
AKAI

MODEL GX-9

SCHEMATIC DIAGRAM AND PC BOARDS

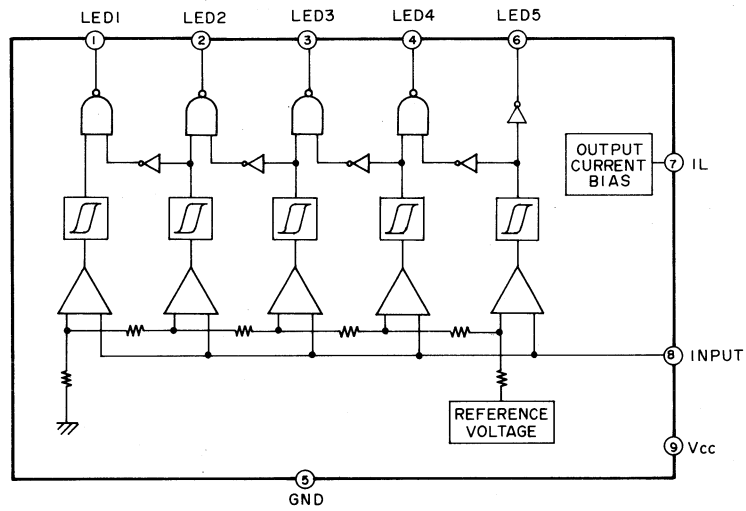
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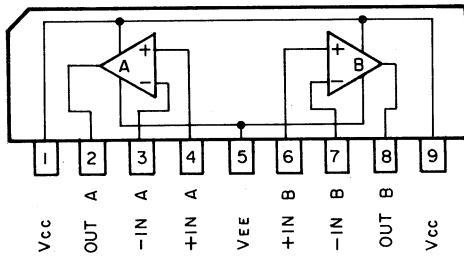
HD6805-X0A29 TERMINALS

PIN	PORT	NAME	DESCRIPTION
1	VSS		GND
2	$\overline{\text{RES}}$		RESET input
3	$\overline{\text{INT}}$		+5V
4	$\overline{\text{STEY}}$		+5V
5	X'TAL		} Oscillator for CLOCK
6	EXTAL		
7	NUM		GND
8	TIMER		+5V
9	A7		Music interval detect input
10	A6		Not used
11	A5	PLAY	PLAY mode
12	A4	STOP	STOP mode
13	A3	SEARCH	SEARCH mode
14	A2	FAST	FAST mode
15	A1	FIX	FIX (STOP) mode
16	A0	EJECT	EJECT mode
			} Comparator reference voltage output for CAM MOTOR.
17	B7	C.STOP	CAM MOTOR rotation finished signal input
18	B6	REEL (R)	REEL MOTOR reverse rotation output
19	B5	REEL (F)	REEL MOTOR forward rotation output
20	B4	VOLTAGE SELECT	Voltage select output for REEL MOTOR
21	B3	SOURCE.M	Source mute output (L: mute on, H: mute off)
22	B2	OSC	Bias oscillator control output (L: oscillation, H: no oscillation)
23	B1	REC MUTE	Mute release output in REC PLAY mode (L: mute on, H: mute off)
24	B0	PB MUTE	Mute release output in PB mode (L: mute on, H: mute off)
25	C7		Not used (+5V)
26	C6	LRSS	Left (supply) Reel Slit Sensor input
27	C5	RRSS	Right (take up) Reel Slit Sensor input
28	C4	DIGIT 4	} DIGIT output for Counter, Indicator STROBE output for input KEY select
29	C3	DIGIT 3	
30	C2	DIGIT 2	
31	C1	DIGIT 1	
32	C0	DIGIT 0	
33	VCC		POWER SUPPLY (+5V)

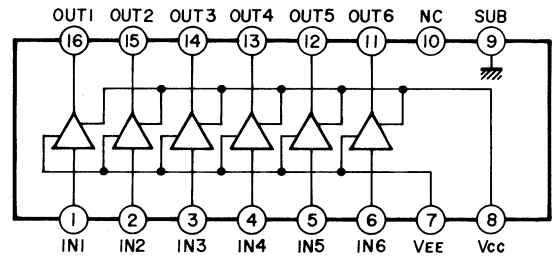
AN6876



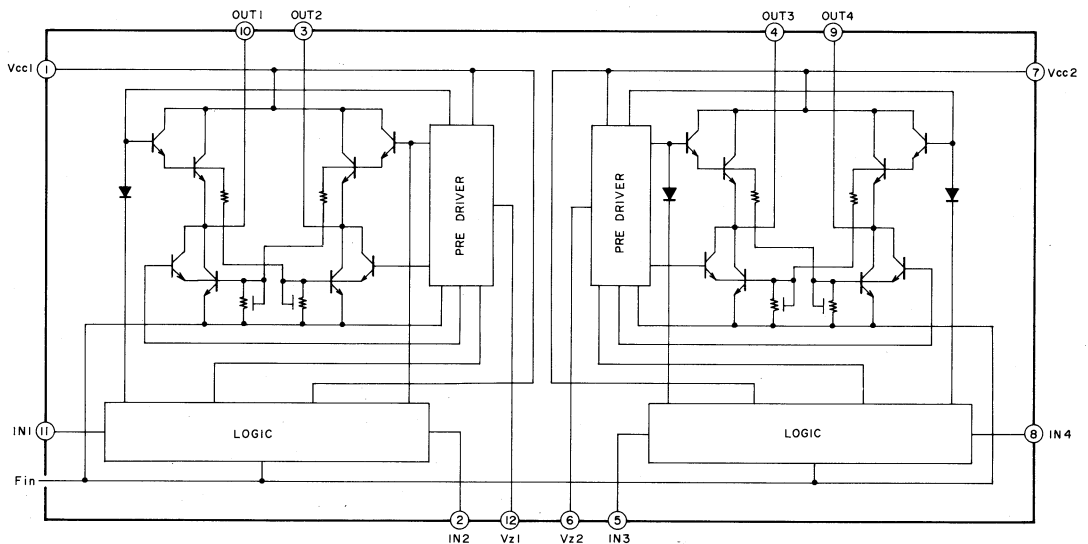
LA6458S/NJM4558S



LB1294

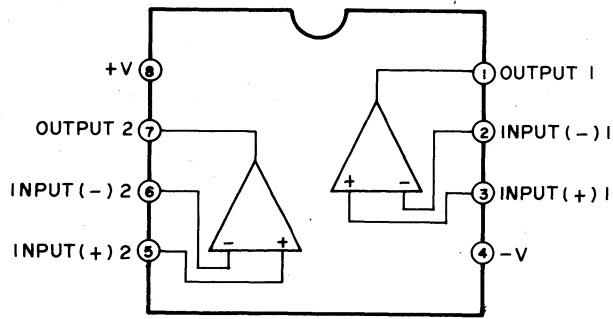


LB1649

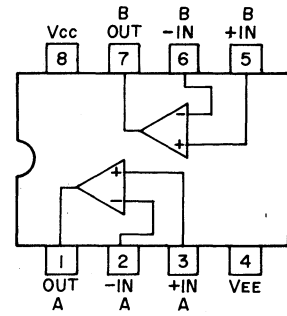


PIN	PORT	NAME	DESCRIPTION
34	D1		} Input for KEY
35	D2		
36	D3		
37	D4		
38	D5		
39	D6		
40	D7		
41	E0	a	} Counter Segment drive Indicator drive
42	E1	b	
43	E2	c	
44	E3	d	
45	E4	e	
46	E5	f	
47	E6	g	
48	E7	h	Min Sec drive
49	F0	LEVEL DATA (1)	Control output for REC level
50	F1	LEVEL DATA (2)	Reference value: 4
51	F2	LEVEL DATA (3)	Minimum 1 1 1 7 Maximum 0 0 0 0
52	F3	EQ DATA (1)	Control output for REC EQ
53	F4	EQ DATA (2)	Reference value: 4
54	F5	EQ DATA (3)	Minimum 1 1 1 7 Maximum 0 0 0 0
55	F6		SAMPLE HOLD RESET output
56	F7		MOL MML display output
57	G7		Input for A/D Converter output (Detect H → L)
58	G6		Control output for AUTO FADER
59	G5		Not used
60	G4		10 kHz (square wave) output for tuning
61	G3		1 kHz (square wave) output for tuning
62	G2	D/A DATA (3)	} D/A Converter control output for A/D Converter
63	G1	D/A DATA (2)	
64	G0	D/A DATA (1)	

