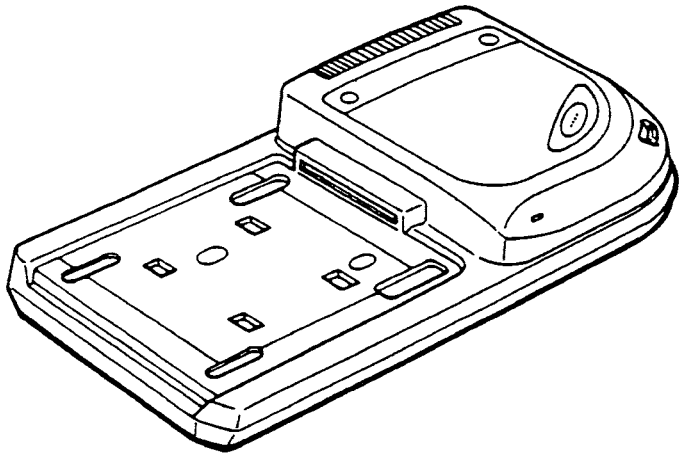
SEGA™ SERVICE MANUAL

SEGA CD II /MEGA CD II



NO.	002
ISSUED	AUGUST, 1993

CONTENTS

Sega Enterprises, Ltd.

1. SPECIFICATIONS

Ratings

Model	SEGA CD II	MEGA CD II
Power input	AC 120V, 60Hz	AC230 or 240V, 50Hz
Power consumption	18 W	18 W
Operating environment	Temperature : 0 to 40 ℃ Humidity : 10% to 80%RH (no condensation)	
Dimensions	396 (W) × 220 (D) × 84 (H) mm	

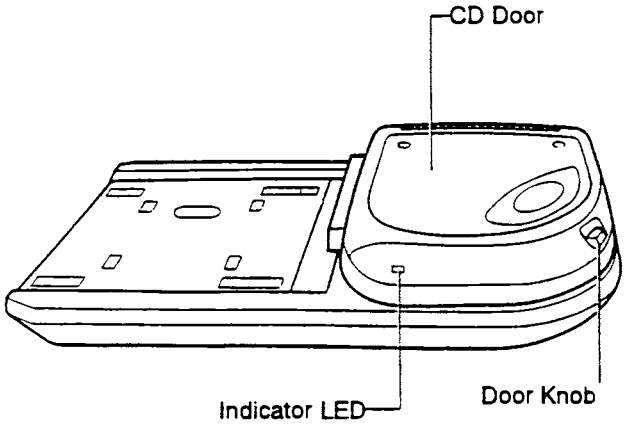
Specifications

CPU		68000 (12.5MHz)
Memory	RAM	6M bit (Program, Picture data, Sound data memory) 512k bit (PCM waveform memory) 128k bit (CD-ROM data cache memory) 64k bit (Back-up memory)
	Boot ROM	1M bit CD game BIOS CD player software CD+G compatible
Sound circuitry	PCM sound source	Stereo 8 channels. Sampling frequency 32kHz max.
	D/A converter	16 bit D/A converter. 8x internal over-sampling digital filter. PCM and CD sound mixing. Mixing with mixing terminal possible.
Audio characteristics	Frequency characteristics	20Hz to 20kHz
	Signal v. noise ratio (S/N)	Over 80dB (1kHz) (Line out)
	Dynamic range	Over 90dB
Battery back-up secondary duration		Approx. 1 month
CD drive unit	CD diameter	12cm and 8cm
	Rotational direction	Counter-clockwise (relative to the side opposite from the label)
	Access time	Average 1.5s
Audio output	Line out	RCA pin jack × 2 (L/R)
Audio input	Mixing	Stereo jack mixing.

