

VACUUM TUBE TYPE PRE-AMPLIFIER

Dynavector **DV** **3000 GOLD**

Owner's Manual

Dynavector Systems, Ltd.

G - C₁ - 101

BEFORE LISTENING, YOU MUST KNOW NEXT POINTS.

- * Before connecting the input and out put signal cords to other equipments, make sure the amplifier is switched off or the volume control knobs of every amplifiers are reduced to the zero status, otherwise the big shock noise will deteriorate the loud speaker systems.
- * This Amplifier is the tubed amplifier. This requires the ventilation in operation. DO NOT disturb the ventilation by putting something on the ventilation louver.
- * To protect tubes from damage during transportation, Handle With Care !

WARNING !

To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

1. GENERAL DESCRIPTION

Most outstanding features of DV-3000 Gold are the direct coupled tubed unit amplifiers and the passive RC networks for RIAA equalization and tone control. Thus the input signal is amplified by the DC unit amplifier and then the frequency equalization is realized by the passive RC network.

This circuit design for the preamplifier is quite unusual compared to the almost all other amplifier design in which the negative feedback active equalization circuit is utilized.

By our design method the number of the capacitors existing in the preamplifier circuit is reduced to the minimum.

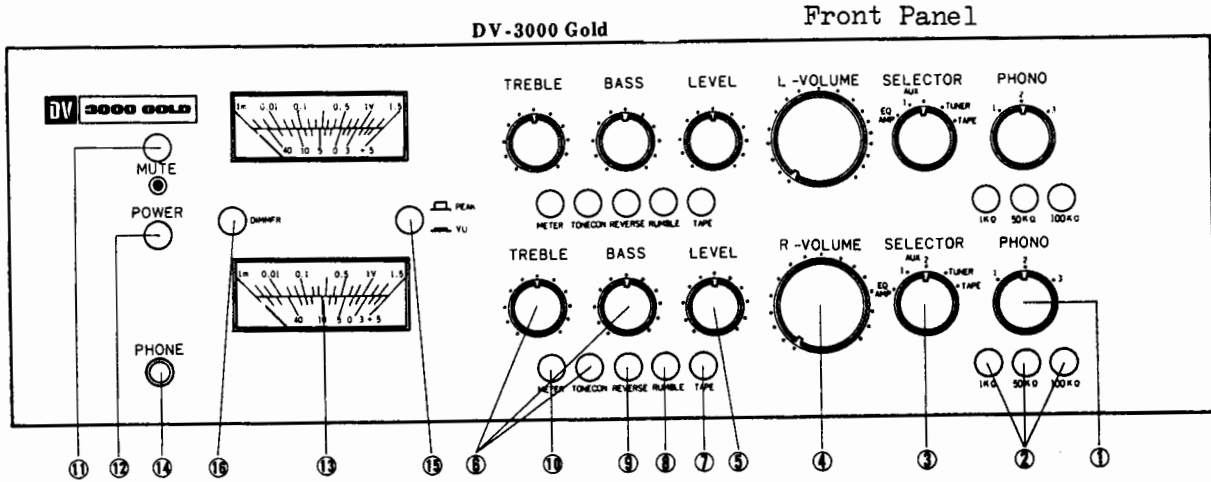
Therefore, the unfavourable deterioration in sound quality by the capacitor is greatly avoided. Of course, we are selecting the most linear and well sounding capacitors for the use in our amplifiers including preamplifiers DV-3000, Dv-3000 Gold, DV-8050 and DV-8250 from many brands by our own hearing test and using the linearity checking instruments. The resistors, control switches and tubes in our amplifiers are always selected by the same means to make the most beautiful sound quality.

Musicality and the technical data available by today's measuring standards are not always consistent with each other. We know very many preamplifiers with truly remarkable engineering standard but no musicality. We estimate the audio equipments by its dynamic range, resolution, ambience reproduction, attack and release of sound and not simply by the conventional frequency response, distortion rate and rising time.

First of all, we are always keen at the music reproduced through our equipments.

EV-3000 Gold is the crystallization of Dynavector sound and you should be deeply burried in music itself !

2. HOW TO CONNECT



1) PHONO

Three outputs from three tone arms can be switched.

2) PHONO IMPEDANCE

By pushing one of three knobs, 100 k ohms, 50k ohms or 1k ohms is selected to match with the optimum impedance of a cartridge in use.

3) SELECTOR

Higher voltage inputs as AUX and TUNER can be switched.

4) VOLUME

Precision attenuater has accurate attenuation by stepping device.

5) LEVEL

Volume control is located just before output terminal PRE OUT. If too large voltage is fed into the input. Overload or saturation will take place. In this case adjustment is required by LEVEL control knob. In ordinary condition the maximum condition in LEVEL control is recommended to attain the maximum signal to noise ratio (SN ratio).

6) TONE CON (TREBLE, BASS)

At the corner frequency of 500 Hz and 200 Hz tone control circuit operates. At 100 Hz and 10 KHz the frequency response can be controlled ± 10 dB at the maximum or minimum. If push button TONE CON is not pushed down, the tone control circuit is canceled.

7) TAPE COPY

By pushing down TAPE COPY button TAPE INPUT is canceled to TAPE OUT thus masking possible the use of a tape recorder for dubbing the music signal.

8) RUMBLE FILTER (CUT OFF 30 Hz)

Rumpling is reduced by 12dB/OCT at the corner frequency of 30 Hz.

9) REVERSE

By pushing the button, the signal of that channel is available from both of output terminals.

If both of REVERSE buttons are pushed, stereo signals are reversed.

10) METER

By pushing the button, signal level of input is observed. In ordinary status, the output level of preamplifier is observed.

