

**ELECTRONIC MUSICAL INSTRUMENT**

**ROLAND STRINGS  
RS-101**

**SERVICE  
NOTE**

**THE FIRST EDITION**  
**Printed in Japan '75. June.**

 **Roland Corporation**



## CONTENTS

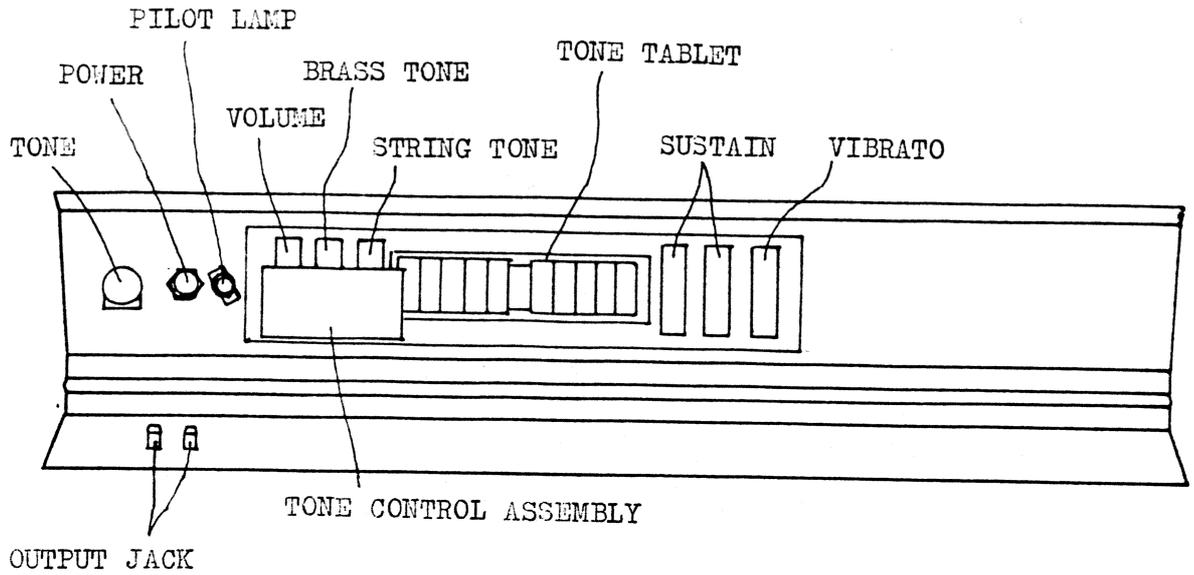
SECTION 1.	CONTROL PARTS AND CIRCUIT BOARDS DISTRIBUTION .....	1
SECTION 2.	GENERAL BLOCK DIAGRAM .....	2
SECTION 3.	GENERAL SCHEMATIC DIAGRAM .....	3
SECTION 4.	TONE GENERATOR BOARD ASSEMBLY (AGH002A) .....	4
SECTION 5.	TONE CONTROL BOARD ASSEMBLY .....	5
SECTION 6.	MODULATION CIRCUIT BOARD ASSEMBLY (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.

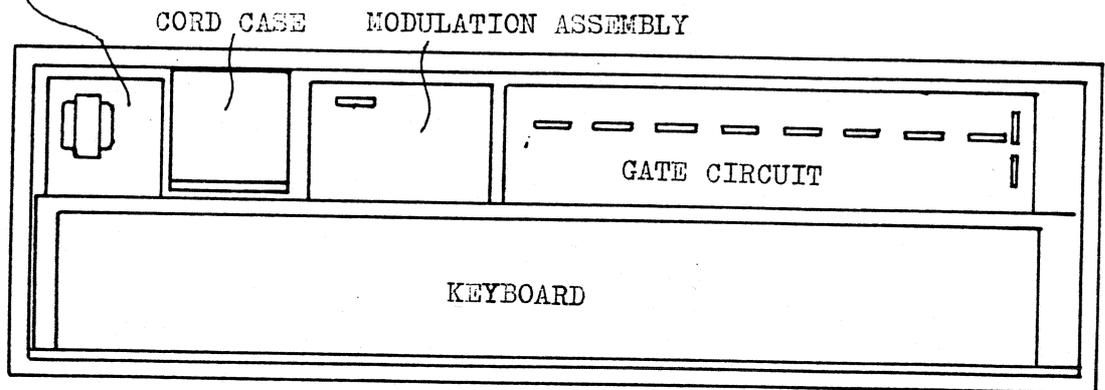
4n7 .....	0.0047 mfd
4K7 .....	4.7 Kohm
4M7 .....	4.7 Mohm