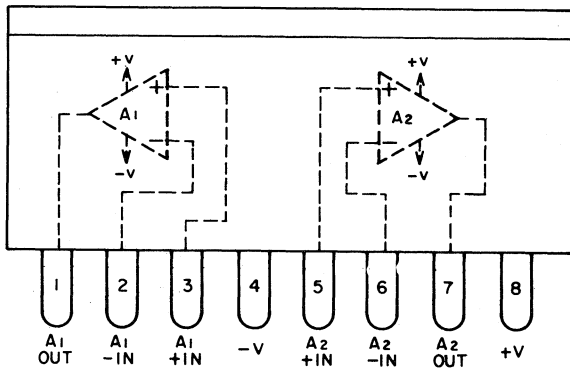
M5216P



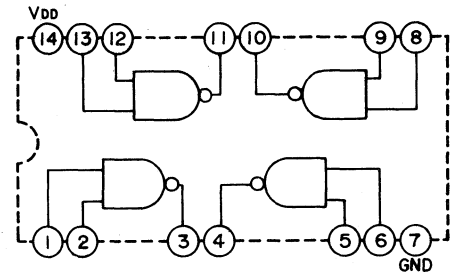
M5218P-21



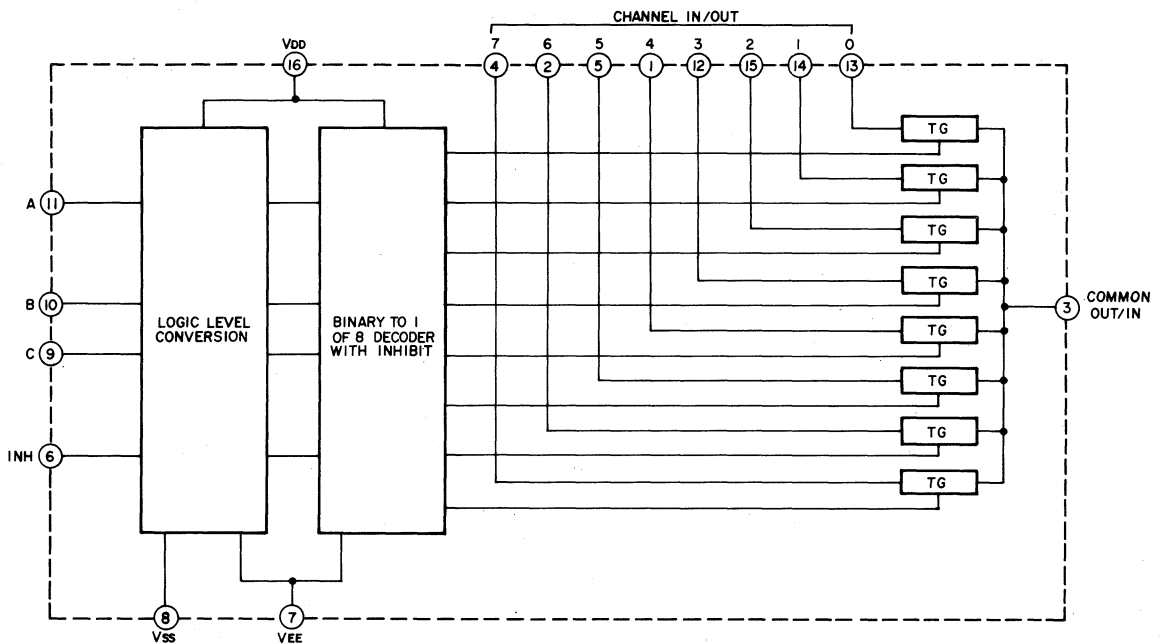
M5218LS



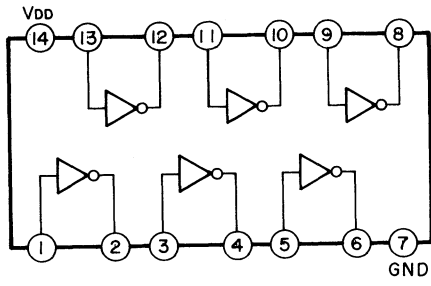
TC4011BP/LC4011B



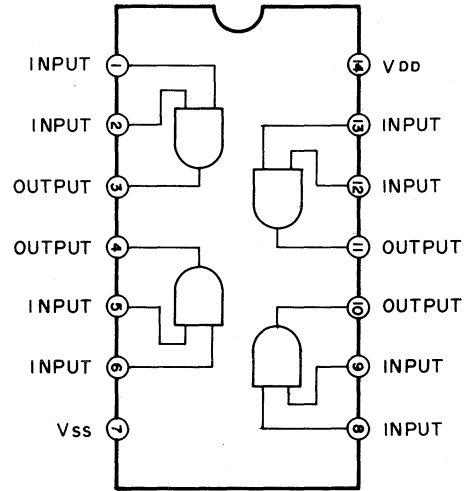
μPD4051



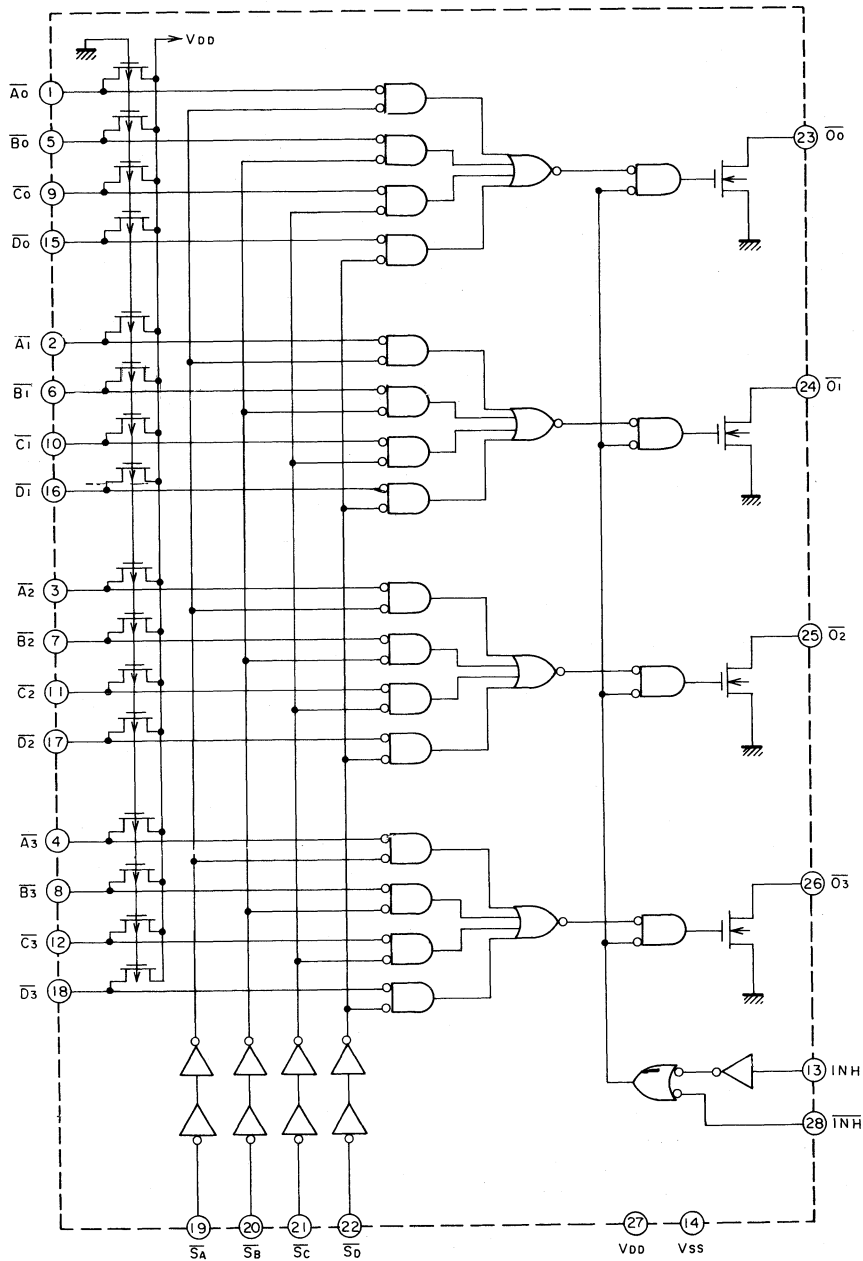
LC4069UB

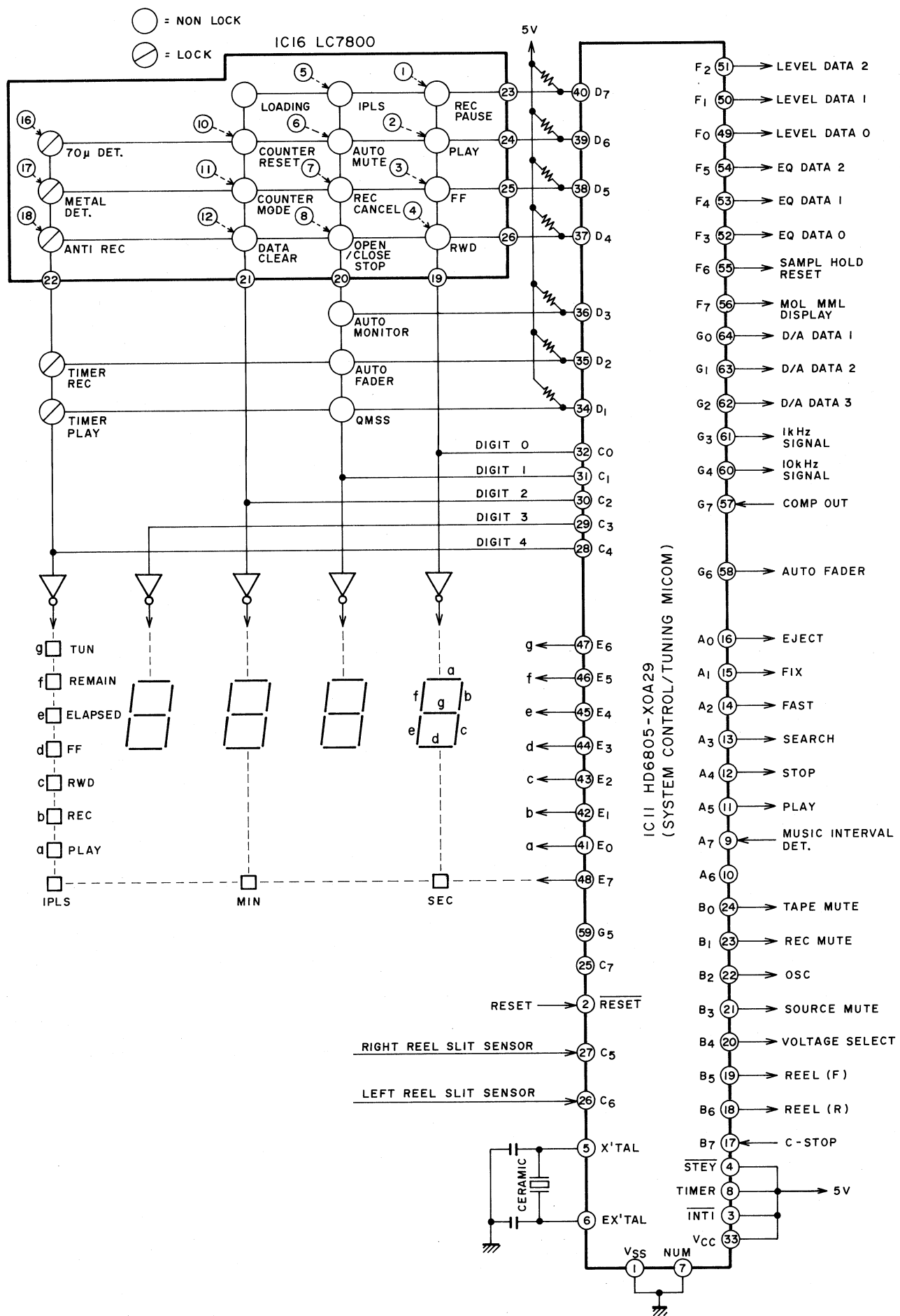


LC4081B



LC7800



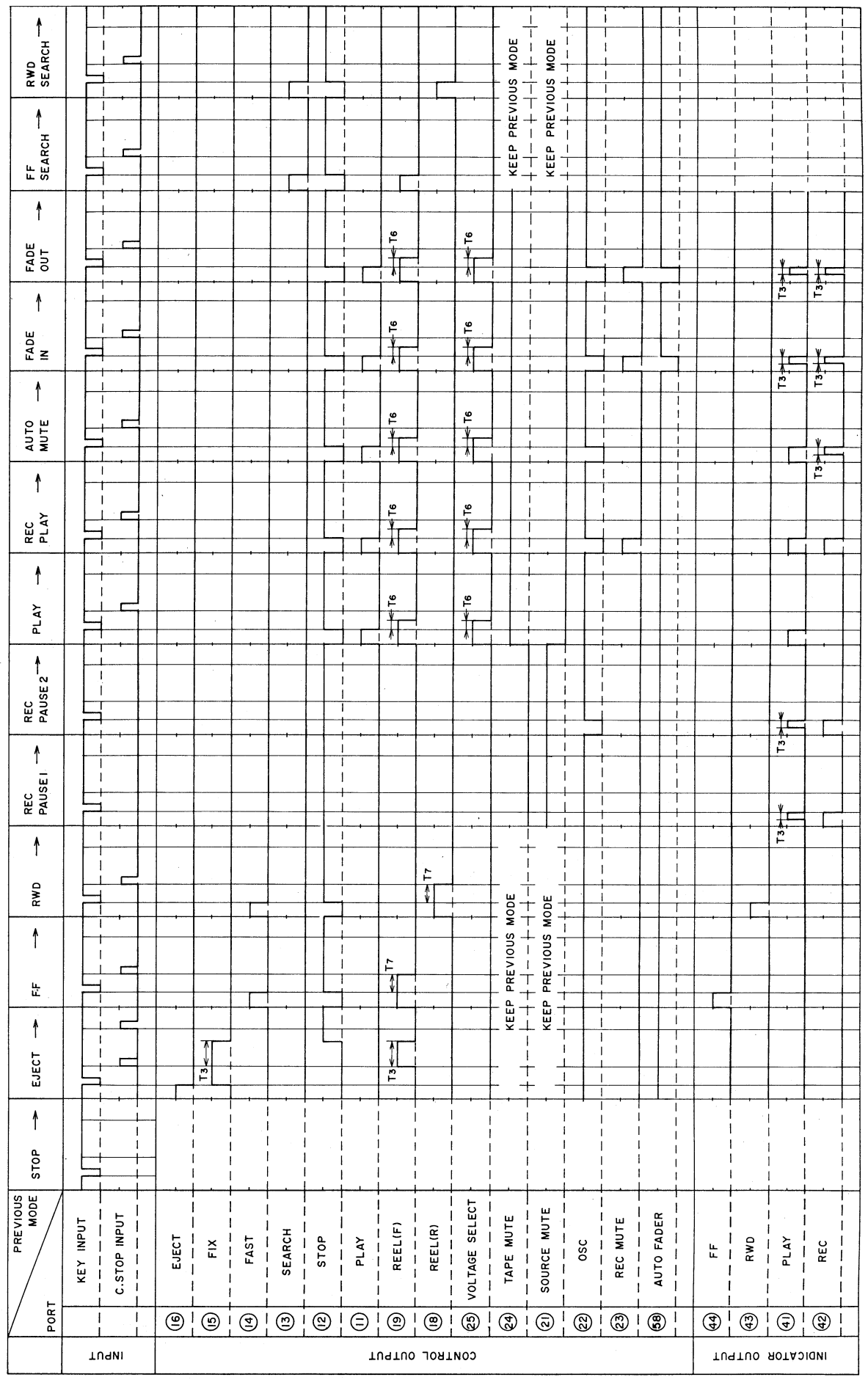


$T_0 = 1.0 \text{ sec}$ $T_4 = 0.15 \text{ sec}$
 $T_1 = 0.1 \text{ sec}$ $T_5 = 0.2 \text{ sec}$
 $T_2 = 0.05 \text{ sec}$ $T_6 = 0.03 \text{ sec}$
 $T_3 = 0.5 \text{ sec}$ $T_7 = 0.04 \text{ sec}$

REC PAUSE 1: STOP → REC PAUSE (OSC "OFF")
 REC PAUSE 2: REC PLAY → REC PAUSE (OSC "ON")