11) MUTE

By pushing the button, output signals from both channels are nil, and indicating light is lighted.

12) POWER

POWER OUTLET at the rear panel is also switched by this power switch.

13) PEAK METER

Peak program meter of DV3000GOLD has rising time of 10mSEC and settling time of 0.65SEC and band width of 20 Hz to 20KHz (+1 dB)

14) PHONE

Headphone of 8 to 600 OHM impedance can be used. Headphone has no effect to output of preamplifier.

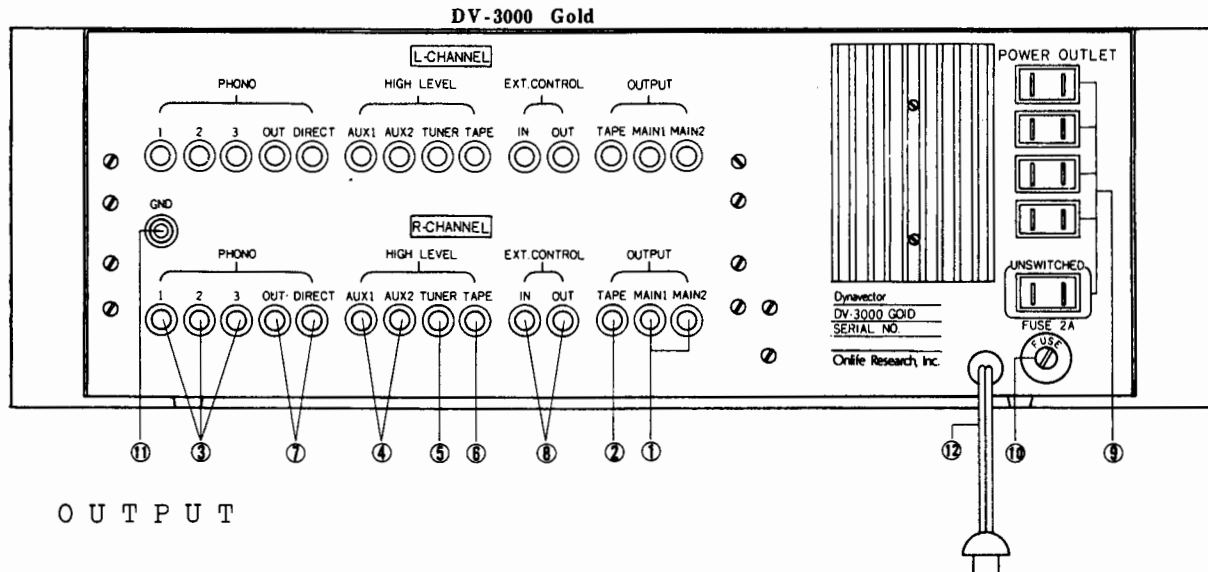
15) PEAK - VU

Pushing this button gives VU status in the meter.

16) DIMMER

Pushing button gives less illumination of the meter.

Rear Panel



O U T P U T

- 1) MAIN 1, MAIN 2 (PRE OUT)
Output signal is available from these two terminals at the same time.
- 2) TAPE (REC OUT)
Output signal of the equalizing circuit is available from this terminal.

I N P U T

- 3) PHONO 1, 2, 3, DIRECT
The load resistance of the cartridge can be selected from among 100K ohms, 50K ohms and 1K ohm by pushing buttons. DIRECT means that the signal from cartridge is fed direct to the control grid of the top tube of equalizer to avoid the unfavourable effect of switching circuit.
- 4) AUX 1, 2
High level input signals are expected. Input impedance is 100K ohms.

5) TUNER

TUNER output is expected. Impedance is 100K ohms.

6) TAPE

TAPE Recorder output is connected here. Impedance is 100K ohms.

O T H E R T E R M I N A L S

7) PHONO OUT & PHONO DIRECT

Normally Phono Out and Phono Direct are shorten. If output of phono cartridge is connected to PHONO DIRECT, the unfavoured effect of switching circuit prior to equalizen circuit can be neglected giving more clear sound quality.

8) EXT. CONTROL

Graphic equalizer can be inserted here.

9) POWER OUTLET

AC power can be available. UNSWITCHED gives 500 watts Max. Others are up to 300 watts Max.

10) FUSE

FUSE capacity is 2 Ampere.

