

ELECTRONIC MUSICAL INSTRUMENT

**ROLAND STRINGS
RS-101**

**SERVICE
NOTE**

THE FIRST EDITION
Printed in Japan '75. June.

 Roland Corporation

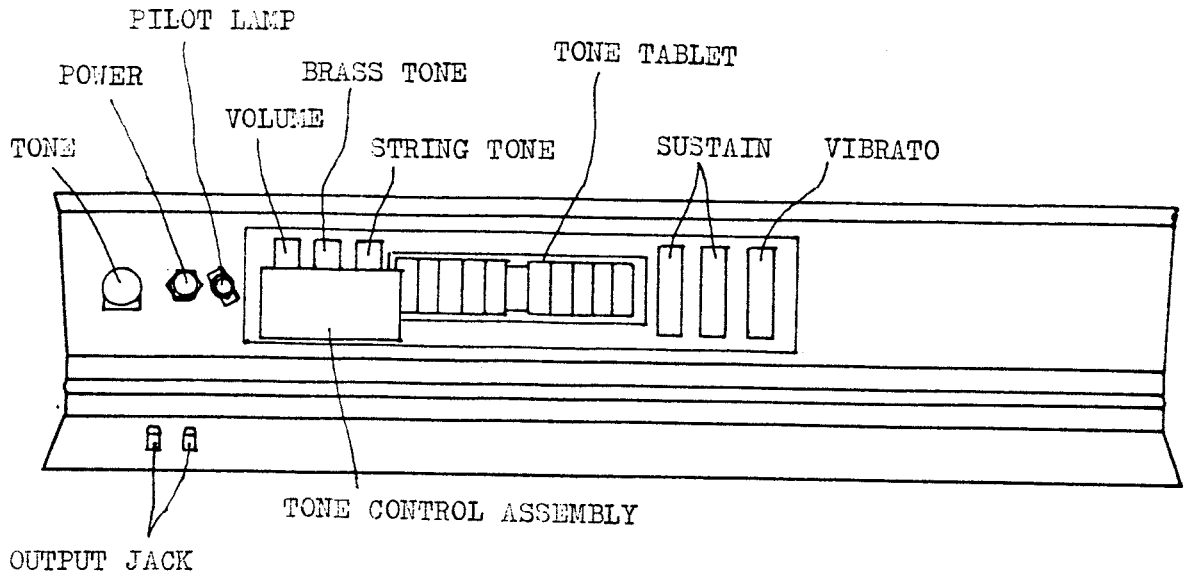
CONTENTS

SECTION 1.	CONTROL PARTS AND CIRCUIT BOARDS DISTRIBUTION	1
SECTION 2.	GENERAL BLOCK DIAGRAM	2
SECTION 3.	GENERAL SCHEMATIC DIAGRAM	3
SECTION 4.	TONE GENERATOR BOARD ASSEMBLY (AGH002A)	4
SECTION 5.	TONE CONTROL BOARD ASSEMBLY	5
SECTION 6.	MODULATION CIRCUIT BOARD ASSEMBLY (ETH003A)	7
SECTION 7.	POWER SUPPLY BOARD ASSEMBLY (PSH004)	8
SECTION 8.	ADJUSTMENT	9
SECTION 9.	PARTS LIST	11

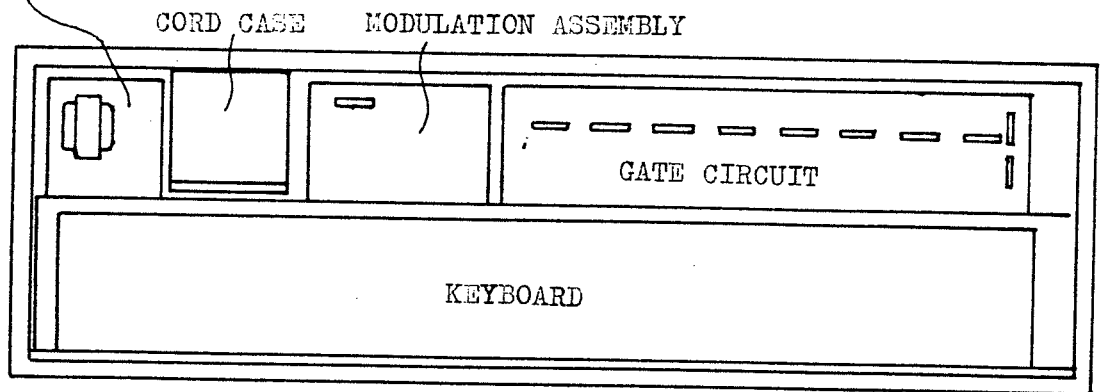
NOTE: The circuit constant indicated in this note means as follows.

