

YAMAHA

COMBO ORGAN

YC-45D

SERVICE MANUAL

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1. CIRCUIT BOARD DESCRIPTION CHART

CIRCUIT		PART No.	REMARKS
D	(#2159)	NA021590	Divider Circuit (C ~ B)
M	(#2158)	NA021580*	Tone Generator Circuit (c5 ~ b5)
I3	(#2160)	NA021600	Integrator Circuit (C# ~ B)
I2	(#2161)	NA021610	Integrator Circuit (E ~ G)
I1	(#2162)	NA021620	Integrator Circuit (C ~ D#)
UE5	(#2163)	NA021630	UK Keying Circuit (c#3 ~ c4)
UE4	(#2164)	NA021640	UK Keying Circuit (c#2 ~ c3)
UE3	(#2165)	NA021650	UK Keying Circuit (c#1 ~ c2)
UE2	(#2166)	NA021660	UK Key Circuit (c# ~ c1)
UE1	(#2167)	NA021670	UK Key Circuit (C# ~ c)
UAT3	(#2168)	NA021680	UK ATTACK (1/2) Circuit (c#3 ~ c4)
UAT2	(#2169)	NA021690	UK ATTACK (1/2) Circuit (c#1 ~ c2)
UAT1	(#2170)	NA021700	UK ATTACK (1/2) Circuit (C ~ c1)
BM	(#4254)	NA042540	LK BASS Memory Circuit (C ~ c)
BE	(#2171)	NA021710	LK BASS Memory Circuit (c# ~ f#) BASS Divider Circuit BASS Key Circuit
V	(#2172)	NA021720	ATTACK MUTE Pulse Forming Circuit ATTACK GLIDE Circuit MARIMBA OSC. VIBRATO OSC. VIBRAPHONE OSC. BIRDS OSC. PORTAMENTO OSC. (c2 ~ c6) PORTAMENTO Divider Circuit PORTAMENTO Keying Circuit
POR	(#2173)	NA021730	
UF1	(#2174)	NA021740	UK 8' 4' FLUTE Filter UK ATTACK Filter
UF2	(#2175)	NA021750	UK Buffer amp UK Panel FLUTE Filter PIANO Filter
UF3	(#2176)	NA021760	UK Preset FLUTE Filter
UF4	(#2177)	NA021770	UK Tone Filter HARPSICHORD Filter
LF	(#2178)	NA021780	UK 16' Filter
BF	(#2179)	NA021790	LK Panel & Preset FLUTE Filter
POF	(#2180)	NA021800	BASS Filter PORTAMENTO Filter AUTO MUTE Circuit 16' Preamp
PS	(#2181)	NA021810	UK PERCUSSIVE Circuit
MF	(#2182)	NA021820	UK FUZZ Circuit MUTE Circuit MARIMBA Circuit VIBRAPHONE Circuit
A	(#2183)	NA021830	UK Buffer amp Preamp Preamp Total Preamp
TV	(#2184)	NA021840	TOUCH VIBRATO Preamp
TR1	(#2185)	NA021850	TOUCH RESPONSE Drive Circuit
TR2	(#2186)	NA021860	TOUCH RESPONSE Drive Circuit
PU	(#2248)	NA022480	Power Supply Circuit

*M Circuit NA021580 → NA80438

2. YC-45D Specifications

KEYBOARDS	
UPPER MANUAL KEYS	61, C ~ c4 (5 octaves)
LOWER MANUAL KEYS (incl. 19 MANUAL BASS KEYS)	61, C ~ c4 (5 octaves)
OPTIONAL PEDALBOARD KEYS	13, C1 ~ C (1 octaves)
PORTAMENTO	C1 ~ c4 (3 octaves)
TONE LEVERS	
UPPER MANUAL	16, 8', 5-1/3', 4', 2-2/3', 2', 1-3/5', 1' TROMBONE 16', KINURA 8', TRUMPET 8', STRING 4' KINURA 16', PIANO, HARPSICHORD, VIBRAPHONE
LOWER MANUAL	16', 8', 4', 2-2/3', 2'
BASS	16', 8', BASS GUITAR, TROMBA
PORTAMENTO	SLIDE TROMBONE, SQUAWK, BIRDS, ASTRO
EFFECT LEVERS	
	VIBRATO, VIBRATO SPEED, TOUCH VIBRATO (UPPER)
	PERCUSSIVE 16', 4', 2-2/3', 1' (UPPER)
	PERCUSSIVE LENGTH (UPPER)
	UPPER BRIGHT LOWER BRIGHT
	MARIMBA (UPPER), FUZZ (UPPER), ATTACK 1-1/3' (UPPER)
	AUTO MUTE (PORTAMENTO), BASS SUSTAIN
EFFECT CONTROLS	
	MANUAL BALANCE _____
EFFECT SELECTORS	
	UPPER SUSTAIN (4', 8', MARIMBA)
	TOUCH MUTE (UPPER), ATTACK GLIDE (UPPER)
	UPPER 8' 4' SUSTAIN (incl. MARIMBA, PIANO, HARPSICHORD)
	TOUCH RESPONSE (UPPER 4' 8' MARIMBA PIANO, HARPSICHORD)
	ATTACK MUTE (UPPER)
	PRESET 1 (UPPER) PRESET 2 (UPPER, LOWER)
	MARIMBA SPEED (SLOW/FAST)
OTHER CONTROLS	
	MASTER VOLUME, BASS VOLUME, PITCH CONTROL
	MASTER VOLUME, BASS VOLUME, PITCH CONTROL
	POWER SWITCH WITH PILOT LAMP
OTHER FITTINGS	
CIRCUITRY	
POWER CONSUMP.	OUTPUT JACK, OPTIONAL PEDALBOARD SOCKET
	SOLID STATE, incl. ICS
	30W
DIMENSIONS	
WxDxH (SET UP)	111x65x97cm (4"x26"x38")
WEIGHT	
	60kg (132 lbs.)
FINISH	
	GREY LEATHERETTE SIDING
	AVAILABLE COLORS
	RED, BLACK, AMERICAN WALNUT

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Coding guide

CUT-AWAY WIRING TABLE FOR EXPLANATION PURPOSES

8) RA Circuit
 Item 8 in the RACK
 Table of Contents

Master Oscillator Sub-assembly			Color of wire or wires connecting to this connection				
		M					1
(34)							
(35)			E	BLK	RA-D1-E(2)		2
(36)							3
(37)							4
(38)	C#	RED	RA-D1-5(6)				5
~~~~~							
(61)					PIN	RA-D1-5(31)	28
(62)				F#	PUR	RA-D1-5(45)	29
(63)							30
(64)							31
(65)	V	WHI	RA-MA-VS(48)				32
(66)				-12	RED	US-P1-1 RA-D1-12(33)	33
			M				-12

Ground (Earth) bar that extends the length of the Rack (Note the overlapping bar).

Pin connections that will appear on the circuit diagram and the component location layouts.

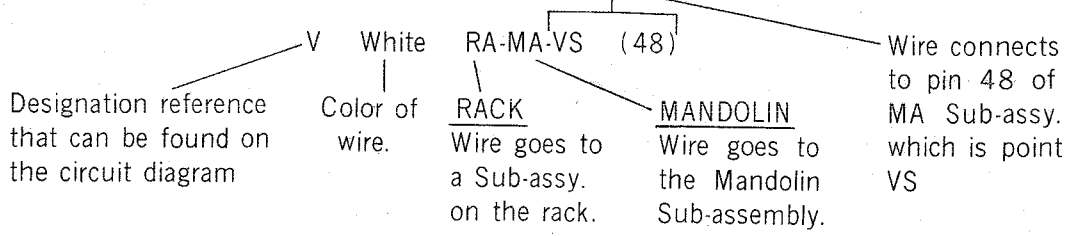
-12 volt bar that extends the length of the Rack. (Note the overlapping of the bar).

Pin connections listed on the leftmost side of the table.

Designation or reference that will appear on the circuit diagram and on any component location layout.

Two listings means there are two wires connected to this point.

This coding states that a white wire is connected to pin 65, (see leftmost side of table) which is point V of the Master Oscillator circuit. The other end of the wire is connected to pin 48, which is point VS of the Mandolin Sub-assembly, physically located on the Rack.

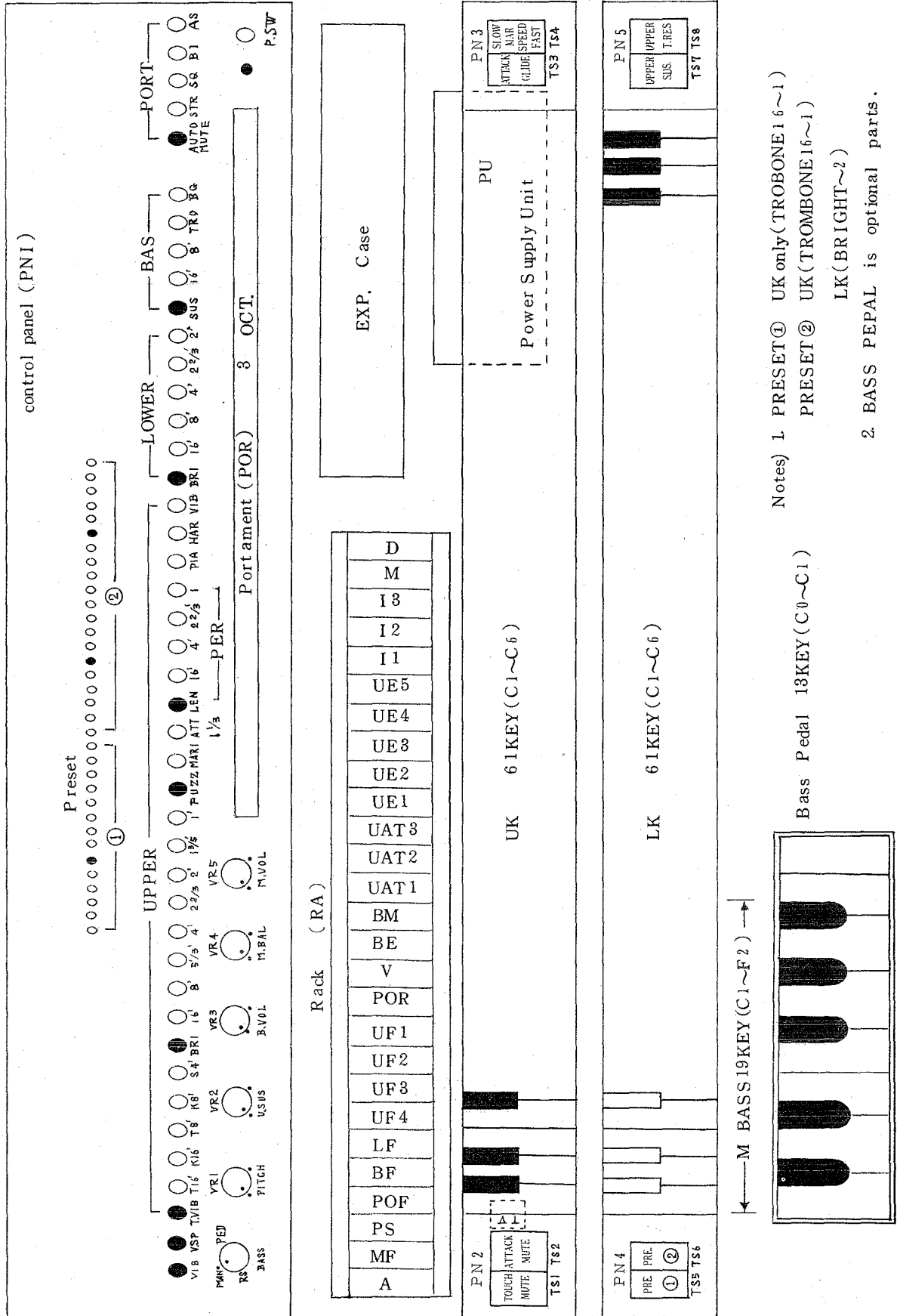


**NOTE: ABBREVIATIONS OF WIRE COLOR IN ELECTONE**

- BL.....BLACK      BR.....BROWN      RE.....RED      OR.....ORANGE
- YE.....YELLOW    GR.....GREEN      BE.....BLUE      VI.....VIOLET
- GY.....GRAY      WH.....WHITE      GG.....GRASS GREEN    SB.....SKY BLUE
- PK.....PINK      TR.....TRANSPARENT    TP.....TIN PLATED WIRE

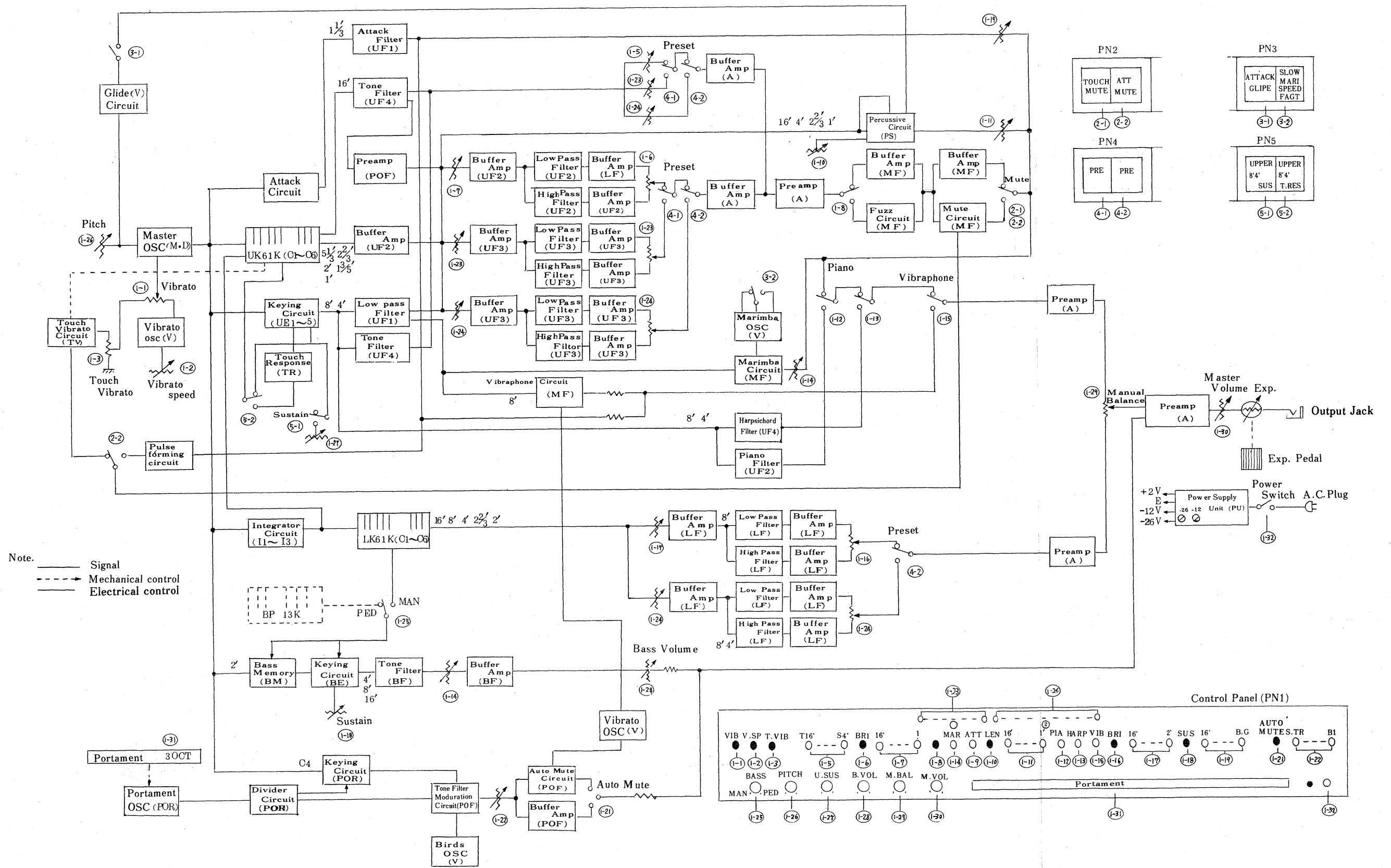
Wire colors in the circuit diagrams are indicated as above.

### 3. Unit Layout

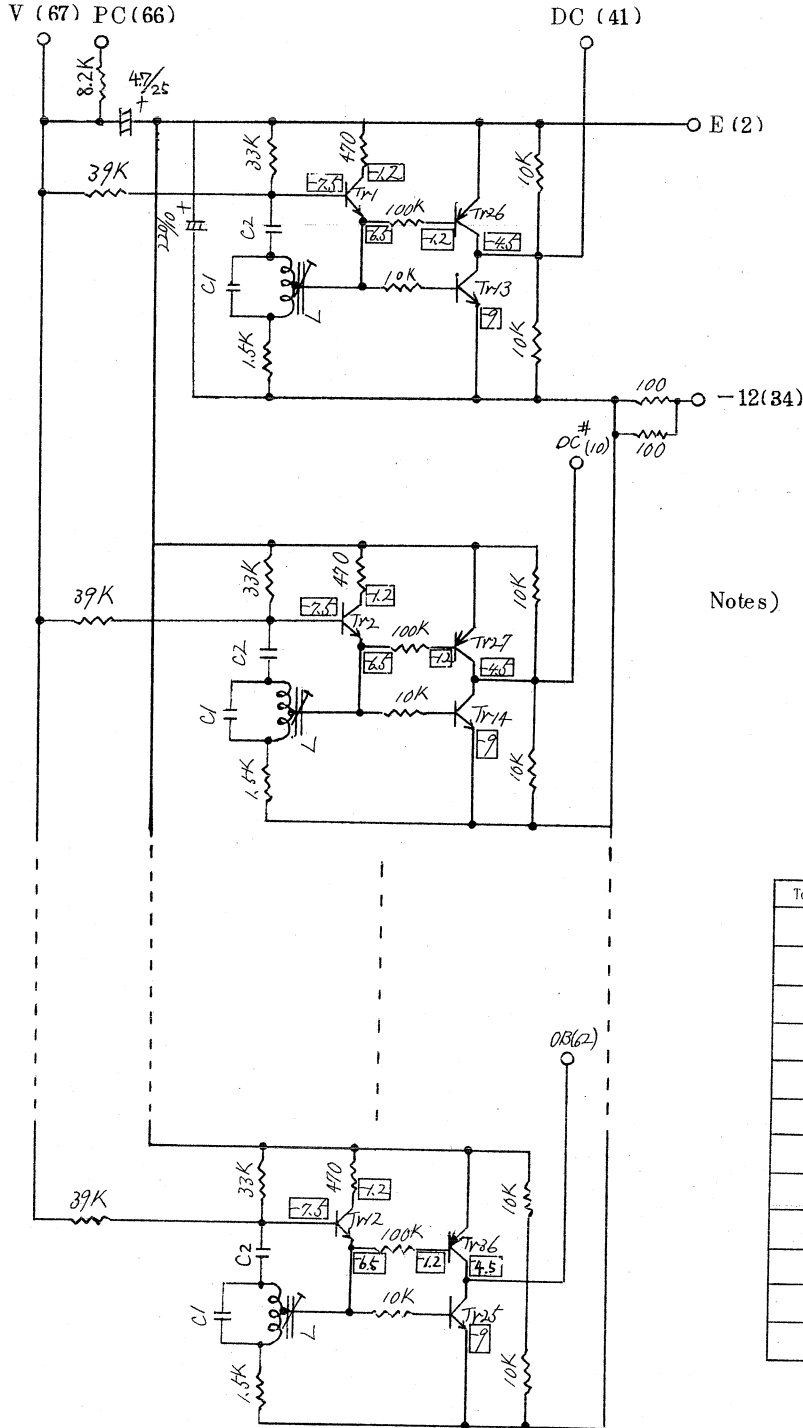




4. Block Diagram



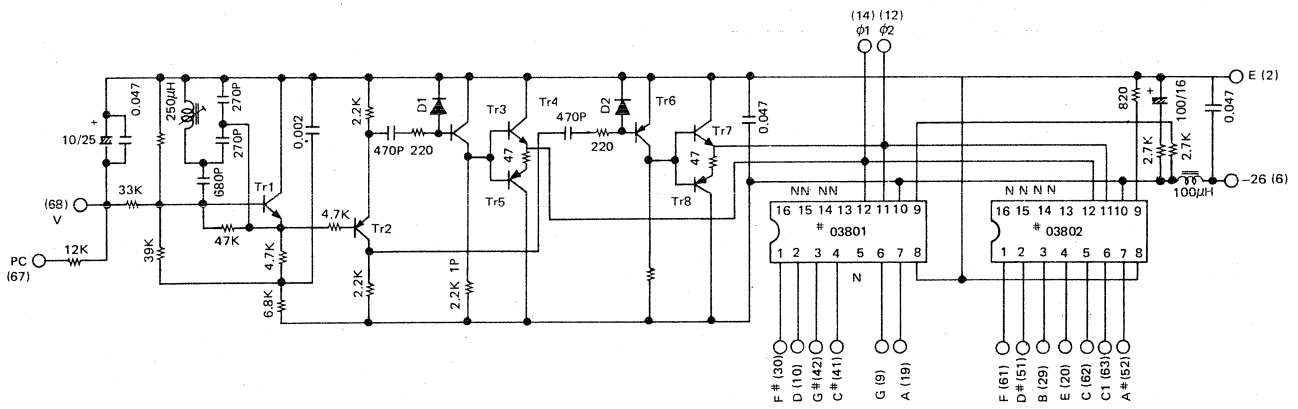
5. M Circuit Diagram(1)



- Notes) 1. Transistor  
 Tr₁ ~ Tr₂ : 2SC458(A) (B)  
 Tr₁₃ ~ Tr₂₄ : 2SC458(B)  
 Tr₂₅ ~ Tr₃₆ : 2SA561(O)
2. C1: Polystyrene Capacitor  
 C2: Mylar Capacitor
3. Coil  
 L: GC42, 41

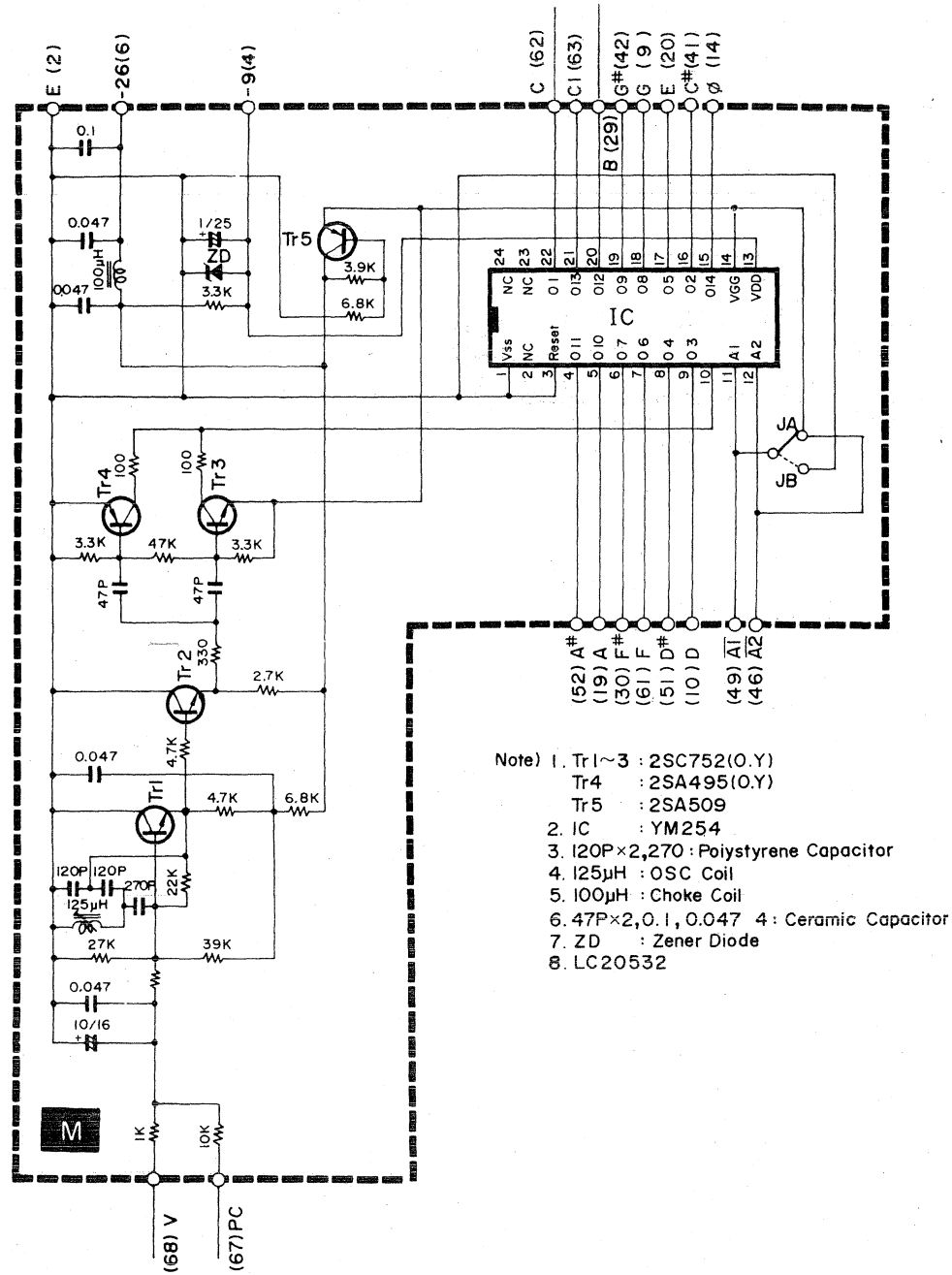
Tone Name	L	C1	C2
C	7 1	8200 ^{PF}	0.011 ^{4F}
C #	"	"	"
D	"	6200	0.01
D #	"	"	"
E	"	5100	0.0091
F	"	"	"
F #	7 4	5600	0.0082
G	"	"	"
G #	"	4700	0.0068
A	"	"	"
A #	"	3600	0.0062
B	"	"	"

5. M Circuit Diagram (2)



- Note)
- |                 |              |    |         |                                          |
|-----------------|--------------|----|---------|------------------------------------------|
| Tr1             | : 2SC 752    | C  | : 270PF | Polystyrene Film capacitor $\pm$ 5% Type |
| Tr2, 3, 5, 6, 8 | : 2SA 495    | C1 | : 680PF |                                          |
| Tr4, 7          | : 2SC 458    | C2 | : 470PF | Ceramic Capacitor $\pm$ 10% Type         |
| D1, D2          | : 1S 1500    | L  | : 250µH | High Frequency Choke Coil                |
| # 03801         | : YAMAHA DIL |    |         |                                          |
| # 03802         | : YAMAHA DIL |    |         |                                          |

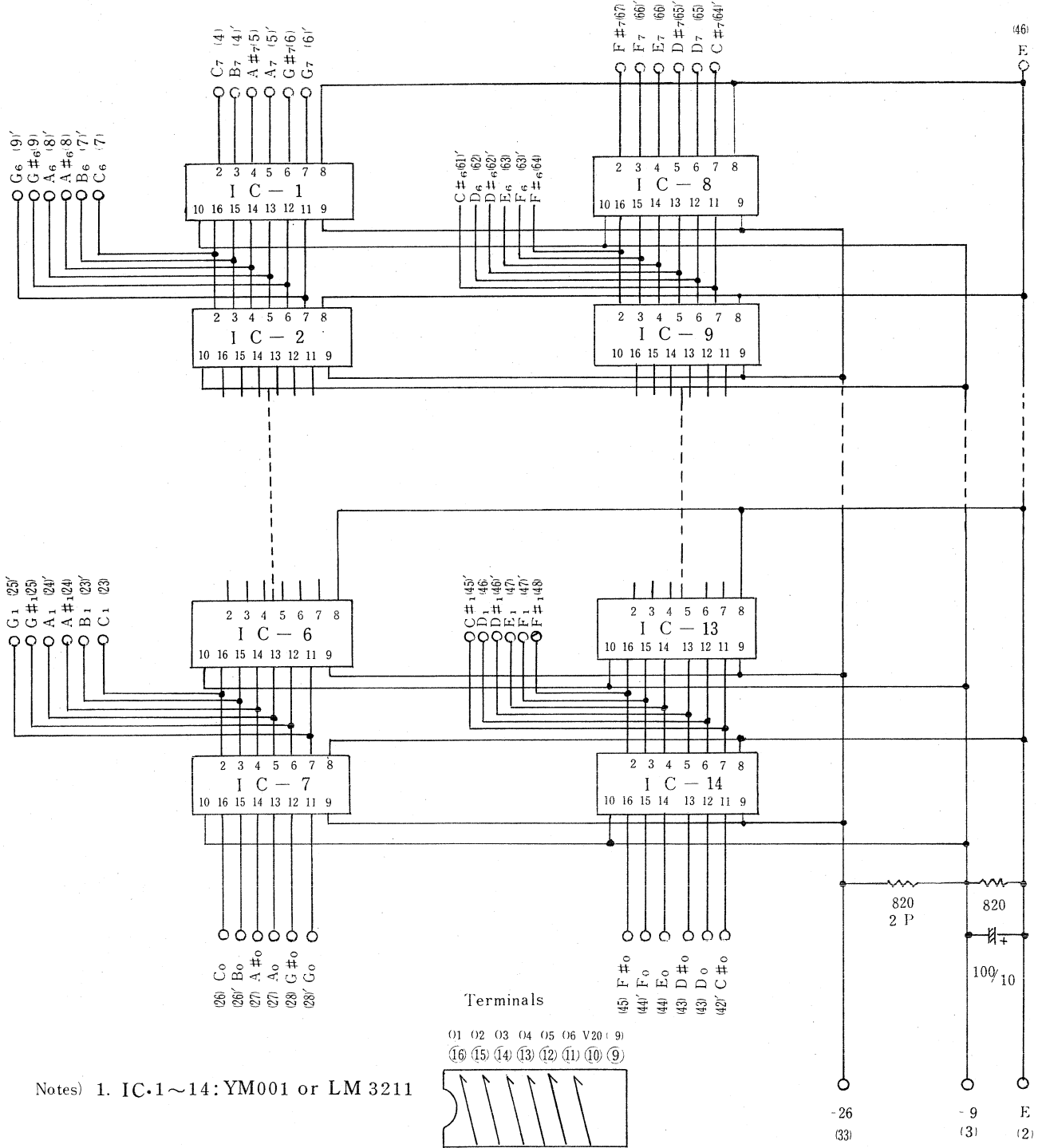
5. M Circuit Diagram (3)



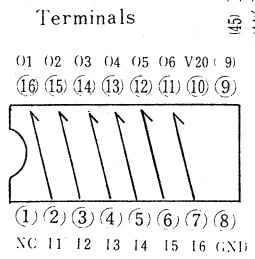
YC - 45D

On and from the production of March; No. 7833

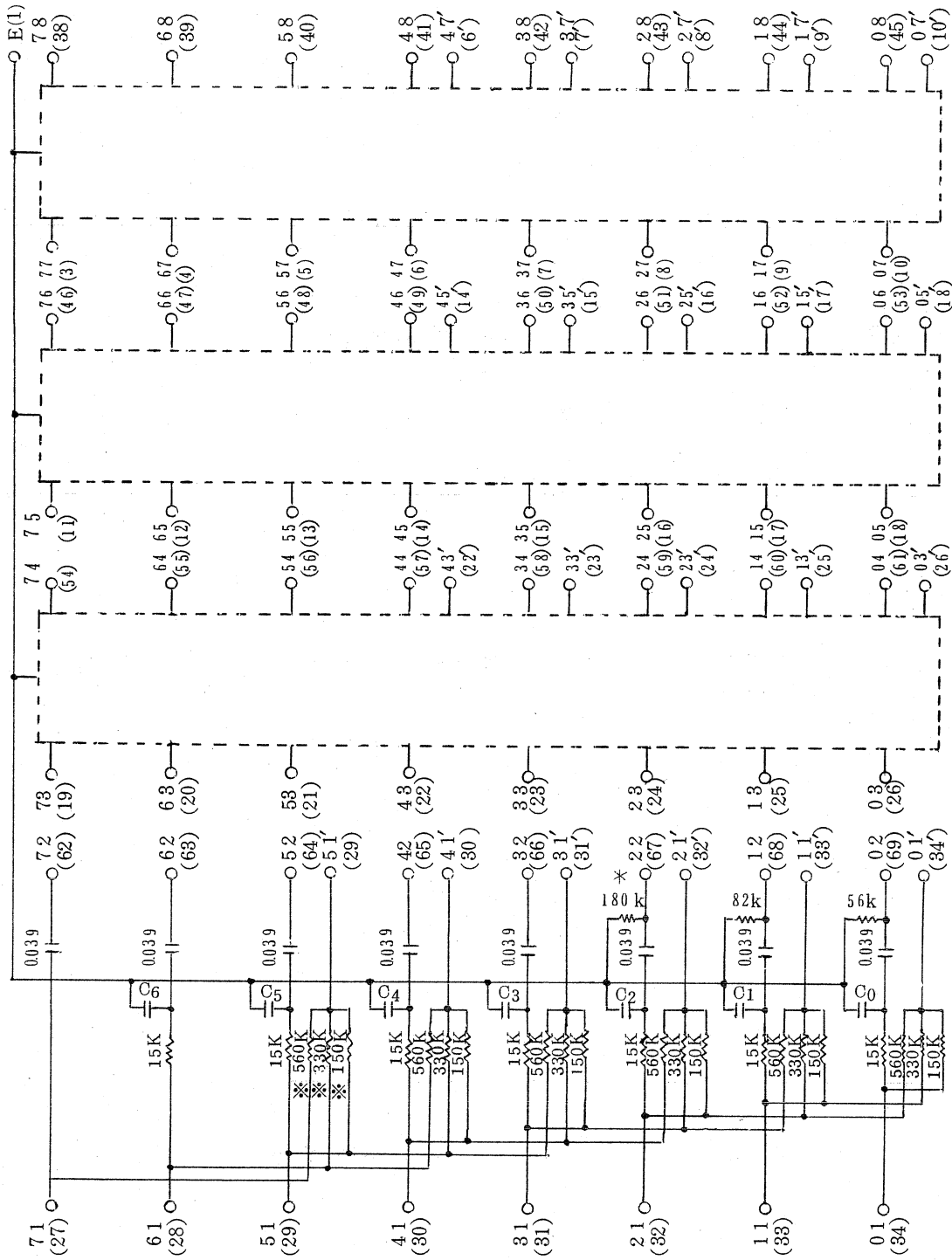
6. D Circuit Diagram



Notes) 1. IC.1~14: YM001 or LM 3211



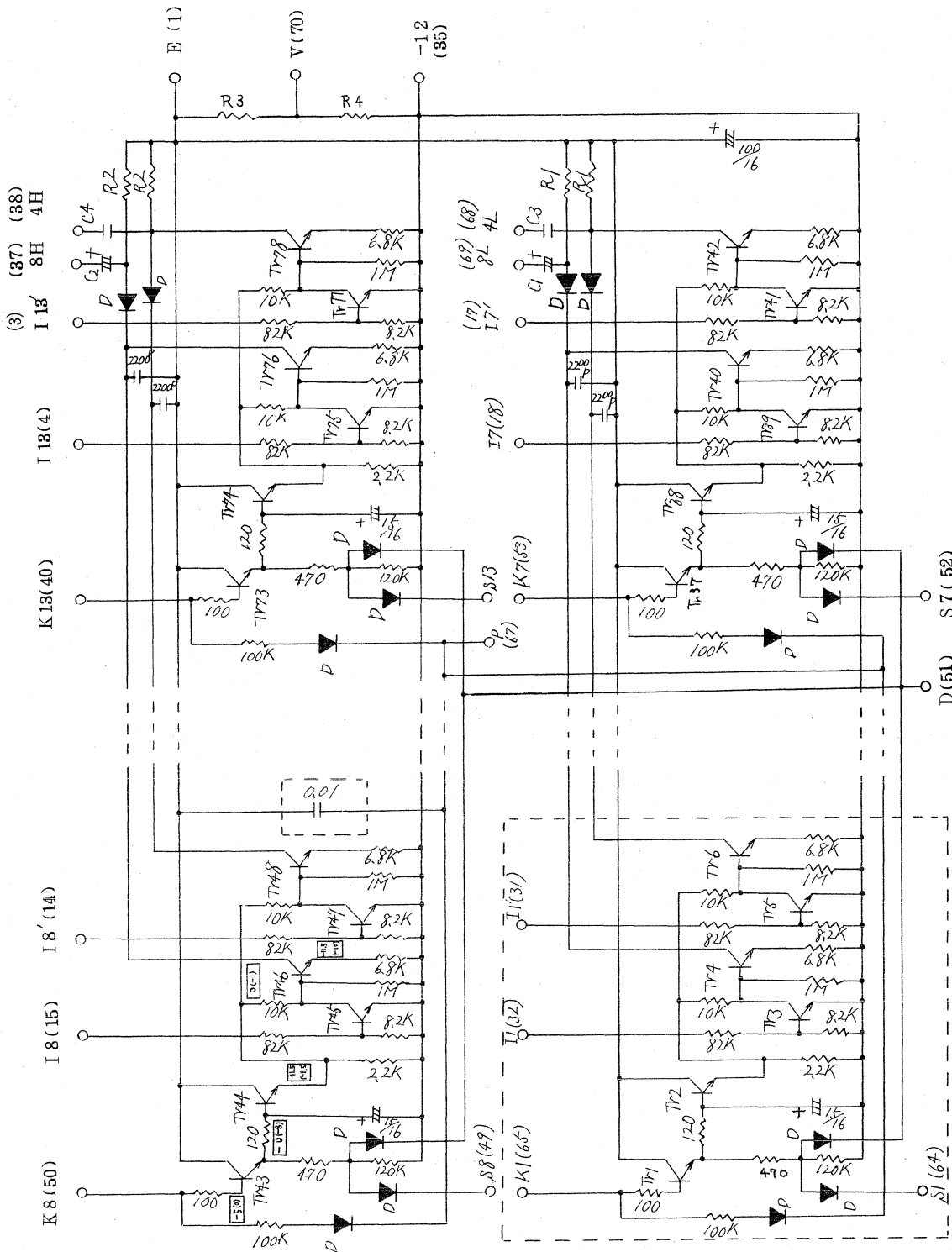
7. I1~I3 Circuit Diagram



Circuit Board	Time Name	C6	C5	C4	C3	C2	C1	C0
I 1	CC ^{DD} *	0.0047	0.01	0.022	0.047	0.082	0.12	0.15
I 2	EFFC	0.0039	0.0082	0.018	0.039	0.068	0.1	0.15
I 3	C ^{AA} B	0.0027	0.0056	0.012	0.027	0.056	0.082	0.12

- Notes)
- * marked 180K : except I₃ Circuit Board
  - * marked (560K, 380K, 150K): except I₂ I₃ Circuit Board

8. UE1 ~ UE5 Circuit Diagram

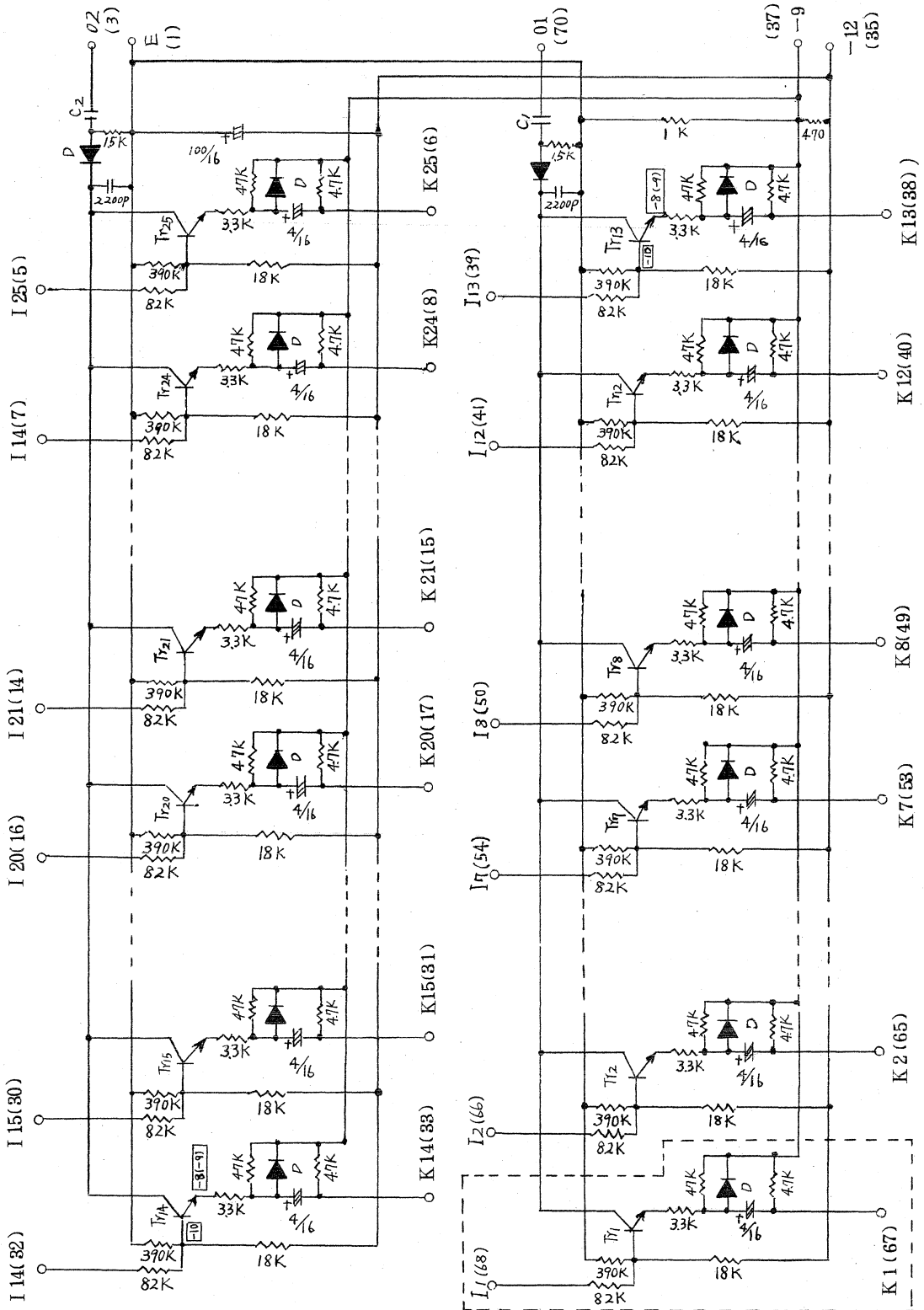


Circuit Board	UE1	UE2	UE3	UE4	UE5
R1	560	820	1K	1K	1K
R2	680	1K	1K	1K	1K
R3	680	680	1K	820	820
R4	390	470	12	180	180

Circuit Board	UE1	UE2	UE3	UE4	UE5
C1	1/16	0.15	0.082	0.047	0.022
C2	1/16	0.1	0.056	0.033	0.018
C3	0.15	0.082	0.047	0.022	0.012
C4	0.1	0.056	0.033	0.018	0.01

- Notes )
1. Transistor T₁ ~ T₇ : 2SC458(B)(C)
  2. Diode D : 1S1555
  3. Bracket for UE1 Circuit Board only

9. UAT1. UAT2 Circuit Diagram



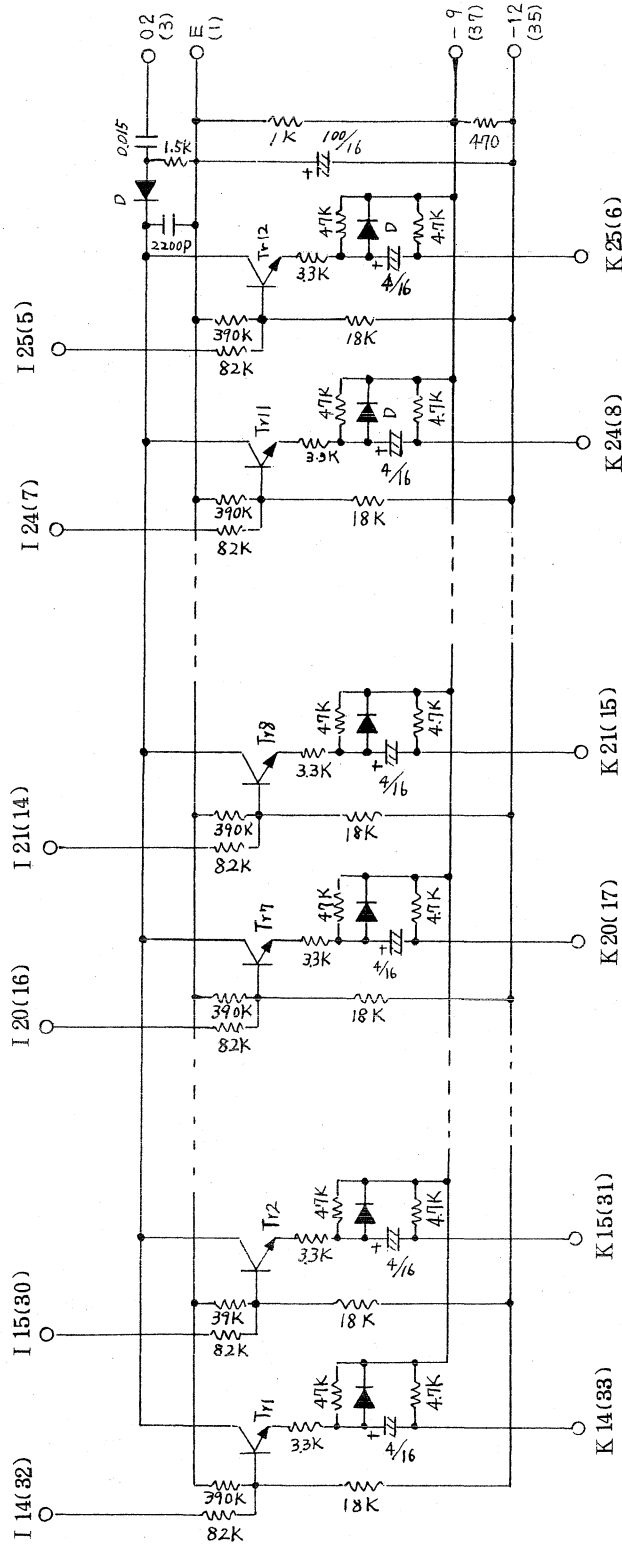
Circuit Board	UAT1	UAT2
C1	0.12	0.047
C2	0.1	0.027

Notes)

1. Transistor  $Tr_1 \sim Tr_{25} : 2SC458(A)(B)(C)$
2. Diode  $D : 1S1555$
3. Bracket for UAT1 Circuit Board only



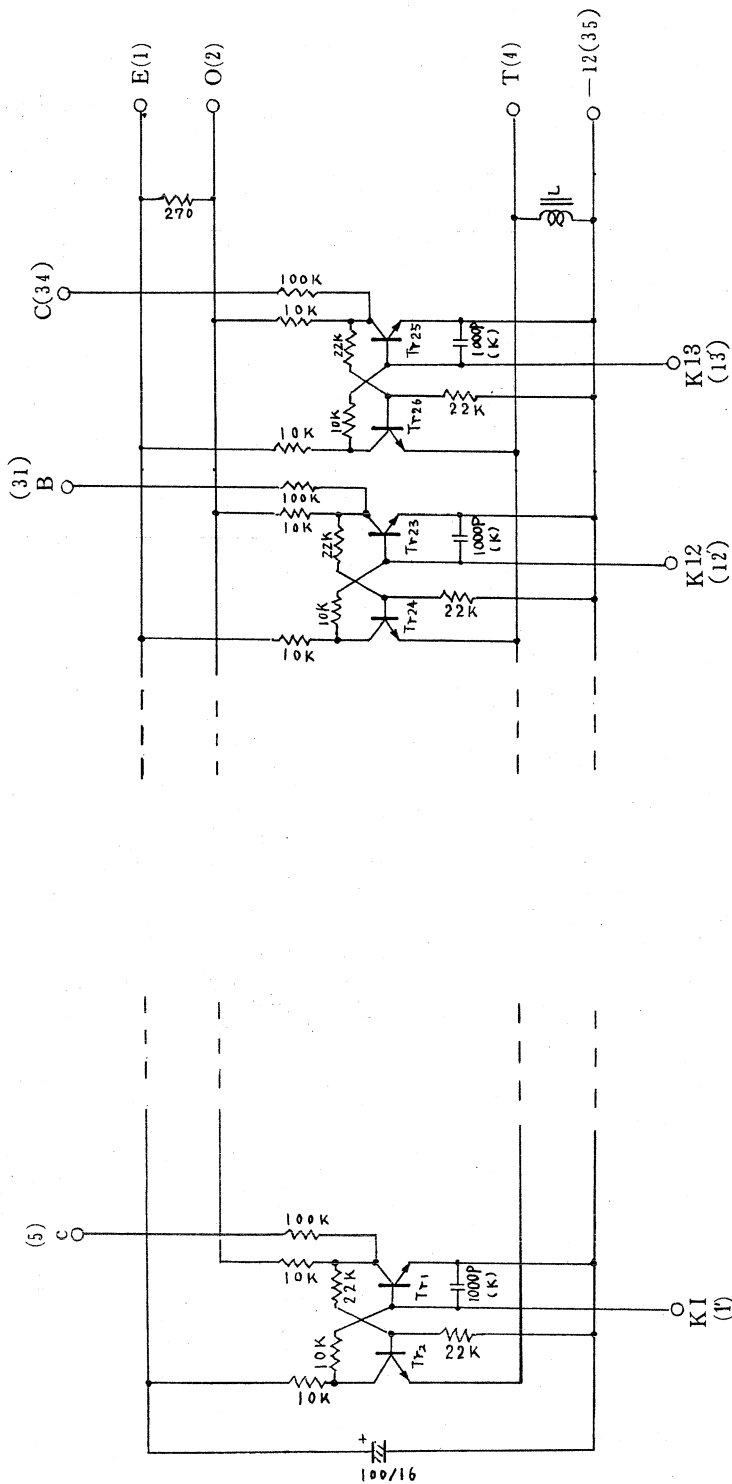
10. UAT3 Circuit Diagram



Notes)

1. Transistor Tr₁ ~ Tr₆ : 2SC458(A)(B)(C)
2. Diode D : 1S1555

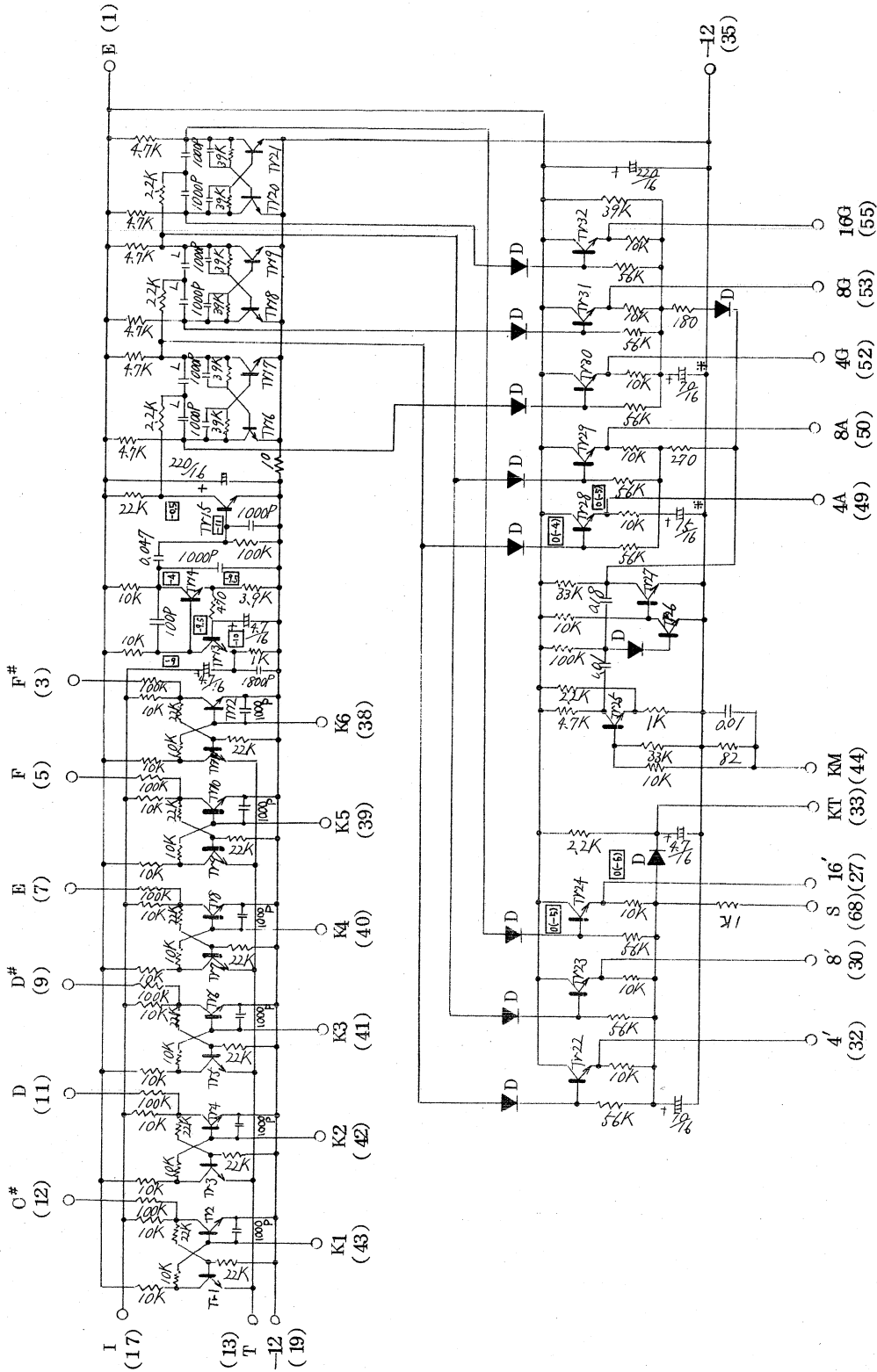
11. BM Circuit Diagram



Notes)

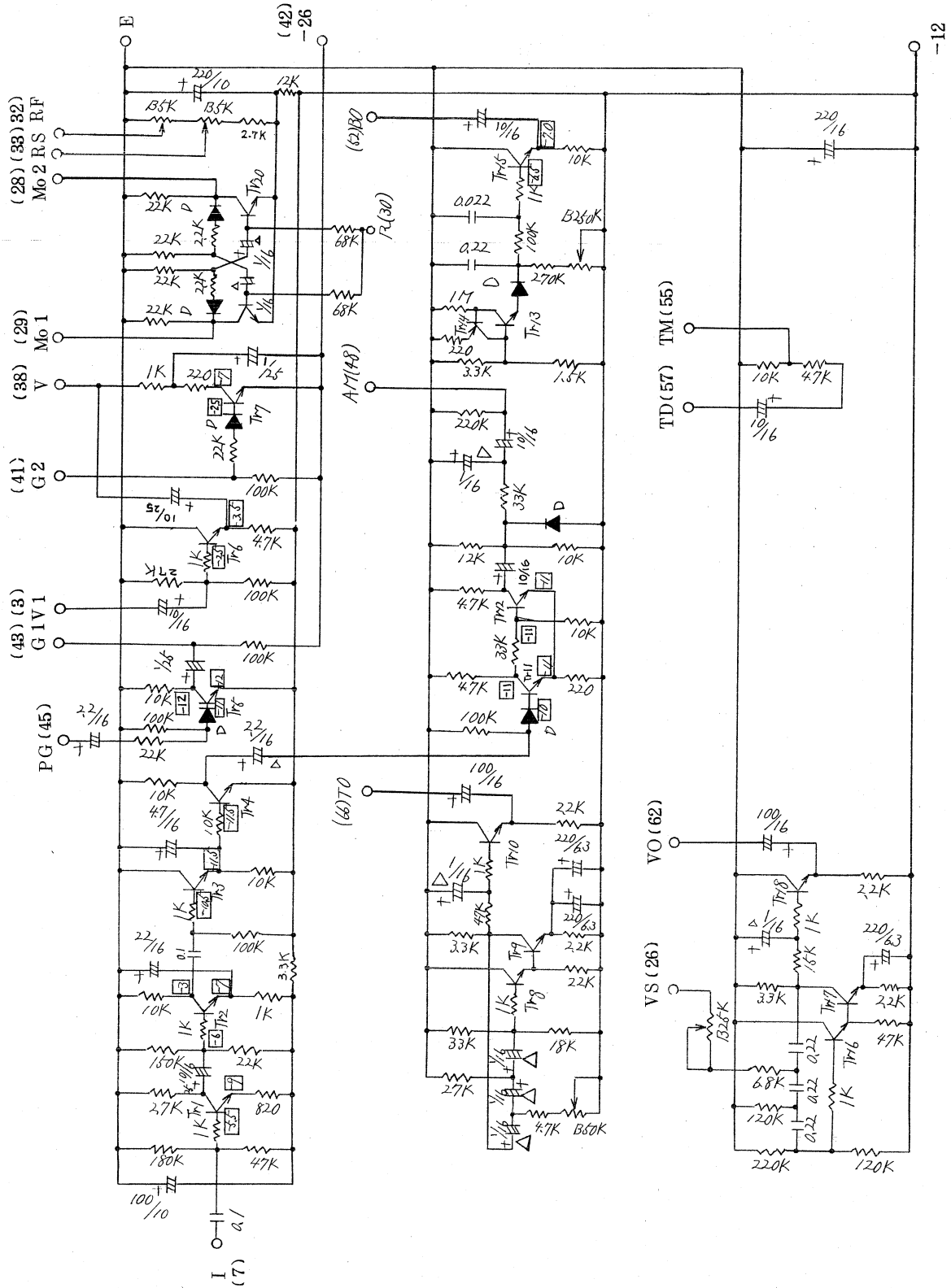
1. Transistor Tr1~26: 2SC 458(A) or (B)
2. L: Choke coil GA0096
- 3.