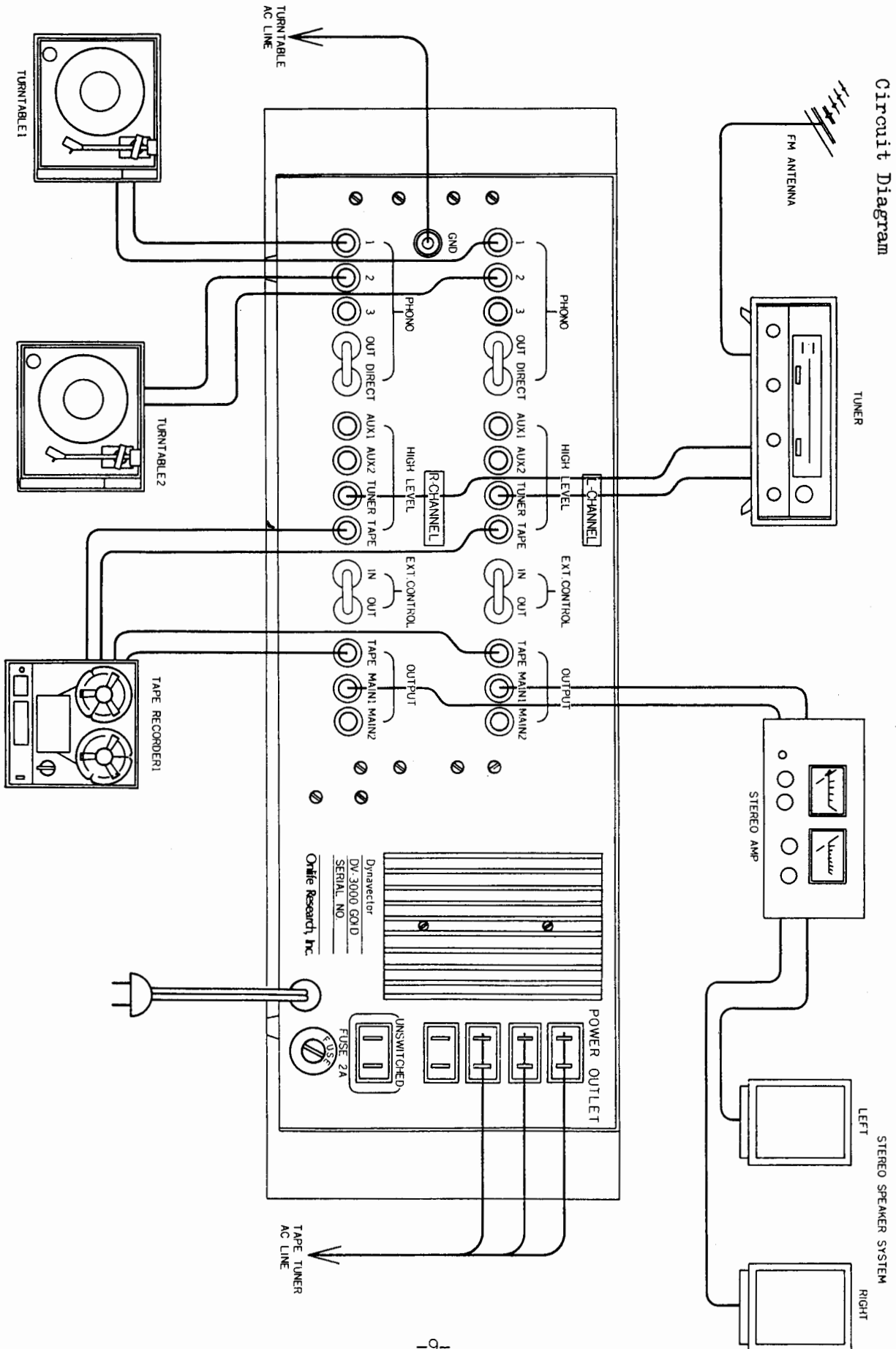
11) GND.

Earth line from pick up arm is connected here.