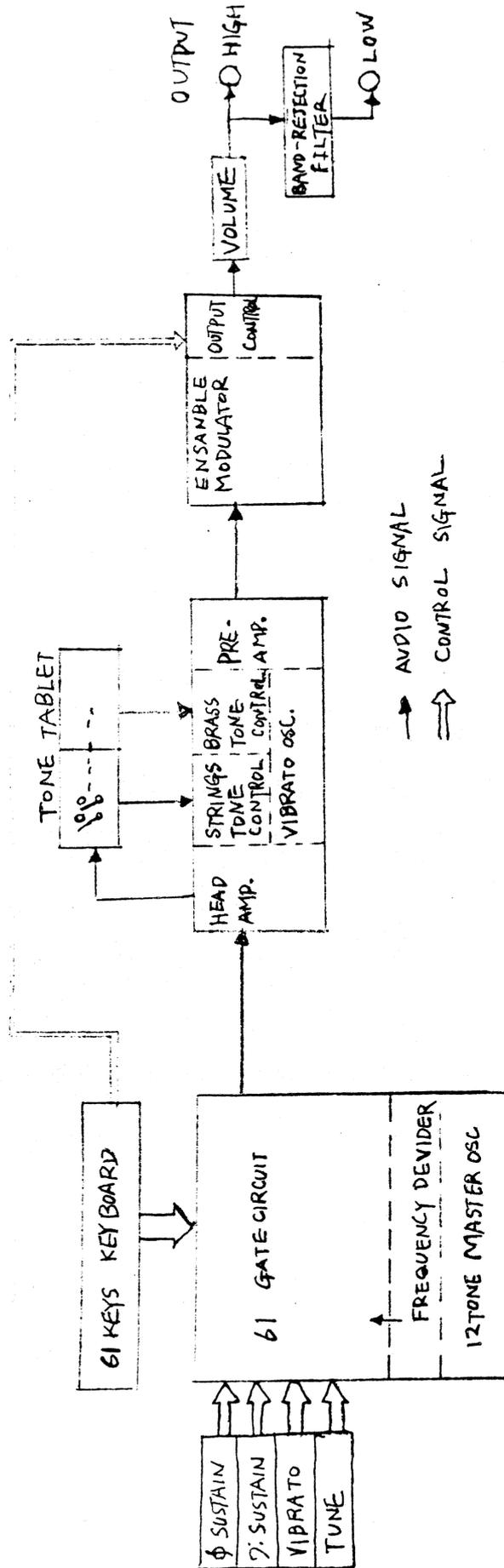
SECTION 1. CONTROL PARTS AND CIRCUIT BOARDS DISTRIBUTION



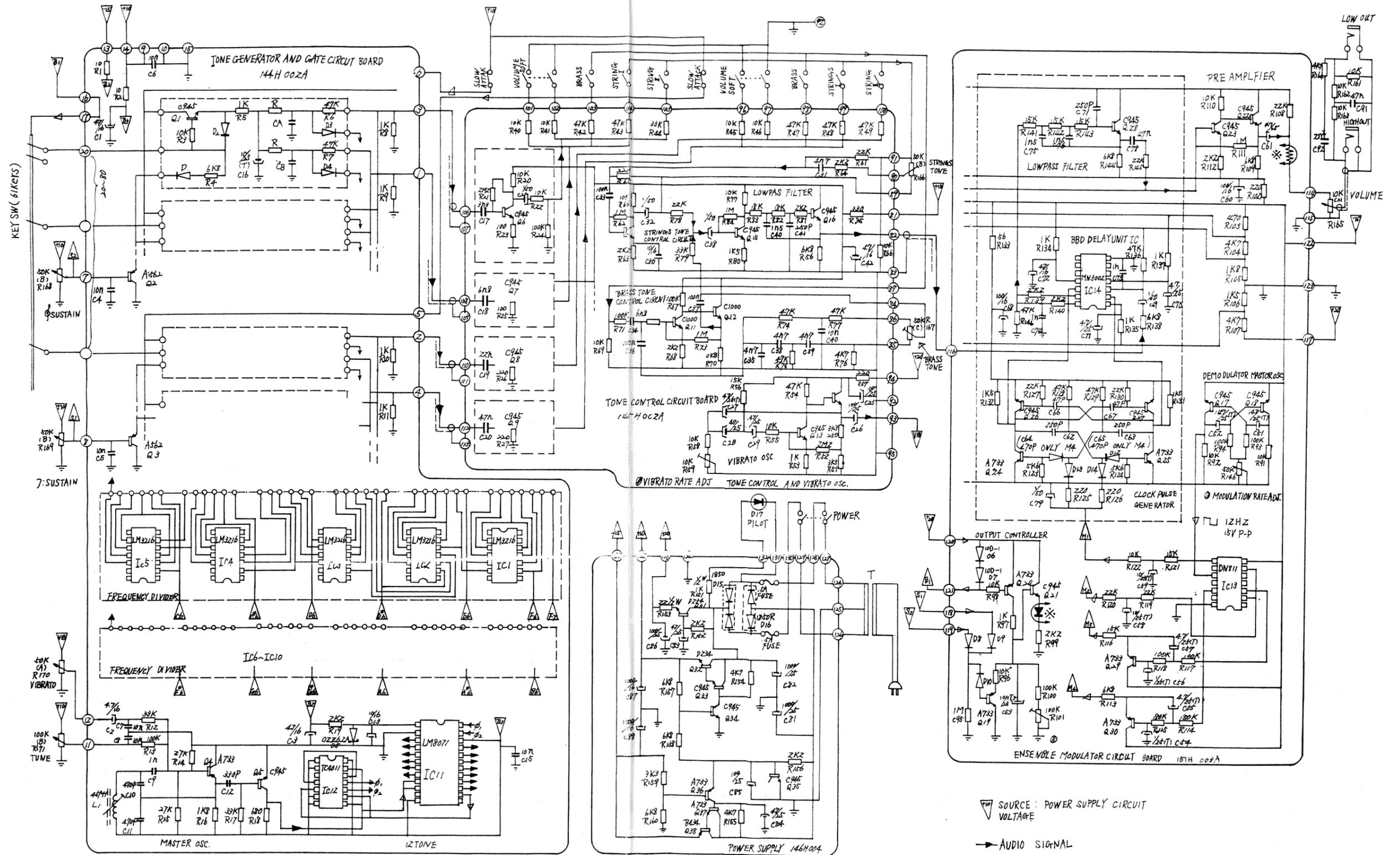
POWER SUPPLY ASSEMBLY



SECTION 2. GENERAL BLOCK DIAGRAM



