

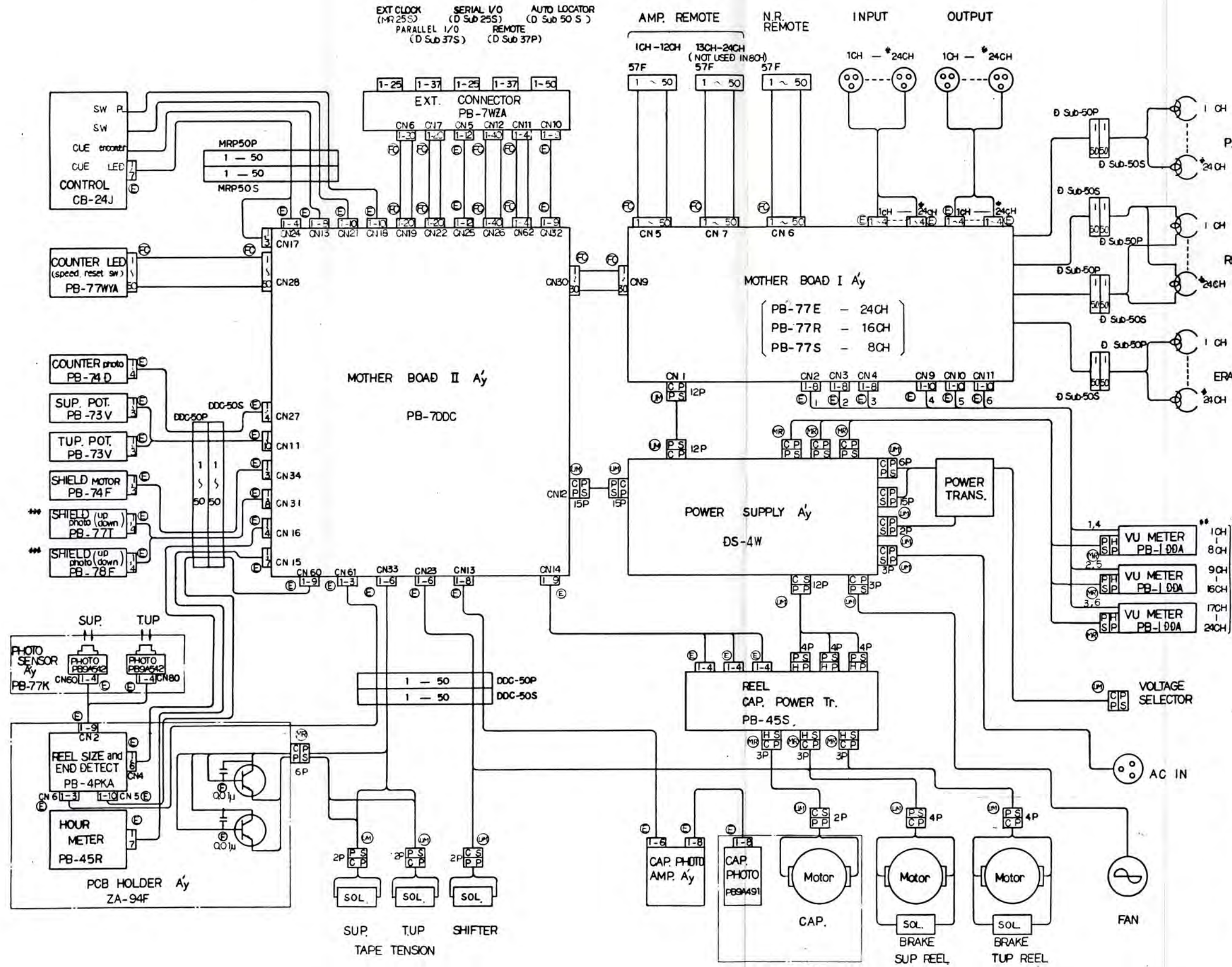
MTR-90III Master Tape Recorder Schematic Diagrams

Type A-

OTARI PART NO.	DESCRIPTION	DRAWING NO.
148(01-04)56	INTERCONNECTION DIAGRAM	3-16386
T00740A	TAPE TRANSPORT ASSEMBLY	3-16388
PB-4PKA	REEL SIZE DETECT PCB ASSEMBLY	3-15363
PB-45R	HOUR METER PCB ASSEMBLY	4-30767
PB-7WYA	TAPE COUNTER DISPLAY PCB ASSEMBLY	4-47144
PB-46A	TACHO SENSOR AMP. PCB ASSEMBLY	4-31239
PB-77I	TACHO SENSOR PCB ASSEMBLY	4-13239
PB-45S	REEL MDA ASSEMBLY	4-30796
PB-16KA	REC. AND REPRO AMP. PCB ASSEMBLY	3-8445
PB-77E	MOTHER BOARD I ASSEMBLY	3-7068
	INPUT AND OUTPUT WIRE ASSEMBLY	4-30773
PB-77F	VU METER AMP. PCB ASSEMBLY	3-6946
PB-4HQB	REEL CONTROL PCB ASSEMBLY	3-15538
PB-45VA	CAPSTAN CONTROL PCB ASSEMBLY	3-7973
PB-47AB	TRANSPORT CONTROL PCB ASSEMBLY	3-16384
PB-4APA	MASTER CPU PCB ASSEMBLY	3-10435
PB-45YA	I/O PCB ASSEMBLY	3-7974
PB-45Z	TAPE COUNTER PCB ASSEMBLY	3-7070
PB-15L	BIAS CONTROL PCB ASSEMBLY	3-8036
PB-7DDC	MOTHER BOARD II ASSEMBLY	3-16358
PB-7WZA	EXT. CONNECTOR PCB ASSEMBLY	3-16435
DS-4W	POWER SUPPLY ASSEMBLY	3-16390
PB62G	REGULATOR PCB ASSEMBLY	3-7307
PB-62E	POWER SUPPLY PCB ASSEMBLY A	4-30764
PB-62F	POWER SUPPLY PCB ASSEMBLY B	4-30776
CB-112, CB-113	INTERCONNECTION DIAGRAM	3-7059
CB-245	CONNECTION DIAGRAM	3-6941
PB-770	CONNECTION PCB ASSEMBLY	4-30348
PB-46B	AMP. SWITCH PCB ASSEMBLY	4-30349
PB-46C	CONTROL PCB ASSEMBLY	3-6866
PB-46F (-45MB)	SPEED CALCULATOR PCB ASSEMBLY	3-7325
PB-77N	7 SEG. LED PCB ASSEMBLY	4-30123

Rev. 1

元	國	生	產	圖	取	型	TYPE
1-1636	3-16385	3-16386	A				



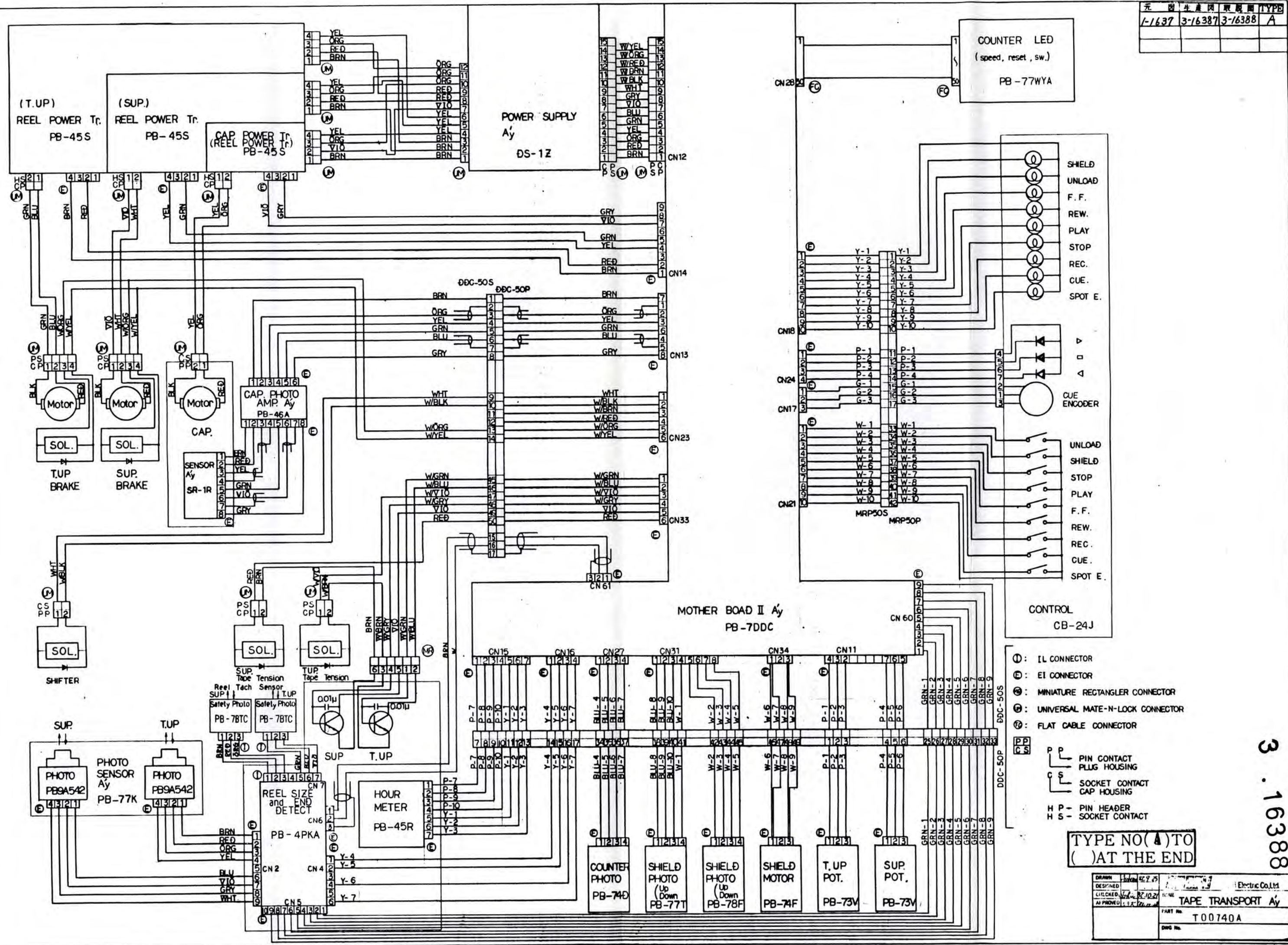
- NOTES
- ⊕ : EI CONNECTOR
 - ⊙ : MINIATURE RECTANGLER CONNECTOR
 - ⊗ : UNIVERSAL MATE-IN-LOCK CONNECTOR
 - ⊖ : FLAT CABLE CONNECTOR
 - 9P : 9 CIRCUITS
 - P P : PIN CONTACT
 - PLUG HOUSING
 - C S : SOCKET CONTACT
 - CAP HOUSING
 - H P - PIN HEADER
 - H S - SOCKET CONTACT
 - ⊕ : MYLAR FILM CAPACITOR (±5% 50V)

PART. NO.	*	**	***	UP	DOWN
123 (13) 56	24	1-24	PB-77T	PB-78F	
123 (05) 36	16	1-16	PB-77T	PB-78F	
123 (12) 36	16	1-16	PB-77T	PB-78F	
123 (01) 81	8	1-8	PB-78F	PB-77T	

TYPE NO(A) TO
() AT THE END

DRAWN	K. S. 22-15	DATE	1972-11
DESIGNED			
CHECKED			
APPROVED			
Otari Electric Co. Ltd.			
NAME INTER CONNECTION Diagram			
PART No. 148 (1/2) 56			
DWG No.			
REV.	No.	DATE	DRW APP

3 16386



COUNTER LED
 (speed, reset, sw.)
 PB-77WYA

SHIELD
 UNLOAD
 F.F.
 REW.
 PLAY
 STOP
 REC.
 CUE.
 SPOT E.

CUE ENCODER

UNLOAD
 SHIELD
 STOP
 PLAY
 F.F.
 REW.
 REC.
 CUE.
 SPOT E.

CONTROL
 CB-24J

- ①: IL CONNECTOR
- ②: EI CONNECTOR
- ③: MINIATURE RECTANGLER CONNECTOR
- ④: UNIVERSAL MATE-N-LOCK CONNECTOR
- ⑤: FLAT CABLE CONNECTOR

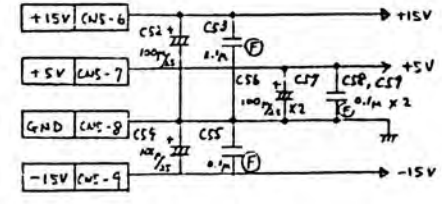
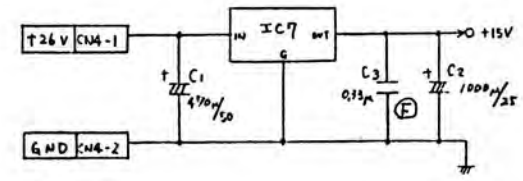
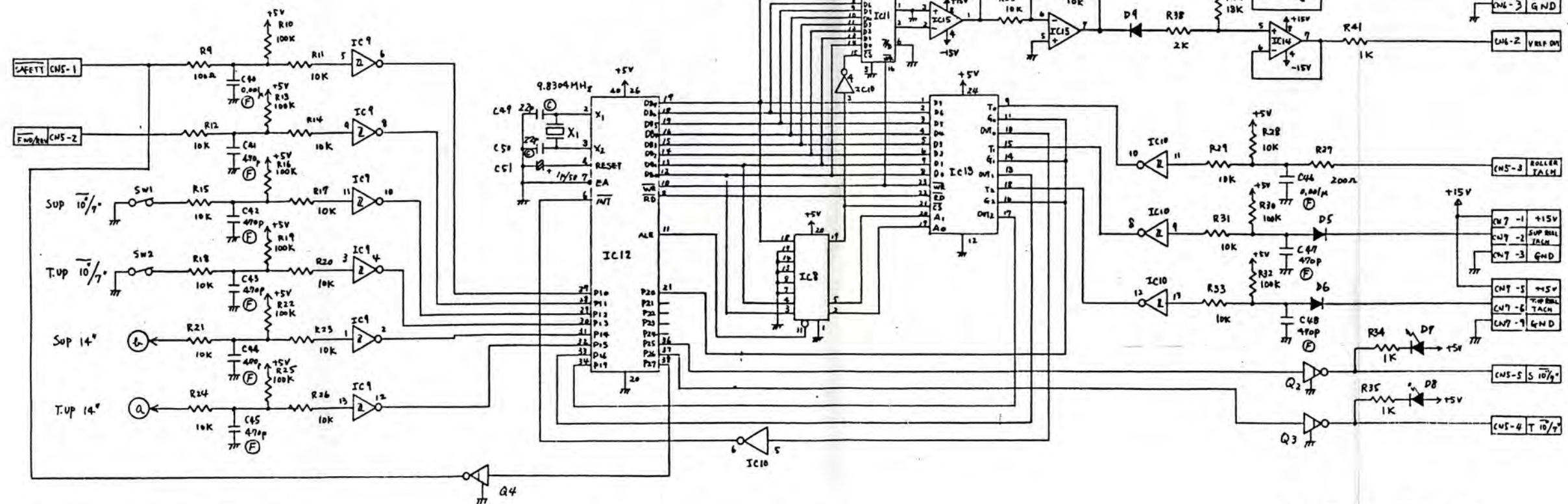
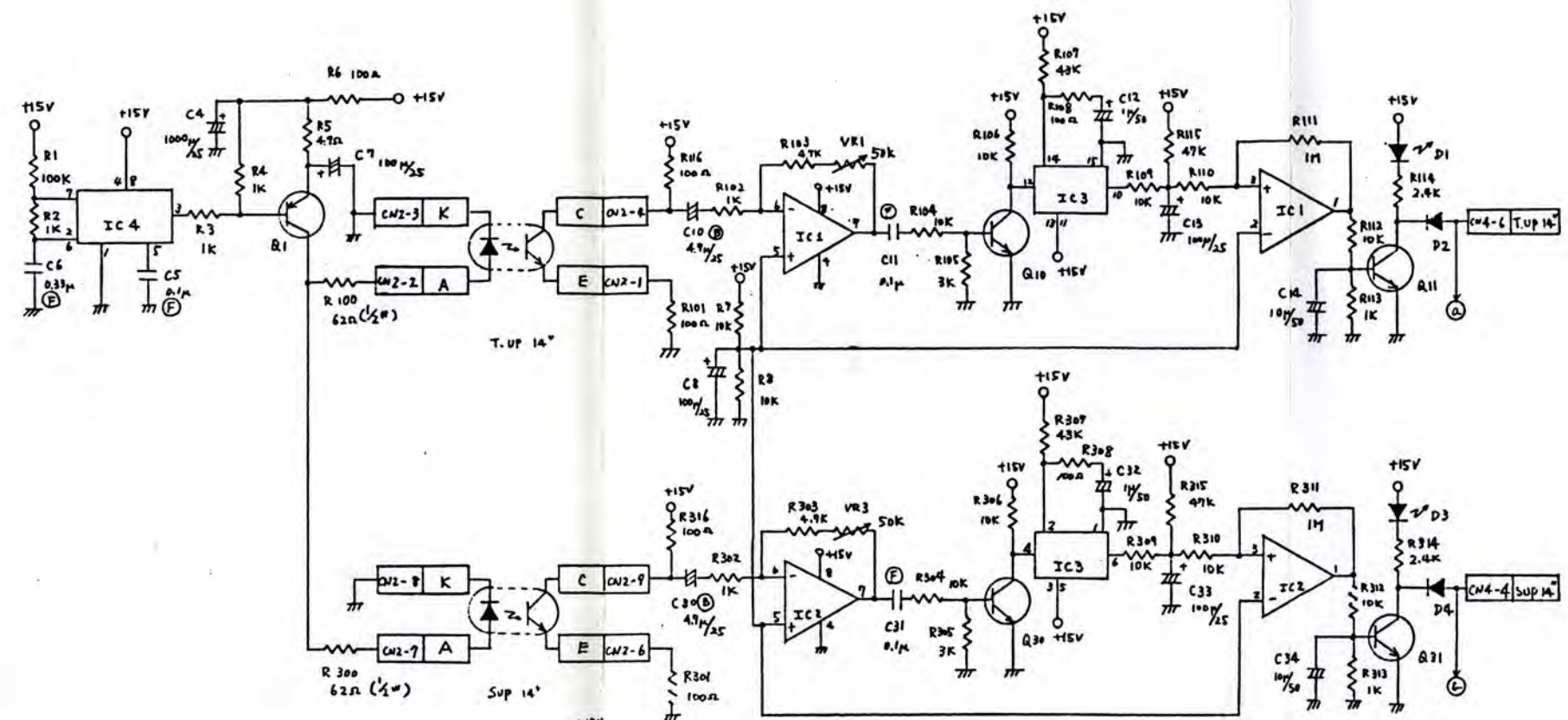
- P P PIN CONTACT
- C S PLUG HOUSING
- C S SOCKET CONTACT
- CAP HOUSING
- H P - PIN HEADER
- H S - SOCKET CONTACT

TYPE NO (▲) TO
 () AT THE END

DRAWN	DATE	BY	REVISION	Electric Co., Ltd
CHECKED	DATE	BY	NAME	TAPE TRANSPORT Ay
APPROVED	DATE	BY	NAME	T 00740A
PART No.				ENG No.

3. 16388

REF. NO.	OTARI PART NO.	DESCRIPTION
IC 1, 2, 14, 15	IMC 4558C	NPC 4558C
3	IMC 14538	MC 14538B
4	I-NB555V	NE555N
7	IMC78M15	MPC78M15H
8	IQ 373	TC74HC 373P
9, 10	IQ 14	SN74HC14N
11	T-0116	HP9528JN
12	PG-1591	R6MAY
13	IMSL 8253	M5MB2C53-FRS
A 1	QA1020Y	2SA1020Y
10, 11	QC1685R	2SC1685R
30, 31		
2, 3, 4	Q-0010	RT1N441S
D 1, 3, 7, 8	PN-TLR124	TLR124
2, 4, 5, 6	PN-0199	1S1585LBS
9		



TYPE NO(A) TO
() AT THE END

NOTES : UNLESS OTHERWISE SPECIFIED

- RESISTANCE VALUES ARE IN OHMS, ±W, 5%.
- CAPACITANCE VALUES ARE IN FARADS, 50V.
- CAPACITOR SYMBOL MARKS ARE AS FOLLOWS.
 - ⊕ : ALUMINUM ELECTROLYTIC CAPACITOR.
 - ⊖ : BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR.
 - ⊙ : NYLAR FILM CAPACITOR(±5%, 50V)
 - ⊚ : POLYSTYRENE FILM CAPACITOR(±5%, 50V)
 - ⊛ : CERAMIC CAPACITOR.
 - ⊜ : MICA CAPACITOR(±5%)

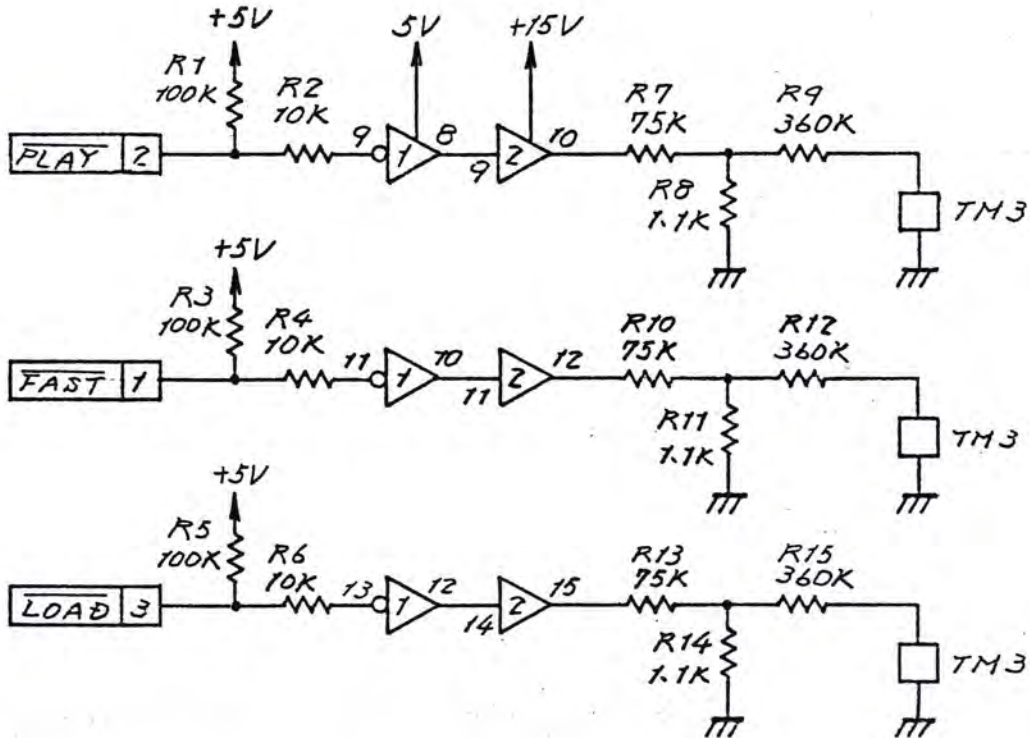
- ⊕ : TANTALUM ELECTROLYTIC CAPACITOR.
- ⊚ : POLYPROPYLENE FILM CAPACITOR(±5%)
- ⊙ : LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
- ⊚ : METALLIZED PAPER CAPACITOR(±10%)
- ⊕ : SPARK KILLER.
- ⊚ : SAFETY COMPONENT : REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