12) POWER WIRE

125 V, 6 A

Circuit Diagram

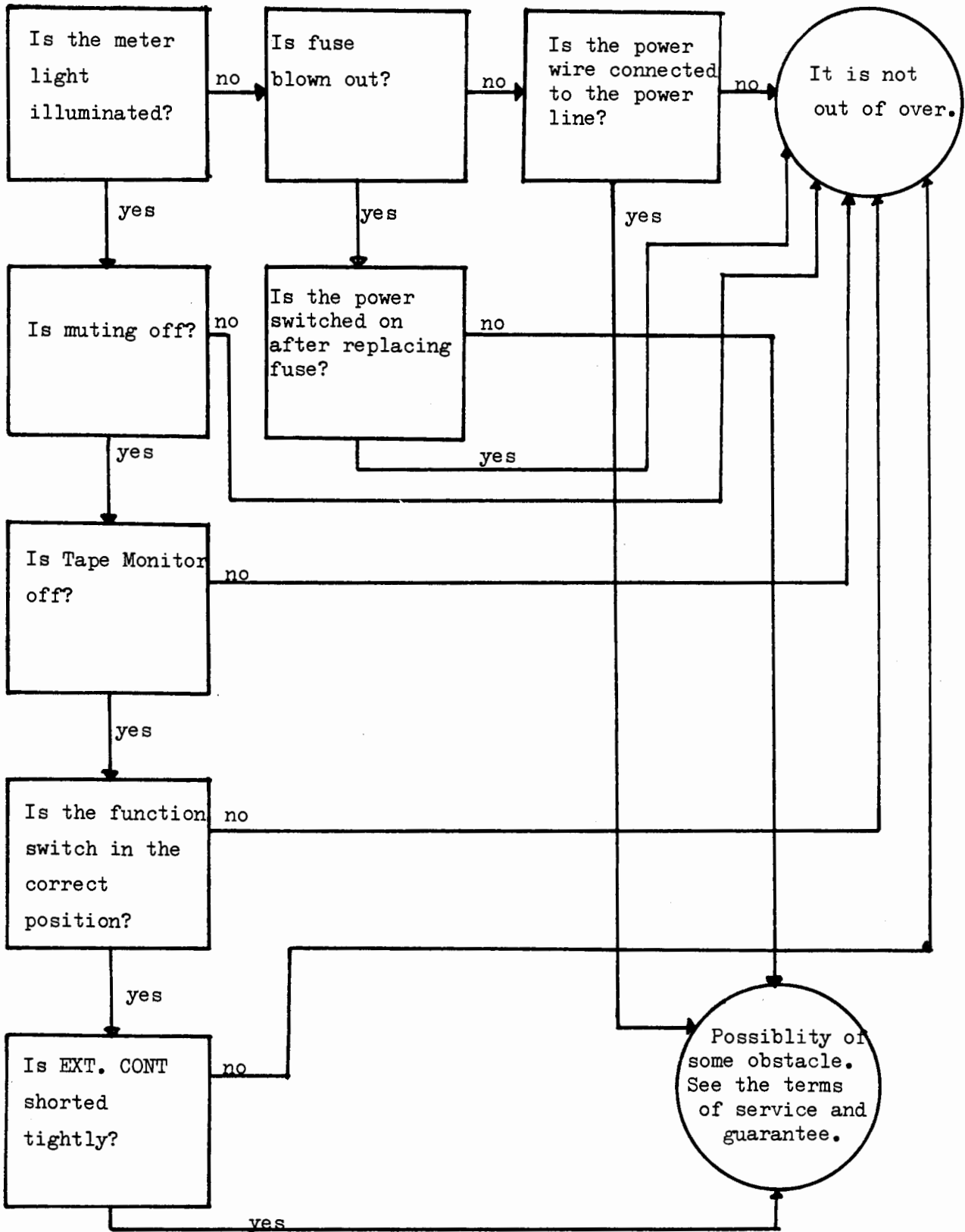


3. OPERATING PROCEDURE

Before operation, take following procedure.

- 1) Push buttons are OUT status.
- 2) Reduce the VOLUME control to zero position.
- 3) Make sure the shorting wire at EXT. CONT and PHONO DIRECT are connected rigidly.
- 4) Make sure that the muting light is off after 30 seconds of power on.
- 5) Select the function after your requirement. If something unusual takes place, check the situation after the checking flow graph of next page.

4. CHECKING FLOW GRAPH



5. SPECIFICATION

1) INPUT OUTPUT

Phono	3	Impedance	100K, 50K, 1K ohms
Aux	2	"	100K ohms
Tuner	1	"	"
Tape	1	"	"
Out Tape	1	"	10K ohms
Out Main	1	"	600 ohms
Tape Copy	1	Input Impedance	100K ohms
		Output	" 10K ohms

2) GAIN

Phono	60 dB
Aux	20 dB
Tuner	20 dB
Tape	20 dB

3) INPUT SENSITIVITY

Phono	1 mV
Aux	100 mV
Tuner	100 mV
Tape	100 mV

4) MAXIMUM INPUT TOLERANCE

Phono	600 mV p-p
Aux	6 V p-p
Tuner	"
Tape	"

5) RATED OUTPUT

Pre Out	1 V Max. 20V	Over RMS (ultimately 100K ohms)
Rec Out	100mV Max. 2V	Over RMS (ultimately 100K ohms)

6) NOISE

Phono	Less than 1.5 micro V (in terms of input, at time of input short circuit, in IHFA circuit)
Aux	Less than 20 micro V (in terms of input, at time of input short circuit, in IHFA circuit)

7) FREQUENCY RESPONSE

Phono 30Hz - 15KHz (+ 0 dB -0.5dB)

Aux, Others 20Hz - 20KHz (+ 0 dB -0.5dB)

8) TOTAL HARMONIC DISTORTION FACTOR below 0.2 %

9) CHANNEL SEPARATION over 90dB (20Hz - 10KHz)

10) TONE CONTROL RANGE \pm 10 dB (100 Hz, 10K Hz)

11) VACUUM TUBES

ECC 803S 2 pcs.

ECC 802S 8 pcs.

12) DIMENSION & WEIGHT

480W x 155H x 362D , 15 kg.

