1-2. Difference Table and Parts List

Circuit No.	Ver. 0		Ver. 1		Remarks
	Part No.	Description	Part No.	Description	
	837-9602-S	IC BD MD2 VA0S USA (CBA)	837-9793-S	IC BD MD2 VA1S USA (CBA)	
	837-9602-SM	IC BD MD2 VA0SM USA (CBA)	837-9793-SM	IC BD MD2 VA1SM USA (CBA)	
	837-9602F	IC BD MD2 VA0F USA (CBA)	837-9793-F	IC BD MD2 VA1F USA (CBA)	
	837-9603	IC BD MD2 VA0 EUR (CBA)	837-9794	IC BD MD2 VA1 EUR (CBA)	
IC2	315-0547-10A	IC HM65256BLFP-10 SOP	315-0810	IC LH5P1632N-15 SOP40P	
	315-0677-A	IC TC51832FL-10 SOP	315-0811	IC LC331632M-12 SOP40P	
	315-0759-85A	IC TC51832AFL-85 SOP	315-0812	IC HM651632DFP-15 SOP	
	315-0759-10A	IC TC51832AFL-10 SOP	315-1819	IC TC511632FL-10 SOP	
	315-0760-12A	IC LH59P832N-12 SOP			
IC3	315-0547-10A	IC HM65256BLFP-10 SOP	NOTHING	NOTHING	
	315-0677-A	IC TC51832FL-10 SOP			
	315-0759-85A	IC TC51832AFL-85 SOP			
	315-0759-10A	IC TC51832AFL-10 SOP			
	315-0760-12A	IC LH59P832N-12 SOP			
IC7	315-0515	IC M5M4C264L-12 ZIP	315-0795-80	IC MSM54C864-80JS SOP40P	
	315-0515-15	IC M5M4C264L-15 ZIP	315-0820	IC KM428C64J-10 SOJ	
	315-0453	IC UPD41264V-12 ZIP	315-0850	IC HM53861J-8 SOJ	
	315-0423	IC MB81461-12 ZIP			NTSC-F
	315-0481	IC HM53461ZP-12 ZIP			
	315-0525	IC TMS4461-12SDL ZIP			
	315-0616	IC V53C261Z10 ZIP			
	315-0622	IC KM424C64Z-10 ZIP			
	315-0623	IC MSM51C262-10ZS ZIP			
	315-5543	IC KM424C64Z-12 ZIP			
IC8	315-0515	IC M5M4C264L-12 ZIP	NOTHING	NOTHING	
	315-0515-15	IC M5M4C264L-15 ZIP			
	315-0453	IC UPD41264V-12 ZIP			
	315-0423	IC MB81461-12 ZIP			
	315-0481	IC HM53461ZP-12 ZIP			
	315-0525	IC TMS4461-12SDL ZIP			
	315-0616	IC V53C261Z10 ZIP			
	315-0622	IC KM424C64Z-10 ZIP			
	315-0623	IC MSM51C262-10ZS ZIP			
	315-5543	IC KM424C64Z-12 ZIP			
CE1	150-0418	CAP E 10UF 16V U-TYPE L=5MM	150-0023	CAP E 10UF 16V U-TYPE 20%	
CE33	NOT USED	NOT USED	150-0062	CAP E 47UF 10V U-TYPE	PAL
C11	NOT USED	NOT USED	151-0372	CAP CER CP 33PF 50V KB2125	
C30	151-0309	CAP CER CP 180PF 50V CH2125	151-0354 NOT USED	CAP CER CP 100PF 50V CH2125 NOT USED	PAL NTSC-SM
C61	151-0265	CAP CER CP 0.1UF 25V ZF2125	151-0336	CAP CER CHIP 12PF 50V	PAL
C63	NOTHING	NOTHING	NOT USED	NOT USED	PAL
R42	476-2472-J-10	RES CHIP 4.7kOHM 1/10W 5%	476-2752-J-10	RES CHIP 7.5kOHM 1/10W 5%	
R43	476-2472-J-10	RES CHIP 4.7kOHM 1/10W 5%	476-2752-J-10	RES CHIP 7.5kOHM 1/10W 5%	
R44	476-2472-J-10	RES CHIP 4.7kOHM 1/10W 5%	476-2752-J-10	RES CHIP 7.5kOHM 1/10W 5%	
R45	476-2472-J-10	RES CHIP 4.7kOHM 1/10W 5%	476-2752-J-10	RES CHIP 7.5kOHM 1/10W 5%	
R81	476-2682-J-10	RES CHIP 6.8kOHM 1/10W 5%	476-2472-J-10	RES CHIP 4.7kOHM 1/10W 5%	

