Synthesizer-100P

Schematic Diagrams

Model S-100P

CONTENTS

***Manufactured by* TEISCO**

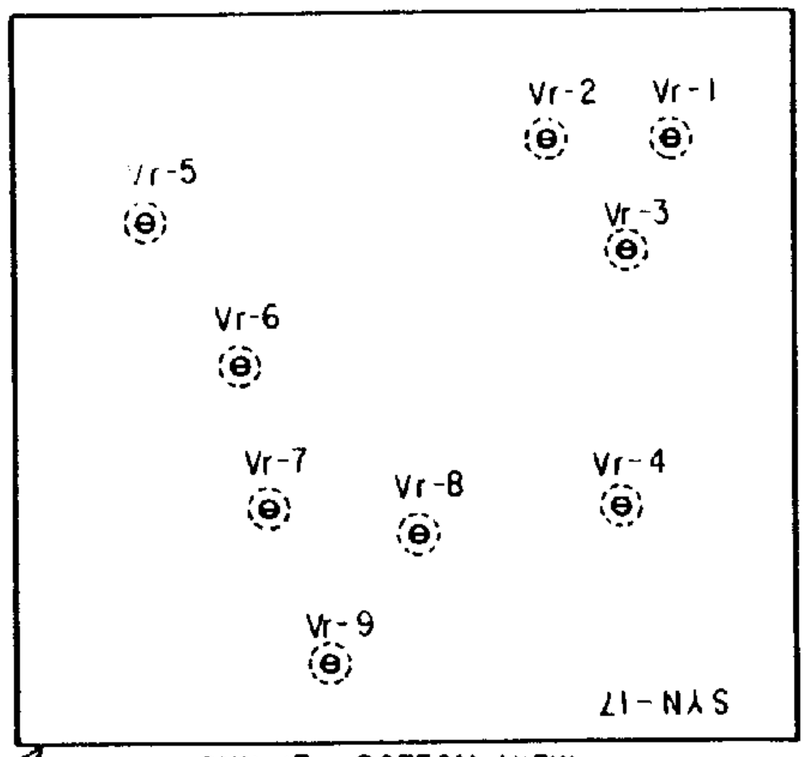
ISSUED: Dec. 1978

LAYOUT

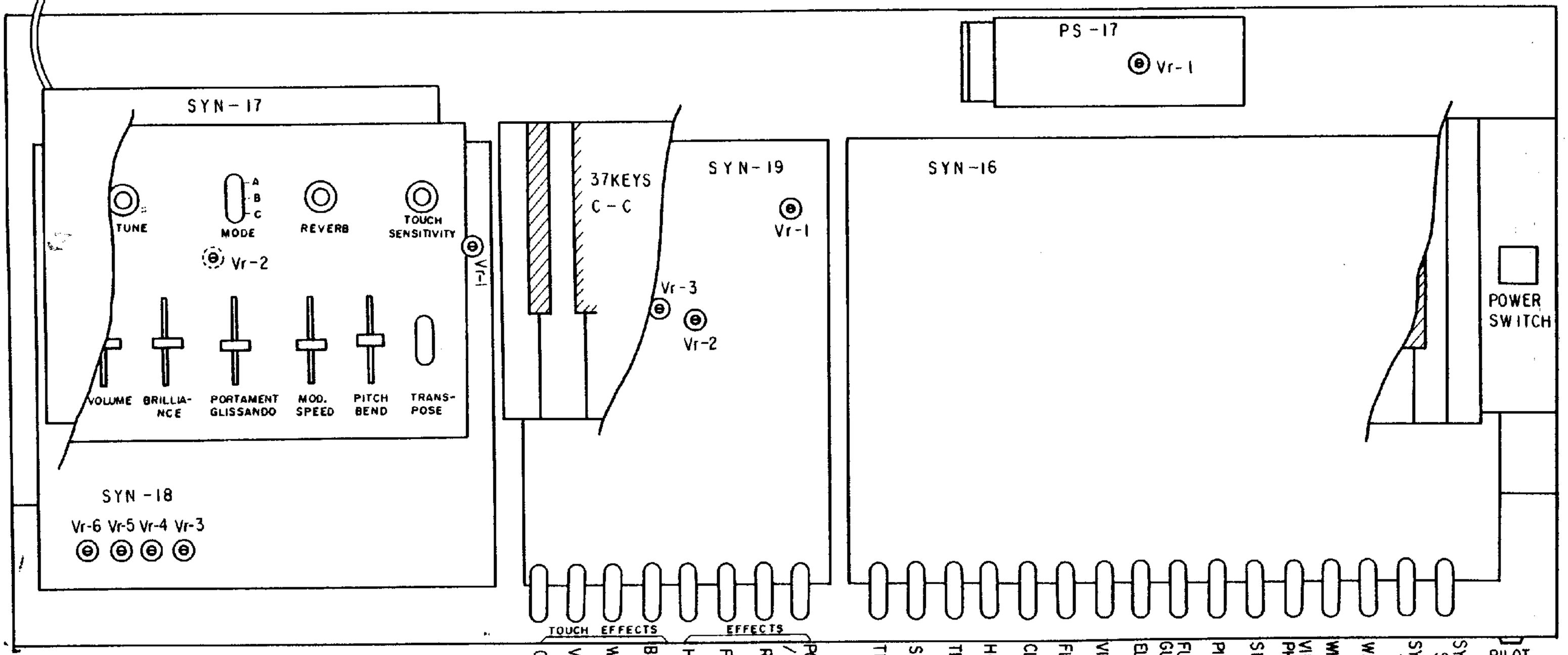
ADJUSTMENT GUIDE

P.C. BD	Vr – No.	Description
SYN-19	Vr – 1	Key Slope Adj.
"	Vr – 2	Key Voltage OFF SET Adj.
"	Vr – 3	Tension OFF SET Adj.
SYN-18	Vr – 1	B.B.D. Bias Adj.
"	Vr – 2	E.G.II Out OFF SET Adj.
"	Vr – 3	E.G.II Attack Time Adj.
"	Vr – 4	E.G.II Decay Time Adj.
"	Vr – 5	E.G.I Attack Time Adj.
"	Vr – 6	E.G.I Decay Time Adj.
SYN-17	Vr – 1	E.G.I Level Adj. (VCF)
"	Vr – 2	Cut Off Frequency Adj. (VCF)