4n7	0.0047 mfd
4K7	4.7 Kohm
4M7	4.7 Mohm

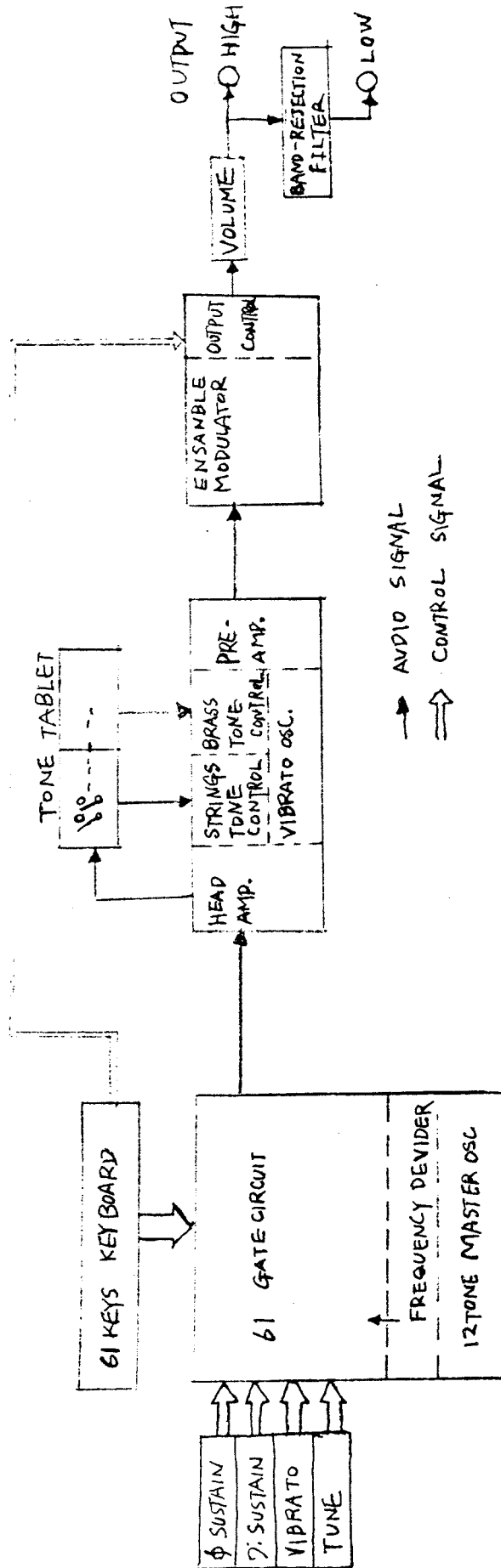
SECTION 1. CONTROL PARTS AND CIRCUIT BOARDS DISTRIBUTION