12. BE Circuit Diagram



- Notes ) 1. Transistor  $Tr_1 \sim Tr_{12}$ ,  $Tr_{22} \sim Tr_{23}$  : 2SC458 I(B) (C)  
 $Tr_{13} \sim Tr_{21}$  : 2SC458 L(B)  
 2. Diode D : 1S1555  
 3. Ceramic Capacitor L : 1000(L), 1800P, 1000P(K), 100P

13. V Circuit Diagram



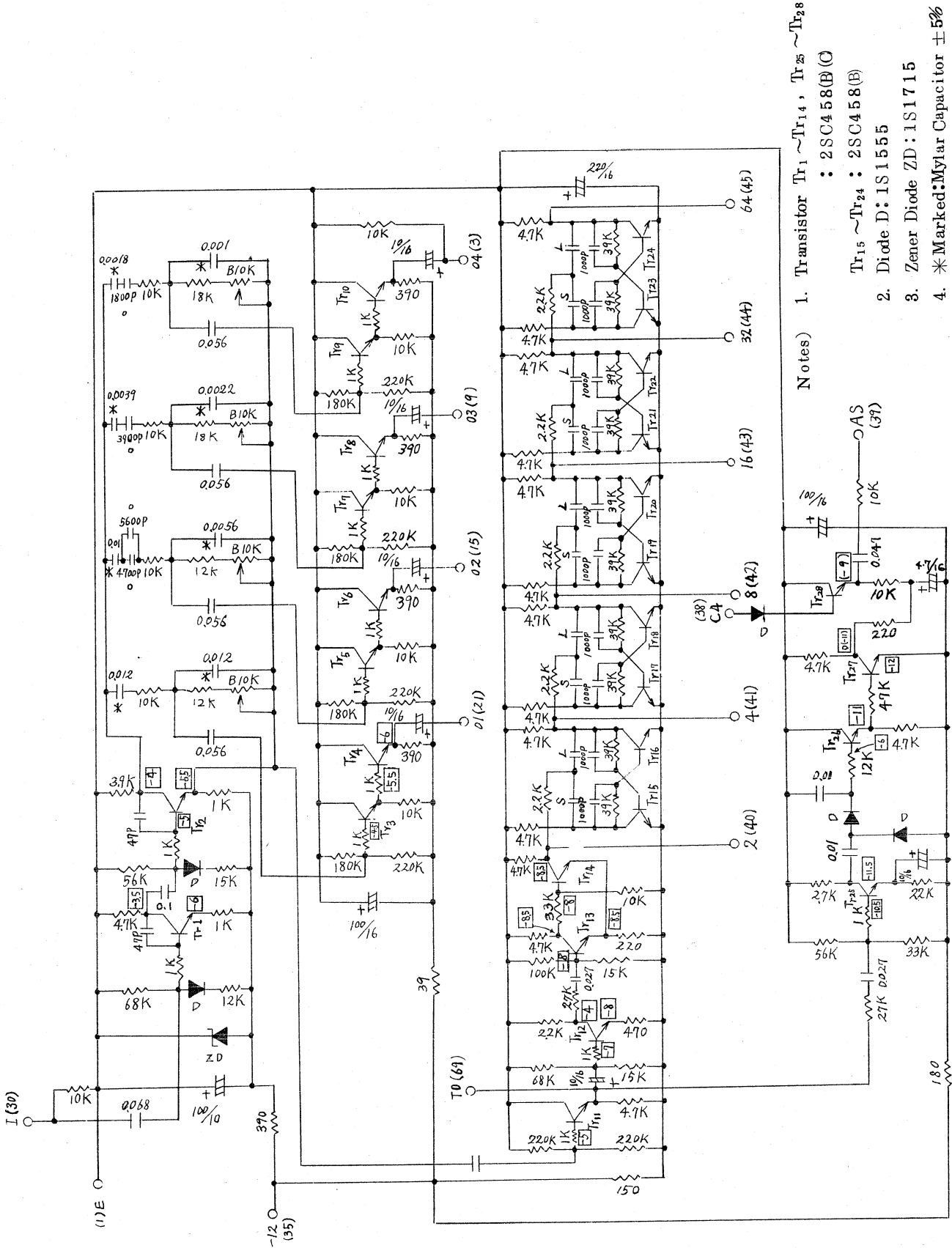
Notes) 1. Transistor  $Tr_1 \sim Tr_8, Tr_{15} \sim Tr_{20} : 2SC458(B)(C)$

$Tr_{14} : 2SA561(O)(Y)$

2. Diode D: 1S1555

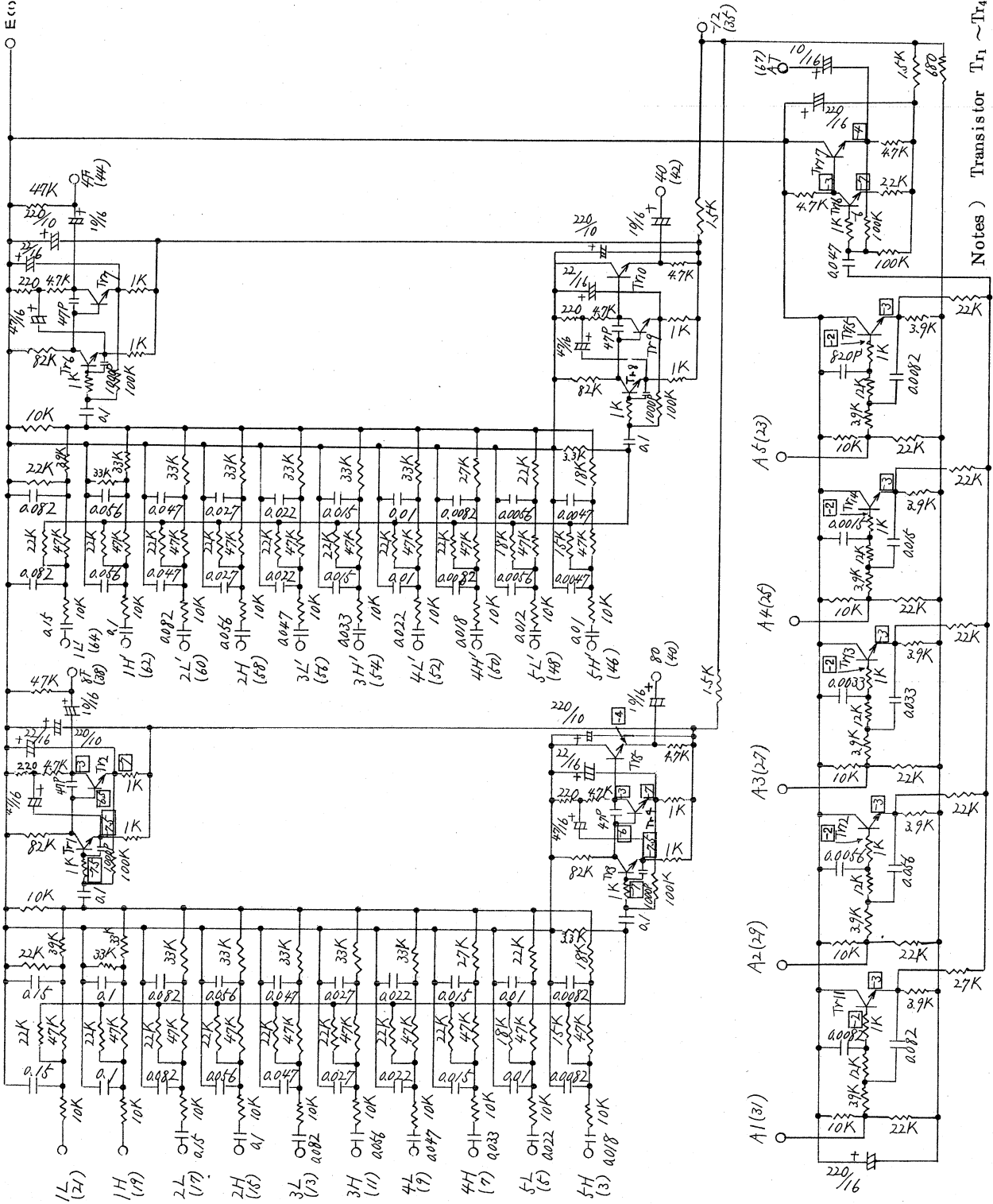
3.  $\triangle$  Marked: Solid AL Capacitor

14. POR Circuit Diagram



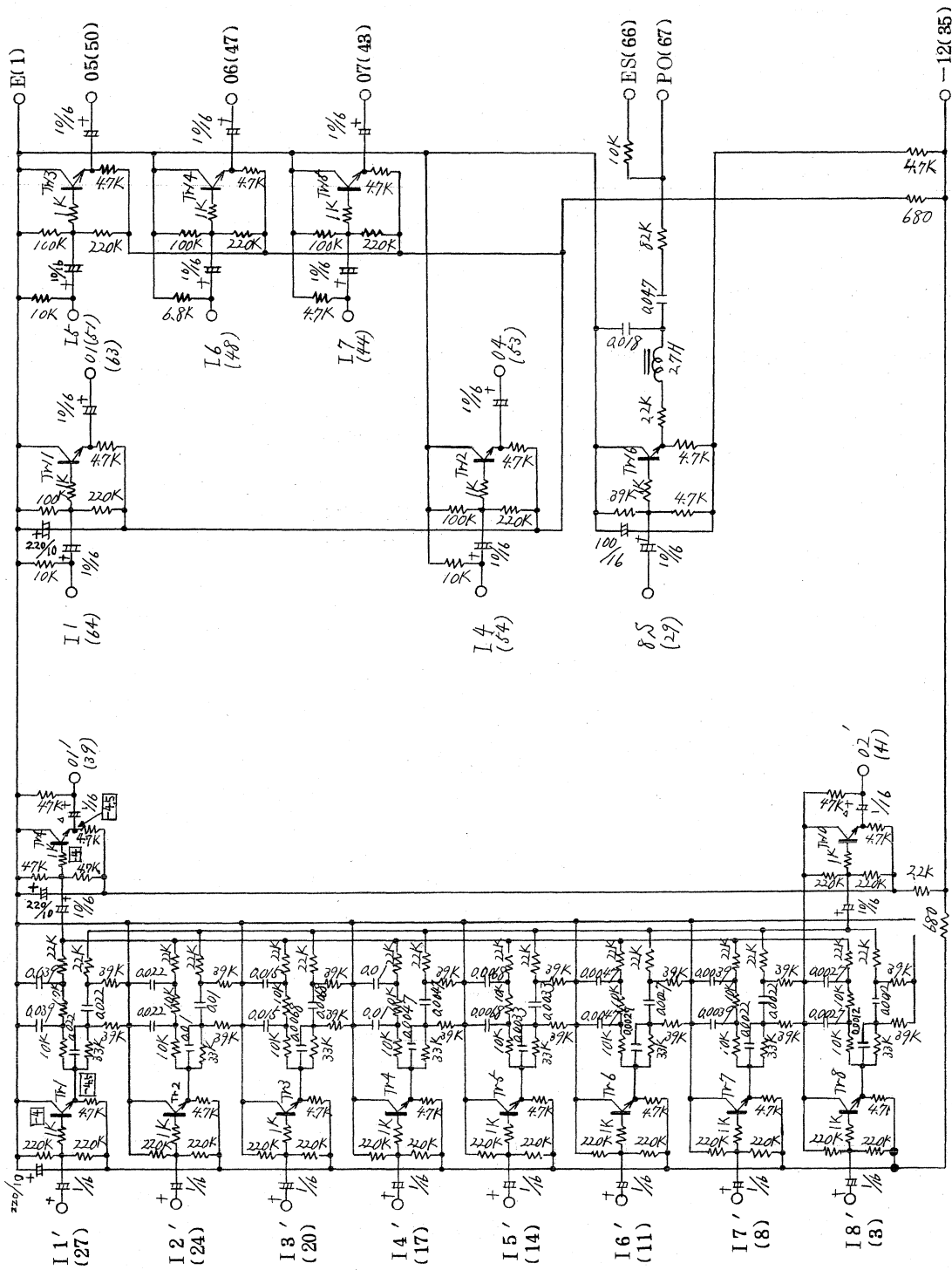
- Notes)
1. Transistor  $Tr_1 \sim Tr_{14}$ ,  $Tr_{25} \sim Tr_{28}$   
: 2SC458(B)(C)
  2. Diode D: 1S1555
  3. Zener Diode ZD: 1S1715
  4. *Marked: Mylar Capacitor  $\pm 5\%$
  5. o Marked: Polystyrene Capacitor  $\pm 5\%$

### 15. UF1 Circuit Diagram



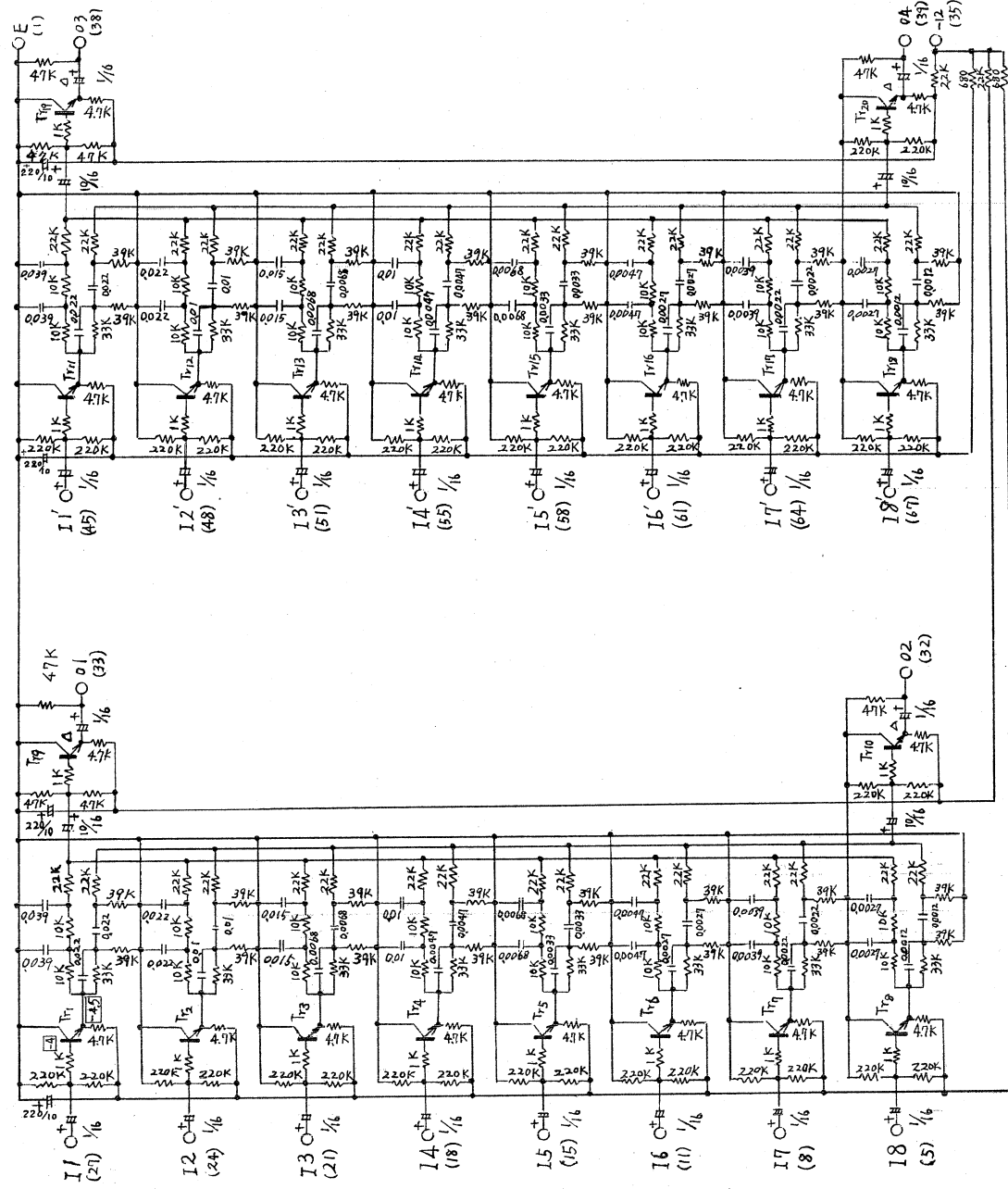
Notes ) Transistor Tr₁ ~ Tr₄, Tr₆ ~ Tr₉  
Tr₁₁ ~ Tr₁₆ : Low noise  
Tr₅, Tr₁₀, Tr₁₇ : 2SC458  
(A) (B) (C)

### 16. UF2 Circuit Diagram



- Notes ) 1. Transistor T₁ ~ T₁₆ : 2SC458(A) (B) (C)
- 2. △ Marked: Solid AL Capacitor

17. UF3 Circuit Diagram

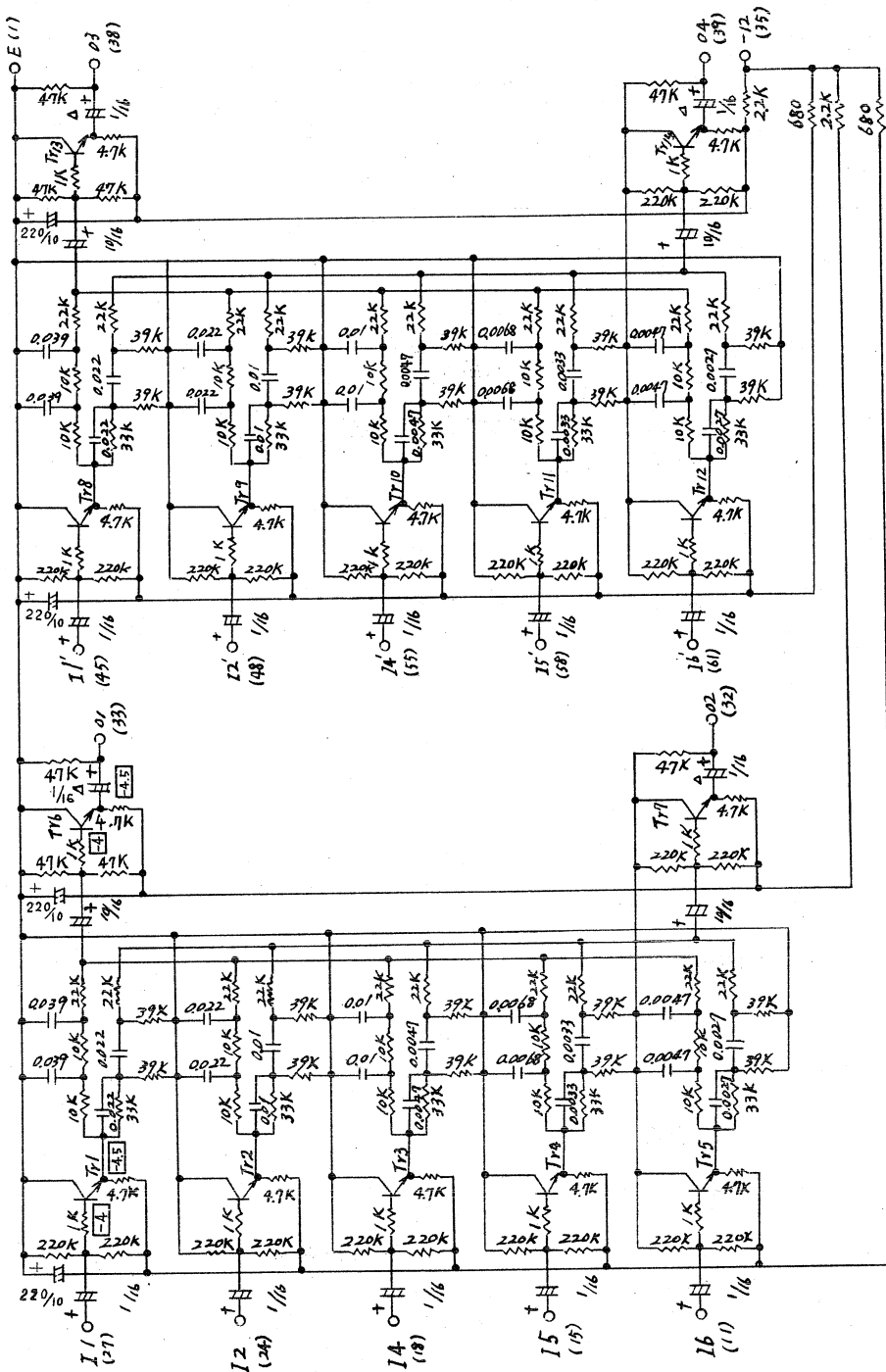


- Notes ) 1. Transistor Tr₁ ~ Tr₂₀ : 2SC458L(A)(B)(C)  
 2. △ Marked : Solid AL Capacitor



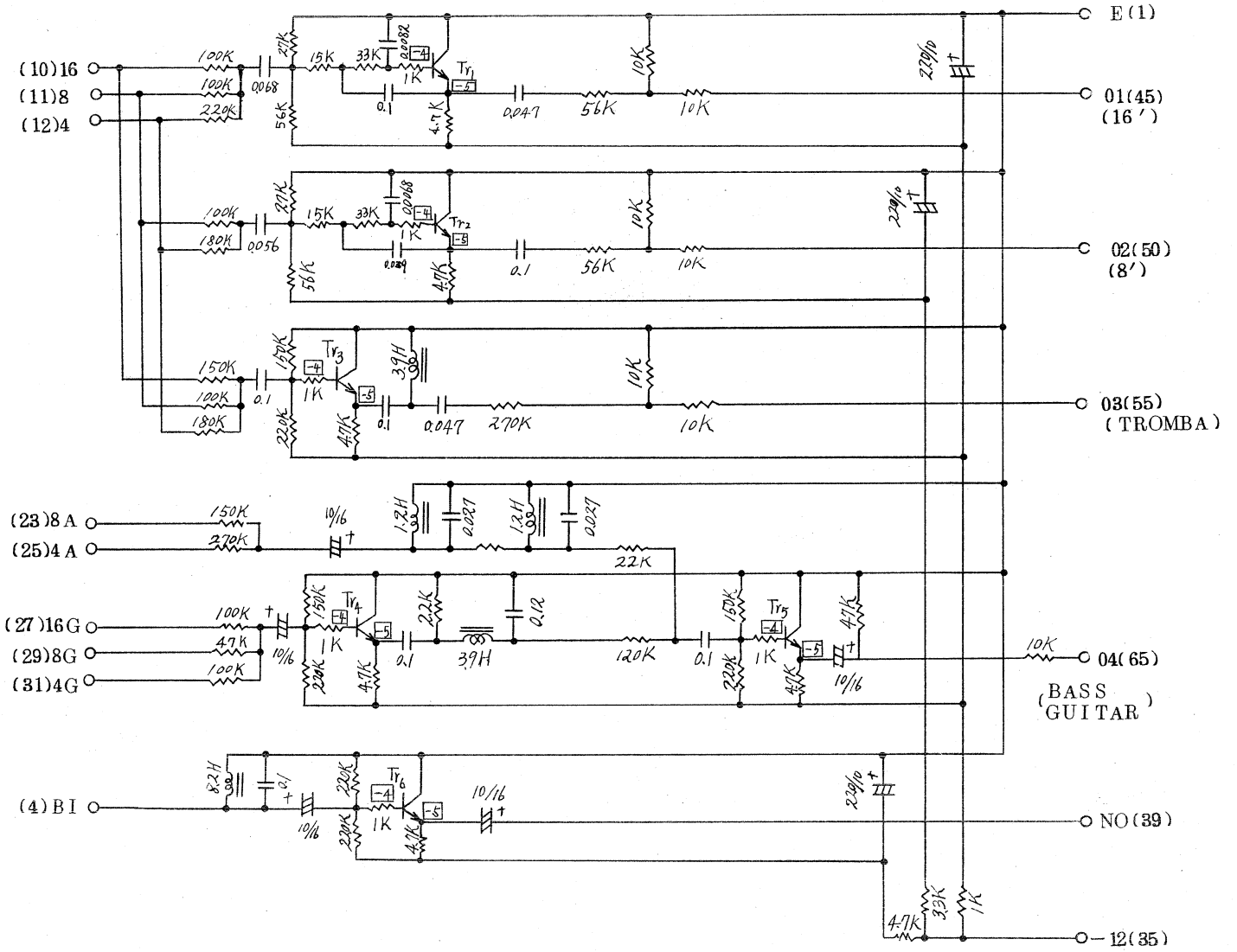


19. LF Circuit Diagram



- Notes ) 1. Transistor Tr₁ ~ Tr₁₄ : 2SC458(A) (B) (C)  
 2. Δ marked : Solid AL Capacitor

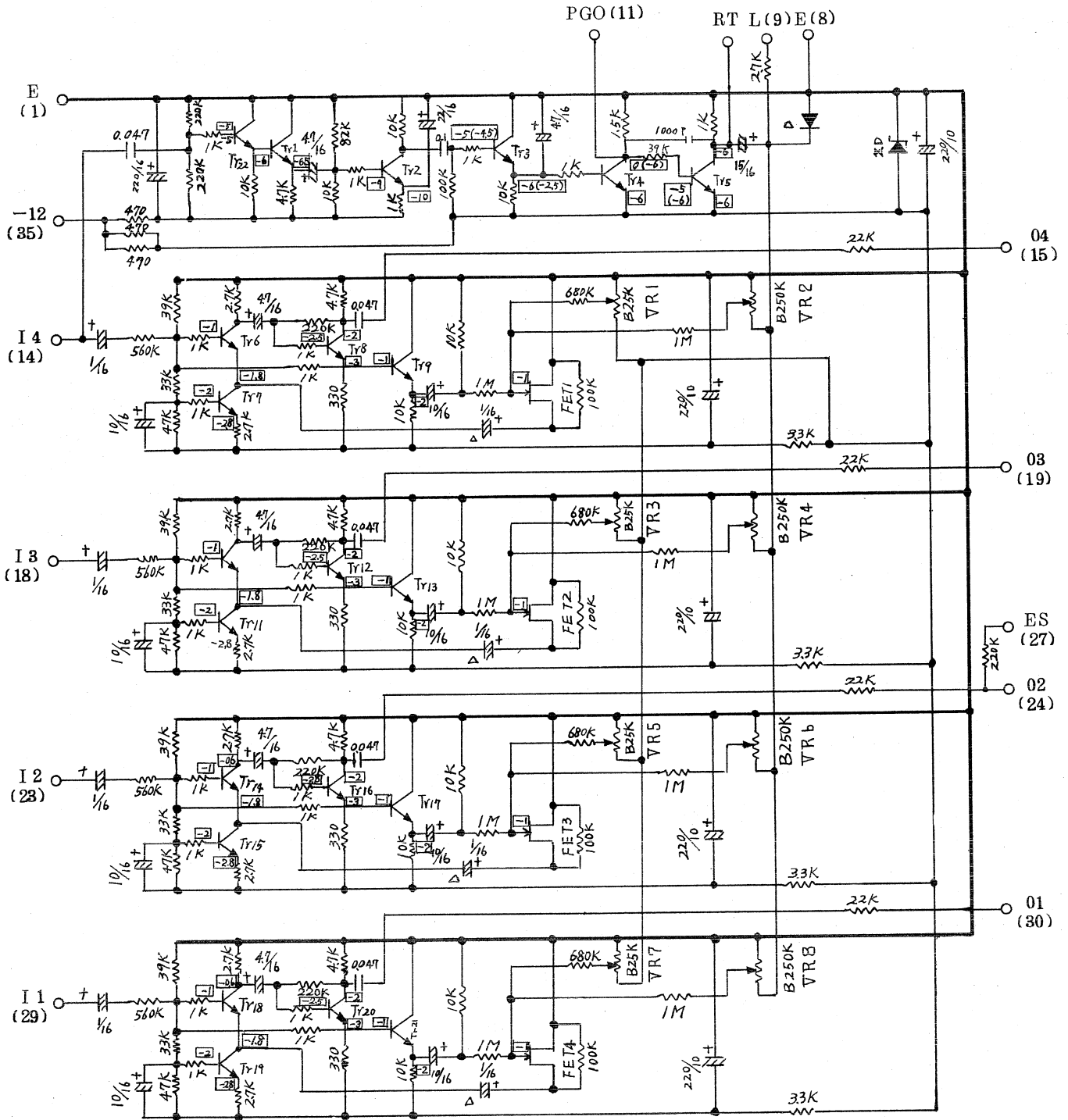
20. BF Circuit Diagram



Notes) 1. Transistor Tr₁ ~ Tr₅ : : 2SC458(B)(C)  
 Tr₆ : : Low noise

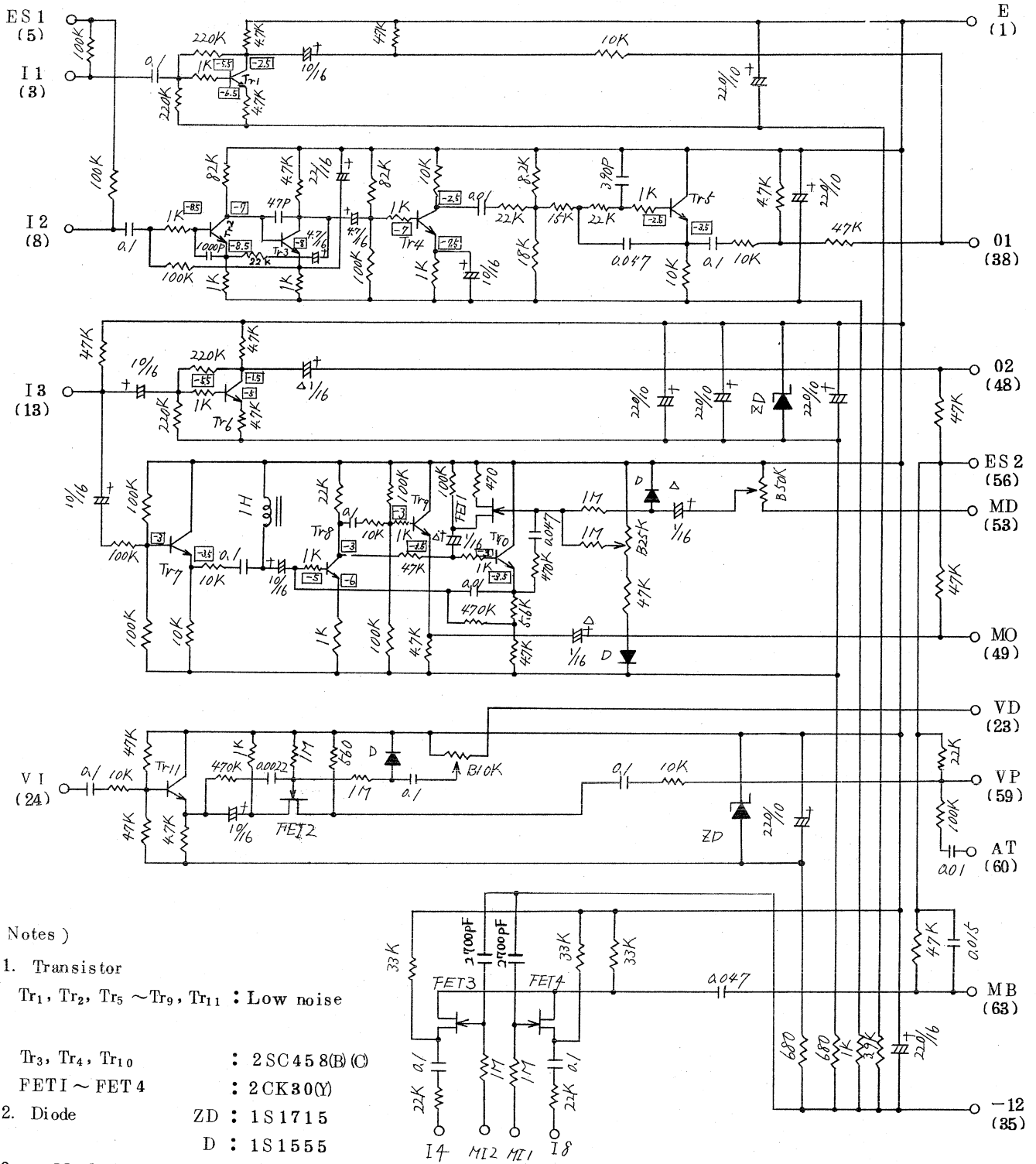


22. PS Circuit Diagram



- Notes ) 1. Transistor  
 Tr₆ ~ Tr₈, Tr₁₀ ~ Tr₁₂, Tr₁₄ ~ Tr₁₆, Tr₁₈ ~ Tr₂₀ : Low noise  
 Tr₁ ~ Tr₅, Tr₉, Tr₁₃, Tr₁₇, Tr₂₁, Tr₂₂ : 2SC458L(A)(B)(C)  
 FET1 ~ FET4 : 2SK30(Y)    3.  $\triangle$  Marked: Solid AL Capacitor
2. Diode ZD : 1S1715  
 D : 1N34A

23. MF Circuit Diagram



Notes )

1. Transistor

Tr₁, Tr₂, Tr₅ ~ Tr₉, Tr₁₁ : Low noise

Tr₃, Tr₄, Tr₁₀ : 2SC458(B)(C)

FET1 ~ FET4 : 2CK30(Y)

2. Diode

ZD : 1S1715

D : 1S1555

3. △ Marked : Solid AL Capacitor

















(7) POF, BF, LF

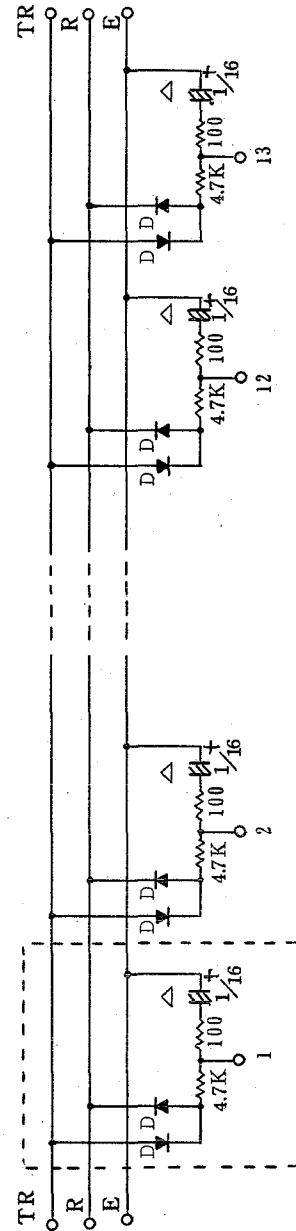
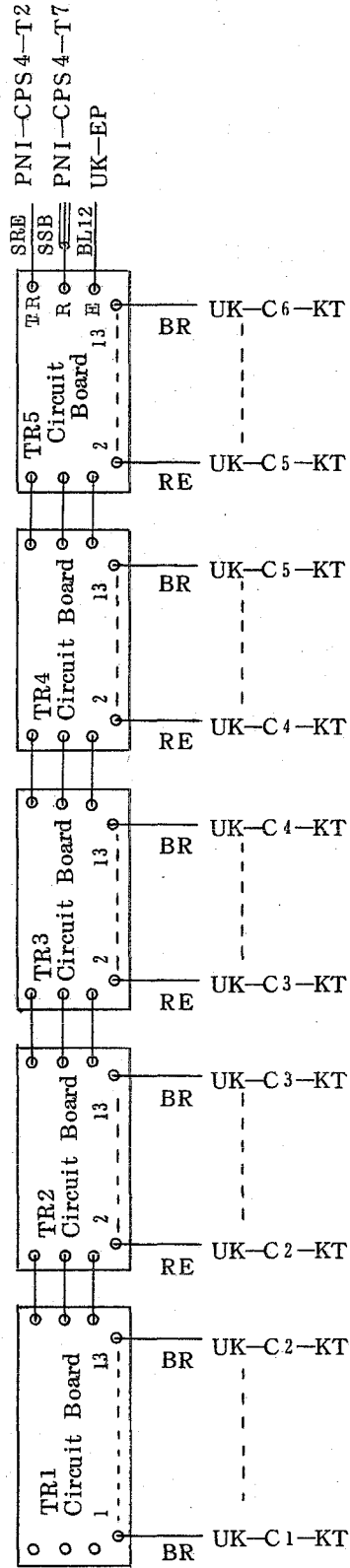
- 12 B		P O F				B F				L F				- 12 B
		RA-BE-1200 RA-PS-1200	TRx2	RA-BE-16F00		RA-1F-1200 RA-POF-1200	TRx2	RA-1F-1200 RA-POF-1200		RA-UF4-1200 RA-BF-1200	TRx2	RA-UF4-1200 RA-BF-1200		
35	-12													70
34														69
33														68
32	16F	SWH												67
31	E	SWHS					4G	SOR	RA-BE-4G00				E	66
30							E	SOBS						65
29	160	BRx2					8G	SRE	RA-BE-8G00					64
28	E						E	SDES					E	63
27							16G	SBR	RA-BE-16G00					62
26							E	SBRS						61
25							4A	SGR	RA-BE-4A00				E	60
24							E	SGRS						59
23	64	SBR					8A	SYE	RA-BE-8A00					58
22	32	SRE					SQ	SRE						57
21	16	SOR					E	SRES						56
20	E	SRES												55
19	8	SYE					ST	SBR					E	54
18	4	SGR					E	SBRS						53
17	2	SBE												52
16	E	SGRS												51
15														50
14	BD	YE12					BI	SOR						49
13	I	SREx2												48
12	E	SRESx2					AS	SYE					E	47
11							AD	SRE						46
10							E	SRES						45
9								SYES					E	44
8							ES	BL12x2						43
7	MD	BE12x2												42
6														41
5							PO2	SWH						40
4	PI	SGR					E	SWHS						39
3							FO1	SGG						38
2	E	SGRS					E	SGGS					E	37
1	E	BL12x2					E	BL12x2					E	36
EB														EB

(8) A, MF, PS

- 1 2 B		A				M F				P S				- 1 2 B			
		- 1 2	TR	RA-MF--12(8)	- 1 2	TR-2	RA-PS--12(8)	RA-A--12(8)				- 1 2	TRx2	RA-POF--12(8)	RA-MF--12(8)		
35																70	
34																69	
33					I 4	SGR	RA-UF1-4F(4)									68	
32	- 26	GY12		RA-V--26(4)	I 8	SYE	RA-MF-YI(4)									67	
31					E											66	
30																65	
29	GO	SPK		PN1-VR5-3								O 1	SWH	PN1-TV21-2		64	
28	E	SPKS			MI 2	SRE	RA-V-MO2(8)		MB	SOR	PN1-TV18-4	E	SWHS			63	