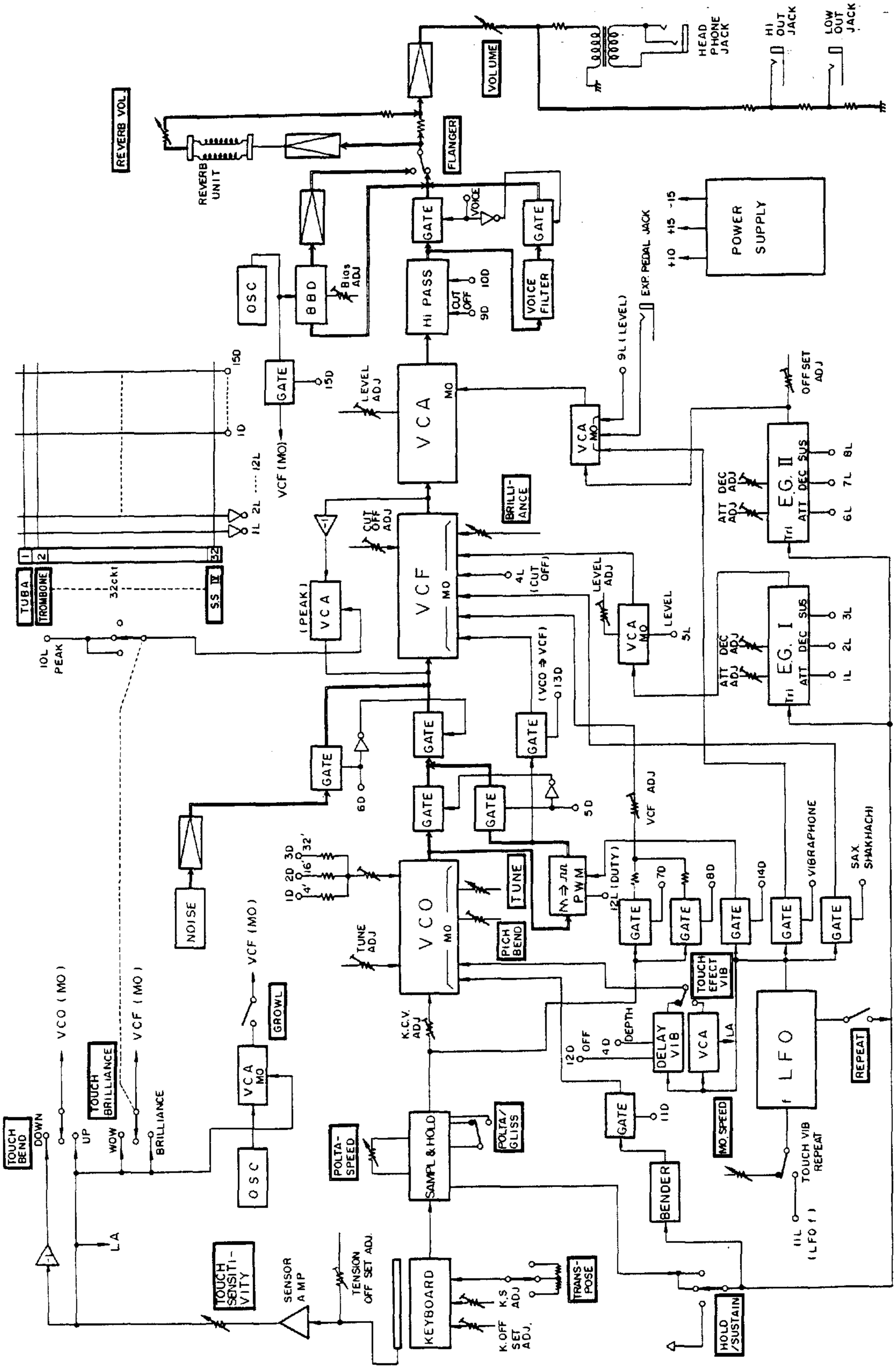
P.C. BD	Vr – No.	Description
SYN-17	Vr – 3	Key ⇒ VCF Mo Adj.
"	Vr – 4	Total Level Adj. (VCA)
"	Vr – 5	Noise Level Adj.
"	Vr – 6	Tuning Adj. (VCO)
"	Vr – 7	Range Slope Adj. (VCO)
"	Vr – 8	Peak Balance Adj. (VCF)
"	Vr – 9	Key Controlled VCO Adj.
PS-17	Vr – 1	10,000V Adj.