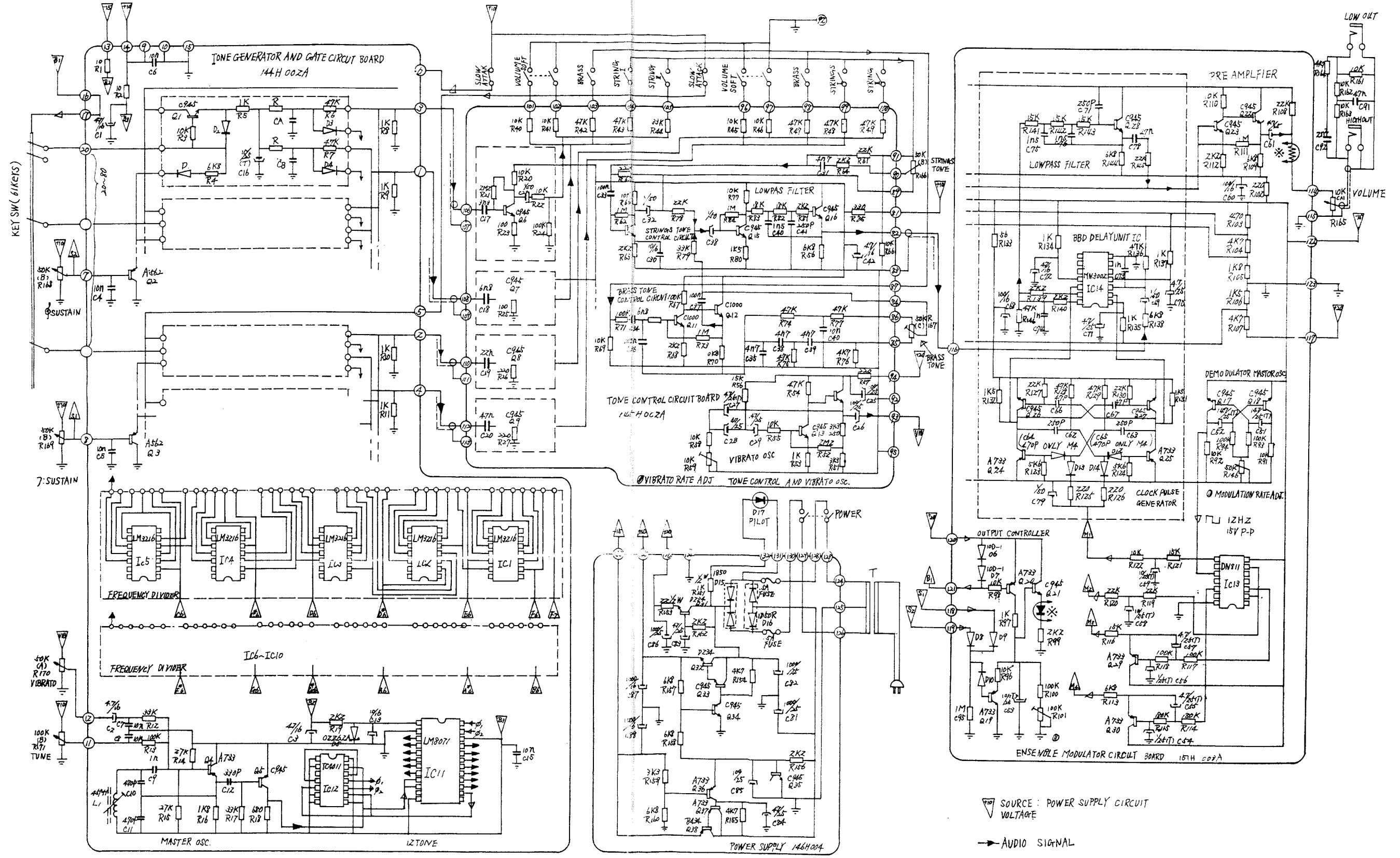
POWER SUPPLY ASSEMBLY



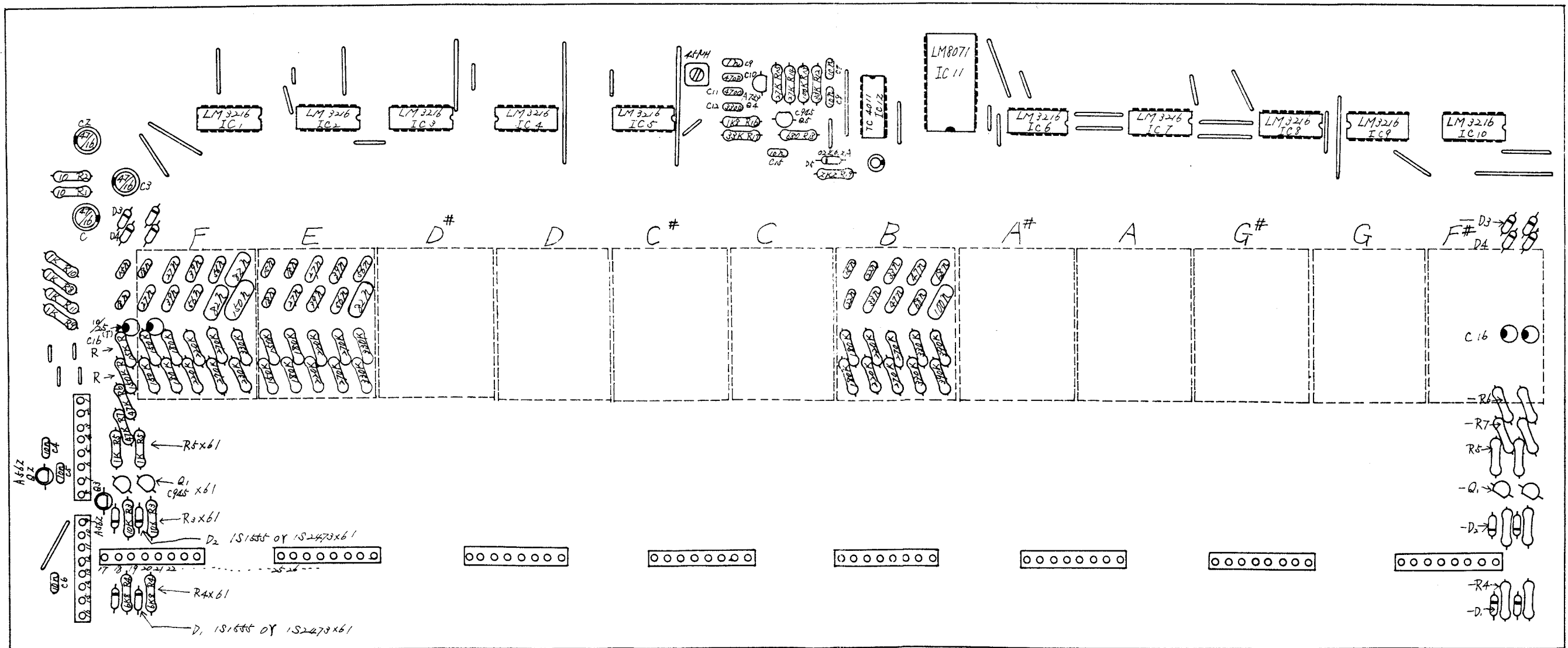
SECTION 2. GENERAL BLOCK DIAGRAM



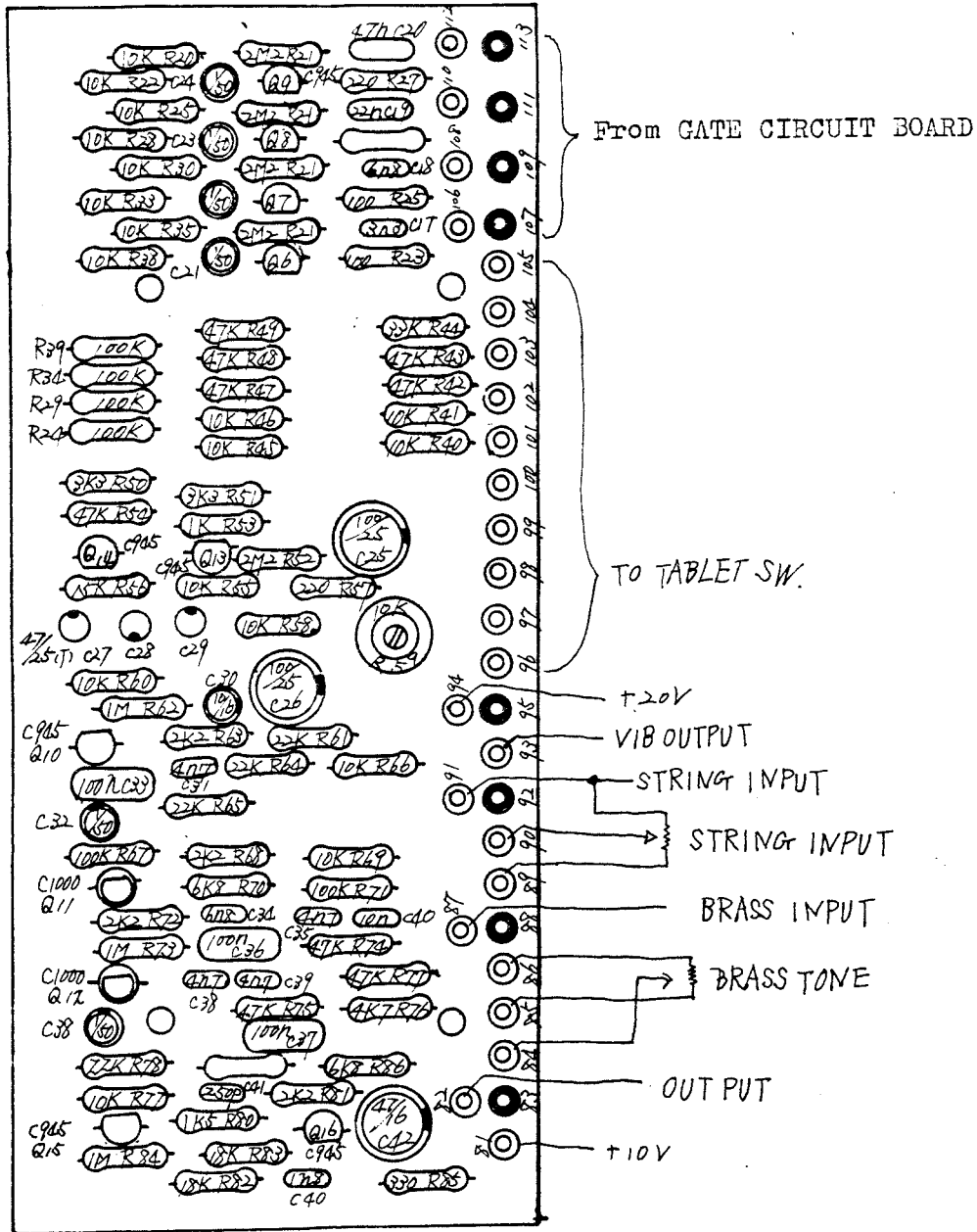