CAUTIONS WHEN REPLACING PARTS

Four ICs shown in the table below are assigned as the service parts for IC6.

| No.	Parts No.	Description
1	315-5660	IC CUSTOM CHIP FC1004 REV. YAMAHA
2	315-5660-02	IC CUSTOM CHIP FC1004
3	315-5660-01	IC CUSOTM CHIP FC1004 AMJ
4	315-5708-01	IC CUSTOM CHIP FC1004 AMK

If one of numbers 1-4 is used for IC6, mount C1, C4 and C15 according to the following table.
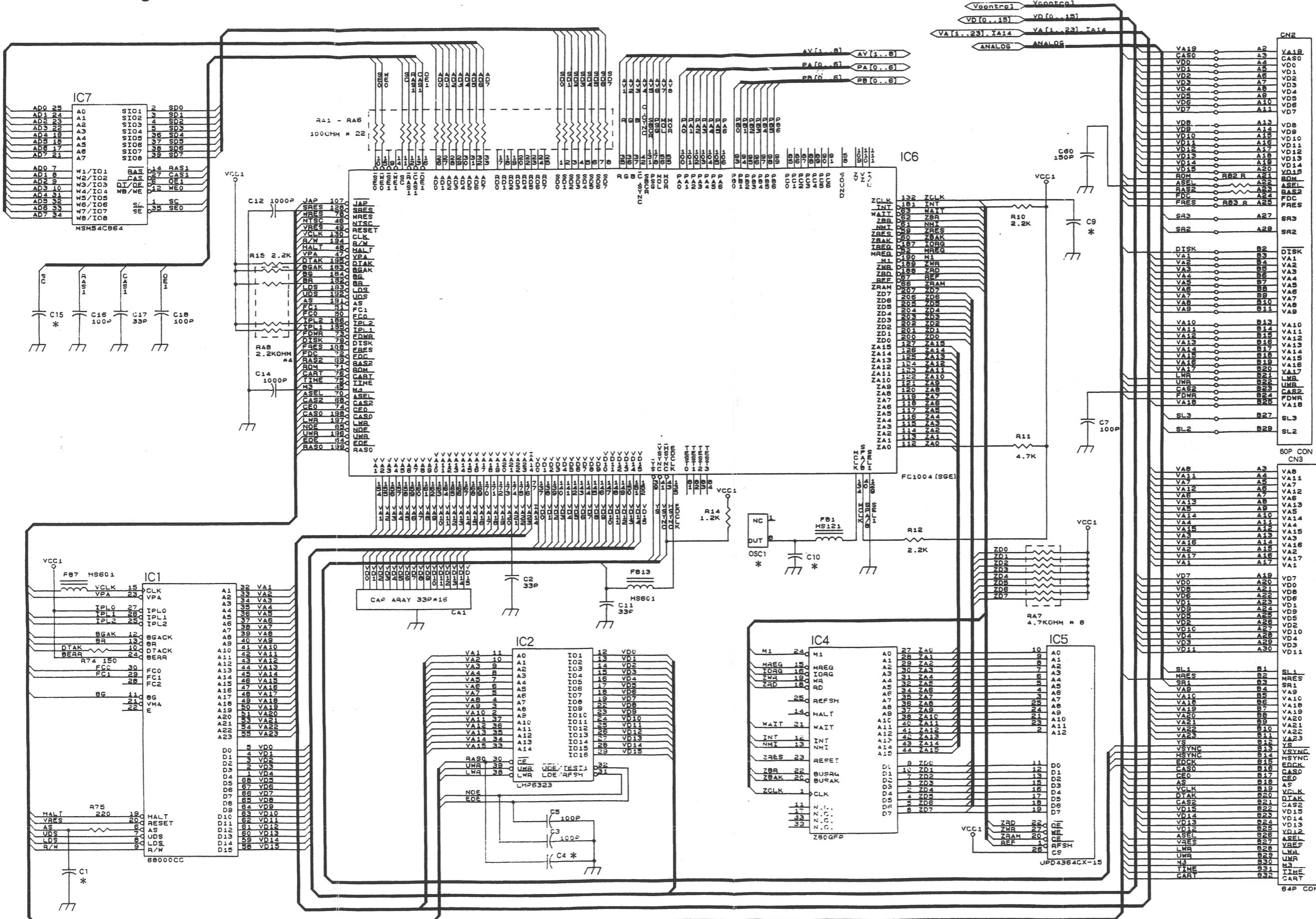
| No.	Parts No.	Description	IC6			
			No.1	No.2	No.3	No.4
C1	151-0316	CAP CER CP 20PF 50V J CH 2125	×	×	○	○
C4	151-0363	CAP CER CP 47PF 50V CH 2125	×	×	×	○
C15	476-2102-J-10	RES CHIP 1kOHM 1/10W 5%	×	×	○	×
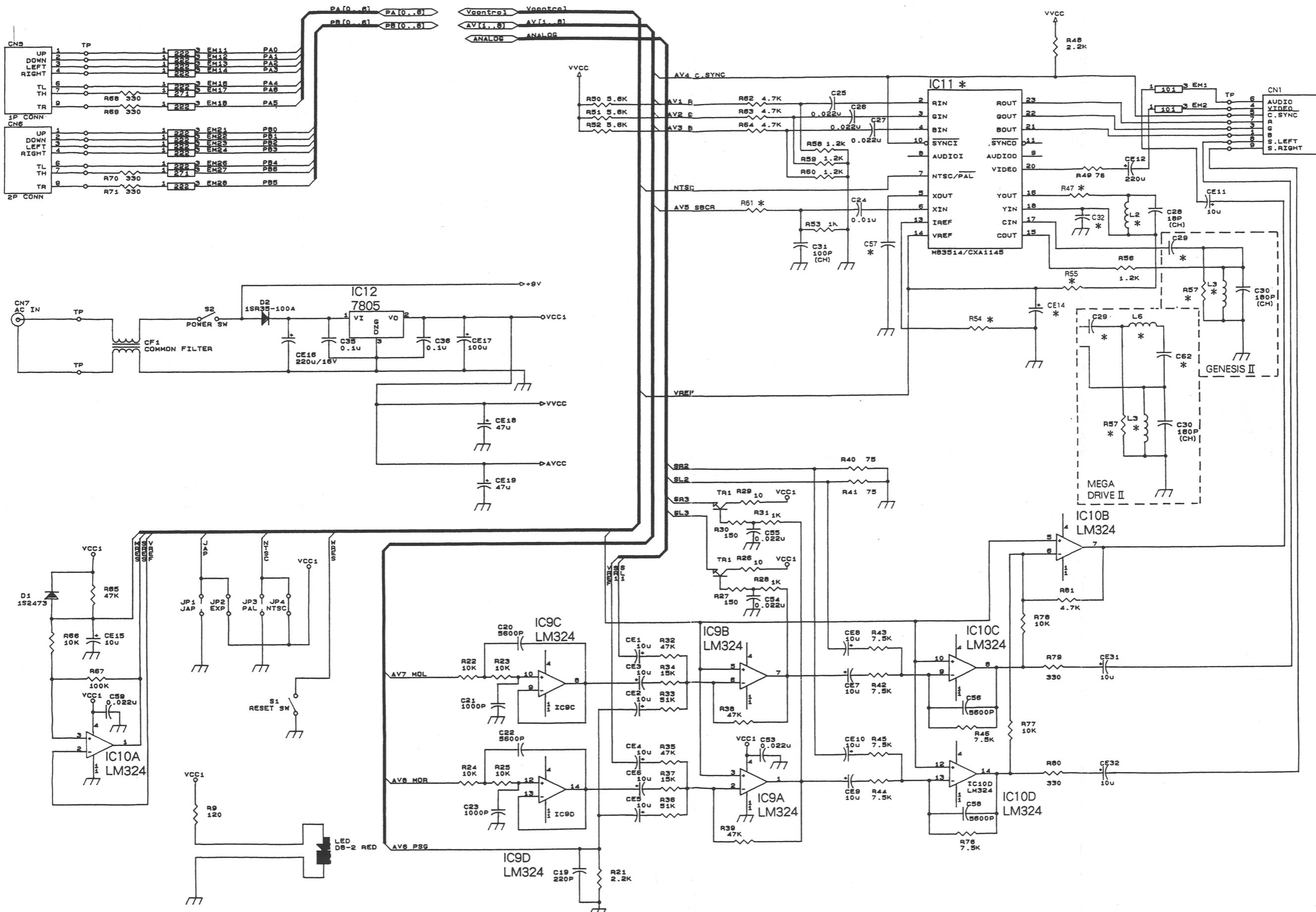
× : NOT MOUNTED
○ : MOUNTED