SYN-17 BOTTOM VIEW

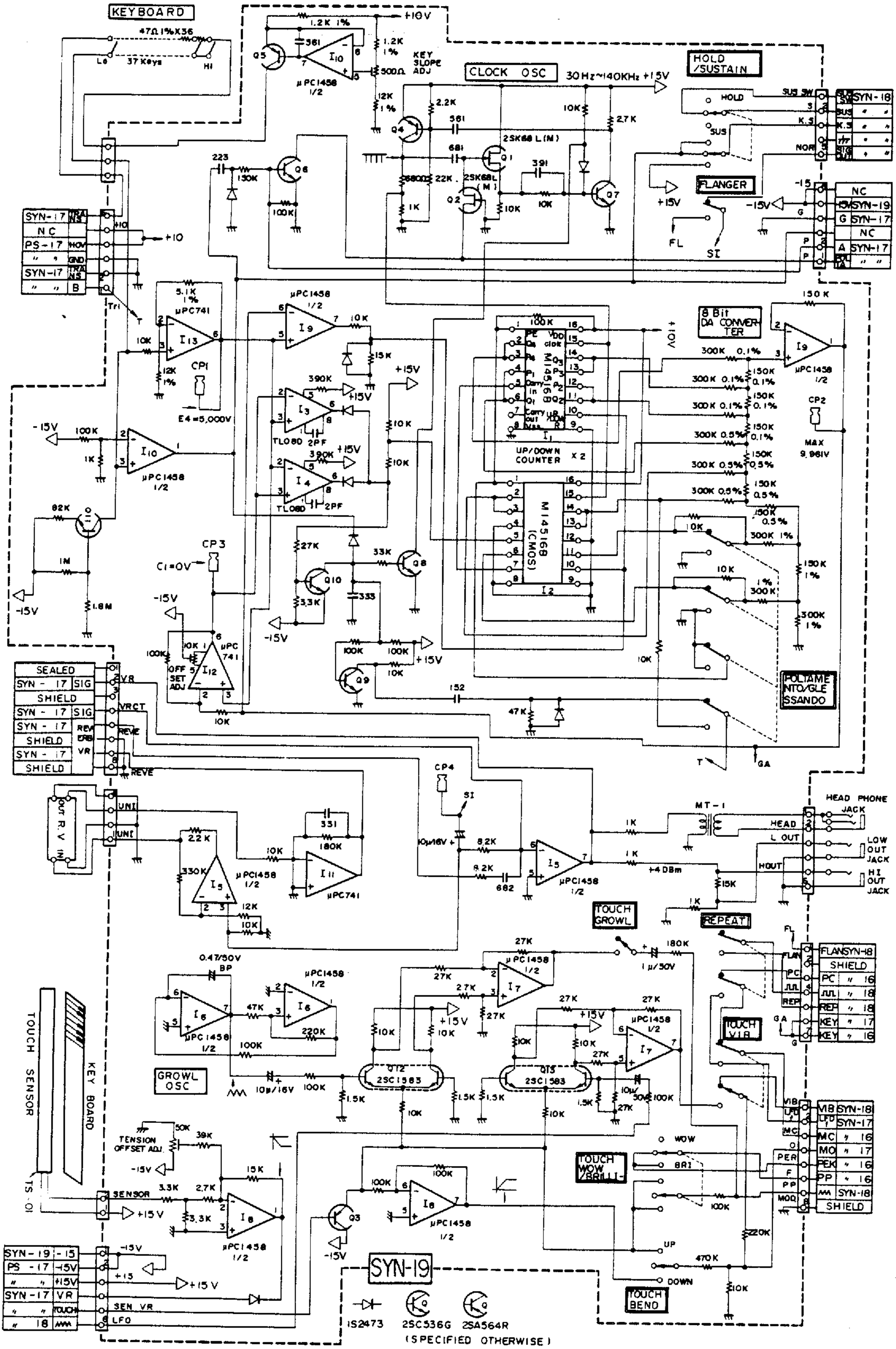


BLOCK DIAGRAM

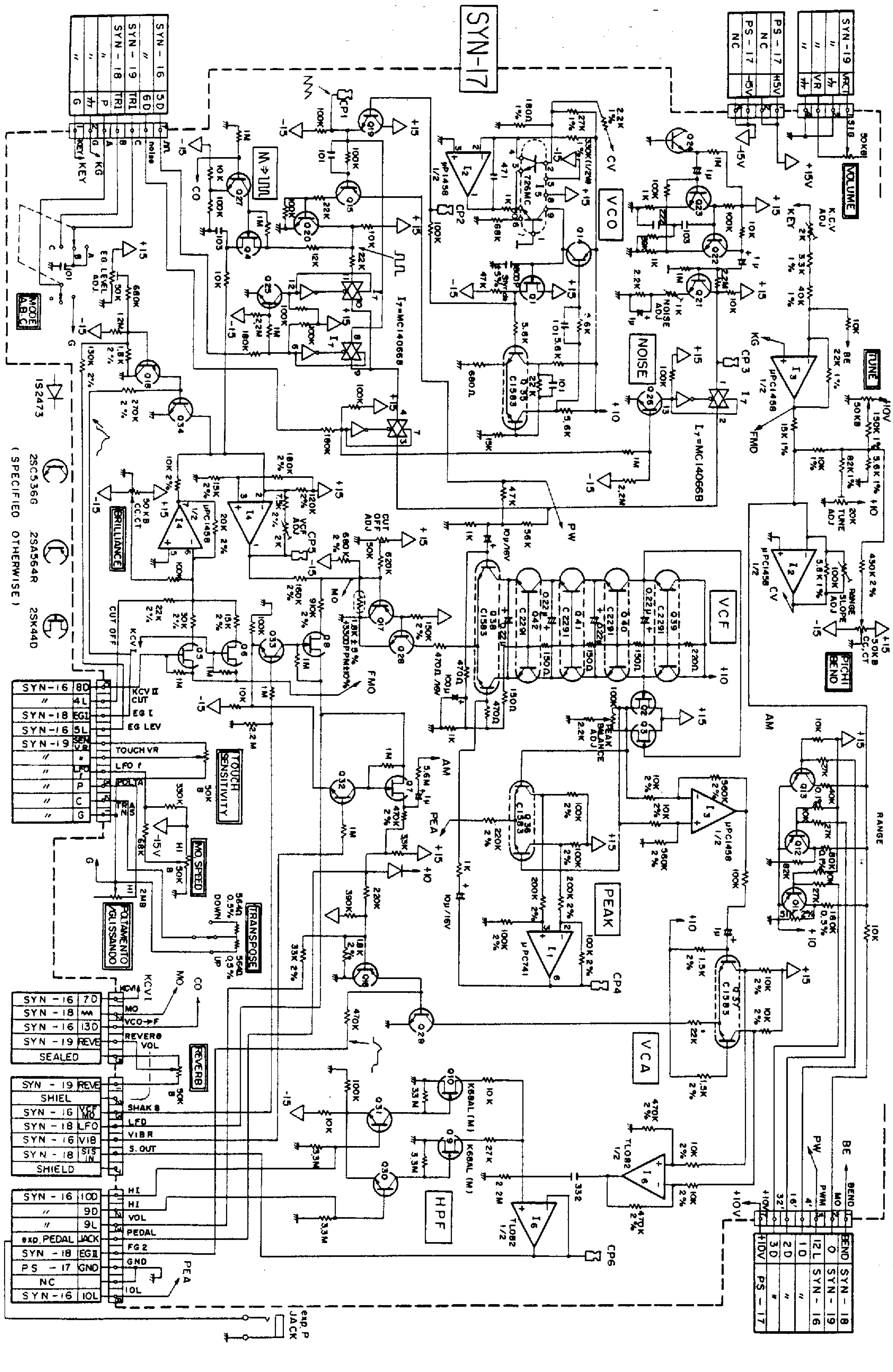


S/H, & TOUCH SENSOR

SYN-19

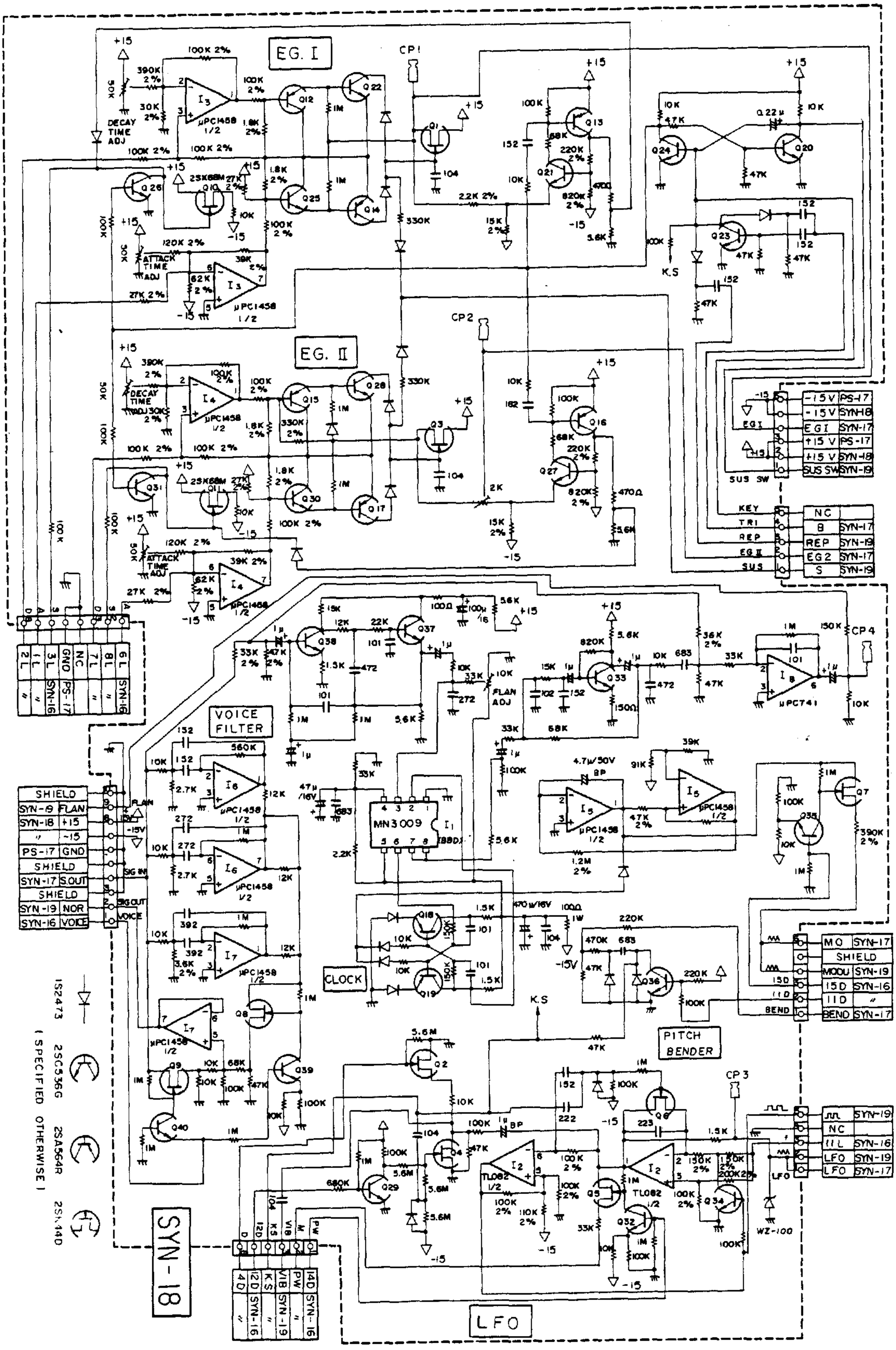


VCO, VCF & VCA


SYN-17
VCO
VCF
VCA
NOISE
PEAK
HPF
VOLUME
TUNE
PITCH BEND
BRILLIANCE
TOUCH SENSITIVITY
MO SPEED
TRANSPOSE
POLTAMENTO /GLISSANDO
REVERB
MODE A.B.C
I_7=MC14066B
EG LEVEL ADJ
K.C.V ADJ
NOISE ADJ
TUNE ADJ
RANGE SLOPE ADJ
PEAK BALANCE ADJ
CUT OFF ADJ
VCF ADJ
1S2473
2SC536G
2SA564R
2SK44D
(SPECIFIED OTHERWISE)
SYN-16
SYN-18
SYN-19
PS-17
SHIELD
SEALED
exp.P JACK
KCV II
CUT
EG I
EG LEV
TOUCH VR
LFO f
POLTA
TRANS
KCV I
MO
VCO→F
REVERB VOL
SHAK B
LFO
VIBR
S. OUT
HI
VOL
PEDAL
FG 2
GND
IOL
BEND
PWM
+10V
RANGE
AM
PEA
FMO
FMD
PW
BE
KG
KEY
CV
CO
CP1
CP2
CP3
CP4
CP5
CP6
726MC
μPC1458
μPC741
TL082
C1583
C2291