SECTION 3. GENERAL SCHEMATIC DIAGRAM



SECTION 4. BOARD LAYOUT FOR DUAL IN LINE PACKAGE, 16 PINS

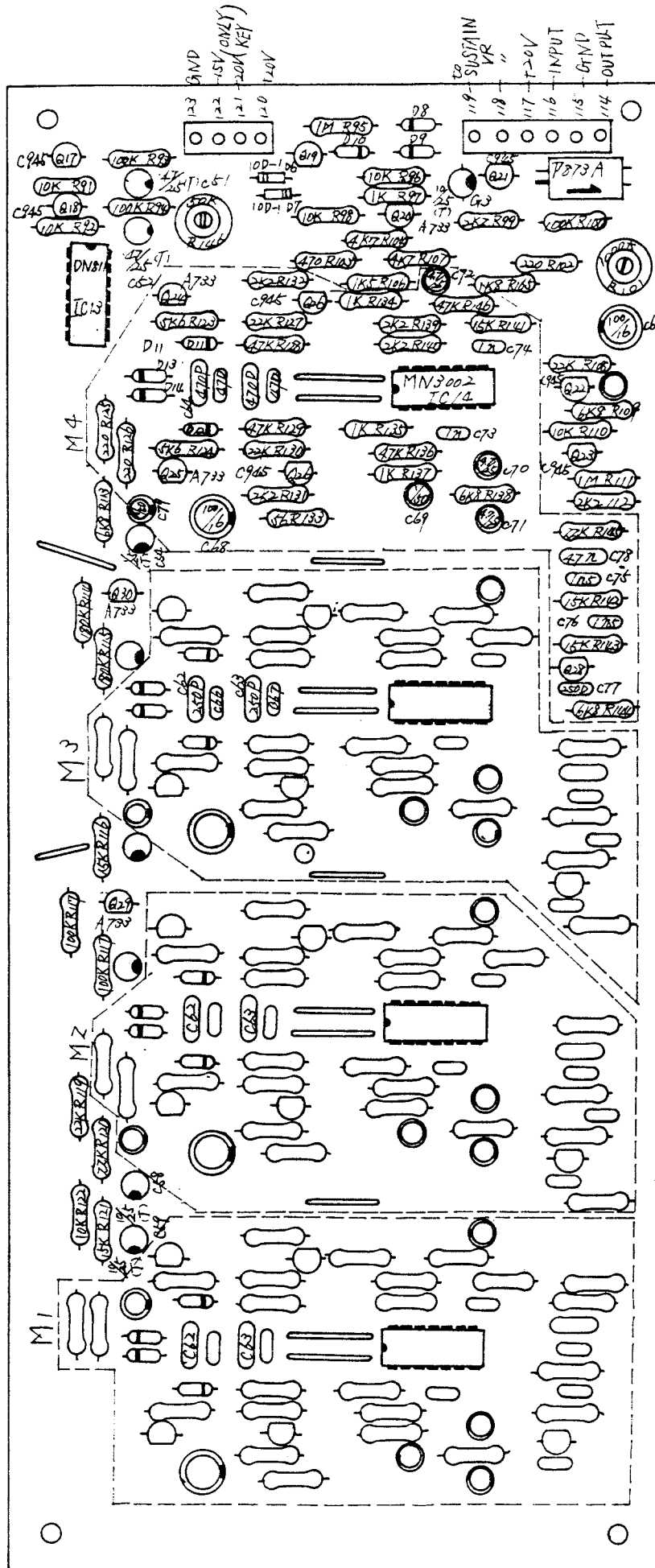


TONE CONTROL BOARD ASSEMBLY (FLH002A)
 (From SERIAL No. 350200)



Unmarked resistors are all 1/4 W carbon film resistors.

SECTION 6. MODULATION CIRCUIT BOARD ASSEMBLY (ETH003A)