PREVIOUS MODE → STOP

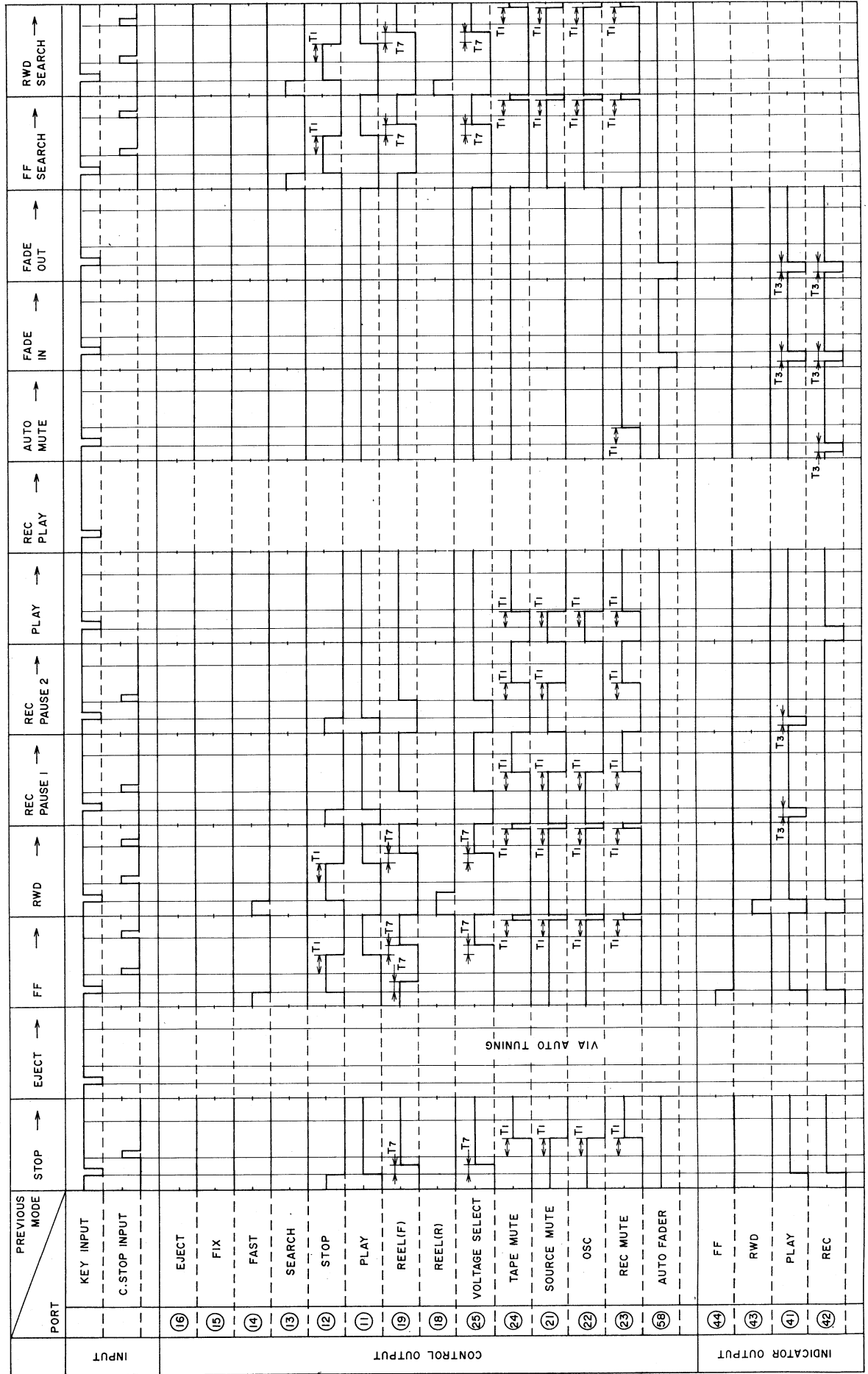
MI-COM OUTPUT TIMING CHART (1)



$T_0 = 1.0 \text{ sec}$ $T_4 = 0.15 \text{ sec}$
 $T_1 = 0.1 \text{ sec}$ $T_5 = 0.2 \text{ sec}$
 $T_2 = 0.05 \text{ sec}$ $T_6 = 0.03 \text{ sec}$
 $T_3 = 0.5 \text{ sec}$ $T_7 = 0.04 \text{ sec}$

PREVIOUS MODE → REC PLAY

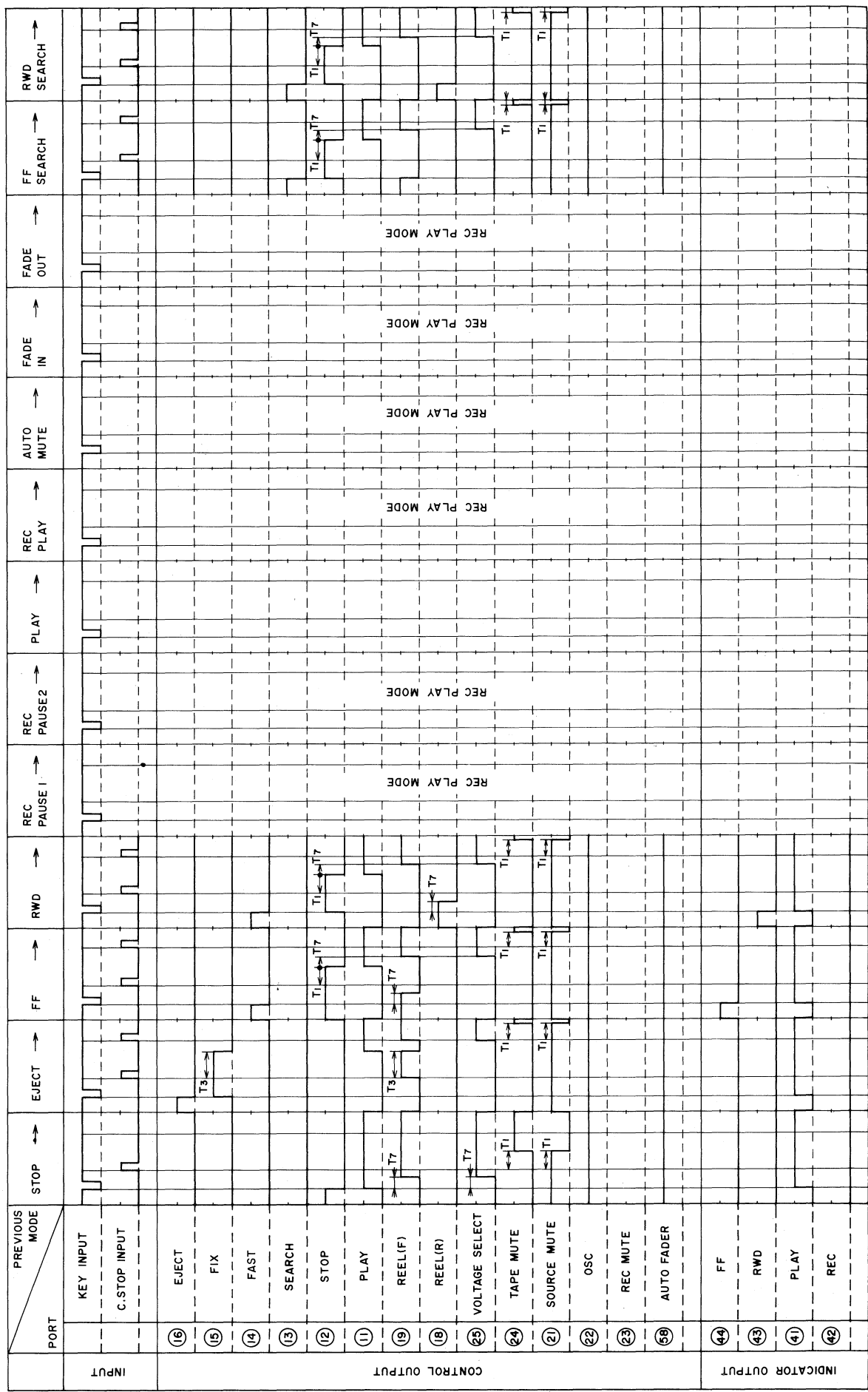
MI-COM OUTPUT TIMING CHART (3)



MI-COM OUTPUT TIMING CHART (2)

PREVIOUS MODE → PLAY

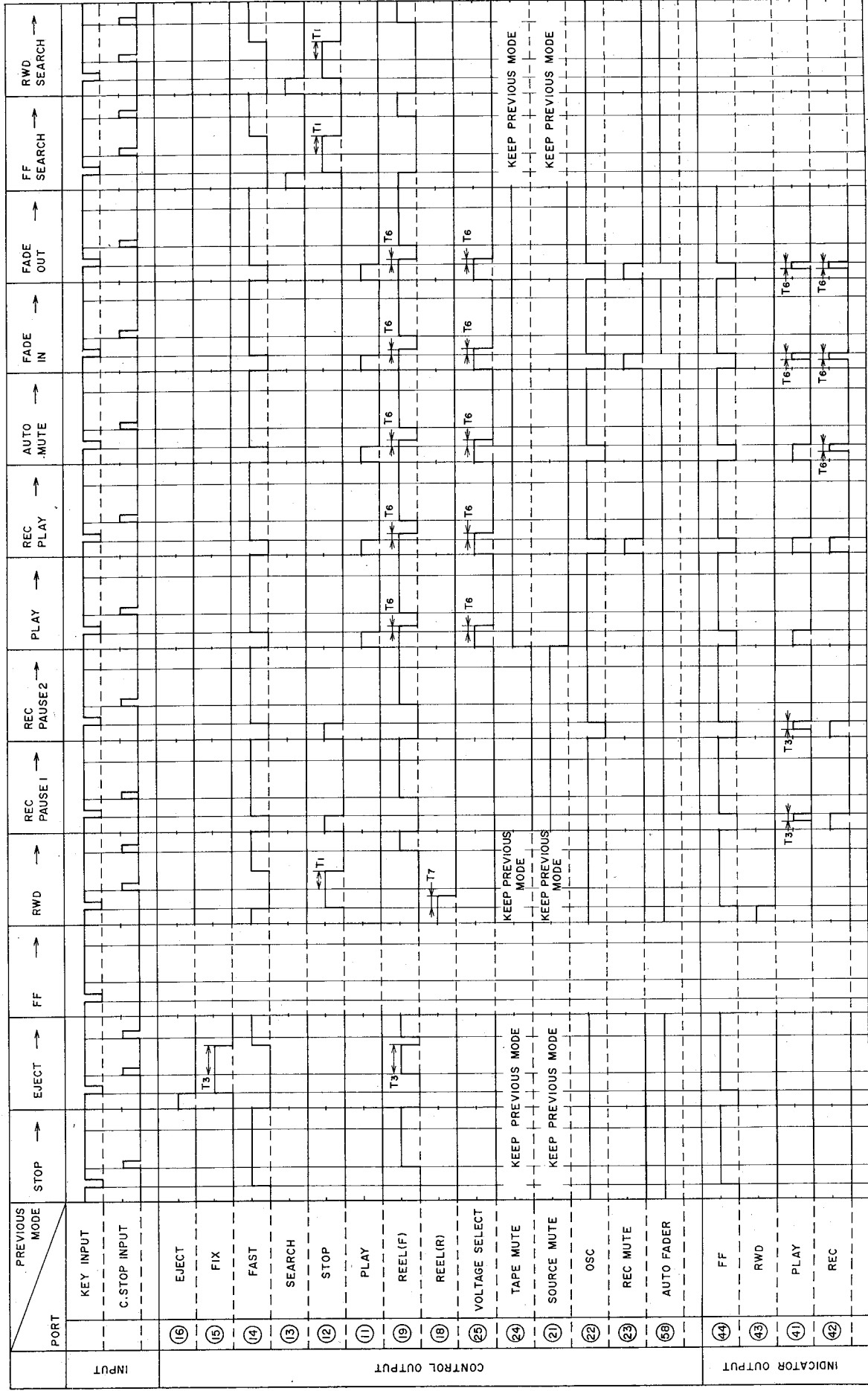
$T_0 = 1.0 \text{ sec}$ $T_4 = 0.15 \text{ sec}$
 $T_1 = 0.1 \text{ sec}$ $T_5 = 0.2 \text{ sec}$
 $T_2 = 0.05 \text{ sec}$ $T_6 = 0.03 \text{ sec}$
 $T_3 = 0.5 \text{ sec}$ $T_7 = 0.04 \text{ sec}$