Otari Electric Co., Ltd.	
ASSY NO.	形式 PB-4PKA
PART NAME	品名 1/4 117, I: 17 ± PCA
DWG NAME	図名 回路図
PART NO.	品番 PB4PK0A

MODEL H18-90 I
 DWG NO. 3 15363
 02-37 3.84. 2000

14504B (PIN 1 5V)
(PIN 16 15V)
(PIN 8, 13 0V)

REFERENCE NUMBER	OTARI PART NUMBER	DESCRIPTION
IC	1	IMC 14069 MC14069UBCP
	2	IMC 14504 MC14504BCP
TM	1~3	ME49001 TM3



元	図	生産	取説	TYPE
4-30765	4-30766	4-30767	A	

NOTES : UNLESS OTHERWISE SPECIFIED

1. RESISTANCE VALUES ARE IN OHMS, $\frac{1}{2}$ W, 5%.
2. CAPACITANCE VALUES ARE IN FARADS, 50V.
3. CAPACITOR SYMBOL MARKS ARE AS FOLLOWS.
 - # : ALUMINUM ELECTROLYTIC CAPACITOR.
 - ⓑ : BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR.
 - ⓕ : MYLAR FILM CAPACITOR ($\pm 5\%$, 50V)
 - Ⓢ : POLYSTYRENE FILM CAPACITOR ($\pm 5\%$, 50V)
 - Ⓒ : CERAMIC CAPACITOR.
 - Ⓜ : MICA CAPACITOR ($\pm 5\%$)

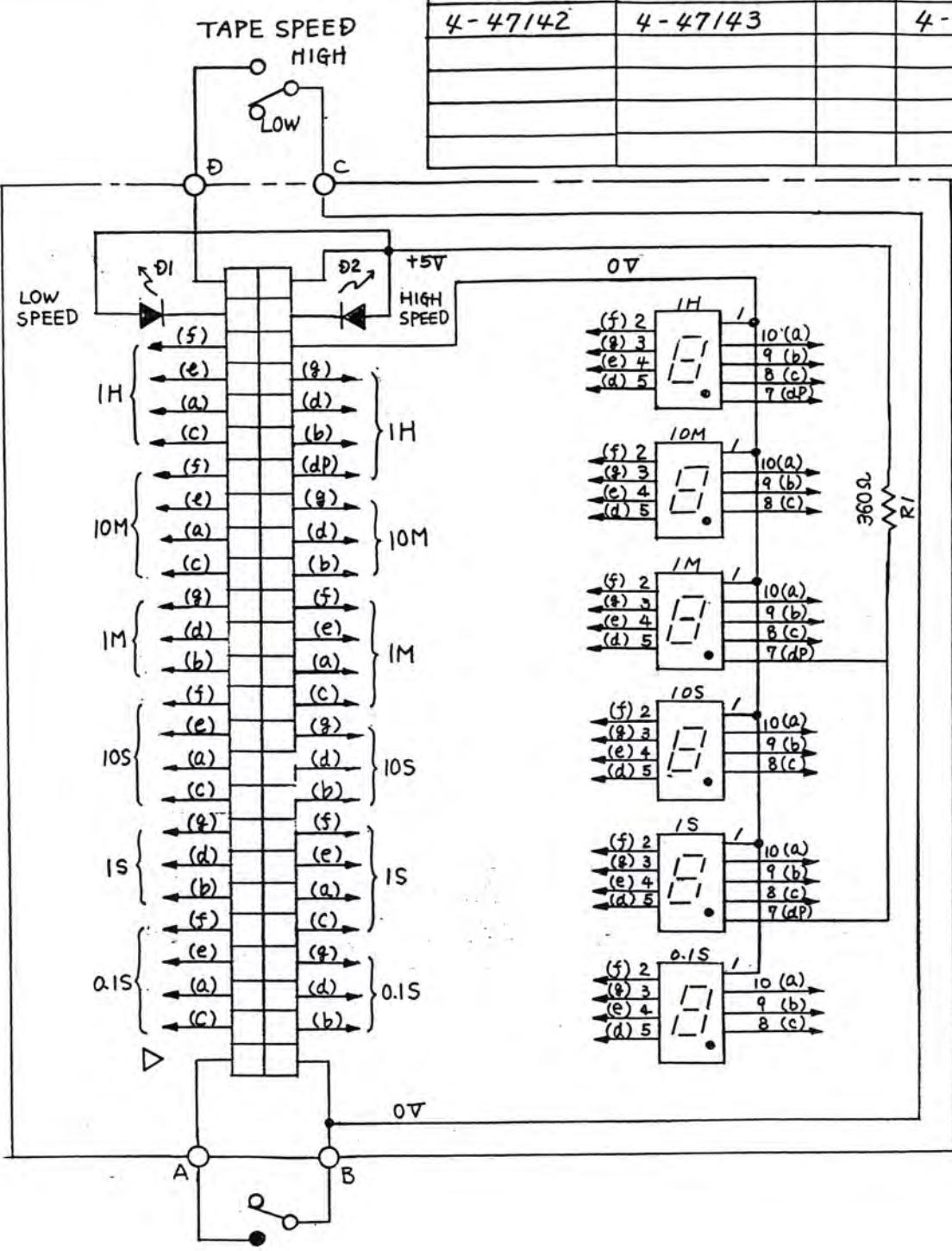
TYPE NO(A) TO () AT THE END

PCB PB9A489

△				DRAWN	タキワ 81.11.7	OTARI Otari Electric Co., Ltd.	NAME HOUR METER PCB Assy
△				DESIGNED	1/27 1/21/81		
△				CHECKED		PART No. PB45R0A	SHEET OF
△				APPROVED			
△				MATERIAL		SCALE /	DIMENSION mm THIRD ANGLE PROJECTION
△				FINISH			
MRK	REV. No.	DATE	DWN	APP			

MODEL A B C D E F H
DWG. No. 4 30767

MOTOZU	SEISAN	LOT	TORISETU DWG. NO.
4-47142	4-47143		4-47144



TYPE NO(▲) TO
() AT THE END

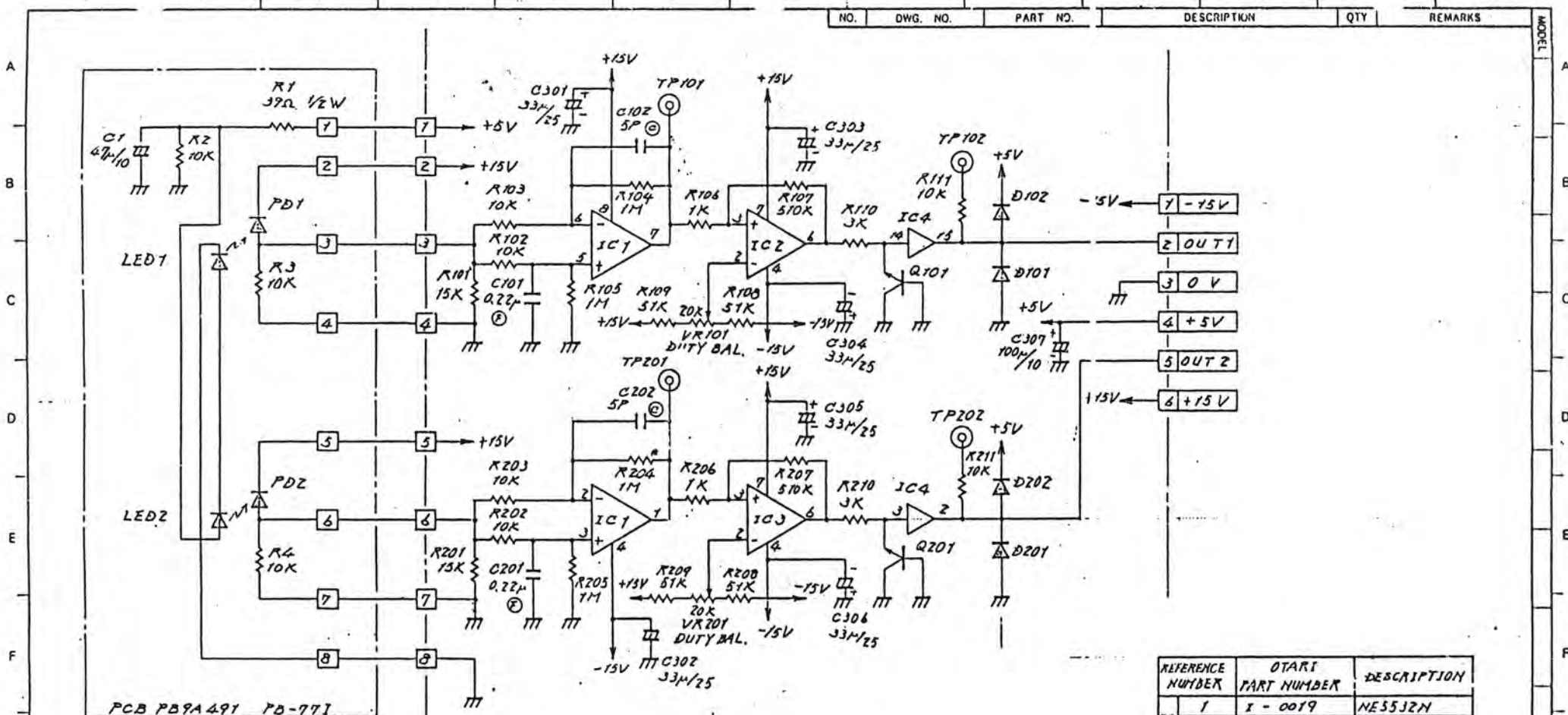
REF. NO.	OTARI PART NO.	DESCRIPTION
D 1, 2	PNTLY124	TLY124
	7seg, LED	PN-P016
		QDSP-7491

THIS SCHEMATIC DIAGRAM IS APPLIED TO

7				DRAWN	7/1	27 Sep '90	OTARI, INC.		
6				DESIGNED	1/1	27 Sep '90			
5				CHECKED	1/1	29 Sep '90	NAME SCHEMATIC		
4				APPROVED	1/1	29 SEP '90	TAPE COUNTER DISPLAY PCB ASSY		
3				MATERIAL			PART NO.		
2							PB7WY0A		
1				FINISH			SCALE		
MРН	REV NO	DATE	DWN	APP			DIMENSION	MM	SHEET
							THIRD ANGLE PROJECTION		OF

4-47144

DWG. NO.



REFERENCE NUMBER	OTARI PART NUMBER	DESCRIPTION
1	X-0019	NE5532N
2, 3	ILM318N	LM318N
4	IMC 14504	MC 14504DCP
Q101, 201	QC 2878	ZSC 2878
D101, 102, 201, 202	PNIS 1588	IS 1588
1, 2	PNLN 65	LN 65
1, 2	PNBPW 34	BPW 34

元	生	取	TYPE
3-7051	4-30792	4-30791	A
		4-31239	B

PCB PB9A492

IC4 { PIN 1 VCC +15V
PIN 14 VDD +5V
PIN 13 MODE 0V
PIN 8 VSS 0V

TYPE NO(A) TO
() AT THE END

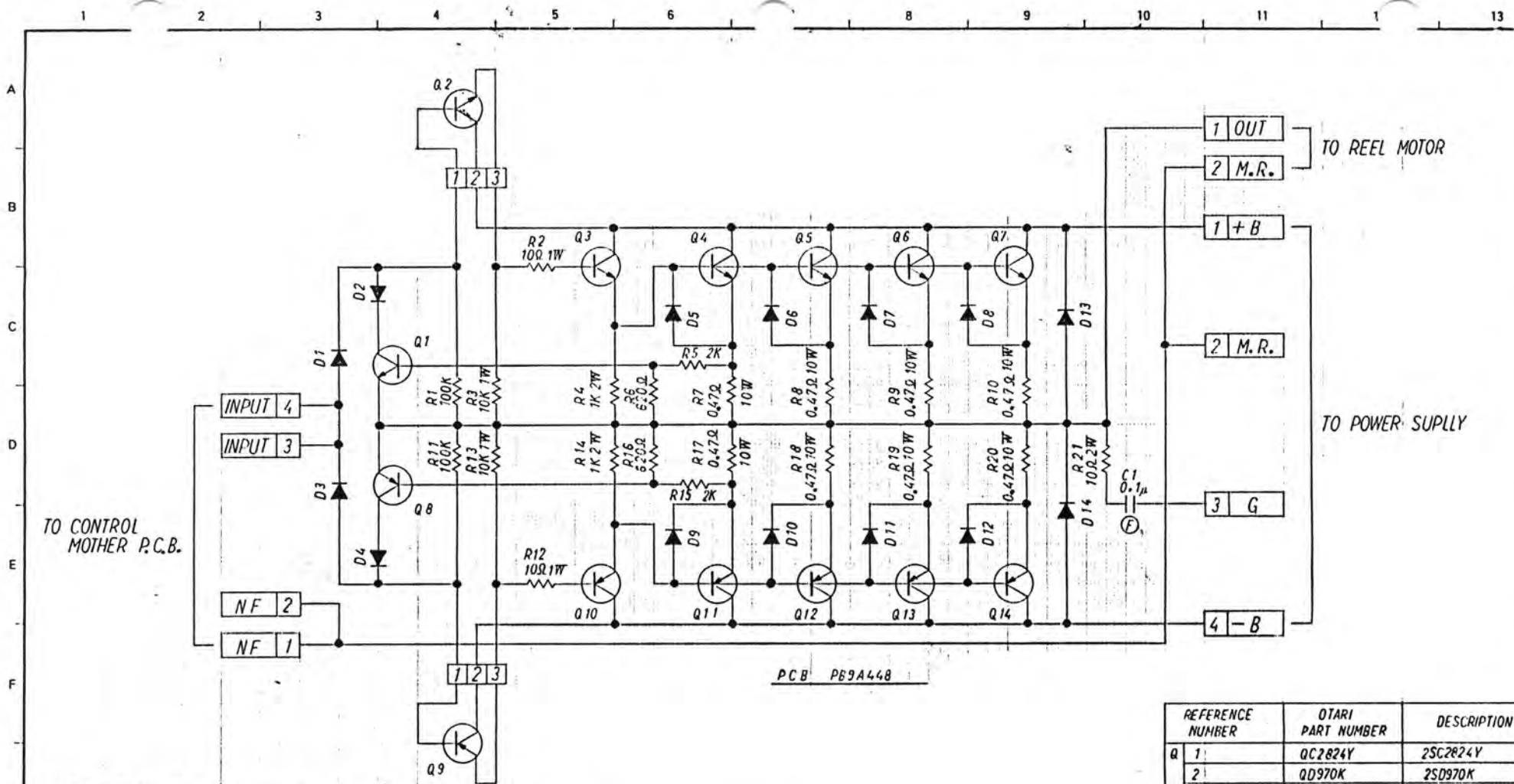
NOTES : UNLESS OTHERWISE SPECIFIED

1. RESISTANCE VALUES ARE IN OHMS, ±W, 5%.
2. CAPACITANCE VALUES ARE IN FARADS, 50V.
3. CAPACITOR SYMBOL MARKS ARE AS FOLLOWS.
 - ⊖ : ALUMINUM ELECTROLYTIC CAPACITOR.
 - ⊕ : BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR.
 - ⊙ : NYLAR FILM CAPACITOR(±5%, 50V)
 - ⊚ : POLYSTYRENE FILM CAPACITOR(±5%, 50V)
 - ⊛ : CERAMIC CAPACITOR.
 - ⊜ : MICA CAPACITOR(±5%)

- ⊕ : TANTALUM ELECTROLYTIC CAPACITOR.
- ⊖ : POLYPROPYLENE FILM CAPACITOR(±5%)
- ⊙ : LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
- ⊚ : METALLIZED PAPER CAPACITOR(±10%)
- ⊛ : SPARK KILLER.
- ⊜ : SAFETY COMPONENT ; REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

DRAWN	DESIGNED	CHEKED	APPVED	MATERIAL	DATE	REV. NO.	DATE	DRAWN	APP	SCALE	DIMENSION	SHEET
											mm	OF
<p>OTARI Otari Electric Co., Ltd.</p> <p>NAME: TACHO SENSOR AMP. PCB</p> <p>PART NO.: PB46A0A</p> <p>SCALE: / DIMENSION: mm SHEET: OF</p>												

DWG NO. 4-31239



PCB PB9A448

元	図	生産	取説	TYPE
3-7053	4-30795	4-30796		A

TYPE NO(A) TO
() AT THE END

NOTES : UNLESS OTHERWISE SPECIFIED

- RESISTANCE VALUES ARE IN OHMS, 1W, 5%.
 - CAPACITANCE VALUES ARE IN FARADS, 50V.
 - CAPACITOR SYMBOL MARKS ARE AS FOLLOWS.
 - (A) : ALUMINUM ELECTROLYTIC CAPACITOR.
 - (B) : BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR.
 - (F) : MYLAR FILM CAPACITOR (±5%, 50V)
 - (S) : POLYSTYRENE FILM CAPACITOR (±5%, 50V)
 - (C) : CERAMIC CAPACITOR.
 - (M) : MICA CAPACITOR (±5%)
 - (T) : TANTALUM ELECTROLYTIC CAPACITOR.
 - (P) : POLYPROPYLENE FILM CAPACITOR (±5%)
 - (L) : LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
 - (M) : METALIZED PAPER CAPACITOR (±10%)
 - (I) : SPARK KILLER.
4. ⚠ SAFETY COMPONENT : REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

REFERENCE NUMBER	OTARI PART NUMBER	DESCRIPTION
Q 1	QC2824Y	2SC2824Y
2	QD970K	2SD970K
3~7	QD5528N	2SD5528N
8	QA1184Y	2SA1184Y
9	QB791K	2SA791K
10~14	QB5528N	2SB5528N
D 1~4	PN1N4448	1N4448
5~12	PNG3J	G3J
13	PN6FD13	6FD13
14	PN6FC13	6FC13

△						DRAWN	1/2000	10/29/81
△						DESIGNED	1/2000	10/22/81
△						CHECKED		
△						APPROVED		
△								
△								
△								
△								
MRK	REV. No.	DATE	DWN	APP				

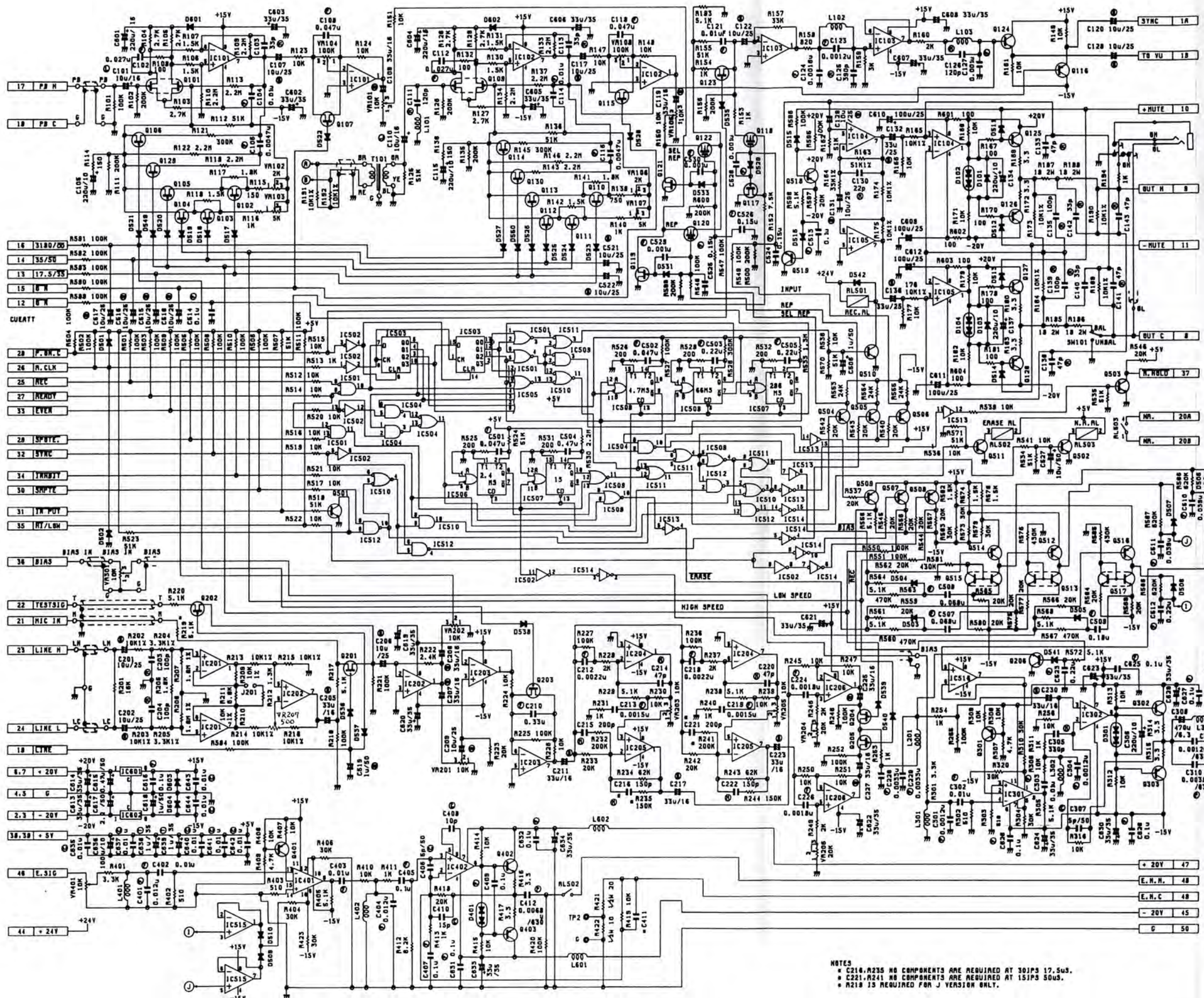
OTARI Otari Electric Co., Ltd.

NAME REEL M.D.A. Assy

PART No. PB 45S 0A

DWG No.