ENVELOPE GENERATOR I, II, LFO & FLANGER

SYN-18



MATRIX

SYN-16

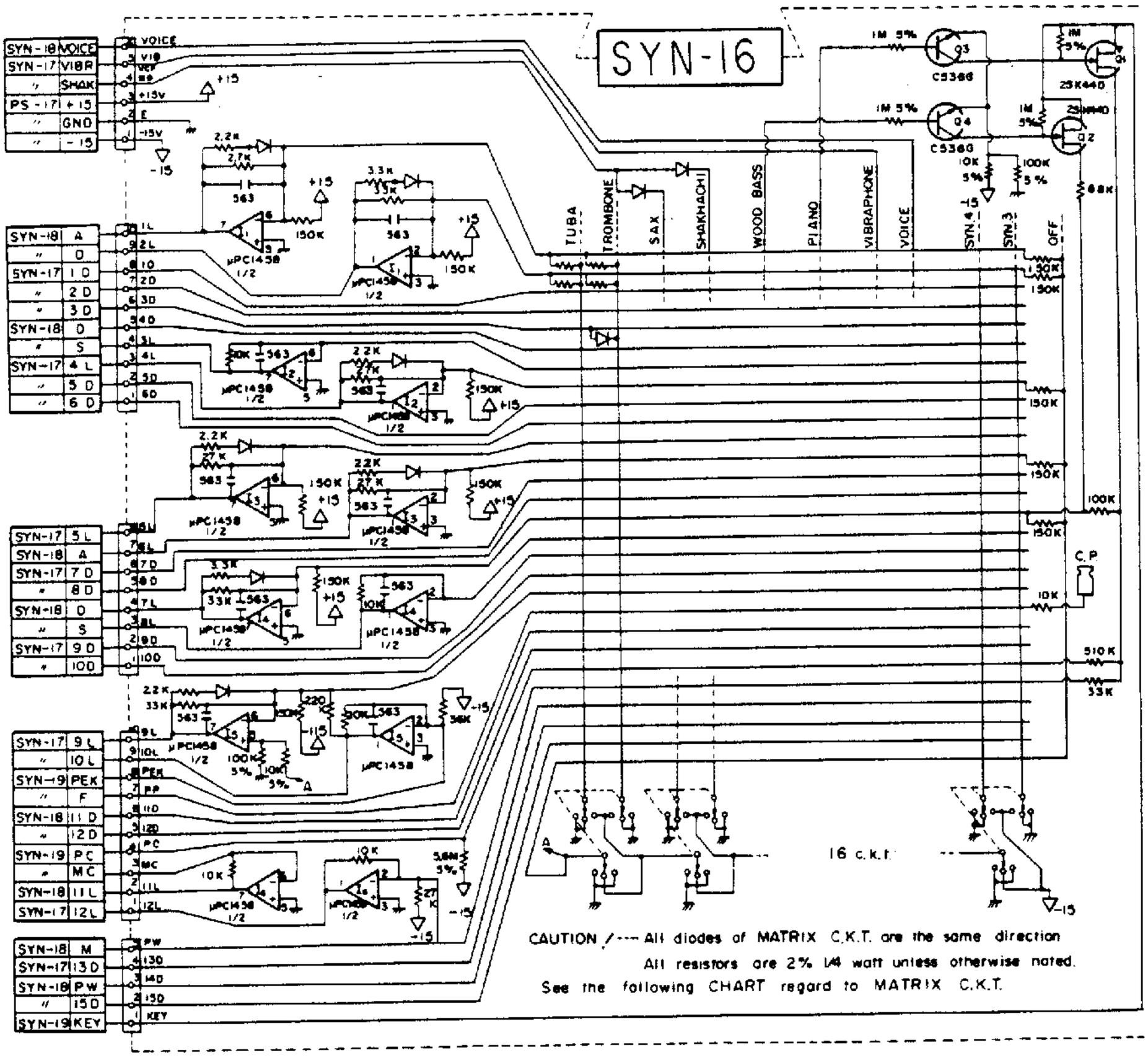


CHART OF RESISTOR VALUE & DIODE

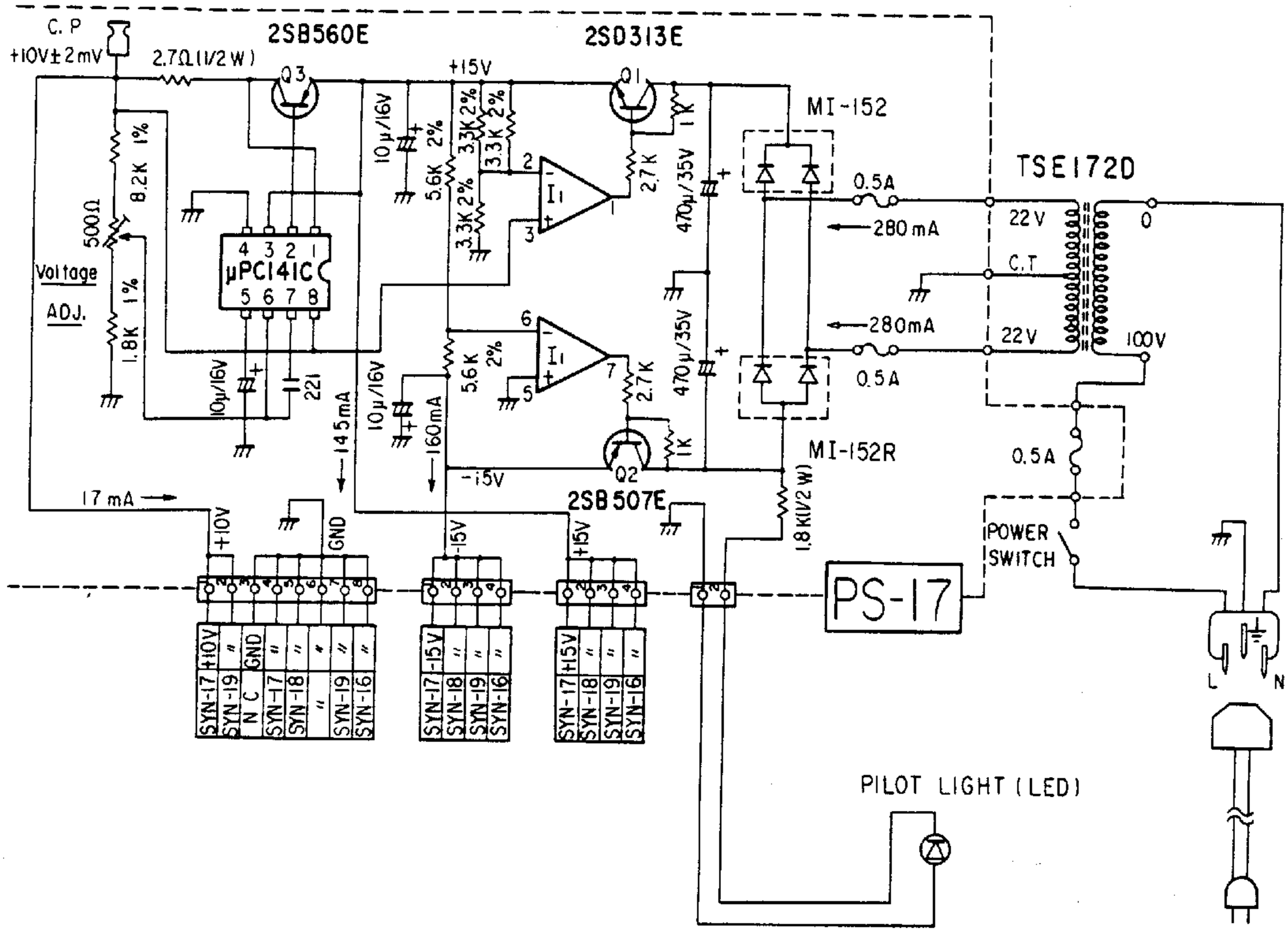
	INSTRUMENT / FUNCTION	TUBA	TROMBONE	BASSOON	SAX	MUTE TRUMPET	TRUMPET	SHAKHACHI	HORN	OBOE	CLARINET	PICCOLO	FLUTE	CELLO	VIOLIN	WOOD BASS	ELECTRIC BASS	HAWAIIAN GUITAR	FUZZ GUITAR	ACCORDION	PIANO	BANJO	SITAR	GLOCKEN	VIBRAPHONE	VOICE	WHISTLE	WIND	WAVE	SYNTHE II SOUND	STNTHE I SOUND	SYNTHE IV SOUND	SYNTHE III SOUND	OFF
1L	EGI ATTACK	33 k	16 k		12 k	91 k	13 k	36 k	220 k			16 k	33 k			4.7 k	5.6 k	3.3 k					3.3 k	3.3 k							3.3 k				150 k
2L	EGI DECAY	68 k	270 k		180 k	110 k	270 k	180 k	820 k			30 k	200 k			220 k	620 k	430 k					680 k	27 k							18 k				150 k
1D	RANGE 4'											○												○			○								
2D	RANGE 16'					○	○	○	○	○	○		○		○			○	○	○	○	○	○		○	○					○	○	○	
3D	RANGE 32'		○		○					○			○	○	○			○						○	○				○					
4D	VIB. DEPTH													○				○								○	○					○		
3L	EGI SUSTAIN LEVEL	39 k	20 k		33 k	15 k	24 k	15 k	22 k			16 k	18 k																					
4L	CUT OFF f.			18 k	20 k	270 k	220 k	180 k	18 k	6.2 k	8.2 k	9.1 k	22 k	6.2 k	4.7 k	1 M	300 k	8.2 k	5.6 k	3.3 k	33 k	2.2 k	200 k	5.6 k	8.2 k	7.5 k	4.3 k	4.7 k	3.3 k	27 k	10 k	3 k	3 k	150 k
5D	SOURCE (⎍⎍)				○	○				○	○					○			○	○	○	○				○					○		○	
6D	SOURCE (NOISE)																											○	○					
5L	EGI ⇒ VCF LEVEL	6.2 k	6.2 k		8.2 k	3.6 k	6.8 k	6.8 k	9.1 k			12 k	9.1 k			8.2 k	10 k	13 k					5.6 k	13 k						6.2 k	6.2 k			
6L	EGII ATTACK	2.7 k	2.4 k	20 k	22 k	8.2 k	8.2 k	110 k	6.8 k	18 k	18 k	13 k	24 k	100 k	82 k	6.2 k	5.6 k	3.3 k	3.3 k	62 k	5.6 k	3.3 k	3.3 k	3.3 k	10 k	82 k	100 k			13 k	3.3 k	3.3 k	3.3 k	150 k
7D	KEY ⇒ VCF 2/3 MOD.	○			○	○	○			○	○			○	○			○	○		○	○	○	○		○					○	○	○	
8D	KEY ⇒ VCF 1/3 MOD.		○	○		○			○							○	○			○	○	○		○	○	○							
7L	EGII DECAY	200 k	160 k	240 k	270 k	240 k	240 k	820 k	300 k	620 k	620 k	160 k	820 k	820 k	51 k	150 k	1 M			51 k	160 k	110 k	1.1 M	160 k	390 k	180 k	150 k					390 k		150 k
8L	EGII SUSTAIN LEVEL	16 k	18 k	16 k	18 k	16 k	20 k	36 k	27 k	16 k	47 k	91 k	16 k	22 k	16 k			20 k		16 k						16 k	16 k	16 k	16 k	16 k	33 k	16 k	16 k	
9D	Hi PASS(10kΩ)				○	○	○				○									○				○										
10D	Hi PASS(27kΩ)									○										○	○	○												
9L	VOLUME	180 k	180 k	180 k	150 k	130 k	160 k	160 k	160 k	180 k	150 k	180 k	150 k	200 k	200 k	160 k	160 k	200 k	200 k	160 k	120 k	130 k	200 k	180 k	180 k	220 k	220 k	180 k	180 k	220 k	240 k	240 k	270 k	
10L	PEAK (VCF)	33 k	33 k		33 k	51 k	51 k	33 k	33 k		51 k		33 k	33 k	82 k	33 k	75 k	51 k	56 k	33 k	33 k								33 k		33 k	33 k	33 k	
11D	BENDER ON																									○	○				○			
12D	DELAY VIB OFF							○	○								○				○	○	○	○	○					○	○	○		
11L	LFO f		180 k	160 k	220 k	37 k	160 k	220 k	160 k	150 k	150 k	130 k	150 k	200 k	150 k			180 k	150 k	220 k	750 k		680 k		180 k	150 k	120 k				110 k		100 k	
12L	DUTY (VCO)				39 k	27 k				56 k				9.1 k		82 k	56 k	8.2 k	51 k	1.1 M	1.2 M	39 k				43 k								
13D	VCO (⎍⎍) ⇒ VCF (Mo)			○										○				○					○											
14D	VCO PWM ON																○			○	○													
15D	WIND WAVE Mo. ON																											○	○					