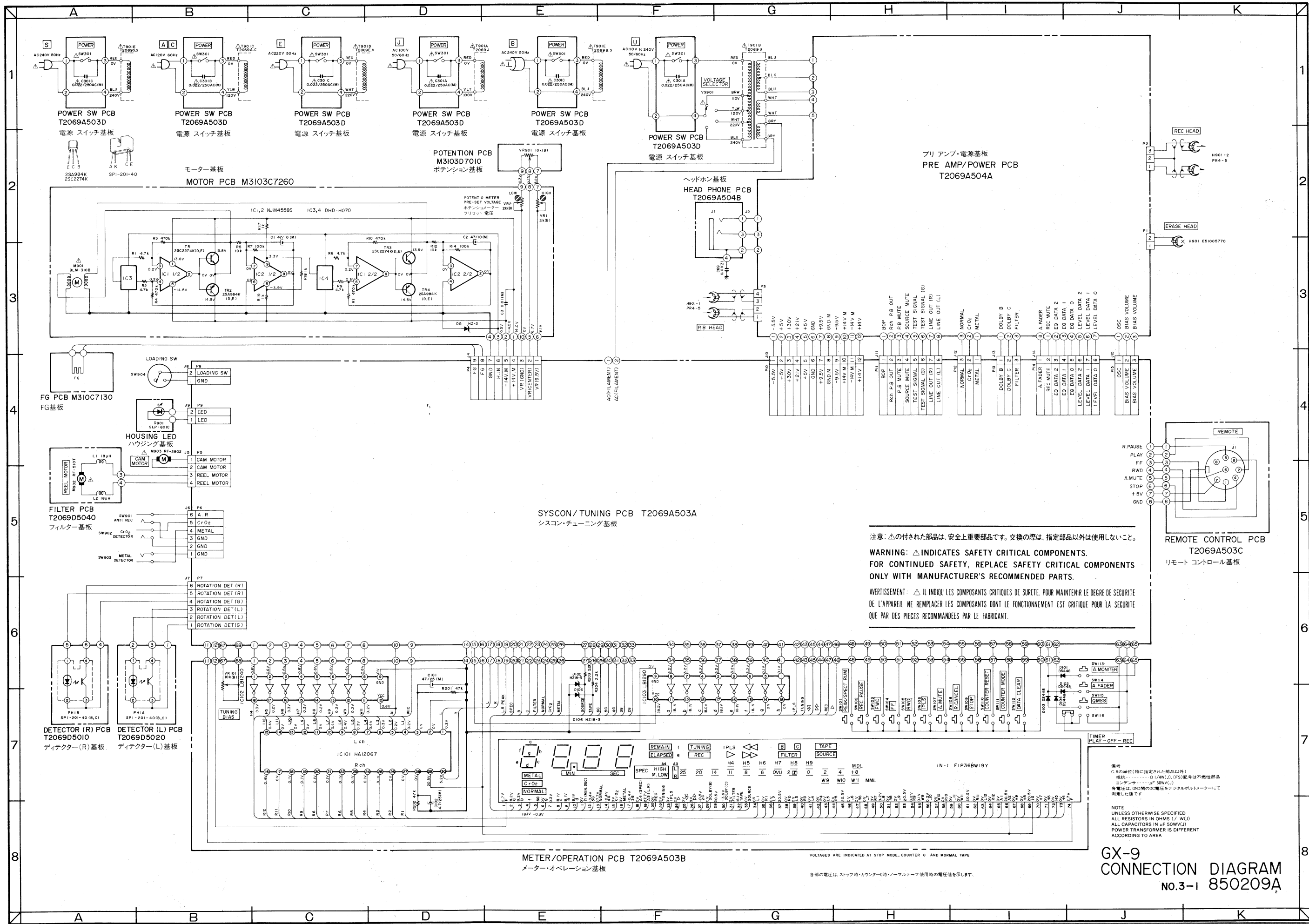


$T_0 = 1.0 \text{ sec}$ $T_4 = 0.15 \text{ sec}$
 $T_1 = 0.1 \text{ sec}$ $T_5 = 0.2 \text{ sec}$
 $T_2 = 0.05 \text{ sec}$ $T_6 = 0.03 \text{ sec}$
 $T_3 = 0.5 \text{ sec}$ $T_7 = 0.04 \text{ sec}$

PREVIOUS MODE → FF

MI-COM OUTPUT TIMING CHART(4)





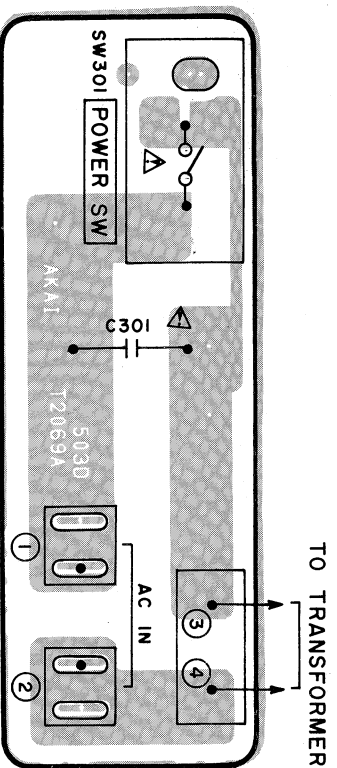
注意: △の付された部品は、安全上重要部品です。交換の際は、指定部品以外は使用しないこと。
WARNING: △ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.
 AVERTISSEMENT: △ IL INDIQUE LES COMPOSANTS CRITIQUES DE SURETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS OONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT.

備考
 C: 0.1μF (特記指定された部品以外)
 抵抗: ○ (AW/J), (FS) 記号は不燃性部品
 コンデンサ: ○ (AW/J), (FS) 記号は不燃性部品
 ※電圧は 0.001V の電圧をデジタルポルトメーターにて測定した値です

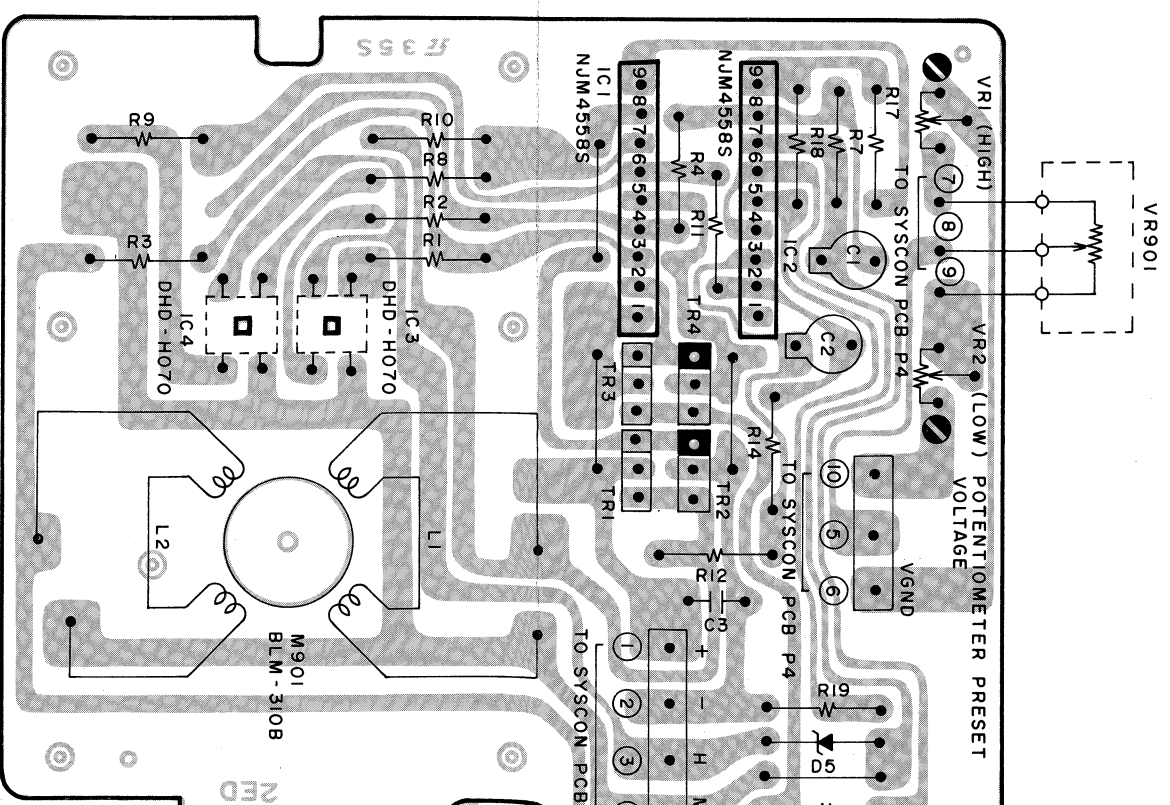
NOTE
 UNLESS OTHERWISE SPECIFIED
 ALL RESISTORS IN OHMS (Ω) W(J)
 ALL CAPACITORS IN μF (50WV/J)
 POWER TRANSFORMER IS DIFFERENT ACCORDING TO AREA

VOLTAGES ARE INDICATED AT STOP MODE, COUNTER 0 AND NORMAL TAPE
 各部の電圧は、ストップ時・カウンター0時・ノーマルテープ使用時の電圧値を示します。