27					MI 1	SBR	RA-V-MO1(8)		E	SORS		ES	BL12x2	RA-MF-ES2(8)	RA-POF-ES(8)	62	
26	MI	SBE		PN1-YR4-2	E	SRES										61	
25	E	SBES				SBR										60	
24	P 1	SSB		PN1-CPS5-T	VI	SYEx2	RA-MF-I8(8)		AT	SWHX2	RA-UF1-AT(7)					59	
23	E	SSB			VD	B E 1 2	RA-UF1-8E(8)		VP	SOR	PN1-CPSS-M1	O 2	SSB	PN5-TS7-T2		58	
22	UFO	SPK		PN1-CPS1-T1	E	SYESx2	RA-POF-MD(7)		E	SORS		I 2	YE	RA-UF1-40(8)		57	
21	ES	SPKS		RA-EP2					ES 2	BL12x2	RA-MF-ES1(6)					56	
20				RA-MF-ES1(6)							RA-PS-ES(7)					55	
19	BI	SSB		PN1-YR3-2								O 3	SSB	PN1-TV23-2		54	
18	E	SSBS							MD	WH12	PN2-TS2-T2	I 3	GR	RA-UF2-O4(8)		53	
17	UTI	SGR		PN4-TS6-T1								E	SSBS			52	
16																51	
15	UFI	SVI		PN4-TS6-T3								O 4	SPK	PN1-TV24-2		50	
14	LO	SGR		PN1-YR4-1					MO	SRE	PN2-TS1-M	I 4	GY	RA-UF2-O7(8)		49	
13	E	SVIS			I 3	SWH	RA-MF-O1(8)		O 2	SBR	PN2-TS1-B	E	SPKS			48	
12		SGBSx2			E	SWHS			E	SRES						47	
11	LI	SGG		PN4-TS6-T4						SBR		PGO	SBE	RA-V-PG(8)		46	
10	E	SGGS														45	
9					I 2	SGG	PN1-CPS1-M1					L	SBE	PN1-TV20-2		44	
8					E	SGGS						E	SBES			43	
7	UO	SYE		PN1-YR4-3												42	
6																41	
5	E	SYES			ES 1	BL12x2	RA-A-ES(8)					TI				40	
4							RA-MF-ES2(8)					E				39	
3	UI	SGR		PN1-CPS5-T1	I 1	SSB	PN1-CPS1-B1		O 1	SWH	RA-MF-I3(8)					38	
2	E	SGRS			E	SSBS			E							37	
1	E	BL12		RA-MF-E(1)	E	BL12x2	RA-PS-E(1)									36	
							RA-A-E(1)										
EB		A				M F				P S				EB			

PN1-TV24-1			
PN1-TV26-1			
PN1-CPS1-T2			
PN1-RS-EP			
PN1-TPR4-1			
PN2-EP			
PN4-EP			
RA-A-ES(8)			
RA-UE1-E(8)			
RA-UE2-E(8)			
RA-UE3-E(8)			
RA-UE4-E(8)			
RA-UE5-E(8)			

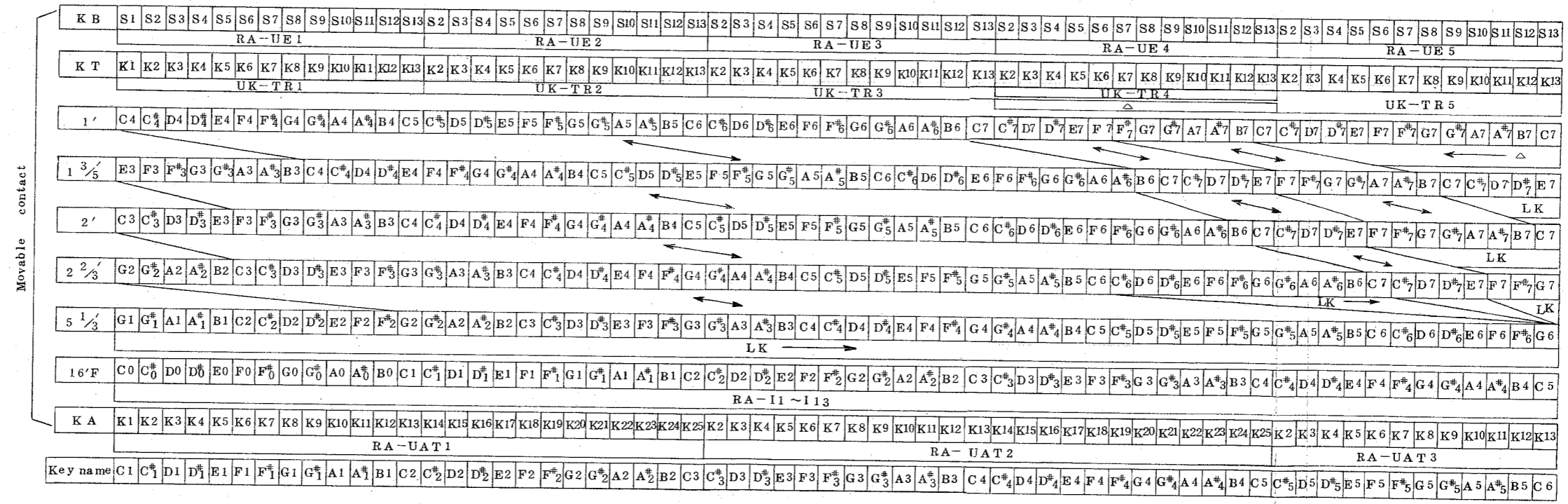
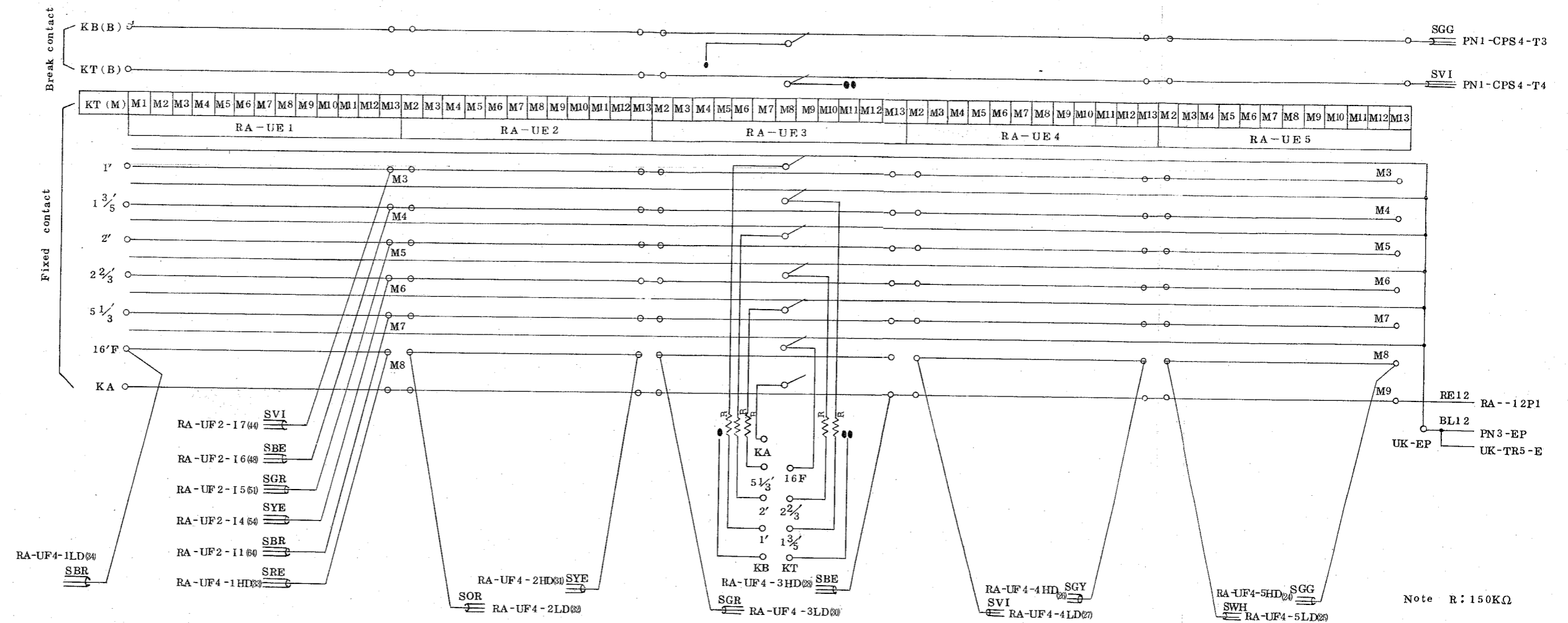
(2) TR Circuit



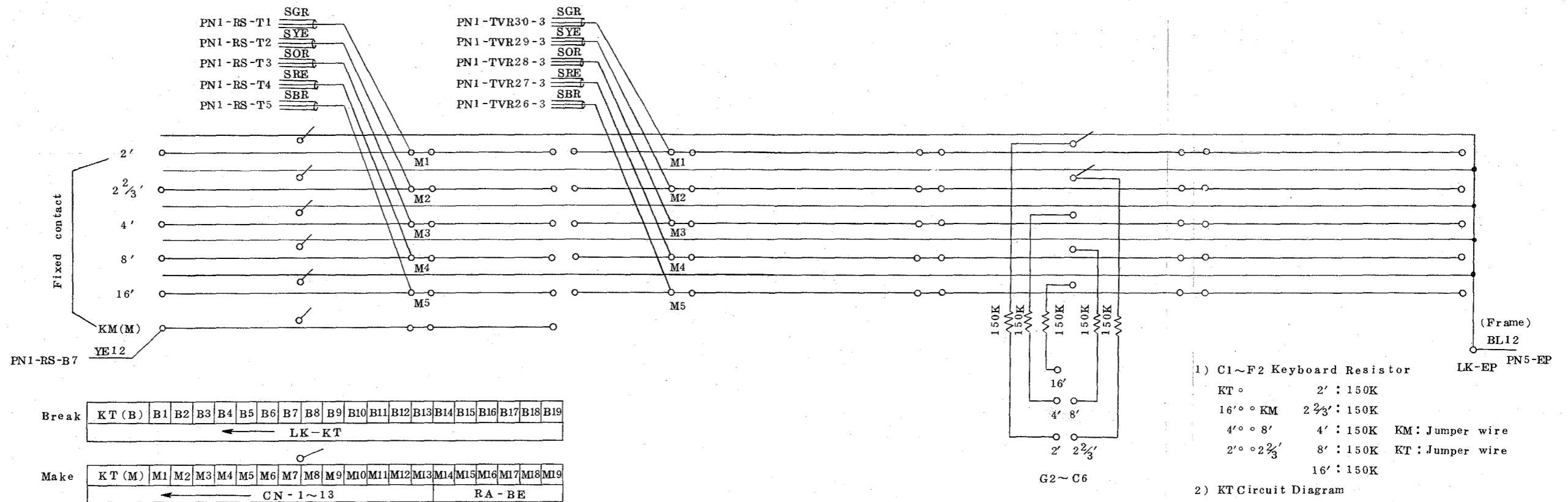


### 26. UK( Upper Key Board) Circuit Diagram

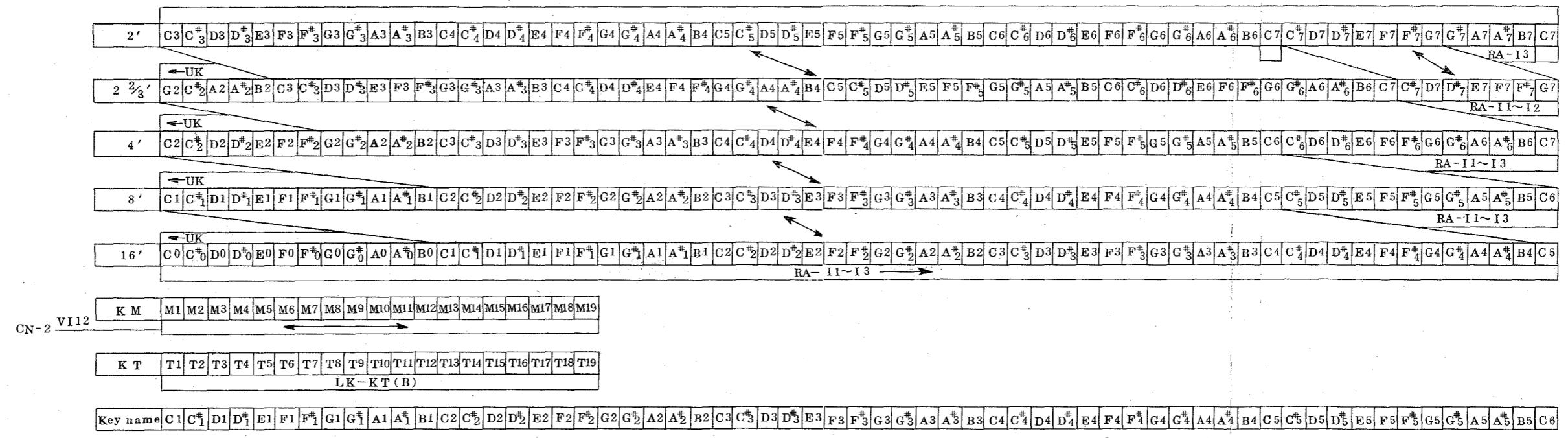
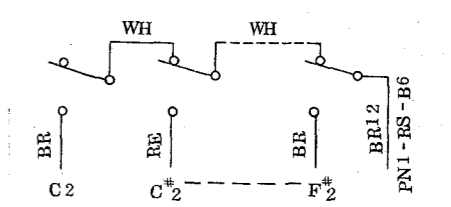
#### (1) Keyboard Circuit



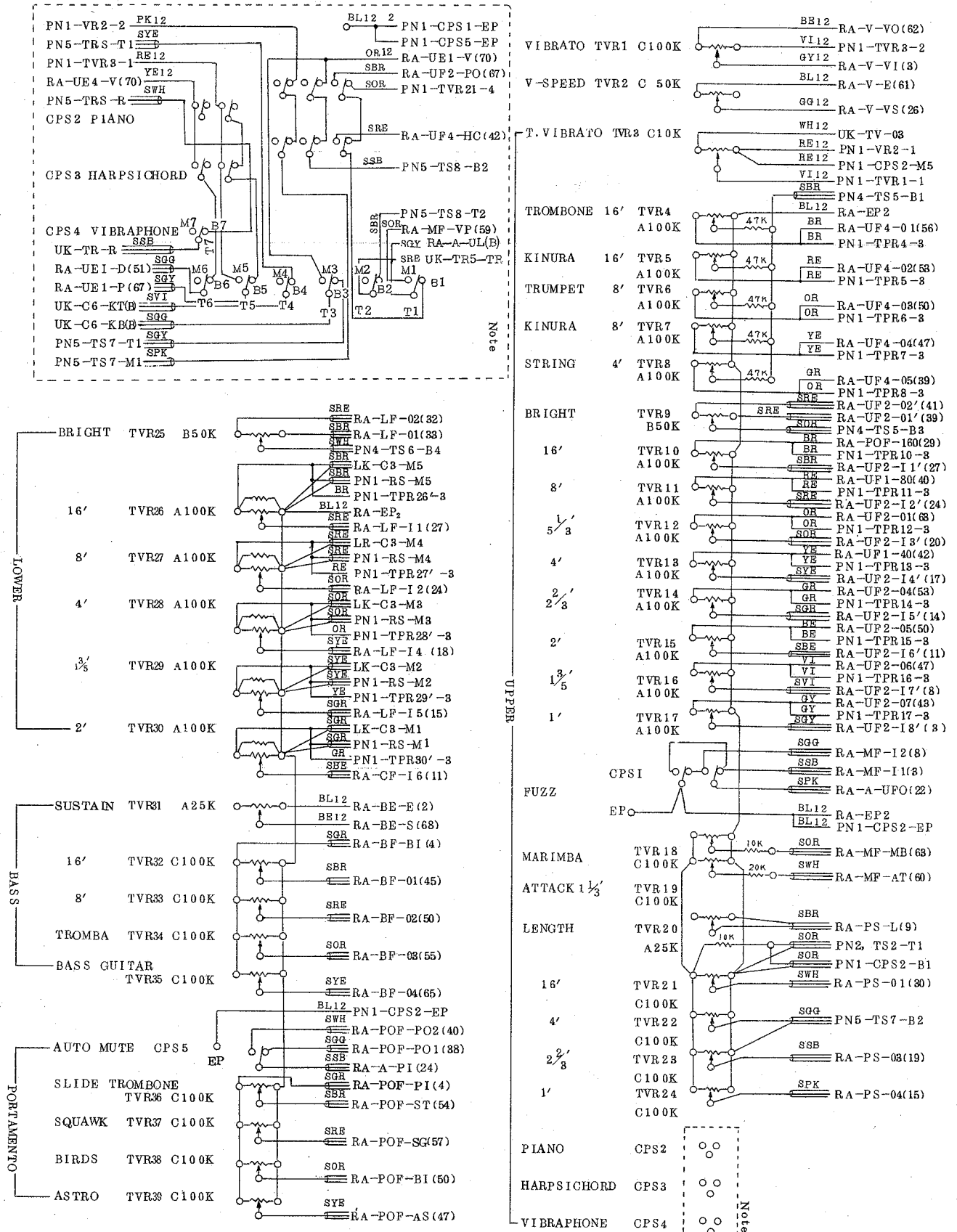
27. LK (Lower Keyboard) Circuit Diagram



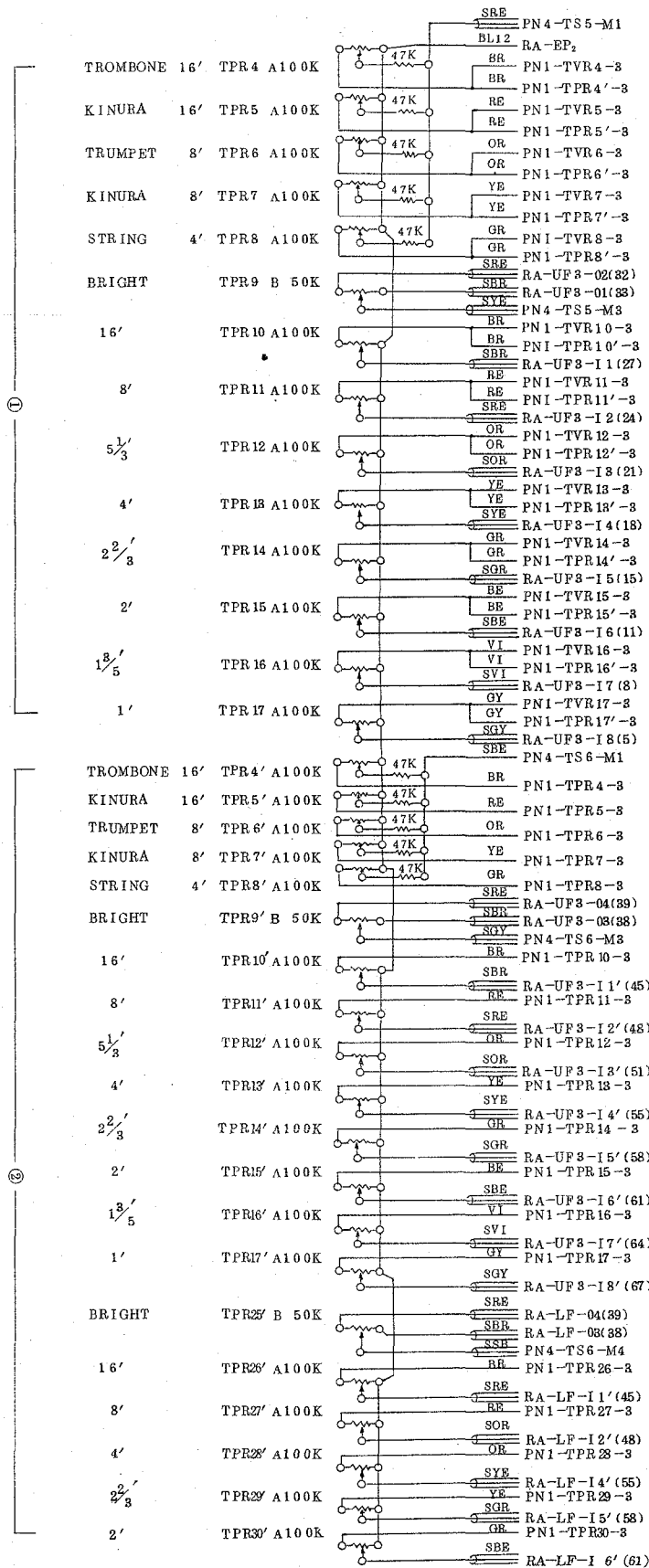
- 1) C1~F2 Keyboard Resistor
- KT ° 2' : 150K  
16' ° KM 2 2/3' : 150K  
4' ° 8' 4' : 150K KM : Jumper wire  
2' ° 2 2/3' 8' : 150K KT : Jumper wire  
16' : 150K
- 2) KT Circuit Diagram



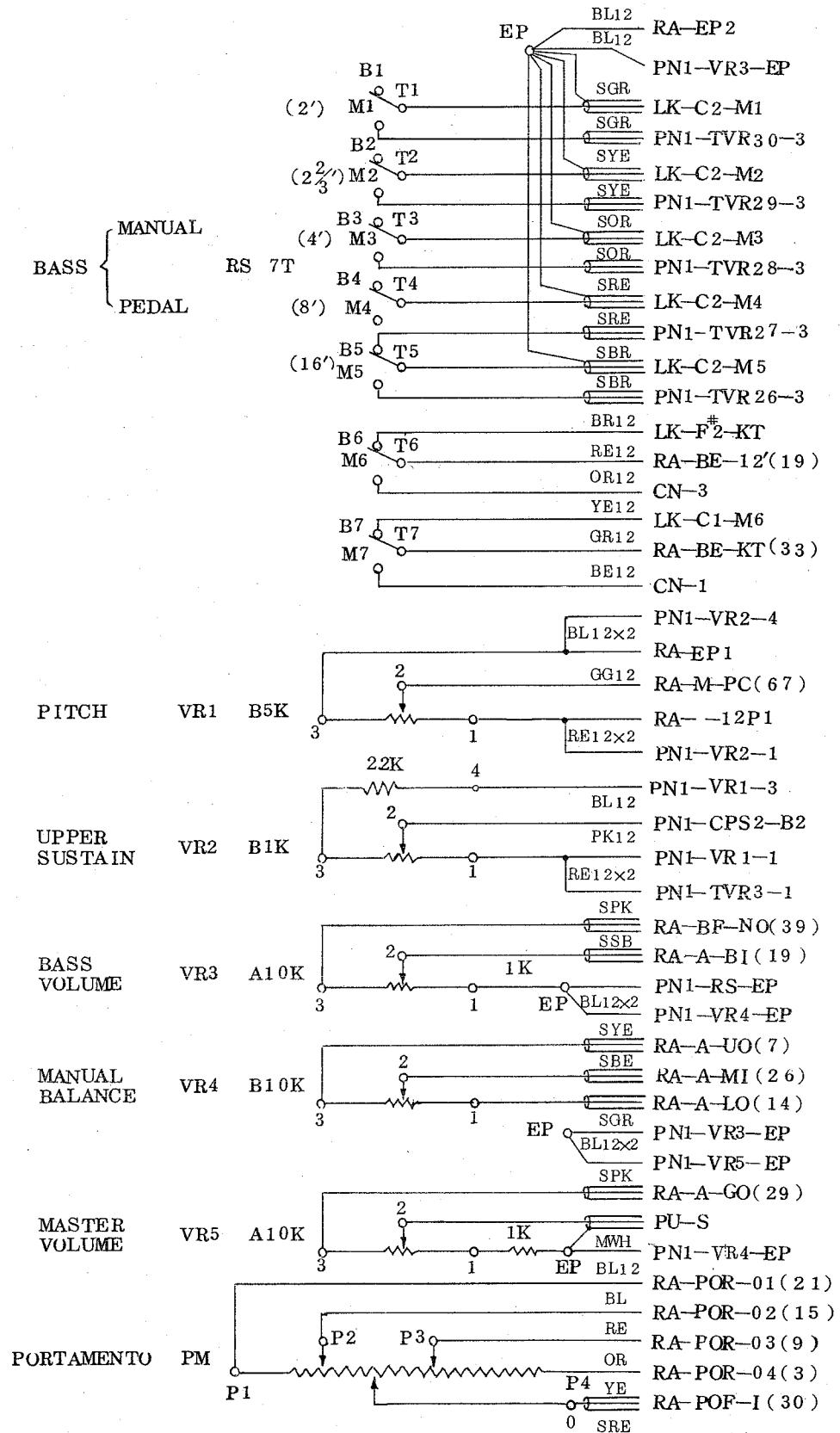
28. PN1 Circuit Diagram



29. PRESET BOARD (PN1) Circuit Diagram

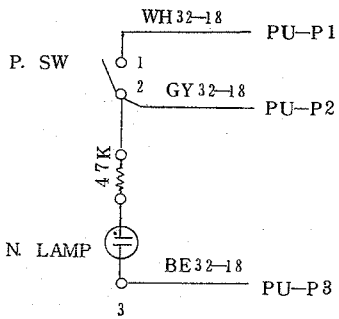


30. Control Panel (PN1) Circuit Diagram

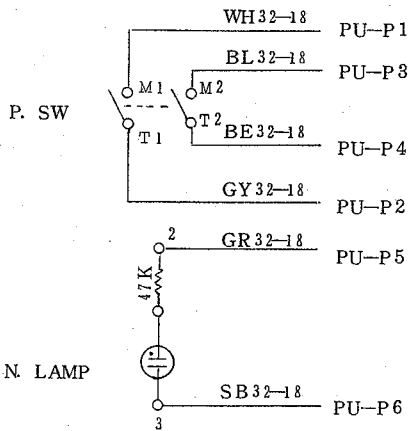
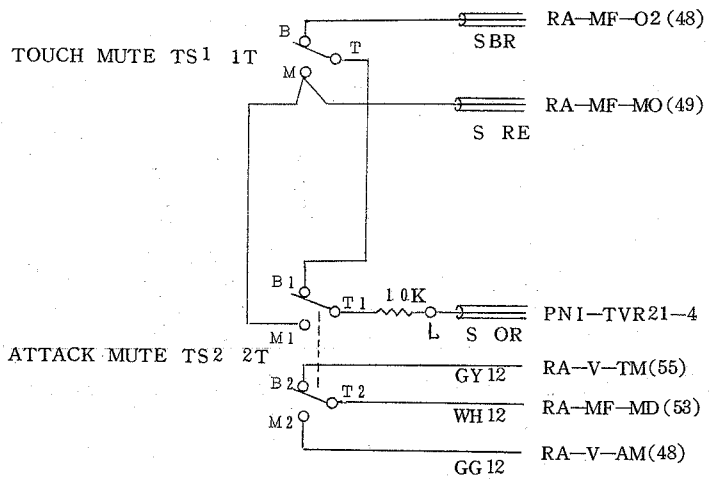


31. Power Switch (PN1) Circuit Diagram

32. PN2 Circuit Diagram



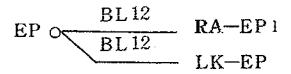
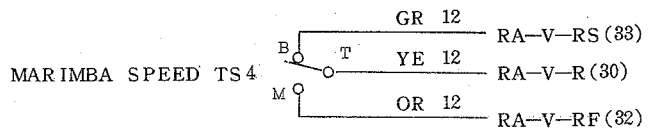
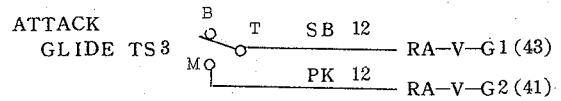
General Spec.



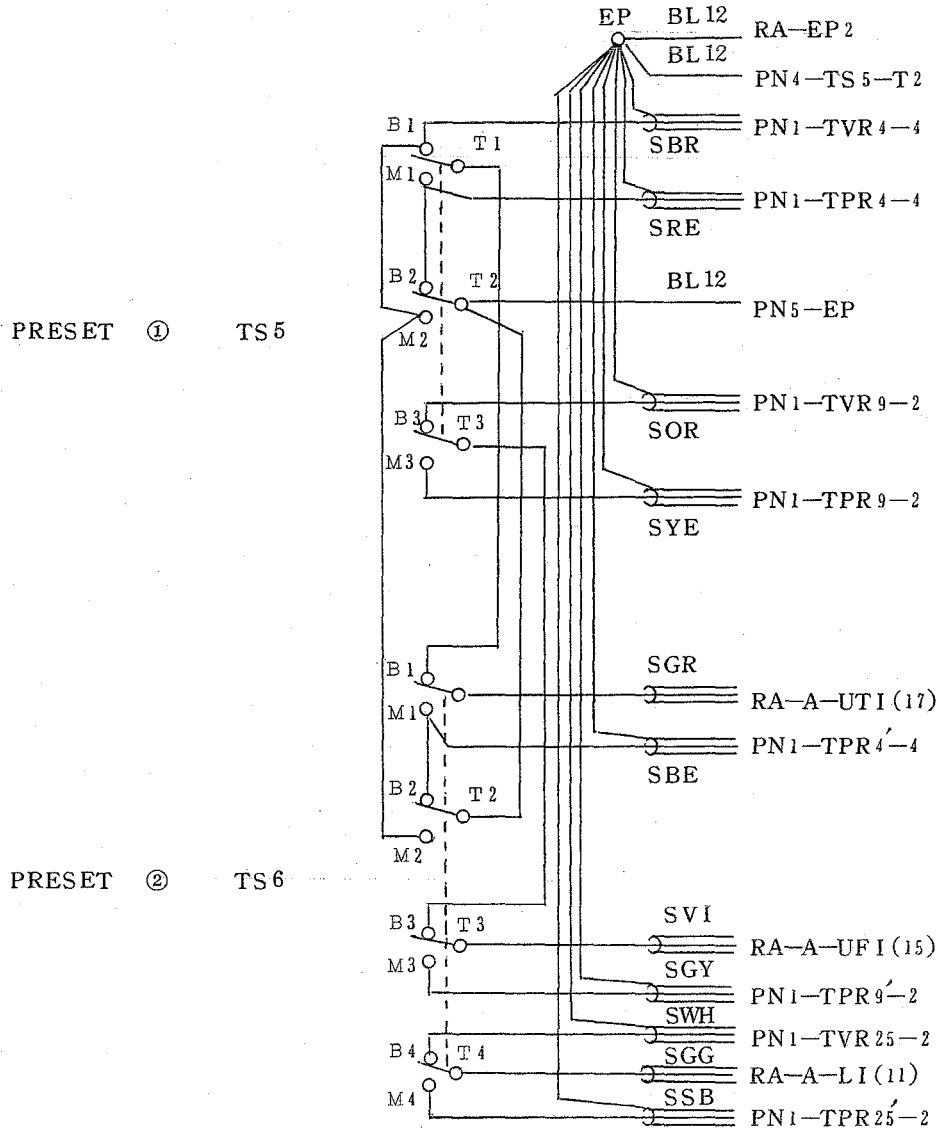
SEMKO Spec.



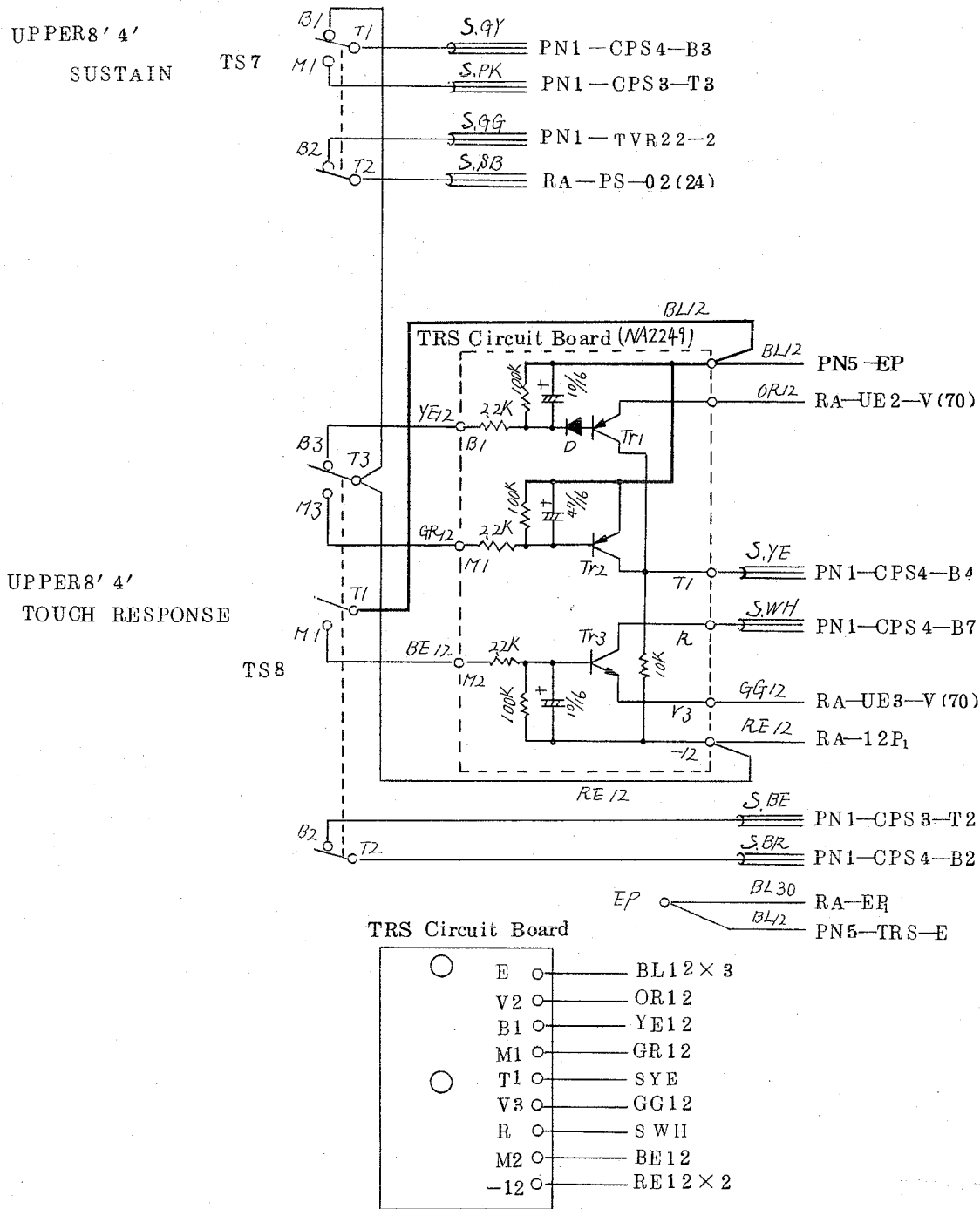
33. PN3 Circuit Diagram



34. PN4 Circuit Diagram



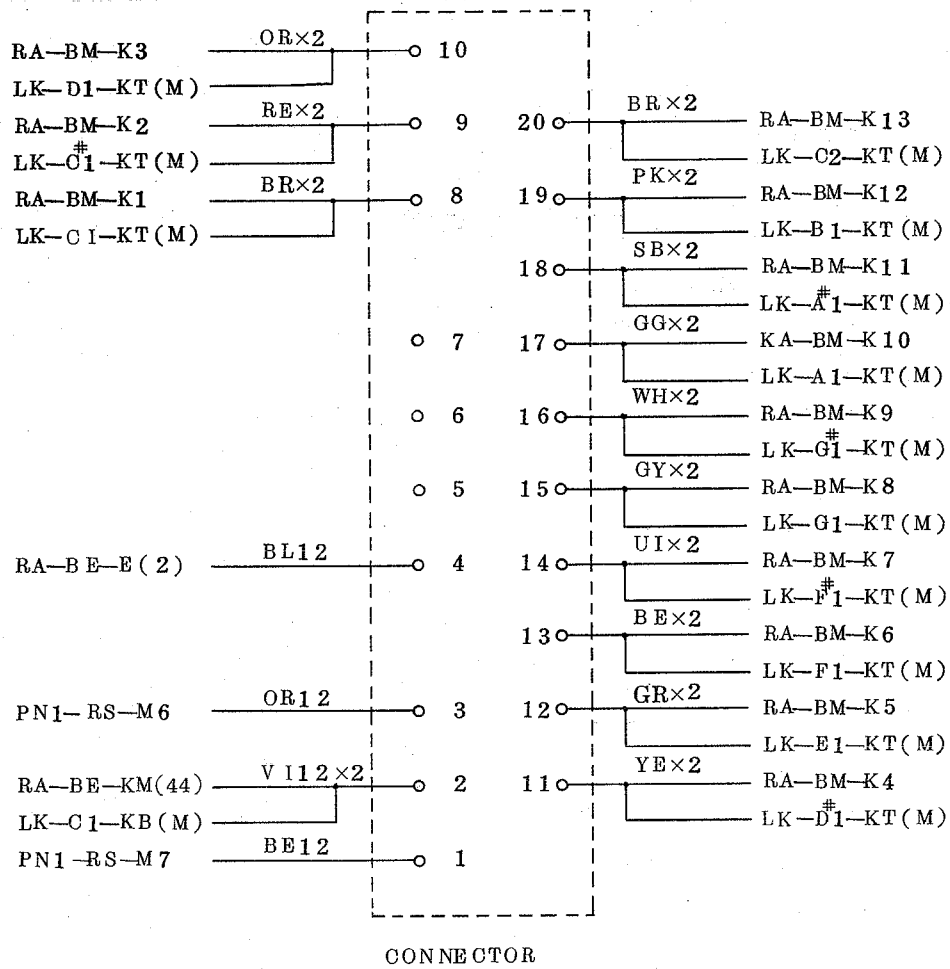
35. PN5 Circuit Diagram



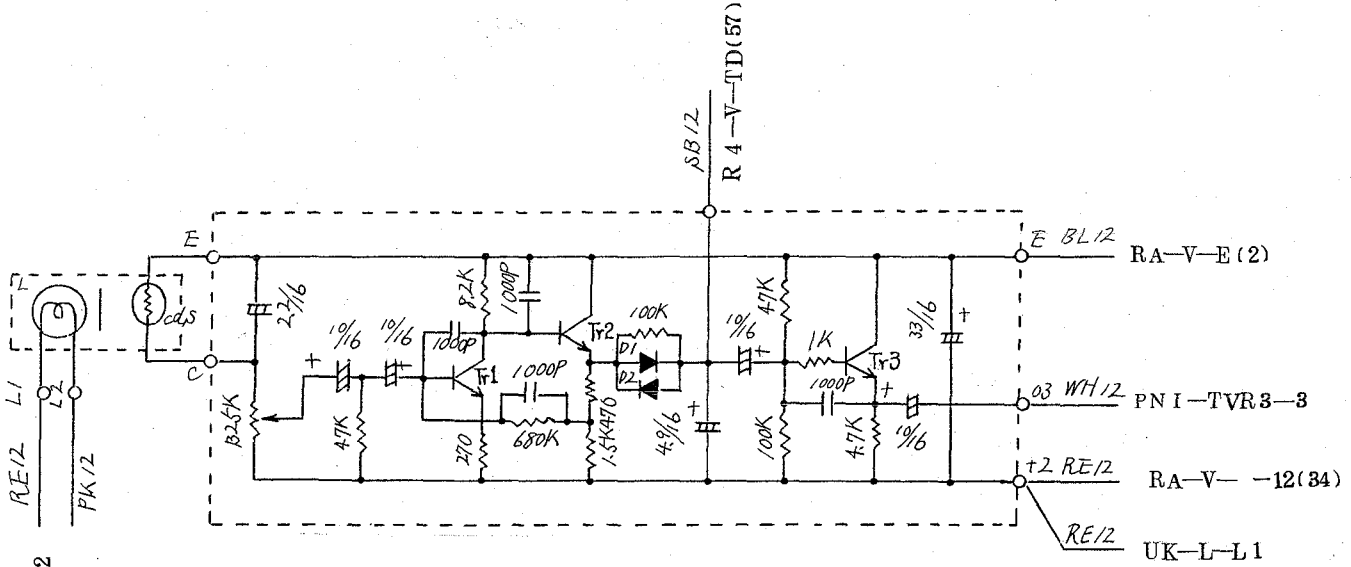
- Notes)
- Transistor  
 Tr₁, Tr₂ : 2SA562 (O or Y)  
 Tr₃ : 2SC735 (O or Y)
  - Diode  
 D : 1S1555



36. CN Circuit Diagram

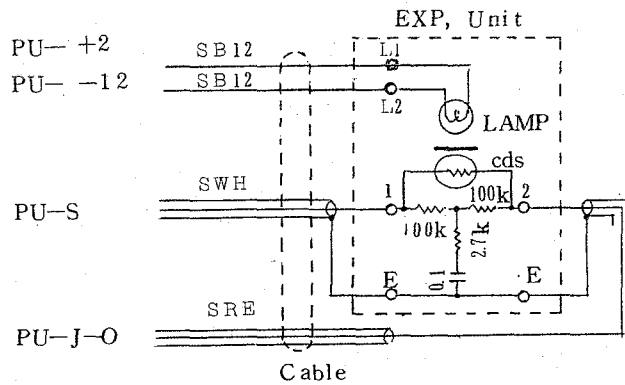
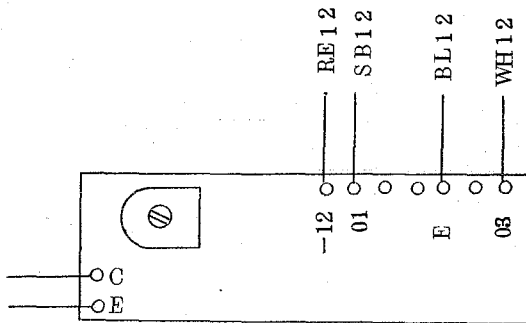


### 37. TV Circuit Diagram



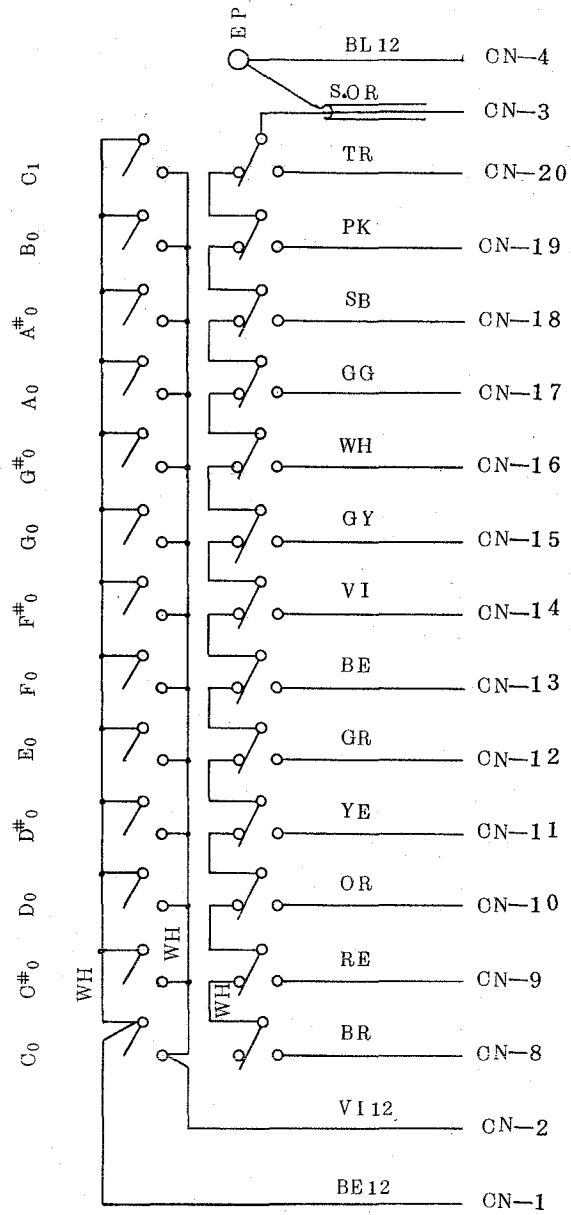
- Notes) 1. Transistor Tr₁ ~ Tr₃ : 2SC458 (B) (C)  
2. Diode D₁, D₂ : 1S1555

### 38. EXT Circuit Diagram

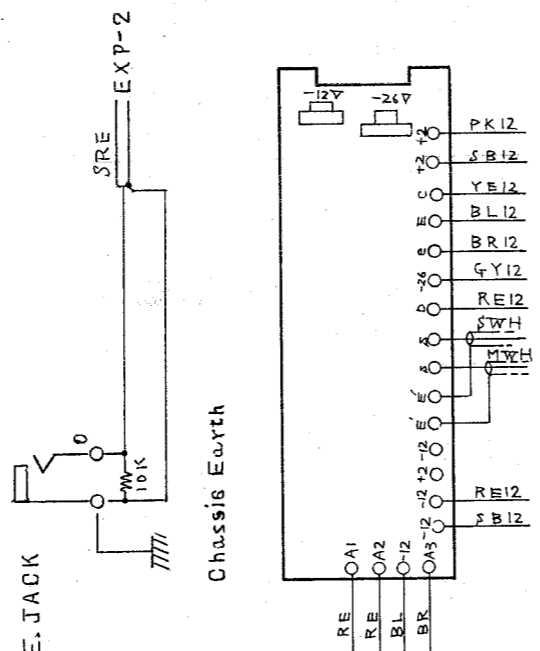
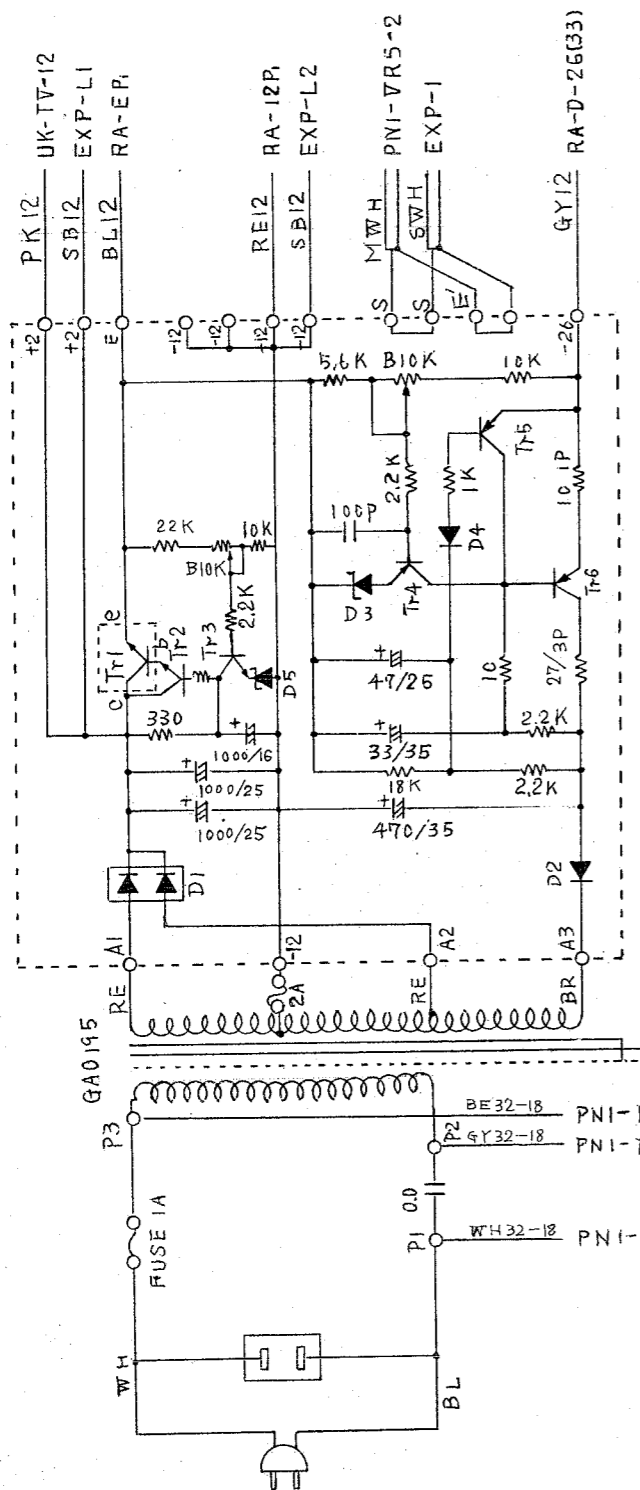


- Notes) 1. LAMP : 24V 5W  
2. 01 : Mylar Capacitor ± 10%

39. BP (Bass Pedal) Circuit Diagram

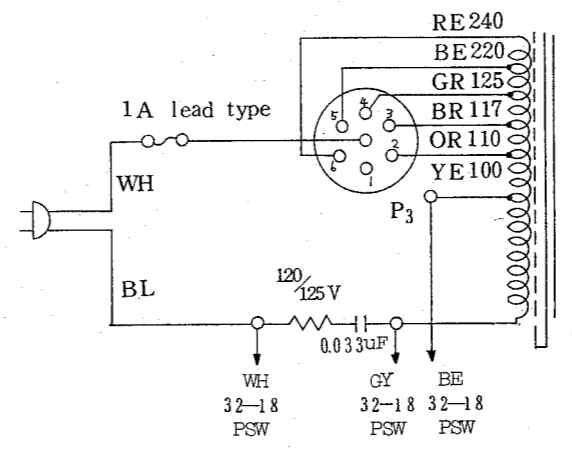


40. PU Circuit Diagram



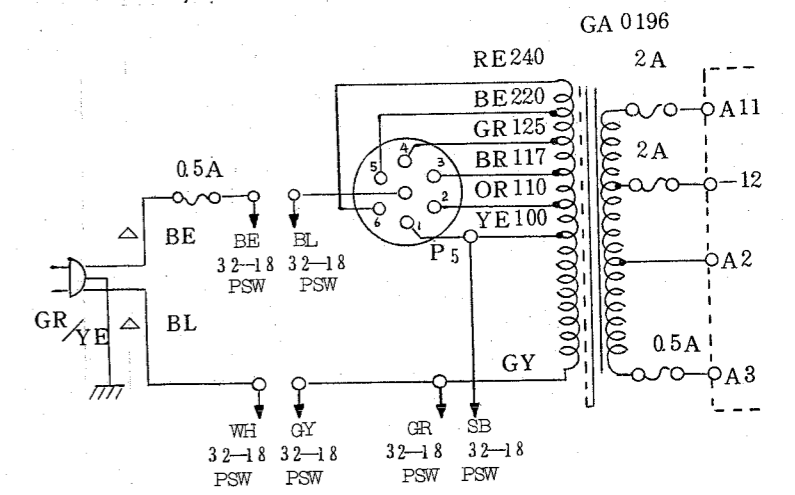
- Notes )
1. Transistor  
 Tr₁ : 2SD 256  
 Tr₂, Tr₃ : 2SC 734(O)(Y)  
 Tr₄, Tr₅ : 2SA 561(O)(Y)  
 Tr₆ : 2SA 485Y
  2. Diode  
 D₁ : 10DC-2  
 D₂ : 10D-2  
 D₃, D₅ : 1S1715  
 D₄ : 1S1555
  3. Ceramic Capacitor  
 : 100P / 500V
  4. Metal oxide resistor  
 : 10Ω1P 27Ω3P

UL, CSA Spec.