○ = ▷| = 1S2473

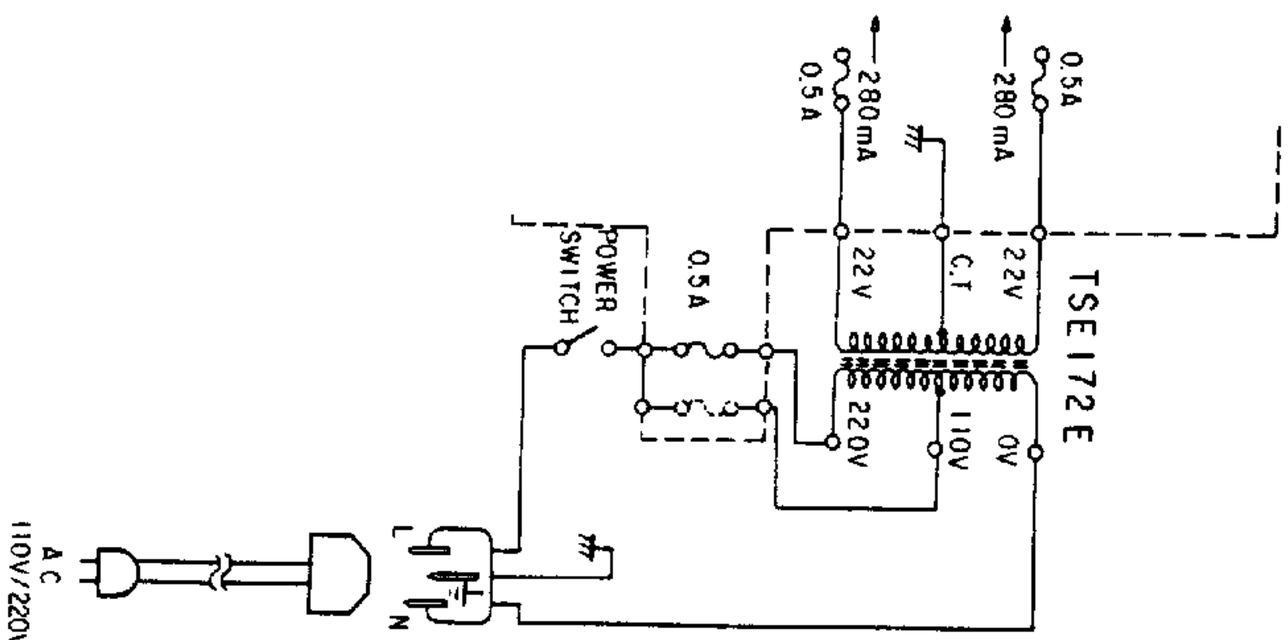
POWER SUPPLY

PS-17

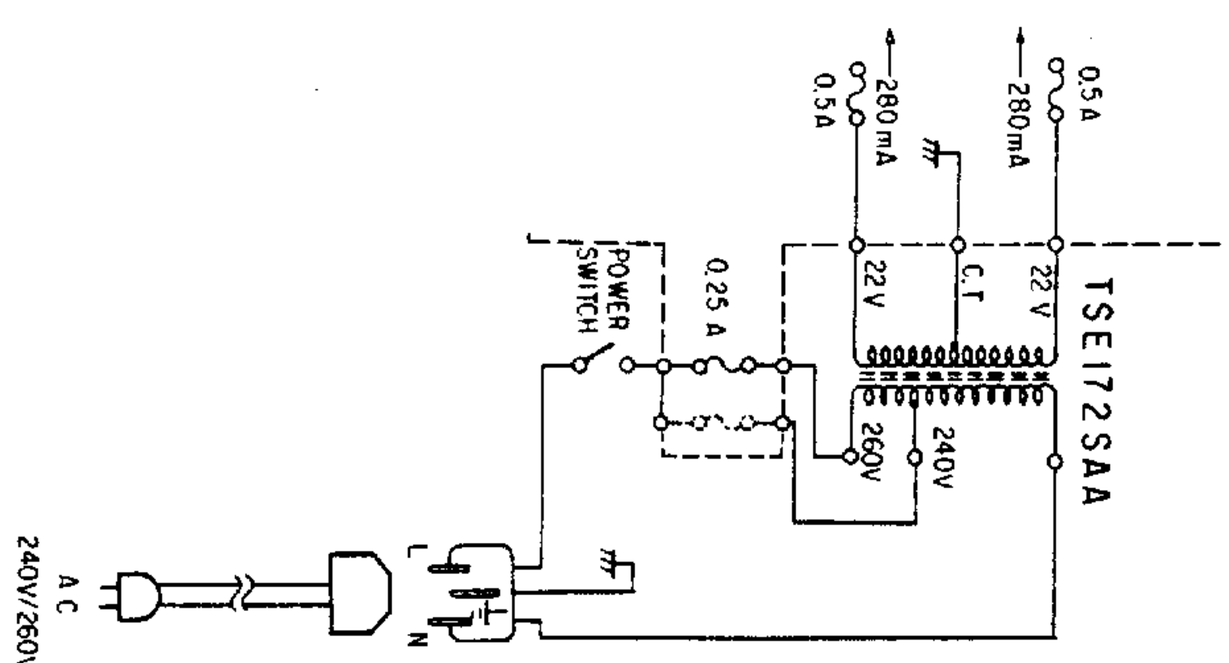
DOMESTIC



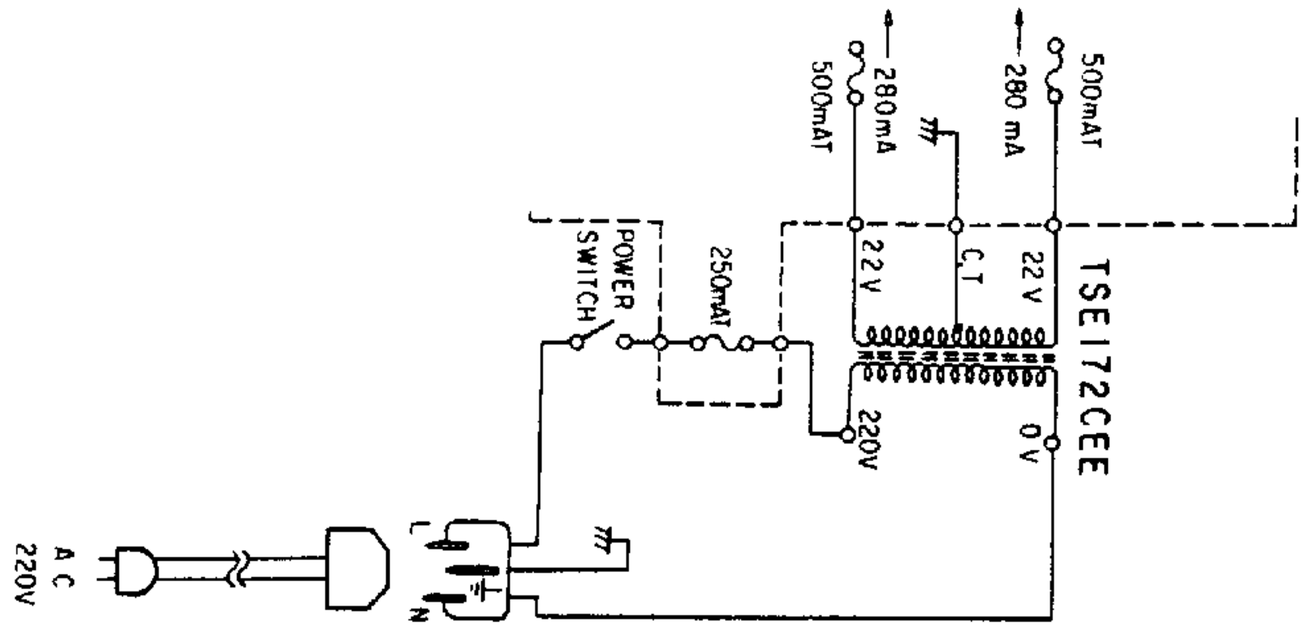
110/V220V



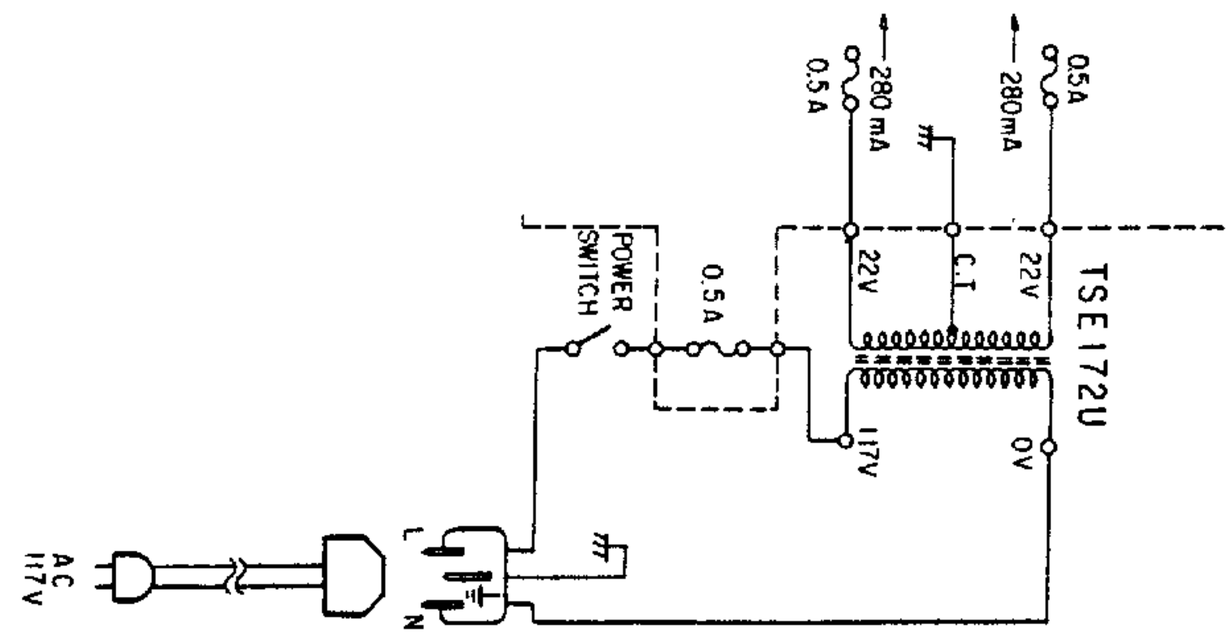
SAA



CEE

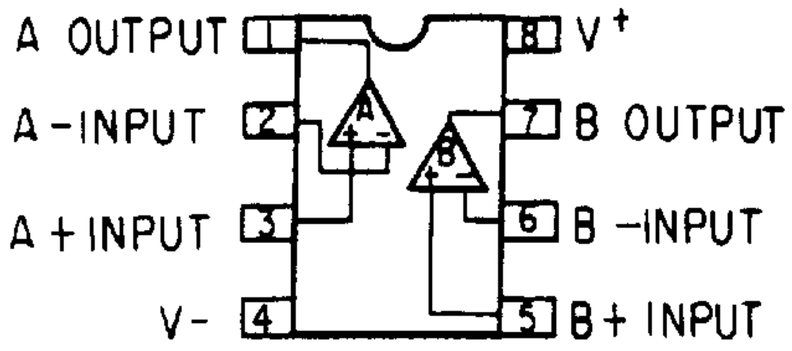