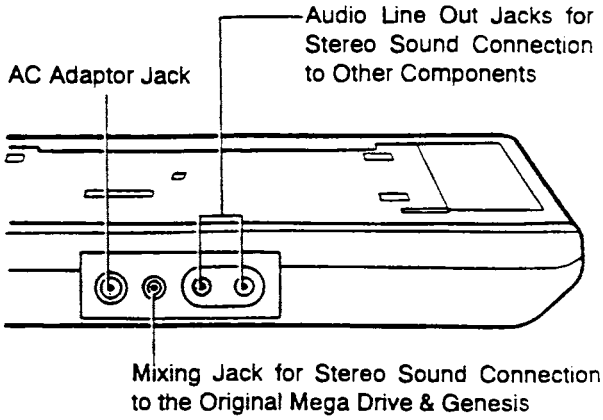
* Design and specifications are subject to change without notice.

2. IDENTIFYING PARTS

2-1. Front & Top View of Console

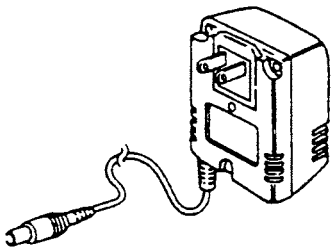


2-2. Back View of Console

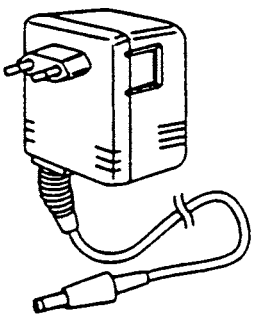


2-3. Accessories

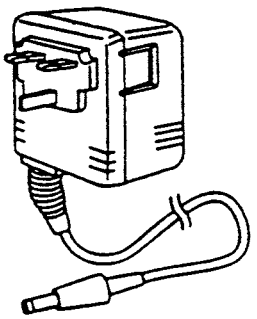
SEGA-CD II AC Adaptor



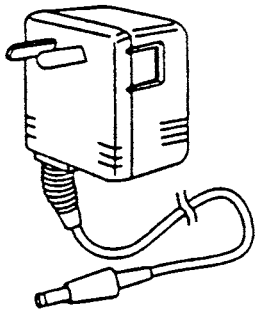
MEGA-CD II AC Adaptor



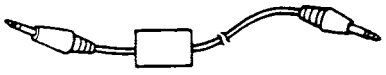
(Except U.K. , Kuwait Australia and New Zealand)



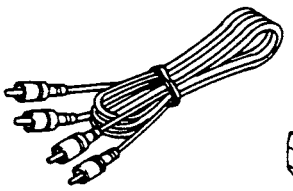
(U.K. and Kuwait)



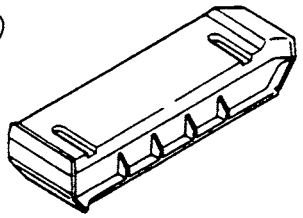
(Australia and New Zealand)



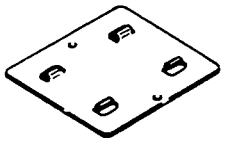
Stereo Mixing Cable (Except Canada)



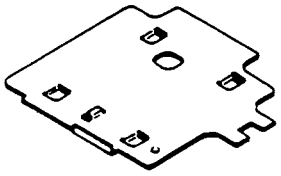
Audio RCA Cable (Except USA & Canada)



Extension Panel (Assy Spacer)



Extension Plate (Hold Plate Spacer)



Steel Joining Plate (Retainer Bracket)

Screw for Steel Joining Plate

(Conn Plate B)

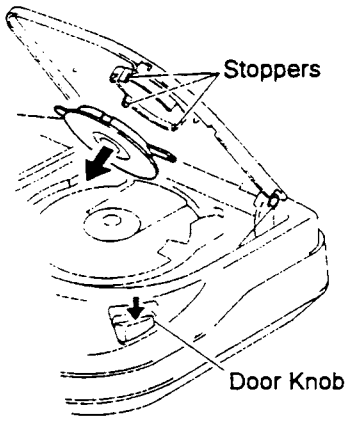
(Conn Plate A)

Note: Names of parts in brackets ( ) are used in the parts list.