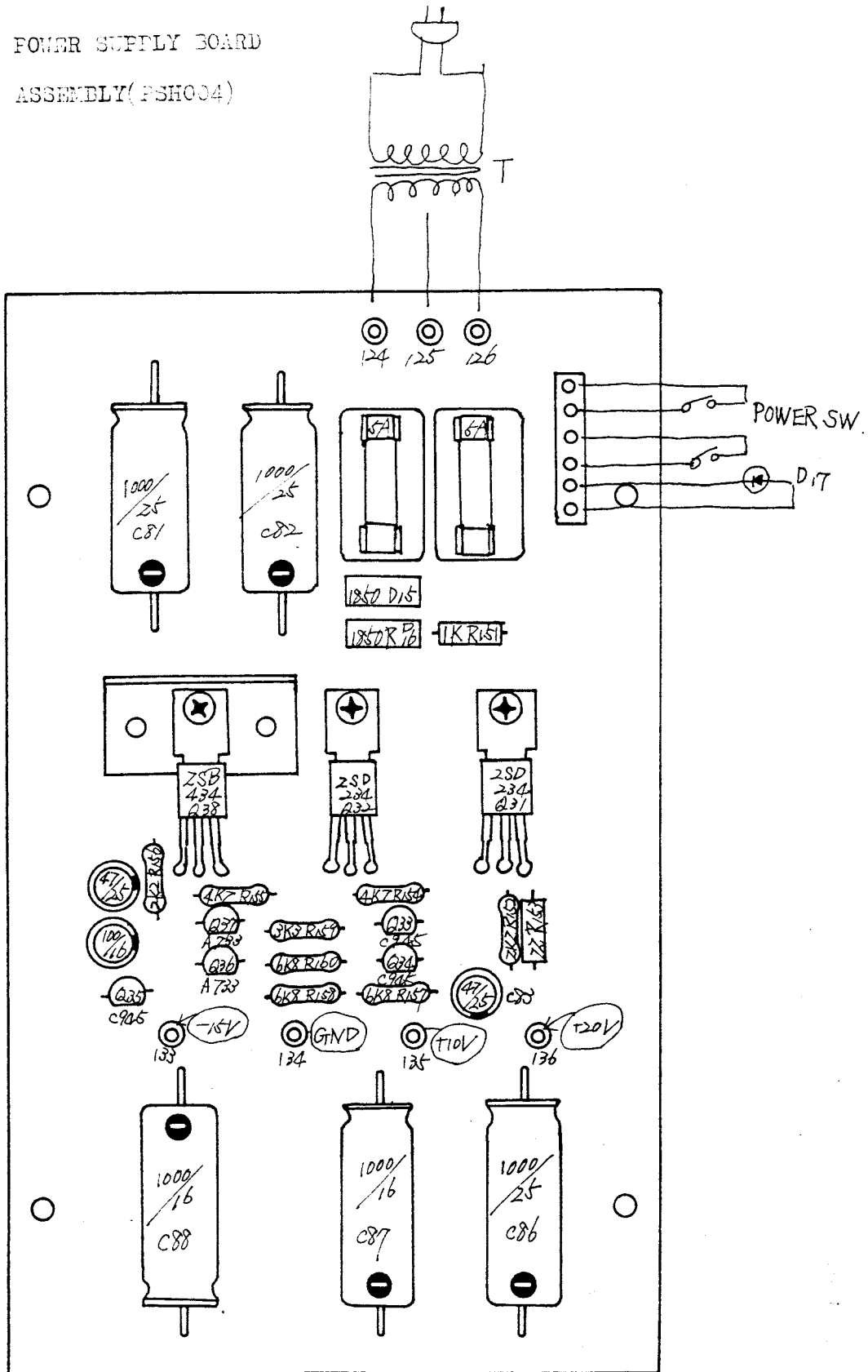


Parts constant inside the dotted line is the same value.

Unmarked diodes are all 1S1555 or 1S2473.

SECTION 7. POWER SUPPLY BOARD

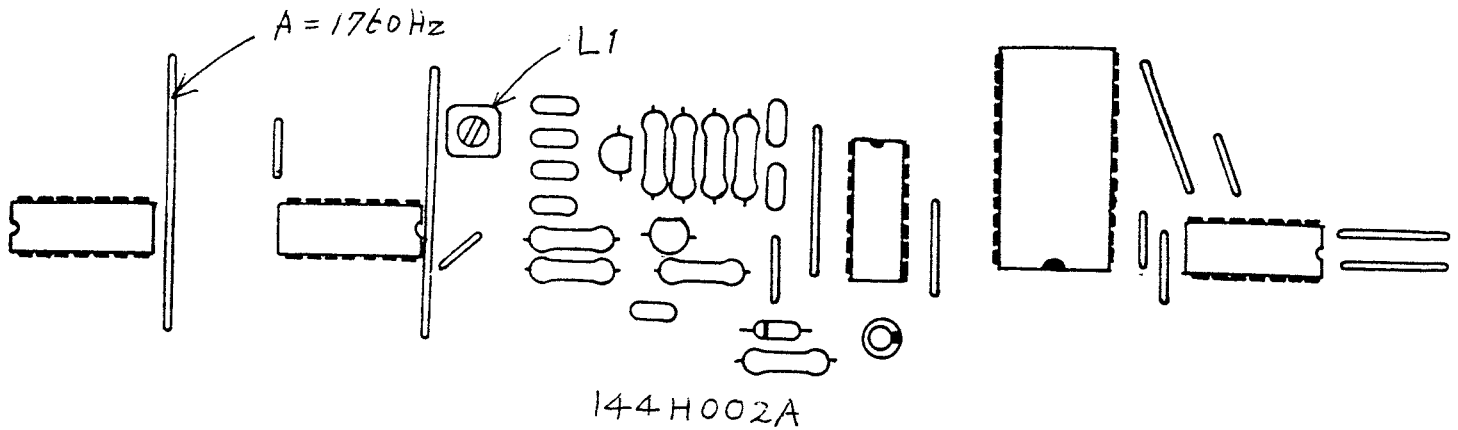
ASSEMBLY (PSH004)