GX-9 CONNECTION DIAGRAM
 No.3-1 850209A



POWER SWITCH PCB
電源 SW基板



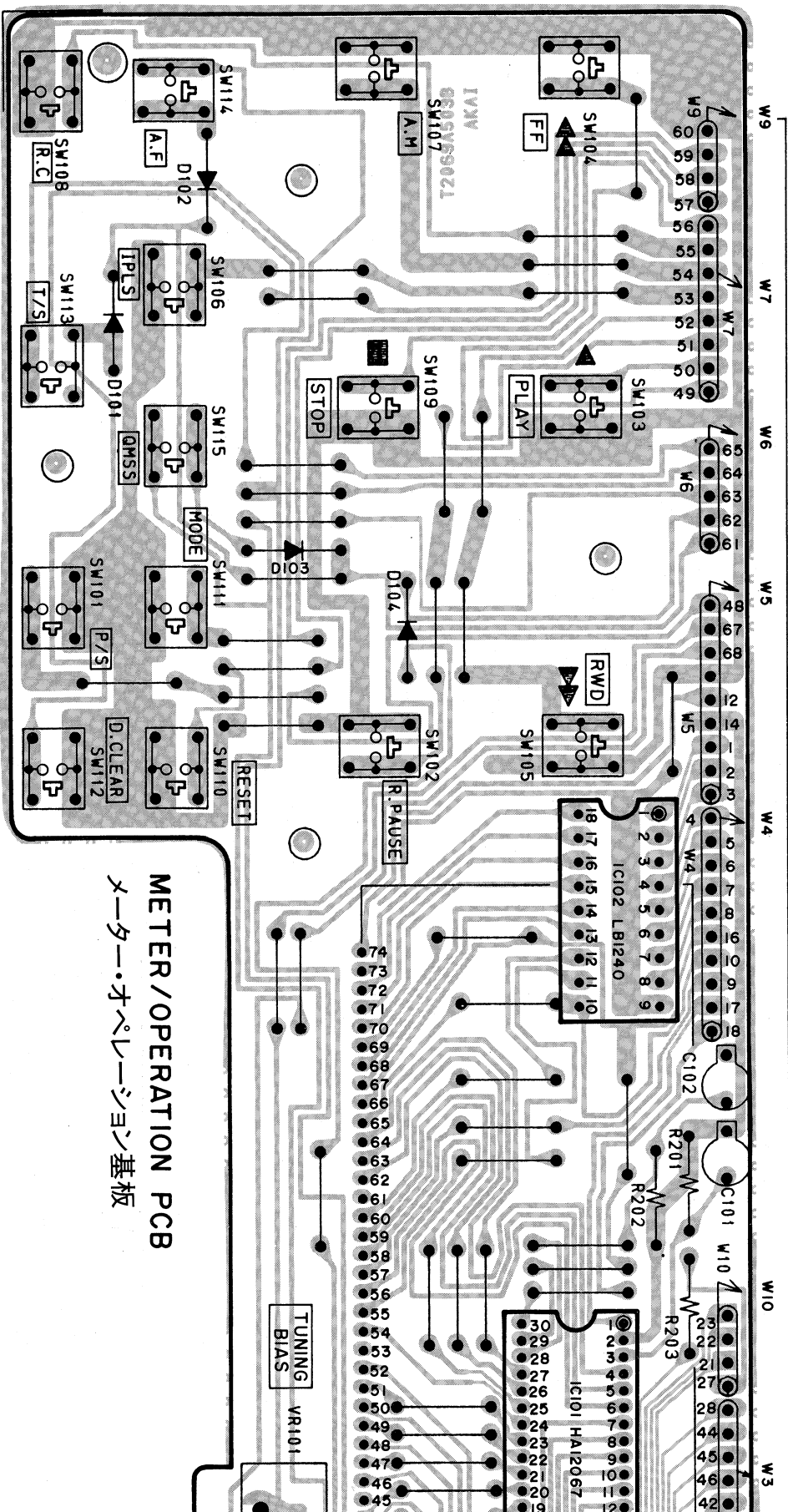
MOTOR PCB M3103C7260 (2ED)
モーター基板

- = PNP TRANSISTOR
- = NPN TRANSISTOR

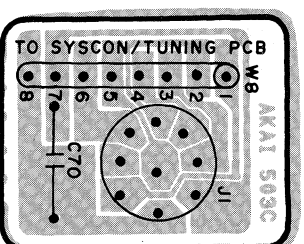
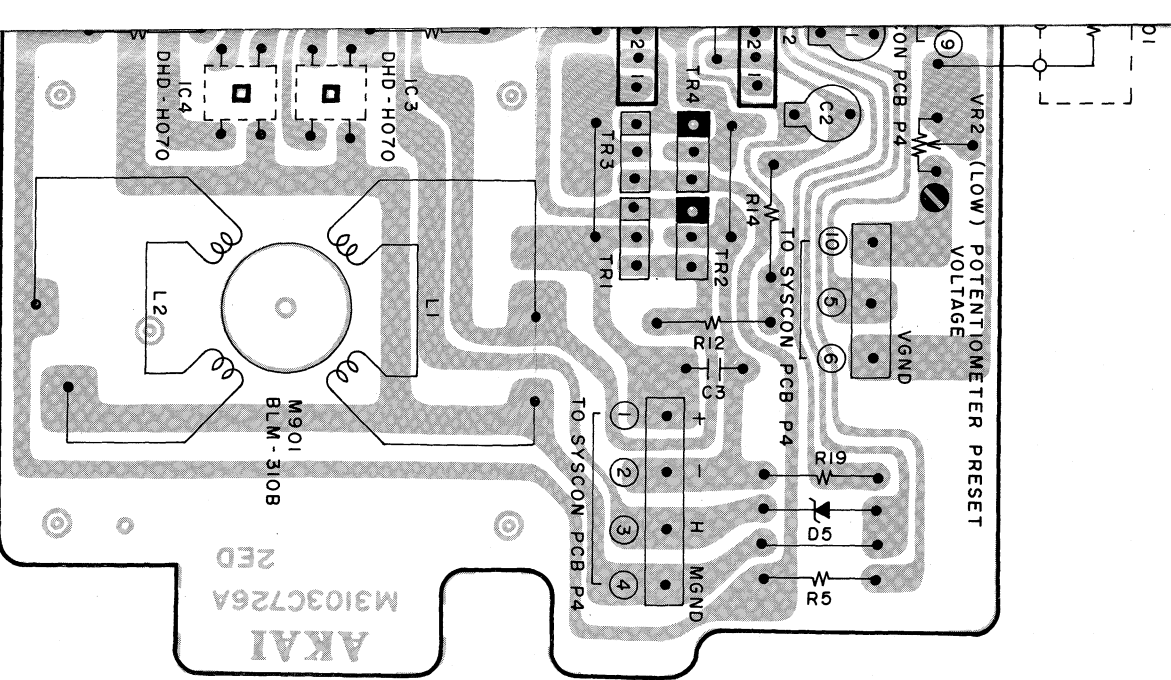
TR1,3 --- 2SC2274
TR2,4 --- 2SA984

2SC2274
2SA984
E ()

注意: △の付された部品は、安全上重要部品です。交換の際は、指定部品以外は使用しないこと。
WARNING: △ INDICATES SAFETY CRITICAL COMPONENTS.
FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.
AVERTISSEMENT: △ IL INDIQUE LES COMPOSANTS CRITIQUES DE SECURITE POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL. NE REMPLACEZ LES COMPOSANTS DON'T LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT.



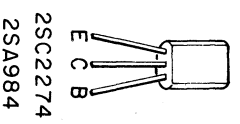
METER/OPERATION PCB
メーター・オペレーション基板



REMOTE CONTROL PCB
リモートコントロール基板

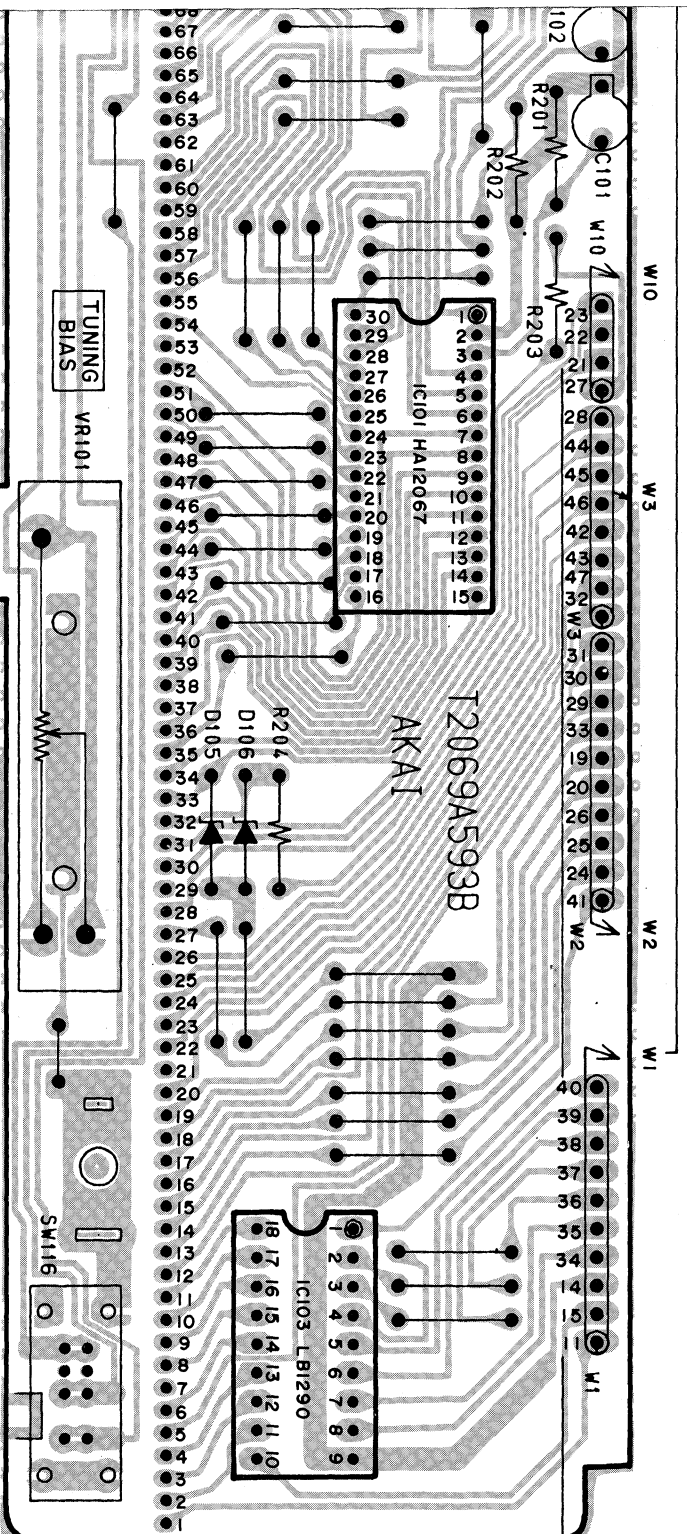
B M3103C7260 (2ED)

