAL NUMBER here.
The number is located near the name plate on the unit's rear panel.

THE ROTEL CO., LTD.
1-36-8 Ohokayama, Meguro-ku, Tokyo, Japan

INTRODUCTION

We at Rotel want to thank you for purchasing our audio product. Rotel audio products are designed to use the latest electronic technology, and they incorporate our long experience as a specialist manufacturer of audio equipment. We are confident that you will find satisfaction in the high quality sound and top performance, and that you will find pleasure in the functional beauty achieved through human-engineering concept. Before starting operation, please read this instruction manual thoroughly and acquaint yourself with the proper mode of using the unit and all its connections.

We hope you will enjoy top-notch performance for many years to come.

INSTALLATION

Be sure to place the unit in a level and flat place where it is free from humidity, vibration, high temperature and not exposed to direct sunlight. Be careful not to place the unit in a highly enclosed place such as near a wall or on a bookshelf. A poor ventilation will cause undesirable effects to the unit.

POWER SUPPLY CONNECTION

For power the unit requires the normal house electrical current (AC). You may simply plug the unit to a wall outlet, or to your amplifier's (or receiver's) switched or unswitched AC outlet. If it is plugged to a switched outlet, by leaving the power switch of the unit on, you will be able to maintain switching control for the equalizer with your amplifier or receiver. If it is connected to an unswitched outlet, like connecting to a wall outlet you must use the equalizer's own power switch for switching control.

CAUTION — Do not apply power without first making sure the proper connections are completed. If you live in U.K. and your unit comes with 2-core cord without a plug, be sure to read the exclusive caution for U.K.

FUNCTION OF THE EQUALIZER

Before using your unit, please read over this brief explanation of the functions of the equalizer.

As you probably know, program sources are made up of records, tape recordings, and AM/FM broadcasts. The production of the electric signal that creates this sound is achieved through various methods of energy conversion: through the mechanical vibration of the cartridge needle as it traces the groove in the case of records; through a magnetic signal in the case of tape recordings; and through radio waves in the case of AM/FM broadcasts. In all of these methods it is difficult to avoid alterations in sound characteristics that accompany reproduction, but such alterations are particularly conspicuous in the case of records. Notice the frequency characteristics for most standard cartridges as shown in fig. 1 - you can notice the increase that occurs in the higher ranges. This is thought to be due to the impedance of the cartridge, the input power impedance of the amplifier, or to the mutual influence of these two. As long as the characteristics of the rest of the sound circuit -

EXCLUSIVE NOTE FOR U.K.

If your unit comes with a 2-core cable without a plug, make certain live and neutral leads are connected to the proper terminals. Check that the terminals are screwed down firmly and no loose strands of wire are present.

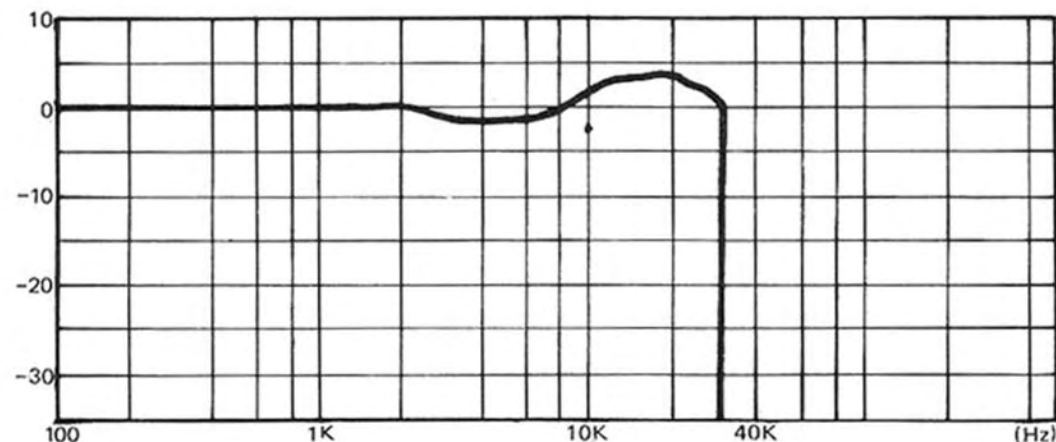
IMPORTANT: The wires in this mains lead are coloured in accordance with the following code:

BLUE: NEUTRAL
BROWN: LIVE

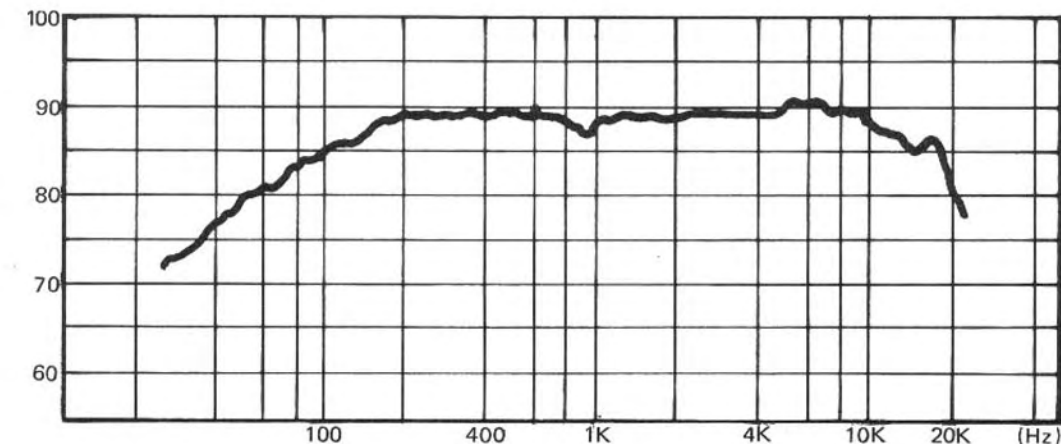
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLUE or BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured BROWN or RED.

(dB) Fig. 1

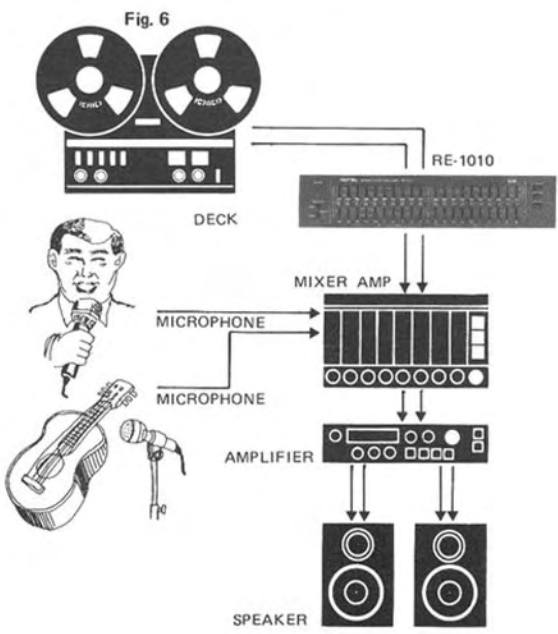
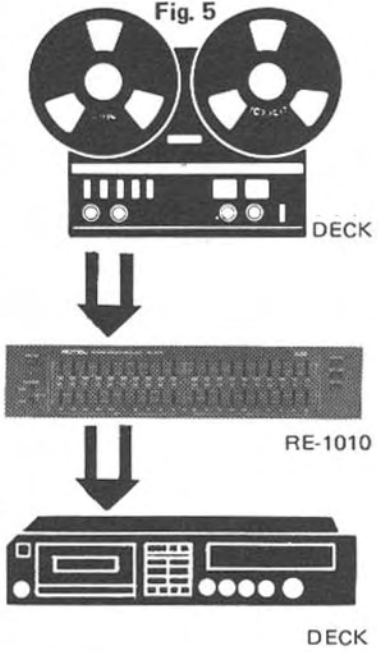


(dB) Fig. 2



amplifier, speakers, etc. - remain flat, this high frequency increase will be reproduced as it is. Since the system used in tape decks and tuners is purely electronic, the problems of alteration of frequencies in tape and AM/FM reproduction are not as great as they are with phono cartridges. The speakers, as the final outlet of the sound circuit, also reproduce sound by mechanical means, in which an electric signal causes the vibration of the surrounding air, and for this reason, the speakers, like the cartridge, are easily subject to the alteration of sound. Note the frequency characteristics of a standard speaker, as shown in fig. 2. You will notice the zig-zag pattern of frequency response throughout the entire frequency spectrum, with drop-offs at the ends of both high and low frequencies. In addition to the speaker itself, fluctuations in the balance of frequencies are caused by the position of a speaker in the listening room, and by the acoustic characteristics of the room itself; that is, whether it is "live" or "dead".