SECTION 8. ADJUSTMENT

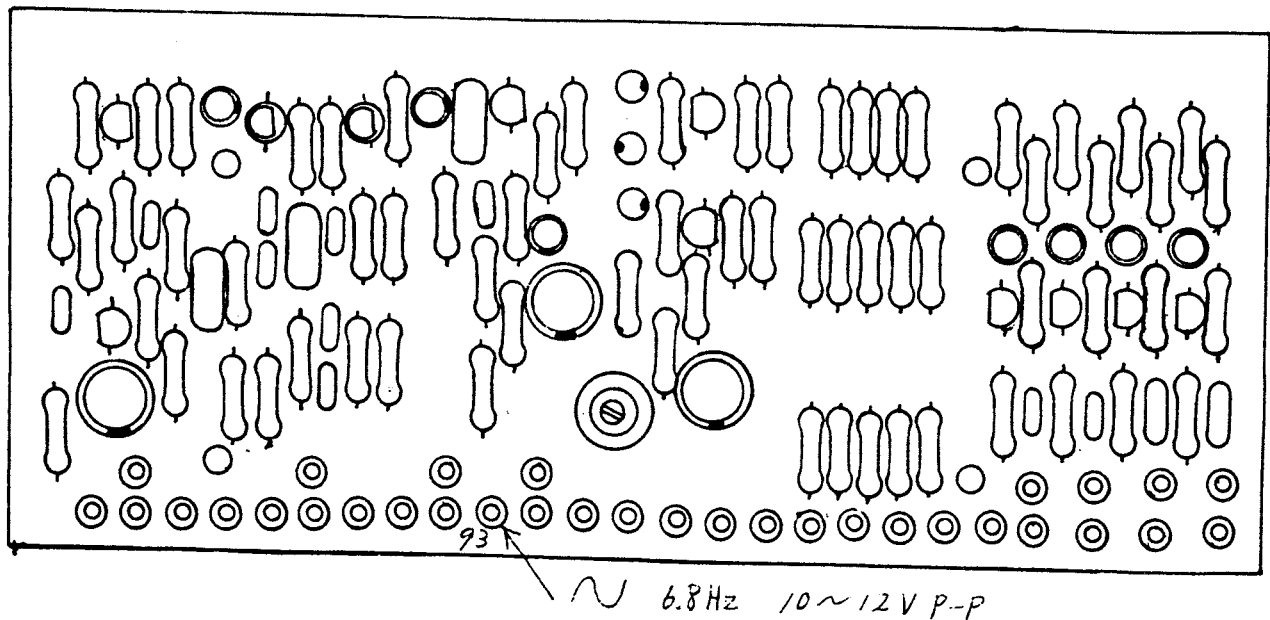
8-1. Tuning of the Master Generator

Set the TUNE control on the front panel to center position, and adjust the Coil L1 located on center of TONE GENERATOR BOARD ASSEMBLY so as to make the frequency of A as 1760Hz.



8-2. Adjustment of Vibrato Rate

Adjust the trimpot R59 on the TONE CONTROL BOARD ASSEMBLY so as to make the frequency of output sine wave of 93rd terminal on the board as 6.8Hz.