TRANSISTOR

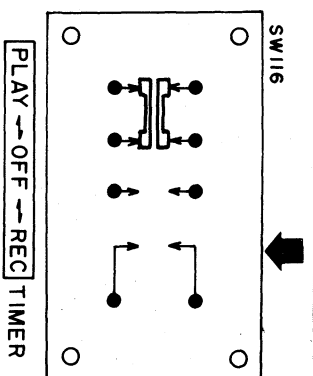


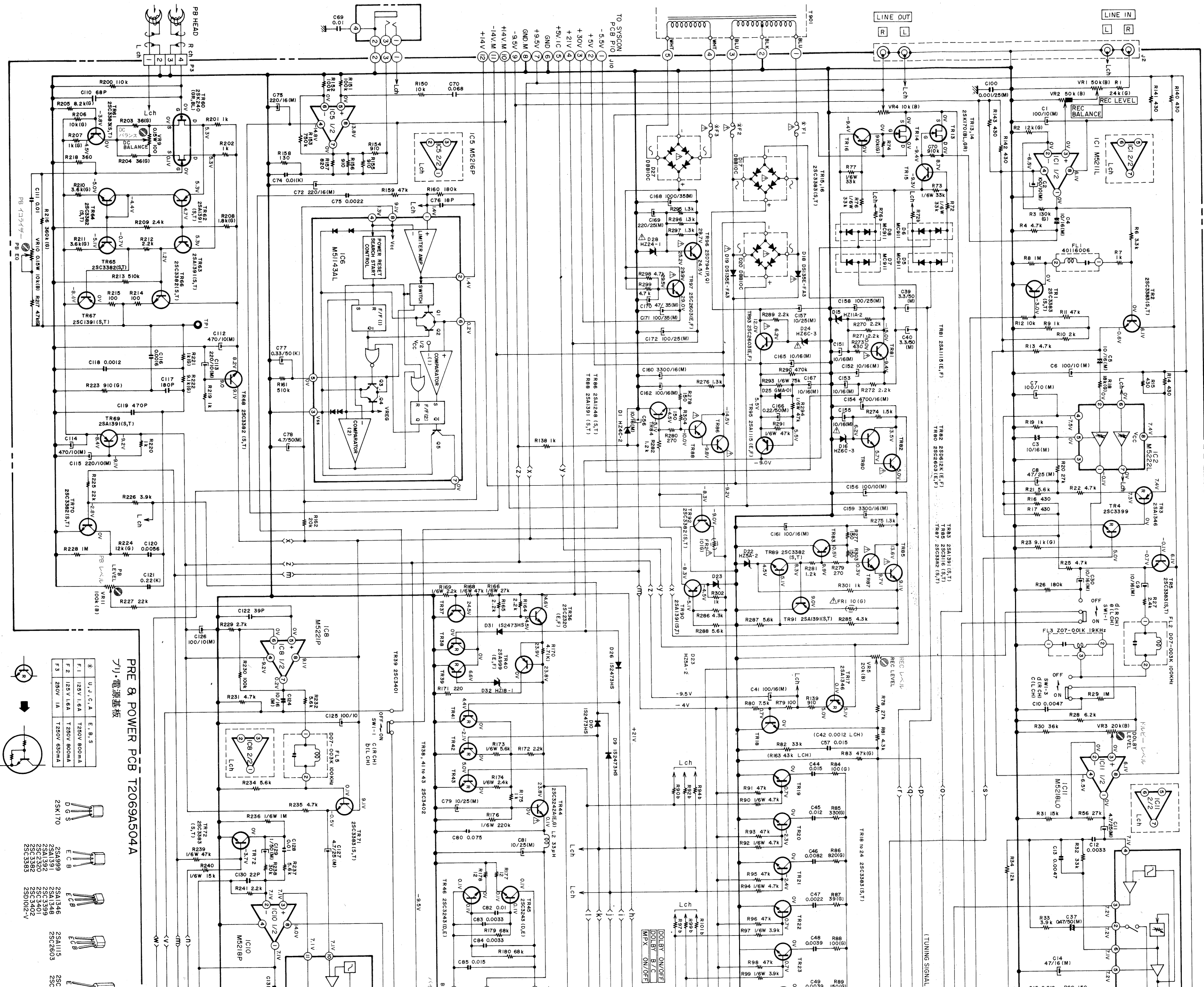
2SC2274
2SA984

PCB



TUNING PCB
チューニング基板



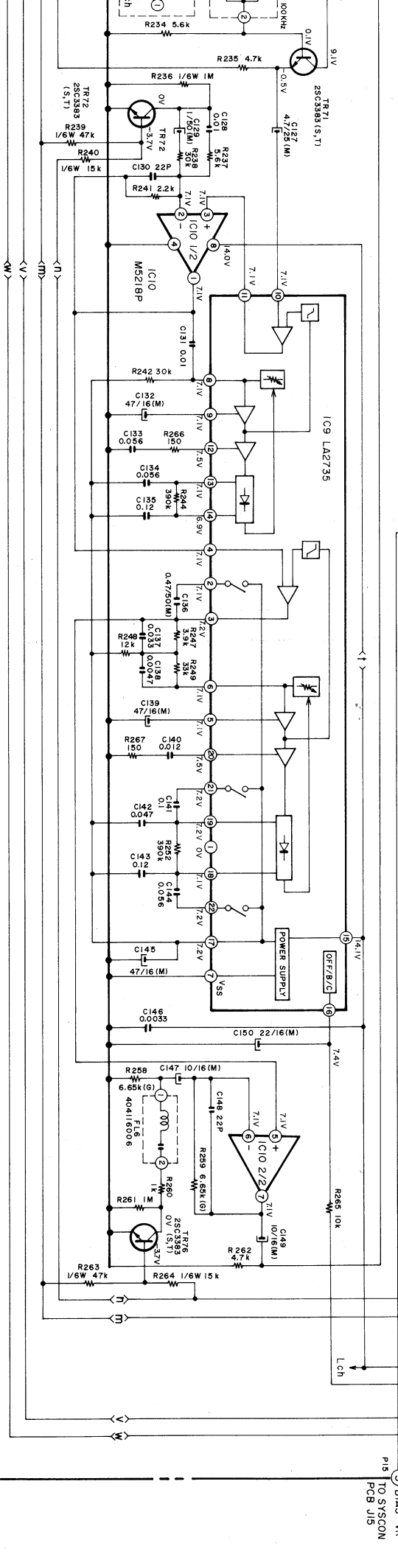
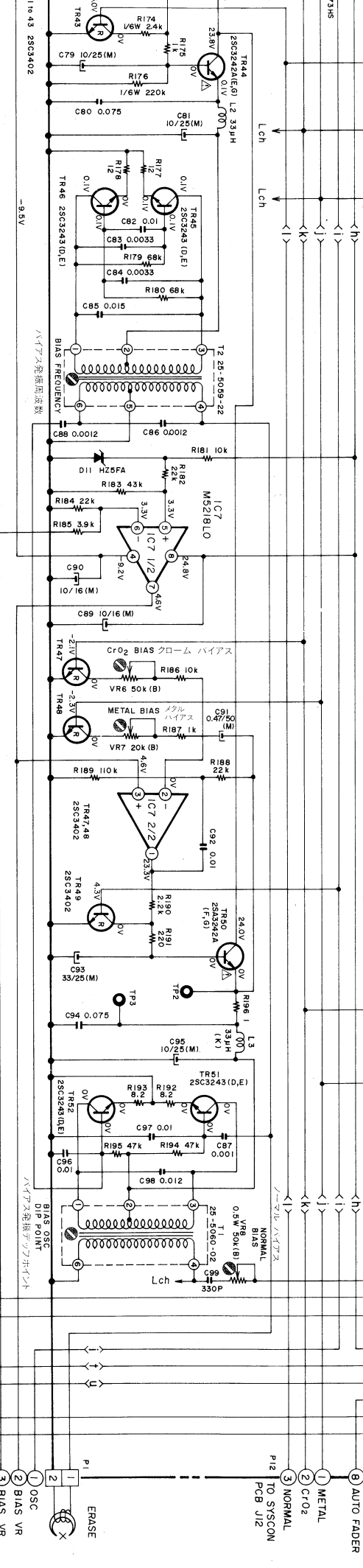
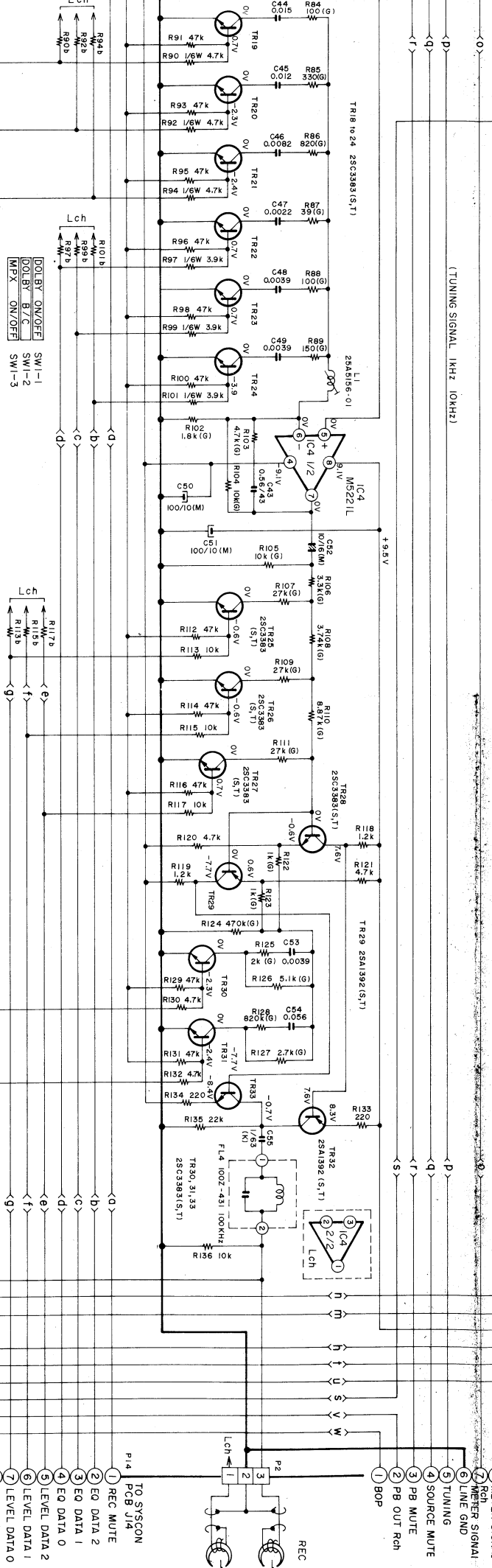
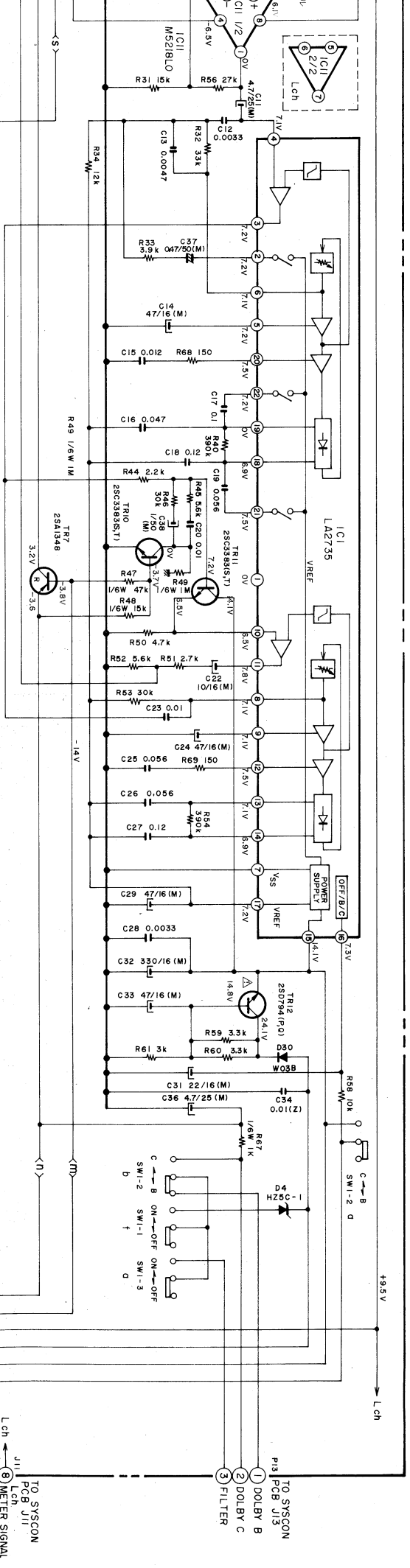


PRE 8 POWER PCB T2069A504A

電源基板

U, J, C, A	E, B, S
F, I	120V 1.6A
F, 2	120V 1.6A
F, 3	280V 1A
T	T250V 300mA

- 2SK170
- 2SA1346
- 2SA1391
- 2SA1392
- 2SC3390
- 2SC3391
- 2SC3392
- 2SC3393
- 2SC3394
- 2SC3395
- 2SA1115
- 2SC3396
- 2SC3397
- 2SC3398
- 2SC3399
- 2SC3400
- 2SC3401
- 2SC3402
- 2SC3403
- 2SC3404
- 2SC3405
- 2SC3406
- 2SC3407
- 2SC3408
- 2SC3409
- 2SC3410
- 2SC3411
- 2SC3412
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- 2SC3492
- 2SC3493
- 2SC3494
- 2SC3495
- 2SC3496
- 2SC3497
- 2SC3498
- 2SC3499
- 2SC3500



- 25K170
- 25A999
- 25A1346
- 25A1348
- 25A1349
- 25A1391
- 25A1392
- 25A1393
- 25A1394
- 25A1395
- 25A1346
- 25A1348
- 25A1349
- 25A1391
- 25A1392
- 25A1393
- 25A1394
- 25A1395
- 25A1115
- 25C32603
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- 25S0794
- 25S1248
- 25S2316
- 25S0912K
- 25S240

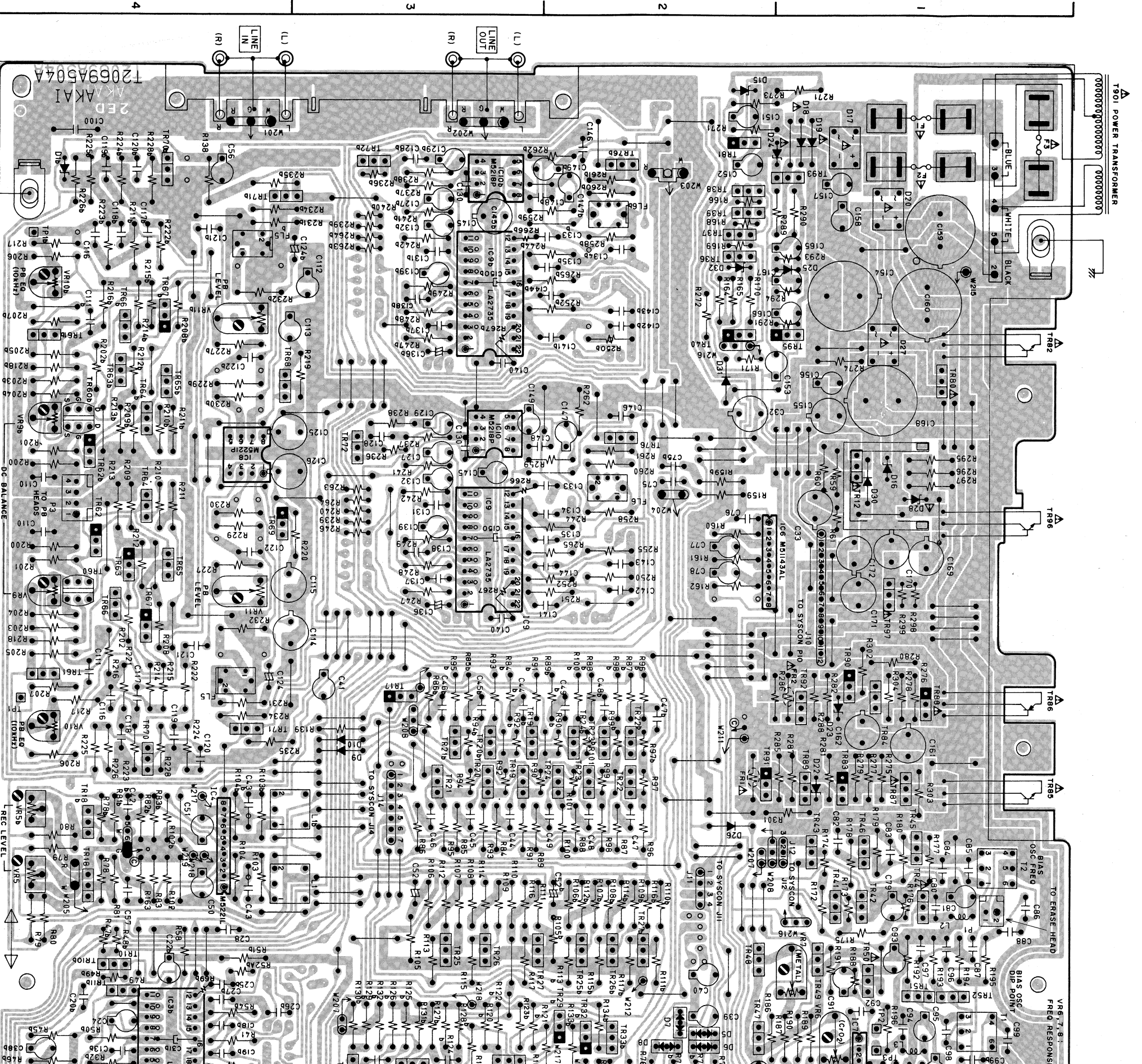
VOLTAGES INDICATED ARE AT PB MODE WITH DIGITAL TYPE TESTER

各端子の電圧は、再生前・デジタルデコーダ測定 (DC) した電圧値を示します。

備考
Cの単位 (特に指定された部品以外)
抵抗……………Ω (1/4W (J)) (FS) 記号は不燃性部品
コンデンサ……………μF (50WV (J))
各端子は、GND間のDC電圧をデジタルデコーダにて測定した値です。