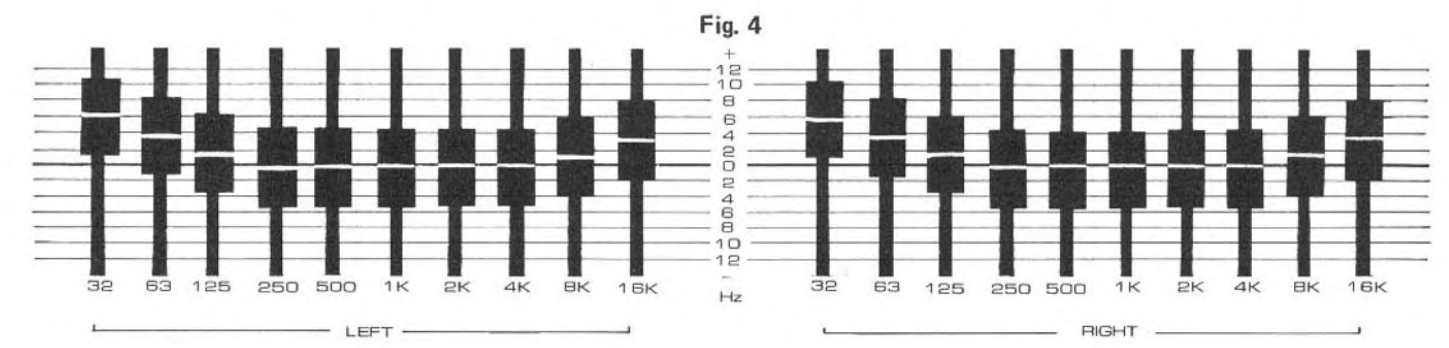
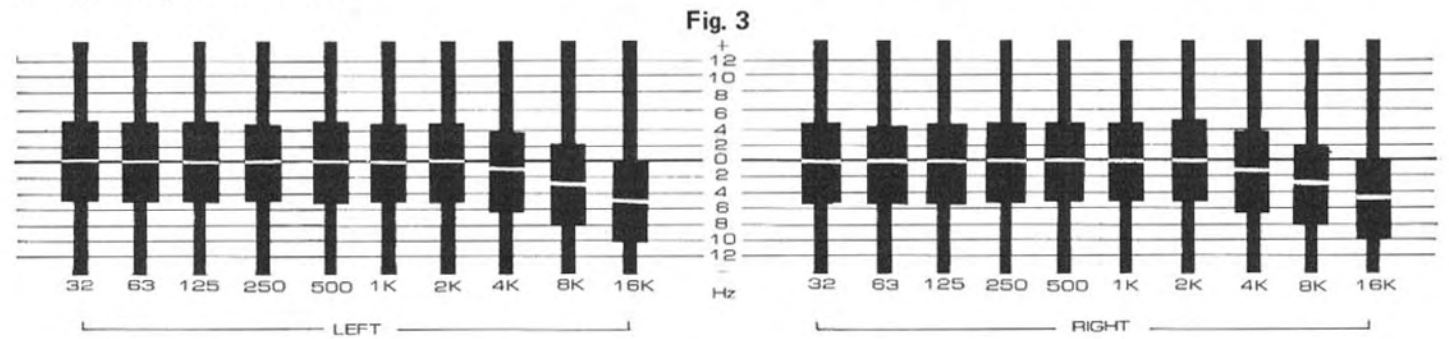
The primary function of the equalizer is to compensate for the above-mentioned characteristics. For example, should the cartridge, as in fig. 1, produce unduly high frequency characteristics, you may diminish this through use of the equalizer as shown in fig. 3. In the case of speakers, as in fig. 2, you may accent high and low end frequencies as shown in fig. 4. Through these adjustments you are able to offset the undesirable sound characteristics of both cartridges and speakers, to obtain favorable flat frequency characteristics. Apart from the examples mentioned, you may also use the appropriate frequency controls to adjust the sound from sources that exhibit partial frequency peaks along the sound spectrum, in order to obtain