SECTION 3. GENERAL SCHEMATIC DIAGRAM

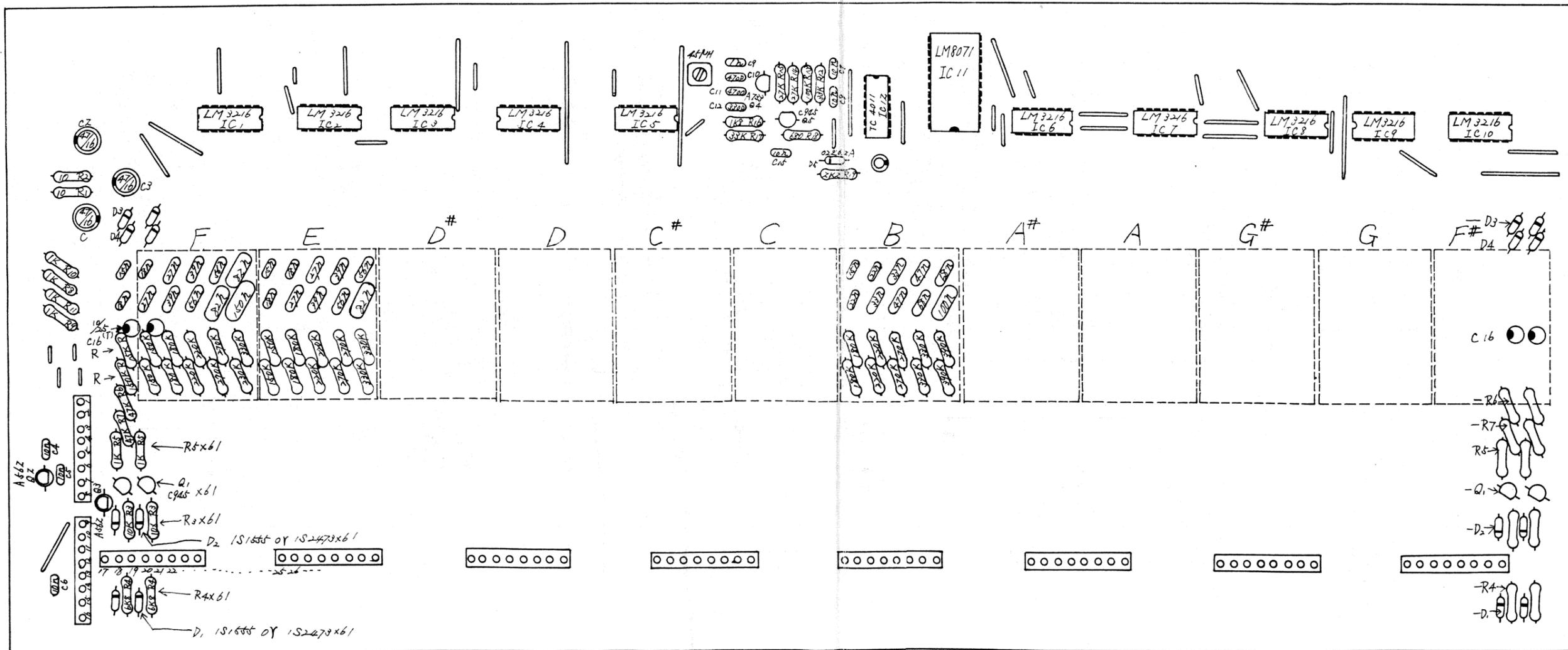


▽ SOURCE : POWER SUPPLY CIRCUIT VOLTAGE

→ AUDIO SIGNAL

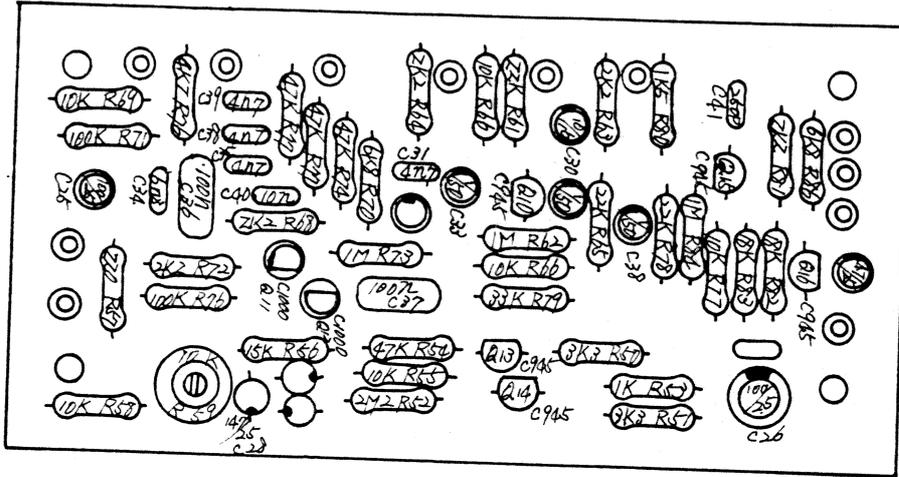
⇨ PULSE OR CONTROL SIGNAL