96108 17

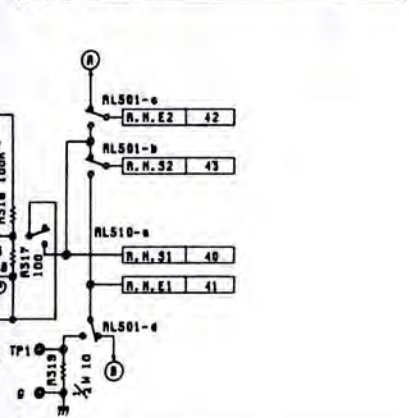


REFERENCE NUMBER	PART NUMBER	DESCRIPTION
IC 101-5, 201-6	J-0017	NJM4580D-X
301.401	J-0023	LM13600R
302	J-0004	LM13100
402	J-0004	NE5540R
501.300	JMC14001	MC14001BCP
502	JMC14008	MC14008BCP
503	JMC14015	MC14015BCP
504.511-2	JMC14011	MC14011BCP
505	JMC14070	MC14070BCP
506-8	JMC14530	MC14530BCP
510	JMC14001	MC14001BCP
513-4	JMC14504	MC14504BCP
515-6	JTL002CP	TL002CP
601	J-0024.26	uM7815.H1SUC
602	J-0025.27	uM7815.H1SUC

101.100	Q2K140L	25K140L
102-7, 110-5		
125, 128, 130	Q5K302L	25K302LorGR
205, 206, 205		
201.203	Q25J104V	25J104VorBL
118, 301, 401	QW10150R	25W10150R
504-8, 512, 514		
514, 518		
110, 120, 122	Q25K330	25K330
124, 501-3, 510	QW10150L	25W10150L
511		
125, 127	QW2344E	25W2344E
126, 128	QW1011E	25W1011E
206, 510	QW2078	25W2078
302	QW13040	25W13040
303	QW0840	25W0840
402	QW13000	25W13000
403	QW7400	25W7400
513, 515, 517	QW22010	25W22010

D 101, 103, 501-41	PH-0100	FDH015
548, 550		
102, 104, 301, 401	PKB-265	KB-265
542, 601-4	PMH-02	9H-1A-02
L 101-3, 201, 601-2	IM10072	PP100-332K
301-3, 401	IM10071	PPM-271K
402	IM1007	3640-271
T 101	TP1010R	

FUNCTION OF POTENTIOMETERS	
VR101	REP. LEVEL
VR102	REP. EQ HIGH SPEED
VR103	REP. EQ LOW SPEED
VR104	REP. LOW FREQ. COMP.
VR105	SEL. REP. LEVEL
VR106	SEL. REP. EQ HIGH SPEED
VR107	SEL. REP. EQ LOW SPEED
VR108	SEL. REP. LOW FREQ. COMP.
VR201	REC LEVEL
VR202	REC HARM. LEVEL
VR203	REC HIGH COMP. HIGH SPEED
VR204	REC PHASE COMP. HIGH SPEED
VR205	REC HIGH COMP. LOW SPEED
VR206	REC PHASE COMP. LOW SPEED
VR207	REC CHAN ADJ.
VR301	BIAS LEVEL
VR401	ERASE



TEST POINT	
TP1	BIAS CURRENT
TP2	ERASE
J201	SPKR: NORMAL
	SHORT: WITH OPTIONAL INPUT TRANSFORMER
SW101	BAL: BALANCED OUTPUT
	UNBAL: UNBALANCED OUTPUT

REFERENCE DESIGNATIONS	
LAST USED	NOT USED
IC100	Q200
Q100	L200
D100	VR207
L103	R258
T101	C230
VR100	IC302
R104	D303
IC143	D301
IC200	VR301
	C412
	L602
	C411
	Q100
	D300
	D532
	D534
	D536
	D538
	D540
	D542
	D544
	D546
	D548
	D550
	R120
	R144
	R522
	C520

NOTES:
 * C216, R235 NO COMPONENTS ARE REQUIRED AT 30IPS 17.5us.
 * C221, R241 NO COMPONENTS ARE REQUIRED AT 15IPS 50us.
 * R218 IS REQUIRED FOR J VERSION ONLY.

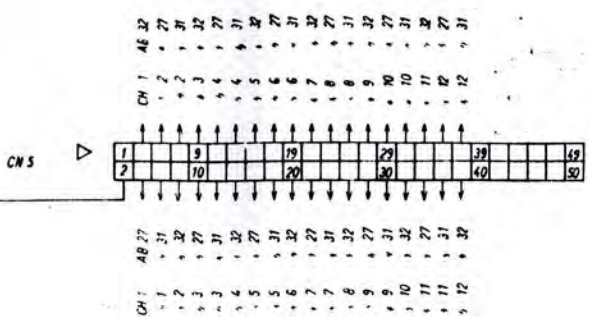
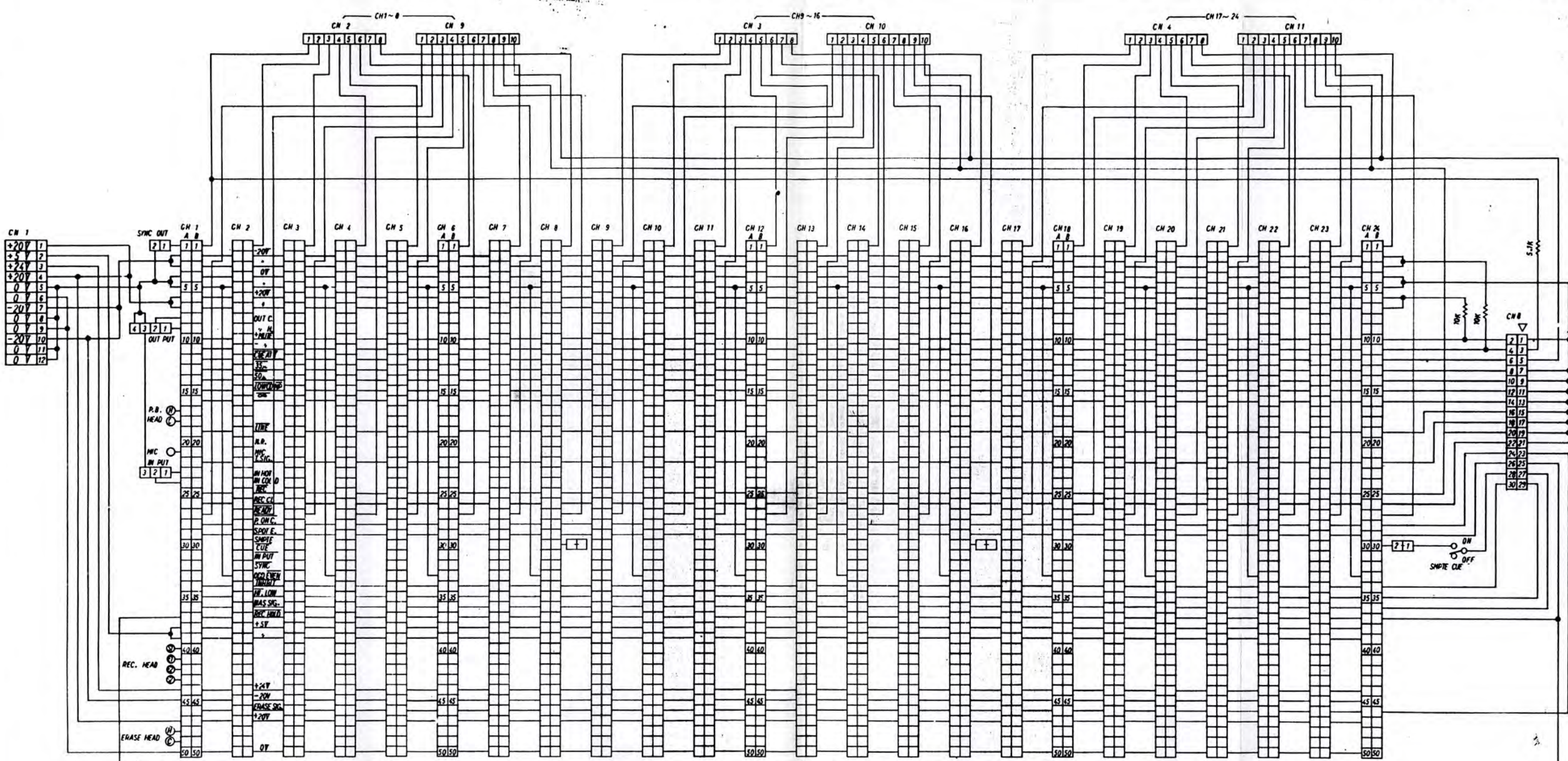
NOTES: UNLESS OTHERWISE SPECIFIED
 1. RESISTANCE VALUES ARE IN OHMS, K=1000, M=1,000,000
 2. CAPACITANCE VALUES ARE IN FARADS, S=50V
 3. CAPACITOR SYMBOL MARKS ARE AS FOLLOWS:
 ○ TANTALUM ELECTROLYTIC CAPACITOR
 □ POLYPROPYLENE FILM CAPACITOR (S2)
 ○ LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR
 ○ METALLIZED PAPER CAPACITOR (10Z)
 ○ SPARK KILLER
 ○ SAFETY COMPONENT (REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON)

TYPE NO. (A) TO (AT) THE END

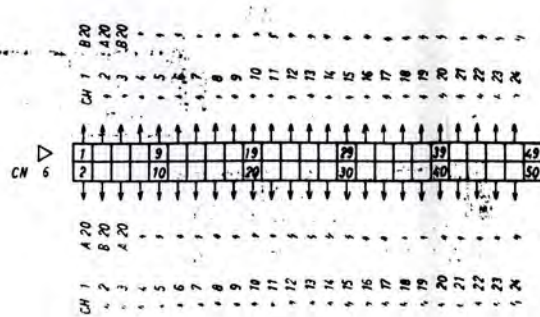
NAME REC. & REPRO AMP.
 P.C.B. ASS'Y
 PART NO. PB16K0A
 LOT

DMG. 3-8445

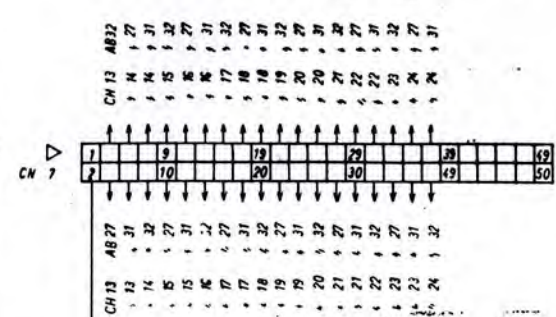
TO VU METER AMPLIFIER PCB ASSY



AMPLIFIER REMOTE CH 1 ~ 12



NR REMOTE



AMPLIFIER REMOTE CH 13 ~ 24

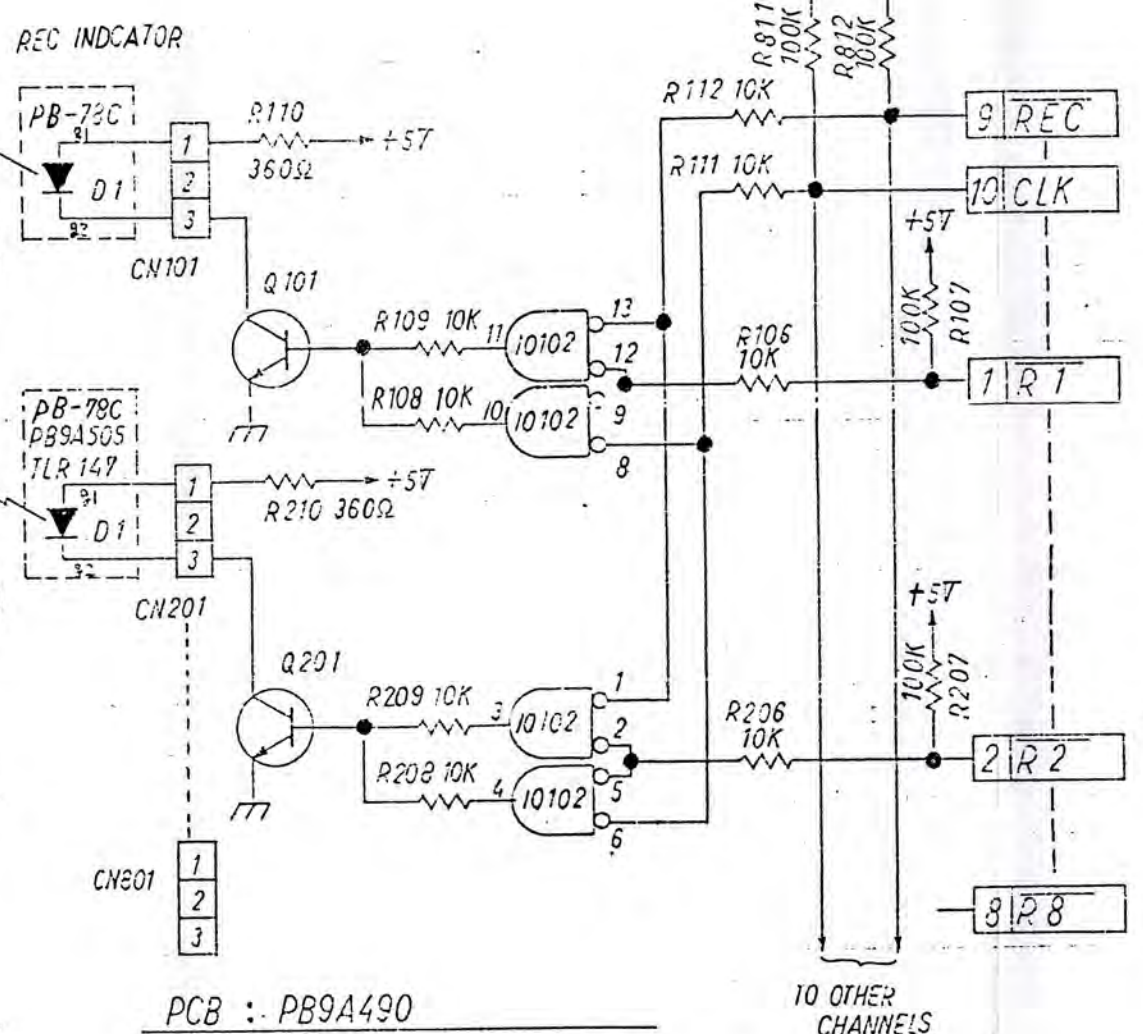
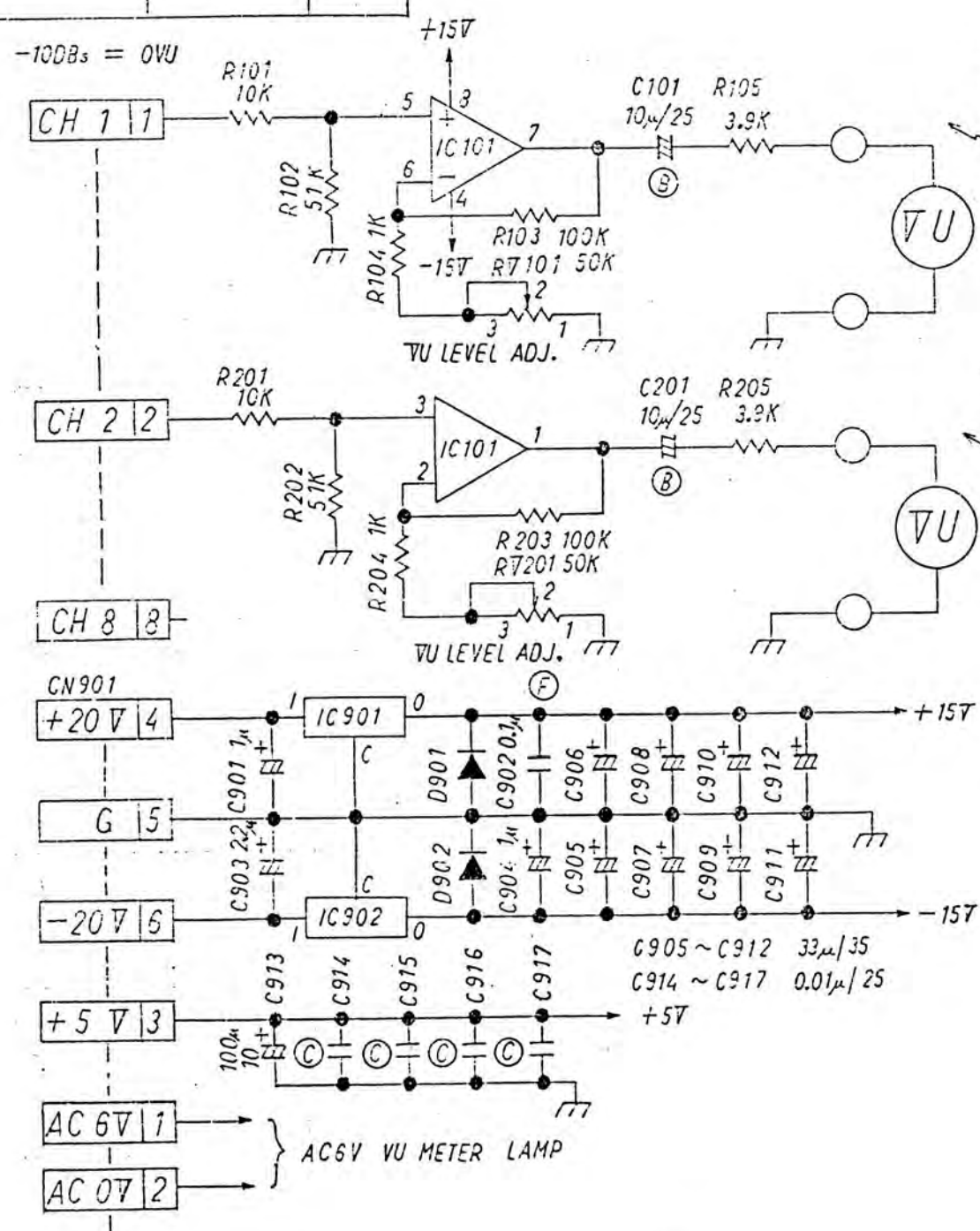
TYPE NO(A) TO
() AT THE END

- PCR PR9 A45B
- PB-77R 16CH
- PB-77S 8CH

MOTHER BOARD ASSY
1-1 NO
PB77EQA

元	圖	生	產	圖	取	說	圖	TYPE
3-6940	3-6945	3-6946						

NO.	DWG. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
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PCB : PB9A490

CH NUMBER	REFERENCE NUMBER
3	IC3XX, Q3XX, C3XX, R3XX
4	IC3XX, Q4XX, C4XX, R4XX
5	IC5XX, Q5XX, C5XX, R5XX
6	IC5XX, Q6XX, C6XX, R6XX
7	IC7XX, Q7XX, C7XX, R7XX
8	IC7XX, Q8XX, C8XX, R8XX
RV 101~801 VU LEVEL ADJ.	

REFERENCE NUMBER	OTARI PART NUMBER	DESCRIPTION
IC	101,301,501,701	I-0017 NJM4560 D-X
	102,302,502,702	IMC14001 MC14001B
	901	I-0024 I-0026 7915, 7915, 79M15
	902	I-0025 I-0027 7915, 79M15
Q	101~801	QC1815BL 2SC1815BL
D	901,902	PNSM1-02 SM-1A-02
	1	PNTLR147 TLR147

ODD NUMBER CHANNELS AER SAME AS CH1
EVEN " " CH2

TYPE NO(A) TO
() AT THE END

NOTES : UNLESS OTHERWISE SPECIFIED

- RESISTANCE VALUES ARE IN OHMS, ±W, 5%.
- CAPACITANCE VALUES ARE IN FARADS, 50V.
- CAPACITOR SYMBOL MARKS ARE AS FOLLOWS.
 - ⊖ : ALUMINUM ELECTROLYTIC CAPACITOR.
 - ⊕ : BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR.
 - ⊖ : MYLAR FILM CAPACITOR(±5%, 50V)
 - ⊖ : POLYSTYRENE FILM CAPACITOR(±5%, 50V)
 - ⊖ : CERAMIC CAPACITOR.
 - ⊖ : MICA CAPACITOR(±5%)

- ⊖ : TANTALUM ELECTROLYTIC CAPACITOR.
- ⊖ : POLYPROPYLENE FILM CAPACITOR(±5%)
- ⊖ : LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
- ⊖ : METALLIZED PAPER CAPACITOR(±10%)
- ⊖ : SPARK KILLER.
- ⊖ : SAFETY COMPONENT : REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

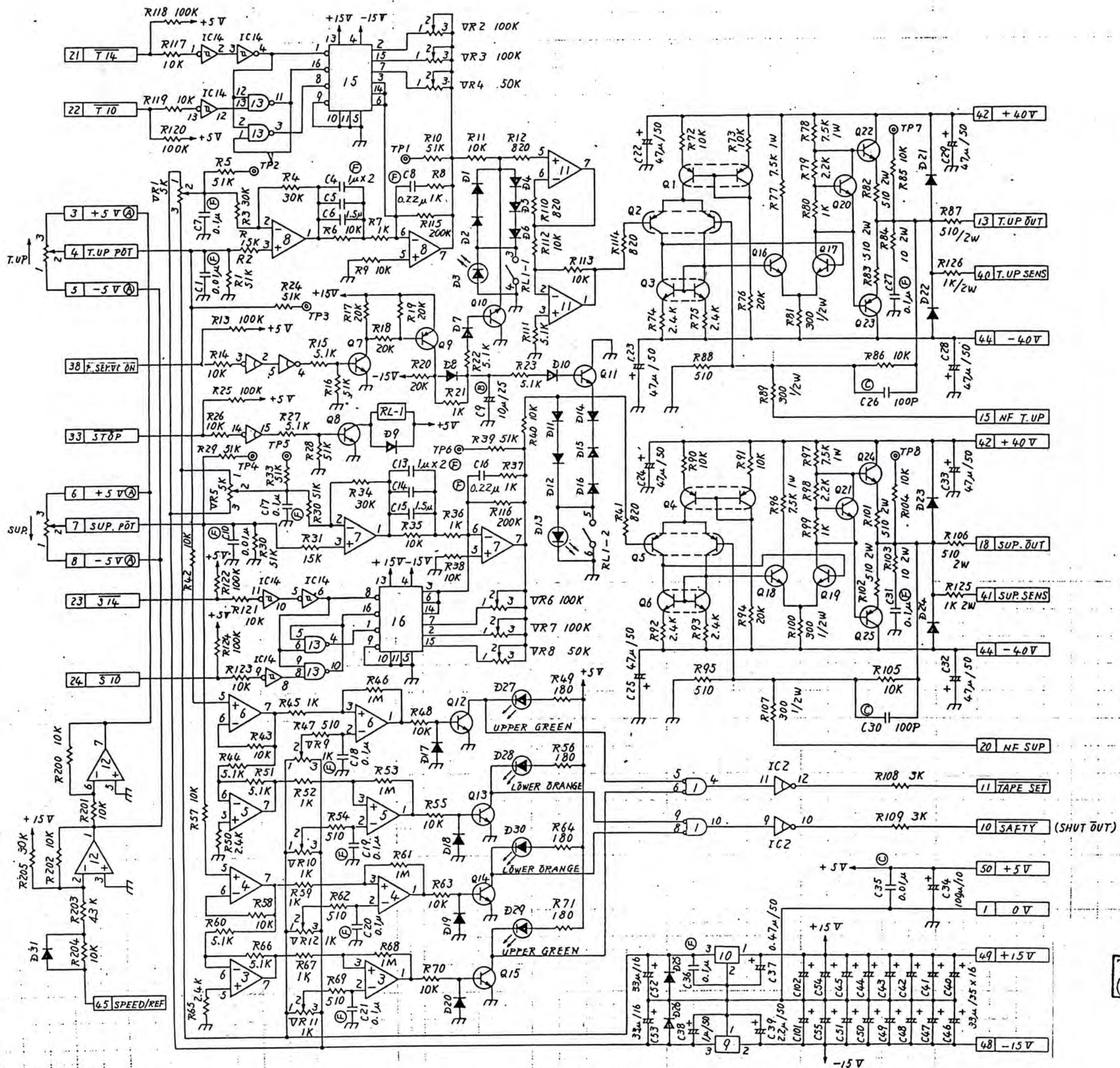
DRAWN	DESIGNED	CHECKED	APPROVED	MATERIAL	FINISH	SCALE	DIMENSION	SHEET
						X	THIRD ANGLE PROJECTION	/ OF /

OTARI Otari Electric Co., Ltd.