overall flat characteristics. In this respect the equalizer differs from the conventional tone controls of integrated amplifiers and receivers, as it allows the listener to make very precise adjustments in program sound characteristics. However, there are also occasions when the listener does not know the specific characteristics of his cartridge or speakers, nor can it always be said that a flat response is the best response. Should you be simultaneously using a cartridge that accentuates high-end frequencies, and speakers with low and high-end drop-off characteristics, as seen in fig. 1 and 2, it would then probably be best not to use the equalizer for high-end compensation. In other cases, there will be times when a flat response will result in an undesirable sound quality. In any case, as balance with the conditions of your listening room is the final goal, the adjustments mentioned should be taken only as points of reference, letting your ears be your guide to the sound quality you desire.

An additional function of the equalizer is seen in its use during editing work for live and other types of recordings. In this case, the equalizer is used not for compensation of sounds, but to intentionally add peaks or dips in frequencies to add modulation to the sound. It may also be used for sound effect and multi-layer recording. (See fig. 5 and 6).

Please be certain to make proper use of the equalizer by making yourself familiar with both the various types of program sources, and the purposes of the equalizer itself.



SWITCHES AND CONTROLS

(1) Power Button and Pilot Indicator

Depress POWER button to supply power. Pilot indicator lights up and the unit goes into operation in 3 to 7 seconds. Releasing the button cuts the power supply.

(2) Monitor Buttons (TAPE 1/TAPE 2)

Used to monitor a tape during recording, or playing back a pre-recorded tape. Depress "TAPE 1" button to monitor a tape deck connected to "TAPE MONITOR 1" terminals on the rear panel. Depress the "TAPE 2" button to monitor a tape deck connected to "TAPE MONITOR 2" terminals. Dubbing from "TAPE 1" to "TAPE 2" can be done by depressing the two buttons simultaneously.

(3) Frequency Controls

Ten slide controls each are provided for both left and right channels. The controls cover 10 respective band sections within the audible frequency range. Each control can adjust the level of respective frequency range between +12dB and -12dB. The frequency controls are used to compensate for acoustical characteristics of the listening room, or to suppress excessively high peak levels caused by phono cartridge or speaker characteristics.

(4) Normal Button

Depress the button to switch in the equalizer in playback.