3. DISASSEMBLY

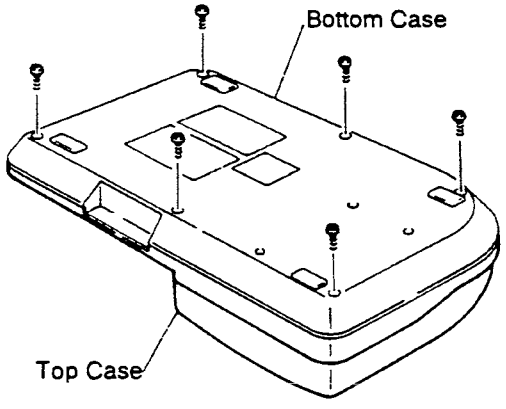
3-1.Chuck Disk Assembly Removal

(1) Press the door knob to open the door.
(2) Release three (3) stoppers holding the chuck disk assembly.
(3) When reinstalling, align the recesses in the chuck holder with the stoppers.



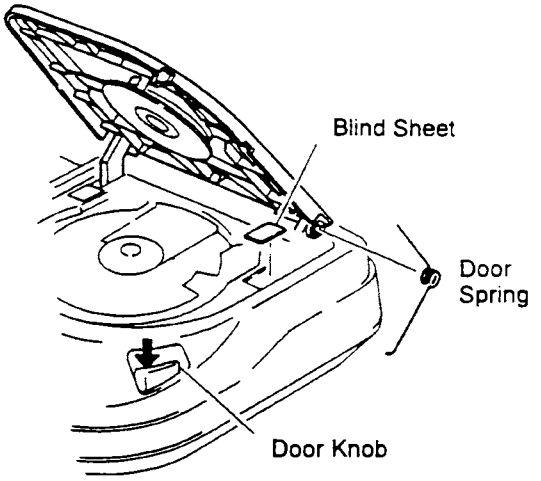
3-2. Top Case Assembly Removal

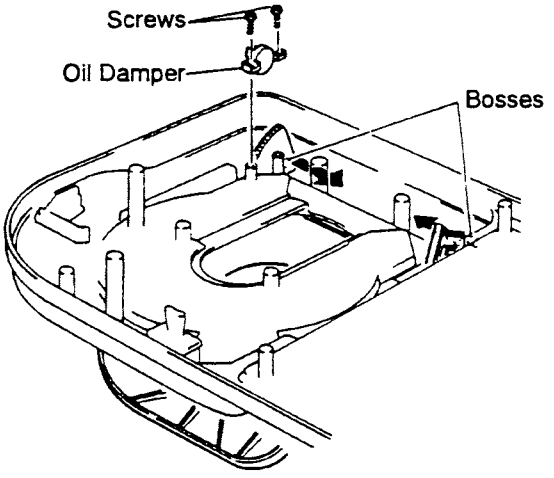
(1) Turn over the unit and remove six (6) screws from the bottom.
(2) Do not remove the bottom case in this state.
Be sure to turn over the unit again and then remove the top case in the original state.



3-3. Door Removal

(1) Remove the top case assembly. (See item 3-2)
(2) Press the door knob to open the door.
(3) Remove the blind sheet on the right.
(4) Remove the door spring.
(5) Turn over the top case and remove two (2) screws, then remove the oil damper.
(6) Push the door installation section in the directions of the arrows to release the bosses.