UL/CSA



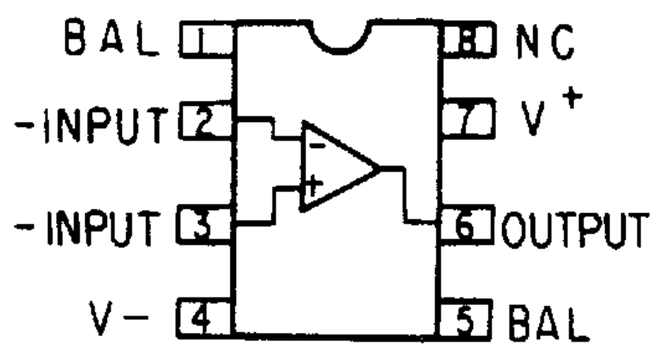
IC INFORMATIONS

μPC1458 (TOP VIEW)



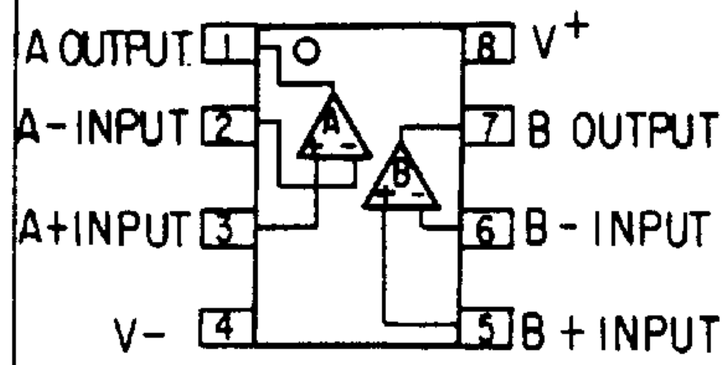
Dual Operational Amplifier

μPC741 (TOP VIEW)



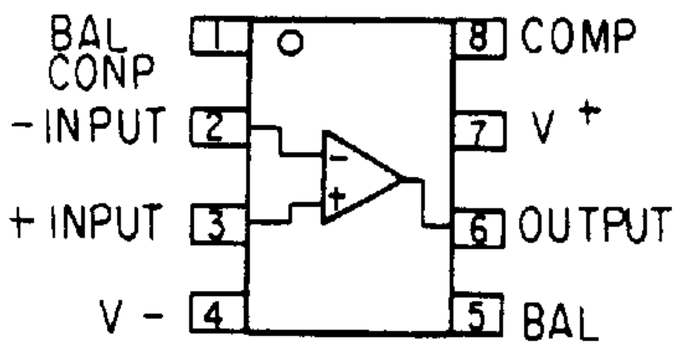
Operational Amplifier

TL082 (TOP VIEW)