SECTION 4. BOARD COMPONENT PLACEMENT (CONTINUED), PAGE 2 OF 2



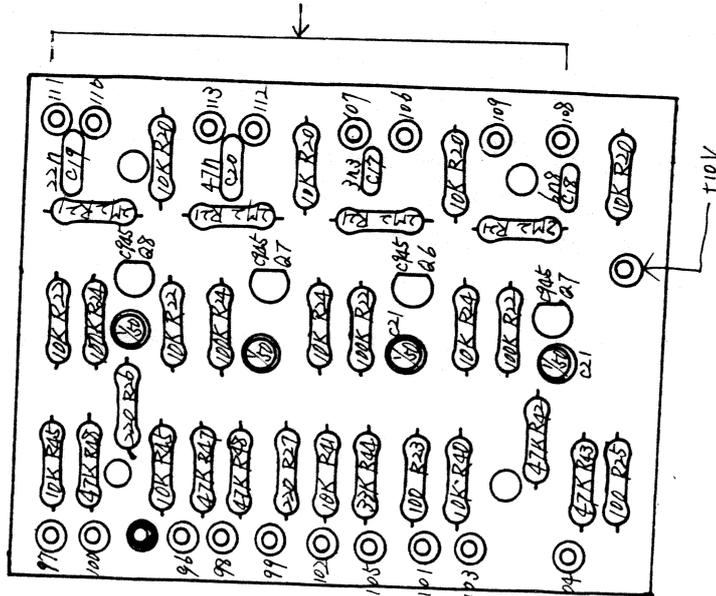
SECTION 5. TONE CONTROL BOARD ASSEMBLY

TONE CONTROL ASSEMBLY (FLH002)  
 (SERIAL No. 330100-340199)