品名 VU METER AMPLIFIER PCB ASSY

PART NO. 品番 PB77F0A

DWG NO. 3-6946



Ref No	QTR1 Part No.	Description	
IC	1	1HC14001 NC14001B	
	2	1HC14049 NC14049UB	
	3-8, 11, 12	1HC4558C uPC4558C	
	9	1HC7905H uPC7905H	
	10	1HC7805H uPC7805H or uPC14305H	
	13	1HC14011 NC14011	
	14	1HC14584 NC14584	
	15, 16	'1-0126 NJU7301	
	D	1, 4	0A995G 2SA995G
		2, 5	0A979G 2SA979G
3, 6		0C2291G 2SC2291G	
7, 8, 12-15, 20, 21		0C18158L 2SC18158L	
9		0A10156R 2SA10156R	
10, 11		0C2878 2SC2878	
18-19		0C3421Y 2SC3421Y	
22, 24		0D525Y 2SD525Y	
23, 25		0B595Y 2SB595Y	
P		1, 2, 4-8, 10-12, 14-20, 3, 13	PN-0199 HA171
	9, 21-28, 31	PN-0285 ERA15-02	
	27, 29	PNLN368P LN368P	
	28, 30	PNLN46YP LN46YP	

TEST POINT	
TP1	PREAMP. OUTPUT T.U.P
TP2	OFFSET T.U.P
TP3	INPUT T.U.P
TP4	INPUT SUP.
TP5	OFFSET SUP.
TP6	PREAMP. OUTPUT SUP.
TP7	OUTPUT T.U.P
TP8	OUTPUT SUP

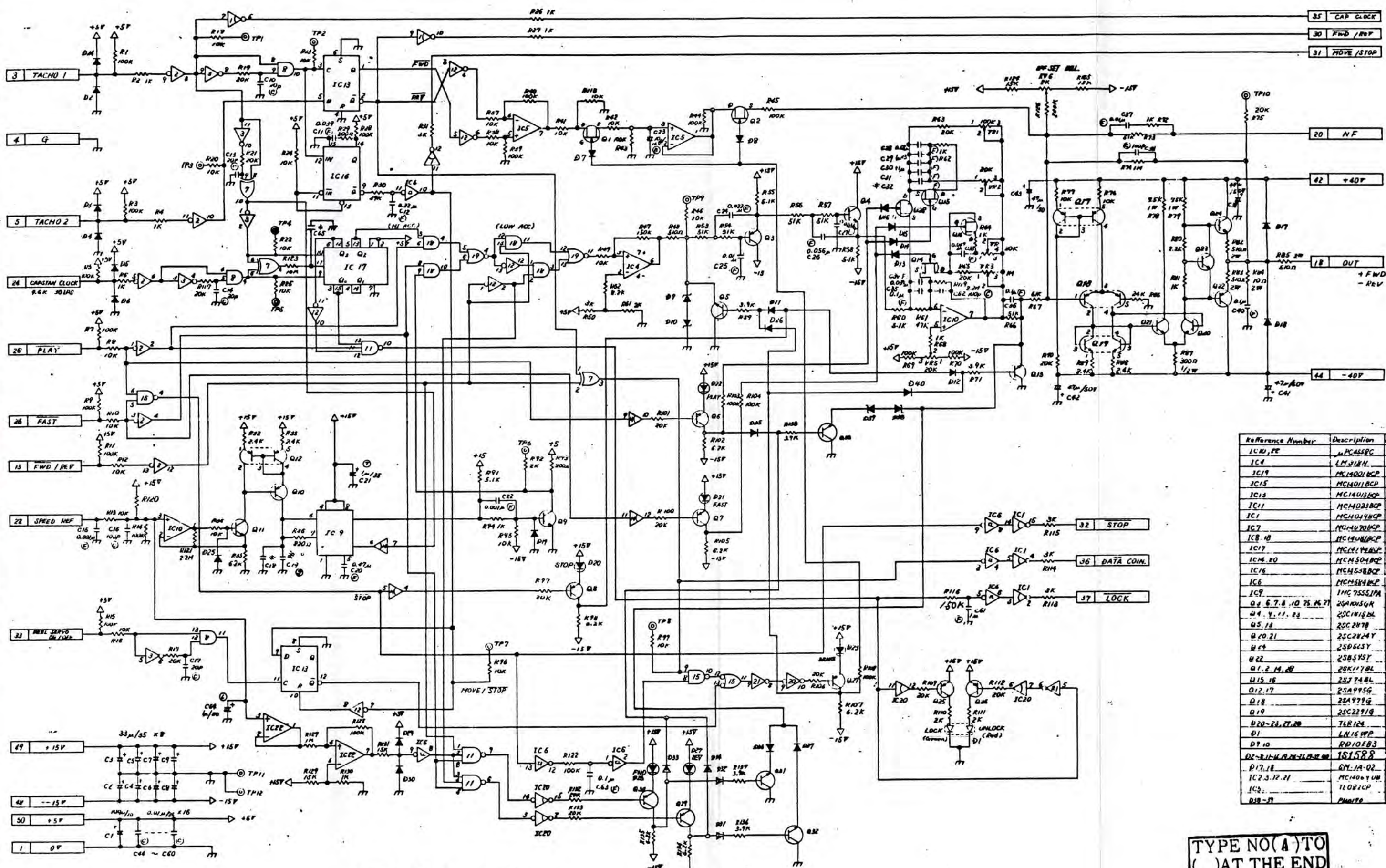
FUNCTION OF POTENTIOMETERS	
VR1	POSITION T.U.P TENSION ARM
VR2	GAIN T.U.P L
VR3	GAIN T.U.P H
VR4	GAIN T.U.P S
VR5	POSITION SUP. TENSION ARM
VR6	GAIN SUP. L
VR7	GAIN SUP. H
VR8	GAIN SUP. S
VR9	UPPER LIMIT T.U.P TENSION ARM
VR10	LOWER LIMIT T.U.P TENSION ARM
VR11	UPPER LIMIT SUP. TENSION ARM
VR12	LOWER LIMIT SUP. TENSION ARM

- NOTES: UNLESS OTHERWISE SPECIFIED
- RESISTANCE VALUES ARE IN OHMS, $\pm 1\%$, 5% .
 - CAPACITANCE VALUES ARE IN FARADS, 50% .
 - CAPACITOR SYMBOL MARKS ARE AS FOLLOWS:
 - ⊖: ALUMINUM ELECTROLYTIC CAPACITOR.
 - ⊕: BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR.
 - ⊙: NYLON FILM CAPACITOR ($\pm 5\%$, 50%)
 - ⊖: POLYSTYRENE FILM CAPACITOR ($\pm 5\%$, 50%)
 - ⊙: CERAMIC CAPACITOR.
 - ⊖: MICA CAPACITOR ($\pm 5\%$)
 - ⊕: TANTALUM ELECTROLYTIC CAPACITOR.
 - ⊙: POLYPROPYLENE FILM CAPACITOR ($\pm 5\%$)
 - ⊖: LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
 - ⊖: METALLIZED PAPER CAPACITOR ($\pm 10\%$)
 - ⊖: SPARK KILLER.
 - ⊖: SAFETY COMPONENT: REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

TYPE NO(A) TO () AT THE END

ASSY NO.	
形式	
PART NAME	REEL CNT PCA
DWG NAME	SCHEME
図番	
PART NO.	PB4HQ.0B

3. 15538



Reference Number	Description	QTY	PART NUMBER
IC1, IC2	LMC4558C	2	LMC4558C
IC4	LM318N	1	LM318N
IC19	MC14001BCP	1	MC14001
IC15	MC14011BCP	1	MC14011
IC18	MC14013BCP	1	MC14013
IC11	MC14023BCP	1	MC14023
IC1	MC14049BCP	1	MC14049
IC7	MC14070BCP	1	MC14070
IC10	MC14081BCP	1	MC14081
IC17	MC14148BCP	1	MC14148
IC18, IC20	MC14504BCP	2	MC14504
IC16	MC14583BCP	1	MC14583
IC6	MC14584BCP	1	MC14584
IC9	MC14585BCP	1	MC14585
Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, Q10	2N4154	10	2N4154
Q11, Q12, Q13, Q14, Q15, Q16, Q17, Q18, Q19, Q20, Q21, Q22, Q23, Q24, Q25, Q26, Q27, Q28, Q29, Q30, Q31, Q32, Q33, Q34, Q35, Q36, Q37, Q38, Q39, Q40, Q41, Q42, Q43, Q44, Q45, Q46, Q47, Q48, Q49, Q50, Q51, Q52, Q53, Q54, Q55, Q56, Q57, Q58, Q59, Q60, Q61, Q62, Q63, Q64, Q65, Q66, Q67, Q68, Q69, Q70, Q71, Q72, Q73, Q74, Q75, Q76, Q77, Q78, Q79, Q80, Q81, Q82, Q83, Q84, Q85, Q86, Q87, Q88, Q89, Q90, Q91, Q92, Q93, Q94, Q95, Q96, Q97, Q98, Q99, Q100	2N4154	100	2N4154
D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D13, D14, D15, D16, D17, D18, D19, D20, D21, D22, D23, D24, D25, D26, D27, D28, D29, D30, D31, D32, D33, D34, D35, D36, D37, D38, D39, D40, D41, D42, D43, D44, D45, D46, D47, D48, D49, D50, D51, D52, D53, D54, D55, D56, D57, D58, D59, D60, D61, D62, D63, D64, D65, D66, D67, D68, D69, D70, D71, D72, D73, D74, D75, D76, D77, D78, D79, D80, D81, D82, D83, D84, D85, D86, D87, D88, D89, D90, D91, D92, D93, D94, D95, D96, D97, D98, D99, D100	1N4148	100	1N4148
IC21, IC22, IC23, IC24, IC25, IC26, IC27, IC28, IC29, IC30, IC31, IC32, IC33, IC34, IC35, IC36, IC37, IC38, IC39, IC40, IC41, IC42, IC43, IC44, IC45, IC46, IC47, IC48, IC49, IC50, IC51, IC52, IC53, IC54, IC55, IC56, IC57, IC58, IC59, IC60, IC61, IC62, IC63, IC64, IC65, IC66, IC67, IC68, IC69, IC70, IC71, IC72, IC73, IC74, IC75, IC76, IC77, IC78, IC79, IC80, IC81, IC82, IC83, IC84, IC85, IC86, IC87, IC88, IC89, IC90, IC91, IC92, IC93, IC94, IC95, IC96, IC97, IC98, IC99, IC100	74180	1	74180
IC1, IC2, IC3, IC4, IC5, IC6, IC7, IC8, IC9, IC10, IC11, IC12, IC13, IC14, IC15, IC16, IC17, IC18, IC19, IC20, IC21, IC22, IC23, IC24, IC25, IC26, IC27, IC28, IC29, IC30, IC31, IC32, IC33, IC34, IC35, IC36, IC37, IC38, IC39, IC40, IC41, IC42, IC43, IC44, IC45, IC46, IC47, IC48, IC49, IC50, IC51, IC52, IC53, IC54, IC55, IC56, IC57, IC58, IC59, IC60, IC61, IC62, IC63, IC64, IC65, IC66, IC67, IC68, IC69, IC70, IC71, IC72, IC73, IC74, IC75, IC76, IC77, IC78, IC79, IC80, IC81, IC82, IC83, IC84, IC85, IC86, IC87, IC88, IC89, IC90, IC91, IC92, IC93, IC94, IC95, IC96, IC97, IC98, IC99, IC100	74180	1	74180
IC1, IC2, IC3, IC4, IC5, IC6, IC7, IC8, IC9, IC10, IC11, IC12, IC13, IC14, IC15, IC16, IC17, IC18, IC19, IC20, IC21, IC22, IC23, IC24, IC25, IC26, IC27, IC28, IC29, IC30, IC31, IC32, IC33, IC34, IC35, IC36, IC37, IC38, IC39, IC40, IC41, IC42, IC43, IC44, IC45, IC46, IC47, IC48, IC49, IC50, IC51, IC52, IC53, IC54, IC55, IC56, IC57, IC58, IC59, IC60, IC61, IC62, IC63, IC64, IC65, IC66, IC67, IC68, IC69, IC70, IC71, IC72, IC73, IC74, IC75, IC76, IC77, IC78, IC79, IC80, IC81, IC82, IC83, IC84, IC85, IC86, IC87, IC88, IC89, IC90, IC91, IC92, IC93, IC94, IC95, IC96, IC97, IC98, IC99, IC100	74180	1	74180

元	生	因	取	型
1-937	3-7074	3-7019	A	
	3-7326	3-7327	B	
	3-7972	3-7973	F	

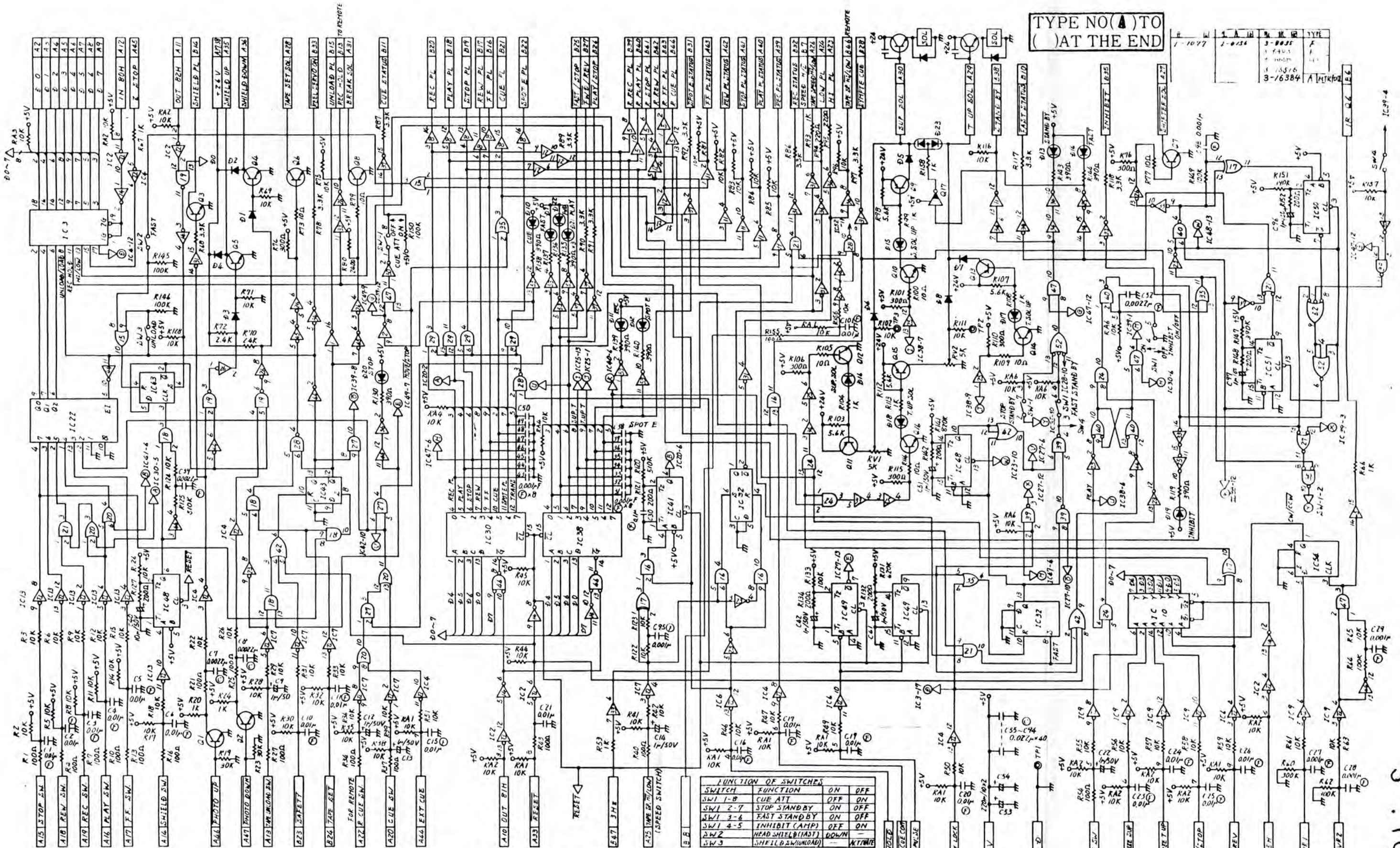
PB-45V PB-45VA
C19 560P 390P

8 C86 TO BE ADJUSTED
8 R128 NO COMPONENTS ARE REQUIRED
8 C65 REQUIRED

NOTES: UNLESS OTHERWISE SPECIFIED
1. RESISTANCE VALUES ARE IN OHMS, 1W, 50W.
2. CAPACITANCE VALUES ARE IN FARADS, 50V.
3. CAPACITOR SYMBOL MARKS ARE AS FOLLOWS:
① - ALUMINUM ELECTROLYTIC CAPACITOR
② - POLYMER ALUMINUM ELECTROLYTIC CAPACITOR
③ - 50V 18 IN CAPACITOR (25% 50V)
④ - PLUS TYPED 18 IN CAPACITOR (25% 50V)
⑤ - CERAMIC CAPACITOR
⑥ - MICA CAPACITOR (25V)

TYPE NO(A) TO () AT THE END

DRAWN	DESIGNED	CHECKED	APPROVED
PART NO. PB 45V 0A			
DATE			



TYPE NO (▲) TO () AT THE END

1-1077	2-0034	3-0035	4-0036	5-0037	6-0038	7-0039	8-0040	9-0041	10-0042
1	1	1	1	1	1	1	1	1	1
3-16384	3-16384	3-16384	3-16384	3-16384	3-16384	3-16384	3-16384	3-16384	3-16384

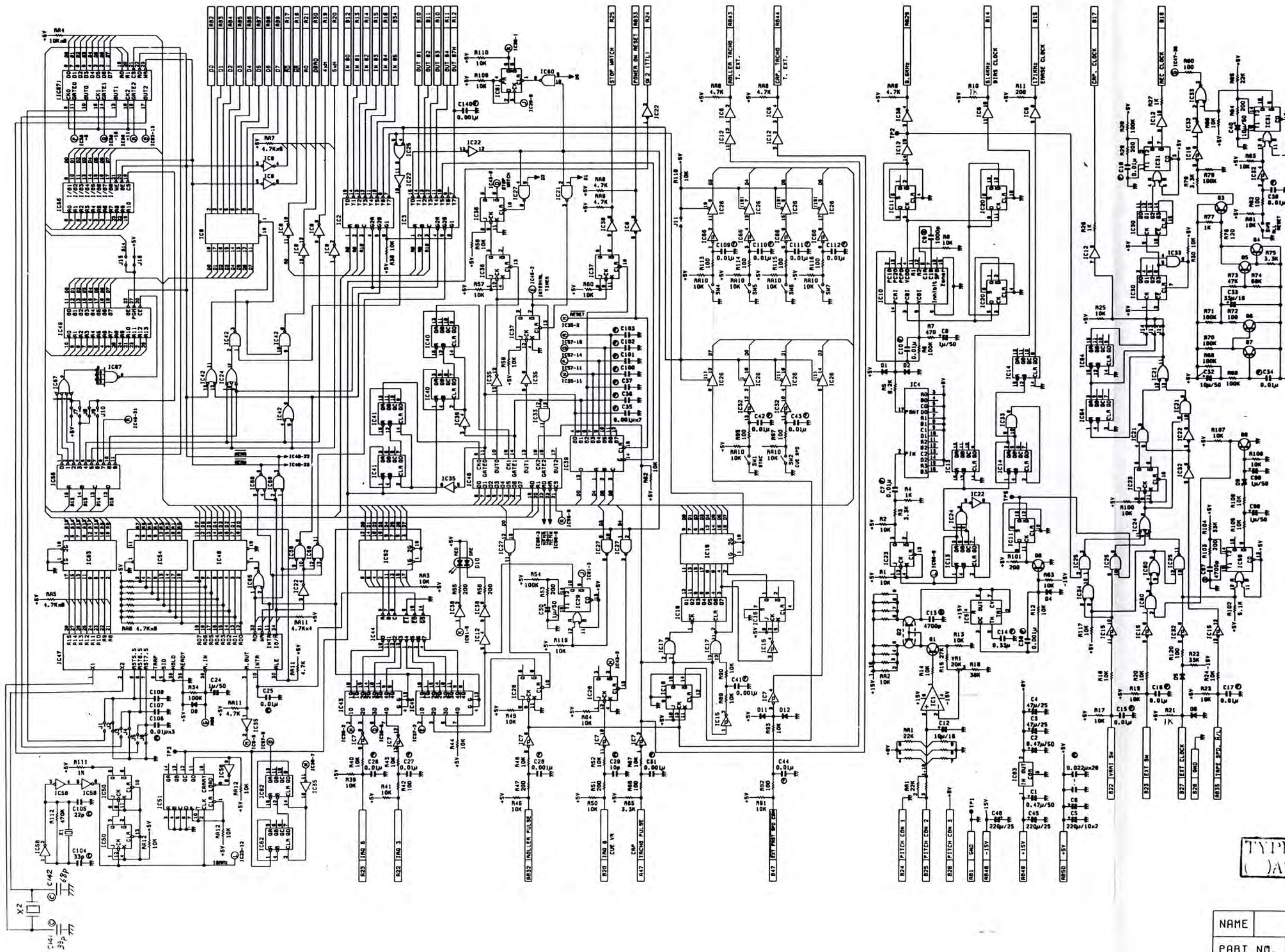
SWITCH	FUNCTION	ON	OFF
SW1 1-8	CUE ATT	OFF	ON
SW1 2-7	STOP STANDBY	ON	OFF
SW1 3-4	FAST STANDBY	ON	OFF
SW1 4-5	INHIBIT (AMP)	OFF	ON
SW2	HEAD SHIELD (INST)	DOWN	UP
SW3	SHIELD SW (STAND)	DOWN	UP

REF. NO.	OTARI PART NO.	DESCRIPTION	REF. NO.	OTARI PART NO.	DESCRIPTION	REF. NO.	OTARI PART NO.	DESCRIPTION	LED INDICATOR	TEST POINT	FUNCTION OF POTENTIAL METERS
1, 8	1HA2004C	MPA2004C	28, 31, 40	11C14011	11C14011BCP	12, 10, 12, 14, 16	QC1815BL	28C1815BL	9	FAST COM	RV 1 SUP SOL VOLTAGE
2	1AL2014N	2N7615B14N	30, 38	1A254N	2N7615B14N	3-7	QC1384Q	28C1384Q	10	CUE COM	RV 2 T UP SOL VOLTAGE
3	1AL2044N	2N7615B24N	21, 27	11C14049	11C14049BCP	8	QC2655Y	28C2655Y	11	REC COM	RV 3 T UP SOL VOLTAGE
4, 6, 7, 13	11C142584	11C142584BCP	32, 42, 54	11C14013	11C14013BCP	10, 11, 13, 15	QA1020Y	28A1020Y	12	SPOT ERASE	RV 4 SUP SOL VOLTAGE
5, 25	1A07M	2N7607M	41, 48, 49, 51	11C14538	11C14538BCP	17	Q-0004	RL11141S	13	AMP STANDBY	
10	1AL5167N	2N7615B17N	42	11C14075	11C14075BCP				14	FAST STATUS	
11, 26, 26, 53	1A06N	2N7615B26N	66	1AL532N	2N7615B32N				15	SUP SOL UP	
12, 23, 24, 45	11C14050	11C14050BCP	79	1AL500N	2N7615B00N				16	SUP SOL	
14	1AL504N	2N7615B04N	52	11C14023	11C14023BCP	1, 3, 5-8	PN 0199	1D11915	17	T UP SOL UP	
18	11C14071	11C14071BCP				6, 4	PN511-02	2L11A-02	18	T UP SOL	
18, 20, 35	11C14071	11C14071BCP				2-22	PN511-02	2L11A-02	19	T UP SOL	
16, 18, 21, 26, 27, 27A	11C14081	11C14081BCP				23	PN-022B	MS411	20	STOP	
17	11C14070	11C14070BCP							21	PLAY COM	
22	11C14332	11C14332BCP							22	LWD COM	
23, 44, 50	11C14067	11C14067URCP									