6. GUARANTEE AND SERVICE

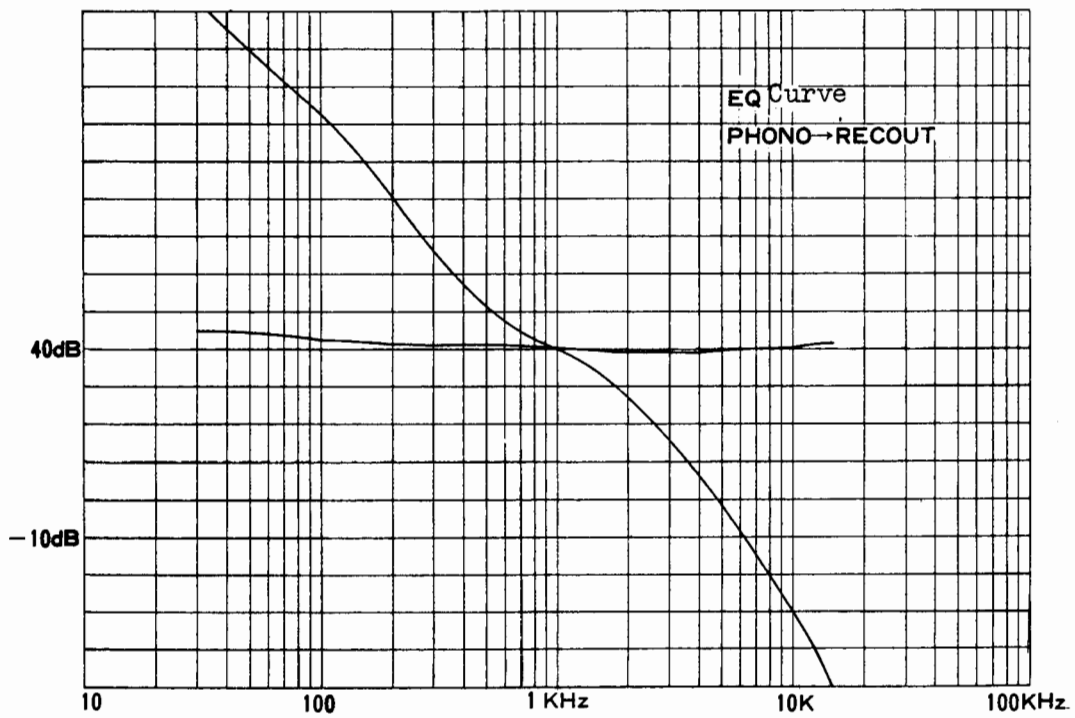
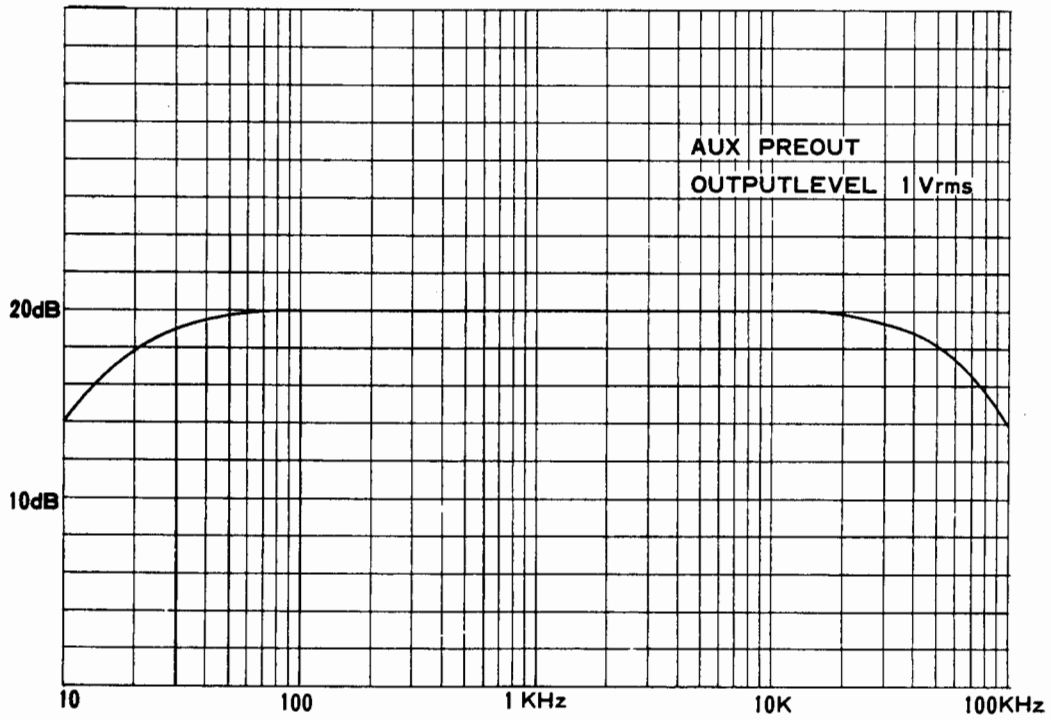
If some defects during transportation are found, please contact with your dealer or our company directly.

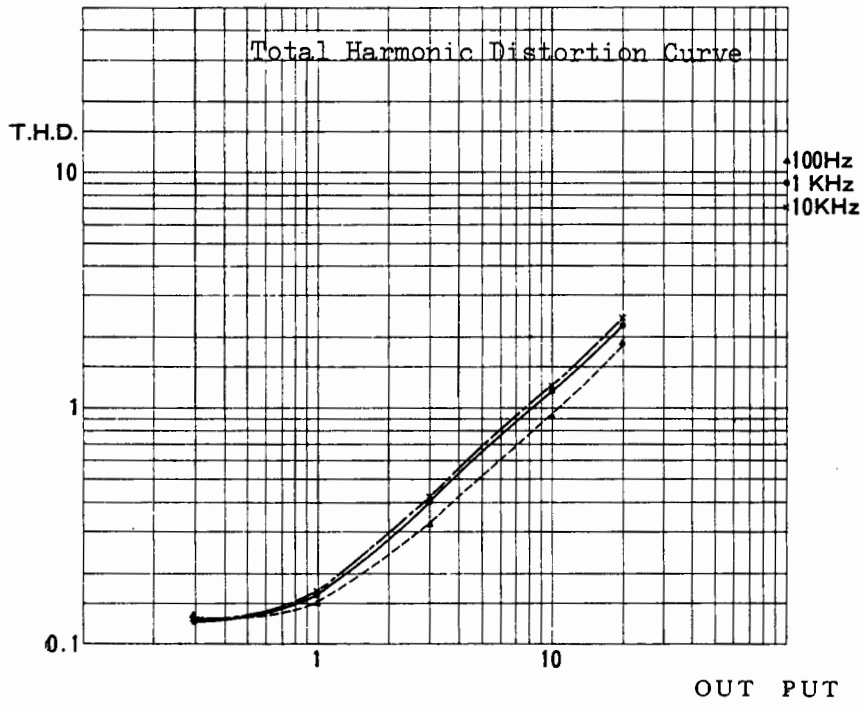
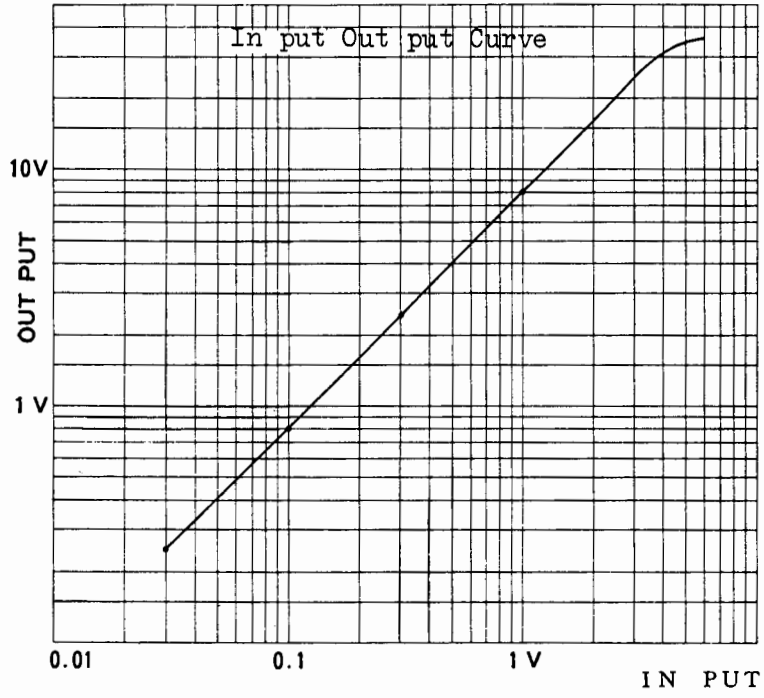
This equipment is guaranteed for one year except vacuum tubes. Transformers are guaranteed for three years. Obstacles caused by misoperation are not guaranteed even within the guarantee period.