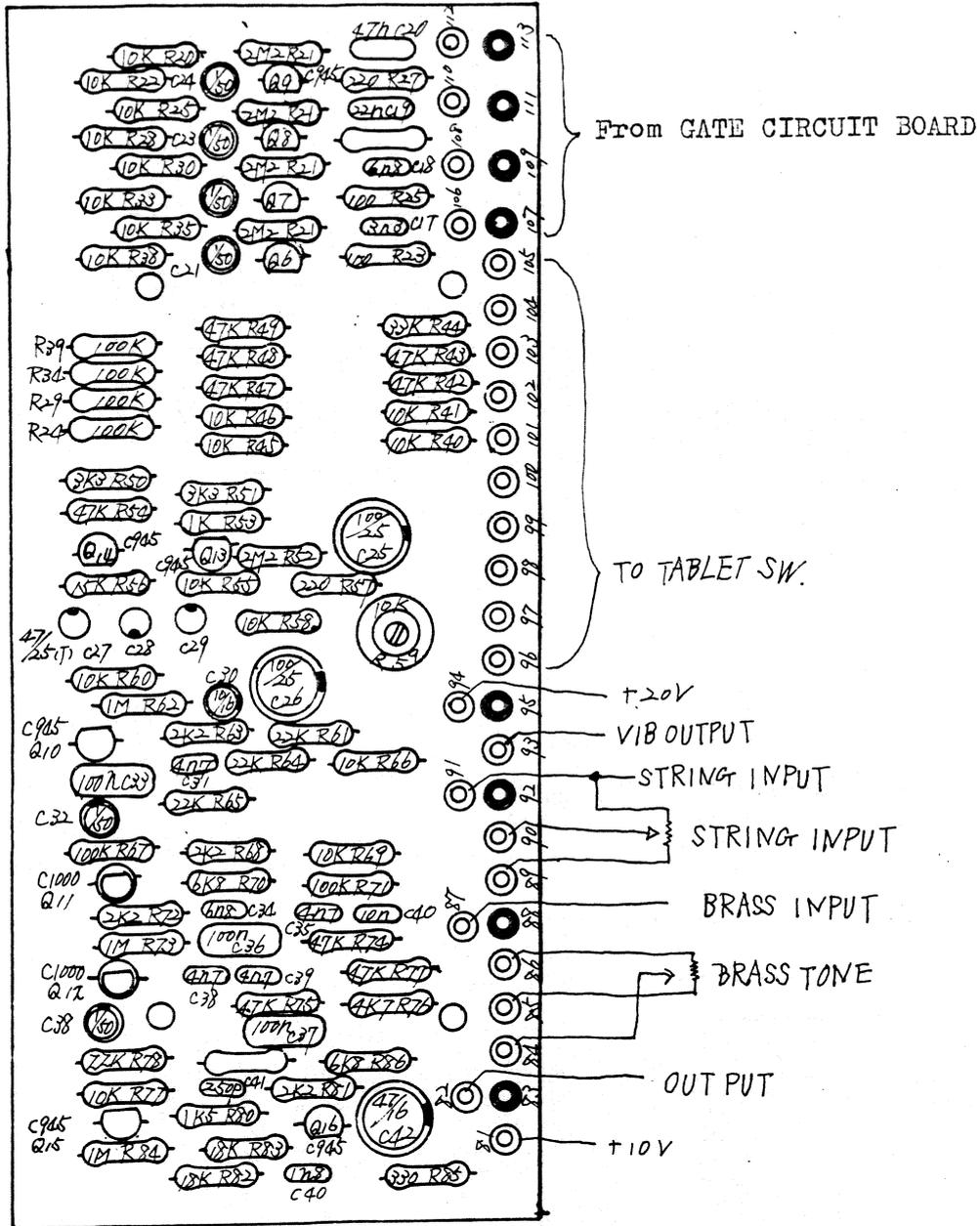
HEAD AMP. ASSEMBLY (APH003)  
 (SERIAL No. 330100-340199)