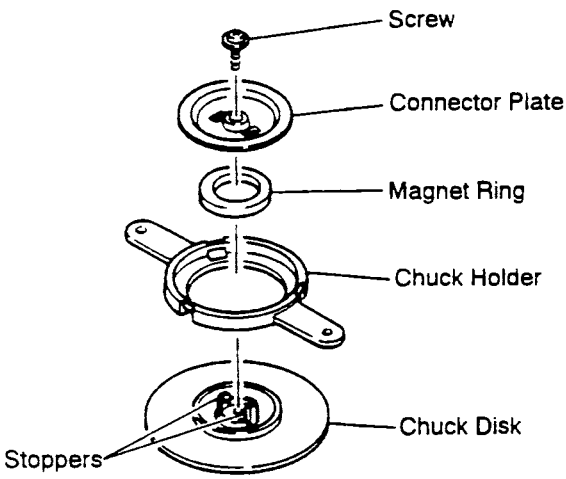




3-4. Dismantling the Chuck Disk Assembly

(1) Remove the chuck disk assembly. (See item 3-1)

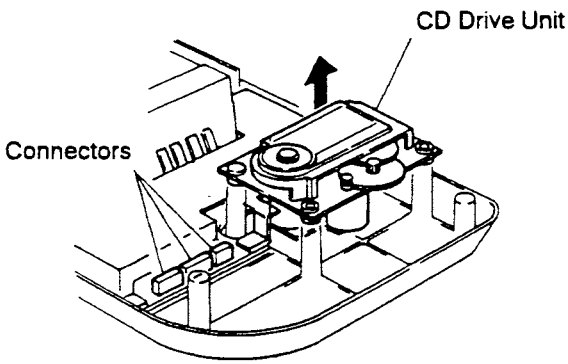
(2) Remove the screw and release two (2) stoppers. The connector plate, magnet, chuck holder and chuck disk come apart on their own.



3-5. CD Drive Unit Removal

(1) Remove the top case assembly. (See item 3-2)

(2) Disconnect three (3) connectors and lift the CD drive unit.



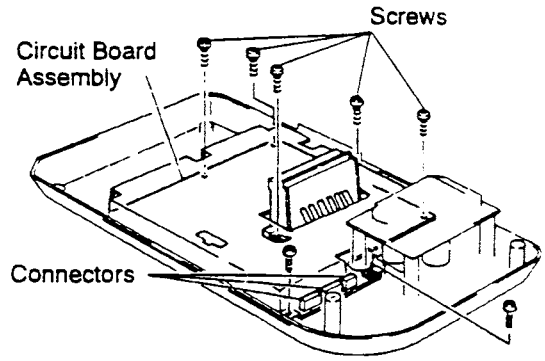
3-6. Circuit Board Assembly Removal

(1) Remove the top case assembly. (See item 3-2)

(2) Remove five (5) screws holding the shield plate.

(3) Disconnect three (3) connectors from the CD drive unit.

(4) Remove two (2) screws holding the circuit board assembly.

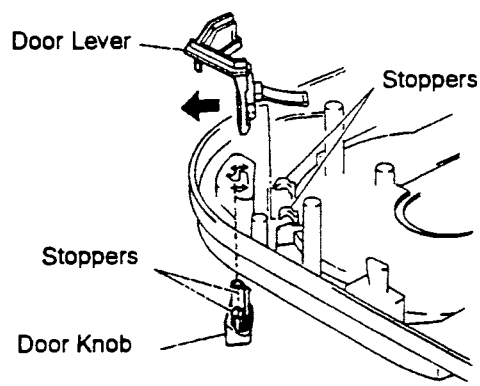


3-7. Door Lever and Door Knob Removal

(1) Remove the top case assembly. (See item 3-2)

(2) Turn over the top case assembly and release two (2) stoppers, then remove the door lever in the direction of the arrow.

(3) Release two (2) stoppers and remove the door knob.