# 2. SCHEMATIC DIAGRAM (Version 1)

2-1. Schematic Diagram-1
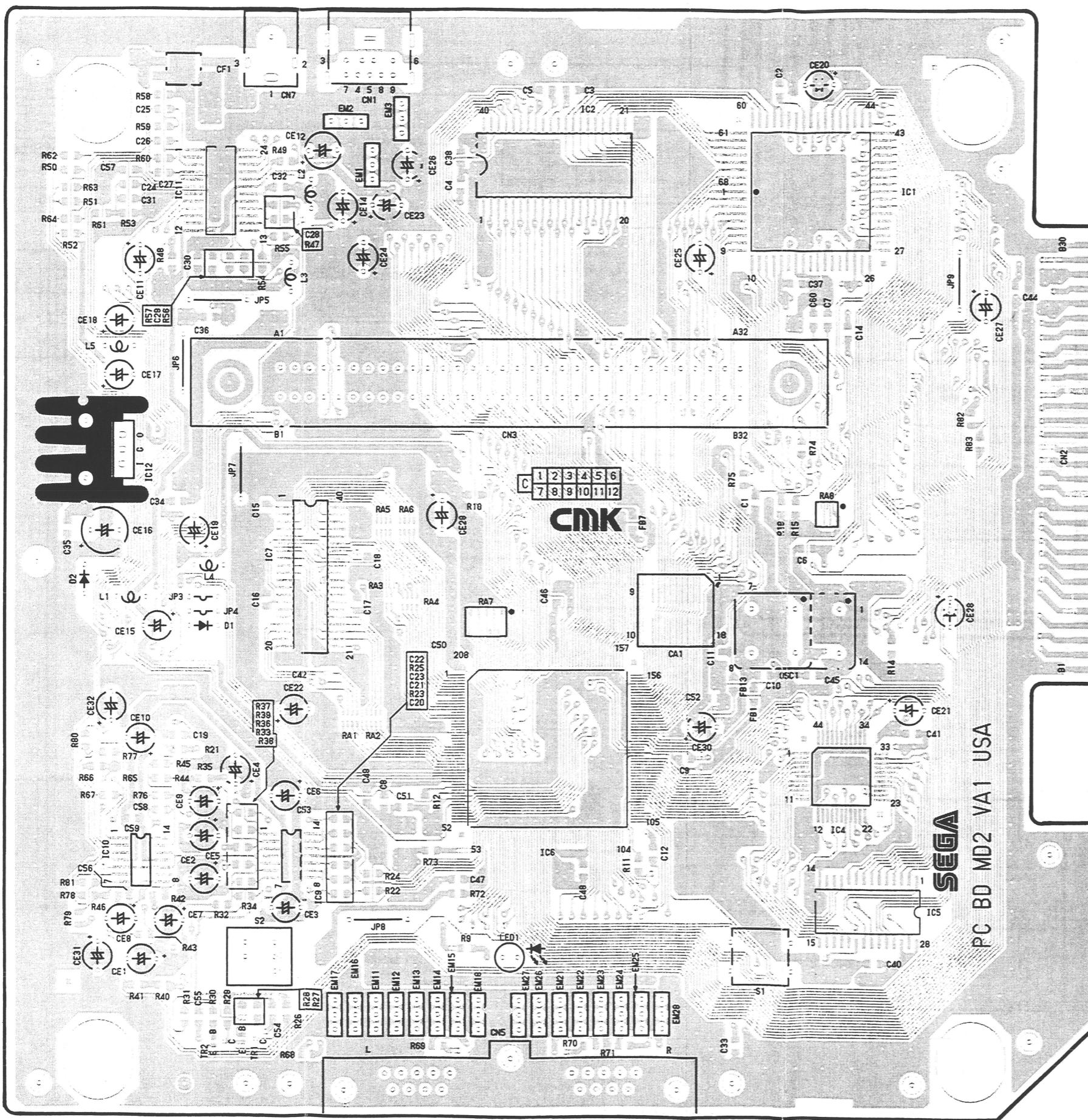
3. CIRCUIT BOARD DIAGRAM (Version 1)