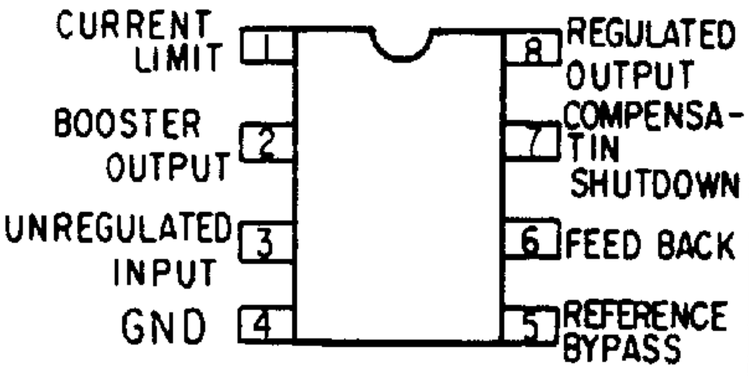
JFET Operational Amplifier (Dual)

TL080 (TOP VIEW)



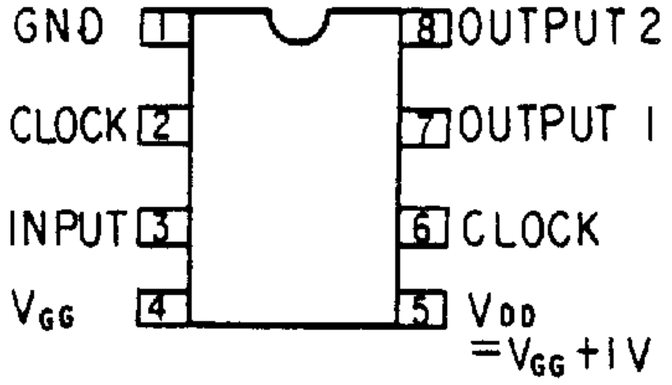
JFET Operational Amplifier

μPC141C (TOP VIEW)



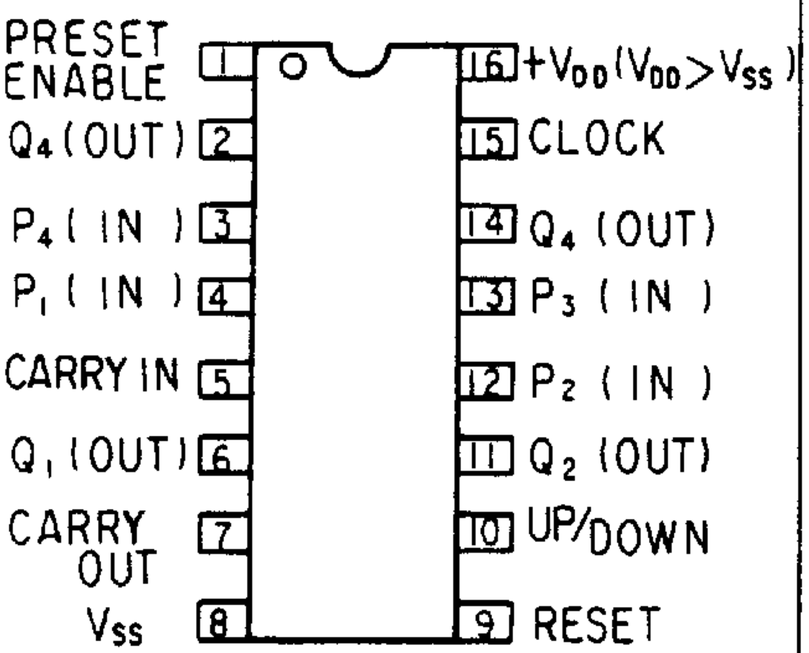
Voltage Regulator

MN3009 (TOP VIEW)



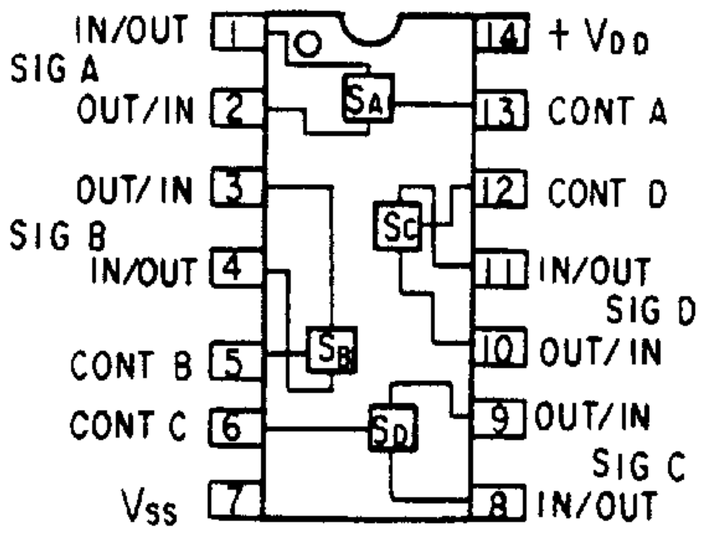
B.B.D.
(Bucket Brigade Devise)

MC14516B (TOP VIEW)



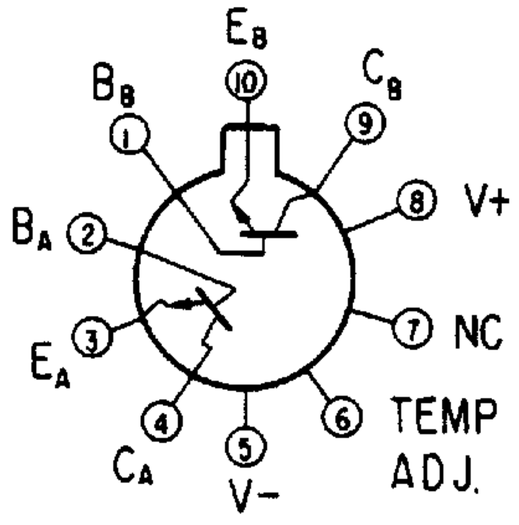
Binary UP/DOWN Counter
(C MOS)

MC14066B (TOP VIEW)



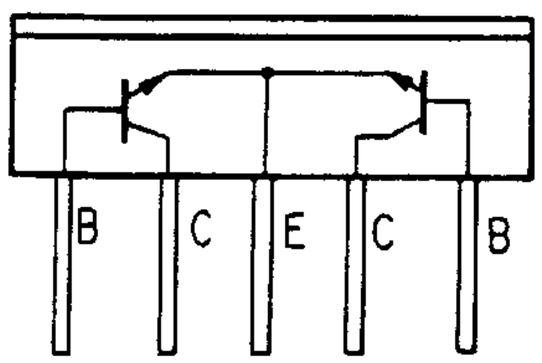
Quad Bilateral Switch
(C MOS)

μA-726HC (TOP VIEW)



Temperature – Controlled
Differential Pair

2SC1583 (TOP VIEW)
(Pair Transistor)



2SC2291 (TOP VIEW)
(Pair Transistor)