NOTES: UNLESS OTHERWISE SPECIFIED
 1. RESISTANCE VALUES ARE IN OHMS, K W. Ω
 2. CAPACITANCE VALUES ARE IN FARADS, μF
 3. CAPACITANCE SYMBOL MARKS ARE AS FOLLOWS
 4. ALUMINUM ELECTROLYTIC CAPACITOR
 5. NON-POLAR ALUMINUM ELECTROLYTIC CAPACITOR
 6. POLYESTER FILM CAPACITOR (25%, 50%)
 7. POLYESTER FOLIO CAPACITOR (25%, 50%)
 8. CERAMIC CAPACITOR
 9. MICA CAPACITOR (25%)

THIS SCHEMATIC DIAGRAM IS APPLIED TO	18-07AD
MARK	REV. NO. DATE DWN APP
REV. NO.	DATE
DWN	APP

3. 16384

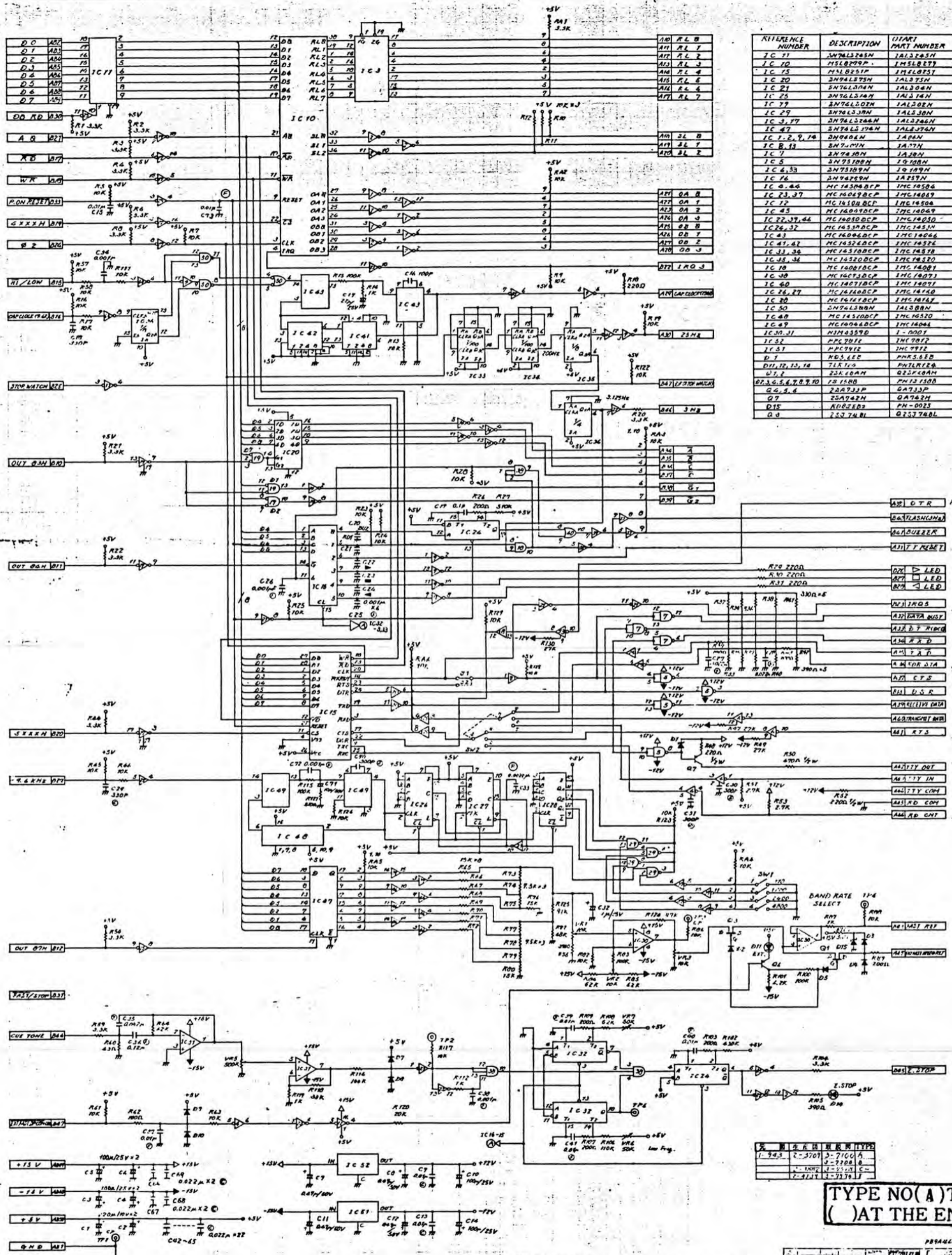


REFERENCE NO.	STMT PART NO.	DESCRIPTION
IC 1	74HC244	74HC244
IC 2	74HC107	74HC107
IC 3	74HC107	74HC107
IC 4	74HC107	74HC107
IC 5	74HC107	74HC107
IC 6	74HC107	74HC107
IC 7	74HC107	74HC107
IC 8	74HC107	74HC107
IC 9	74HC107	74HC107
IC 10	74HC107	74HC107
IC 11	74HC107	74HC107
IC 12	74HC107	74HC107
IC 13	74HC107	74HC107
IC 14	74HC107	74HC107
IC 15	74HC107	74HC107
IC 16	74HC107	74HC107
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IC 91	74HC107	74HC107
IC 92	74HC107	74HC107
IC 93	74HC107	74HC107
IC 94	74HC107	74HC107
IC 95	74HC107	74HC107
IC 96	74HC107	74HC107
IC 97	74HC107	74HC107
IC 98	74HC107	74HC107
IC 99	74HC107	74HC107
IC 100	74HC107	74HC107

NOTES: UNLESS OTHERWISE SPECIFIED
 1. REFERENCE VALUES ARE IN PARENTHESES.
 2. COMPONENTS ARE TO BE USED AS SHOWN.
 3. COMPONENTS ARE TO BE USED AS SHOWN.
 4. SPECIFIED COMPONENT PART NUMBER.

TYPE NO(A) TO () AT THE END

NAME	MASTER CPU
PART NO.	PB4AP0A
APPLIED	PB-4APA



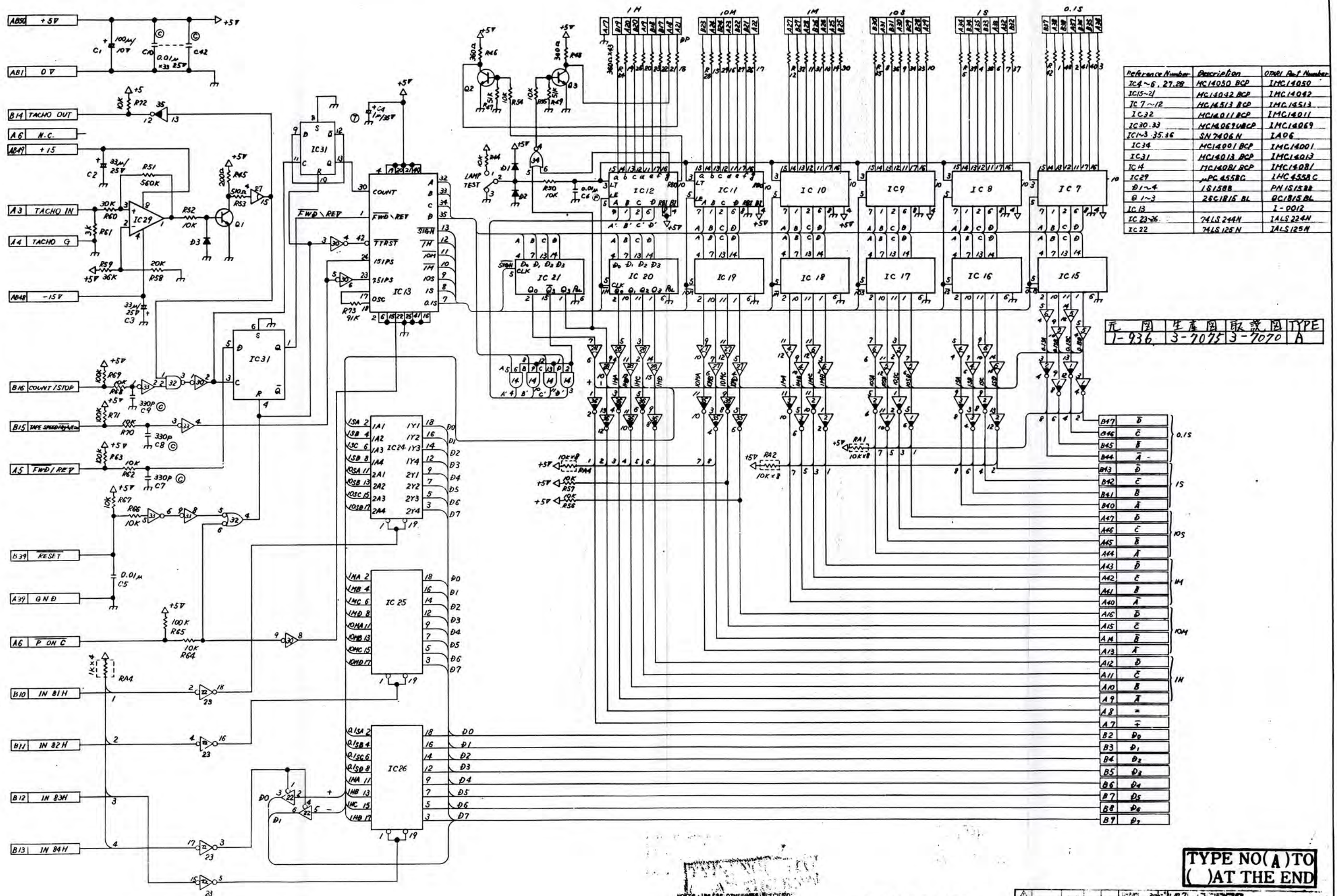
REFERENCE NUMBER	DESCRIPTION	IC PART NUMBER
IC 11	SN74132SN	1AL326SN
IC 10	MSL8209P	1MSL8279
IC 15	MSL8251P	1MSL8251
IC 20	SN74137SN	1AL37SN
IC 21	SN74134AN	1AL34AN
IC 25	SN74131AN	1AL31AN
IC 29	SN74130AN	1AL30AN
IC 29	SN74133AN	1AL33AN
IC 3, 7, 7	SN74132AN	1AL326AN
IC 47	SN74137AN	1AL377AN
IC 1, 2, 9, 14	SN7404AN	1A04AN
IC 8, 13	SN7401AN	1A01AN
IC 7	SN7402AN	1A02AN
IC 5	SN7410BH	1A10BH
IC 6, 33	SN74109N	1A109N
IC 16	SN74289N	1A289N
IC 4, 46	MC145390CP	1MC14539
IC 23, 37	MC14049BCP	1MC14049
IC 12	MC14104BCP	1MC14104
IC 45	MC14049CP	1MC14049
IC 22, 39, 44	MC14050BCP	1MC14050
IC 26, 32	MC14539BCP	1MC14539
IC 43	MC14046BCP	1MC14046
IC 41, 42	MC14534BCP	1MC14534
IC 31, 34	MC14530BCP	1MC14530
IC 35, 36	MC14520BCP	1MC14520
IC 10	MC14018CP	1MC14018
IC 30	MC14018CP	1MC14018
IC 60	MC14018CP	1MC14018
IC 26, 27	MC14140BCP	1MC14140
IC 20	MC14141BCP	1MC14141
IC 50	SN74138AN	1AL38AN
IC 40	MC14530BCP	1MC14530
IC 49	MC14046BCP	1MC14046
IC 30, 31	MCM6559D	1-MCM6559
IC 52	MPC7012	1MC7012
IC 51	MPC7412	1MC7412
D 1	MS56EE	MS56EE
D11, 12, 13, 14	71K100	PN1K100
U 1	25K100AN	Q25K100AN
D7, 3, 5, 6, 7, 8, 9, 10	1N1580	PN151500
Q 4, 5, 6	2N4733P	GA733P
Q 7	2N4742N	QA742N
D 15	ARD2ED3	PN-0023
Q 3	2S774RL	Q2S774RL

- AS DTR R5232C
- AS FLASCHWA
- AS QUEZER
- AS IT RESET
- AS LED
- AS LED
- AS LED
- AS JROS
- AS DATA BUSY
- AS F RIBCD
- AS F R D
- AS FOR STA
- AS CFS
- AS D S R
- AS RECEIVED DATA
- AS RFS
- AS 17 OUT
- AS 17 IN
- AS 17 COM
- AS 17 COM
- AS 17 CNT

TYPE NO(A) TO	() AT THE END
1-943	2-3709
1-1002	2-7100
1-1003	2-7108
1-9417	2-7179

TYPE NO(A) TO
() AT THE END

NOTES: UNLESS OTHERWISE SPECIFIED:
 1. RESISTOR VALUES ARE IN OHMS, KIL OHMS, MEG OHMS, AND GIG OHMS.
 2. CAPACITOR VALUES ARE IN FARADS, MICRO FARADS, AND PICO FARADS.
 3. UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE 1/4 WATT.
 4. UNLESS OTHERWISE SPECIFIED, ALL CAPACITORS ARE 50V.
 5. UNLESS OTHERWISE SPECIFIED, ALL IC'S ARE IN DIP-16 PACKS.
 6. UNLESS OTHERWISE SPECIFIED, ALL IC'S ARE IN DIP-16 PACKS.
 7. UNLESS OTHERWISE SPECIFIED, ALL IC'S ARE IN DIP-16 PACKS.
 8. UNLESS OTHERWISE SPECIFIED, ALL IC'S ARE IN DIP-16 PACKS.
 9. UNLESS OTHERWISE SPECIFIED, ALL IC'S ARE IN DIP-16 PACKS.
 10. UNLESS OTHERWISE SPECIFIED, ALL IC'S ARE IN DIP-16 PACKS.



Reference Number	Description	Other Part Number
IC4-6, 27, 28	MC14050 BCP	IMC14050
IC15-21	MC14042 BCP	IMC14042
IC7-12	MC14513 BCP	IMC14513
IC32	MC14011 BCP	IMC14011
IC30, 33	MC14061MCP	IMC14061
IC13, 35, 36	SN7406N	IA06
IC34	MC14001 BCP	IMC14001
IC31	MC14013 BCP	IMC14013
IC4	MC14001 BCP	IMC14001
IC29	MC14001 BCP	IMC14001
D1-4	1S158B	PN1S158B
B1-3	2SC1815 BL	QC1815 BL
IC13		I-0012
IC23-26	74LS24N	IALS224N
IC22	74LS125N	IALS125N

元 國 生 產 國 取 設 國 TYPE
1-936 3-7075 3-7070 A

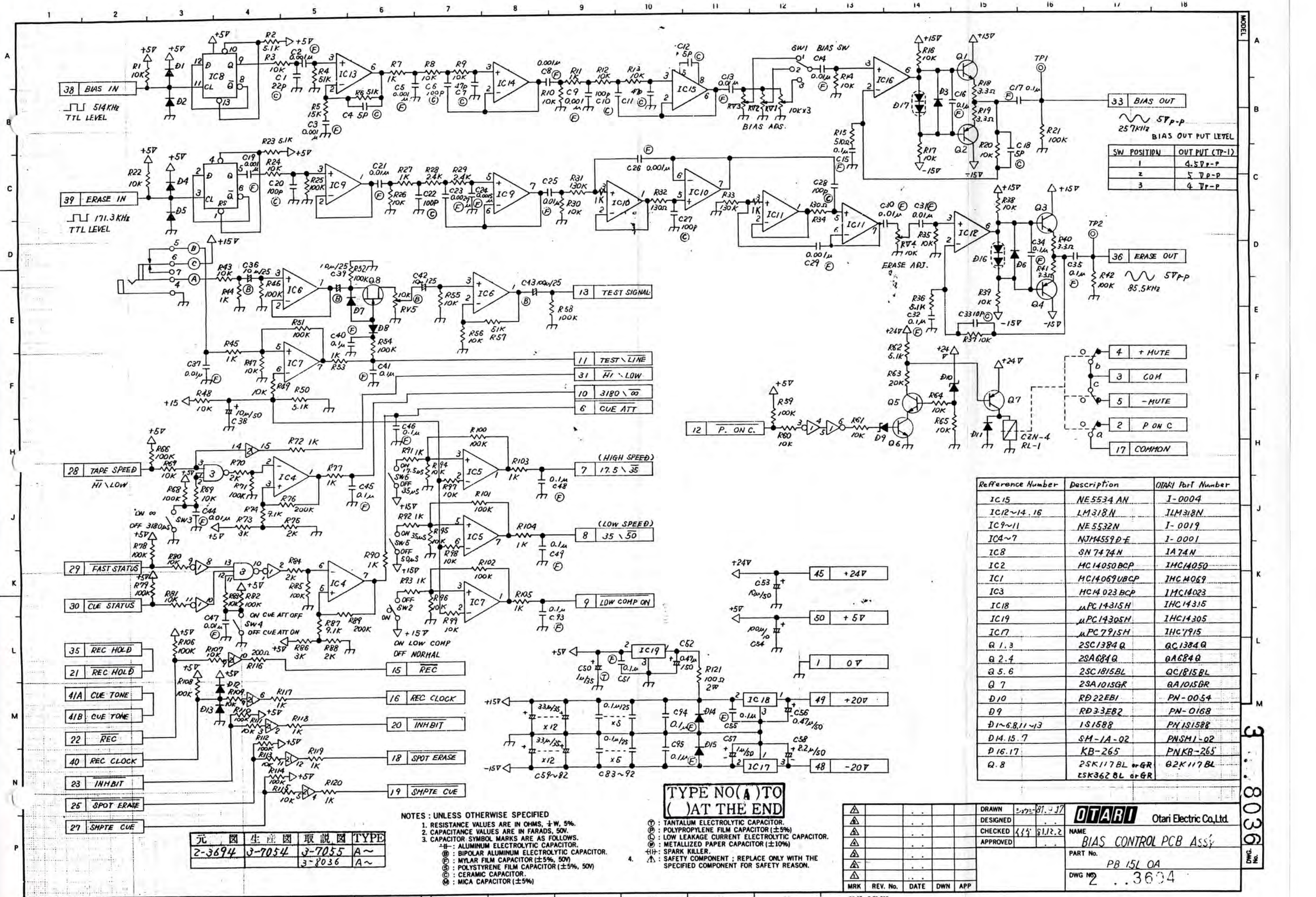
B47	D	0.15
B46	C	
B45	B	
B44	A	
B43	D	15
B42	C	
B41	B	
B40	A	
A47	D	105
A46	C	
A45	B	
A44	A	
A43	D	104
A42	C	
A41	B	
A40	A	
A16	D	104
A15	C	
A14	B	
A13	A	
A12	D	104
A11	C	
A10	B	
A9	A	
A8	=	
A7	=	
B2	D0	
B3	D1	
B4	D2	
B5	D3	
B6	D4	
B7	D5	
B8	D6	
B7	D7	

RESISTANCE VALUES ARE IN OHMS, UNLESS OTHERWISE SPECIFIED.
 CAPACITANCE VALUES ARE IN FARADS, UNLESS OTHERWISE SPECIFIED.
 CAPACITOR SYMBOL MARKS ARE AS FOLLOWS:
 1. ALUMINUM ELECTROLYTIC CAPACITOR
 2. BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR
 3. NYLON FILM CAPACITOR (±2.5% 50V)
 4. POLYESTER FILM CAPACITOR (±2.5% 50V)
 5. CERAMIC CAPACITOR
 6. MICA CAPACITOR (±2.5%)
 7. TANTALUM ELECTROLYTIC CAPACITOR
 8. POLYPROPYLENE FILM CAPACITOR (±2.5%)
 9. LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR
 10. METALLIZED PAPER CAPACITOR (±10%)
 11. SAFETY KILLER
 12. SAFETY COMPONENT - REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

TYPE NO(A) TO
() AT THE END

DATE	2025/12/27	DESIGNED BY	Y. KAWA
CHECKED BY	K. Y. Y. Y.	APPROVED	
DRAWN		Electric Co. Ltd.	
PART NO.		TAPE COUNTER	
REV. NO.		PB 452 04	

3 . . 7070



BIAS OUT PUT LEVEL

SW POSITION	OUT PUT (TP-1)
1	4.5V P-P
2	5 V P-P
3	4 V P-P

ERASE OUT

SW POSITION	OUT PUT (TP-2)
1	5V P-P
2	85.5KHz

Reference Number	Description	OTARI Part Number
IC15	NE5534 AN	I-0004
IC12~14, 16	LM318N	ILM318N
IC9~11	NE5532N	I-0019
IC4~7	NJM4559D-E	I-0001
IC8	SN7474N	IA74N
IC2	MC14050BCP	IHC14050
IC1	MC14069UBCP	IHC14069
IC3	MC14023BCP	IHC14023
IC18	μPC14315H	IHC14315
IC19	μPC14305H	IHC14305
IC17	μPC7915H	IHC7915
Q 1, 3	2SC1384Q	QC1384Q
Q 2, 4	2SA684Q	QA684Q
Q 5, 6	2SC1815BL	QC1815BL
Q 7	2SA1015GR	QA1015GR
D10	RD22EB1	PN-0054
D9	RD33EB2	PN-0168
D1~6, 8, 11~13	1S1588	PN1S1588
D14, 15, 7	SM-1A-02	PNSM1-02
D16, 17	KB-265	PNKB-265
Q. 8	2SK117BL or 6R	Q2K117BL
	ESK362BL or 6R	