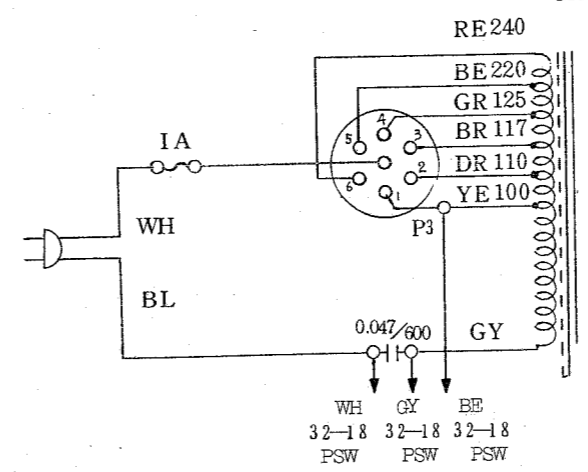


GA 0196

NEMKO, SEMKO Spec.

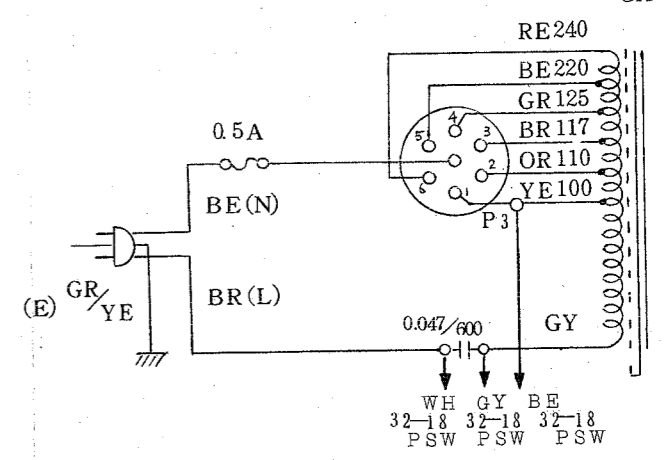


GENERAL Spec.



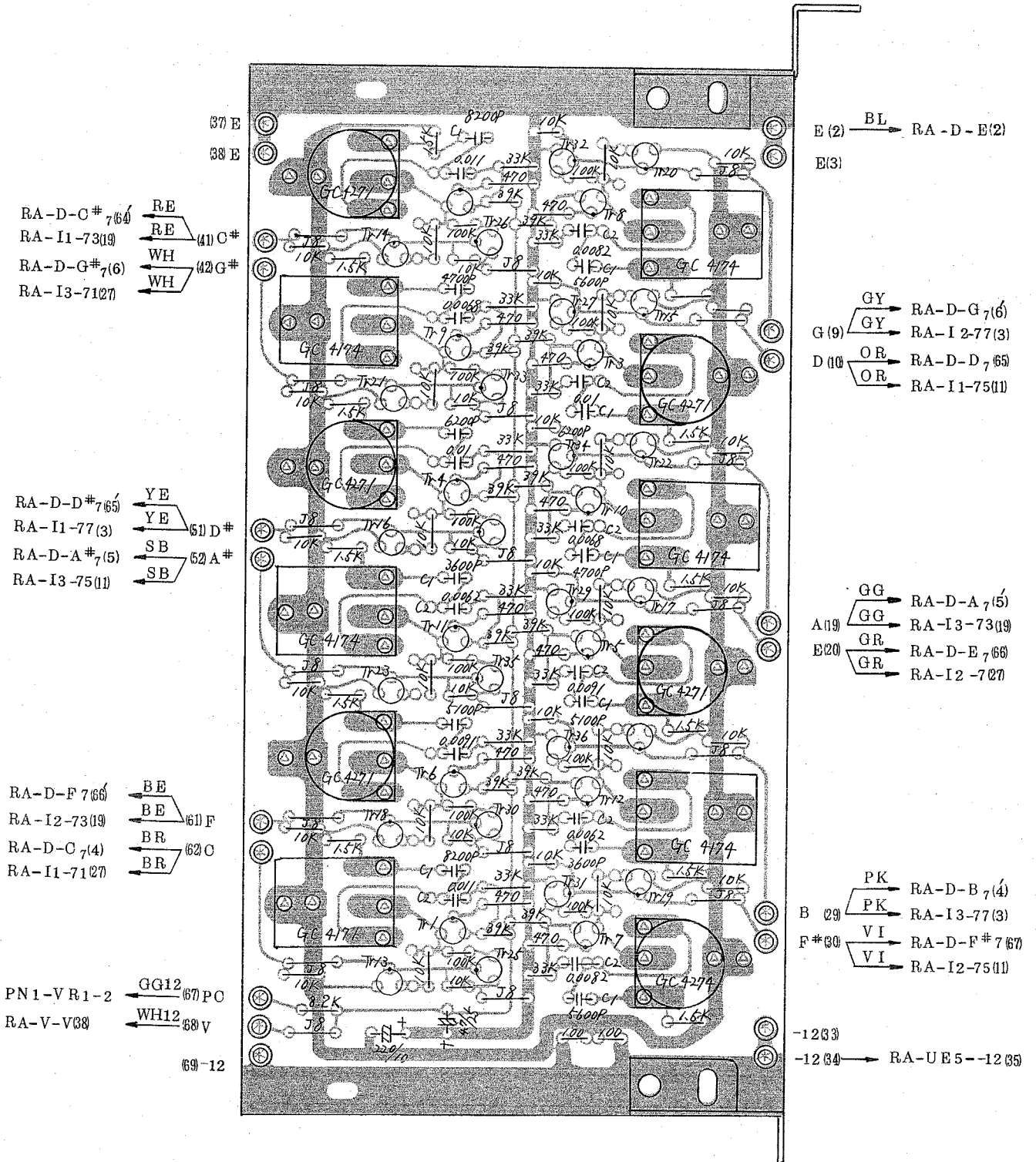
GA 01962

SOUTH AFRICA, AUSTRALIA, EUROPE Spec.

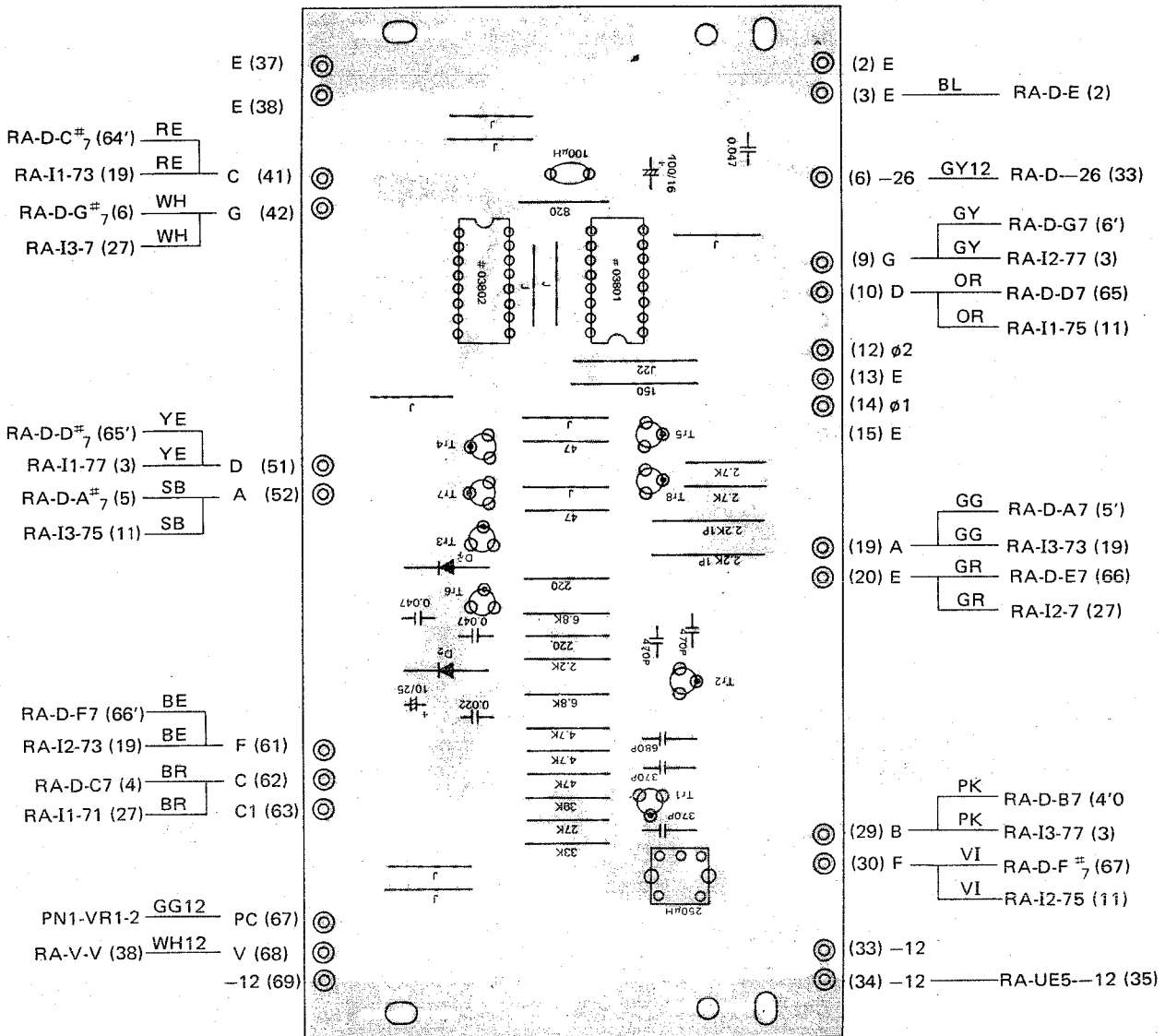


GA 01962

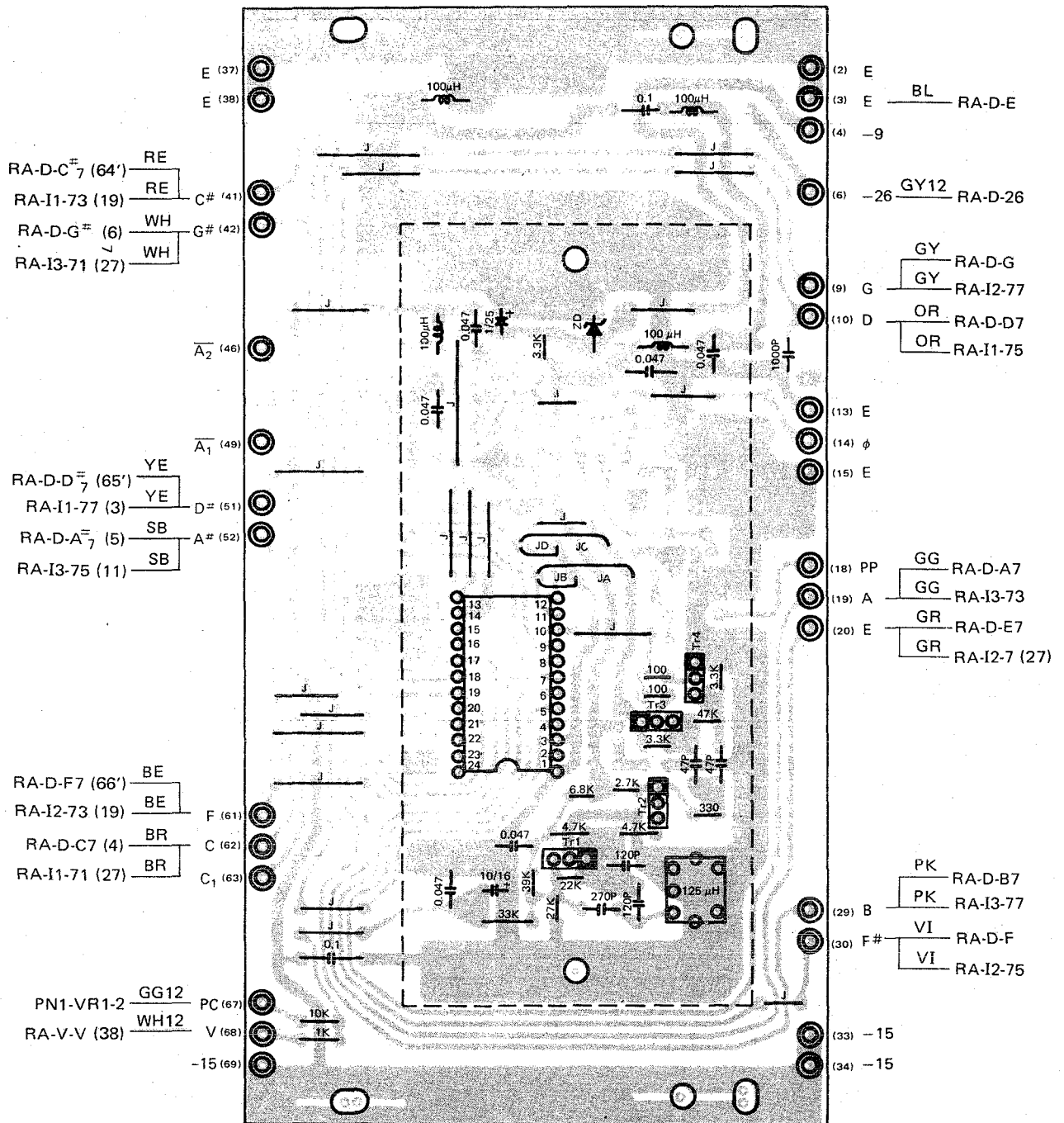
41. M Circuit Board (I) (NA027950) or (NA021580) and Wiring



41. M Circuit Board (II) #3065 and Wiring



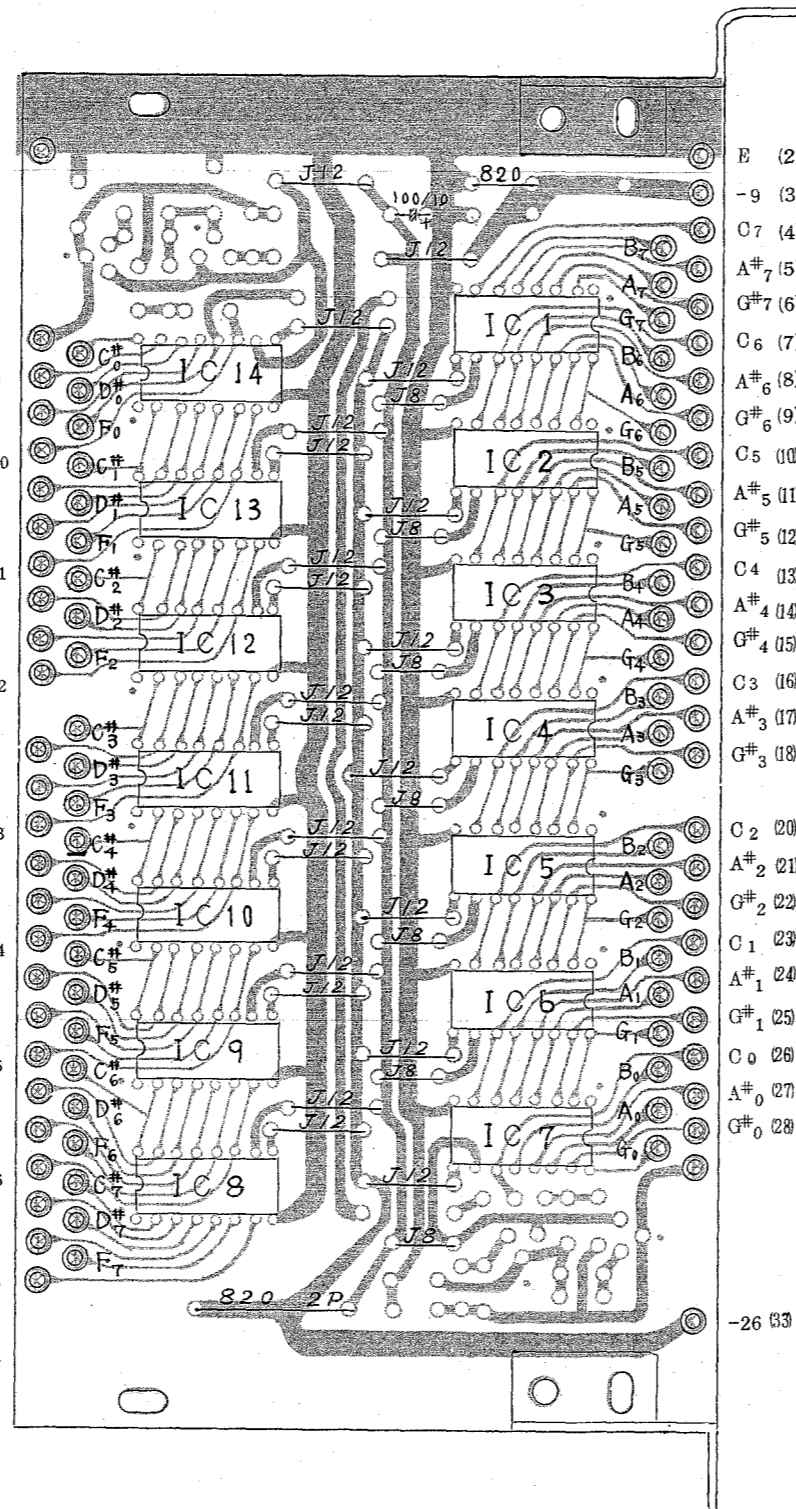
41. M Circuit Board (III) #80438 and Wiring



42. D Circuit Board (NA021590) and Wiring

RA-I1-03 (26)	← RE	(42) C# ₀
RA-I1-07 (10)	← YE	(43) D# ₀
RA-I2-03 (26)	← BE	(44) F ₀
RA-I1-13 (25)	← RE	(45) C# ₁
RA-I1-17 (9)	← YE	(46) D# ₁
RA-I2-13 (25)	← BE	(47) F ₁
RA-I1-23 (24)	← RE	(48) C# ₂
RA-I1-27 (8)	← YE	(49) D# ₂
RA-I2-23 (24)	← BE	(50) F ₂
RA-I1-33 (23)	← RE	(52) C# ₃
RA-I1-37 (7)	← YE	(53) D# ₃
RA-I2-33 (23)	← BE	(54) F ₃
RA-I1-43 (22)	← RE	(55) C# ₄
RA-I1-47 (6)	← YE	(56) D# ₄
RA-I2-43 (22)	← BE	(57) F ₄
RA-I1-53 (21)	← RE	(58) C# ₅
RA-I1-57 (5)	← YE	(59) D# ₅
RA-I2-53 (21)	← BE	(60) F ₅
RA-I1-63 (20)	← RE	(61) C# ₆
RA-I1-67 (4)	← YE	(62) D# ₆
RA-I2-63 (20)	← BE	(63) F ₆
RA-M-C# (41)	← RE	(64) C# ₇
RA-M-D# (51)	← YE	(65) D# ₇
RA-M-F (61)	← BE	(66) F ₇

RA-I1-05 (18)	← OR	(45) D ₀
RA-I2-01 (34)	← GR	(44) E ₀
RA-I2-05 (18)	← VI	(45) F# ₀
RA-I1-15 (17)	← OR	(46) D ₁
RA-I2-11 (33)	← GR	(47) E ₁
RA-I2-15 (17)	← VI	(48) F# ₁
RA-I1-25 (16)	← OR	(49) D ₂
RA-I2-21 (32)	← GR	(50) E ₂
RA-I2-25 (16)	← VI	(51) F# ₂
RA-I1-35 (15)	← OR	(53) D ₃
RA-I2-31 (31)	← GR	(54) E ₃
RA-I2-35 (15)	← VI	(55) F# ₃
RA-I1-45 (14)	← OR	(56) D ₄
RA-I2-41 (30)	← GR	(57) E ₄
RA-I2-45 (14)	← VI	(58) F# ₄
RA-I1-55 (13)	← OR	(59) D ₅
RA-I2-51 (29)	← GR	(60) E ₅
RA-I2-55 (13)	← VI	(61) F# ₅
RA-I1-65 (12)	← OR	(62) D ₆
RA-I2-61 (28)	← GR	(63) E ₆
RA-I2-65 (12)	← VI	(64) F# ₆
RA-M-D (10)	← OR	(65) D ₇
RA-M-E (20)	← GR	(66) E ₇
RA-M-F# (30)	← VI	(67) F# ₇

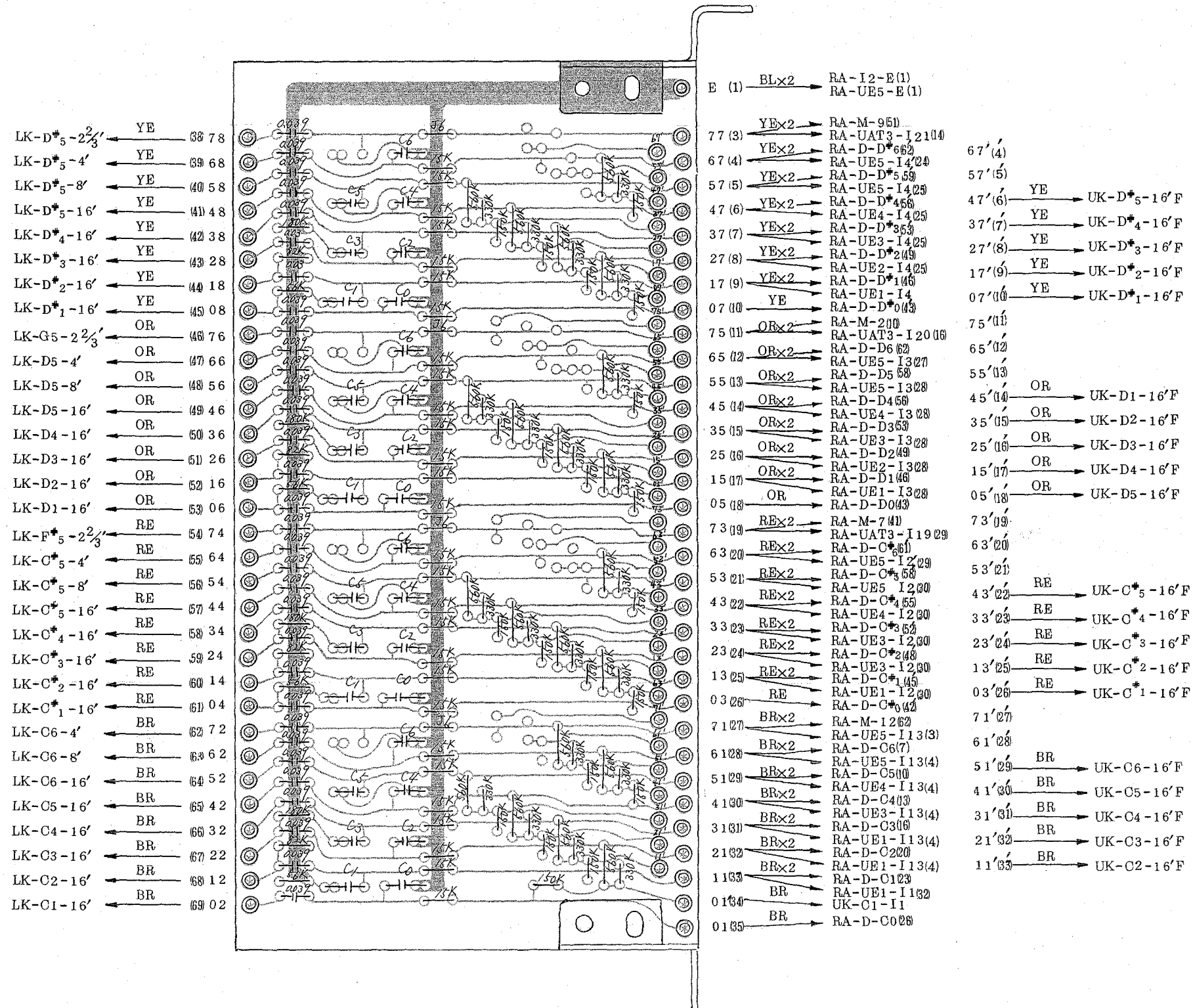


E (2)	← BL×2	RA-M-E (2)
-9 (3)		RA-I3-E (1)
C7 (4)	← BR	RA-M-C (2)
A#7 (5)	← SB	RA-M-A# (2)
G#7 (6)	← WH	RA-M-G# (2)
C6 (7)	← BR	RA-I1-61 (2)
A#6 (8)	← SB	RA-I3-65 (2)
G#6 (9)	← WH	RA-I3-61 (2)
C5 (10)	← BR	RA-I1-51 (2)
A#5 (11)	← SB	RA-I3-55 (3)
G#5 (12)	← WH	RA-I3-51 (2)
C4 (13)	← BR	RA-I1-41 (3)
A#4 (14)	← SB	RA-I3-45 (14)
G#4 (15)	← WH	RA-I3-41 (3)
C3 (16)	← BR	RA-I1-31 (3)
A#3 (17)	← SB	RA-I3-35 (15)
G#3 (18)	← WH	RA-I3-31 (3)
C2 (20)	← BR	RA-I1-21 (3)
A#2 (21)	← SB	RA-I3-25 (16)
G#2 (22)	← WH	RA-I3-21 (3)
C1 (23)	← BR	RA-I1-11 (3)
A#1 (24)	← SB	RA-I3-15 (17)
G#1 (25)	← WH	RA-I3-11 (3)
C0 (26)	← BR	RA-I1-01 (34)
A#0 (27)	← SB	RA-I3-05 (18)
G#0 (28)	← WH	RA-I3-01 (34)
-26 (33)	← GY12×2	RA-V-26 (43)
		PU--26

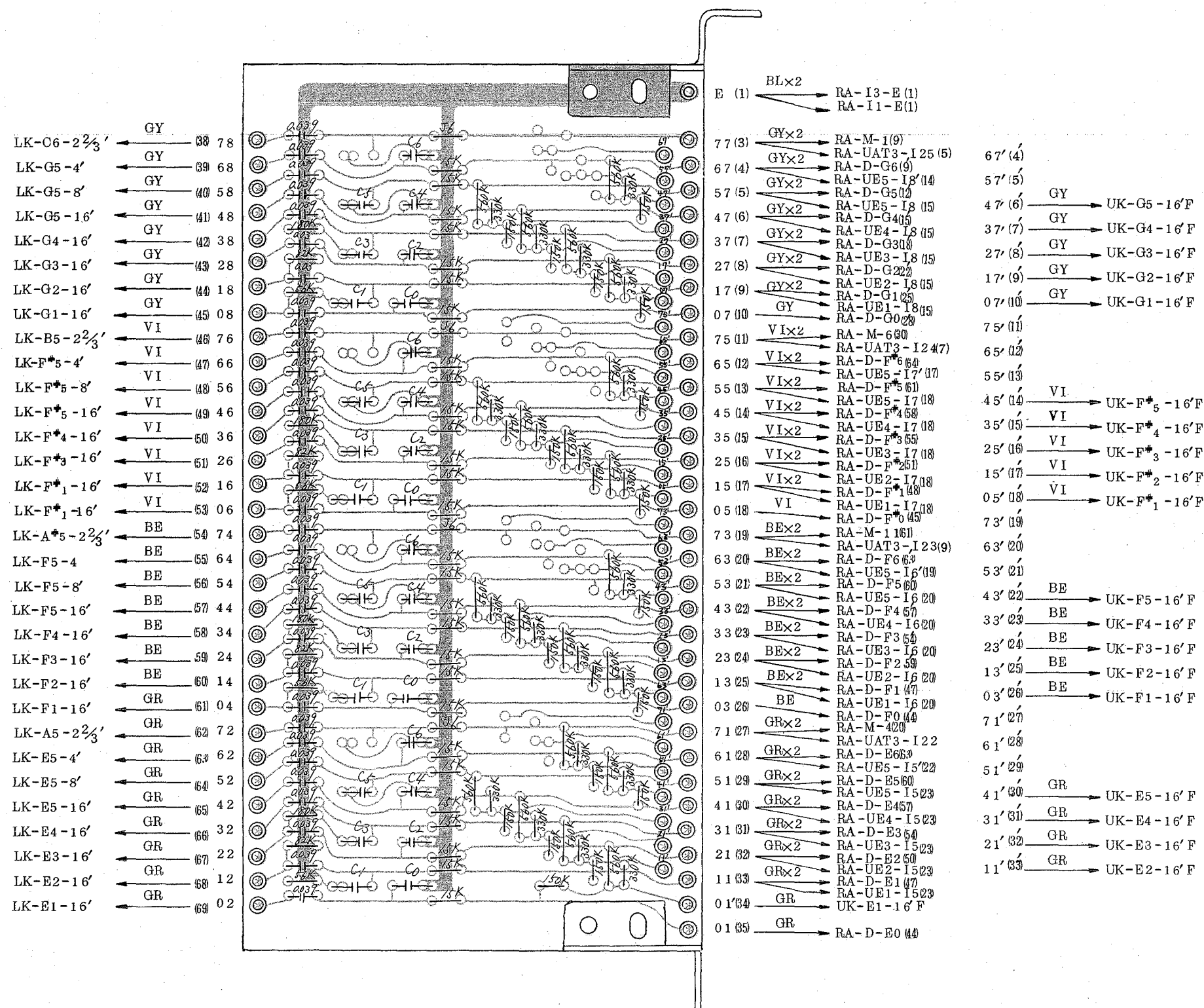
B7 (4)'	← PK	RA-M-B (29)
A7 (5)'	← GG	RA-M-A (19)
G7 (6)'	← GY	RA-M-G (9)
B6 (7)'	← PK	RA-I3-67 (4)
A6 (8)'	← GG	RA-I3-67 (20)
G6 (9)'	← GY	RA-I2-67 (4)
B5 (10)'	← PK	RA-I3-57 (5)
A5 (11)'	← GG	RA-I3-53 (21)
G5 (12)'	← GY	RA-I2-57 (5)
B4 (13)'	← PK	RA-I3-47 (6)
A4 (14)'	← GG	RA-I3-43 (22)
G4 (15)'	← GY	RA-I2-47 (6)
B3 (16)'	← PK	RA-I3-37 (7)