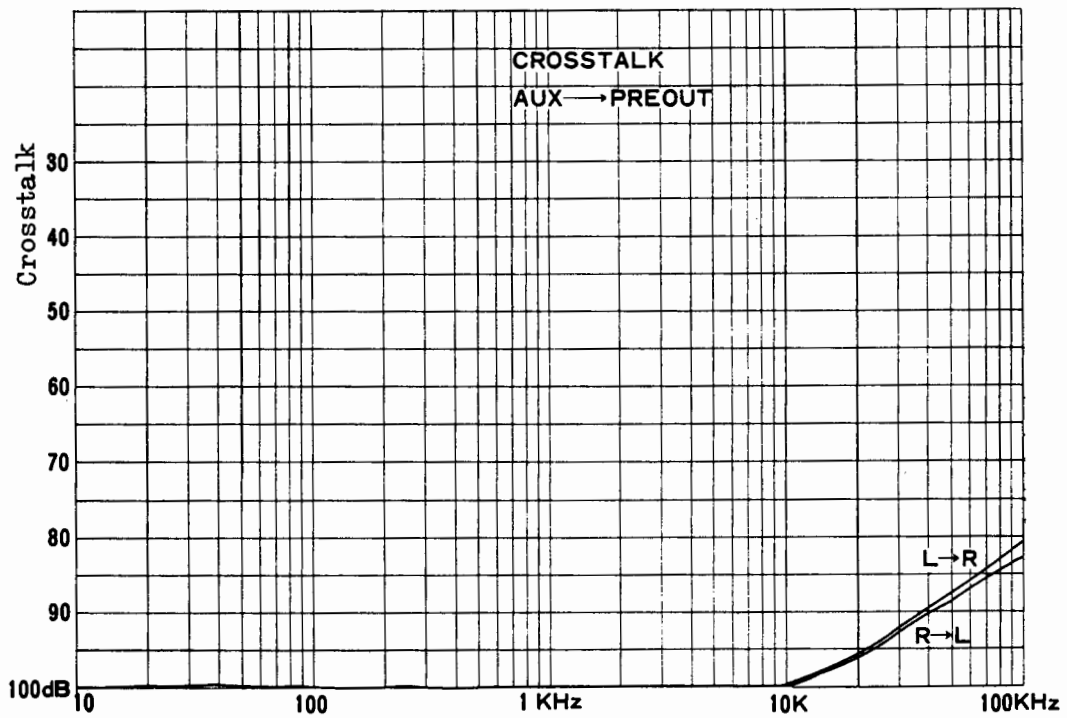
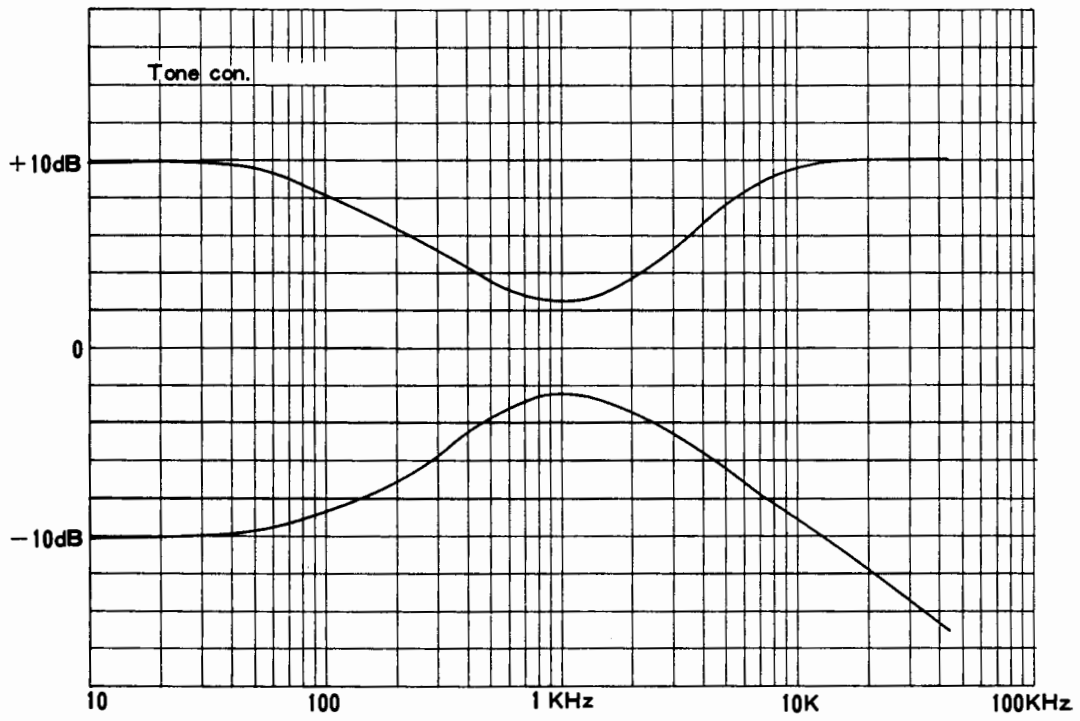
Damages are repaired through dealers or our company. We are not responsible for the repair or alteration of circuits by cutomers.