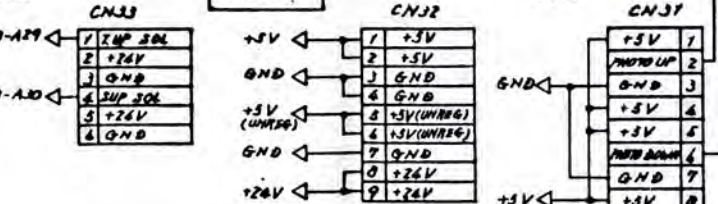
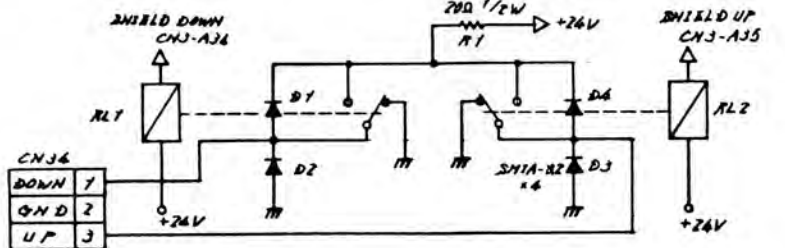
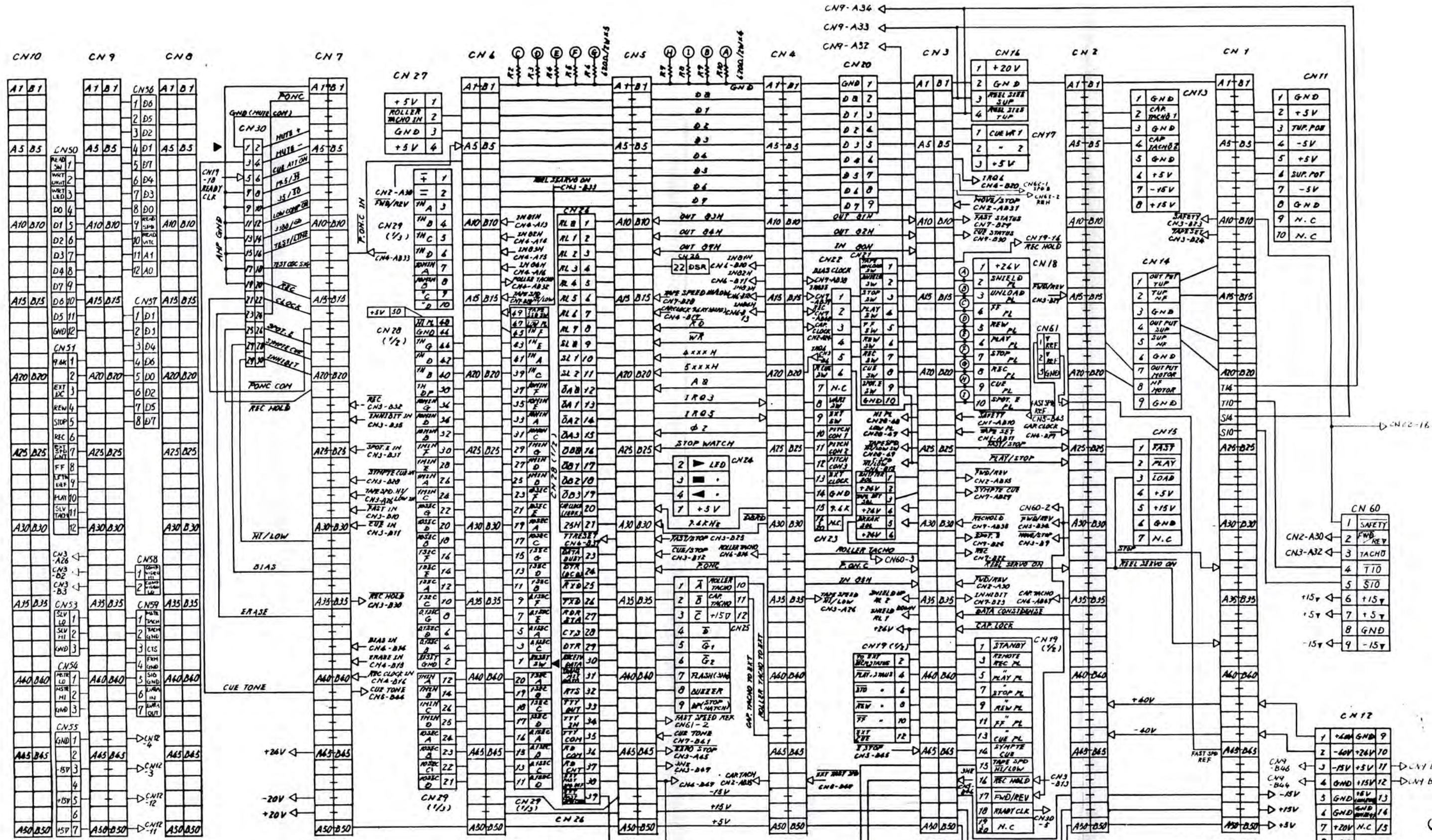
TYPE NO(A) TO () AT THE END

- NOTES: UNLESS OTHERWISE SPECIFIED
- RESISTANCE VALUES ARE IN OHMS, ±W. 5%.
 - CAPACITANCE VALUES ARE IN FARADS, 50V.
 - CAPACITOR SYMBOL MARKS ARE AS FOLLOWS.
 - ⊖: ALUMINUM ELECTROLYTIC CAPACITOR.
 - ⊕: BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR.
 - ⊖: MYLAR FILM CAPACITOR (±5%, 50V)
 - ⊖: POLYSTYRENE FILM CAPACITOR (±5%, 50V)
 - ⊖: CERAMIC CAPACITOR.
 - ⊖: MICA CAPACITOR (±5%)

- TANTALUM ELECTROLYTIC CAPACITOR.
- POLYPROPYLENE FILM CAPACITOR (±5%)
- LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
- METALLIZED PAPER CAPACITOR (±10%)
- SPARK KILLER.
- SAFETY COMPONENT: REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

元	図	生	産	取	説	図	TYPE
2-3694	3-7054	3-7055	A~				
		3-8036	A~				

DRAWN	DESIGNED	CHECKED	APPROVED	NAME
				BIAS CONTROL PCB ASSY
				PART No.
				PB 15L 0A
				DWG No. 2..3694



EXT CONNECTION PCB (CHS)	EXT CONNECTION PCB (CHS)	REL FCC	REL FCC	REL FCC	REL FCC	REL FCC	REL FCC	REL FCC	REL FCC
25	EXT CONNECTION PCB (CHS)	EI	12P	26	EXT CONNECTION PCB (CHS)	REL FCC	60P	27	ROLLER TACHO
26	EXT CONNECTION PCB (CHS)	REL FCC	60P	28	TAPE TIMER	REL FCC	50P	28	TAPE TIMER
27	ROLLER TACHO	EI	4P	29	EXT CONNECTION PCB (CHS)	REL FCC	24P	29	EXT CONNECTION PCB (CHS)
28	TAPE TIMER	REL FCC	50P	30	AUDIO AMP MOTHER	REL FCC	30P	30	AUDIO AMP MOTHER
29	EXT CONNECTION PCB (CHS)	REL FCC	24P	31	SHIELD PHOTO UP/DOWN	EI	8P	31	SHIELD PHOTO UP/DOWN
30	AUDIO AMP MOTHER	REL FCC	30P	32	EXT CONNECTION PCB (CHS)	EI	9P	32	EXT CONNECTION PCB (CHS)
31	SHIELD PHOTO UP/DOWN	EI	8P	33	T. SUP SOL	EI	4P	33	T. SUP SOL
32	EXT CONNECTION PCB (CHS)	EI	9P	34	SHIELD DRIVE	EI	3P	34	SHIELD DRIVE
33	T. SUP SOL	EI	4P	50	SUB PANEL PCB (REHTE)	EI	12P	50	SUB PANEL PCB (REHTE)
34	SHIELD DRIVE	EI	3P	51	"	EI	12P	51	"
35	SUB PANEL PCB	EI	7P	53	J4 CONNECTOR	EI	3P	53	J4 CONNECTOR
36	EXT CONNECTION PCB (CHS)	EI	4P	54	J3	EI	3P	54	J3
37	EXT CONNECTION PCB (CHS)	EI	4P	55	SUB PANEL PCB	EI	7P	55	SUB PANEL PCB

CHS	CHS	CHS	CHS
56	SUB PANEL (VITC)	EI	7P
57	J18 J2 (COMP VIDEO)	EI	2P
58	SUB PANEL (RS 25C)	EI	7P
59	REEL SIDE END DETECT PCB	EI	9P
60	"	EI	3P
61	"	EI	4P
62	EXT CONNECTION PCB (CHS)	EI	4P

TYPE NO (▲) TO () AT THE END

3-16358	A	MTR-200L
3-15376	Q	
3-10371	11	

CHS	TO	CHS	CHS	CHS	CHS	CHS	CHS	CHS	CHS
1-10	CONTROL PCB	REL	100P	10	DECK CONTROL PL	EI	10P	10	DECK CONTROL PL
11	TUPA SUP POT	EI	10P	17	EXT CONNECTION PCB (CHS)	REL FCC	20P	17	EXT CONNECTION PCB (CHS)
12	POWER SUPPLY	U.M.	15P	20	N.C.	EI	9P	20	N.C.
13	CAP TACHO PCB	EI	8P	21	DECK CONTROL SW	EI	10P	21	DECK CONTROL SW
14	MOTHER POWER TR	EI	9P	22	EXT CONNECTION PCB (CHS)	REL FCC	20P	22	EXT CONNECTION PCB (CHS)
15	HOUR METER PCB	EI	7P	23	EACH SOL	EI	4P	23	EACH SOL
16	REEL SIDE SENS PCB	EI	4P	24	CUR LBD PCB	EI	4P	24	CUR LBD PCB

* NC ; NON CONNECTION

CHS	CHS	CHS	CHS
CHS-B7	1	SPD B	
CHS-B8	2	REH	
CHS-A42	3	+40V	
CHS-B4	4	GND	

MTR-200L-EC-101

DESIGNED BY: [Signature] DATE: 8/1/70

CHECKED BY: [Signature]

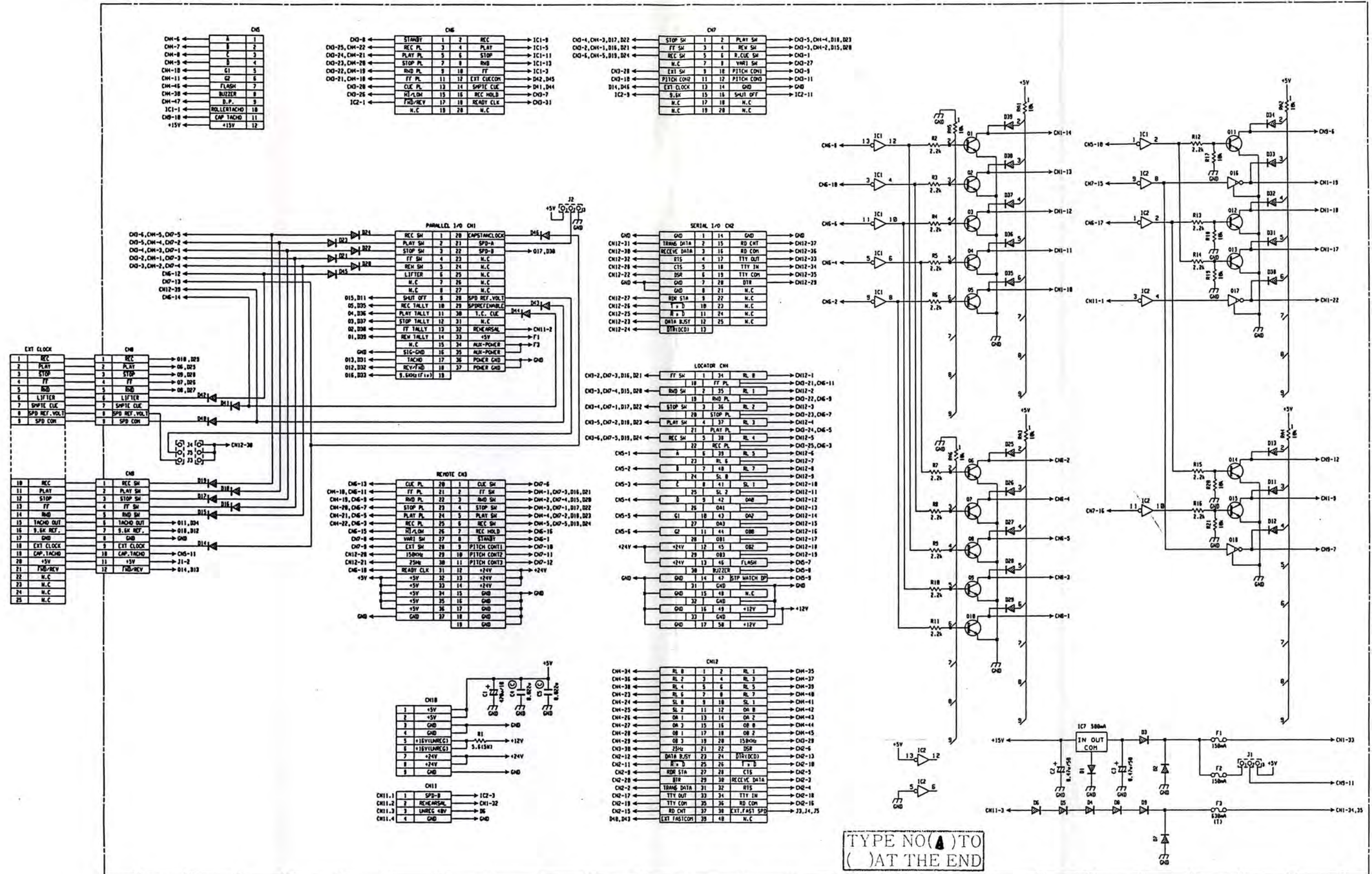
APPROVED BY: [Signature]

NAME: MOTHER II

PART NO: PBTDD0A

DWG NO: [Blank]

16308



TYPE NO. () TO () AT THE END

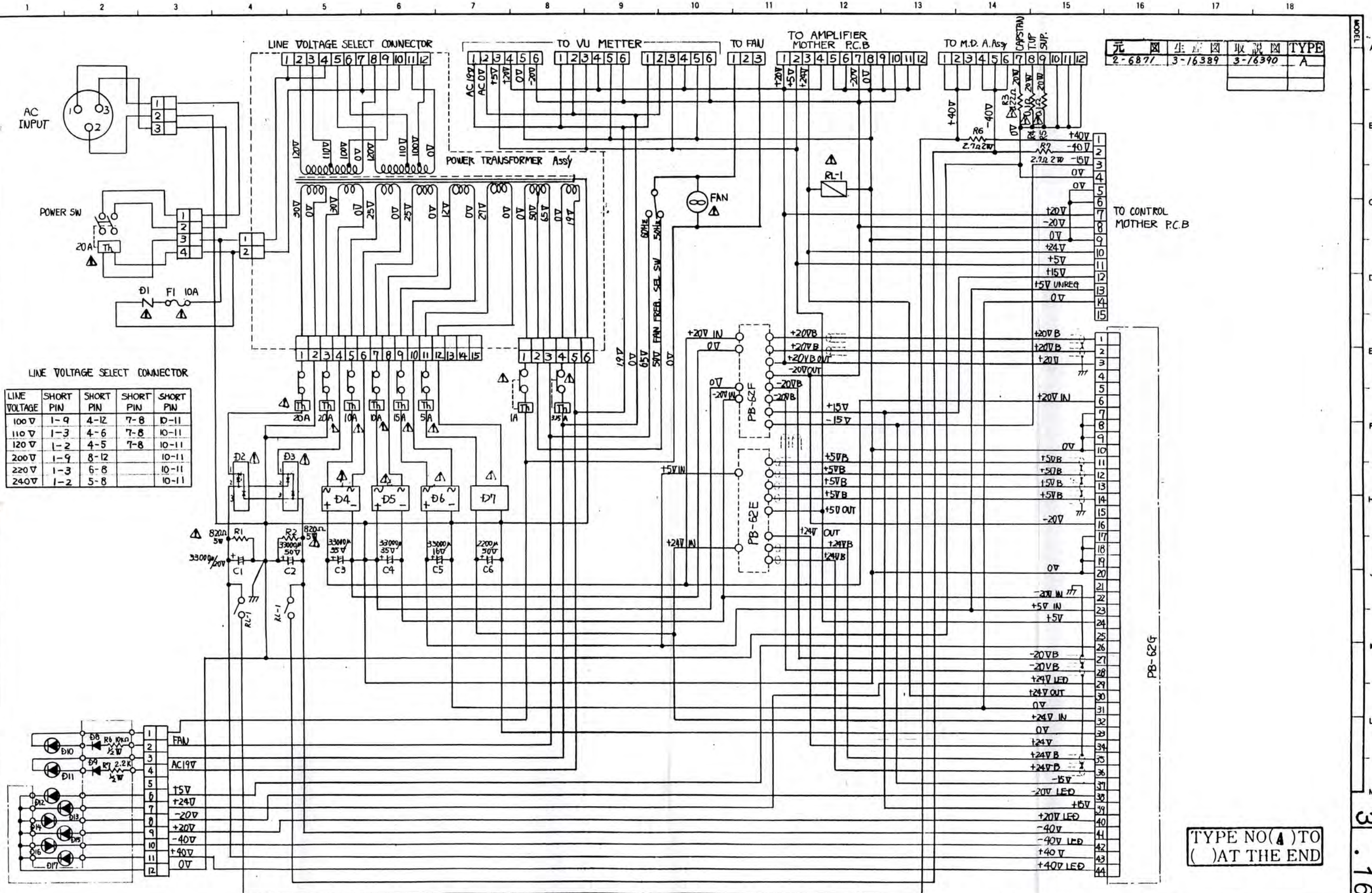
REF. NO.	QIARI PART NO.	DESCRIPTION
IC 1, 2, 7	10B4	SN74HC04N
7	1AN7805	REG5V05F
B 1, 2-8	PM-0125	SM-12002
11-16	PM-0153	1S1505LPS
13-15	QC3275	25C3275
15-18	0-8811	0N1200

NOTES: UNLESS OTHERWISE SPECIFIED
 1. RESISTANCE VALUES ARE IN OHMS, 1K=1K, 1M=1M.
 2. CAPACITANCE VALUES ARE IN FARADS, 100P=100P, 1N=1N.
 3. CAPACITOR SYMBOL MARKS ARE AS FOLLOWS:
 () POLYMER ELECTROLYTIC CAPACITOR.
 () 10% LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
 () 50% LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
 () 10% LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
 () 50% LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
 () 10% LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
 () 50% LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.

① 100µF ALUMINUM ELECTROLYTIC CAPACITOR.
 ② 100µF FILM CAPACITOR, 150V, 50%
 ③ POLYESTER FILM CAPACITOR, 150V, 50%
 ④ CERAMIC CAPACITOR.
 ⑤ SAFETY COMPONENT - REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

NAME	EXT CONNECT PCA	SHEET 1 OF 1
PART NO.	PB7WZ0A	
APPLIED	PB-7WZA	

DWG. NO. 3 - 16435



LINE VOLTAGE SELECT CONNECTOR

LINE VOLTAGE	SHORT PIN	SHORT PIN	SHORT PIN	SHORT PIN
100V	1-9	4-12	7-8	10-11
110V	1-3	4-6	7-8	10-11
120V	1-2	4-5	7-8	10-11
200V	1-9	8-12		10-11
220V	1-3	6-8		10-11
240V	1-2	5-8		10-11

元	図	生	取	TYPE
2-6877	3-16389	3-16390		A

REFERENCE	OTARI P/N	DESCRIPTION
1	PN-0142	ERZ-AZ0LS1
2,3	PN-0203	RM30DZ-M
4~7	PN-0005	KBCP 25-02
8~9	PNSM1-02	SM1-02
10~17	LU4015	DB-2
RL	RY2DA045	LK-2-24V

NOTES: UNLESS OTHERWISE SPECIFIED

- RESISTANCE VALUES ARE IN OHMS, ±W, 5%.
- CAPACITANCE VALUES ARE IN FARADS, 50V.
- CAPACITOR SYMBOL MARKS ARE AS FOLLOWS.
 - ⊖: ALUMINUM ELECTROLYTIC CAPACITOR.
 - ⊕: BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR.
 - ⊖: MYLAR FILM CAPACITOR (±5%, 50V)
 - ⊕: POLYSTYRENE FILM CAPACITOR (±5%, 50V)
 - ⊖: CERAMIC CAPACITOR.
 - ⊕: MICA CAPACITOR (±5%)
- ⊕: TANTALUM ELECTROLYTIC CAPACITOR.
 ⊖: POLYPROPYLENE FILM CAPACITOR (±5%)
 ⊖: LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
 ⊖: METALLIZED PAPER CAPACITOR (±10%)
 ⊕: SPARK KILLER
 ⊕: SAFETY COMPONENT; REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

MRK	REV. No.	DATE	DWN	APP

OTARI Otari Electric Co., Ltd.

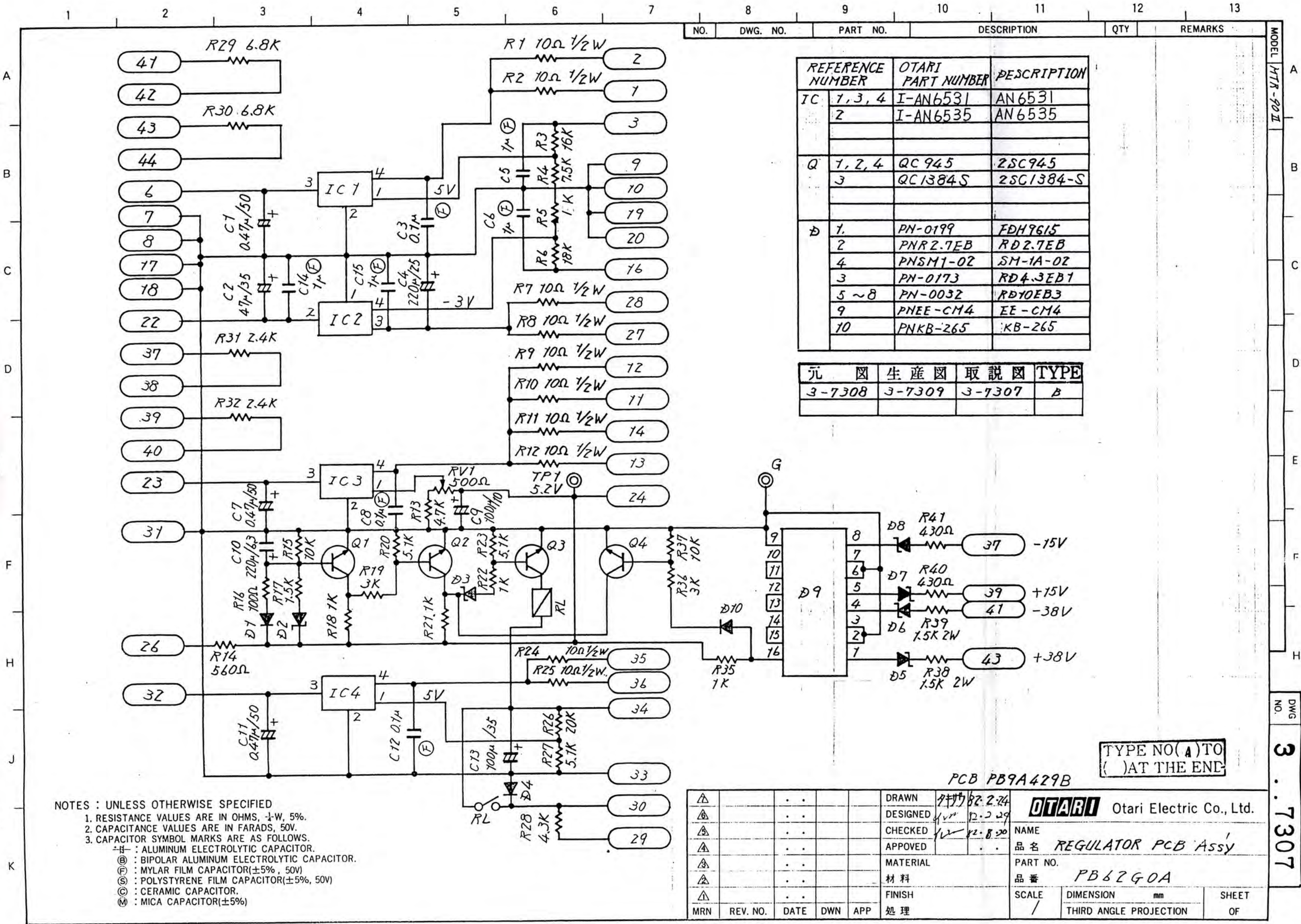
NAME: POWER SUPPLY Assy

PART No: DS4W0A

DWG No:

TYPE NO(A) TO () AT THE END

MODEL 3-16390



REFERENCE NUMBER	OTARI PART NUMBER	DESCRIPTION	
TC	1, 3, 4	I-AN6531 AN6531	
	2	I-AN6535 AN6535	
Q	1, 2, 4	QC945 ZSC945	
	3	QC1384S ZSC1384-S	
D	1	PN-0199 FDH9615	
	2	PNR2.7EB RD2.7EB	
	4	PNSM1-02 SM-1A-02	
	3	PN-0173 RD4.3EB1	
	5~8	PN-0032 RDY0EB3	
	9	PNEE-CM4 EE-CM4	
	10	PNKB-265 KB-265	