A3 (17)'	← GG	RA-I3-33 (23)
G3 (18)'	← GY	RA-I2-37 (7)
B2 (20)'	← PK	RA-I3-27 (8)
A2 (21)'	← GG	RA-I3-23 (24)
G2 (22)'	← GY	RA-I2-27 (8)
B1 (23)'	← PK	RA-I3-17 (9)
A1 (24)'	← GG	RA-I3-13 (25)
G1 (25)'	← GY	RA-I2-17 (9)
B0 (26)'	← PK	RA-I3-07 (10)
A0 (27)'	← GG	RA-I3-03 (26)
G0 (28)'	← GY	RA-I2-07 (10)



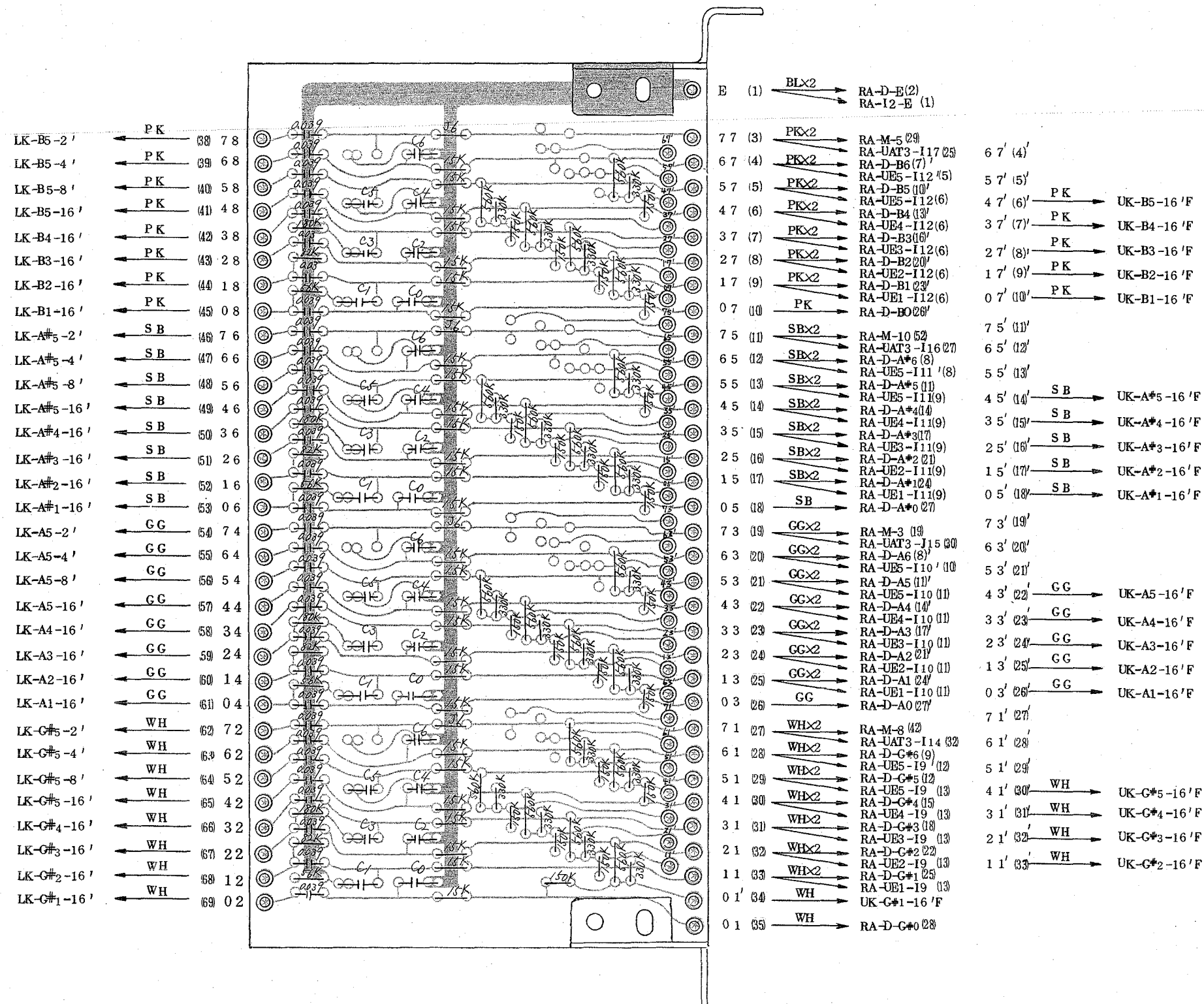
43. I1 Circuit Board (NA021620) and Wiring



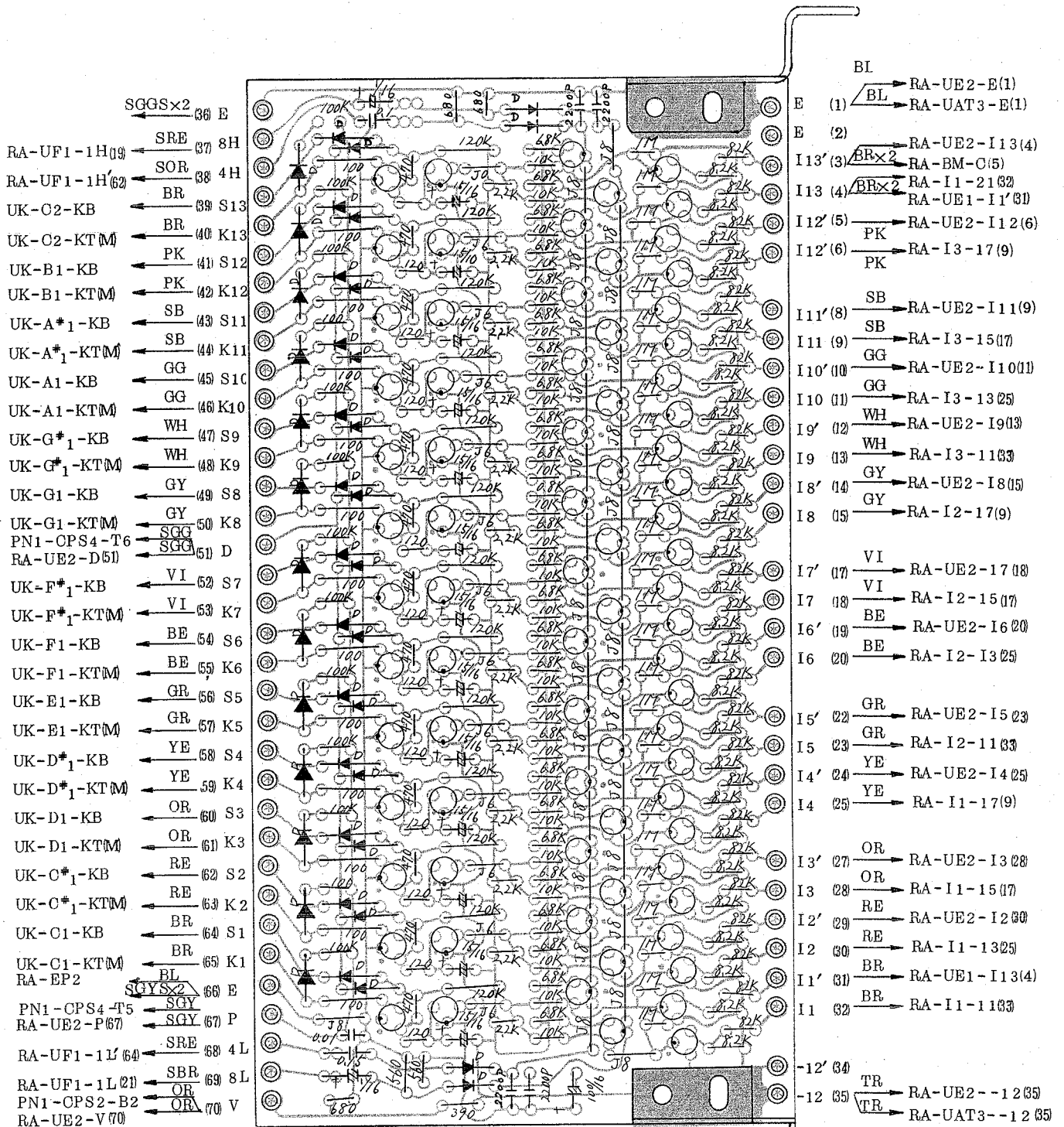
44. I2 Circuit Board(NA021610)and Wiring



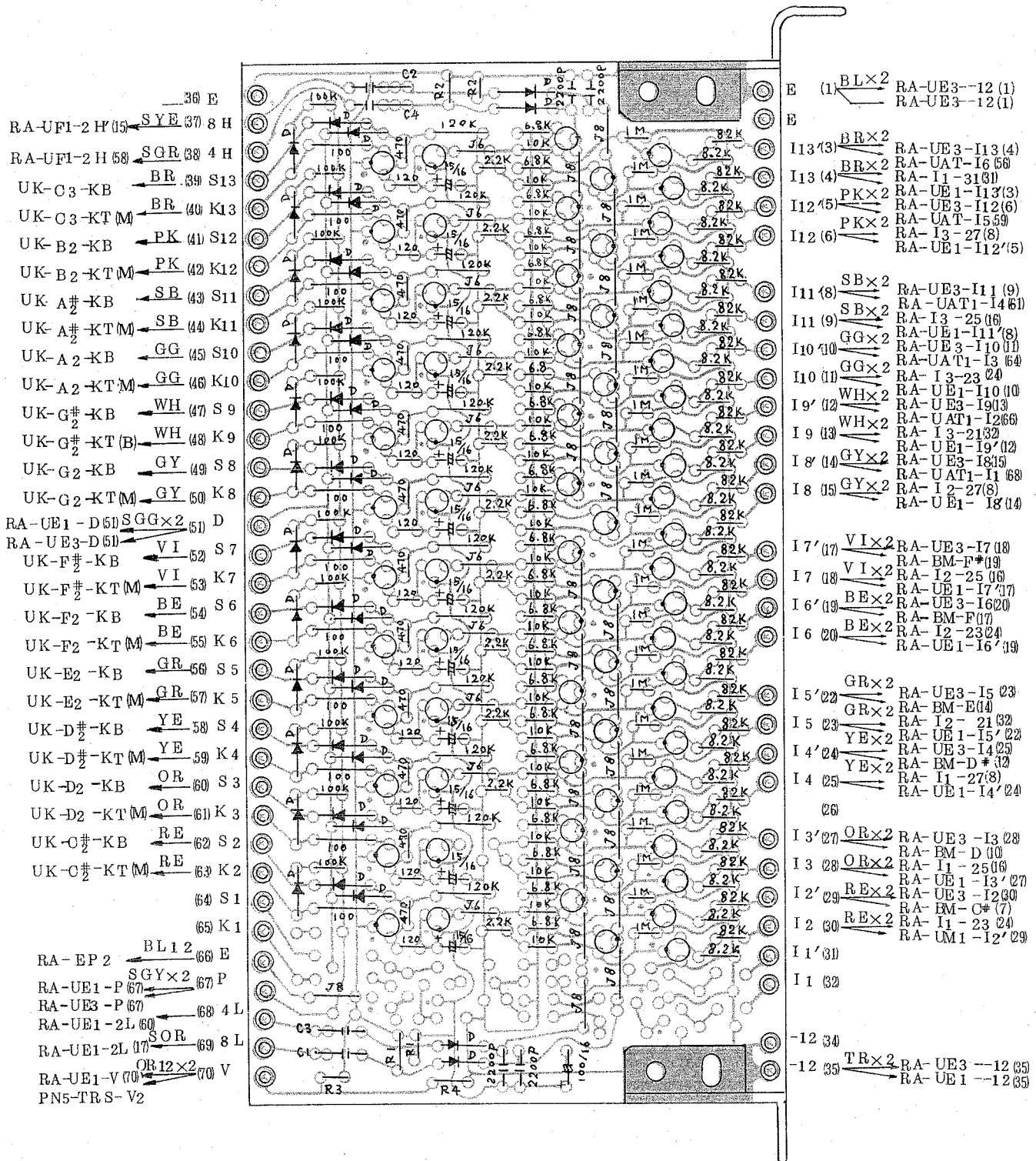
45. 13 Circuit Board(NA021600)and Wiring



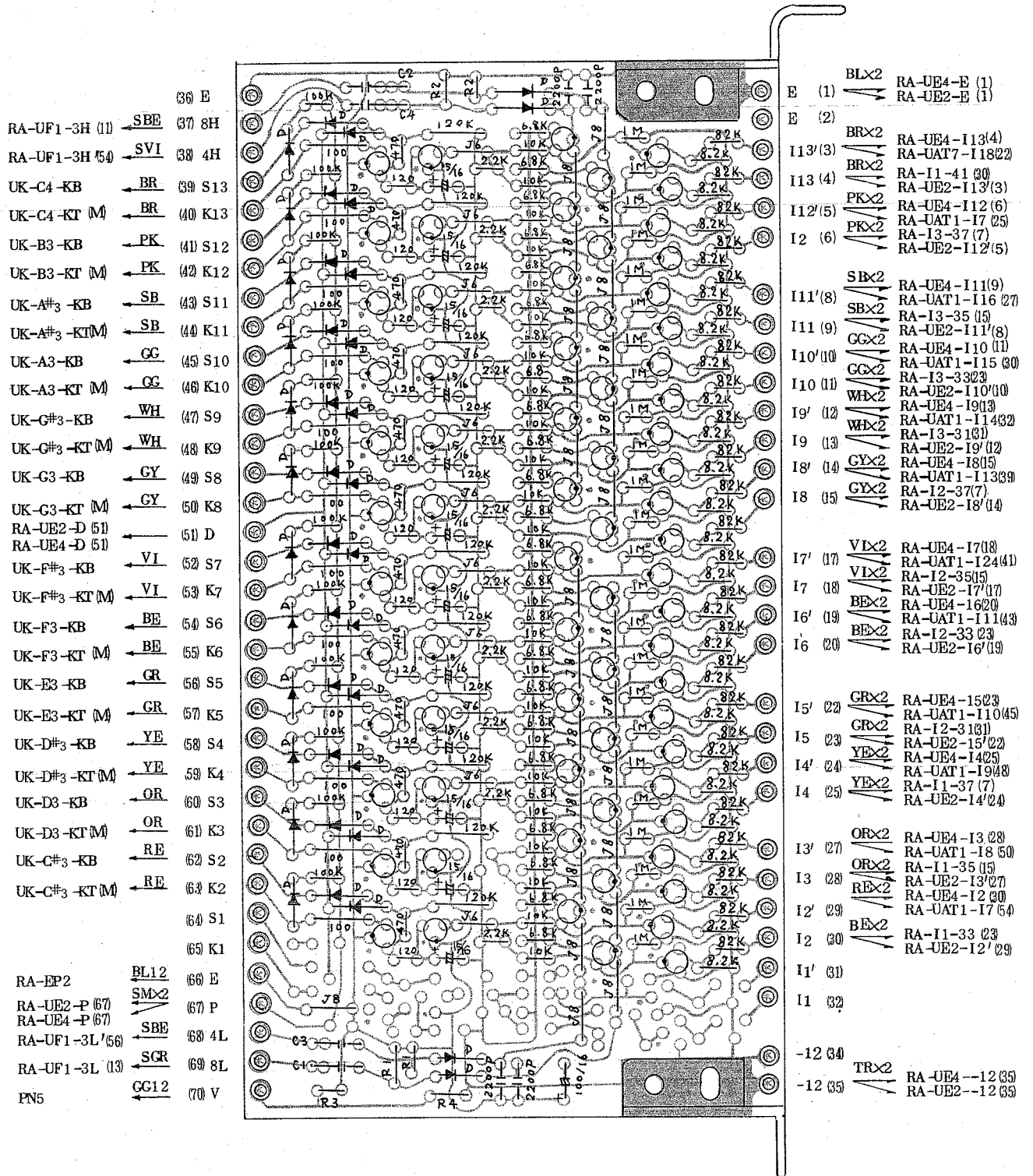
### 46. UE1 Circuit Board (NA021670) and Wiring



47. UE2 Circuit Board (NA021660) and Wiring

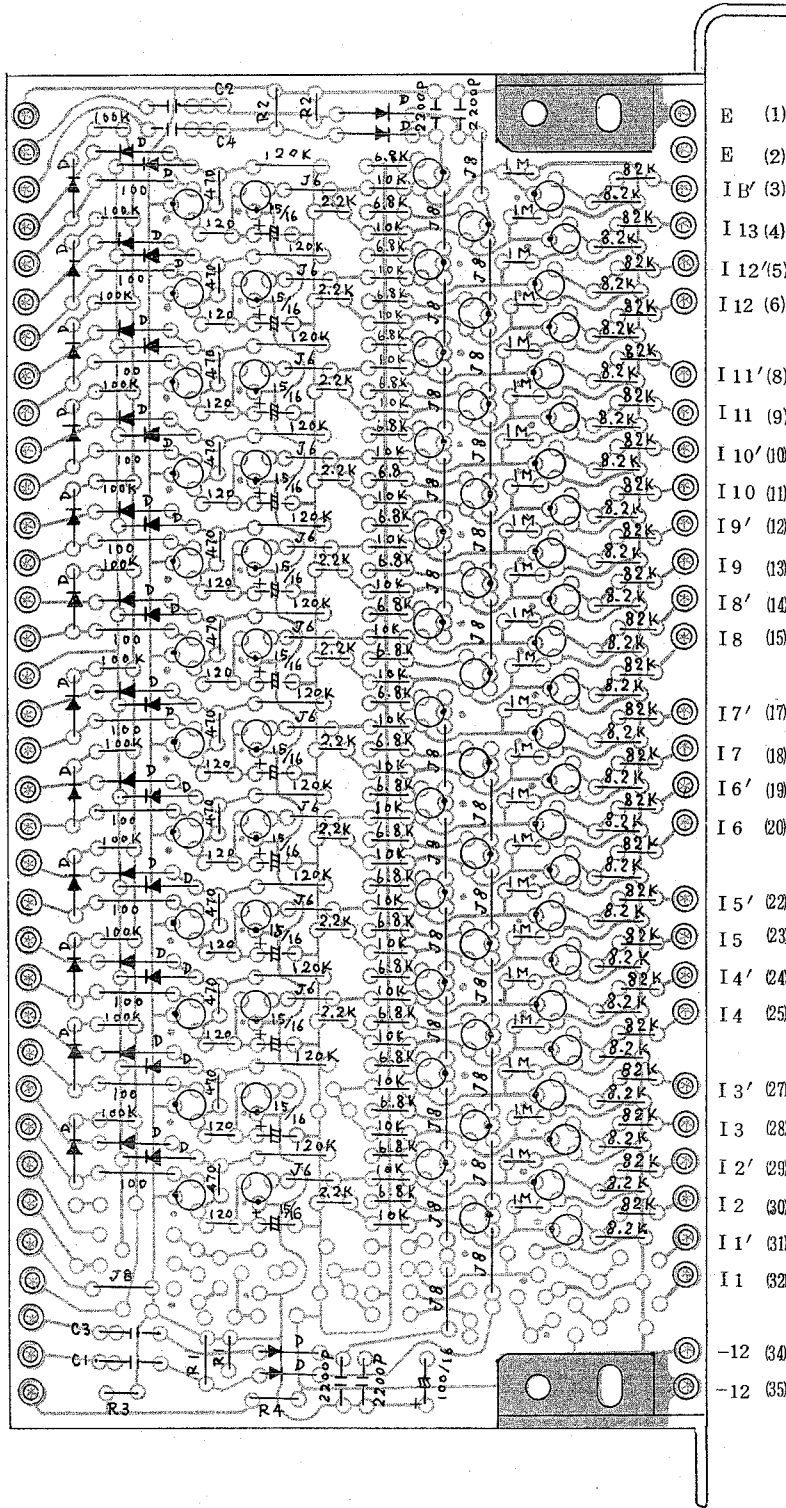


### 48. UE3 Circuit Board (NA021660) and Wiring



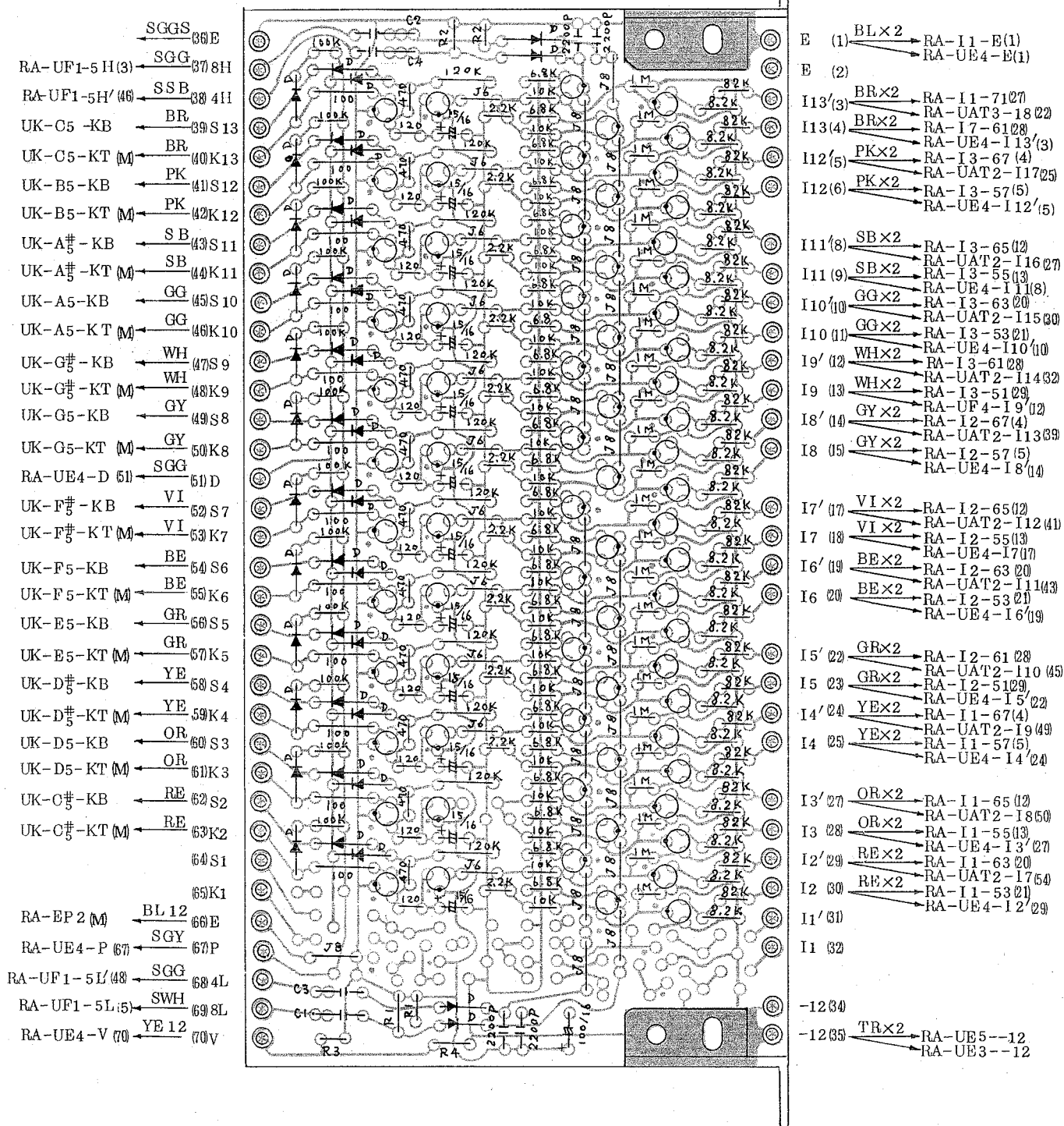
49. UE4 Circuit Board(NA021660)and Wiring

- RA-UF1-4H(7) SGY 36 E
- RA-UF1-4H(50) SWH 37 8 H
- UK-C5-KB BR 38 4 H
- UK-C5-KT(M) BR 39 S 13
- UK-B4-KB PK 40 K 13
- UK-B4-KT(M) PK 41 S 12
- UK-A#4-KB SB 42 K 12
- UK-A#4-KT(M) SB 43 S 11
- UK-A4-KB GG 44 K 11
- UK-A4-KT(M) GG 45 S 10
- UK-G#4-KB WH 46 K 10
- UK-G#4-KT(M) WH 47 S 9
- UK-G4-KB GY 48 K 9
- UK-G4-KT(M) GY 49 S 8
- RA-UE3-D(51) SGGX2 50 K 8
- RA-UE5-D(51) VI 51 D
- UK-F#4-KB VI 52 S 7
- UK-F#4-KT(M) VI 53 K 7
- UK-F4-KB BE 54 S 6
- UK-F4-KT(M) BE 55 K 6
- UK-E4-KB GR 56 S 5
- UK-E4-KT(M) GR 57 K 5
- UK-D#4-KB YE 58 S 4
- UK-D#4-KT(M) YE 59 K 4
- UK-D4-KB OR 60 S 3
- UK-D4-KT(M) OR 61 K 3
- UK-C#4-KB RE 62 S 2
- UK-C#4-KT(M) RE 63 K 2
- 64 S 1
- 65 K 1
- RA-EP2 BL12 66 E
- RA-UE3-P(67) SGYX2 67 P
- RA-UE5-P(67) SGY 68 4 L
- RA-UF1-4L(9) SVI 69 8 L
- PN1-CPS2-M6 YE12X2 70 V
- RA-UE5-V(70)



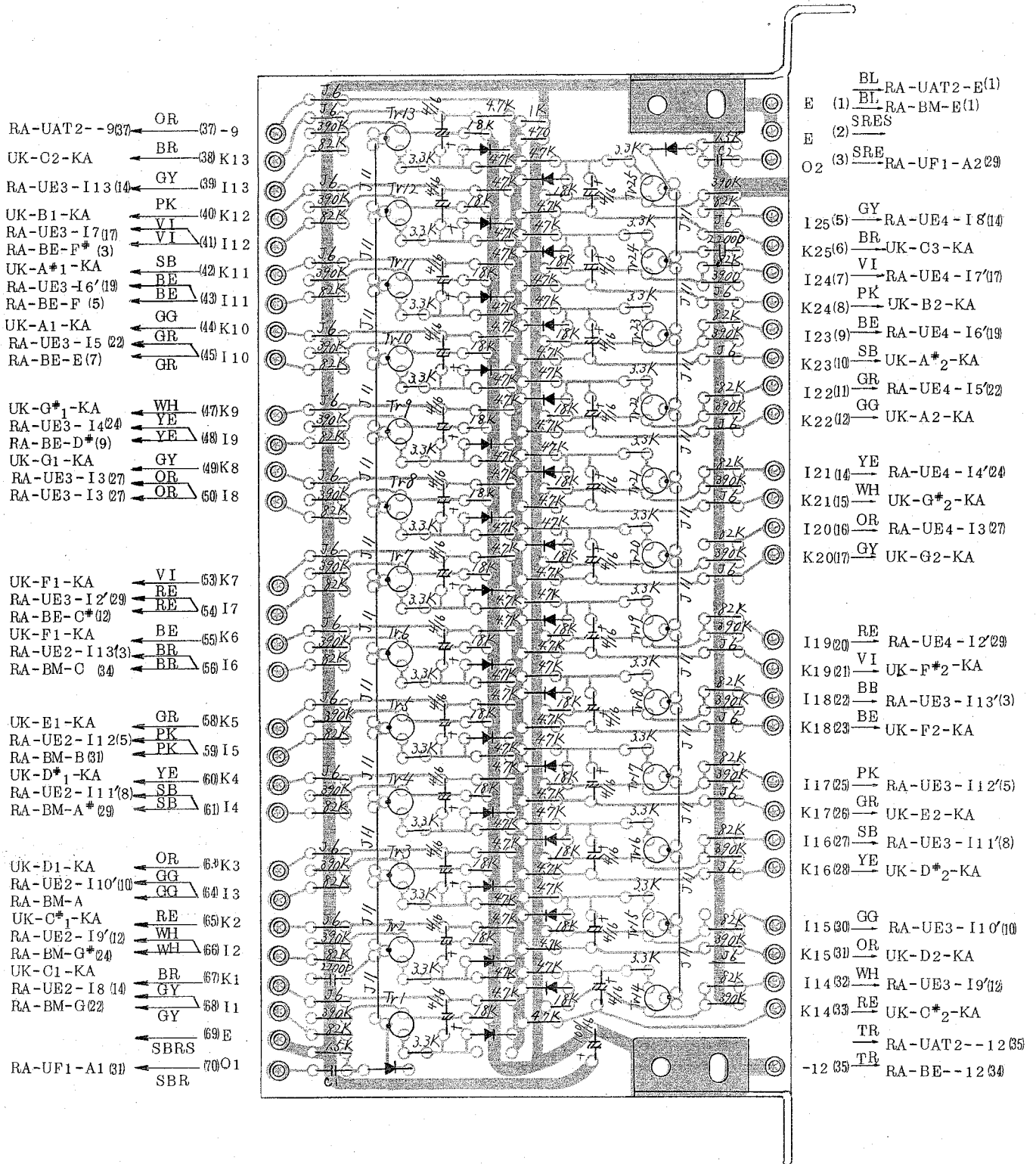
- E (1) BLX2 RA-UE5-E(1)
- E (2) RA-UE3-E(1)
- I 1' (3) BRX2 RA-UE5-I13(4)
- I 13 (4) BRX2 RA-UET2-I6(5)
- I 12' (5) PKX2 RA-I1-51(29)
- I 12 (6) PKX2 RA-UE3-I13'(3)
- RA-UAT2-I5(59)
- RA-I3-47(6)
- RA-UE3-I12'(5)
- I 11' (8) SBX2 RA-UE5-I77(9)
- I 11 (9) SBX2 RA-UAT2-I4(61)
- RA-I3-45(14)
- RA-UB3-I11'(8)
- I 10' (10) GGX2 RA-UE5-I10(11)
- I 10 (11) GGX2 RA-UAT2-I3(64)
- RA-I3-43(22)
- I 9' (12) WHX2 RA-UB3-I10'(10)
- I 9 (13) WHX2 RA-UE5-I9(13)
- RA-UAT2-I2(66)
- RA-I3-41(30)
- I 8' (14) GYX2 RA-UB3-I9'(12)
- I 8 (15) GYX2 RA-UE5-I8(15)
- RA-UAT1-I25(5)
- RA-I2-47(6)
- RA-UE3-I8'(14)
- I 7' (17) VI X2 RA-UE5-I7(18)
- I 7 (18) VI X2 RA-UAT7-I24(7)
- RA-I2-45(14)
- I 6' (19) BE X2 RA-UB3-I7'(17)
- I 6 (20) BE X2 RA-UE5-I6(20)
- RA-UAT1-I23(9)
- RA-I2-43(22)
- RA-UB3-I6'(19)
- I 5' (22) GRX2 RA-UE5-I5(23)
- I 5 (23) GRX2 RA-UAT1-I22(17)
- RA-I2-41(30)
- I 4' (24) YEX2 RA-UB3-I5'(22)
- I 4 (25) YEX2 RA-UE5-I4(25)
- RA-UAT1-I21(14)
- RA-I1-47(6)
- RA-UB3-I4'(24)
- I 3' (27) ORX2 RA-UE5-I13(28)
- I 3 (28) ORX2 RA-UAT1-I20(16)
- RA-I1-45(14)
- I 2' (29) REX2 RA-UB3-I13'(27)
- I 2 (30) REX2 RA-UE5-I2(30)
- RA-UAT1-I19(20)
- RA-I1-43(22)
- RA-UB3-I2'(29)
- I 1' (31)
- I 1 (32)
- 12 (34)
- 12 (35) TRX2 RA-UE5--12(35)
- RA-UE3--12(35)

### 50. UE5 Circuit Board(NA021660)and Wiring

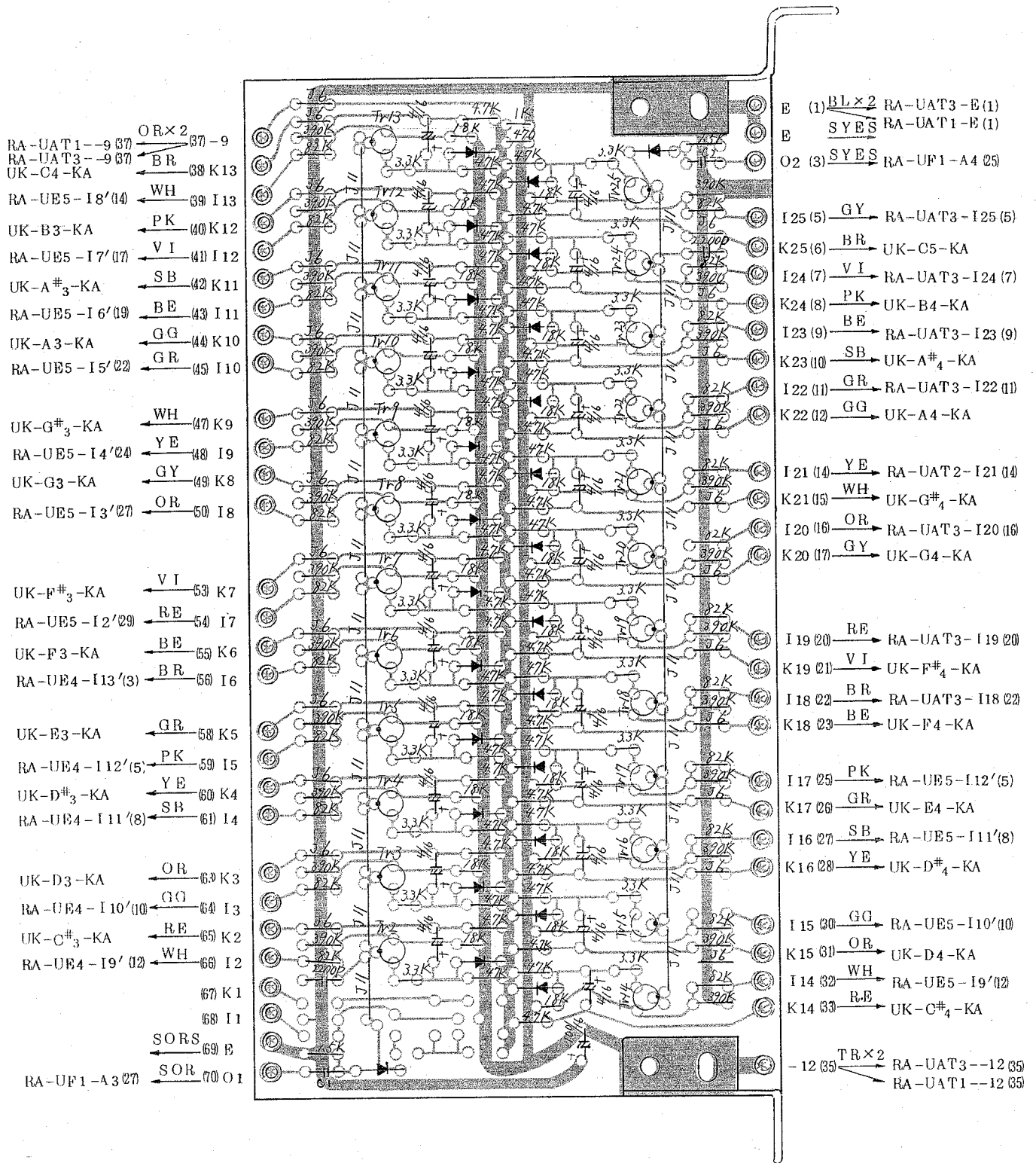