4. CD DRIVE ADJUSTMENT

4-1. Test Equipment and Test Disc

1) Frequency counter
2) Oscilloscope (20MHz or more)
3) Adjustment jig (MEGA-CD II (F) CD ADJ. JIG)
4) Audio generator
5) Voltmeter (two units with one needle or one unit with two needles)
6) Test CD (SONY TYPE-4)

4-2. Set-up for Adjustment

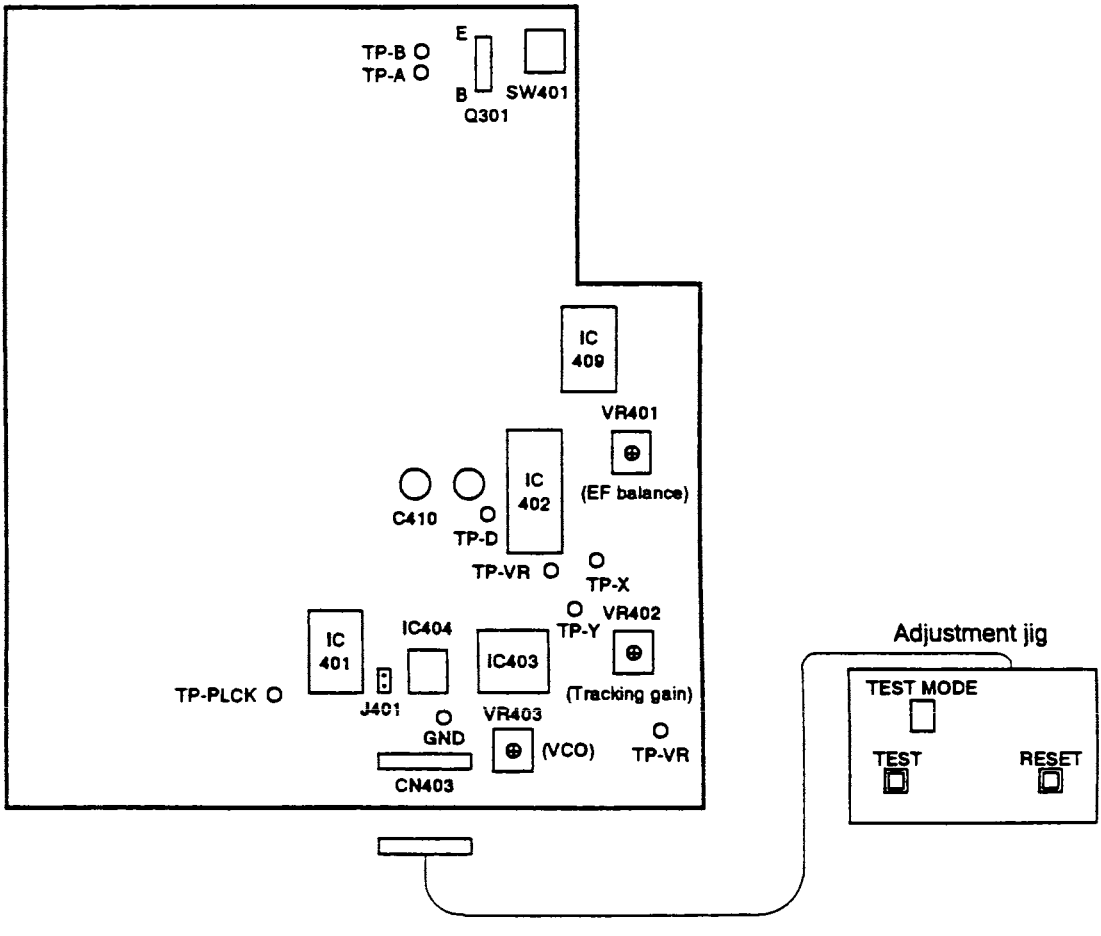
1) Connect both terminals of J401.
2) Turn SW401 on and fix it using plastic tape, etc.
3) Connect the jig to CN403.
4) Supply power to the unit and jig. (Use AC adaptor of MEGA CD II /SEGA CD II for jig)
5) Press the [RESET] switch of the jig so the counter reads "0".
6) Connect the Q301's emitter and CN101 pin 28 B or connect Mega Drive II /Genesis II .