## 3-1. Main Circuit Board (Top View) — For GENESIS II —
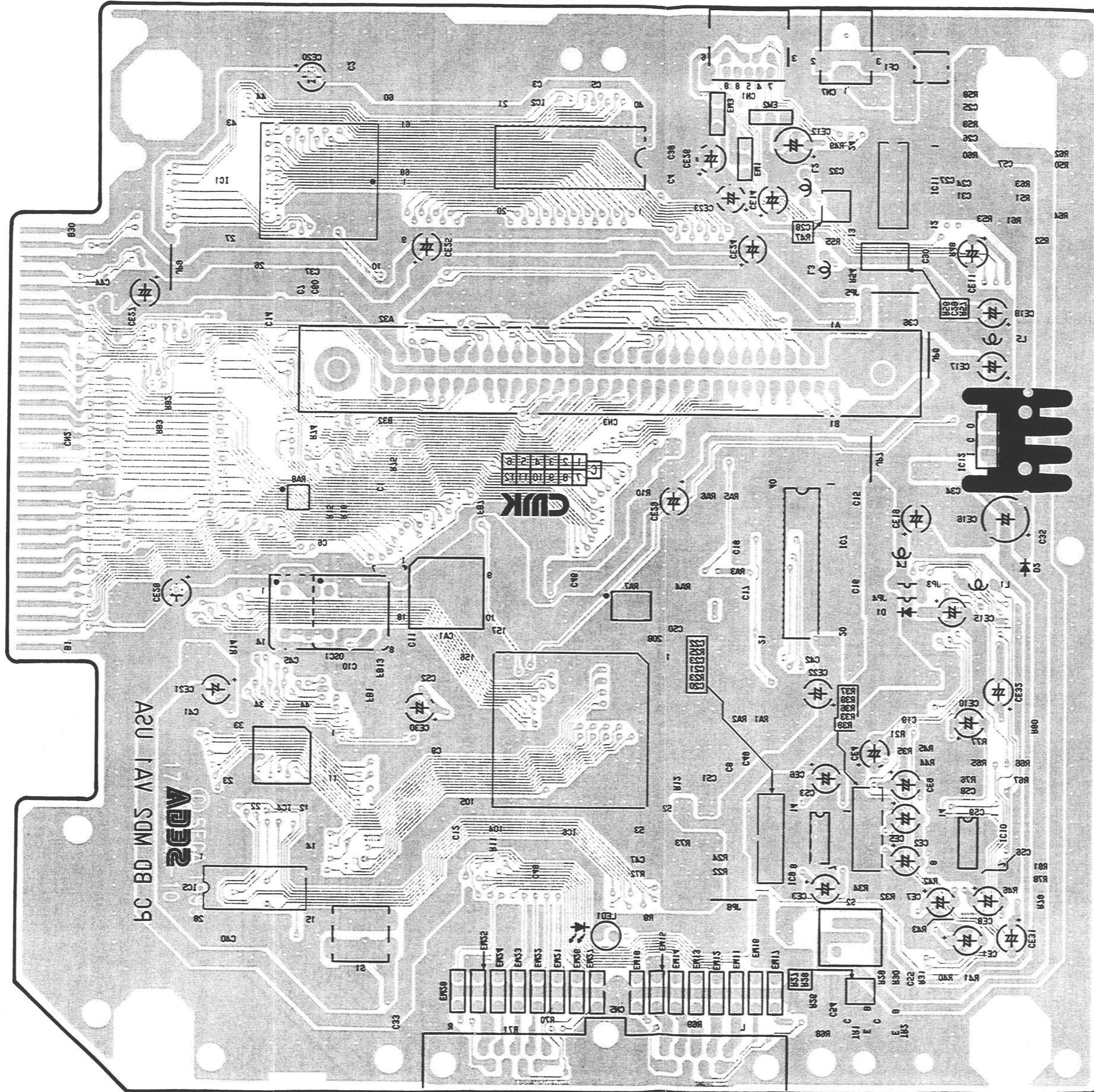
* Difference Table