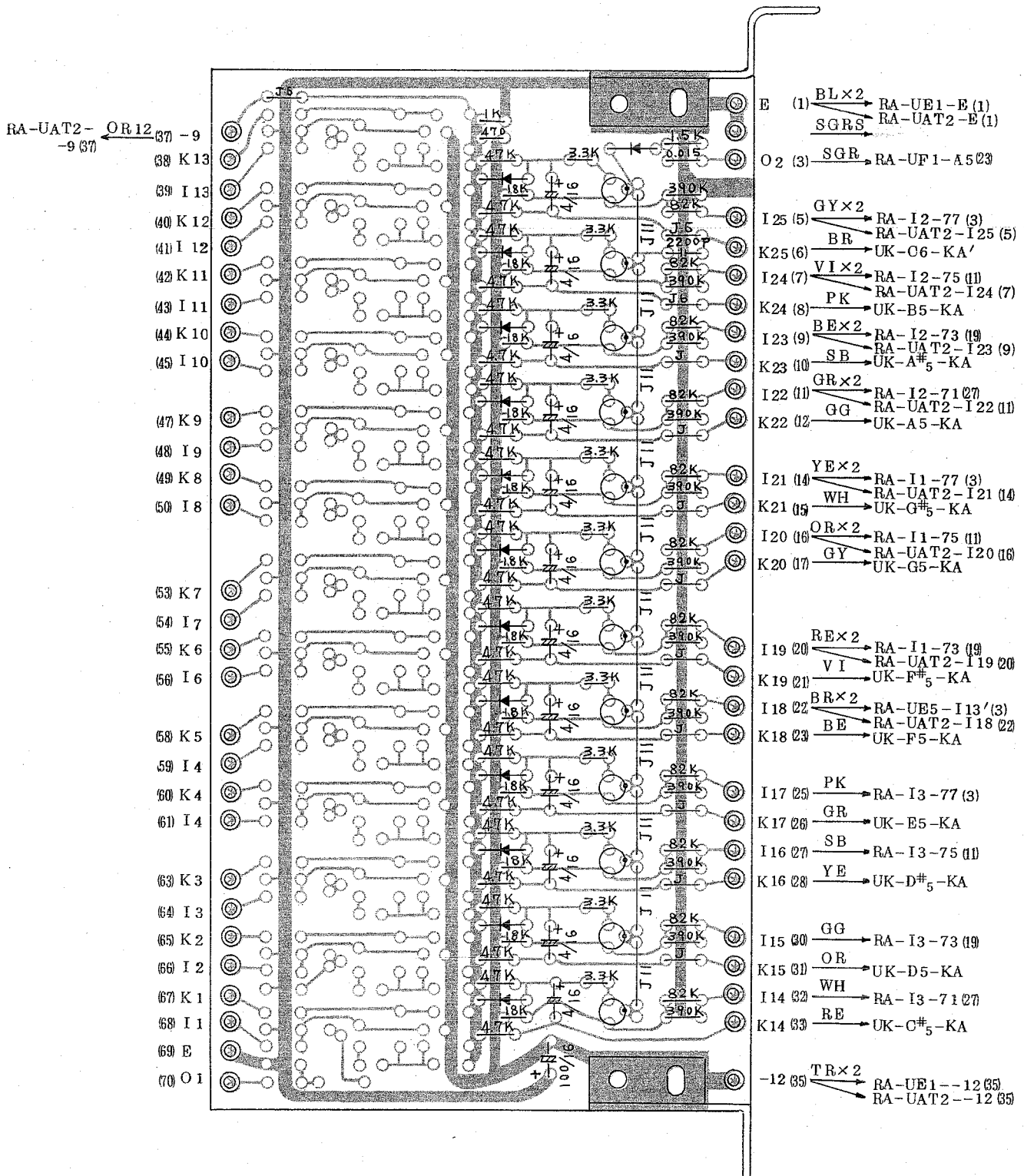
51. UAT1 Circuit Board (NA021700) and Wiring



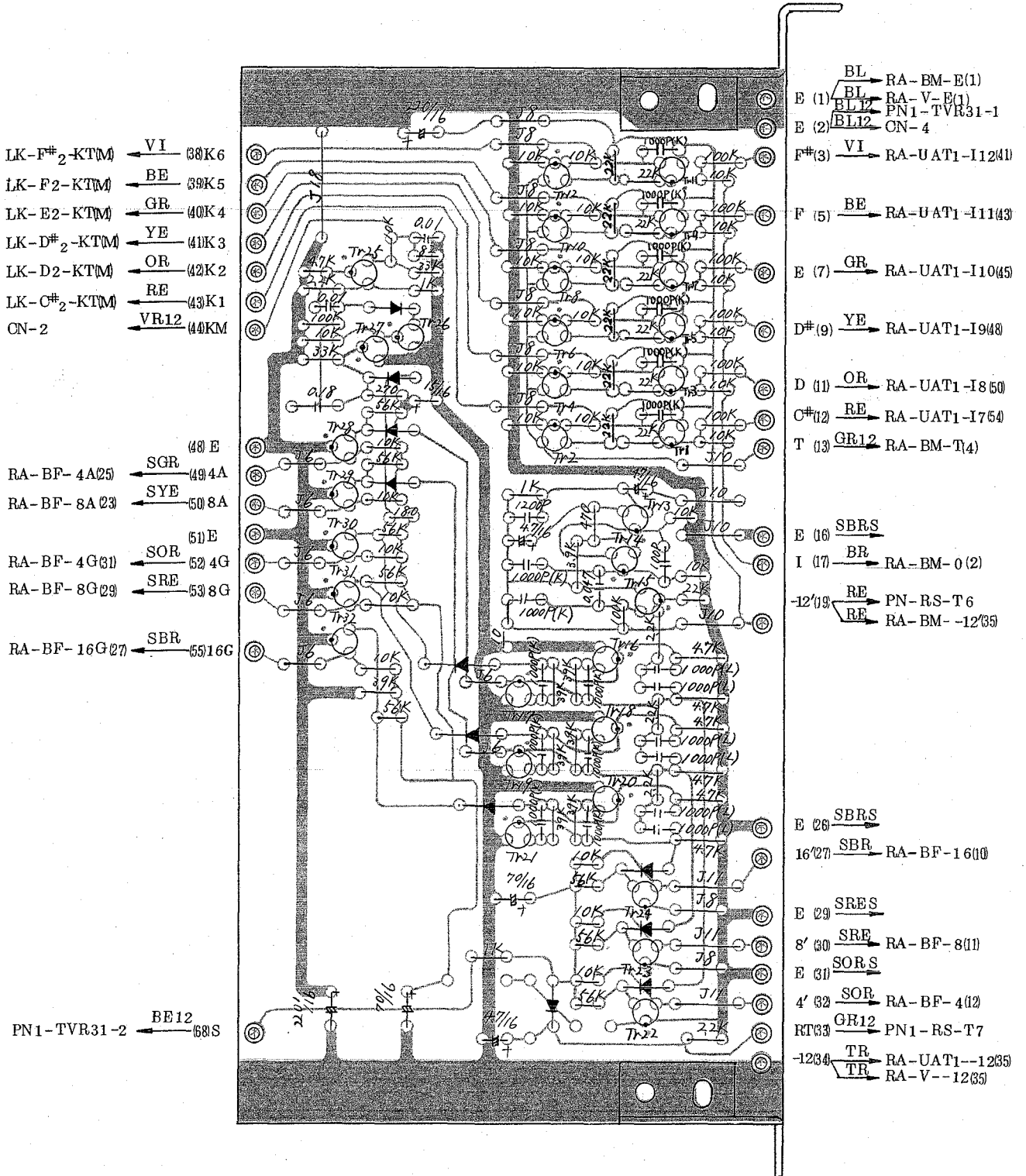
### 52. UAT2 Circuit Board(NA021690)and Wiring



53. UAT3 Circuit Board (NA021680) and Wiring



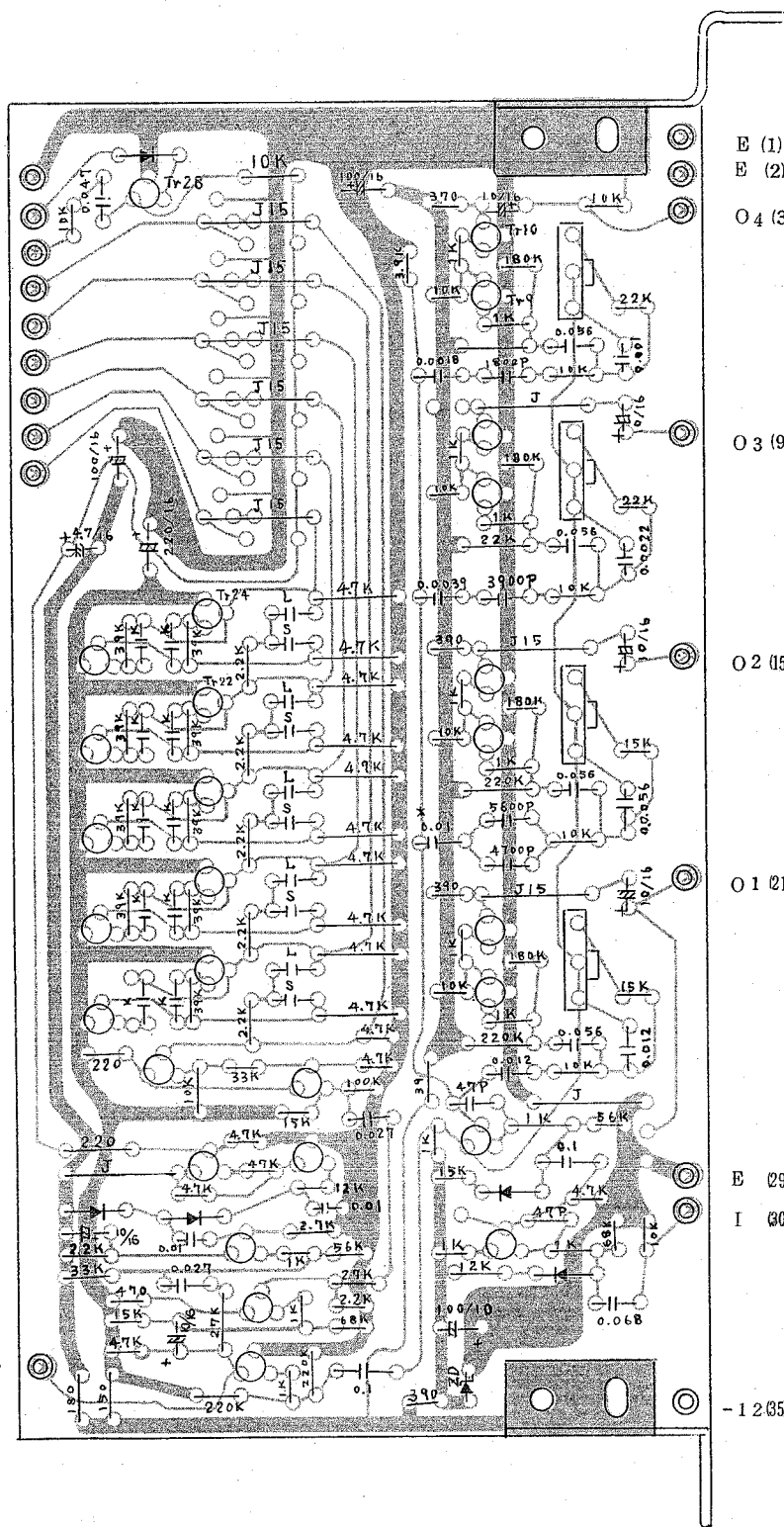
54. BE Circuit Board(NA021710)and Wiring





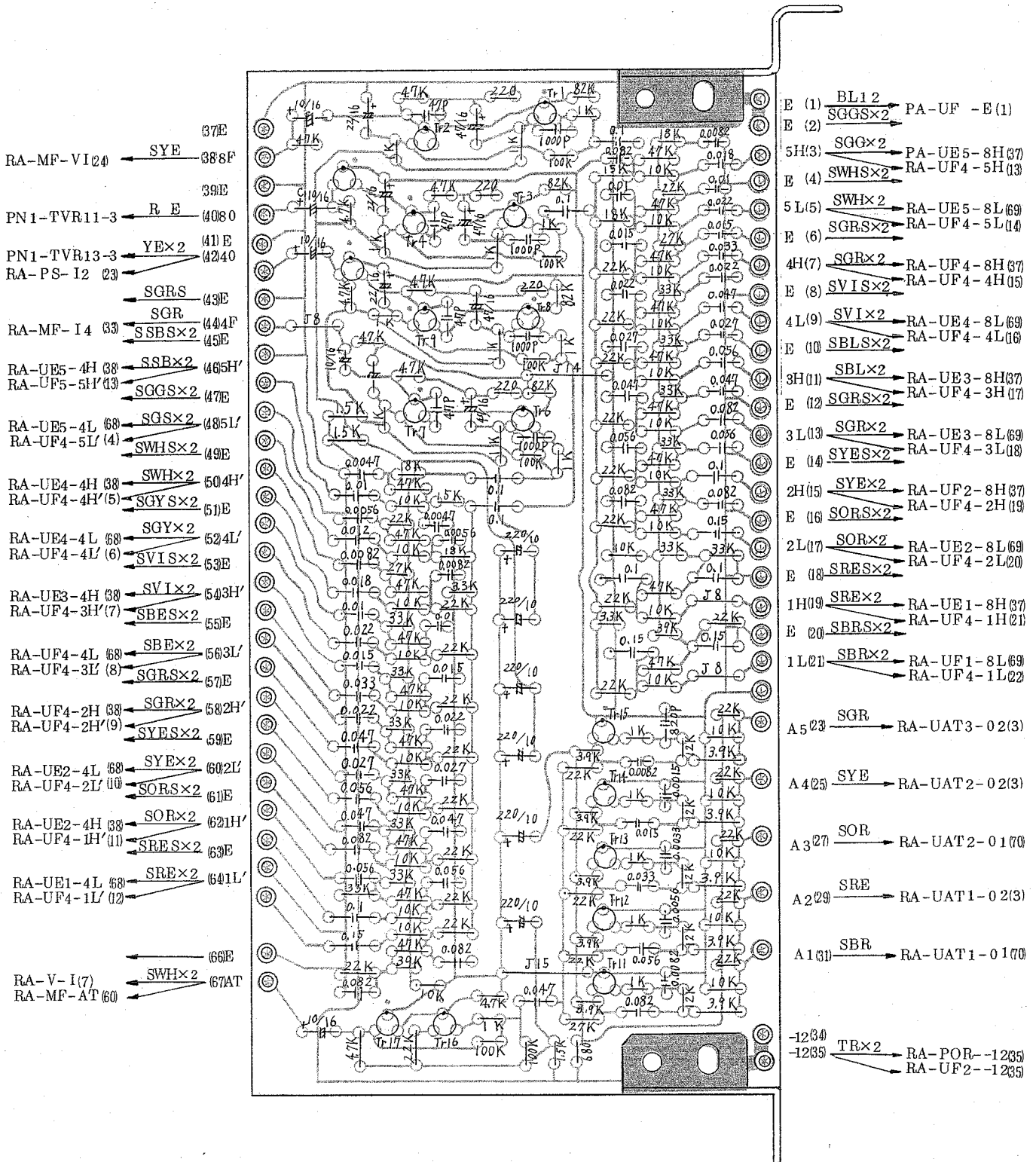
56. POR Circuit Board (NA021730) and Wiring

- ← SBR S (37) E
- ← SBR (38) C4
- ← SRE (39) A S
- ← SBE (40) 2
- ← SGR (41) 4
- ← SYE (42) 8
- ← SOR (43) 16
- ← SRE (44) 32
- ← SBR (45) 64

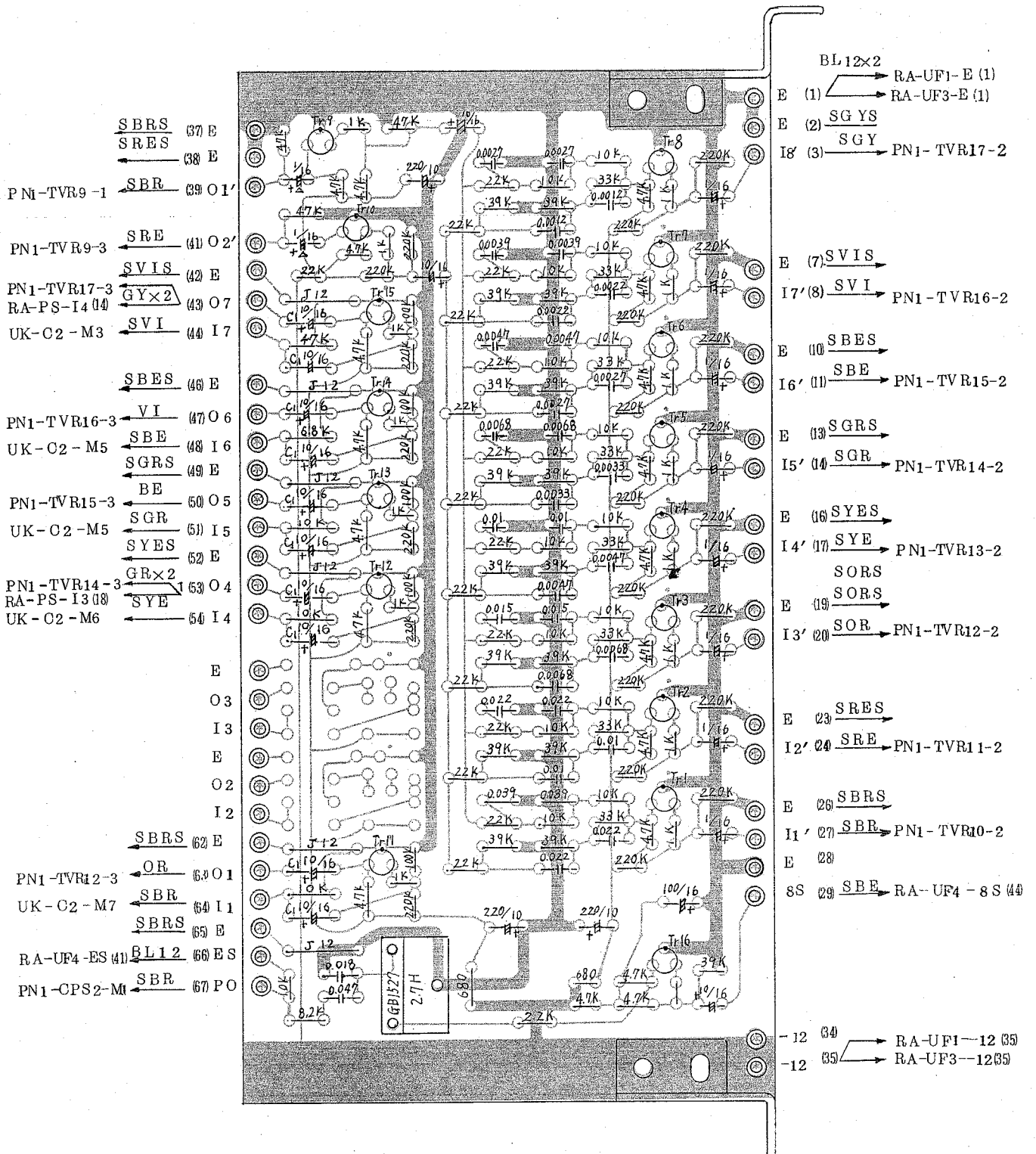


- E (1) BL → RA-V-E(1)
- E (2)
- O 4 (3) YE → PN1-PM-P4
- O 3 (9) OR → PN1-PM-P3
- O 2 (15) RE → PN1-PM-P2
- O 1 (21) BR → PN1-PM-P1
- E (29)
- I (30) SRE → RA-POF-I(13)
- 12 (35) TR → RA-V--12 (35)
- 12 (35) TR → RA-UF1--12(35)

57. UF1 Circuit Board (NA021740) and Wiring

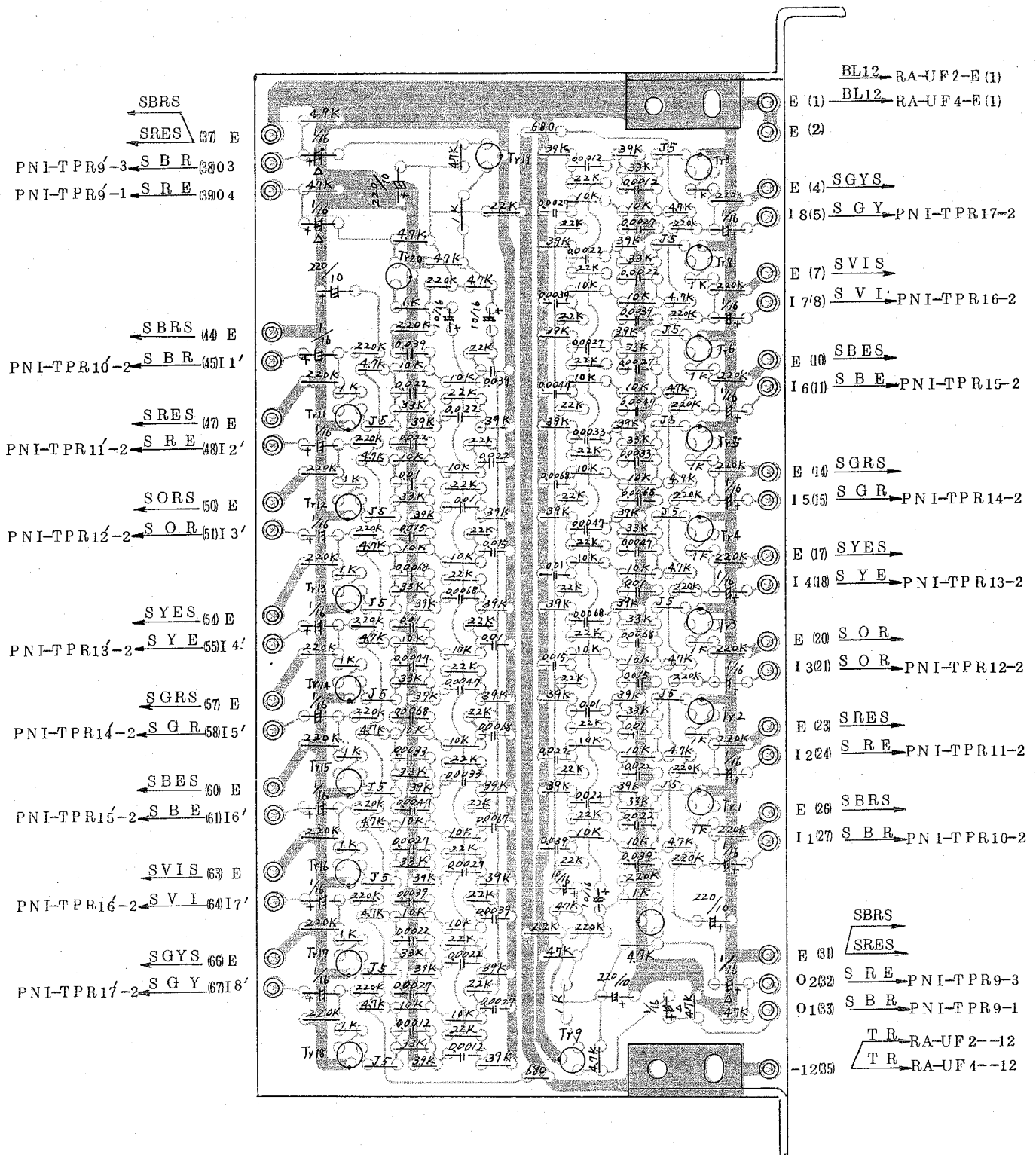


58. UF2 Circuit Board (NA021750) and Wiring





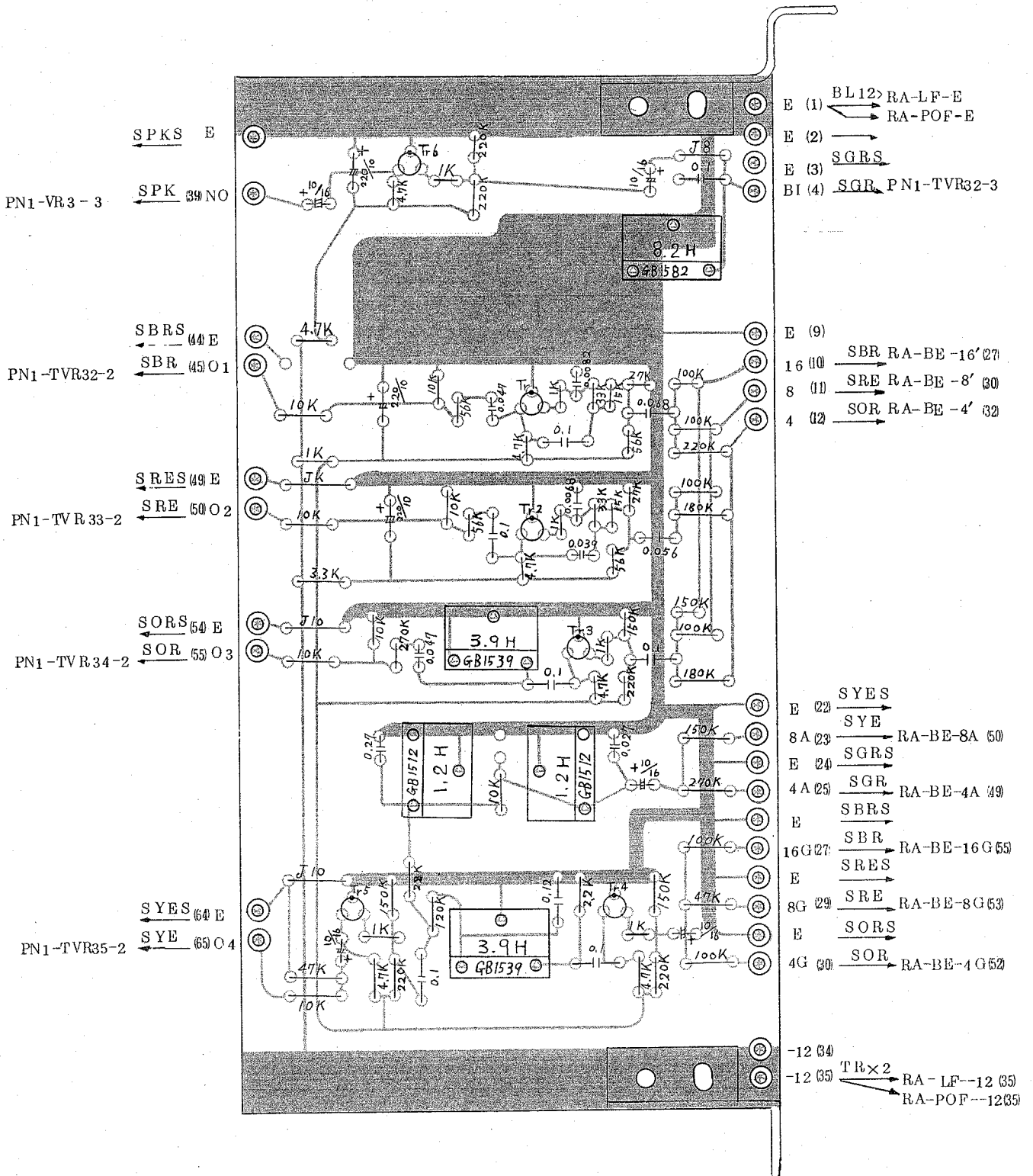
59. UF3 Circuit Board (NA021760)and Wiring



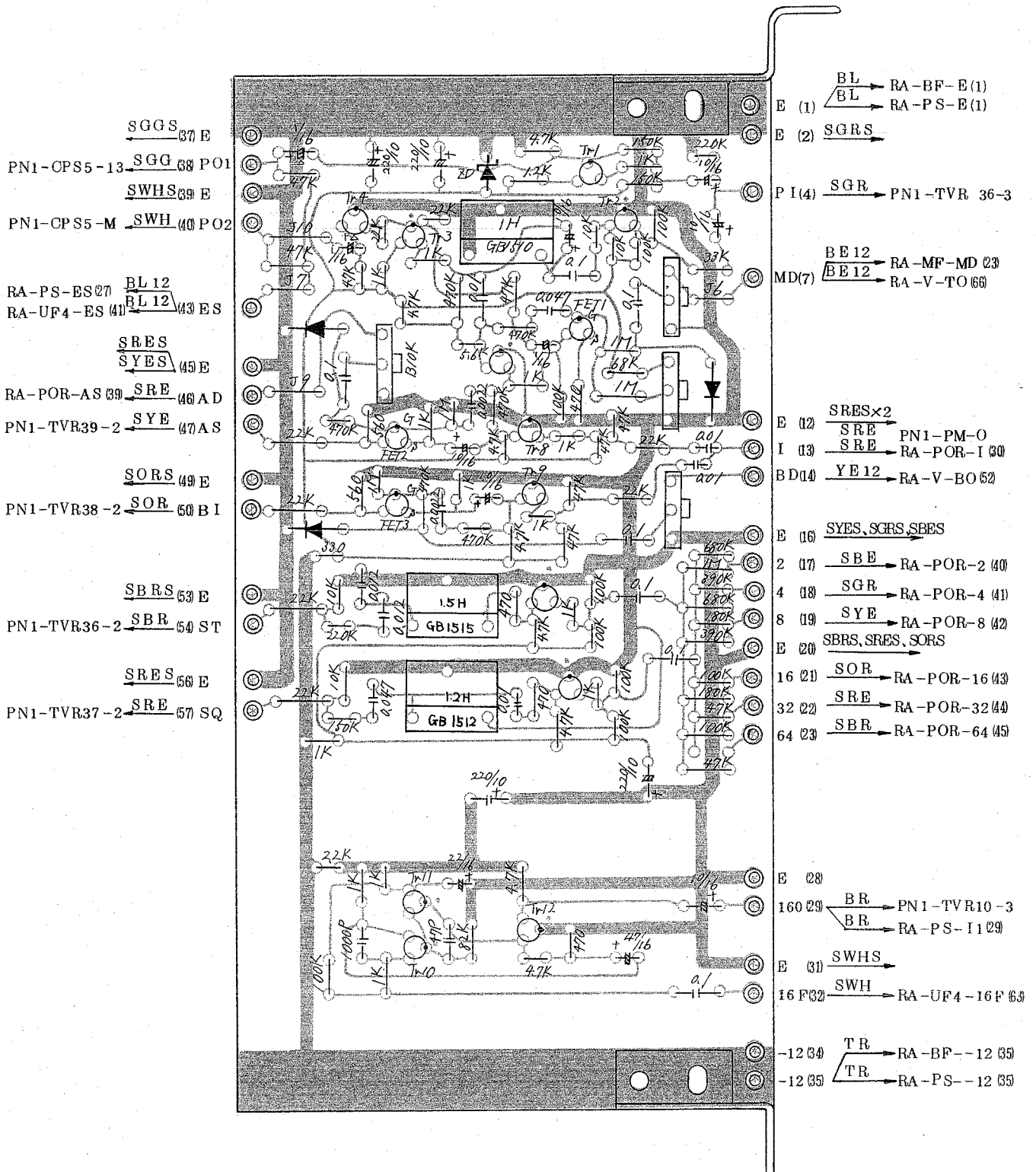




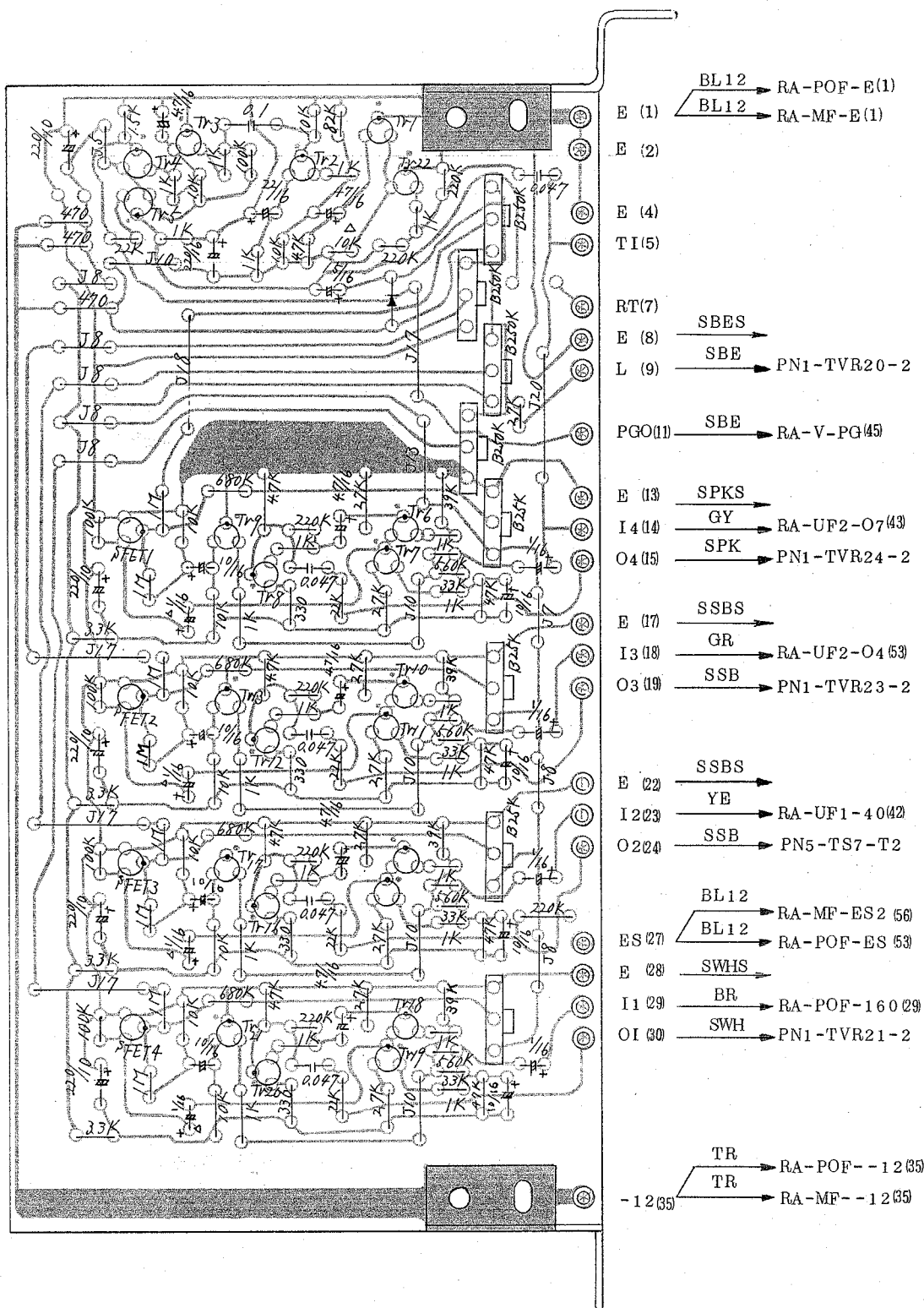
62. BF Circuit Board (NA021760) and Wiring



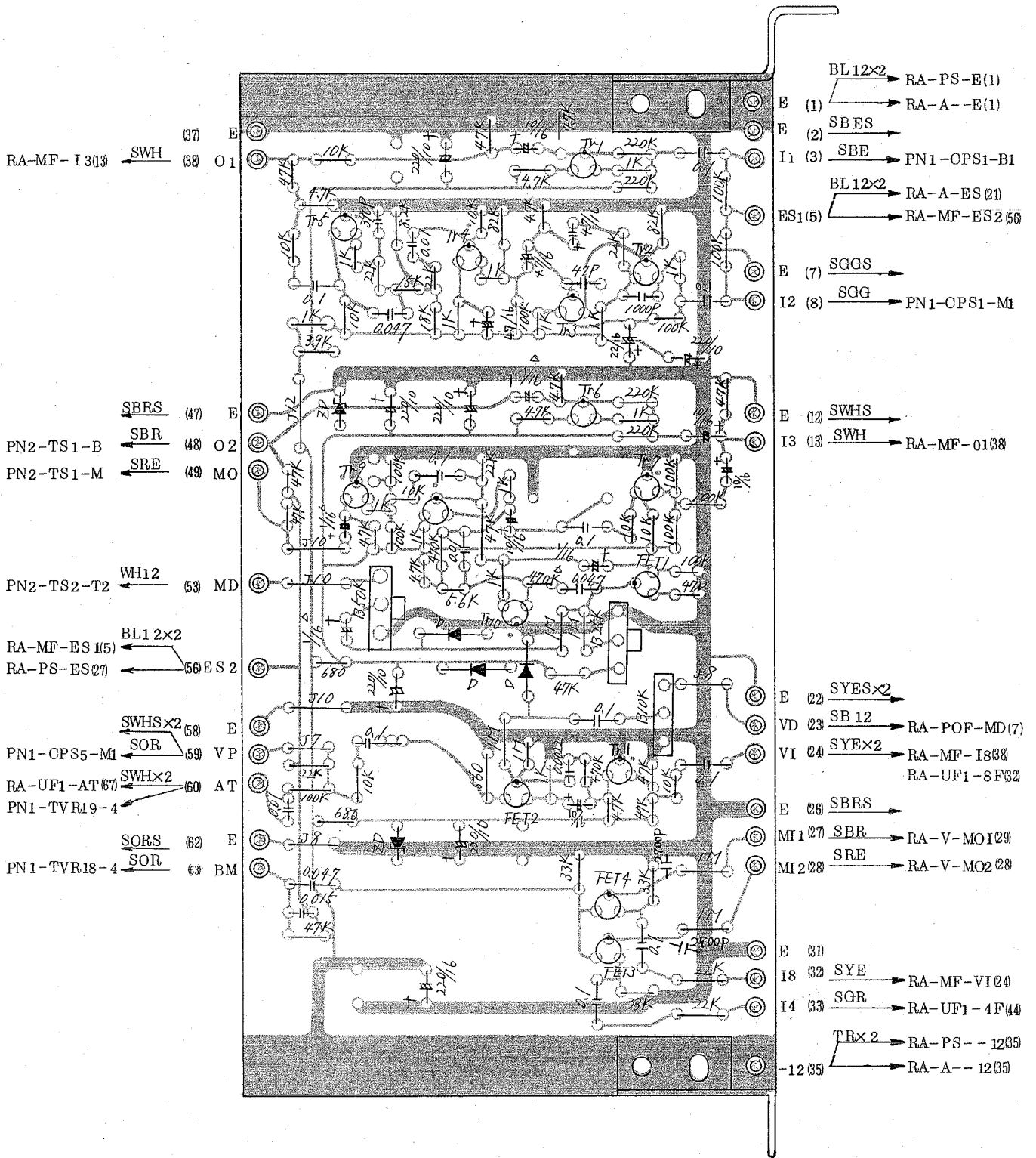
63. POF Circuit Board (NA021800) and Wiring



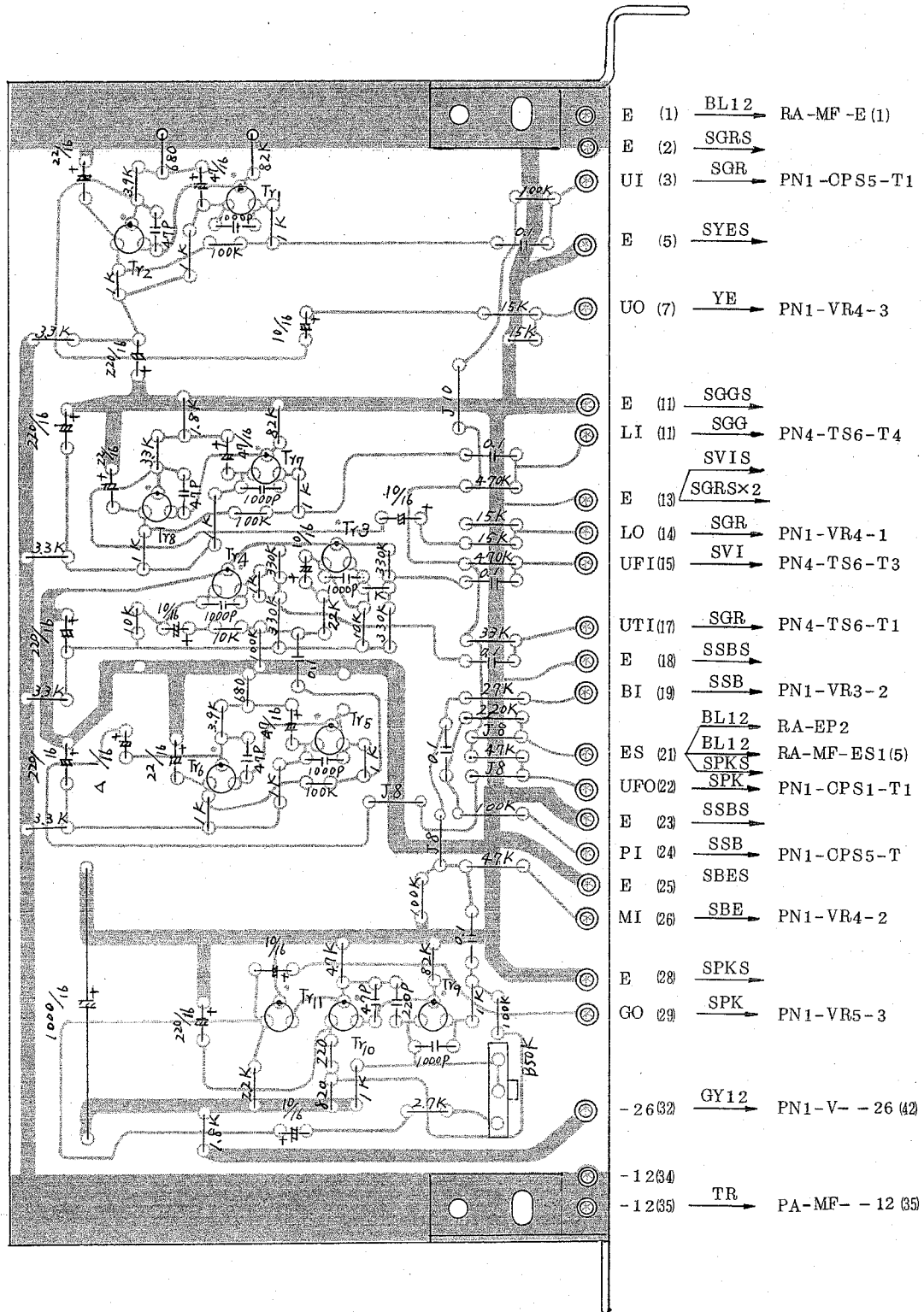
64. PS Circuit Board (NA021810) and Wiring



### 65. MF Circuit Board (NA021820) and Wiring

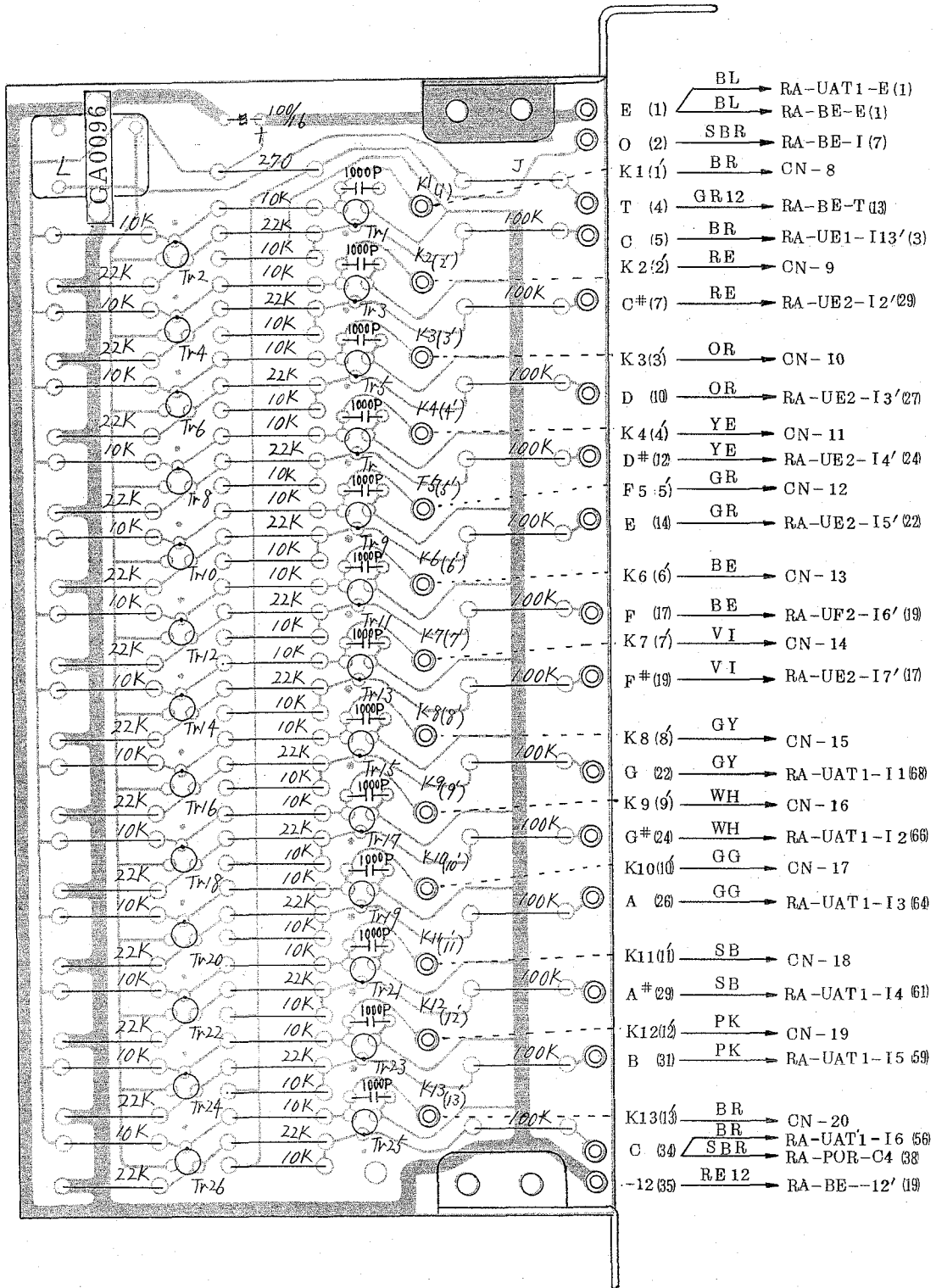


66. A Circuit Board (NA021830) and Wiring

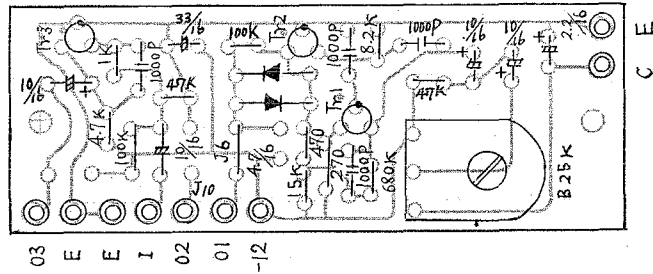




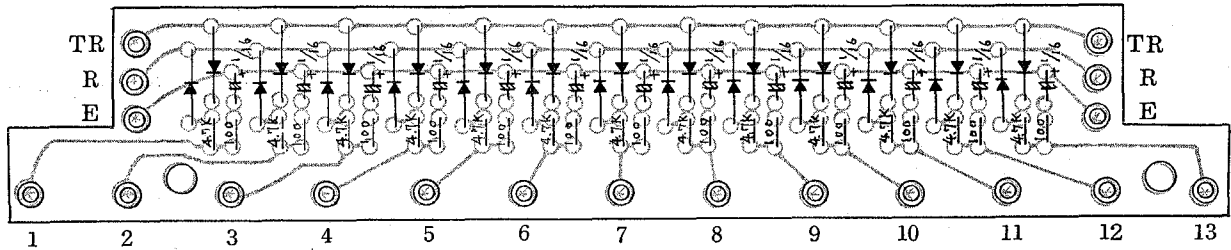
67. BM Circuit Board (NA042540) and Wiring



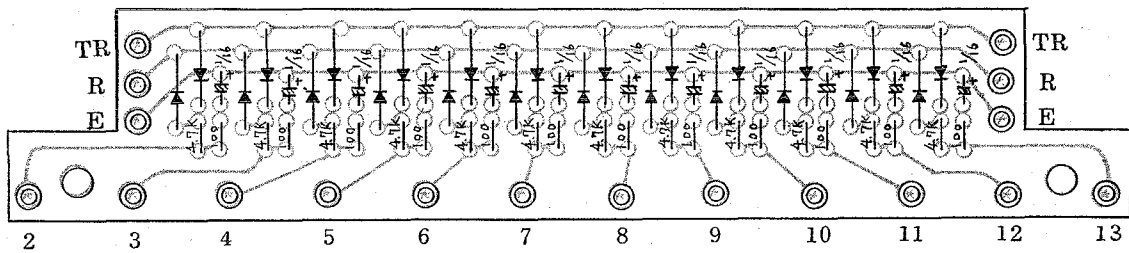
68. TV Circuit Board (NA021840)



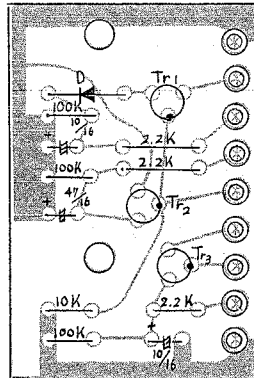
69. TR1 Circuit Board (NA 021850)



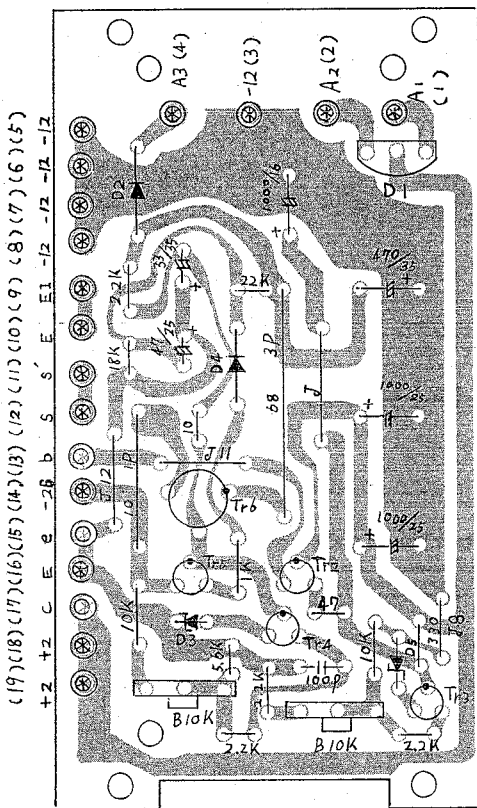
70. TR2 TR5 Circuit Board (NA021860)



71. TRS Circuit Board (NA022490)



72. PU Circuit Board (NA022480)



Carbon resistor	$10\Omega\frac{1}{4}P\pm 10\%$	1
"	$47\Omega$ "	1
"	$330\Omega$ "	1
"	$1K\Omega$ "	1
"	$2.2K\Omega$ "	4
"	$5.6K\Omega$ "	1
"	$10K\Omega$ "	2
"	$18K\Omega$ "	1
"	$22K\Omega$ "	1
Metal oxide resistor	$10\Omega 1P\pm 10\%$	1
"	$68\Omega 3P\pm 10\%$	1
Ceramic capacitor	$100PPF\ 500\ V$	1
Electrolytic capacitor	$33\mu F\ 35V$	1
"	$47\mu F\ 25V$	1
"	$470\mu F\ 35V$	1
"	$1,000\mu F\ 16V$	1
"	$1,000\mu F\ 25V$	2
Transistor	23A561 O/Y	2
"	2SA537 (A) (B) (C)	1
"	2SC734 O/Y	2
Diode	1S1555	1
"	10D-2	1
"	10DC-2	1
Zener diode	1S1715	2
Variable resistor	B-10K (18K3-1)	2

### 73. PN1 Wiring No.1

MANUAL PEDAL

RS Note 1

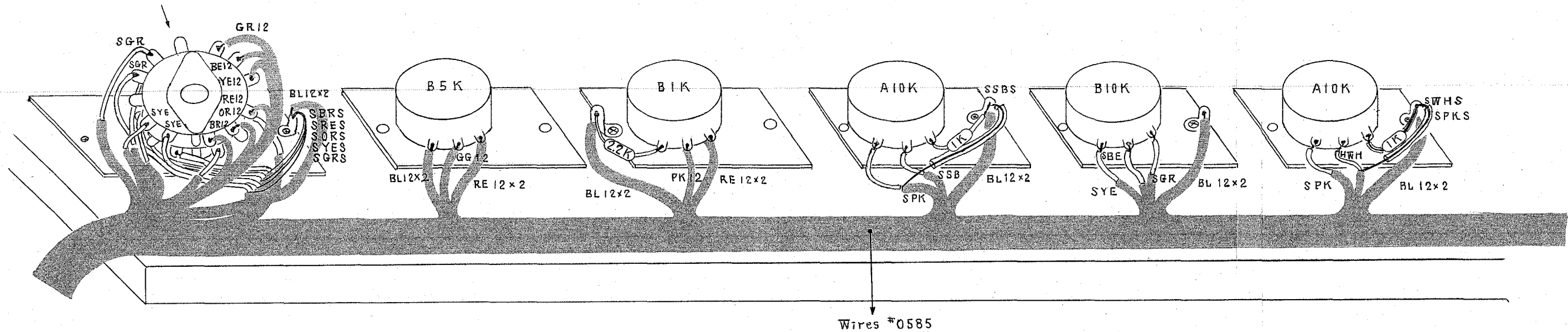
PITCH  
VR 1

UPPER SUSTAIN  
VR 2

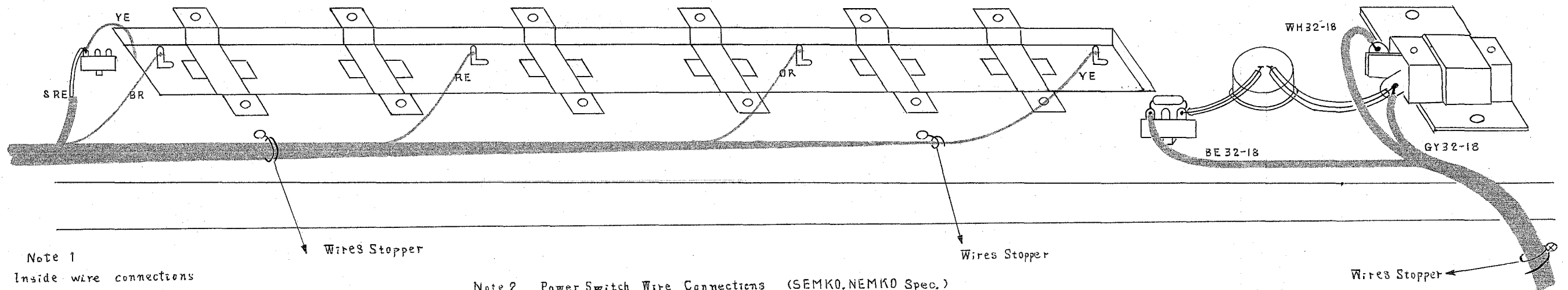
BASS VOLUME  
VR 3

MANUAL BALANCE  
VR 4

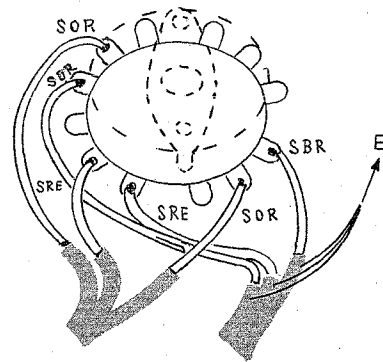
MASTER VOLUME  
VR 5



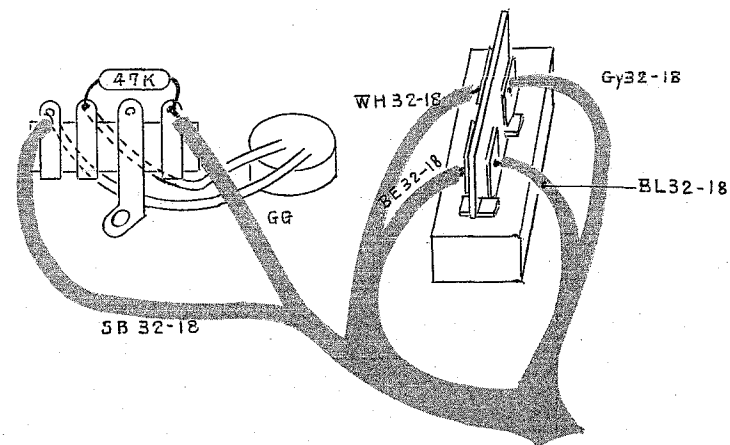
PORTAMENTO



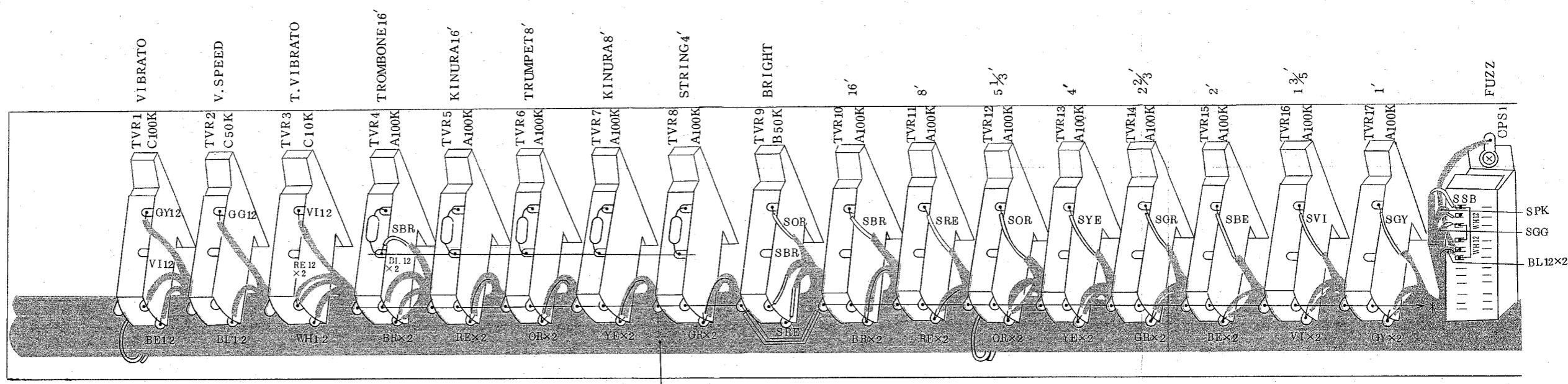
Note 1  
Inside wire connections



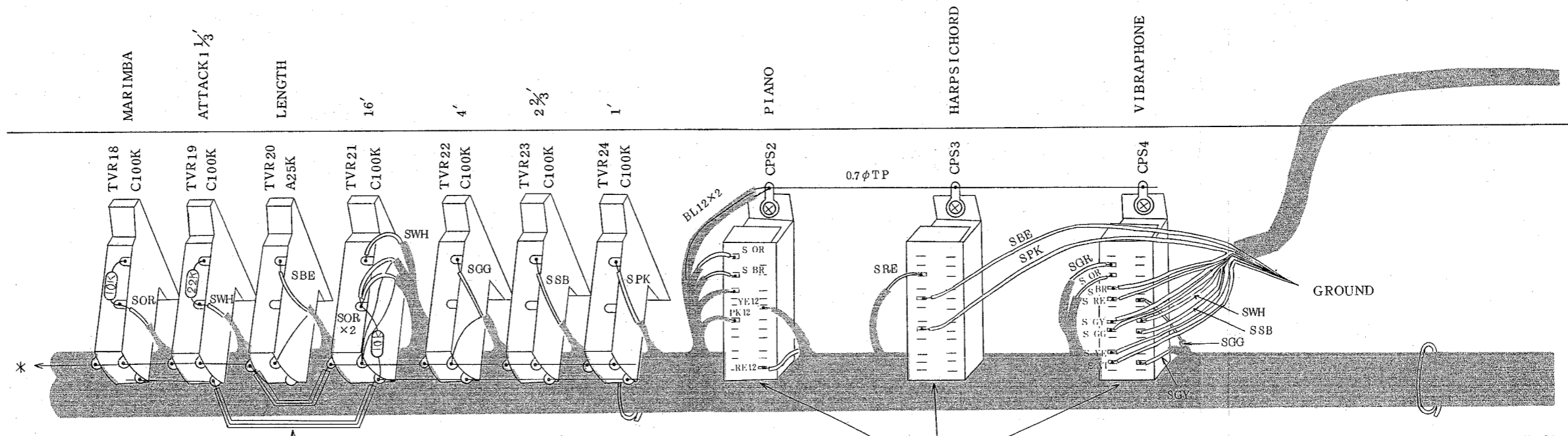
Note 2. Power Switch Wire Connections (SEMKO, NEMKO Spec.)