6 SHOULD BE BETWEEN 3 AND 4

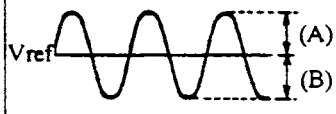
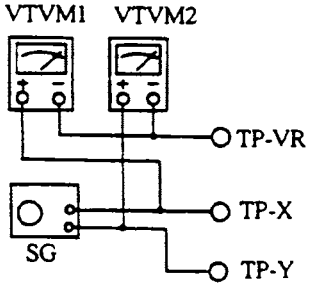
Test mode	Adjustment item
0	VCO
2	EF balance
3	Tracking gain

Note 1: The test mode is incremented each time the [TEST] switch of the jig is pressed.
Note 2: Test mode 1 is for checking the laser power and keeps the pickup laser illuminated.

4-3. Adjustment Parts Location

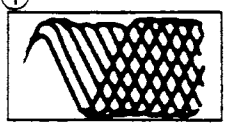


4-4. Adjustment

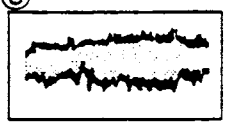
Adjustment name	Adjust-ment point	Test point	Test equipment	Adjustment procedure	Purpose	Faults due to incom-plete adjustment	
1. VCO adjustment	VR403	TP-PLCK (Connect the probe's ground to GND)	Frequency counter	Short both terminals of C410 or connect TP-D and GND. Adjust variable resistor VR403 so the frequency of the signal at test pin PLCK is 4.320 ± 0.05MHz.	To reproduce a reference clock signal during CD play.	Small	• It takes more time to search for each track.
						Large	• No play possible.
2. EF balance adjustment	VR401	TP-X (Connect the probe's ground to TP-VR)	Oscilloscope, Adjustment jig. Probe: 10:1 50mv/div 1ms/div Test CD	Press [TEST] switch twice to set to "Test Mode 2".  Adjust VR401 so that peaks (A) and (B) of the output waveform shown above are equal.	To adjust the center of the tracking error signal	Small	• Playability of dirty discs and scratched discs be-comes poor.
						Large	• It becomes impossible to search for each track.
3. Tracking gain adjustment	VR402	TP-X TP-Y	2 voltmeters, Generator, Adjustment jig Test CD	 Connect as shown above. Press [TEST] switch three times to set to "Test Mode 3" and supply a 1.0kHz, 0.15Vrms signal from the generator. Adjust VR402 so the 2 voltmeters read the same value.	To adjust the tracking servo gain.	Small	• Becomes susceptible to shocks. • It becomes impossible to search for each track on dirty and scratched discs.
						Large	• Playability of dirty discs and scratched discs be-comes poor.