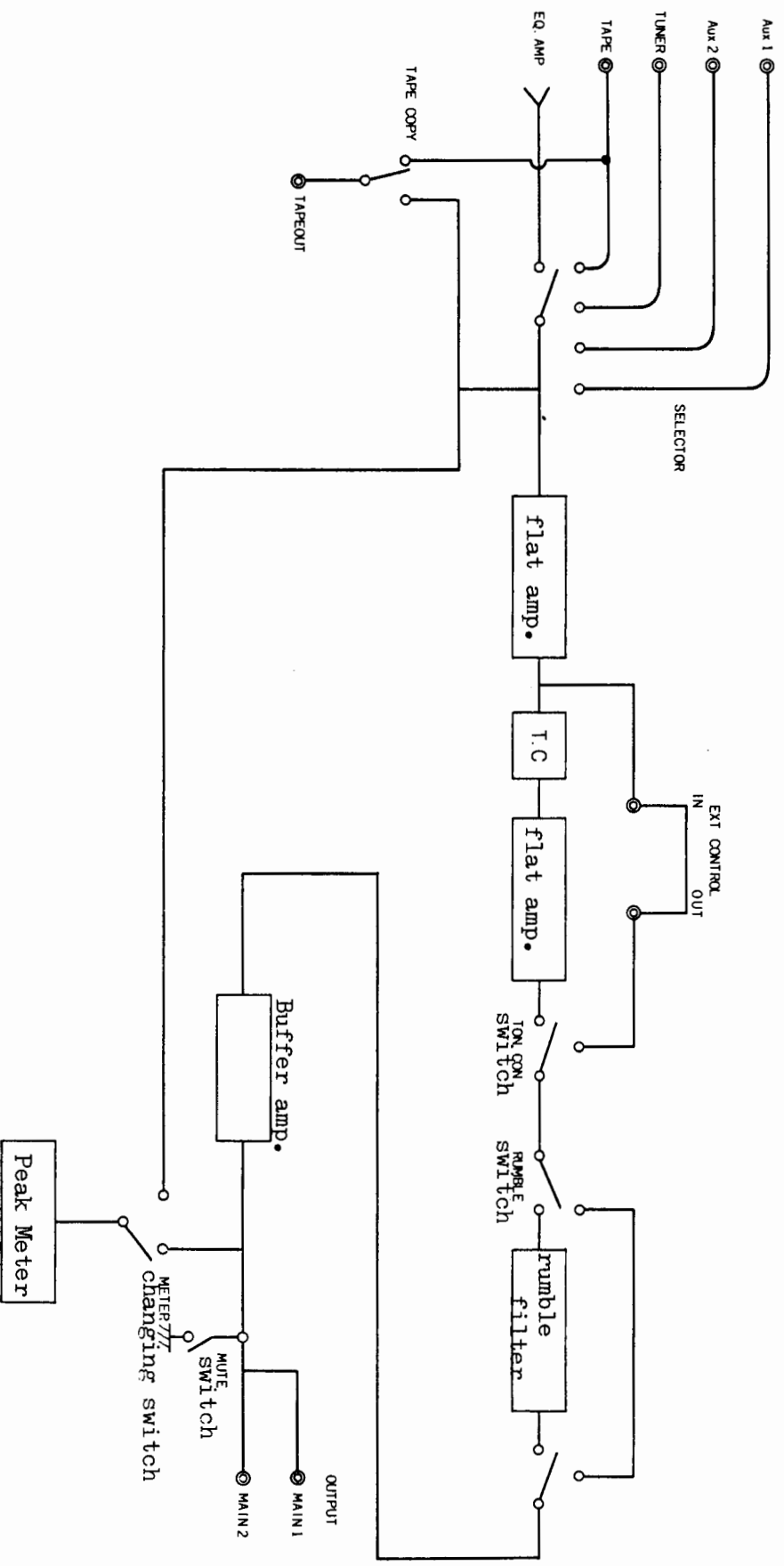
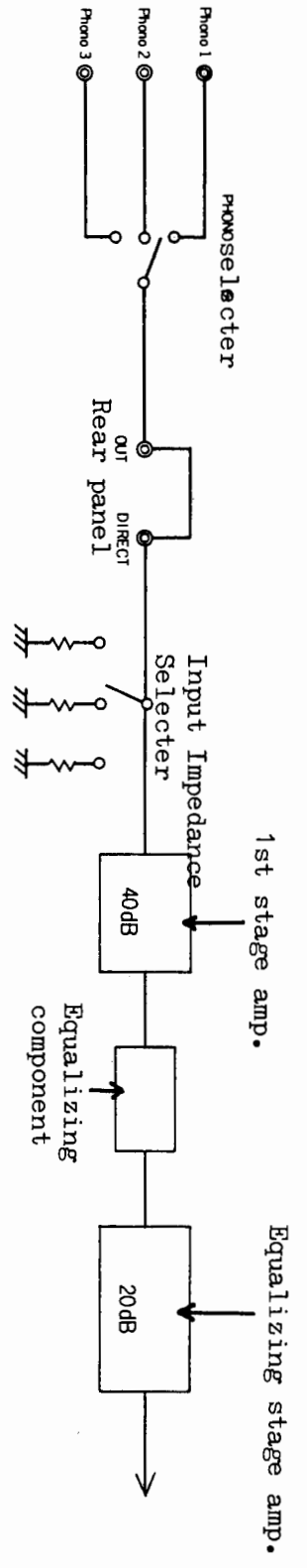
When returning the amplifier, please use the original package, otherwise transportation will make some damage to the amplifier.