From GATE CIRCUIT BOARD

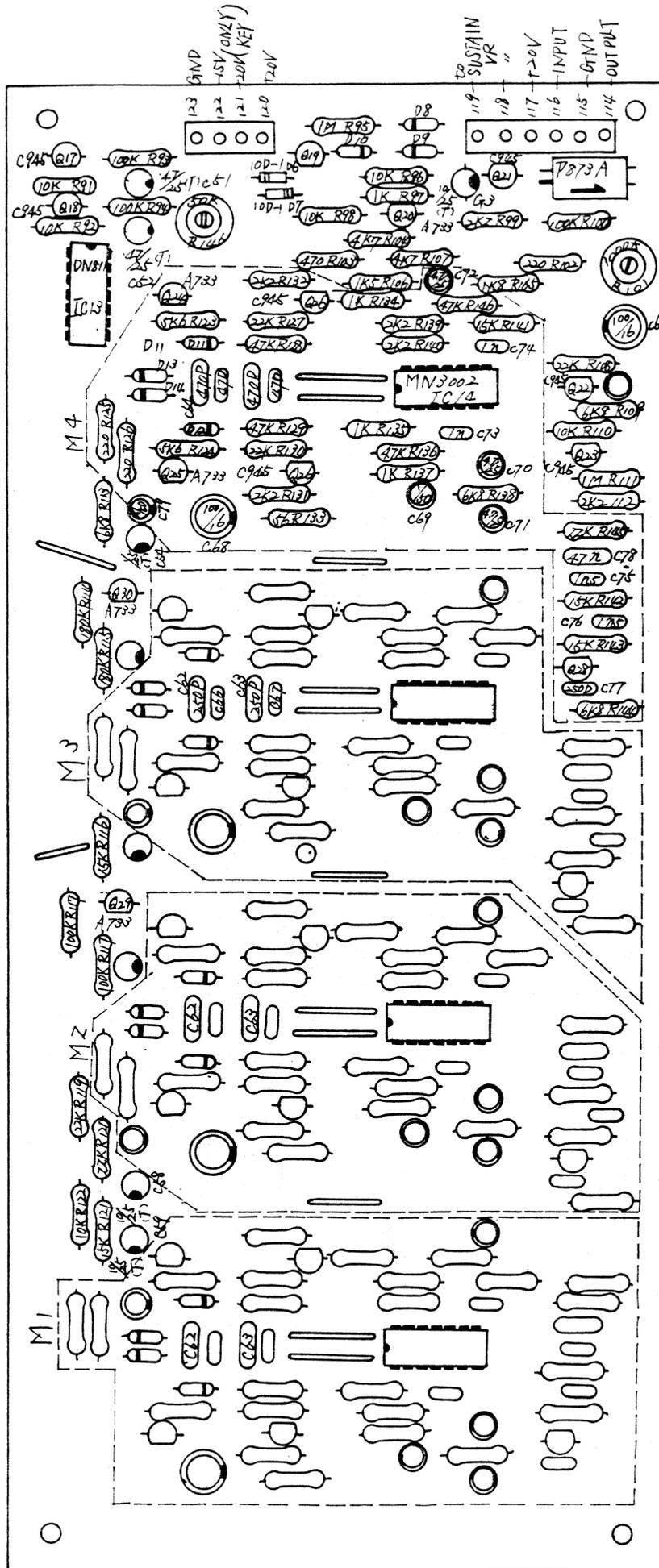


ALL RESISTORS ARE 1/4 WATT  
 ALL TRANSISTORS ARE ZSC945

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



SECTION 6. MODULATION CIRCUIT BOARD ASSEMBLY (ETH003A)