5. CD INTERFACE

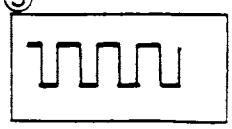
5-1. CD Drive Block Diagram

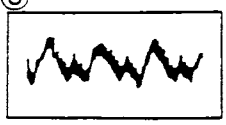
① 
500mv/div 5 μ s/div

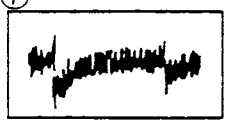
② 
200mv/div 50ms/div

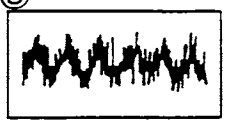
③ 
50mv/div 50ms/div

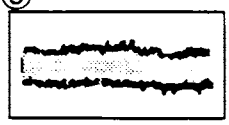
④ 
2 μ s/div

⑤ 
2v/div. 1 μ s/div

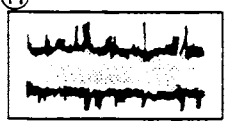
⑥ 
500mv/div 50ms/div

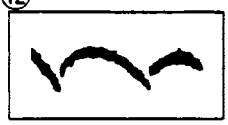
⑦ 
50mv/div 2s/div

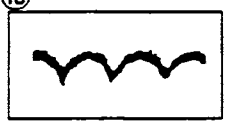
⑧ 
100mv/div 100ms/div

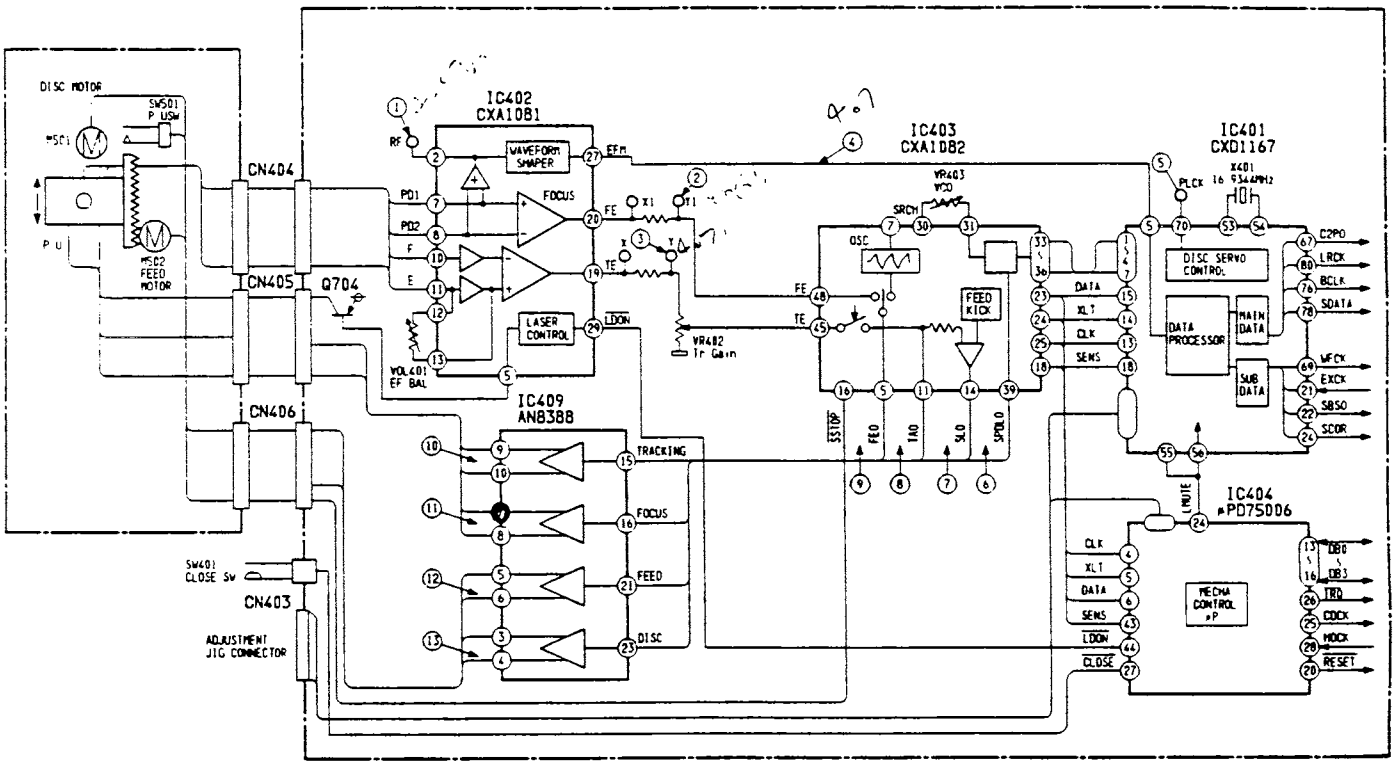
⑨ 
100mv/div 50ms/div

⑩ 
200mv/div 500mv/div

⑪ 
500mv/div 500ms/div

⑫ 
200mv/div 2s/div

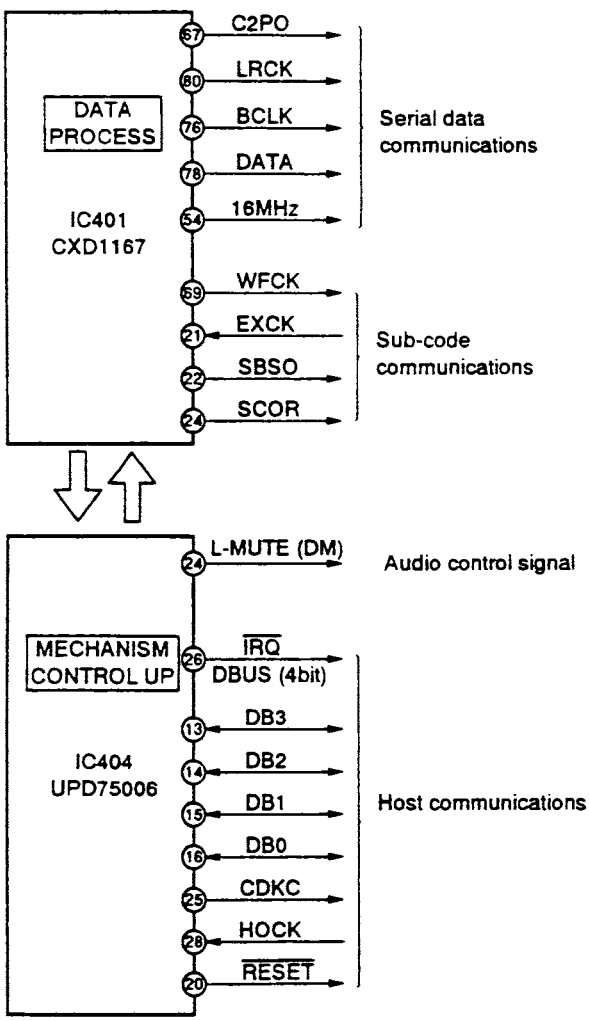
⑬ 
500mv/div 50ms/div



5-2. Description of CD Interface Signals

Name	I/O	Function	IC No.	Pin No.
C2PO	O	Error flag. Outputs "H" when data correction is disabled.	IC401	67
BCLK	O	Bit clock.	IC401	76
SDATA	O	Serial data output.	IC401	78
LRCK	O	L/R-channel identification clock.	IC401	80
16MHz	O	16.9344MHz output.	IC401	54
WFCK	O	Frame clock.	IC401	69
EXCK	I	Sub-code read clock.	IC401	21
SBSO	O	Sub-code data.	IC401	22