7. TECHNICAL DATA









TUBED POWER AMPLIFIER DV-8250

In addition to DV-3000 Gold tubed pre-amplifier, tubed stereo power amplifier DV-8250 is now available.

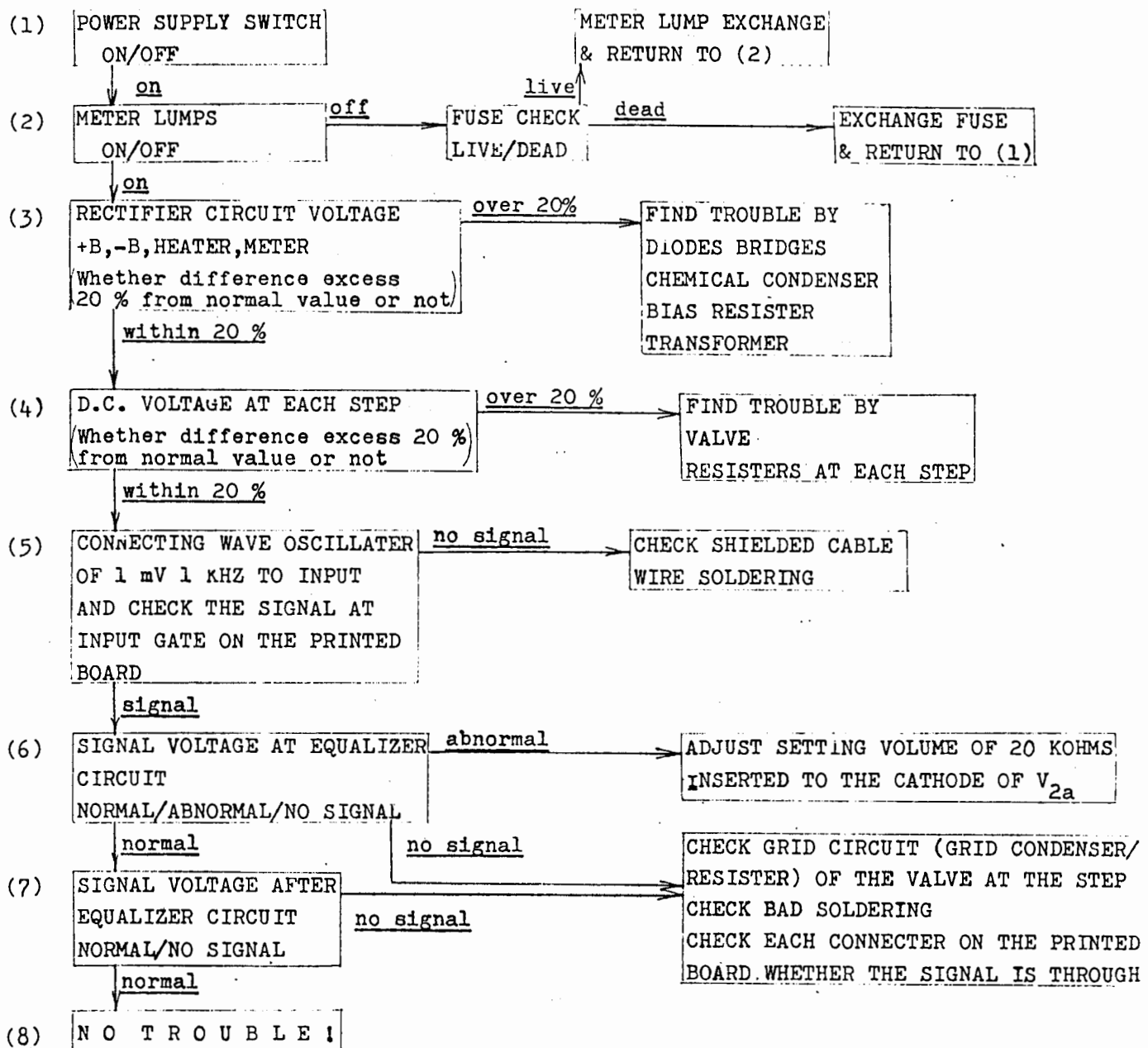
This power amplifier is designed and attempted to drive real loud speaker systems. Because of the very intricated electrical and mechanical impedance of the loud speaker system, designing a power amplifier is not so easy, and the ordinary design trend of modern solid state power amplifiers having a very flat response when loaded by a pure resistance is not considered enough to drive a complex mechanical system as loud speaker systems.

DV-8250 is designed by the very advanced philosophy of electro-mechanical circuitry to overcome these difficult problems. DV-8250 has the particular sign ended push pull circuit of KT 88s delivering 50 watts per channel. But it can deliver about 100 watts at peaks in musical signal.

With DV-8250 in addition to DV-3000 Gold, you can enjoy the DYNAVECTOR SOUND featuring the highest musicality, dynamic range, resolution, ambience reproducibility, attack and release even with the low efficiency loud speaker systems of today.

DV 3000 GOLD CHECK PROCEDURE

(F-c-3a)



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- * When Meter operation is abnormal after completing above check list, exchange Meter I C.
- * When no sounds from HEAD PHONE after completing above check list, check input/output voltage and exchange I C if needed.
- * All these values should be measured with CIRCUIT TESTER, SYNCHROSCOPE and AC mV Meter.