(5) Bypass Button

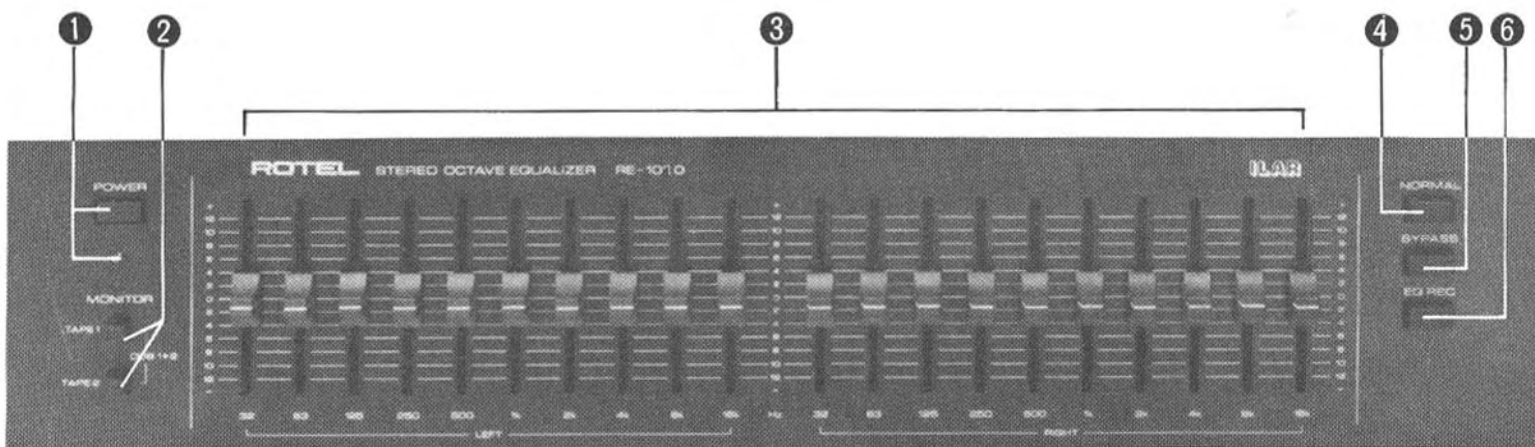
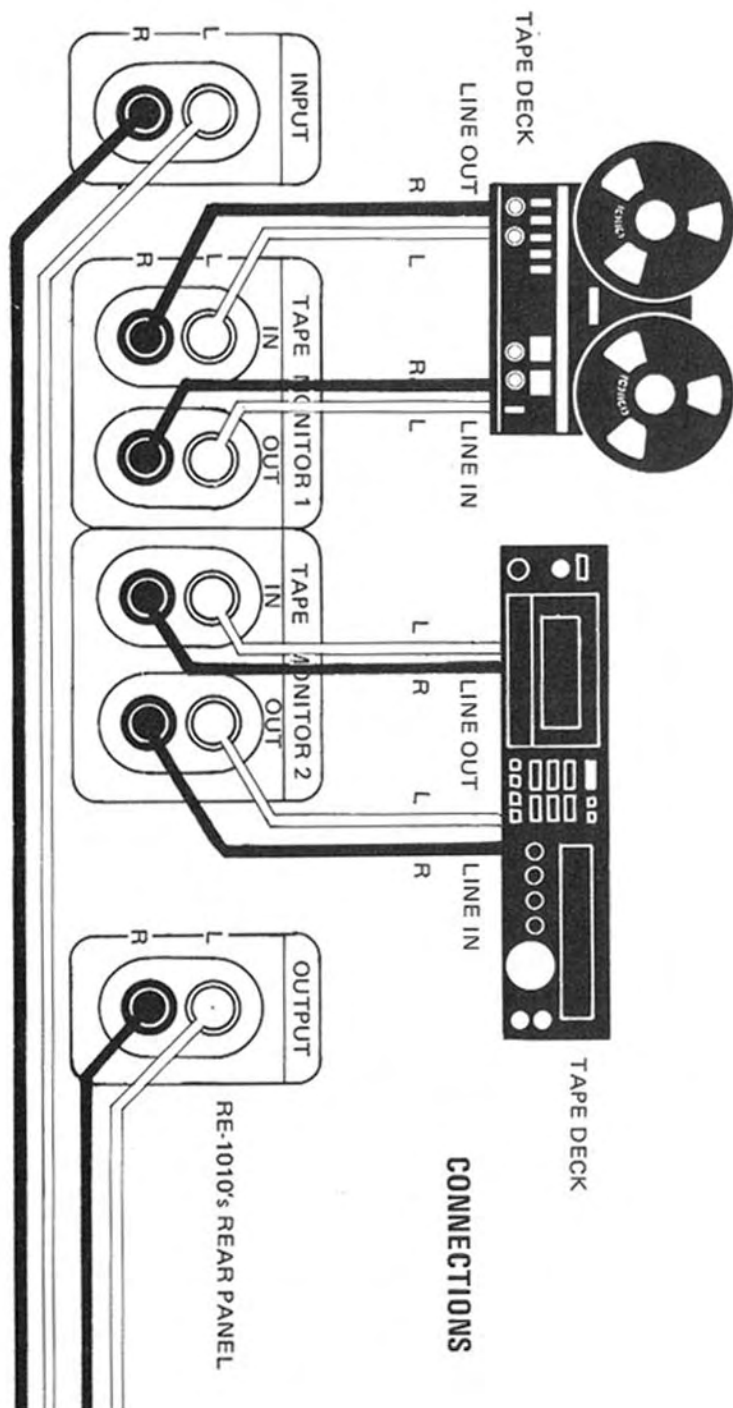
Depress the button to switch out the equalizer in playback or recording (the signal bypasses the equalizer controls).