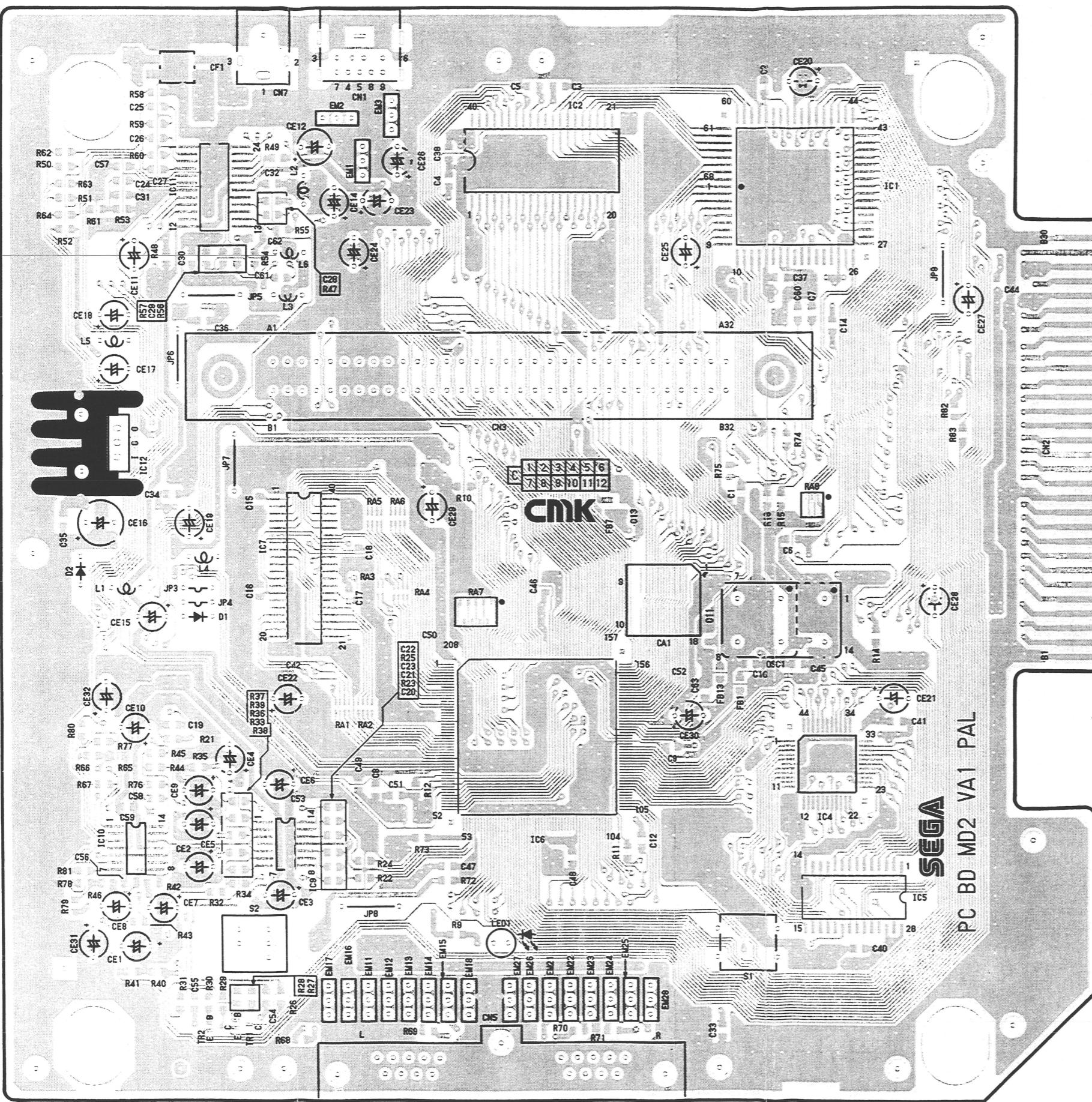
CIRCUIT No.	GRID	TYPE-S	TYPE-F	TYPE-SM
C9	B-4	×	×	×
C10	C-4	×	×	×
C15	C-2	RES 1K	RES 1K	RES 1K