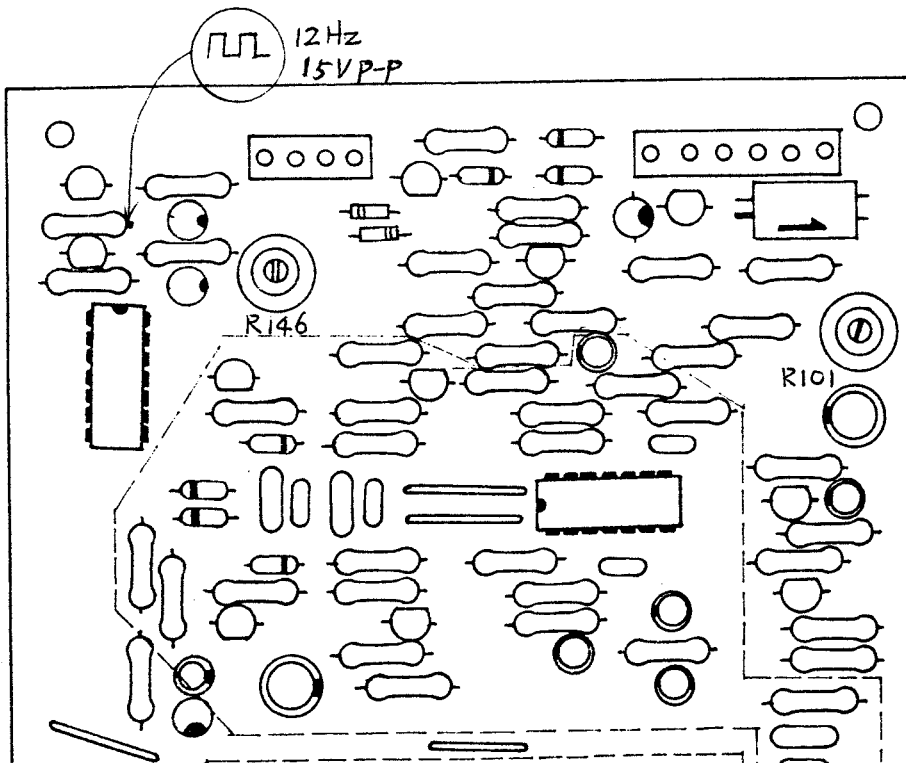
8-3. Adjustment of Ensemble Modulator

a) Ensemble Modulation Rate

Adjust the trimpot R146 so as to make the frequency of rectangular wave on the terminal of resistor R91 as 12Hz.

b) Adjustment of Output

Set the Sustain Control 9: on the front panel to 10 on scale, and adjust the trimpot R101 so that the noise may disappear at the same time when ensemble sounds fade-out after releasing a finger from the F1 key depressed.



SECTION 9. PARTS LIST

GENERAL ASSEMBLY

Cabinet Assembly
 Side Block (left)
 " (right)
 Cord Box
 Keyboard SK-161A (Complete)
 Music Rack
 Connection Cord LP-25
 Holder No.992
 Key Felt No.993
 Connector 2145C-8P
 " " -4P
 Power Supply Assembly PSH004 (complete)
 Tone Generator Assembly AGH002A (Complete)
 Modulator Assembly MTH003A (Complete)
 Top Cover Assembly (Complete)

081H033

POWER SUPPLY ASSEMBLY (PSH004)

Chassis No.987
 Bushing R-5
 Terminal Strip 1L-2P
 Power Transformer
 Power Supply Cord (3m)
 Heat Sink H1
 P.C.B.
 Fuse Holder F-6
 Midget Fuse 0.5A
 Pin-terminal 2461-6C

022H002

052H014

TONE GENERATOR ASSEMBLY (AGH002A)

P.C.B.
 LSI H-8071
 IC H-3216
 IC TC-4011P
 Pin-terminal 2461-8C

052H011

MODULATION ASSEMBLY (MTH003A)

P.C.B.
 IC MN3002
 IC DN811
 Photo Coupler P873-G35-380
 Pin-terminal 2461-6C
 " " -4C

052H012

TOP COVER ASSEMBLY

Front Panel No.5
 Sub-Panel No.6 (Rear)
 Tablet Switch Assembly PS-15B (Complete)
 Filter Assembly (Complete)
 Filter Board P.C.B.
 Bracket No.4
 Bushing No.1
 " No.18
 Spacer for Potentiometer No.3
 Jack JG-7615 No.5
 Jack LJ-039-1-6

065H005

065H006

052H013A

102H003

Knob		TF-1114A
"		No.3 (with plate No.1)
Power switch		MS0064K (Black)
Long Nut		No.4 (25mm)
Connector	4P	2145C-4P
"	6P	" -6P
"	8P	" -8P
Jack Washer		
Jack Bushing		
Speed Nut		N8P

SEMICONDUCTORS

Silicon Transistor	2SB-434	O
"	2SD-234	O
"	2SC-945	P or Q
"	2SA-733	Q
"	2SC-1000	GR
"	2SA-562	
Silicon Diode	1S-1850	
"	1S-1850R	
"	1N-4002	
"	1S-1555	
Zener Diode	02Z-6.2A	
Light Emitting Diode	SLP-24B	

RESISTORS

Carbon Film Resistor	2.2 Kohm	1/4 R
"	3.3 Kohm	"
"	4.7 Kohm	"
"	6.8 Kohm	"
"	10 Kohm	"
"	100 ohm	"
"	1 Kohm	"
"	1.5 Kohm	"
"	15 Kohm	"
"	18 Kohm	"
"	22 Kohm	"
"	33 Kohm	"
"	47 Kohm	"
"	1 Mohm	"
"	2.2 Mohm	"
"	220 ohm	"
"	56 ohm	"
"	470 ohm	"
"	1.8 Kohm	"
"	100 Kohm	"
"	180 Kohm	"
"	5.6 Kohm	"
"	10 ohm	"
"	680 ohm	"
"	27 Kohm	"
"	150 Kohm	"
"	220 Kohm	"
"	270 Kohm	"
"	330 Kohm	"
"	390 Kohm	"
Carbon Solid Resistor	22 ohm	ERC-12GK
"	1 Kohm	ERC-12GJ102
Trimpot	10 K(B)	BVL-R4KA00B14
"	50 K(B)	BVL-R4KA00B54
"	100K(B)	BVL-R4KA00B15