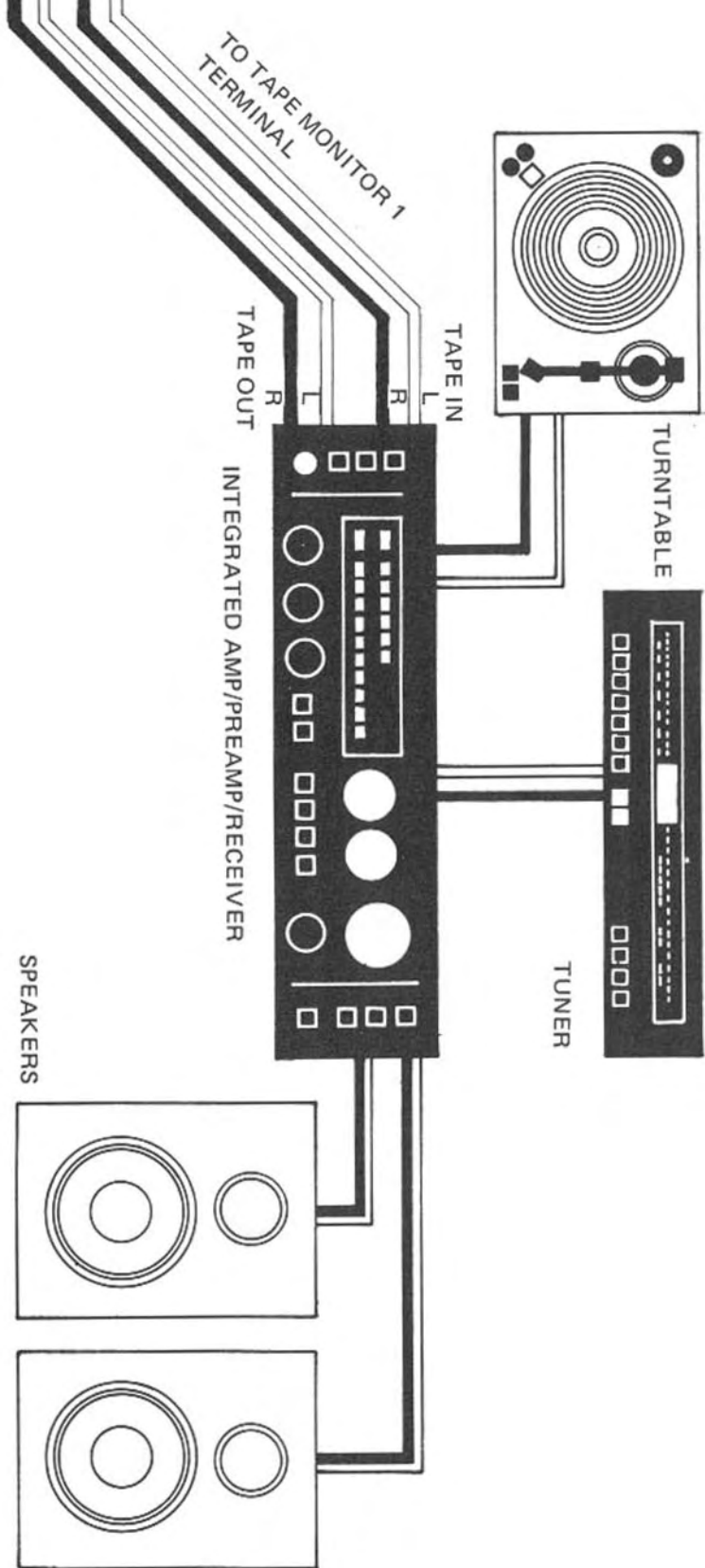
(6) Equalizer Recording (EQ REC) Button

Depress the button to switch in the equalizer for recording or dubbing.

OPERATION

- Follow the instructions below, referring to the unit connection diagram.
- Before starting, make sure that the tape monitor switch on integrated amp, preamp or receiver is set to "TAPE 1" position. If the equalizer is connected to the "TAPE MONITOR 2" terminals of integrated amp, etc., set the tape monitor switch on the amp, etc. to "TAPE 2" position.
- Turn on the equalizer and all other related units.