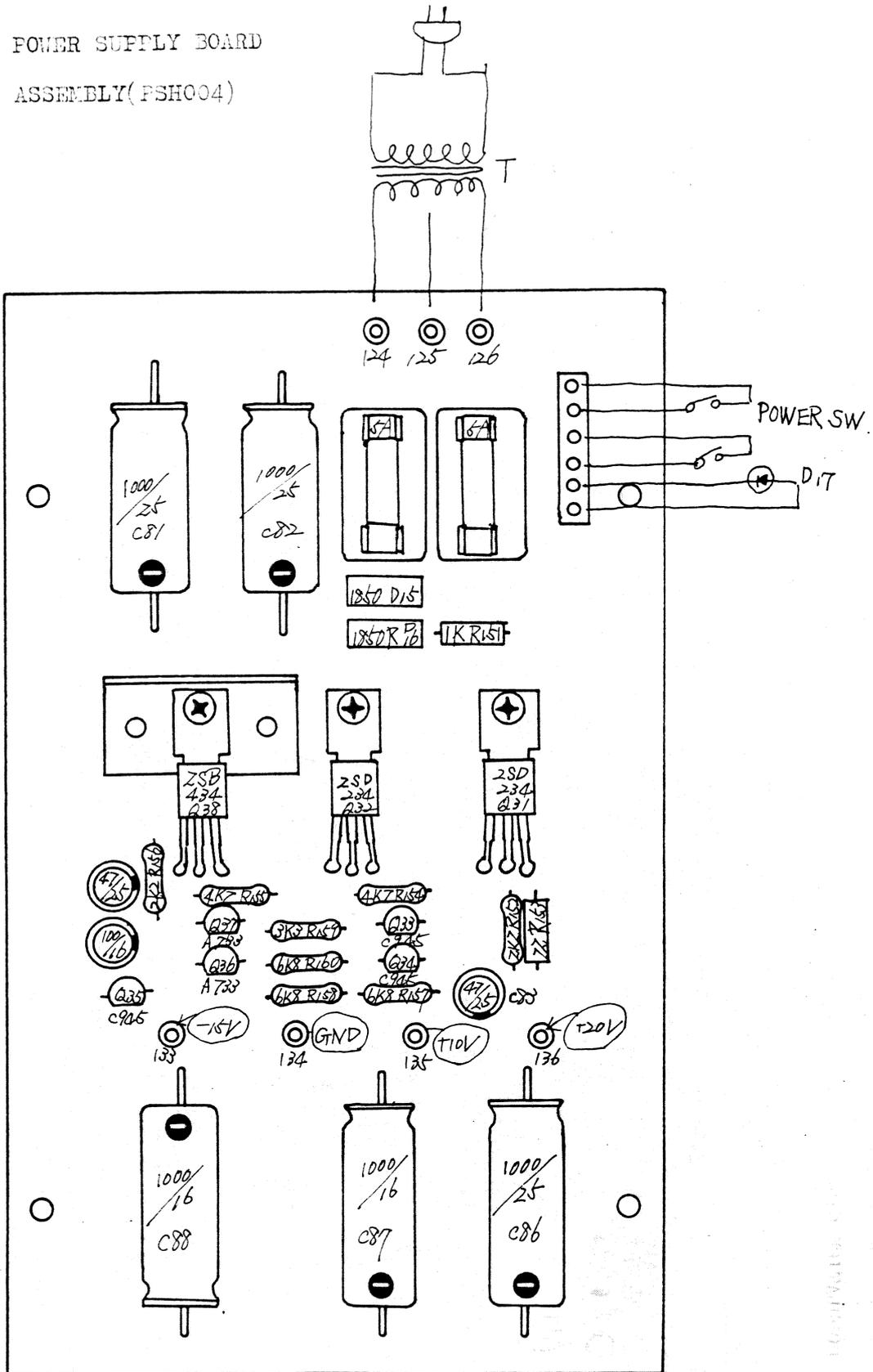


Parts constant inside the dotted line is the same value.

Unmarked diodes are all 1S1555 or 1S2473.

SECTION 7. POWER SUPPLY BOARD

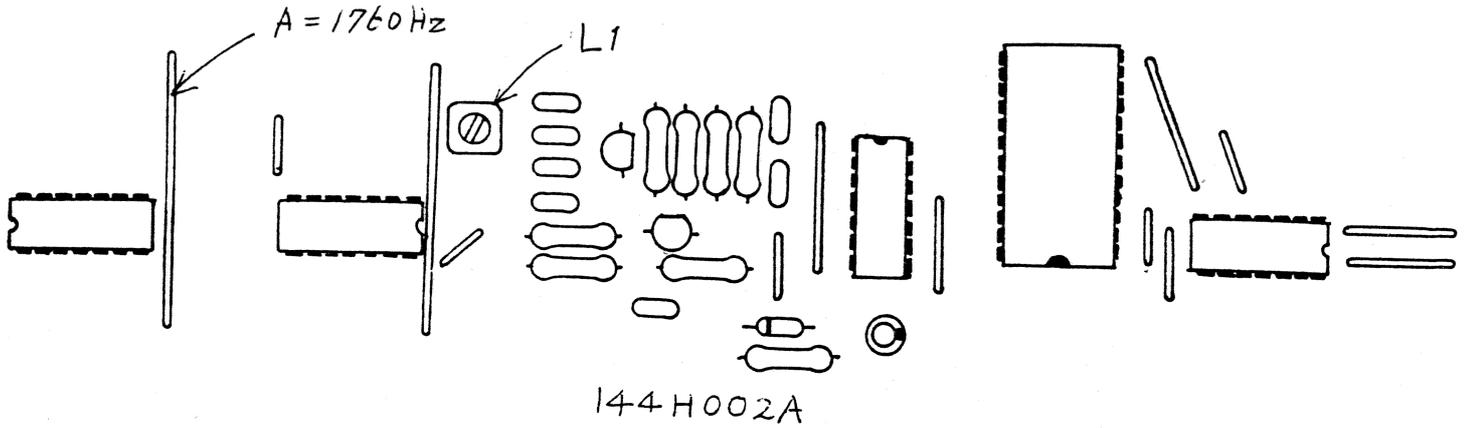
ASSEMBLY (PSH004)