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS (1/4W (J))
ALL CAPACITORS IN μF (50WV (J))

PRE/POWER SCHEMATIC DIAGRAM
No.3-2 850210A



- 25C3401 E C B
- 25C2603 E C B
- 25A1115 25A1248
- 25A1346 25A1399
- 25C3402 25A1348

- 25D612 E C B
- 25C3116 25A1248

- 25K170 D G S

- 25A1392 E C B
- 25C2320 25A999
- 25C3382 25A1391

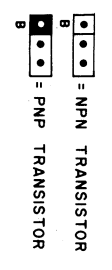
- 25D794 E C B

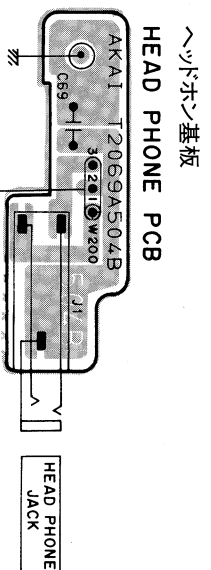
- 25C3242 E C B
- 25C3243

- 25K240 D G S

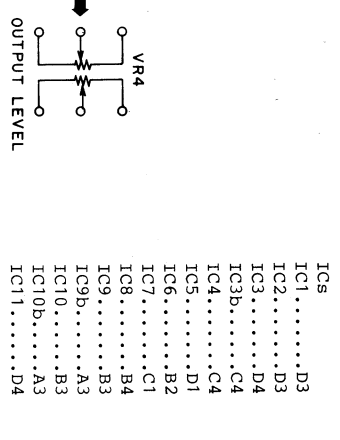
- TR1, 2, 5, 10, 11, 14 to 16, 18 to 28, 30, 31, 33, 71, 72, 76..... 25C3383
- TR3, 17..... 25A1346
- TR7..... 25A1348
- TR4..... 25C3399
- TR12, 96..... 25D794
- TR13..... 25K170
- TR13..... 25A1392
- TR29, 32..... 25C2320
- TR36..... 25D1012
- TR37..... 25C3401
- TR38, 41 to 43, 47 to 49..... 25C3402
- TR39..... 25A999
- TR40..... 25A1391
- TR44, 50..... 25C3242
- TR45, 46, 51, 52..... 25C3243

- TR60..... 25K240
- TR61, 64 to 66, 68, 70, 84, 87, 89, 92..... 25C3382
- TR62, 63, 67, 69, 83, 88, 90, 91..... 25A1391
- TR80, 93, 97..... 25C2603
- TR81, 95..... 25A1115
- TR82..... 25D612
- TR85..... 25C3116
- TR86..... 25A1248

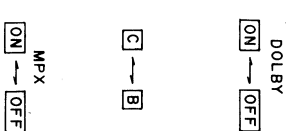




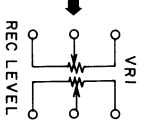
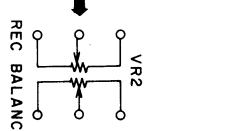
LOCATION OF COMPONENTS



- ICs
IC1.....D3
IC2.....D3
IC3.....D4
IC3b.....D4
IC4.....C4
IC5.....D1
IC6.....B2
IC7.....C1
IC8.....B4
IC9.....B3
IC9b.....A3
IC10.....B3
IC10b.....A3
IC11.....D4

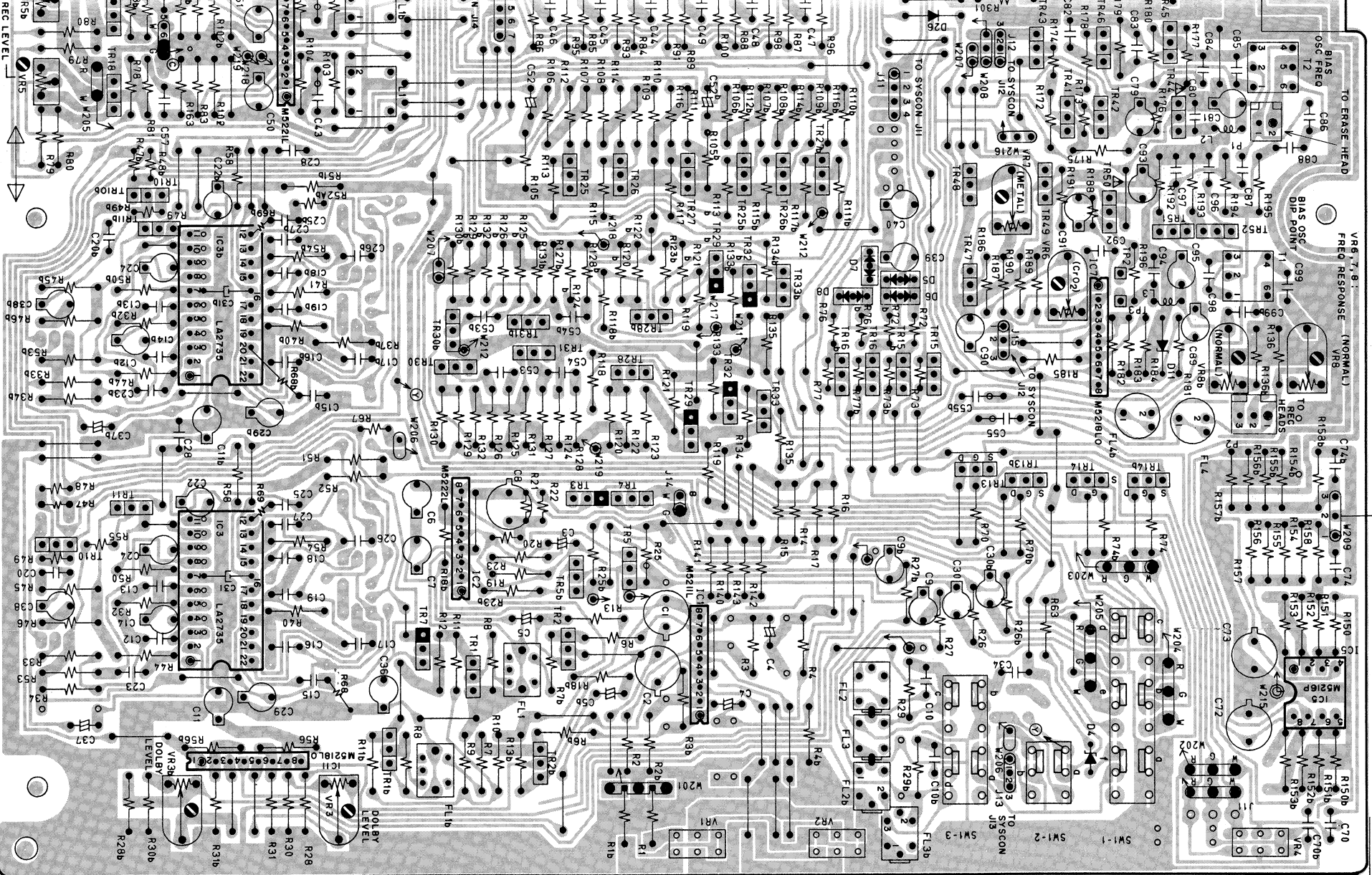


- TRS
TR1.....D3
TR1b.....D3
TR2.....D3
TR2b.....D3
TR3.....D3
TR4.....D3
TR5.....D3
TR7.....D3
TR10.....D4
TR10b.....D4
TR11.....D4
TR11b.....C4
TR12.....B1
TR13.....D2
TR13b.....D2
TR14.....D1
TR14b.....D1
TR15.....C2
TR15b.....C2
TR15d.....C2
TR16.....C2
TR16b.....C2
TR17.....C2
TR18.....C4
TR18b.....C4
TR19.....B3
TR19b.....B3
TR20.....B3
TR20b.....B3
TR21.....B3
TR21b.....B3
TR22.....B2
TR22b.....B2



- TR23.....B2
TR23b.....B2
TR24.....B2
TR24b.....B2
TR25.....C3
TR25b.....C3
TR26.....C2
TR26b.....C2
TR27.....C3
TR27b.....C2
TR28.....C3
TR28b.....C3
TR29.....C3
TR29b.....C2
TR30.....C2
TR30b.....C3
TR31.....C3
TR31b.....C3
TR32.....C2
TR32b.....C2
TR33.....C2
TR33b.....C2
TR36.....A2
TR37.....A2
TR38.....A2
TR39.....A2
TR40.....A2
TR41.....C1
TR42.....C1
TR43.....C1
TR44.....C1
TR45.....C1
TR46.....C1
TR47.....C2
TR48.....C2
TR49.....C1
TR50.....C1
TR51.....C1
TR52.....C1
TR60b.....B4

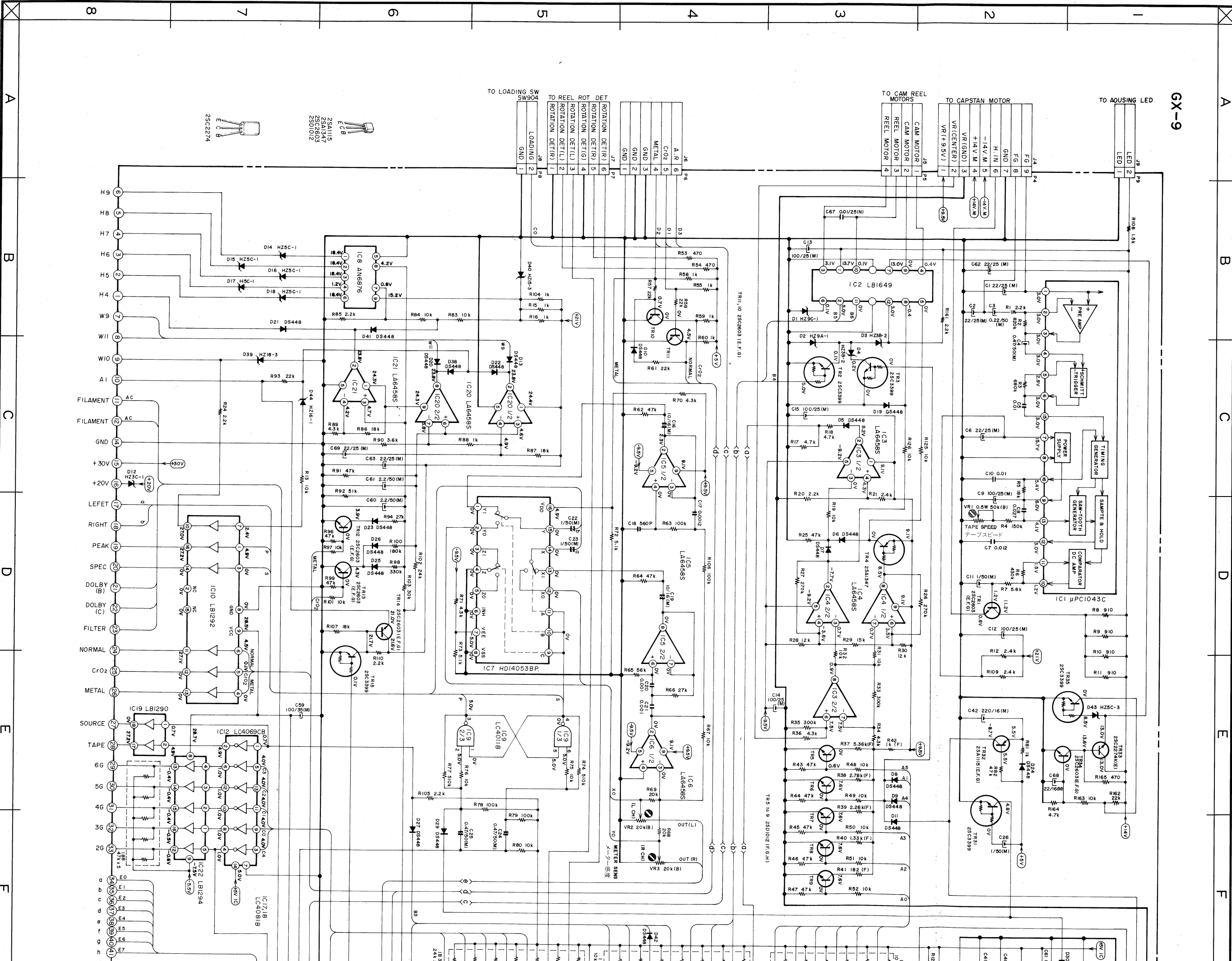
- TR61.....B4
TR61b.....B4
TR62.....B4
TR62b.....B4
TR63.....B4
TR63b.....B4
TR64.....B4
TR64b.....B4
TR65.....B4
TR65b.....B4
TR66.....A4
TR66b.....A4
TR67.....B4
TR67b.....B4
TR68.....A4
TR68b.....A4
TR69.....B4
TR70.....B4
TR70b.....A4
TR71.....B3
TR72.....B3
TR72b.....A3
TR76.....B2
TR77.....A2
TR80.....A1
TR81.....A2
TR82.....A1
TR83.....B1
TR84.....B1
TR85.....B1
TR86.....B1
TR87.....C1
TR88.....B1
TR89.....B1
TR90.....B1
TR91.....C2
TR92.....B1
TR93.....B1
TR94.....A1
TR95.....A1
TR96.....B1
TR97.....B1