元	図	生産	取説	TYPE
3-7308	3-7309	3-7307	B	

NOTES : UNLESS OTHERWISE SPECIFIED
 1. RESISTANCE VALUES ARE IN OHMS, 1/2W, 5%.
 2. CAPACITANCE VALUES ARE IN FARADS, 50V.
 3. CAPACITOR SYMBOL MARKS ARE AS FOLLOWS.
 ⊕ : ALUMINUM ELECTROLYTIC CAPACITOR.
 ⊖ : BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR.
 ⊕ : MYLAR FILM CAPACITOR(±5%, 50V)
 ⊖ : POLYSTYRENE FILM CAPACITOR(±5%, 50V)
 ⊕ : CERAMIC CAPACITOR.
 ⊖ : MICA CAPACITOR(±5%)

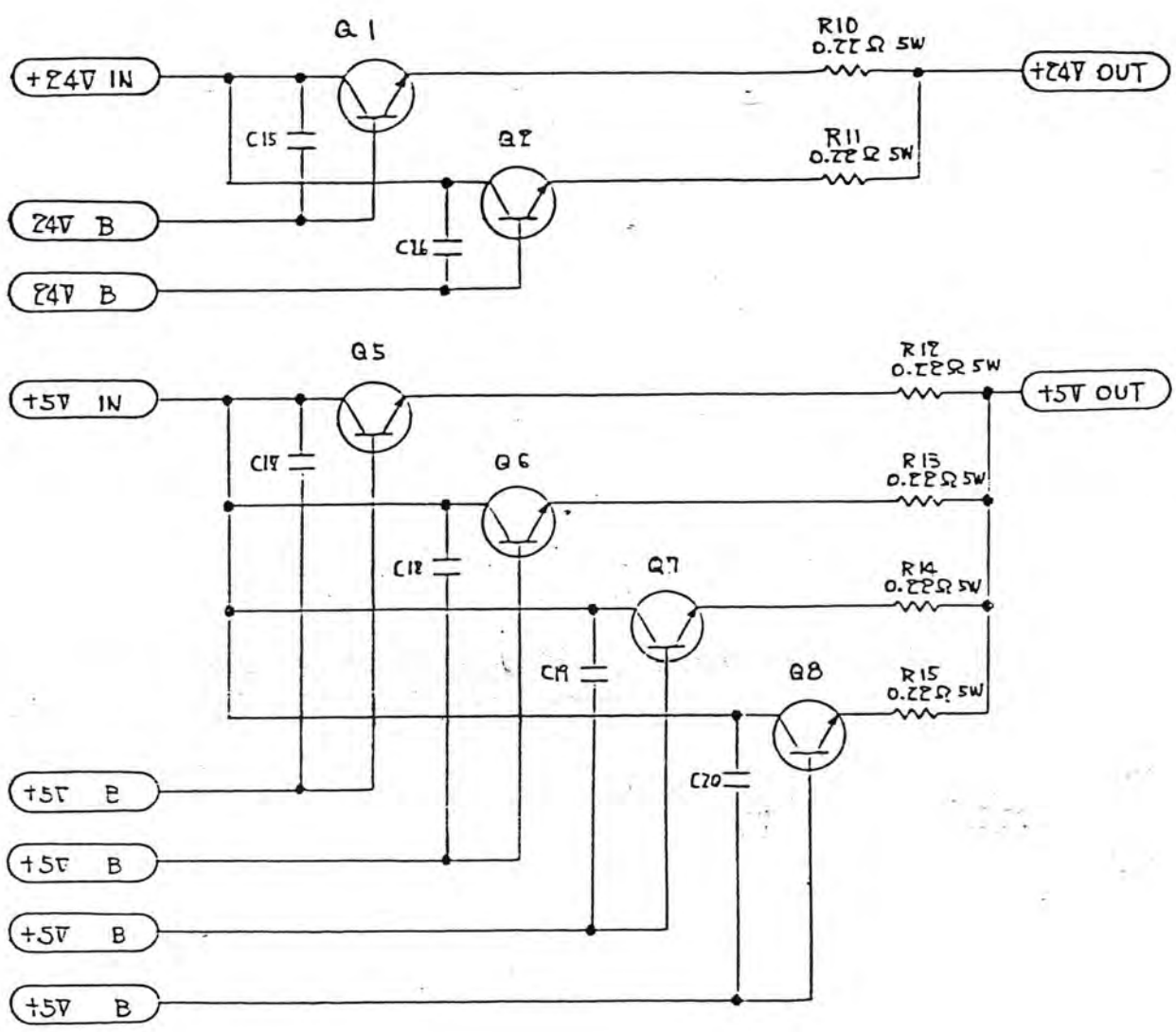
TYPE NO(A) TO () AT THE END

PCB PB9A429B

△					DRAWN	12.2.24	OTARI Otari Electric Co., Ltd. NAME 品名 REGULATOR PCB Assy PART NO. 品番 PB62G0A SCALE / DIMENSION mm SHEET OF THIRD ANGLE PROJECTION
△					DESIGNED	12.2.29	
△					CHECKED	12.8.20	
△					APPROVED		
△					MATERIAL		
△					材料		
△					FINISH		
△					処理		
MRN	REV. NO.	DATE	DWN	APP			

MODEL MTR-90II
 DWG NO. 3-7307

MODEL



Q1~2, 5~8 2SD55Z
 C15~20 0.1μF 50V MYLAR FILM CAPACITOR
 PCB PB9A 359

元	図	生産	取説	TYPE
4-30762	4-30763	4-30764	A	

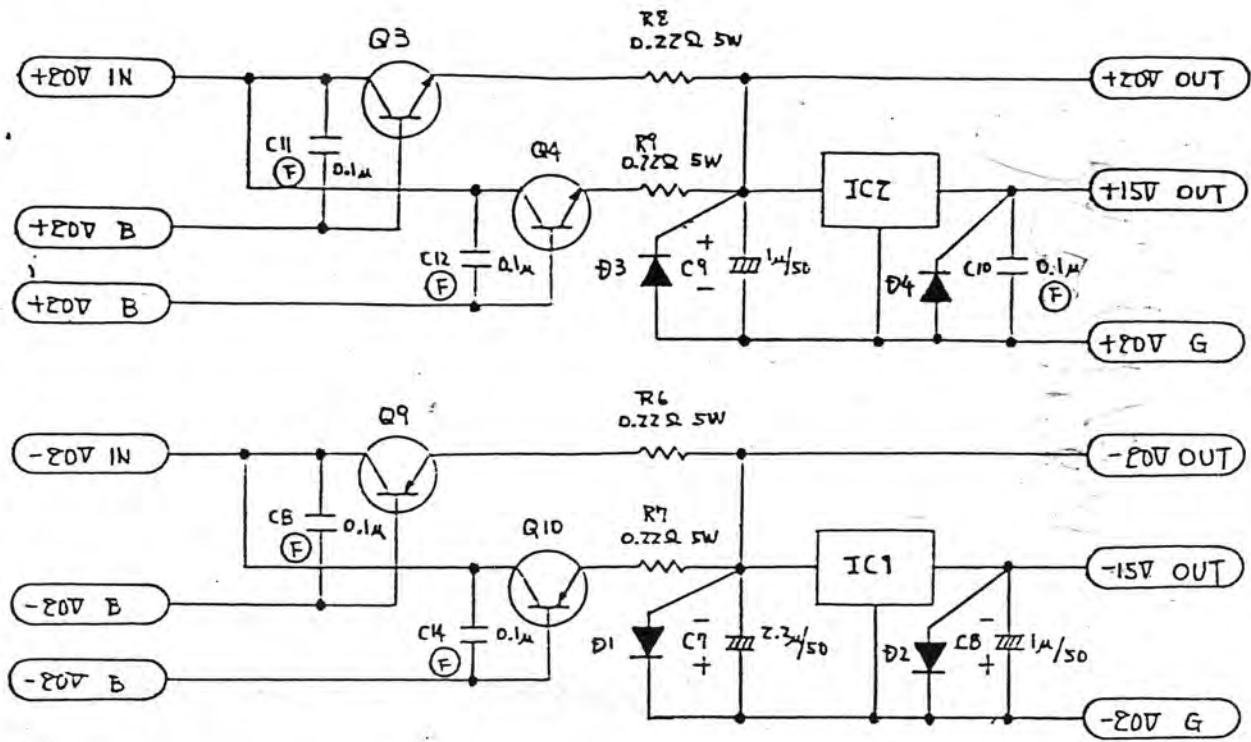
TYPE NO(A) TO
 () AT THE END

DWG. No.

4 30764

△				DRAWN		OTARI Otari Electric Co., Ltd.	
△				DESIGNED	80.1.10		
△				CHECKED		NAME	
△				APPROVED		POWER SUPPLY PCB Assy A	
△				MATERIAL		PART No.	
△						PB-62E	
△				FINISH		SCALE	
MRK	REV. No.	DATE	DWN	APP		DIMENSION mm	SHEET
						THIRD ANGLE PROJECTION	OF

MODEL



- Q 3 ~ 4 ZSD55Z
- Q 9 ~ 10 ZSB55Z
- IC1 μA7815KC
- IC2 μA7915KC
- Ⓢ MYLAR FILM CAPACITOR
- PCB PB9A 360
- D1 ~ 4 G3J

元	生産	取説	TYPE
4-30774	4-30775	4-30776	A

TYPE NO(A) TO () AT THE END

△		DRAWN		OTARI Otari Electric Co., Ltd. NAME POWER SUPPLY PCB Ass'y B PART No. PB-6ZF SCALE / DIMENSION mm THIRD ANGLE PROJECTION	SHEET OF
△		DESIGNED	80.1.10		
△		CHECKED			
△		APPROVED			
△		MATERIAL			
△		FINISH			
MRK	REV. No.	DATE	DWN	APP	

Dwg. No. 4 30776

TO AMP
CH 1~12 (CH 13~24)

1 S (13 S)	1
2 R (14 R)	2
2 I (14 I)	3
3 S (15 S)	4
4 R (16 R)	5
4 I (16 I)	6
5 S (17 S)	7
6 R (18 R)	8
6 I (18 I)	9
7 S (19 S)	10
8 R (20 R)	11
8 I (20 I)	12
9 S (21 S)	13
10 R (22 R)	14
10 I (22 I)	15
11 S (23 S)	16
12 R (24 R)	17
12 I (24 I)	18
	19
	20
	21
	22
	23
	24
	25
	26
1 R (13 R)	27
1 I (13 I)	28
2 S (14 S)	29
2 R (15 R)	30
3 I (15 I)	31
4 S (16 S)	32
5 R (17 R)	33
5 I (17 I)	34
6 S (18 S)	35
7 R (19 R)	36
7 I (19 I)	37
8 S (20 S)	38
9 R (21 R)	39
9 I (21 I)	40
10 S (22 S)	41
11 R (23 R)	42
11 I (23 I)	43
12 S (24 S)	44
	45
	46
	47
	48
	49
	50

ZA-63F
CONNECTION CABLE Ass'y A
(CH 1~12, CB-113)

ZA-63I
CONNECTION CABLE Ass'y B
(CH 13~24, CB-113)

ZA-63H
CONNECTION CABLE Ass'y C
(CH 1~8, CB-112)

PB-46C
CONTROL PCB Ass'y
X 8 (CB-112)
X 12 (CB-113)

PB-46E (CB-112), PB-46B (CB-113)
AMP. SW PCB Ass'y

ZA-63G
CONNECTION
CABLE Ass'y B


1	CUE SW
2	FF SW
3	RWD SW
4	STOP SW
5	PLAY SW
6	REC SW
7	REC HOLD
8	STANBY
9	PITCH CON 1
10	" 2
11	" 3
12	+24V
13	"
14	"
15	GND
16	"
17	"
18	"
19	"
20	CUE PL
21	FF PL
22	RWD PL
23	STOP PL
24	PLAY PL
25	REC PL
26	Hi/Low
27	VARI SW
28	EXT SW
29	150KHz (±30%)
30	25 Hz
31	+5V
32	"
33	"
34	"
35	"
36	"
37	GND

CB-245 DECK SW Ass'y

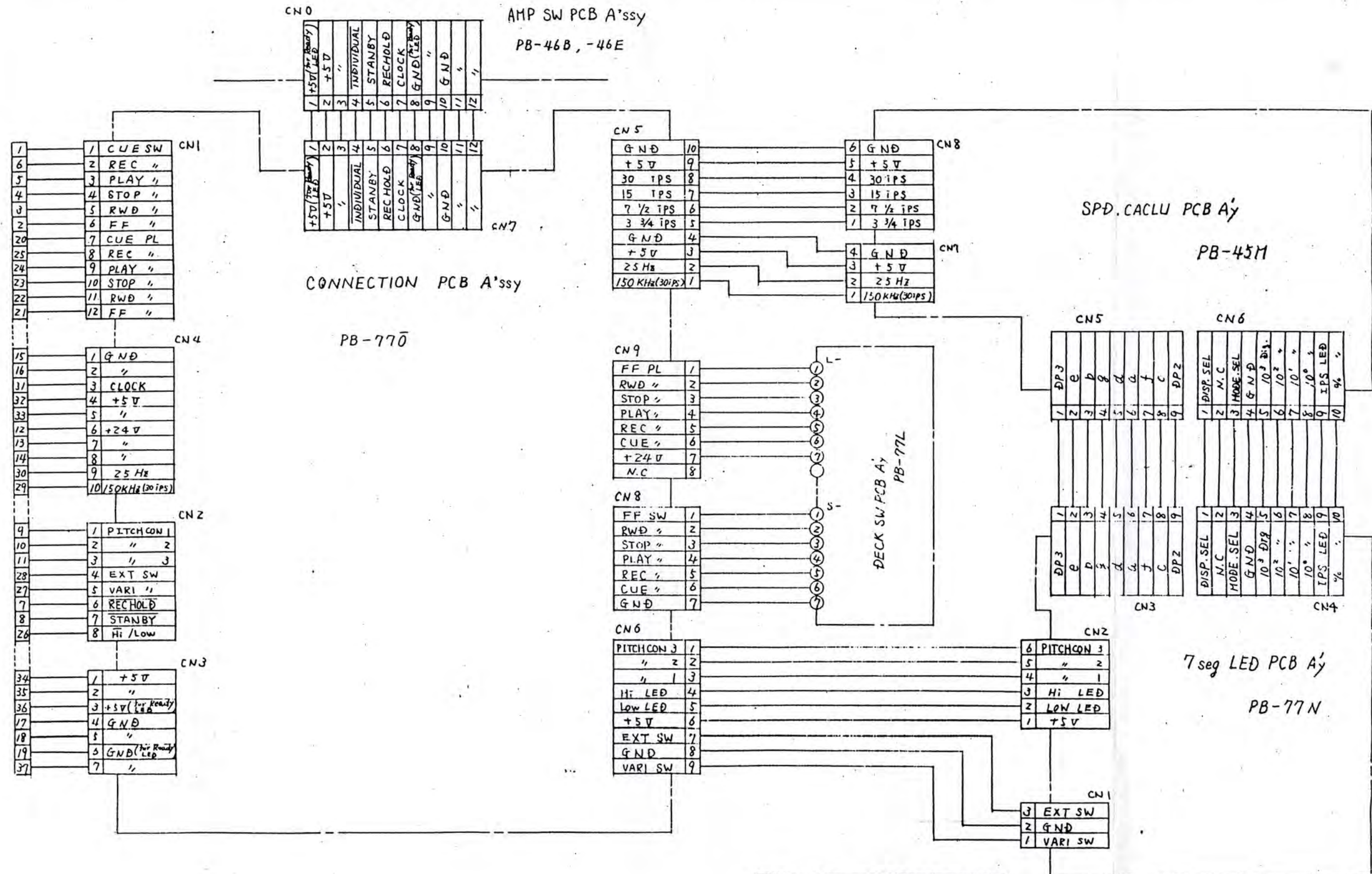
元	生	取	TYPE
2-3698	3-7058	3-7059	A

* R ; Ready
I ; Input
S ; Sel/Rep
ex. 1 R ; CH 1 Ready

NOTES : UNLESS OTHERWISE SPECIFIED
1. RESISTANCE VALUES ARE IN OHMS, ±W, 5%.
2. CAPACITANCE VALUES ARE IN FARADS, 50V.
3. CAPACITOR SYMBOL MARKS ARE AS FOLLOWS.
① : ALUMINUM ELECTROLYTIC CAPACITOR.
② : BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR.
③ : MYLAR FILM CAPACITOR (±5%, 50V)
④ : POLYSTYRENE FILM CAPACITOR (±5%, 50V)
⑤ : CERAMIC CAPACITOR.
⑥ : MICA CAPACITOR (±5%)
⑦ : TANTALUM ELECTROLYTIC CAPACITOR.
⑧ : POLYPROPYLENE FILM CAPACITOR (±5%)
⑨ : LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
⑩ : METALLIZED PAPER CAPACITOR (±10%)
⑪ : SPARK KILLER.
⑫ : SAFETY COMPONENT : REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

△	...	DRAWN	121 8.12.11	 Otari Electric Co., Ltd.	
△	...	DESIGNED	121 8.12.11		
△	...	CHECKED	...		
△	...	APPROVED	...		
				NAME	INTERCONNECTION DIAGRAM
				PART No.	CB-112, 113
				DWG No.	3 7059

MODEL A B C D E F G H J K L M N P
3 7059 DWG No.



記号	規格	取説	TYPE
2-3641	3-6867	3-6868	
		3-6941	

NOTES : UNLESS OTHERWISE SPECIFIED

- RESISTANCE VALUES ARE IN OHMS, ± W. 5%.
- CAPACITANCE VALUES ARE IN FARADS, 50V.
- CAPACITOR SYMBOL MARKS ARE AS FOLLOWS.
 - ALUMINUM ELECTROLYTIC CAPACITOR.
 - BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR.
 - MYLAR FILM CAPACITOR (±5%, 50V)
 - POLYSTYRENE FILM CAPACITOR (±5%, 50V)
 - CERAMIC CAPACITOR.
 - MICA CAPACITOR (±5%)

- TANTALUM ELECTROLYTIC CAPACITOR.
 - POLYPROPYLENE FILM CAPACITOR (±5%)
 - LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
 - METALLIZED PAPER CAPACITOR (±10%)
 - SPARK KILLER.
- SAFETY COMPONENT : REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

MRK	REV. No.	DATE	DWN	APP
△				
△				
△				
△				
△				

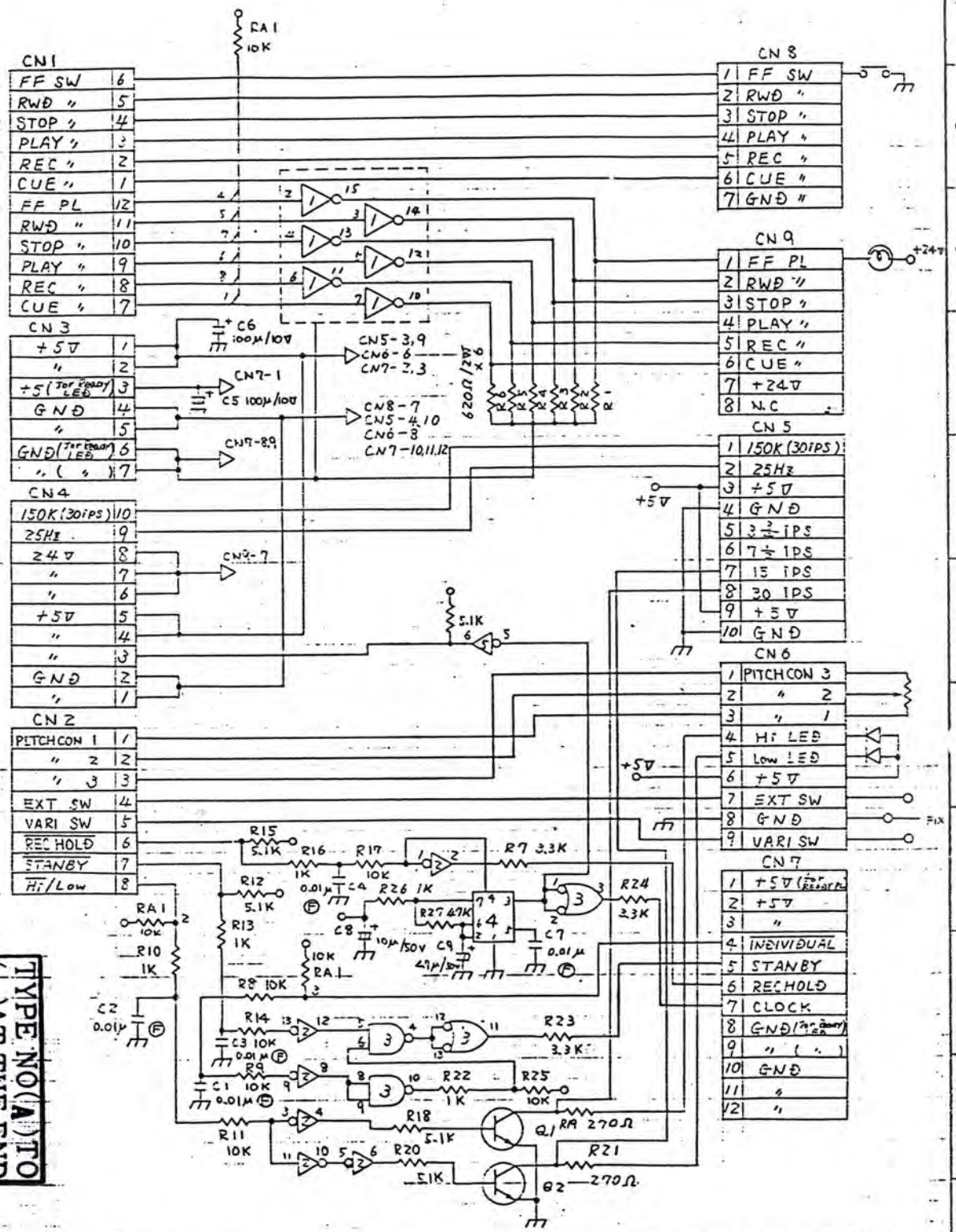
DRAWN	1-1	8/8/26
DESIGNED	1-1	8/8/26
CHECKED		
APPROVED		
NAME OTARI Otari Electric Co., Ltd.		
PART No. CB-2450A		
DWG No. 3 6041		

TYPE NO(A) TO () AT THE END

MODEL A B C D E F G H J K L M N P 3 6041 DWG No.

- NOTES: UNLESS OTHERWISE SPECIFIED
- RESISTANCE VALUES ARE IN OHMS, 1 W, 5%.
 - CAPACITANCE VALUES ARE IN FARADS, 50V.
 - CAPACITOR SYMBOL, MARKS ARE AS FOLLOWS:
 - (-): ALUMINUM ELECTROLYTIC CAPACITOR.
 - (P): POLYPROPYLENE FILM CAPACITOR (±5%).
 - (M): METALLIZED PAPER CAPACITOR (±10%).
 - (F): POLYESTER FILM CAPACITOR (±5%, 50V).
 - (C): CERAMIC CAPACITOR.
 - (N): NICH CAPACITOR (±5%).

- TANTALUM ELECTROLYTIC CAPACITOR.
 - POLYPROPYLENE FILM CAPACITOR (±5%).
 - LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
 - METALLIZED PAPER CAPACITOR (±10%).
 - POLYESTER FILM CAPACITOR (±5%, 50V).
 - CERAMIC CAPACITOR.
 - NICH CAPACITOR (±5%).
- ④: SPECIFIED COMPONENT FOR SAFETY REASON.