SECTION 8. ADJUSTMENT

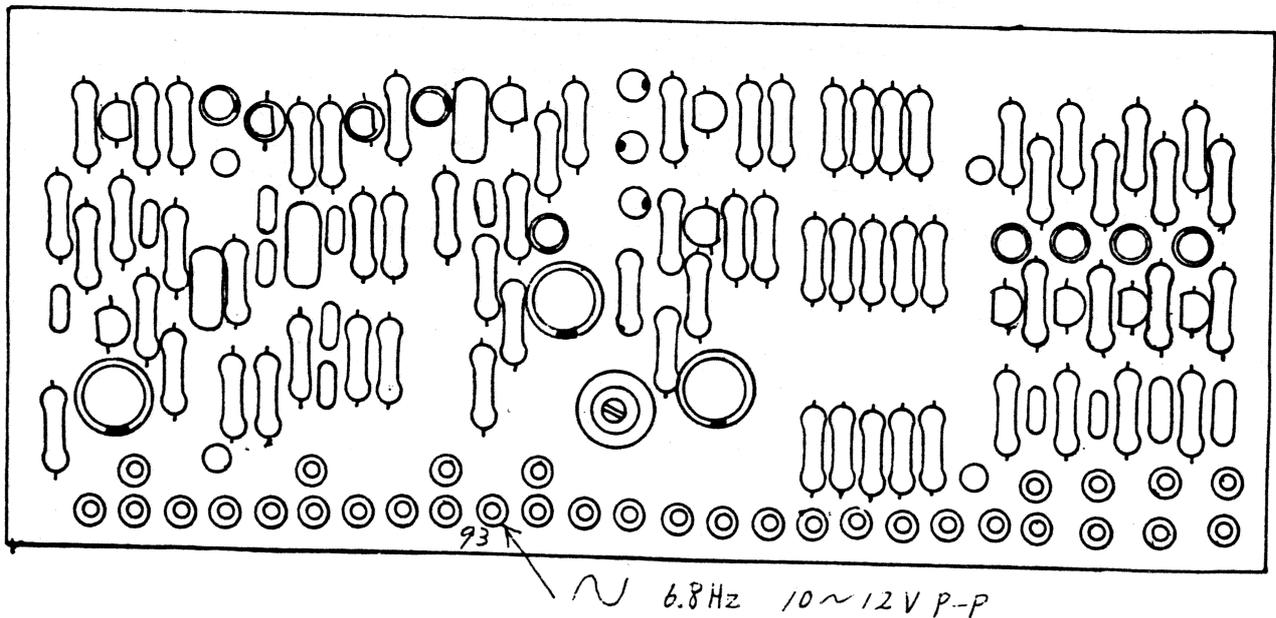
8-1. Tuning of the Master Generator

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.



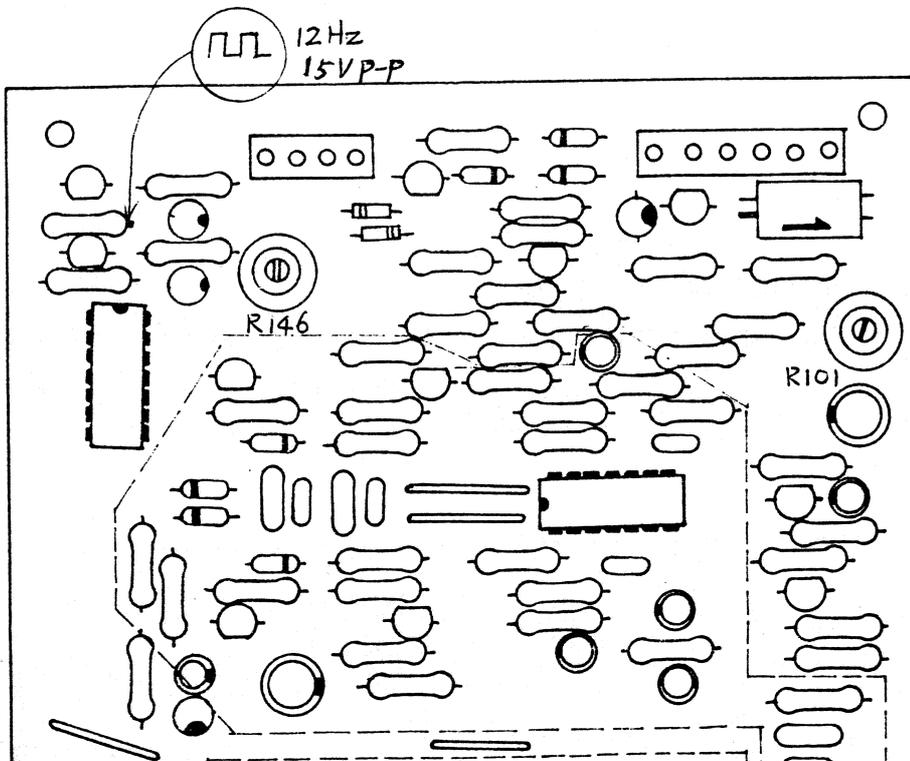
### 8-3. Adjustment of Ensemble Modulator

#### 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 BTH003A (Complete)  
 Top Cover Assembly (Complete)

061H033

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 M-8071  
 IC M-3216  
 IC TC-4011P  
 Pin-terminal 2461-8C

052H011

MODULATION ASSEMBLY (BTH003A)

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 3G-7615 No.5  
 Jack LJ-039-1-6

065H005

065H006

052H013A

102H003

Knob		TK-1114A
"		No.3 (with plate No.1)
Power switch		MS0664K (Black)
Long Nut		No.4 (25mm)
Connector	4P	2145C-4P
"	6P	" -6P
"	8P	" -8P
Jack Washer		
Jack Bushing		
Speed Nut		M8P

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