C32	E-2	○	○	×
C57	E-1	×	○	×
R47	E-2	○	○	×
R55	E-2	○	○	×
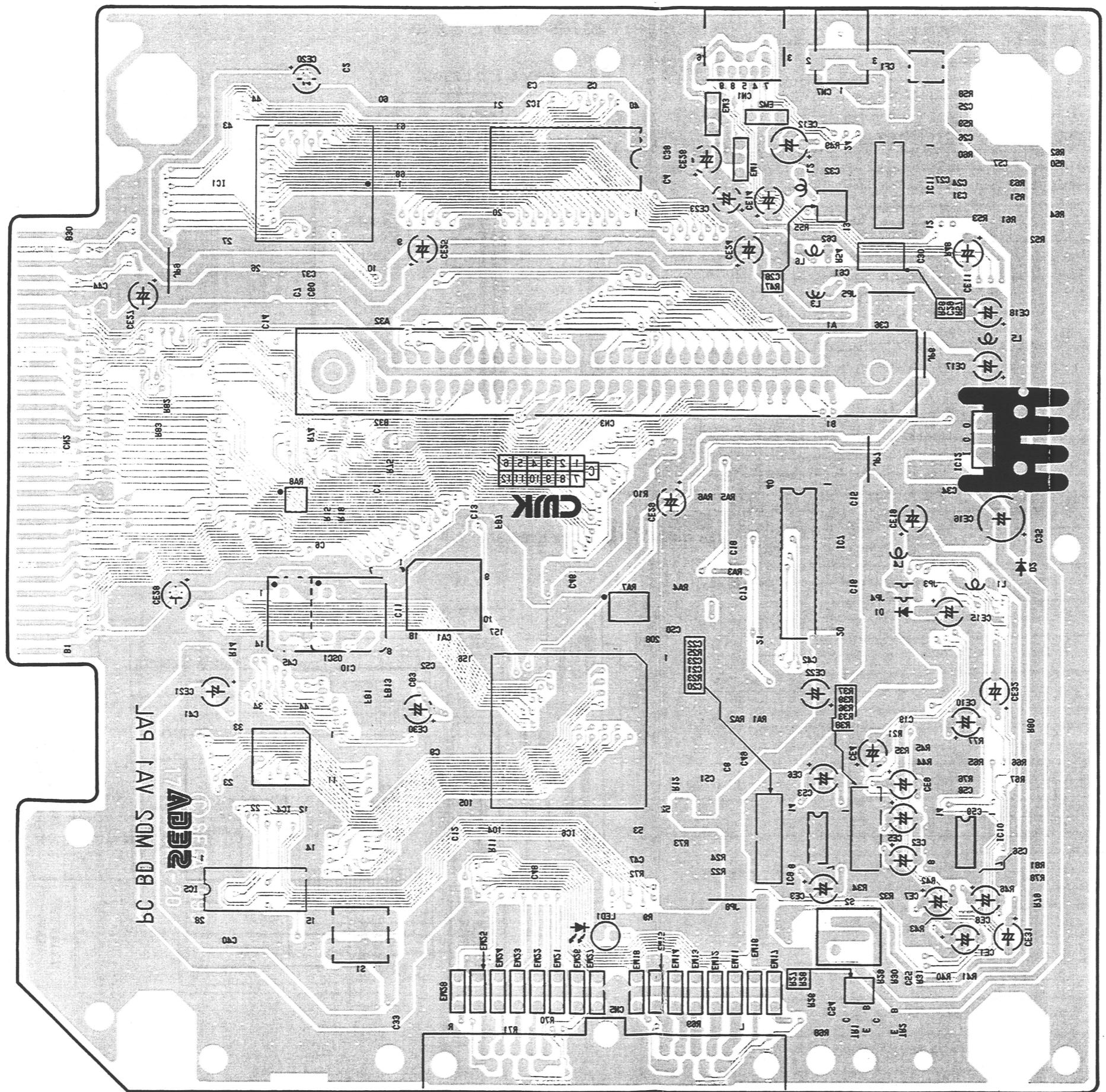
× : Not Mounted
○ : Mounted