Listening with EQ

A. Listening to AM, FM Broadcast, or Record (Program Sources)

1. Set both MONITOR buttons to OFF (released) position.
2. Depress NORMAL button.
3. Start record or broadcast, setting the frequency controls according to your preference.

B. Playback

1. To play back for deck connected to "TAPE MONITOR 1" terminals on the rear panel, depress "TAPE 1" button. Likewise, depress "TAPE 2" button for deck connected to "TAPE MONITOR 2" terminals.
2. Depress NORMAL button.
3. Start playback, setting the frequency controls to your preference.

EQ Tape Recording

1. Depress EQ REC button.
2. Start the program source, setting the frequency controls as desired. Set the tape deck to the record mode to record the program source. Equalized signal will be recorded.
3. If your deck is the 3-head type, depress appropriate MONITOR button, TAPE 1 or 2, according to the connection of the deck, to monitor the recorded signal simultaneously with recording. If the MONITOR button is set to OFF position, the signal can be monitored just before it is recorded. (With a 2-head type deck, you can monitor signals before being recorded only.)

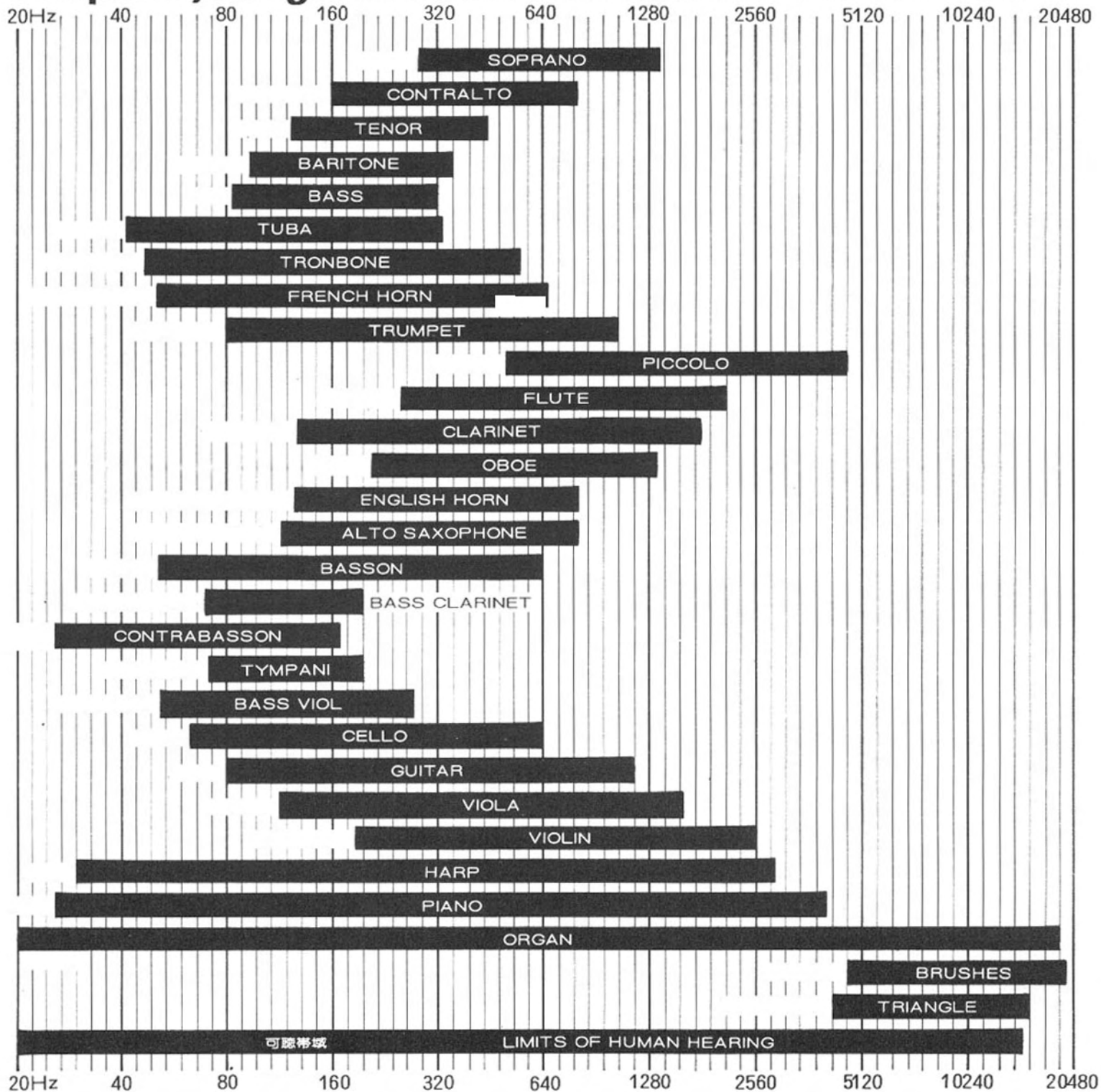
EQ Tape Dubbing

1. Depress both TAPE 1 and 2 buttons.
2. Depress EQ REC button.
3. Set the frequency controls as desired. Set the tape deck connected to "TAPE MONITOR 1" terminals on the rear to playback mode, and set the other deck connected to "TAPE MONITOR 2" to record mode.

Playback, Recording or Dubbing without EQ

Depress BYPASS button to switch out the equalizer. The input signal will be routed to the output terminal bypassing the equalizer controls. Use MONITOR buttons in the same manner as in EQ operations described above.

Frequency Ranges of Musical Instruments and Voice Parts