No. 2



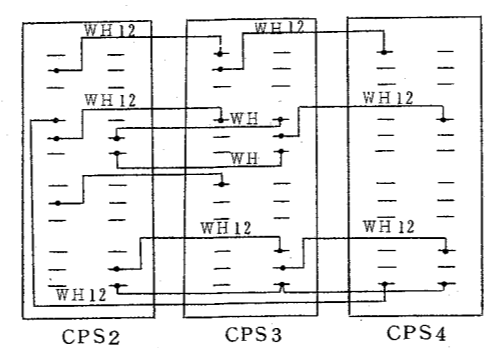
wires #0585



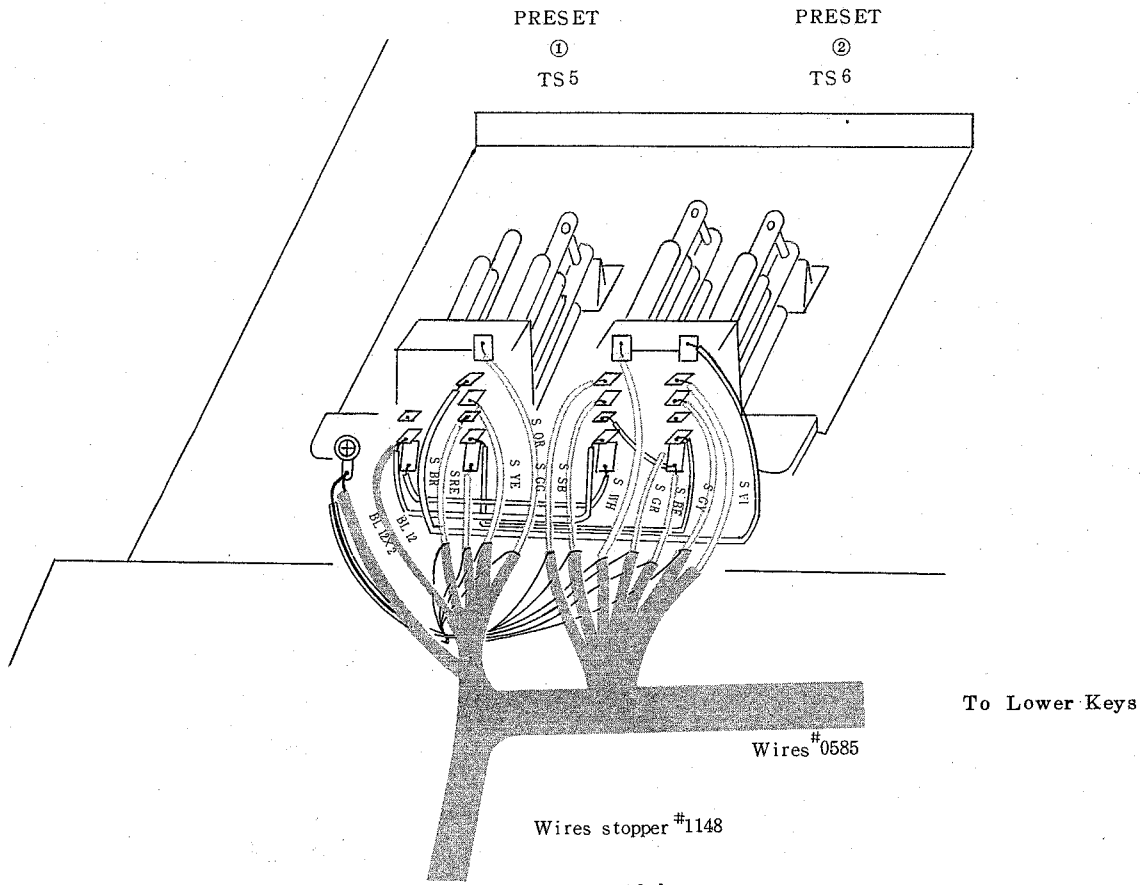
elastic tube

note

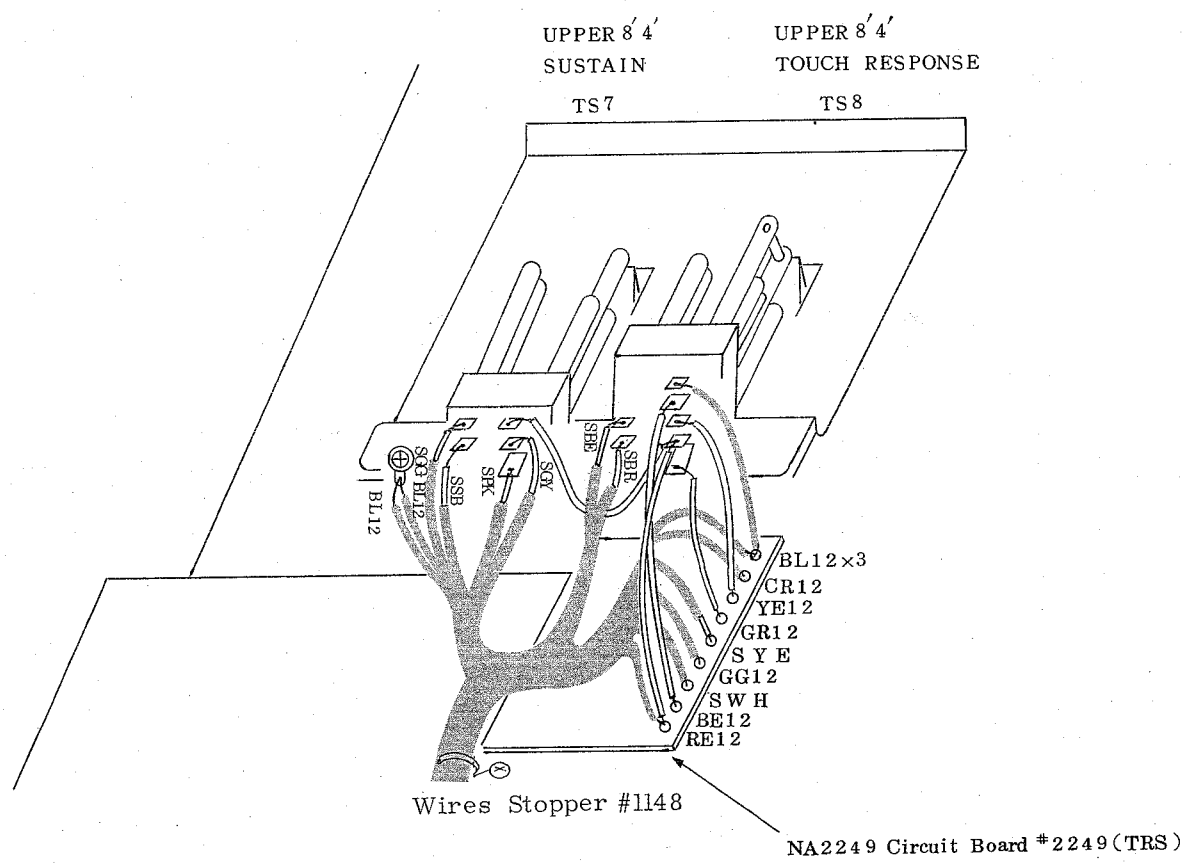
note



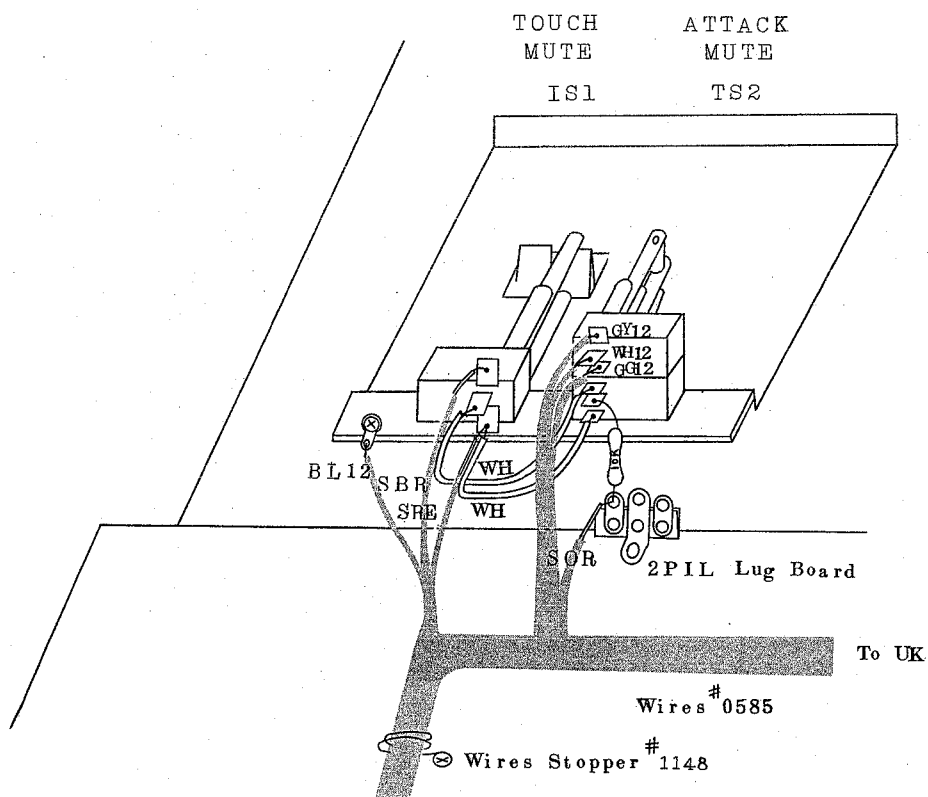
### 77. PN4 Wiring



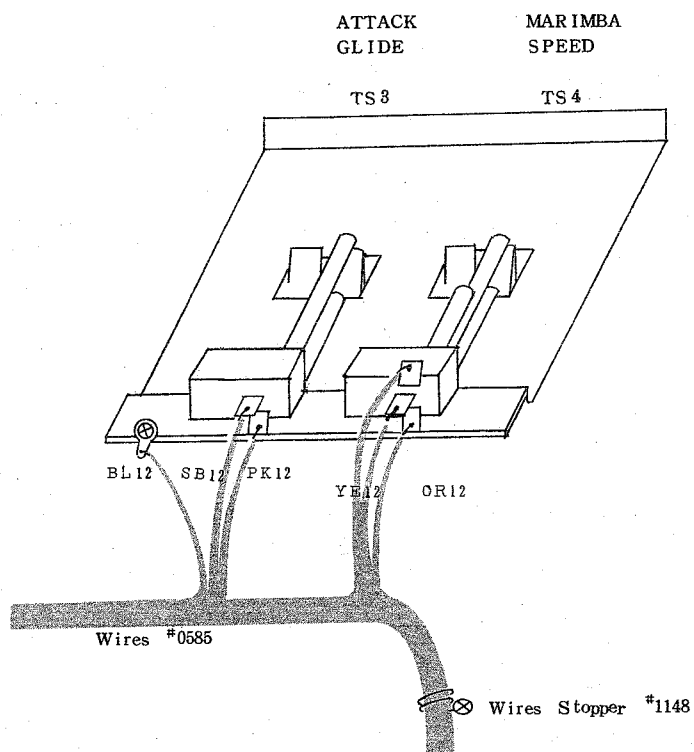
### 78. PN5 Wiring



### 75. PN2 Wiring

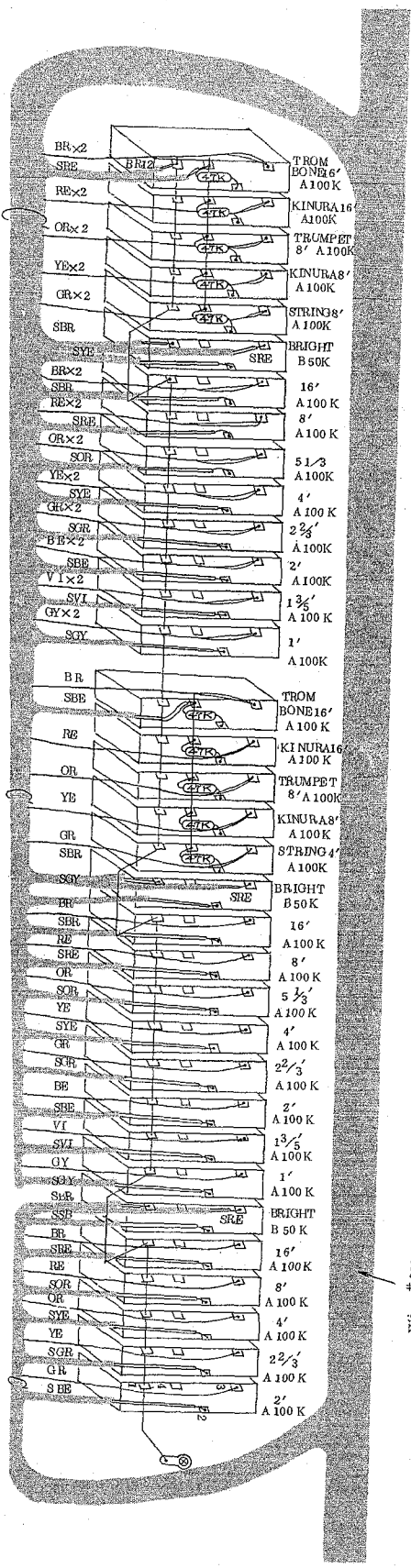


### 76. PN3 Wiring



### 74. Preset Board Wiring

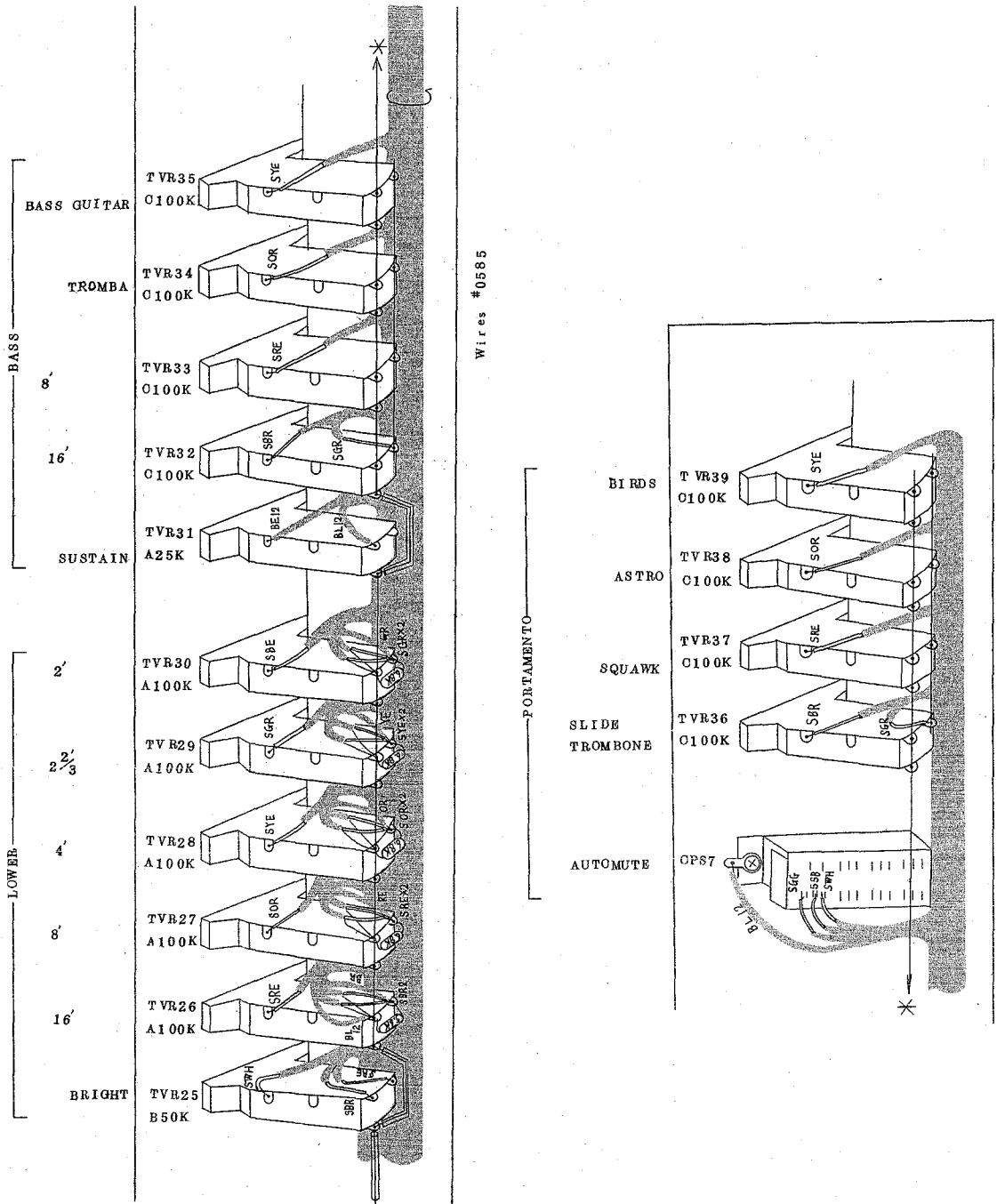
Wires Stopper# 1148



Wires# 0585

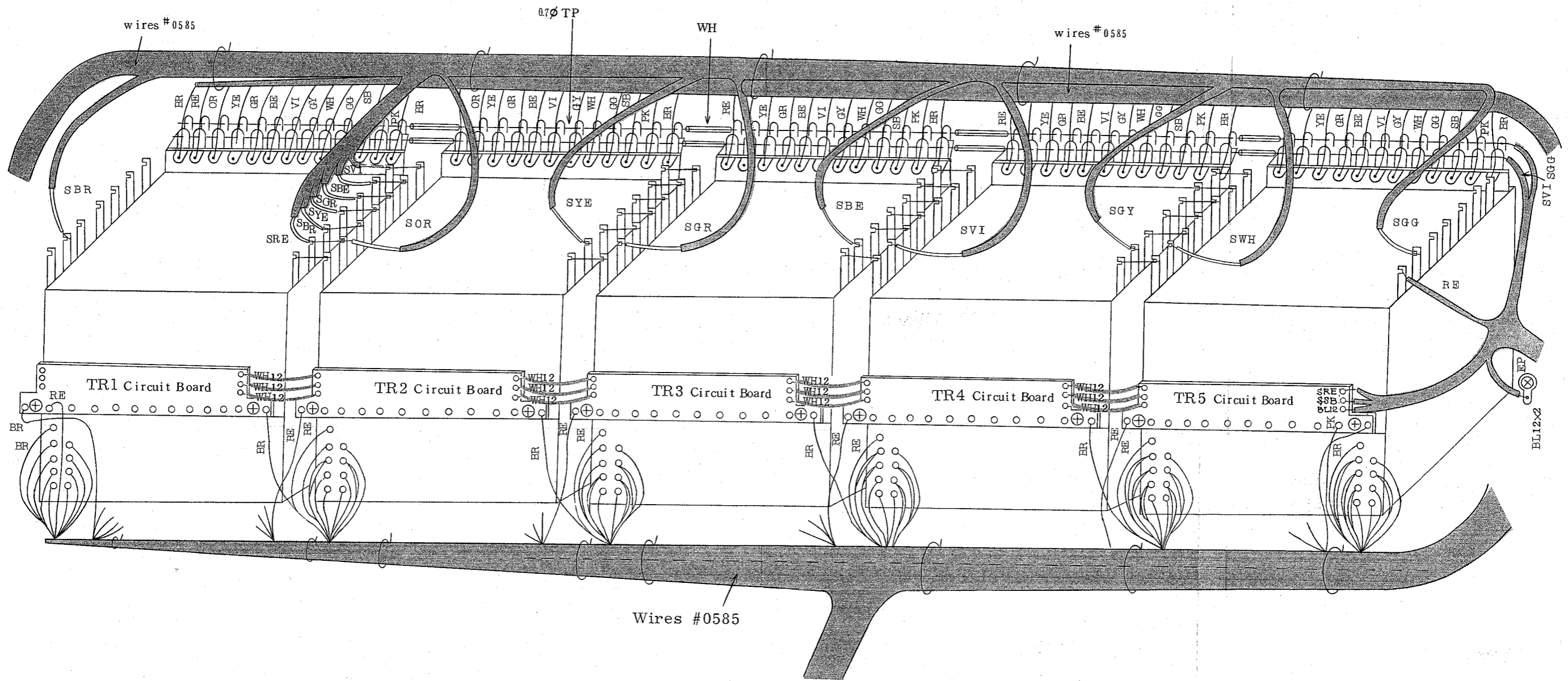


No. 3

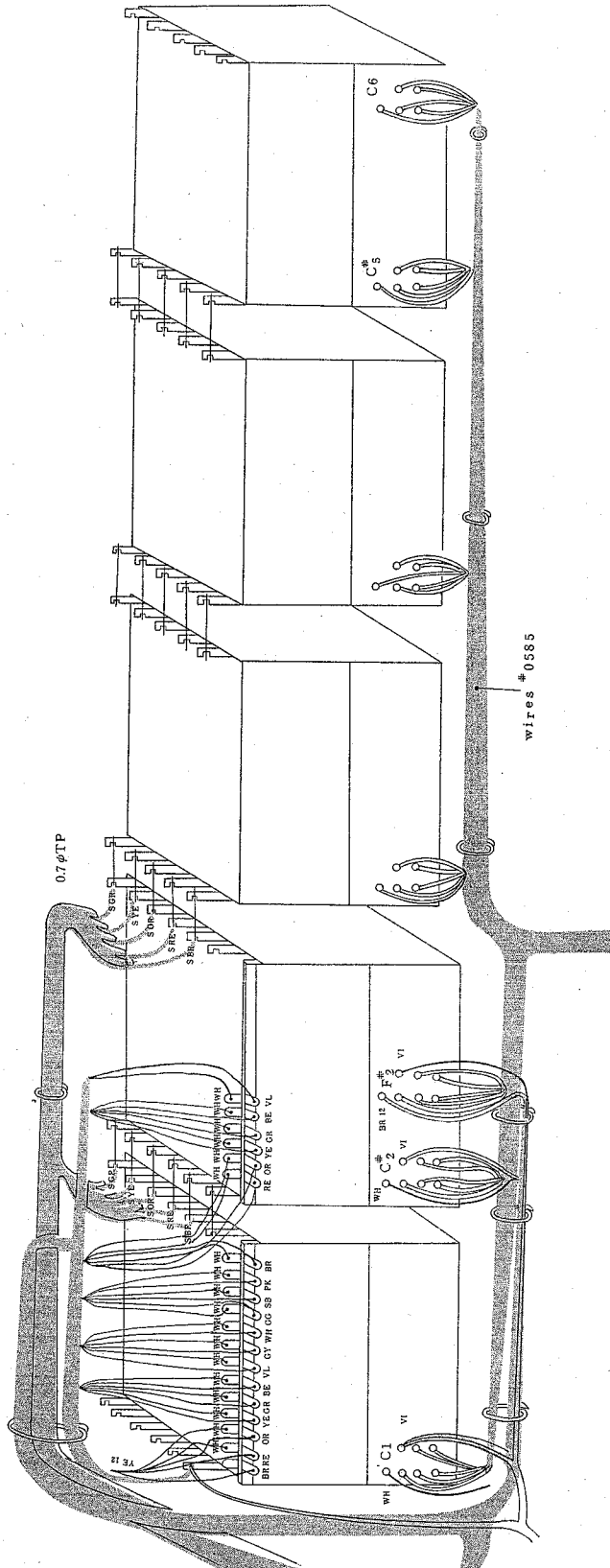


79. UK Wiring

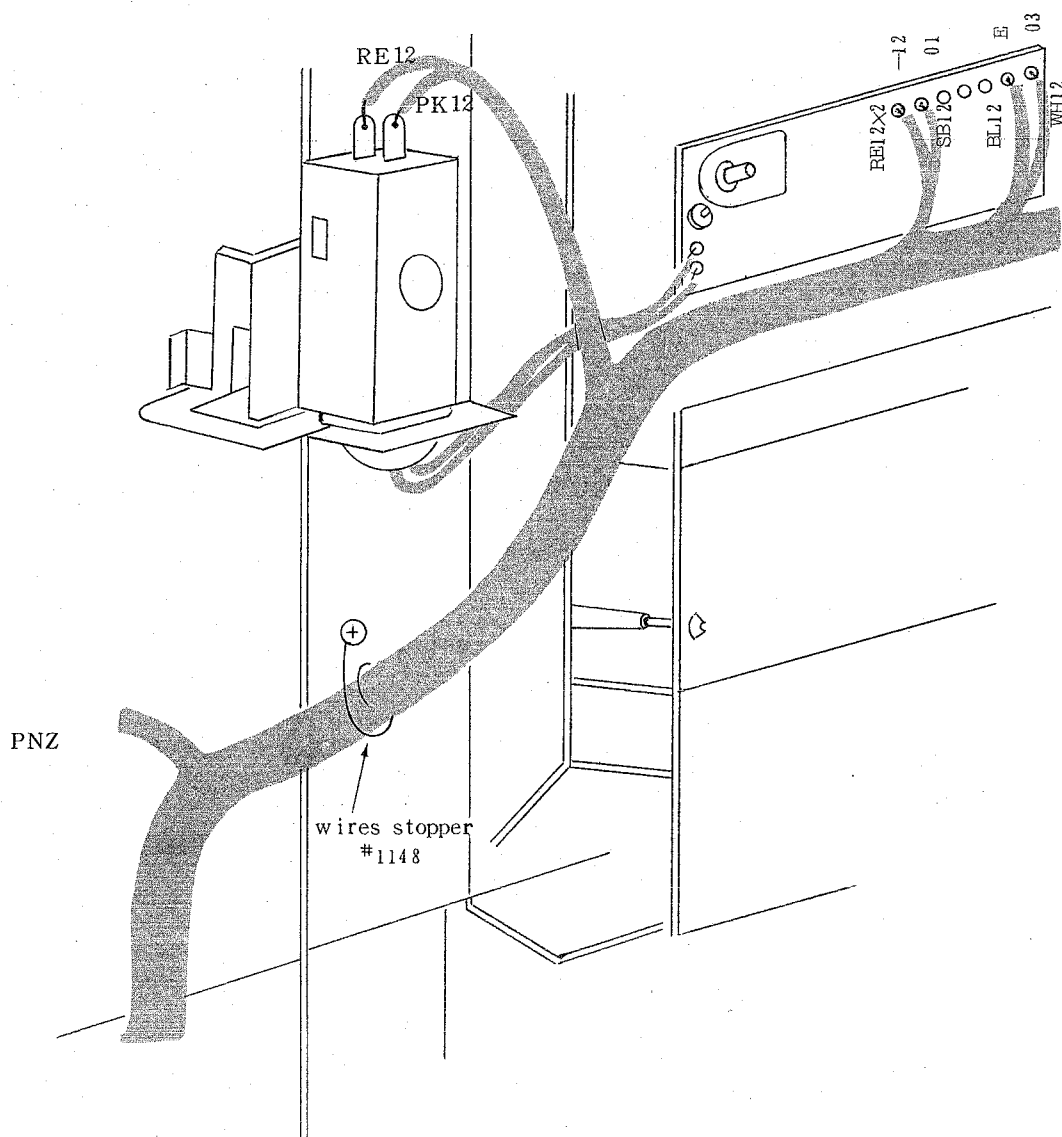
YC-45D



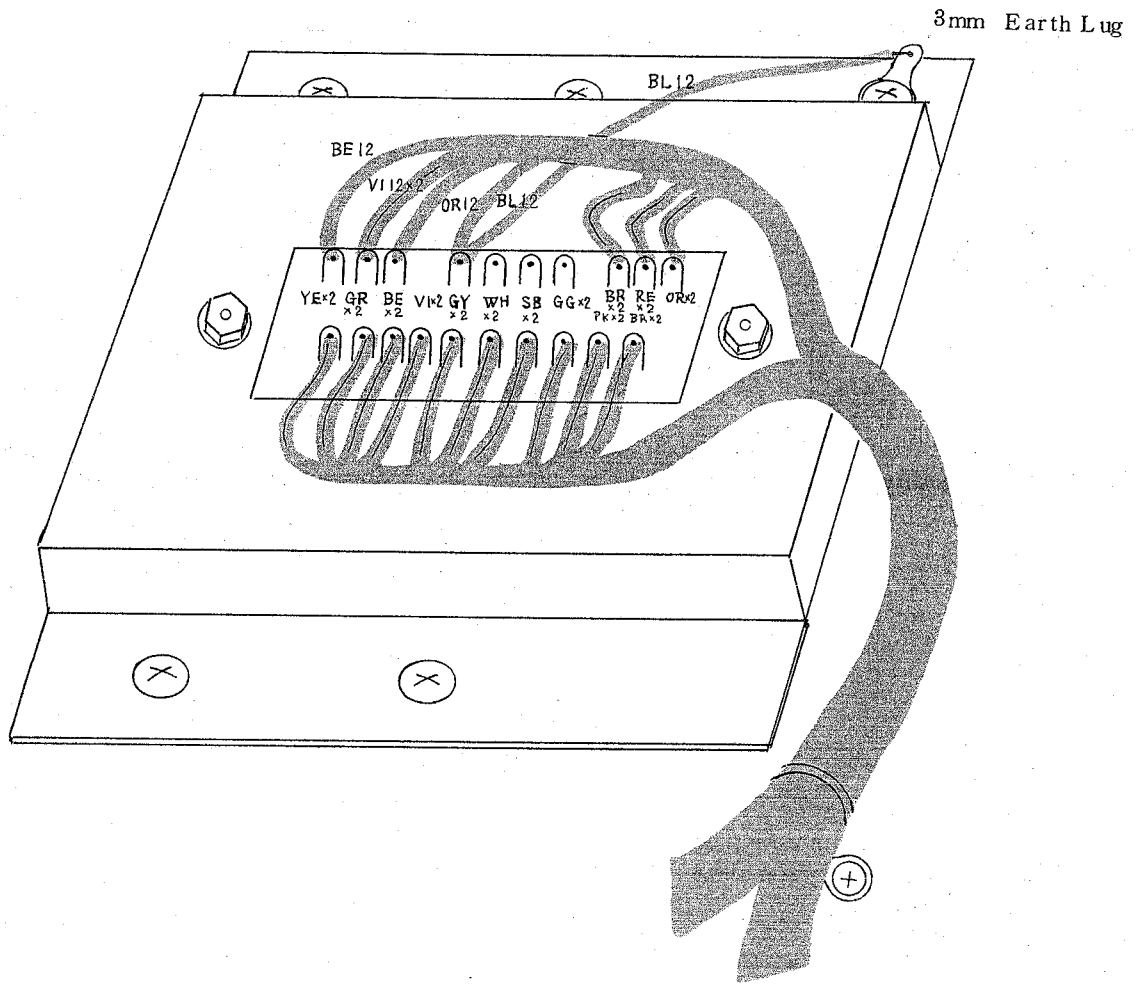
### 80. LK Wiring



### 81. TV Wiring

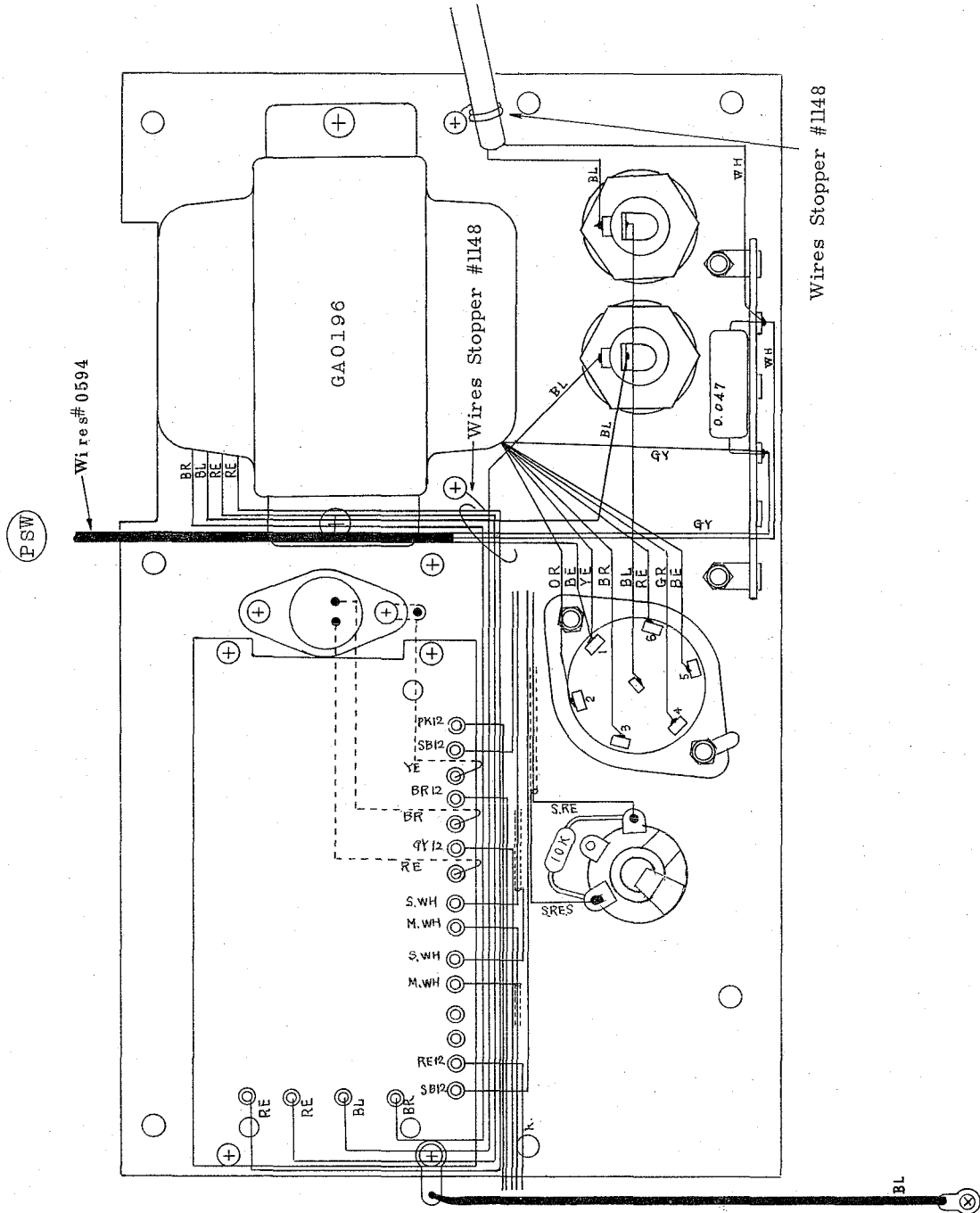


### 82. CN Wiring

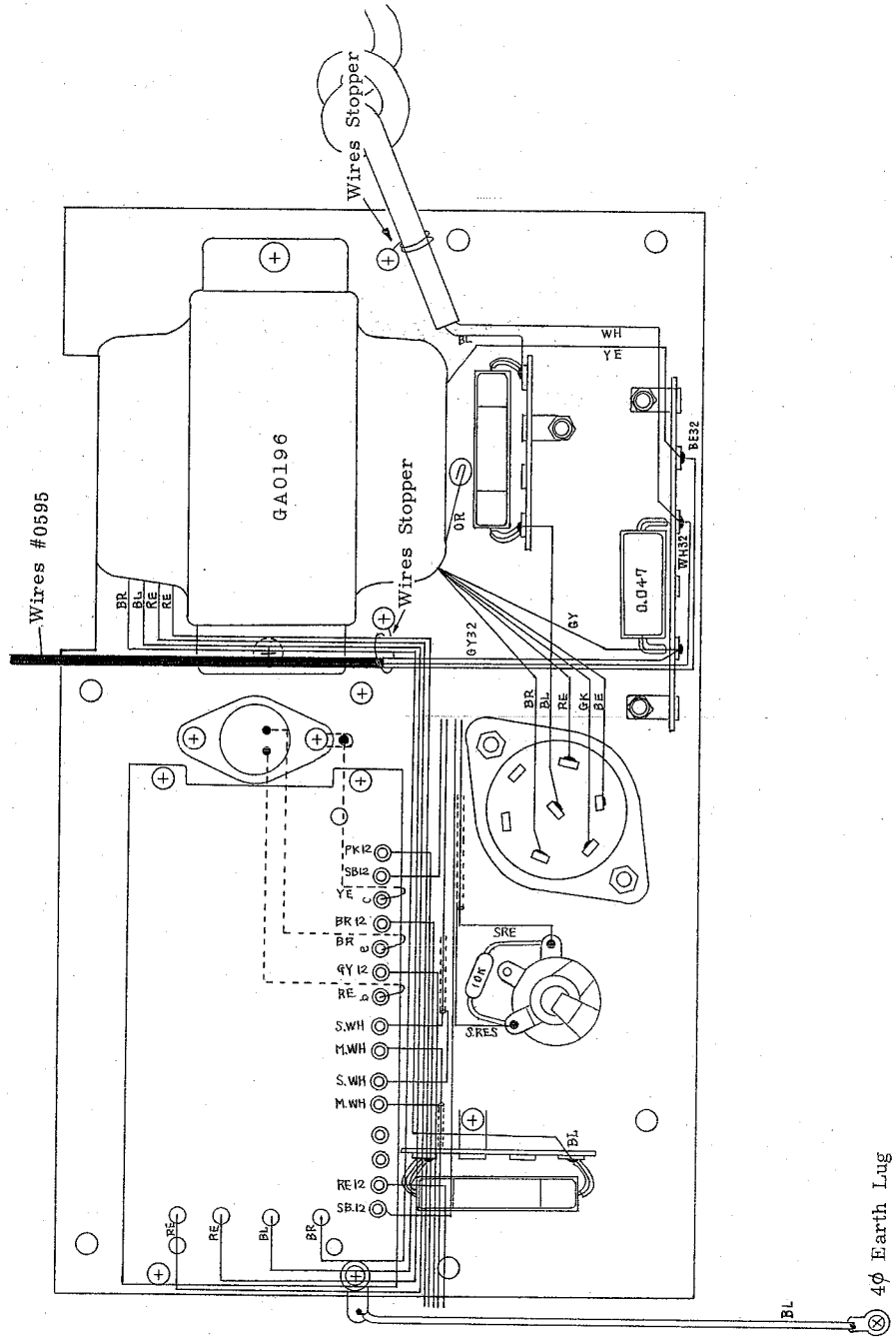


### 83. Power Supply Unit Wiring

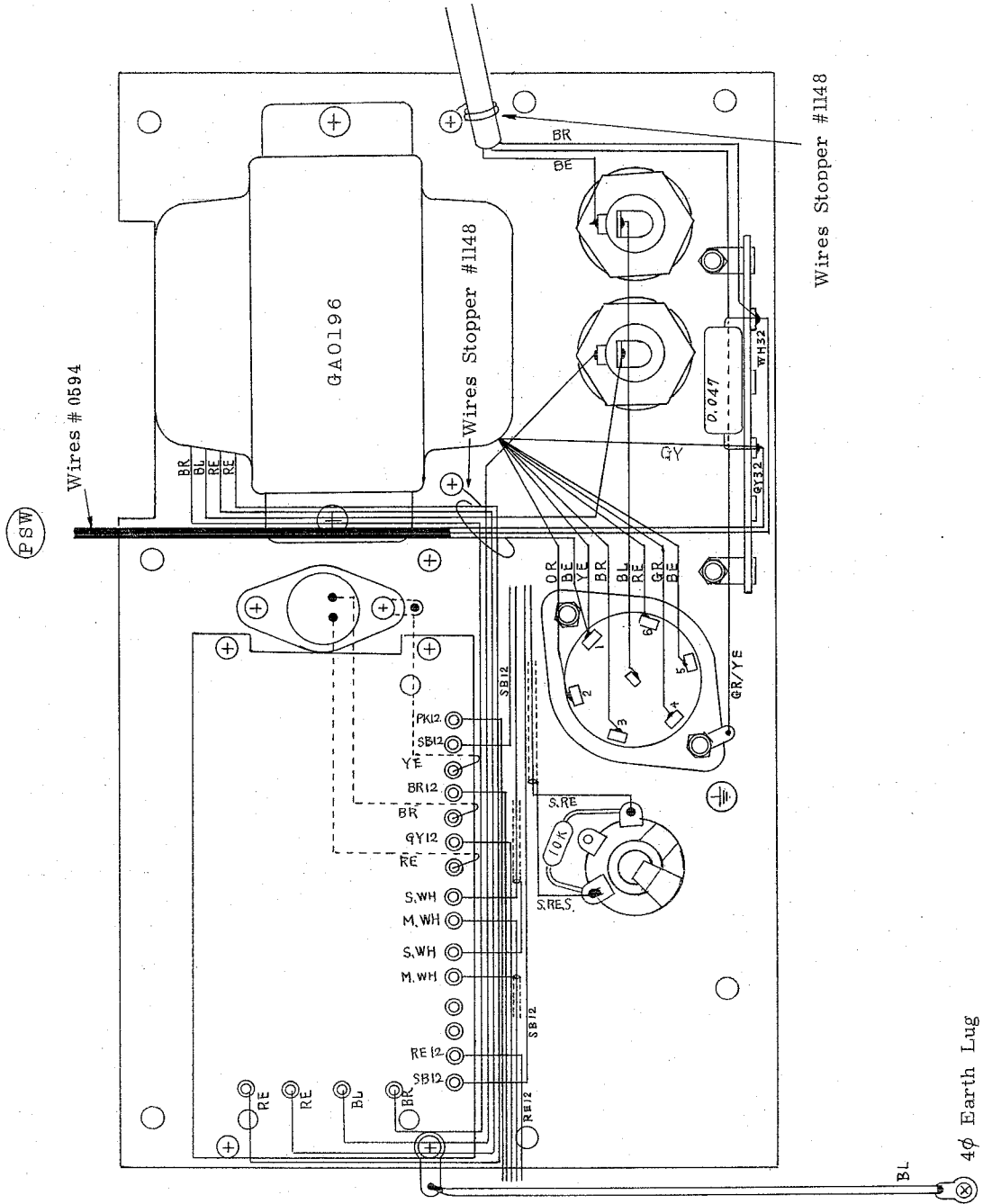
#### (1) General Spec.



(2) UL CSA Spec.

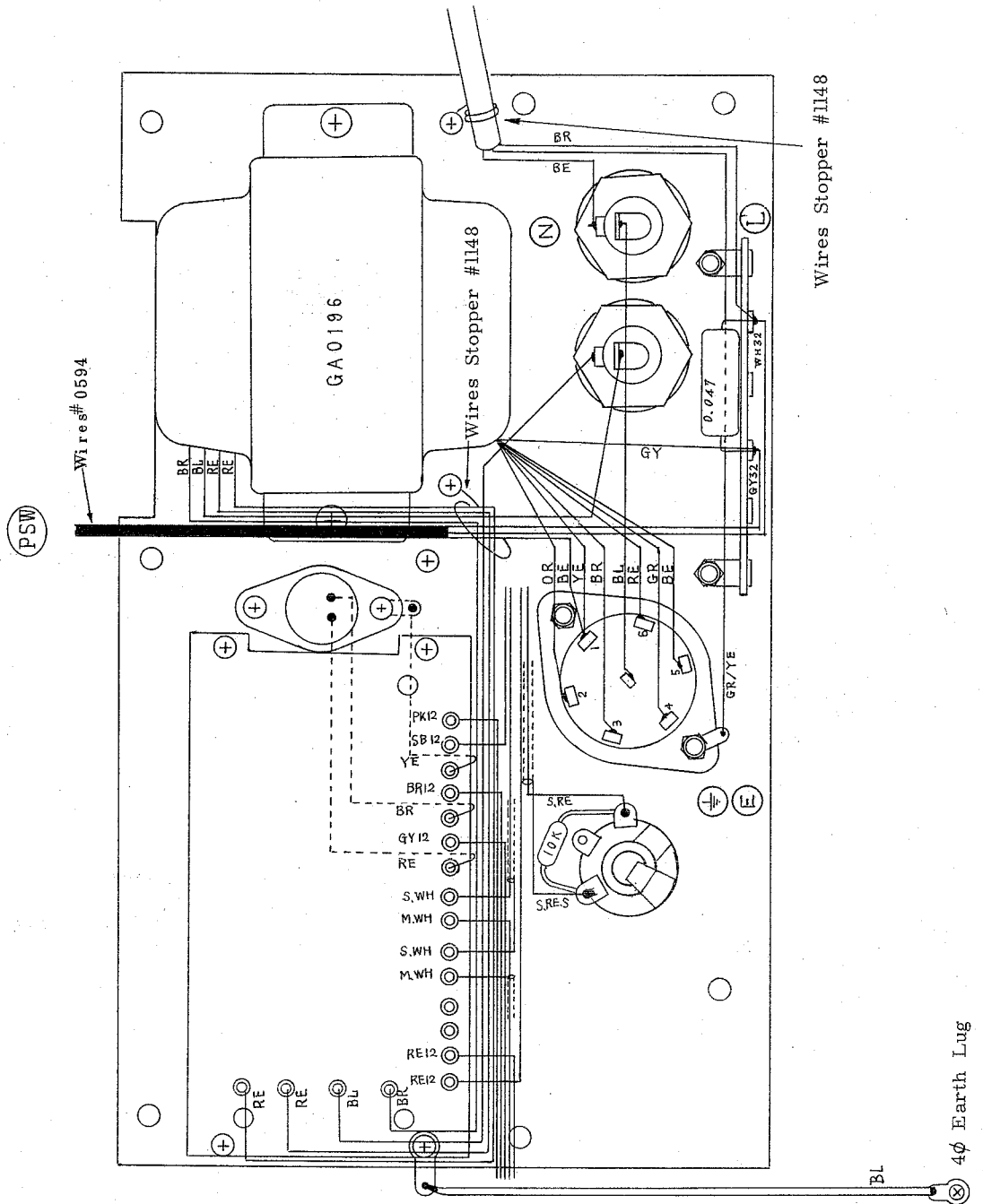


(3) Australia Spec.

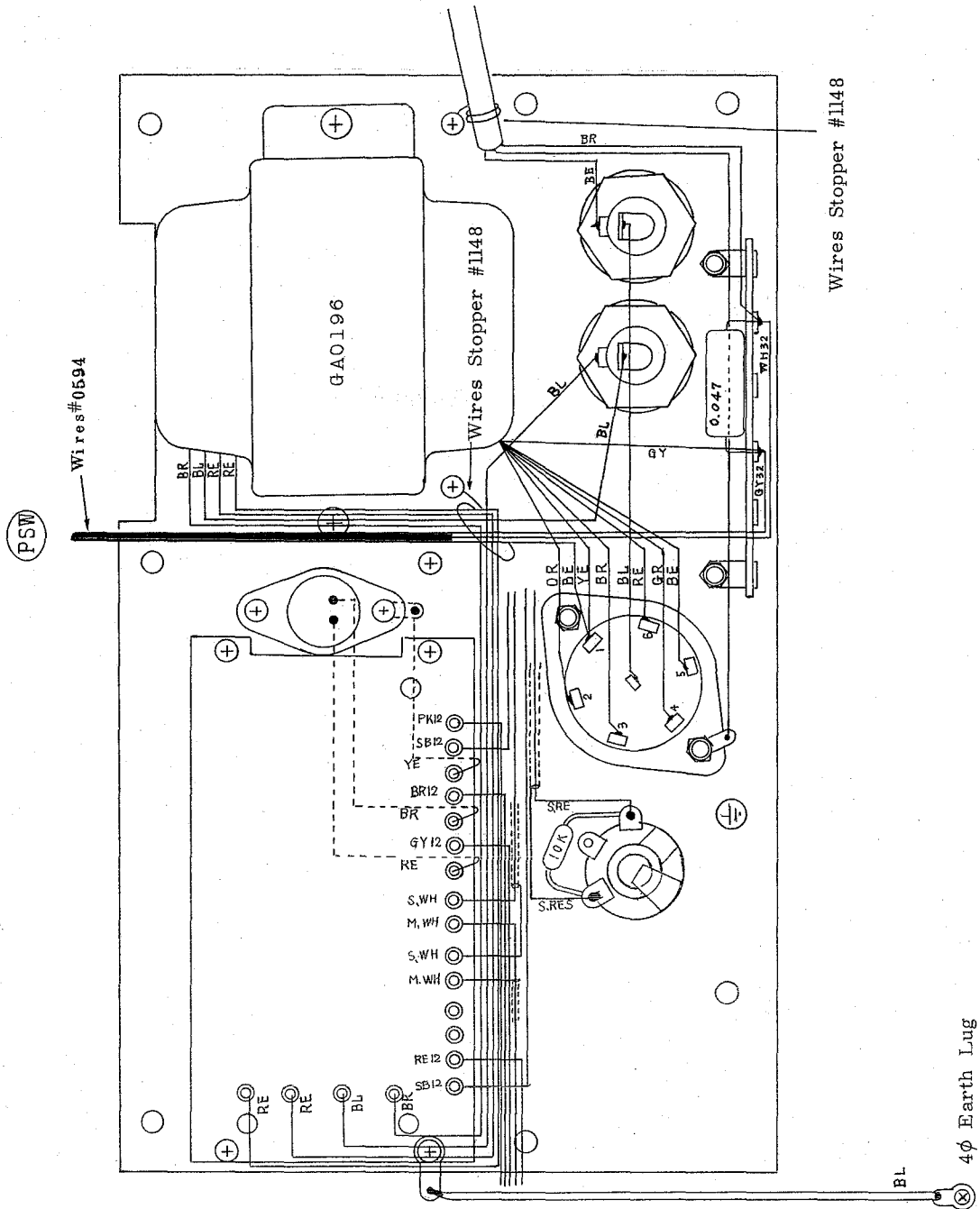




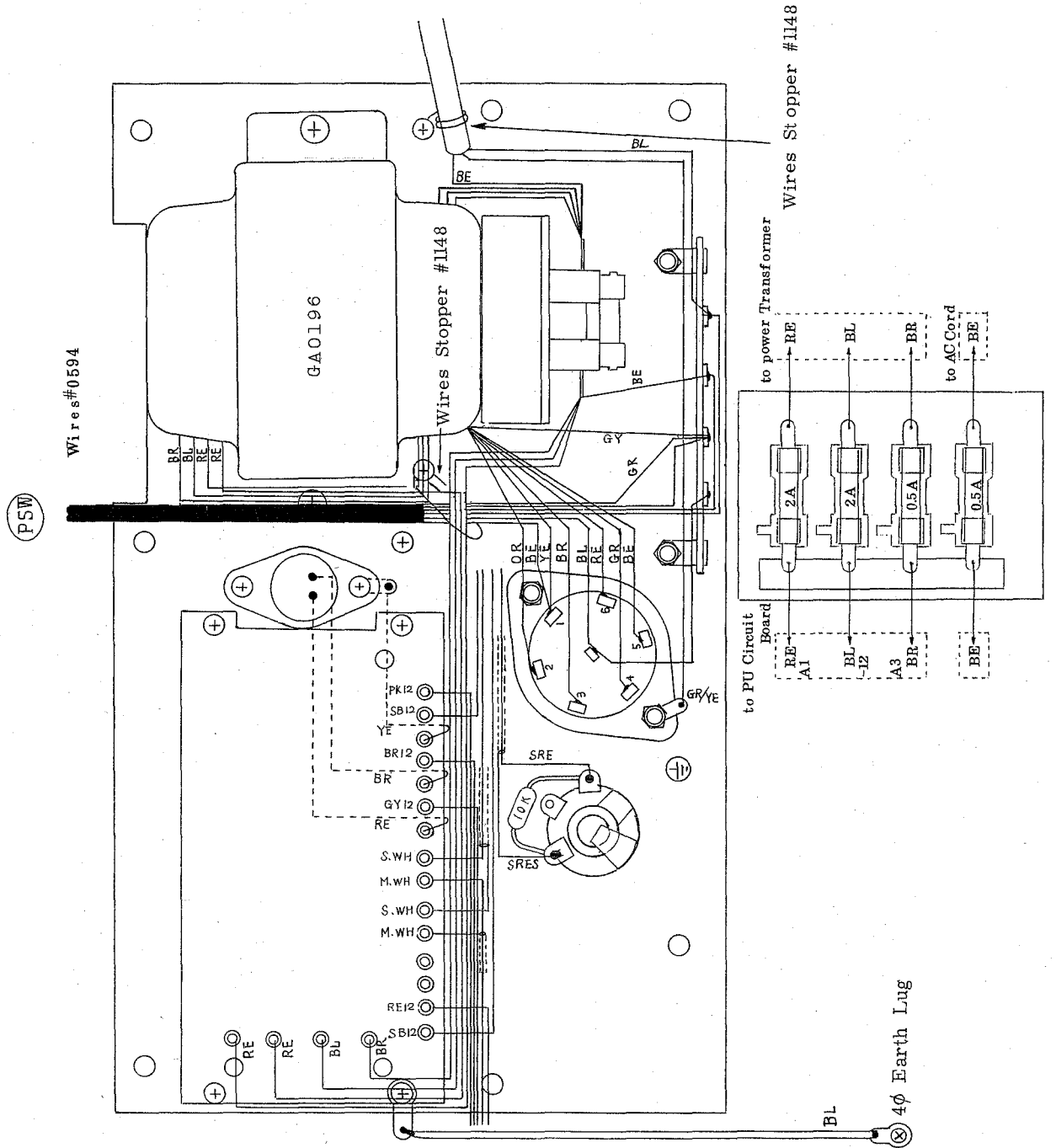
(4) Europe Spec.



(5) South Africa Spec.