TYPE NO(A) TO
AT THE END

090493A

REFERENCE No.	DESCRIPTION	OTARI PART No
IC 1	μPA2003C	IHA2003C
IC 2	MC14584BCP	IMC14584
IC 3	MC14011BCP	IMC14011
IC 4	ICM75552PA	I-0018
Q 1,2	ZSC1815 BL	QC1815 BL
IC 5	SN7406	IA06

元	生	取	TYPE
3-6869	4-30126	4-30127	
		4-30348	

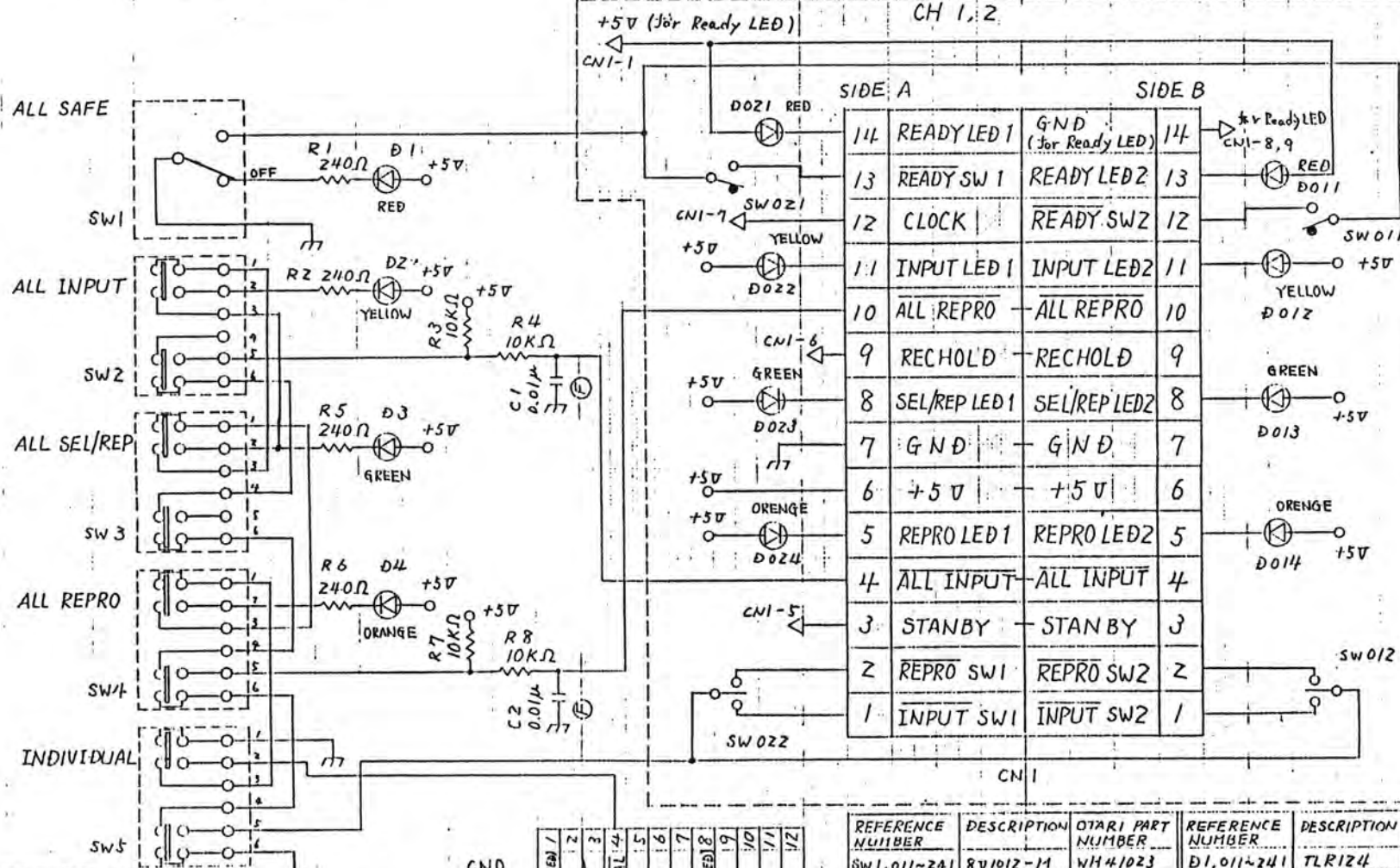
MRK	REV. No.	DATE	DRWR	APP
Δ				
Δ				
Δ				
Δ				
Δ				

DRAWN	DESIGNED	CHECKED	APPROVED
1-5	1-5	1-8	2-6

OTARI Otari Electric Co. Ltd
CONNECTION PCB
PART No. P87700A
DWG No. 4.30348

MODEL 30348

国	生産国	取説国	TYPE
J-6871	4-30124	4-30125	
		4-30349	



TYPE NO(A) TO
() AT THE END

PB9A450

NOTES: UNLESS OTHERWISE SPECIFIED

1. RESISTANCE VALUES ARE IN OHMS, 1 W, 5%.
2. CAPACITANCE VALUES ARE IN FARADS, 50V.
3. CAPACITOR SYMBOL MARKS ARE AS FOLLOWS.
 - (A) : ALUMINUM ELECTROLYTIC CAPACITOR.
 - (B) : BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR
 - (C) : MYLAR FILM CAPACITOR (±5%, 50V)
 - (D) : POLYSTYRENE FILM CAPACITOR (±5%, 50V)
 - (E) : CERAMIC CAPACITOR.
 - (F) : MICA CAPACITOR (±5%)

4. (A) : TANTALUM ELECTROLYTIC CAPACITOR.
- (B) : POLYPROPYLENE FILM CAPACITOR (±5%)
- (C) : LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
- (D) : METALLIZED PAPER CAPACITOR (±10%)
- (E) : SPARK KILLER.
- (F) : SAFETY COMPONENT; REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

1	2	3	4	5	6	7	8	9	10	11	12
+5V (for Ready LED)	+5V	INDIVIDUAL	STANBY	RECHOLD	CLOCK	GND (for LED)	+5V	+5V	+5V	+5V	+5V

REFERENCE NUMBER	DESCRIPTION	OTARI PART NUMBER	REFERENCE NUMBER	DESCRIPTION	OTARI PART NUMBER
SW1, 011~241	8V1012-11	WH41023	D1, 011~241	TLR124	PNTLR124
SW2, 012~242	8V1022-11	WH42024	D2, 012~242	TLY124	PNTLY124
SW3~5	SUT.41A	WH12108	D3, 013~243	TLG124	PNTLG124
CN1~12	150-028-023	CN328038	D4, 014~244	TLB124	PNTLB124

DRAWN	8/1.7.8			
DESIGNED	8/1.7.8			
CHECKED				
APPROVED				
MRK	REV. No.	DATE	DWN	APP

OTARI Otari Electric Co., Ltd.

NAME: AMP. SW PCB A4

PART No. PB46B0A

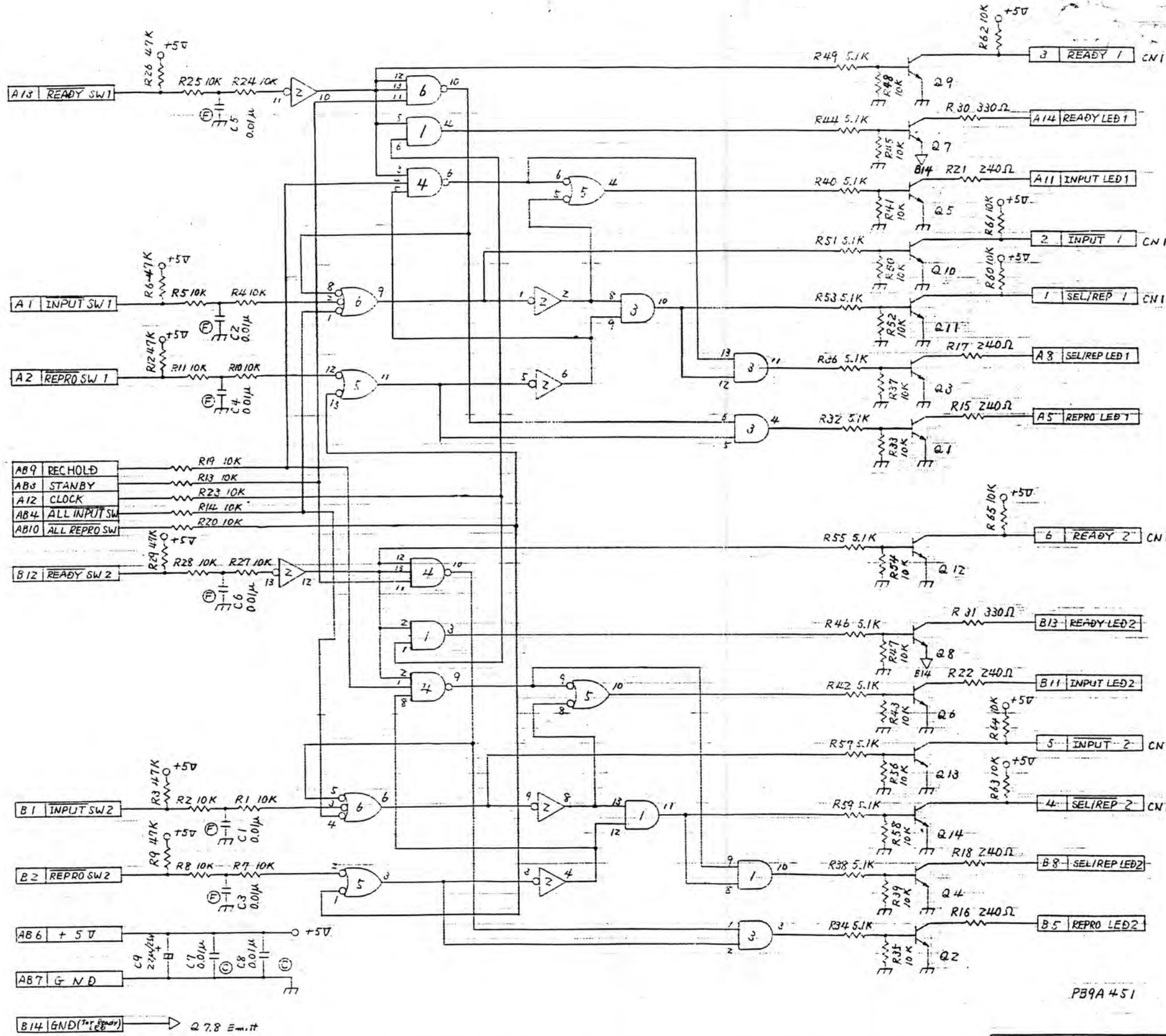
DWG No. 4.30349

CH3~24
SAME AS CH1,2

MODEL 4.30349

CH 2

CH 1



元	図	主	産	図	取	説	図	TYPE
2-3640	3-6865	3-6866						

REFERENCE NUMBER	OTARI PART NUMBER	DESCRIPTION
IC 1, 3	IMC14081	MC14081BCP
IC 2	IMC14069	MC14069BCP
IC 4, 6	IMC14023	MC14023BCP
IC 5	IMC14011	MC14011BCP
Q1~14	QE1815BL	ZSC1815BL

NOTES : UNLESS OTHERWISE SPECIFIED

- RESISTANCE VALUES ARE IN OHMS, ±W. 5%.
- CAPACITANCE VALUES ARE IN FARADS, 50V.
- CAPACITOR SYMBOL MARKS ARE AS FOLLOWS.
 - ALUMINUM ELECTROLYTIC CAPACITOR.
 - BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR.
 - MYLAR FILM CAPACITOR (±5%, 50V)
 - POLYSTYRENE FILM CAPACITOR (±5%, 50V)
 - CERAMIC CAPACITOR.
 - MICA CAPACITOR (±5%)

- TANTALUM ELECTROLYTIC CAPACITOR.
- POLYPROPYLENE FILM CAPACITOR (±5%)
- LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
- METALLIZED PAPER CAPACITOR (±10%)
- SPARK KILLER.
- SAFETY COMPONENT : REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

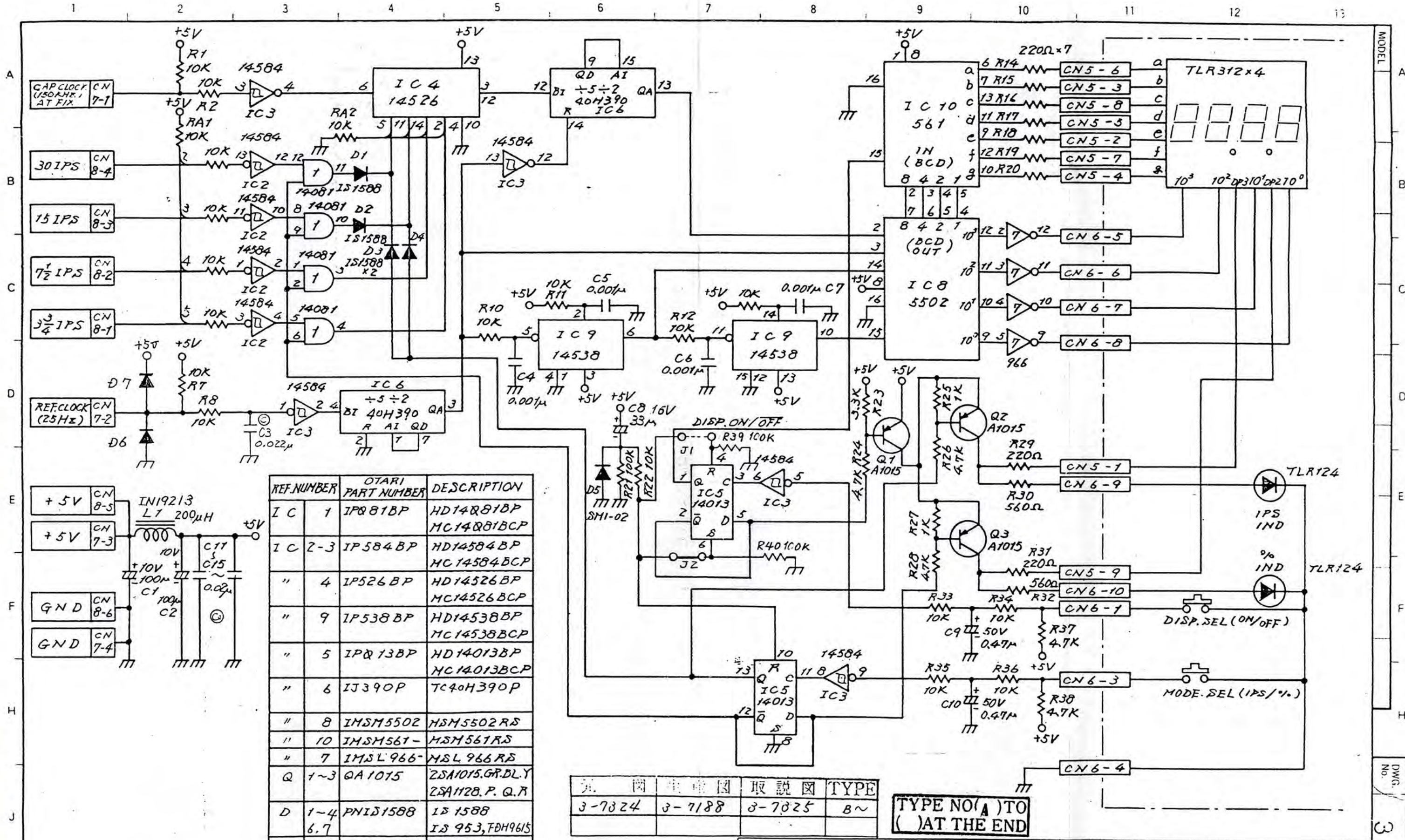
PB9A #51

TYPE NO(A) TO () AT THE END

DRAWN	DESIGNED	CHECKED	APPROVED
1/1 1/17/71	1/1 1/17/71		
MRK	REV. No.	DATE	DWN APP

OTARI Otari Electric Co., Ltd.	
NAME	CONTROL PCB
PART No.	PB 46C & A
DWG No.	

3 6866



REF. NUMBER	OTARI PART NUMBER	DESCRIPTION
IC 1	IPQ81BP	HD14Q81BP MC14Q81BCP
IC 2-3	IP584BP	HD14584BP MC14584BCP
" 4	IP526BP	HD14526BP MC14526BCP
" 9	IP538BP	HD14538BP MC14538BCP
" 5	IPQ13BP	HD14013BP MC14013BCP
" 6	IJ390P	TC40H390P
" 8	IMSM5502	HSM5502RS
" 10	IMSM561	HSM561RS
" 7	IMSL966	MSL966RS
Q 1-3	QA1015	2SA1015.GR.DL.Y 2SA1128.P.Q.R
D 1-4	PN1S1588	1S1588
6, 7	PN2M1-Q2	SM1-02A

取説図	TYPE
3-7324	3-7188
3-7025	B~

TYPE NO(A) TO () AT THE END

NOTES : UNLESS OTHERWISE SPECIFIED

- RESISTANCE VALUES ARE IN OHMS, \pm W, 5%.
- CAPACITANCE VALUES ARE IN FARADS, 50V.
- CAPACITOR SYMBOL MARKS ARE AS FOLLOWS.
 # : ALUMINUM ELECTROLYTIC CAPACITOR.
 B : BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR.
 F : MYLAR FILM CAPACITOR (\pm 5%, 50V)
 S : POLYSTYRENE FILM CAPACITOR (\pm 5%, 50V)
 C : CERAMIC CAPACITOR.
 M : MICA CAPACITOR (\pm 5%)

- TANTALUM ELECTROLYTIC CAPACITOR.
- POLYPROPYLENE FILM CAPACITOR (\pm 5%)
- LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
- METALLIZED PAPER CAPACITOR (\pm 10%)
- SPARK KILLER.
- SAFETY COMPONENT ; REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

THIS SCHEMATIC DIAGRAM IS APPLIED TO PB-45MB-

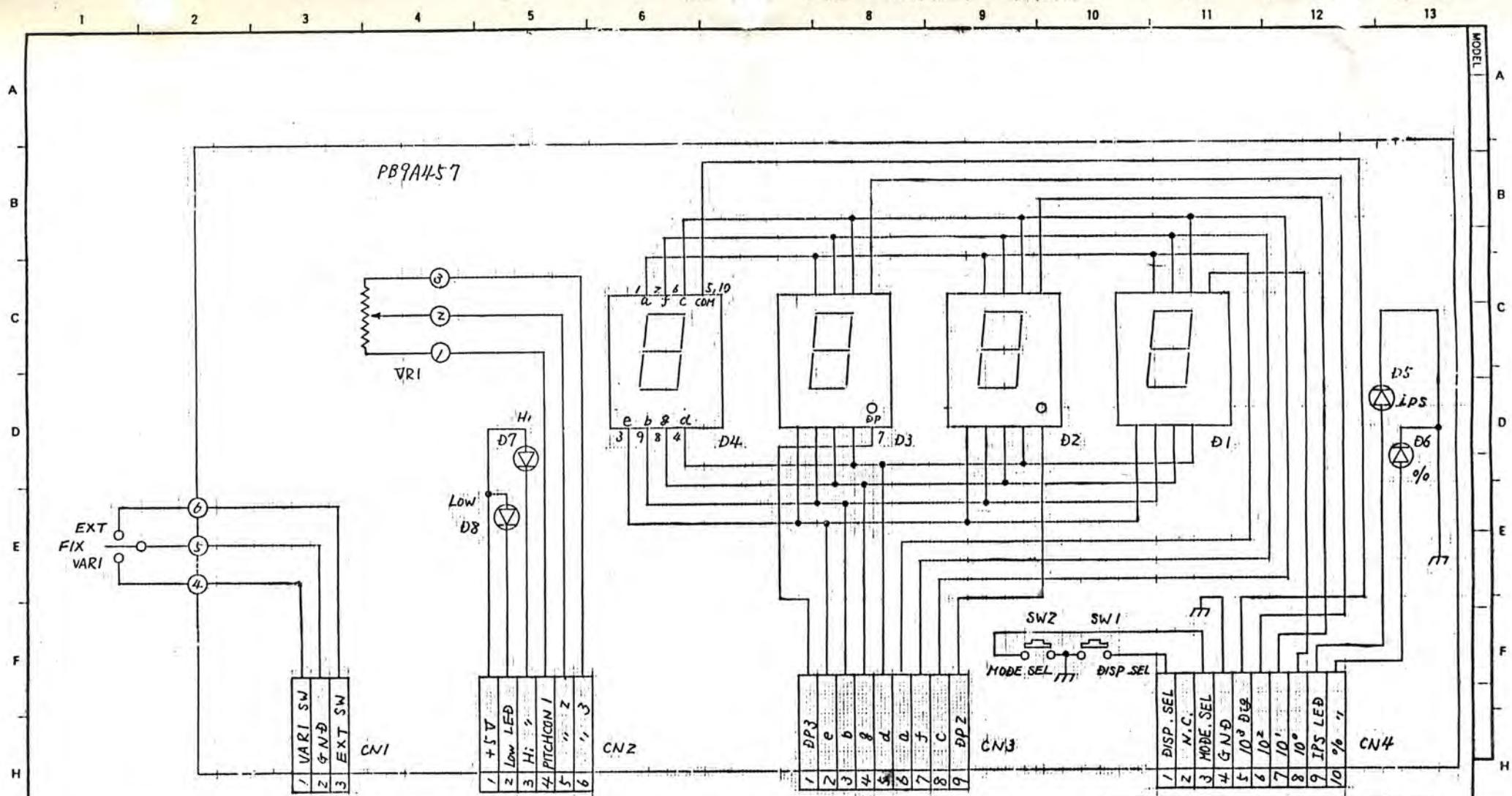
DRAWN	777781.10.16
DESIGNED	1=9
CHECKED	1=9 81.10.28
APPROVED	K.25=Pl.10.25

OTARI Otari Electric Co., Ltd.

NAME SPD. CALCU. PCB Ass'y

PART No. PB46F QA

DWG No. 3..7325



REFERENCE No.	UTARI PART No.	DESCRIPTION
D1 ~ 4	PN-0153	TLR 312 B
D5 ~ 8	PN TLR 102	TLR 102
VR1	RV 014026	ENS-1KAS20B14
SW1, 2	WH11123C	DPI-100

TYPE NO(A) TO
() AT THE END

NOTES : UNLESS OTHERWISE SPECIFIED

- RESISTANCE VALUES ARE IN OHMS. ±W, 5%.
- CAPACITANCE VALUES ARE IN FARADS, 50V.
- CAPACITOR SYMBOL MARKS ARE AS FOLLOWS:
 - ⊖ : ALUMINUM ELECTROLYTIC CAPACITOR.
 - ⊕ : BIPOLAR ALUMINUM ELECTROLYTIC CAPACITOR.
 - Ⓜ : MYLAR FILM CAPACITOR (±5%, 50V)
 - Ⓢ : POLYSTYRENE FILM CAPACITOR (±5%, 50V)
 - Ⓢ : CERAMIC CAPACITOR.
 - Ⓢ : MICA CAPACITOR (±5%)

- ⊖ : TANTALUM ELECTROLYTIC CAPACITOR.
- Ⓜ : POLYPROPYLENE FILM CAPACITOR (±5%)
- Ⓢ : LOW LEAKAGE CURRENT ELECTROLYTIC CAPACITOR.
- Ⓢ : METALLIZED PAPER CAPACITOR (±10%)
- Ⓢ : SPARK KILLER.
- Ⓢ : SAFETY COMPONENT ; REPLACE ONLY WITH THE SPECIFIED COMPONENT FOR SAFETY REASON.

元	図	生産	取説	TYPE
3-6870	4-30122	4-30123		

MRK	REV. No.	DATE	DWN	APP
△				
△				
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△				
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△				
△				
△				

OTARI Otari Electric Co., Ltd.
NAME 7 seg. LED PCB A _y
PART No. PB77N8A
DWG No. 4-30123

DWG No. 4-30123