QUICK REFERENCE CHART FOR SWITCH OPERATION

Note: "PHONO" in the Function Switch column of integrated amp, etc. is given only for reference; select appropriate position according to the kind of source used.

		INTEGRATED AMP, PREAMP, OR RECEIVER		RE-1010					Deck 1	Deck 2
		MONITOR Switch	FUNCTION Switch	MONITOR Switch		NORMAL Switch	BYPASS Switch	EQ REC Switch		
				1	2					
Listening to Program Source	EQ Switched IN	TAPE 1	(PHONO)	OFF	OFF	ON				
	EQ Switched OUT	TAPE 1	(PHONO)	OFF	OFF		ON			
Listening to TAPE 1	EQ Switched IN	TAPE 1		ON	OFF	ON			PLAY	
	EQ Switched OUT	TAPE 1		ON	OFF		ON		PLAY	
Listening to TAPE 2	EQ Switched IN	TAPE 1		OFF	ON	ON				PLAY
	EQ Switched OUT	TAPE 1		OFF	ON		ON			PLAY
Recording Program Source on TAPE 1 (or 2)	EQ Switched IN	TAPE 1	(PHONO)	ON	(ON)			ON	REC	(REC)
	EQ Switched OUT	TAPE 1	(PHONO)	ON	(ON)		ON		REC	(REC)
Dubbing from TAPE 1 to 2 (1→2)	EQ Switched IN	TAPE 1		ON	ON			ON	PLAY	REC
	EQ Switched OUT	TAPE 1		ON	ON		ON		PLAY	REC

SPECIFICATIONS

Band 10 bands per channel (10 center frequencies)

Band Control Characteristic:

Increase +12dB

Decrease -12dB

Center Frequency (Hz) 32, 63, 125, 250, 500, 1,000, 2,000, 4,000
8,000, 16,000

Input Sensitivity/Impedance

(LINE, TAPE MONITOR 1, 2) . . 1.0V/50 kohms

Output Voltage/Impedance

(LINE, TAPE MONITOR 1, 2) . . 1.0V/600 ohms

Hum and Noise 108dB

Residual Noise 3.9µV

Frequency Response 15 - 45,000Hz, +0dB, -1dB

Harmonic Distortion 0.01% (20 - 20kHz, 1.0V)

Power Requirement 120V/60Hz, 220V/50Hz, 240V/50Hz or
120, 220, 240V/50-60Hz

Power Consumption 8 watts (max.)

Dimensions (overall) W 430mm/16-15/16"

H 98mm/ 3-27/32"

D 290mm/11-13/32"

Weight (net) 4.3kg/9.46 lbs.

Specifications and design subject to possible modification without notice.