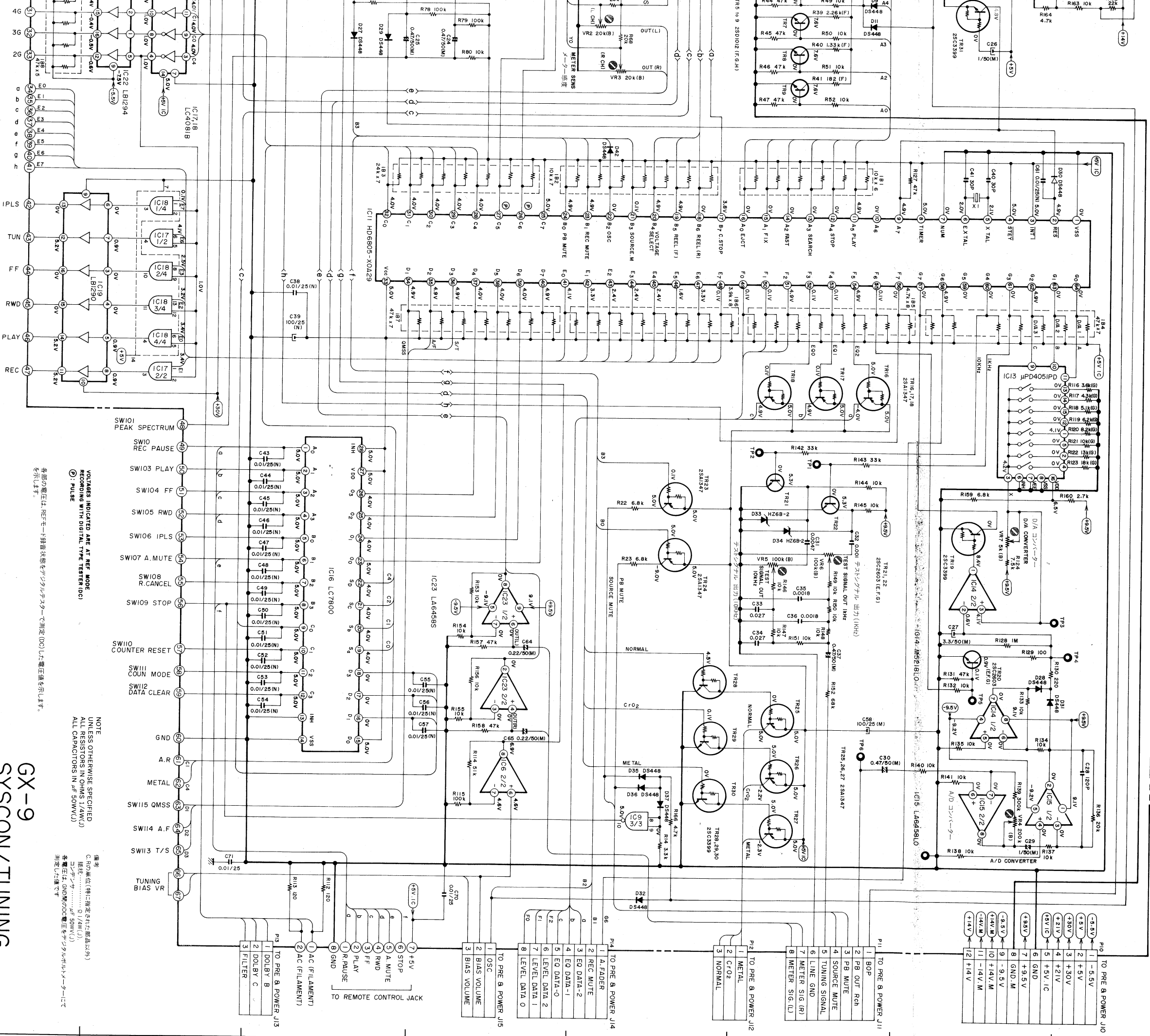


- TR60.....2SK240
TR61,64 to 66,68,70,84,87,89,92.....2SC3382
TR62,63,67,69,83,88,90,91.....2SA1391
TR80,93,97.....2SC2603
TR81,95.....2SA1115
TR82.....2SD612
TR85.....2SC3116
TR86.....2SA1248
- = NPN TRANSISTOR
□ = PNP TRANSISTOR

PRE AMP / POWER PCB T2069A504A
プリアンプ・電源基板

注意: △の付いた部品は、安全上重要部品です。交換の際は、指定部品以外は使用しないこと。
WARNING: △ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURERS RECOMMENDED PARTS.
Avertissement: △ Il indique les composants critiques de sécurité pour maintenir le degré de sécurité de l'appareil. Ne remplacer les composants dont le fonctionnement est critique pour la sécurité que par des pièces recommandées par le fabricant.





VOLTAGES INDICATED ARE AT REF MODE
MEASURING WITH DIGITAL TYPE TESTER(100)
① PULSE

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS (1/4W/1%)
ALL CAPACITORS IN μF (50WV)

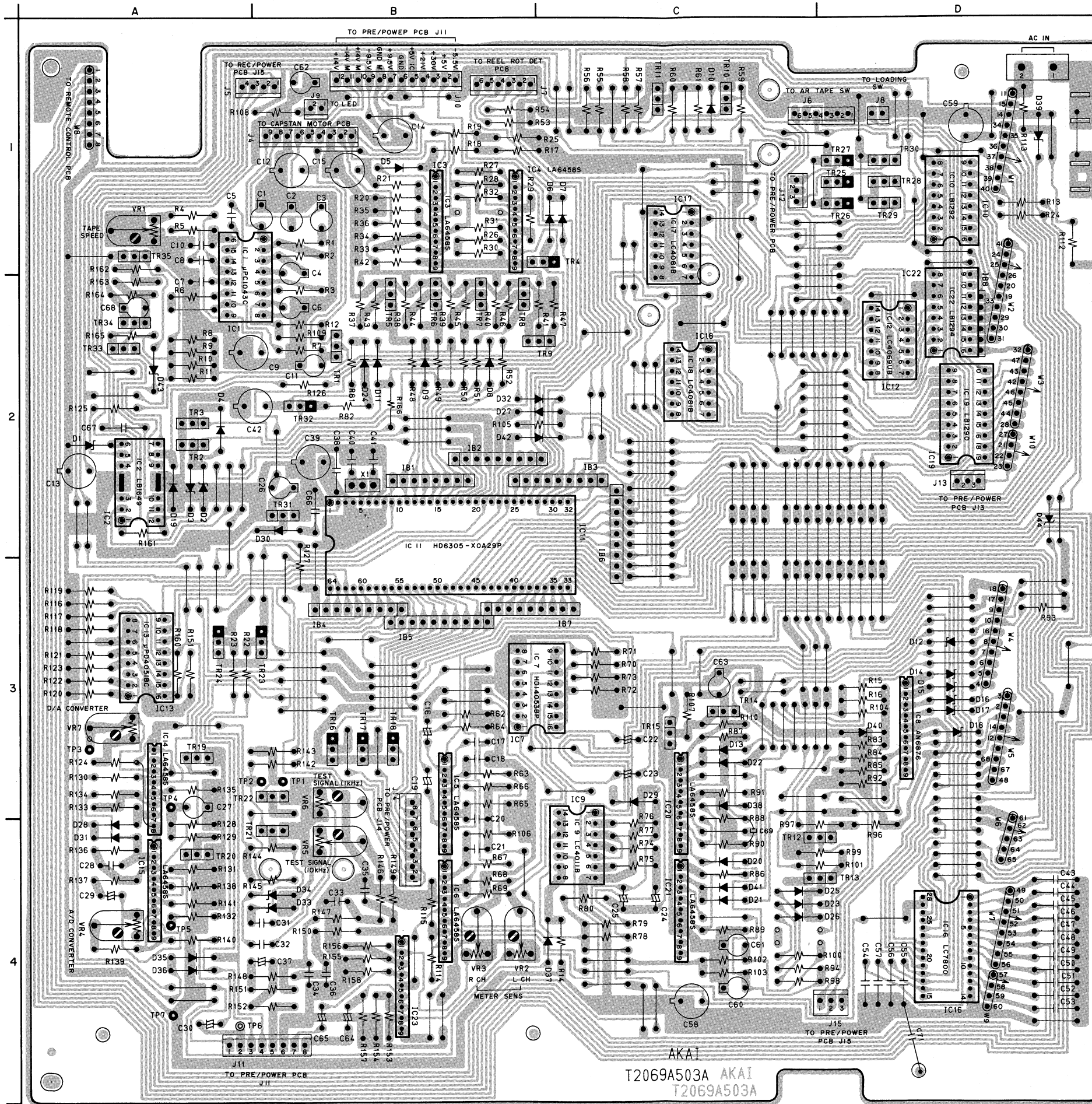
備考
C: 100μF位(特に指定された部品以外)
抵抗値……………Ω(1/4W/1%)
各電圧は、(A/D)側のDC電圧をデジタルマルチメータにて
測定した値です

GX-9
SYSCON/TUNING
SCHEMATIC DIAGRAM
NO.3-3 850211A²

F G H I J K

1 2 3 4 5 6 7 8

- P10 TO PRE & POWER J10
1 -5.5V
2 +5V
3 +30V
4 +21V
5 +5V IC
6 GND
7 +9.5V
8 GND.M
9 -9.5V
10 +14V.M
11 -14V.M
12 +14V
- P11 TO PRE & POWER J11
1 BOP
2 PB OUT Rch
3 PB MUTE
4 SOURCE MUTE
5 TUNING SIGNAL
6 LINE GND
7 METER SIG (R)
8 METER SIG (L)
- P12 TO PRE & POWER J12
1 METAL
2 C102
3 NORMAL
- P14 TO PRE & POWER J14
1 A.FADER
2 REC MUTE
3 EO DATA-2
4 EO DATA-1
5 EO DATA-0
6 LEVEL DATA 2
7 LEVEL DATA 1
8 LEVEL DATA 0
- TO PRE & POWER J15
1 05C
2 BIAS VOLUME
3 BIAS VOLUME
- TO REMOTE CONTROL JACK
1 R.PAUSE
2 PLAY
3 FF
4 RWD
5 A.MUTE
6 STOP
7 +5V
8 GND
- P13 TO PRE & POWER J13
1 AC (FILAMENT)
2 AC (FILAMENT)
3 FILTER



SYCON/TUNING PCB T2069A503A
シスコ・チューニング基板

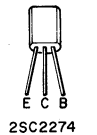
LOCATION OF COMPONENTS

IC

- IC1.....A1
- IC2.....A2
- IC3,4.....B1
- IC5.....B3
- IC6.....B4
- IC7.....B3
- IC8.....D3
- IC9.....C4
- IC10.....D1
- IC11.....B2
- IC12.....D2
- IC13,14.....A3
- IC15.....A4
- IC16.....D4
- IC17.....C1
- IC18.....C2
- IC19.....D2
- IC20.....C3
- IC21.....C4
- IC22.....D2
- IC23.....B4

TR

- TR1.....B2
- TR2,3.....A2
- TR4.....B1
- TR5to9.....B2
- TR10,11.....C1
- TR12,13.....C4
- TR14,15.....C3
- TR16,17,18.....B3
- TR19.....A3
- TR20.....A4
- TR21.....B4
- TR22.....B3
- TR23,24.....A3
- TR25to30.....D1
- TR31,32.....B2
- TR33,34,35...A2



- = NPN TRANSISTOR
- = PNP TRANSISTOR

- TR1,10 to 14,20,21,22,34
----- 25C2603
- TR2,3,15,19,28 to 31,35
----- 25C3399
- TR4,16,17,18,23 to 27
----- 25A1347
- TR5 to 9 ----- 25DI012
- TR32 ----- 25A1115
- TR33 ----- 25C2274