* Difference Table

CIRCUIT No.	GRID	MEGA DRIVE II
C1	C-4	×
C4	E-3	×
C15	C-2	×
R54	D-2	×

×: Not Mounted

PC BD MD2 VA1 PAL

SEGA

CMK

MEMO
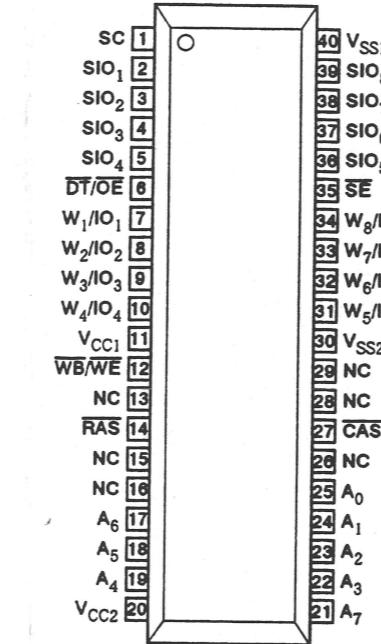
4. PARTS SPECIFICATIONS

IC2 315 – 0810

IC LH5P1632N-15 SOP40P

■ Top View & Pin Layout

SC	1		40	V_{SS1}
SIO_1	2		39	SIO_8
SIO_2	3		38	SIO_7
SIO_3	4		37	SIO_6
SIO_4	5		36	SIO_5
$\overline{DT/OE}$	6		35	$\overline{SE}$
W_1/IO_1	7		34	W_8/IO_8
W_2/IO_2	8		33	W_7/IO_7
W_3/IO_3	9		32	W_6/IO_6
W_4/IO_4	10		31	W_5/IO_5
V_{CC1}	11		30	V_{SS2}
$\overline{WB/WE}$	12		29	NC
NC	13		28	NC
$\overline{RAS}$	14		27	$\overline{CAS}$
NC	15		26	NC
NC	16		25	A_0
A_6	17		24	A_1
A_5	18		23	A_2
A_4	19		22	A_3
V_{CC2}	20		21	A_7

■ Pin Name

Pin Name	Function
$A_0 \sim A_7$	Address input
$\overline{RAS}$	Row address strobe
$\overline{CAS}$	Column address strobe
$\overline{DT/OE}$	Data transfer/output enable
$\overline{WB/WE}$	Write bar bit/Write enable
$W_1/IO_1 \sim$ W_8/IO_8	Write mask/data I/O
SC	Serial clock
$\overline{SE}$	Serial enable
$SIO_1 \sim SIO_8$	Serial data I/O
V_{CC}/V_{SS}	Power supply (5V)/ Ground
NC	Not connected

■ Block Diagram