(6) Sem ko Nemko Spec



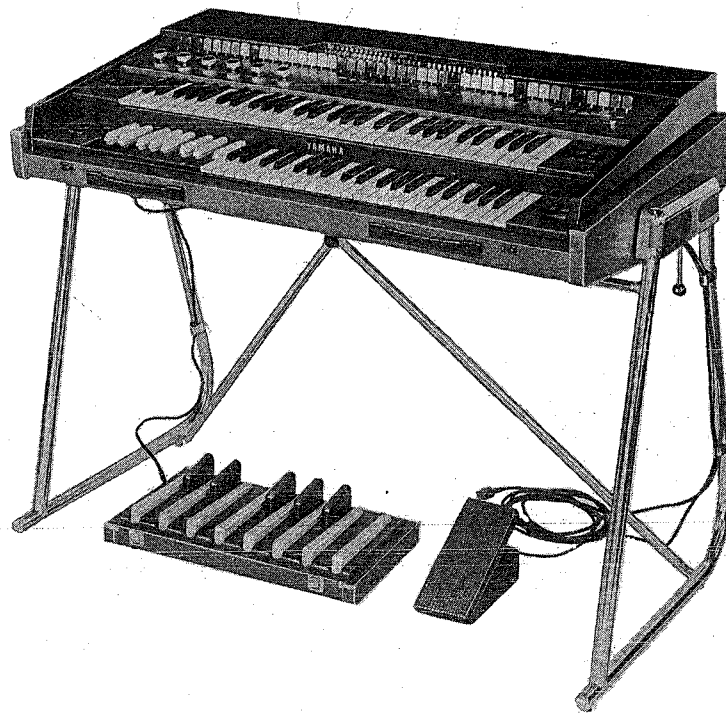
Wires#0594

PSW

# YAMAHA COMBO ORGAN

YC-45 D

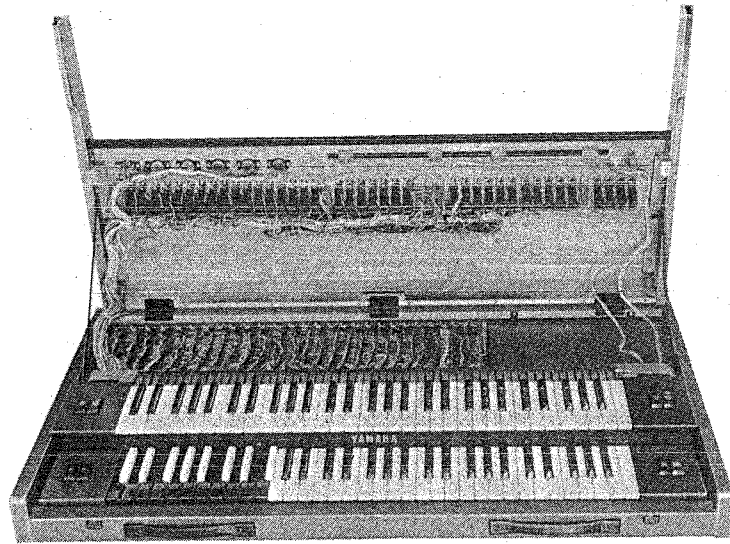
## Parts List



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4. Bass Pedal BP-1 Parts List .....	12

# 1. Circuit Boards, Power Units



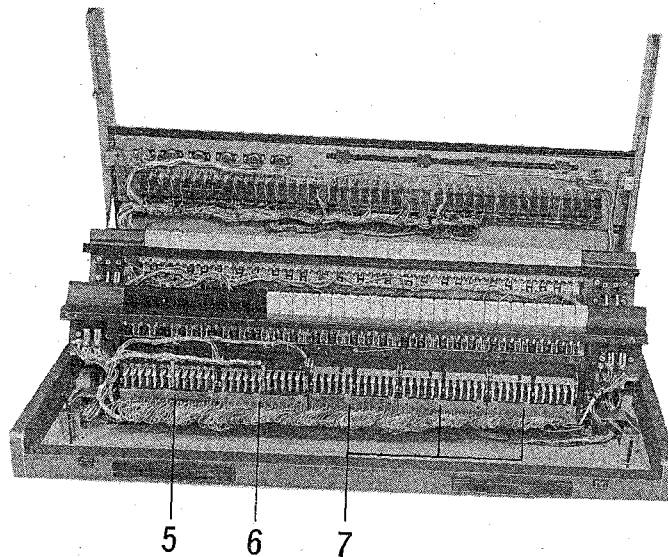
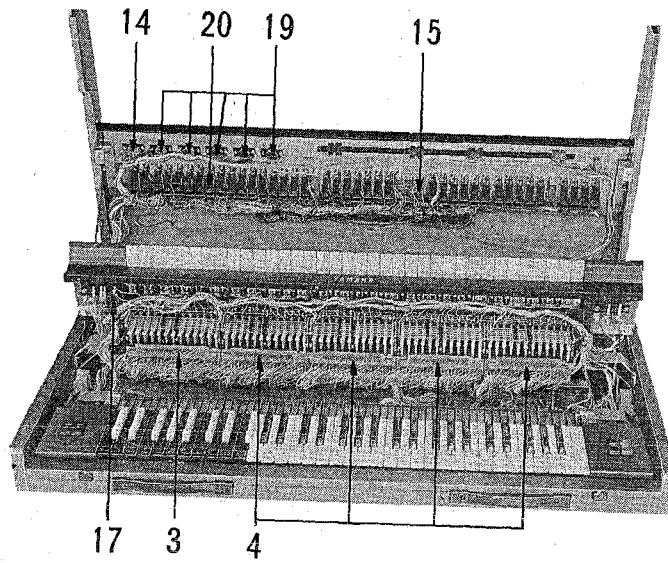
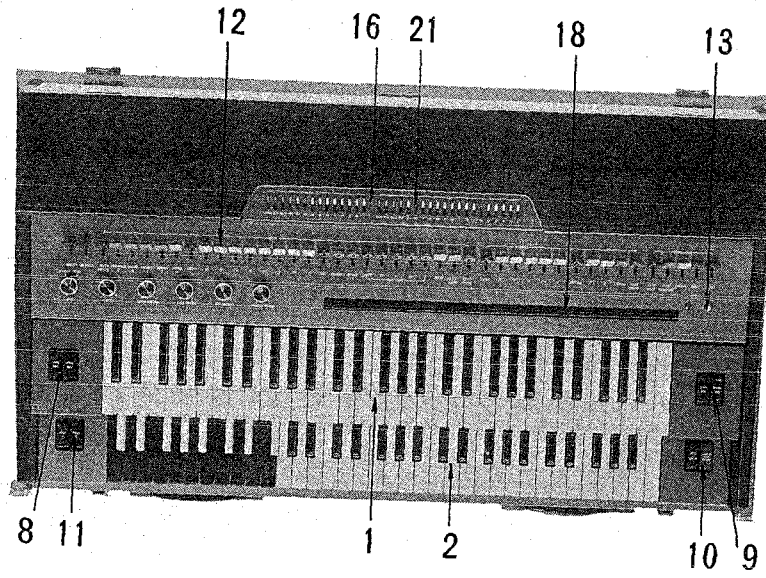
Ref. No.	Part No.	Description	シ	ト	Remarks	Common Models
	301225NA021580	M Circuit # 1180			-NA804380	
	301225NA021590	D - do. - # 1050-2				
	301225NA021600	I3 - do. - # 1147-2				
	301225NA021610	I2 - do. - # 1147-2				
	301225NA021620	I1 - do. - # 1147-2				
	301225NA021630	UE5 - do. - # 1148				
	301225NA021640	UE4 - do. - # 1148				
	301225NA021650	UE3 - do. - # 1148				
	301225NA021660	UE2 - do. - # 1148				
	301225NA021670	UE1 - do. - # 1148				
	301225NA021680	UAT3 - do. - # 1149-1				
	301225NA021690	UAT2 - do. - # 1149-1				
	301225NA021700	UAT1 - do. - # 1149-1				
	301220NA042540	BM - do. - # 4003-1				
	301225NA021710	BE - do. - # 1150-2				
	301225NA021720	V - do. - # 1151-2				
	301225NA021730	POR - do. - # 1152-3				
	301225NA021740	UF1 - do. - # 1153-3				
	301225NA021750	UF2 - do. - # 1154-2				
	301225NA021760	UF3 - do. - # 1155-2				
	301225NA021770	UF4 - do. - # 1156-3				
	301225NA021780	LF - do. - # 1155-2				
	301225NA021790	BF - do. - # 1157-1				
	301225NA021800	POF - do. - # 1158-3				
	301225NA021810	PS - do. - # 1159-4				
	301225NA021820	MF - do. - # 1160-3				
	301225NA021830	A - do. - # 1161-4				

Ref. No.	Part No.	Description	Remarks	Common Models
	401000GC041710	Master Coil	マスターコイル	
	401000GC042710	- do. -	"	
	401000GC041740	- do. -	"	
	401000GC042740	- do. -	"	
	GB014330	Filter Coil	フィルターコイル	servicing 401000GB054330
	GB014680	- do. -	"	- do. - 401000GB054680
	GB015100	- do. -	"	- do. - 401000GB055100
	GB015120	- do. -	"	- do. - 401000GB055120
	GB015150	- do. -	"	- do. - 401000GB055150
	GB015270	- do. -	"	- do. - 401000GB055270
	GB015390	- do. -	"	- do. - 401000GB055390
	GB015820	- do. -	"	- do. - 401000GB055820
	401000GA009600	Choke Coil	チョークコイル	
		Solid Aluminum Capacitor 16V 0.22μF	ソリッドアルミ 電解コンデンサ	servicing 401000FP155220
		- do. - 16V 0.33μF	"	- do. - 401000FP155330
		- do. - 16V 1 μF	"	- do. - 401000FP156100
	401000HL425820	Metal Oxide Resistor 820Ω 2P	酸化金属被膜抵抗	
	401000HT140180	Variable Resistor B 5KΩ (18K3-1)	可変抵抗	
	401000HT140190	- do. - B 10KΩ (- do. -)	"	
	401000HT140210	- do. - B 25KΩ (- do. -)	"	
	401000HT140220	- do. - B 50KΩ (- do. -)	"	
	401000HT140250	- do. - B 250KΩ (- do. -)	"	
	401000iA056170	Transistor 2SA561	トランジスタ	
	- do. - 2SC458		"	servicing 401000iC232030
	401000iE000010	FET(Field Effect Transistor) 2SK30(Y)	F E T	
	401000iF000010	Diode 1N34A	ダイオード	
	401000iF000040	- do. - 1S1555	"	
	401000iF000100	Zener Diode 1S1715	ツェナー ダイオード	
		Integrated Circuit HD3111	I C	servicing 401000iG000940
	301200NB019250	Power Unit (General model)	電源ユニット	
	301200NB019260	- do. - (US & Canadian models)	"	
	301200NB019270	- do. - (Australian model)	"	
	301200NB019280	- do. - (European model)	"	
	301200NB019290	- do. - (South African model)	"	
	301200NB019300	- do. - (Swedish & Norwegian models)	"	
	401000GA019610	Power Transformer	電源トランス	
	401000LB200220	Voltage Selector	電圧切換器	LB0082
	401000LB200140	Jack	ジャック	LB0088

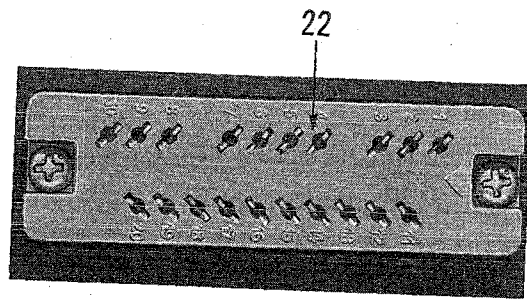
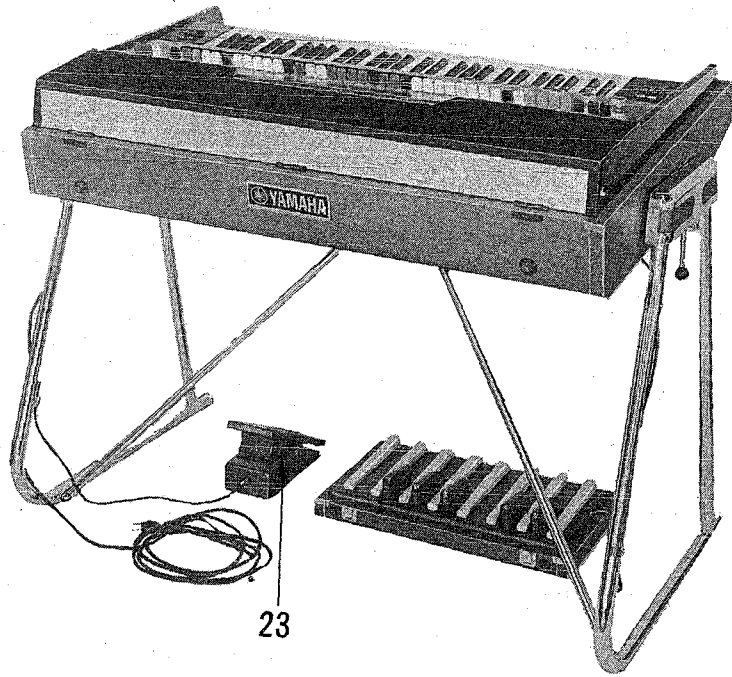
Ref. No.	Part No.	Description	Remarks	Common Models
	401000LB200440	Fuse Holder	ヒューズホルダー LB0079	
	401000LB200470	- do. -	" LB0132	
	401000KB000310	Fuse 0.5A 250V	ヒューズ	
	401000KB000330	- do. - 1A 250V	"	
	401000KB000350	- do. - 2A 250V	"	
	401000KB000820	Lead Type Fuse 1A, UL Listed	リード付ヒューズ	
	401000KB000840	- do. - 2A, - do. -	"	
	401000KB000710	Miniature Fuse 0.5A, SEMKO Listed	ミニチュアヒューズ	
	401000KB000730	- do. - 1A, - do. -	"	
	401000KB000750	- do. - 2A, - do. -	"	
	401000FQ024470	Oil Capacitor 0.047 $\mu$ F 600V	オイルコン	
	401000FQ034470	- do. - 0.047 $\mu$ F 2,500V, UL Listed	"	
		Transistor 2SD256	トランジスタ servicing 401000iC144500	
	301000NA022480	PU Circuit #1225	シート	
		※ PU Circuit Component		
	401000HL314100	Metal Oxide Resistor 10 $\Omega$ 1P	酸化金属被膜抵抗	
	401000HL434680	- do. - 68 $\Omega$ 3P	"	
	401000HL140190	Variable Resistor B10K $\Omega$ (18K3-1)	可変抵抗	
		Transistor 2SA537	トランジスタ servicing 401000iA048440	
	401000iA056170	- do. - 2SA561	"	
	401000iA073410	- do. - 2SC734	"	
	401000iF000040	Diode 1S1555	ダイオード	
		- do. - 10D-2	" servicing 401000iH000060	
		- do. - 10DC-2	" - do. - 401000iH000140	
	401000iF000100	Zener Diode 1S1715	ツェナーダイオード	
	301225NA804380	M Circuit #20532	M シート Revised	
	401000iC075230	Transistor 2SC752	トランジスタ - do. -	
	401000iA049500	" 2SA495	" - do. -	
	401000iA050910	" 2SA509	" - do. -	
	301000iG001420	1 Master IC YM254	I C - do. -	
	401000GE900170	OSC Coil 125 $\mu$ H	コイル - do. -	
	401000GE300120	Choke Coil 100 $\mu$ H	" - do. -	
	401000iF000190	Zener Diode WZ090	ツェナーダイオード - do. -	
	401000iC232030	Transistor 2SC2320L	トランジスタ	
	401011iG000940	IC LM3211	I C	
	301000YM000010	IC YM 001	I C =LM3211	

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## 2. Manual Keyboards, Exp.





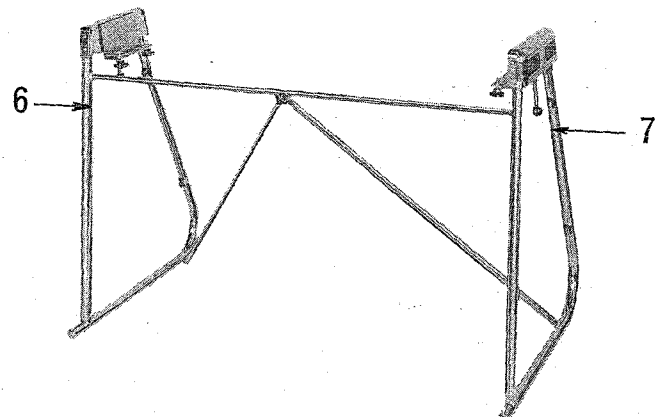
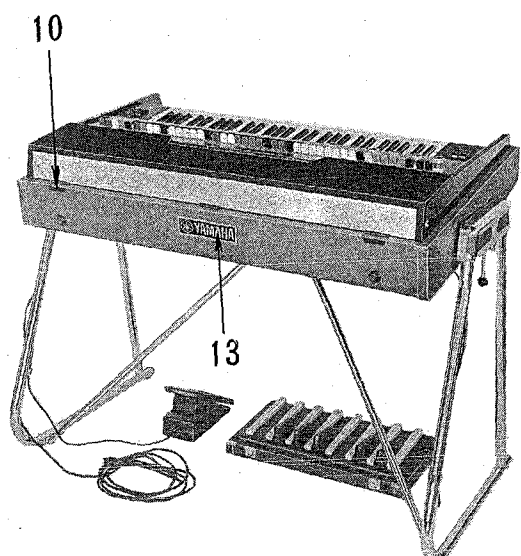
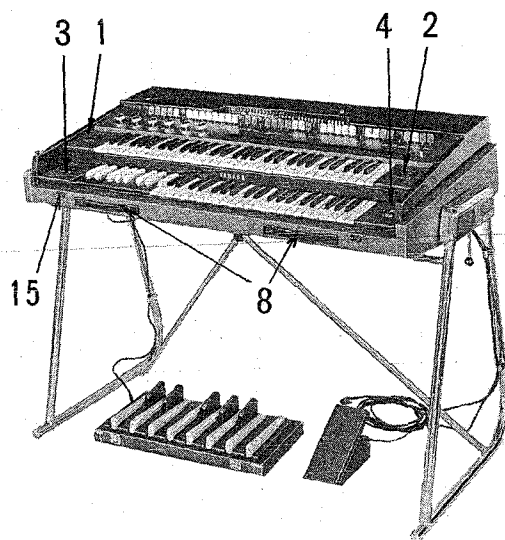


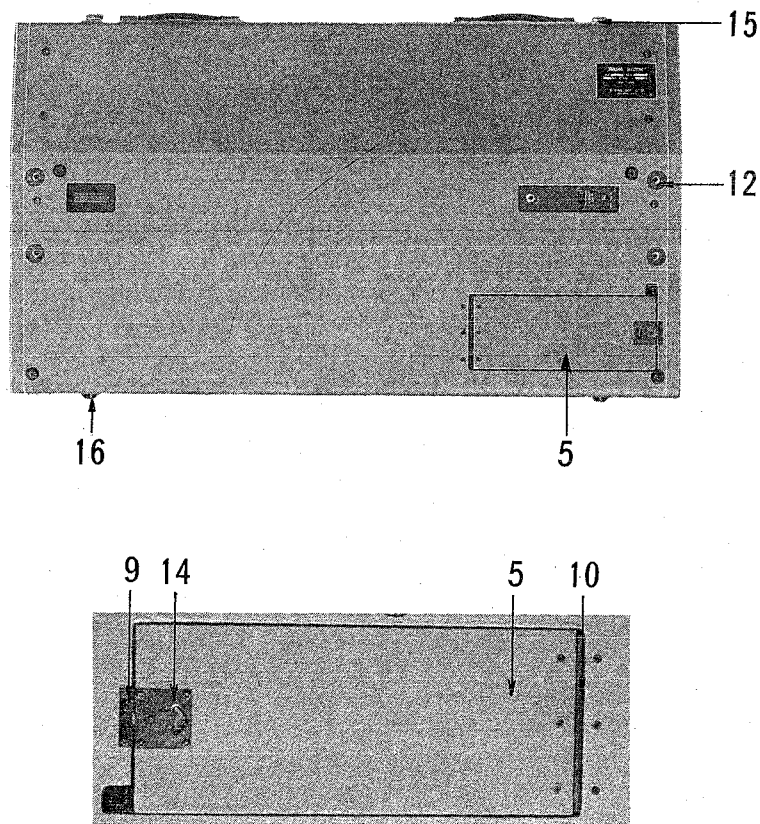
Ref. No.	Part No.	Description	Remarks	Common Models
1	301000NB019060	Upper Manual Keyboard	上 鍵 盤 アッセンブリー	
2	301000NB019070	Lower Manual Keyboard	下 鍵 盤 アッセンブリー	
	301000NB011090	White Key Assembly C・F, White	白鍵アッセンブリー (白)	
	301000NB011100	- do.- D , - do.-	"	
	301000NB011110	- do.- E・B, - do.-	"	
	301000NB011120	- do.- G , - do.-	"	
	301000NB011130	- do.- A , - do.-	"	
	301000NB011140	- do.- C' , - do.-	"	
	301000NB011150	Black Key Assembly , Black	黒鍵アッセンブリー (黒)	
	301000NB902820	White Key Assembly C・F, Black	白鍵アッセンブリー (黒)	
	301000NB902830	- do.- D , - do.-	"	
	301000NB902840	- do.- E・B, - do.-	"	
	301000NB902850	- do.- G , - do.-	"	
	301000NB902860	- do.- A , - do.-	"	
	301000NB902880	Black Key Assembly , White	黒鍵アッセンブリー (白)	
	301000CB002820	White Key Head C・F, White	白鍵ヘッド(白)	
	301000CB002830	- do.- D , - do.-	"	
	301000CB002840	- do.- E・B, - do.-	"	
	301000CB002850	- do.- G , - do.-	"	
	301000CB002860	- do.- A , - do.-	"	
	301000CB002870	- do.- C' , - do.-	"	
	301000CB002880	Black Key Head , Black	黒鍵ヘッド(黒)	
	301000CB902820	White Key Head C・F, Black	白鍵ヘッド(黒)	
	301000CB902830	- do.- D , - do.-	"	
	301000CB902840	- do.- E・B, - do.-	"	
	301000CB902850	- do.- G , - do.-	"	
	301000CB902860	- do.- A , - do.-	"	
	301000CB902880	Black Key Head , White	黒鍵ヘッド(白)	
	301000AA016320	Key Arm, White Key & Black Key	キ ー アーム	
	301000AA016400	Z-Shaped metal piece	Z 金 具	
	301000AA008450	Key Spring, White Key	キースプリング	
	301000AA008460	- do.- , Black Key	"	
3	301000NB019340	Key Switch 1U	キースイッチ	
4	301000NB019350	- do.- 2U~5L	"	
5	301000NB019420	- do.- 1L	"	
6	301000NB019430	- do.- 2L	"	
7	301000NB019440	- do.- 3L~5L	"	
8	301000NB019020	Tablet Assembly	タブレット アッセンブリー	
9	301000NB019030	- do.-	"	
10	301000NB019040	- do.-	"	
11	301000NB019050	- do.-	"	

Ref. No.	Part No.	Description		Remarks	Common Models
	301000NB021830	Tablet Switch	タブレットスイッチ	NB1902	
	301000NB021840	- do. -	"	NB1902	
	301000NB007560	- do. -	"	NB1902, 1903	
	301000NB007570	- do. -	"	NB1903	
	301000NB007540	- do. -	"	NB1904	
	301000NB016310	- do. -	"	NB1904	
	301000NB016430	- do. -	"	NB1904	
	301000NB016270	- do. -	"	NB1905	
	301000NB016360	- do. -	"	NB1905	
	301000NB016420	- do. -	"	NB1905	
12	301000CB016780	TVR Knob , White	ツ マ ミ		
	301000CB016790	- do. - , Black	"		
	301000CB016800	- do. - , Red	"		
	301000CB016810	- do. - , Yellow	"		
	301000CB016820	- do. - , Green	"		
	301000BA003210	Knob , Round Type	ツ マ ミ		
13	401000KA900000	Power Switch	パワースイッチ	KA0006(except Swedish & Norwegian models)	
	401000KA300010	- do. -	"	Swedish & Norwegian models	
14	401000KA500140	Rotary Switch	ロータリースイッチ	KA0190	
15	401000KA200000	Lever Switch	レバースイッチ	KA0177	
16	301000NB018890	Preset Assembly	プリセット アッセンブリー		
17	301000NB012550	Pick Up Assembly , Touch Vibrato	TVピックアップ アッセンブリー		
	401000JB000170	Lamp , 24V 5W	電 球	JB0020	
	401000LB200110	Lamp Socket	ランプソケット	LB0055	
	301000CB009080	Holder , Lamp	ランプホルダー		
	401000iK000010	Photocell , CdS	光 導 電 体	HH0006	
	301000CB009070	Holder , Photocell	CdSホルダー		
	301000NA021840	TV Circuit #0791	シ ー ト		
18	301000NB017970	Portamento Assembly	ポルタメント アッセンブリー		
	301000CB016940	Frame , Portamento	ポルタメント枠		
19	401000HR200080	Variable Resistor B5K $\Omega$ (RV24YN)	可 変 抵 抗		
	401000HR200070	- do. - B1K $\Omega$ (- do. -)	"		
	401000HR200020	- do. - A10K $\Omega$ (- do. -)	"		
	401000HR200100	- do. - B10K $\Omega$ (- do. -)	"		
20	401000HP200100	Tone Volume C100K $\Omega$	トーンボリューム		
	401000HP200090	- do. - C50K $\Omega$	"		
	401000HP200010	- do. - A10K $\Omega$	"		
	401000HP200040	- do. - A100K $\Omega$	"		
	401000HP200070	- do. - B50K $\Omega$	"		
	401000HP200030	- do. - A25K $\Omega$	"		

Ref. No.	Part No.	Description	Remarks	Common Models
	401000HP200080	Tone Volume C10KΩ	トーンボリューム	
21	401000HP500010	Preset Volume A100KΩ, White	プリセットボリューム	
	401000HP500040	- do. - A100KΩ, Yellow	"	
	401000HP500020	- do. - A100KΩ, Red	"	
	401000HP500050	- do. - B50K, Black	"	
22	401000HP600130	Connector Socket, 20P	コネクタ	
23	301000NB008020	Expression Pedal	Exp.ペダル	
	401000JB000170	Lamp, 24V 5W	電球	JB0020
	401000LB200120	Lamp Socket	ランプソケット	LB0104
	HH 0009	Photocell, CdS	光導伝体	servicing 401000KC000010
	301000CB007620	Cover, Lamp	ランプカバー	
	301000CB007630	Holder, Photocell	CdSホルダー	
	301000CB007640	Holder, Lamp	ランプホルダー	
	301000CB003680	Rubber Pedal Mat	Exp.マット	

### 3. Cabinet

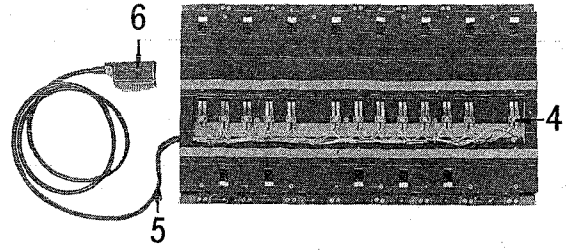
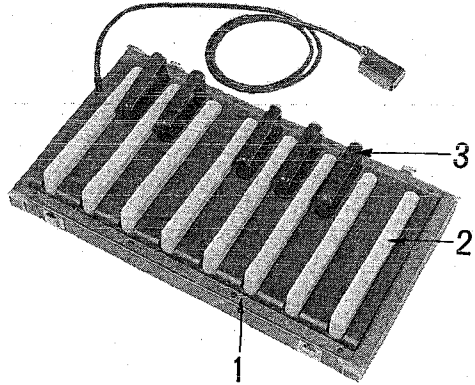




Ref. No.	Part No.	Description	Remarks	Common Models
1	30122508045510	Upper Endblock, Left	上拍子木左	
2	30122508045520	- do. - , Right	上拍子木右	
3	30122508045510	Lower Endblock, Left	下拍子木左	
4	30122508045520	- do. - , Right	下拍子木右	
5	30122508041100	Lid, Expression Pedal	Exp・取付板	
6	301000NB020280	Leg Assembly, Left	脚柱左	
7	301000NB020290	- do. - , Right	脚柱右	
8	301200NB024770	Handle Assembly	把手 アッセンブリー	
	401000NB007860	Fastening Band, Expression Pedal	Exp・止メバンド	
9	301000AA013980	Stopper	止メ金具	
10	301000AA015510	Hinge, Lid	蝶番	
11	301000AA014690	Corner angle	コーナーアングル	
12	301000AA015870	Flang, Leg	脚受座金	
	301000AA013730	Hook	引掛金具	
13	301000BA005800	Name Plate	ネームプレート	



4. Bass Pedal BP-1 Parts List

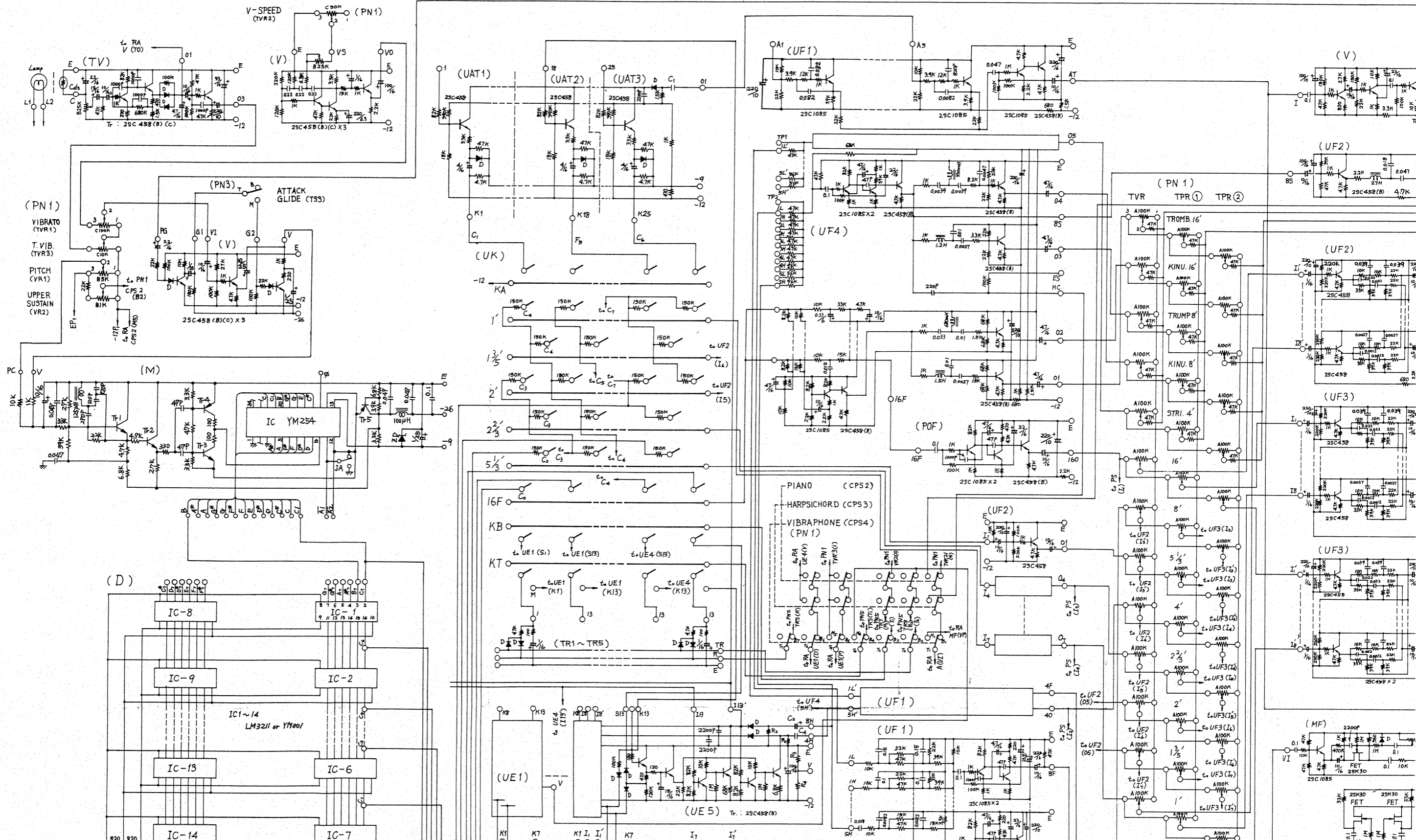


Ref. No.	Part No.	Description		Remarks	Common Models
2	301000NB018820	White Key Assmby	白 アッセンブリ	鍵	
3	301000NB018830	Black -do.-	黒 アッセンブリ	鍵	
	301000AA021410	Key Spring	キースプリング		
4	301000NB007540	Switch Assembly	ス イ ッ チ アッセンブリ		
	30122008025280	Case Assembly	ケ ー ス アッセンブリ	NB1885 and NB1886	
	301000CB018410	Cushoion, White Key	ク ッ シ ョ ン		
	301000CB018400	-do.-, Black Key	〃		
	401000CB041300	Slip Fitting, Gray	底 座		
	301000NB980230	Handle	把 手		
5	401000MD000100	Cable, 17 Core	ケ ー ブ ル		
6	401000LB600140	Connector Plug, 20p	20p プ ラ グ	LB0141	
	401000LB600150	Connector Cover	20pコネクタ カバ ー		

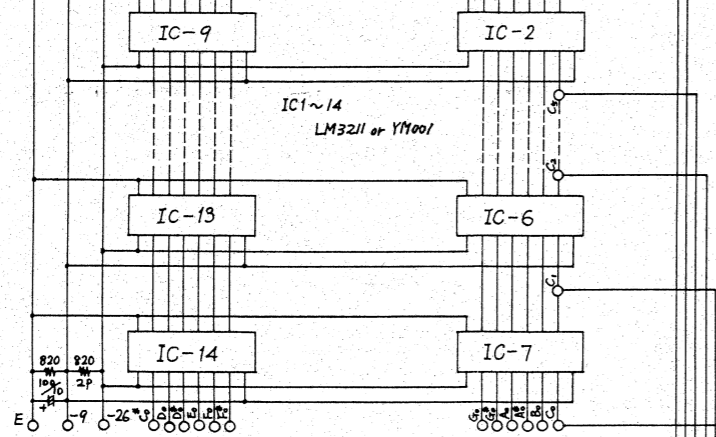


YC-45D OVERALL CIRCUIT DIAGRAM

YC-45D OVERALL CIRCUIT DIAGRAM



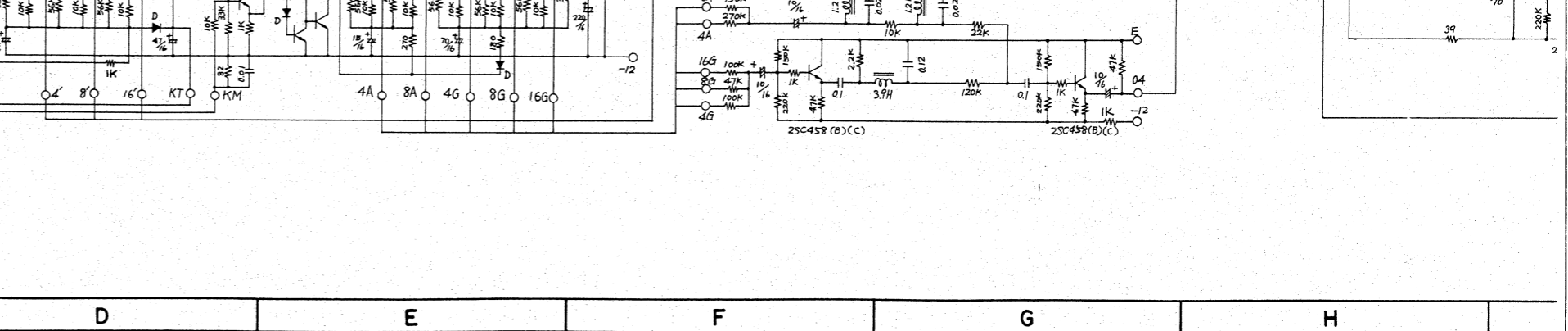
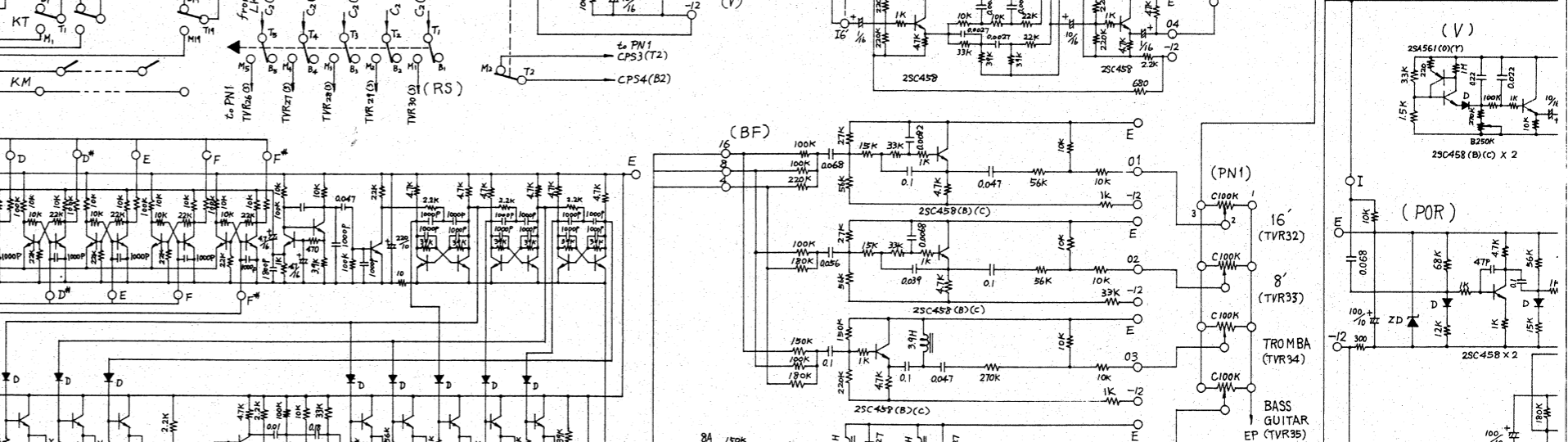
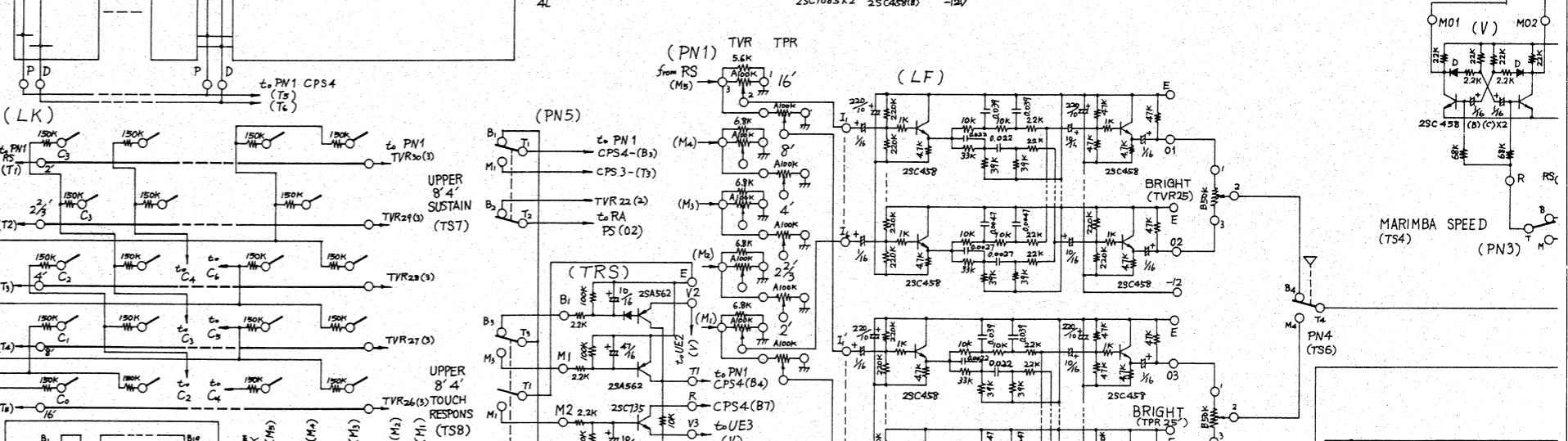
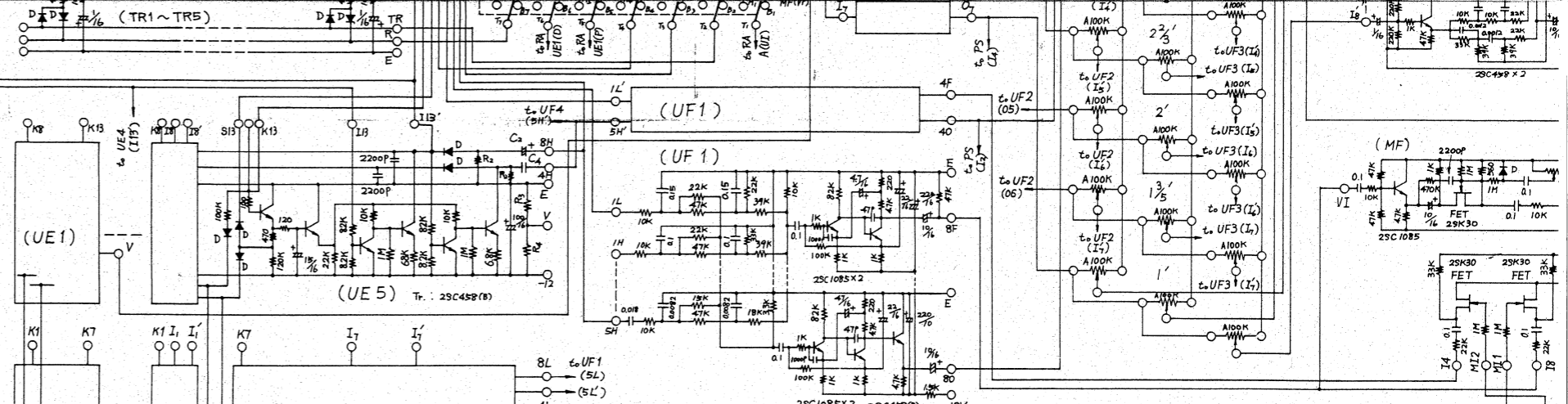
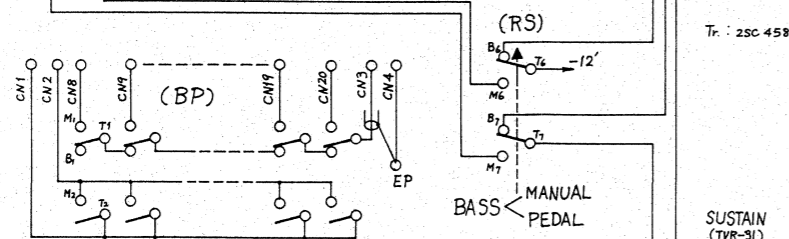
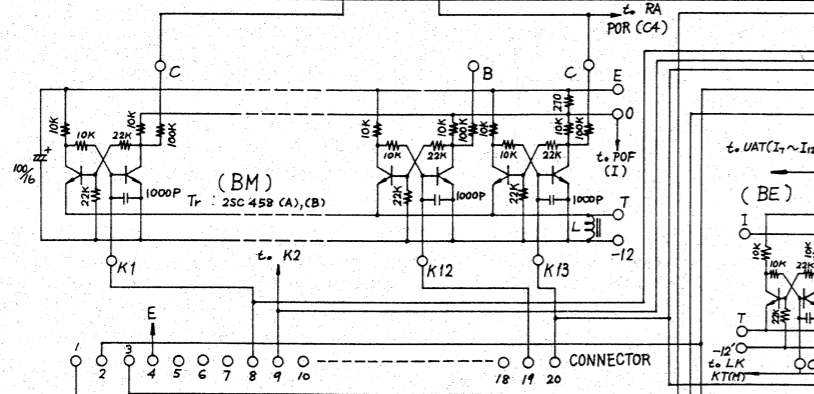
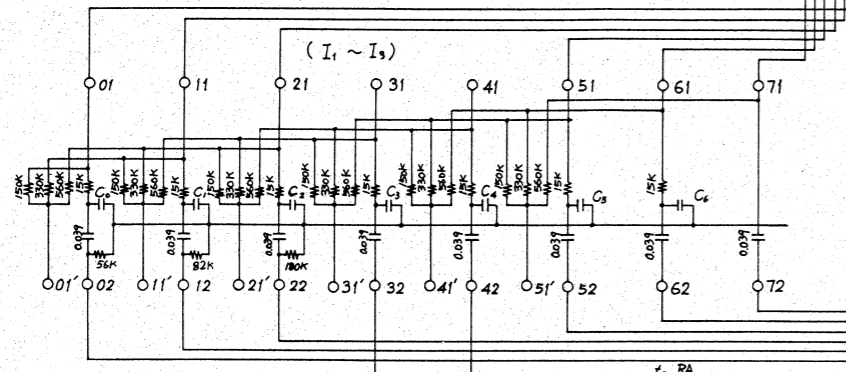
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## Notes)

ZD : Zener Diode 1S1715

D : Silicon Diode 1S1555



## YC-45D OVERALL CIRCUIT DIAGRAM

A

B

C

D

E

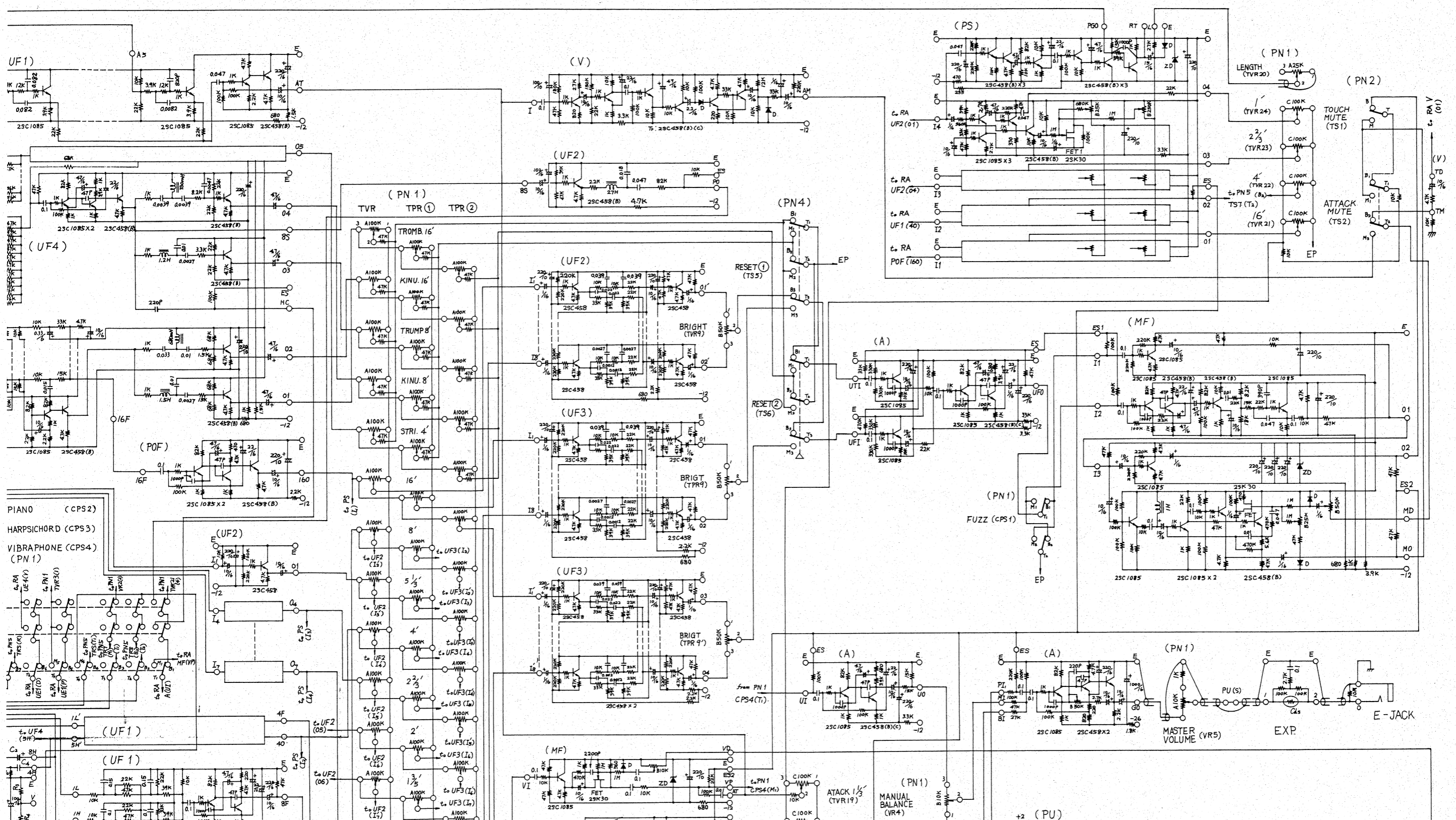
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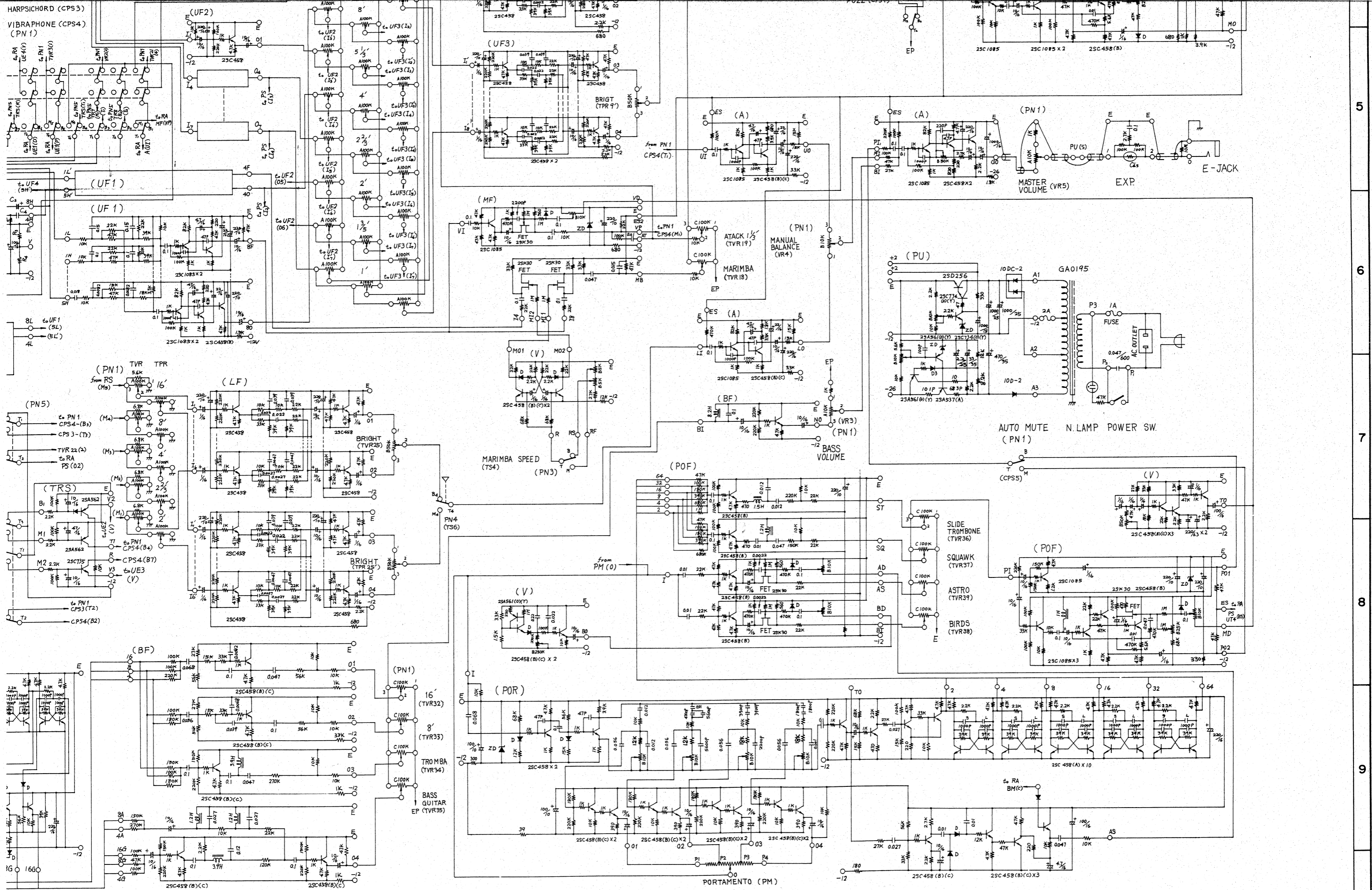
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# 5D OVERALL CIRCUIT DIAGRAM

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YC-45D

YC-45D OVERALL CIRCUIT DIAGRAM