SCOR	O	Sub-code sync.	IC401	24
L-MUTE (DM)	O	Outputs "L" when playing back music and "H" in other modes.	IC404	24
$\overline{IRQ}$	O	Interrupt request.	IC404	26
CDCK	O	CD mechanism control communications clock.	IC404	25
HOCK	I	Host communications clock.	IC404	28
DB 0	I/O	Data bus 0.	IC404	16
DB 1	I/O	Data bus 1.	IC404	15
DB 2	I/O	Data bus 2.	IC404	14
DB 3	I/O	Data bus 3.	IC404	13
$\overline{RESET}$	I	Resets the CD hardware.	IC404	20

5-3. CD Interface Connection Reference Diagram



6. CD DRIVE UNIT REPLACEMENT PROCEDURE

Remove the GENESIS II/MEGA DRIVE II from the SEGA CD II/MEGA CD II and unplug the power cord of the SEGA CD II/MEGA CD II from the AC outlet.

⇩

Replace the CD drive unit.

⇩

Connect the power adapter and GENESIS II/MEGA DRIVE II.
Turn on the door close detection switch (SW401) forcibly to turn the power switch on. Check that the laser emits a beam for about 2 seconds and the pickup's object lens moves up and down.
Caution: Be careful; it is dangerous to look straight at a laser beam.
Do not bring your eyes too close to it.

⇩

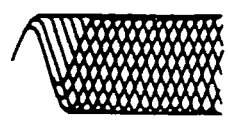
Adjust the EF balance. (VR401)

⇩

Adjust the tracking gain. (VR402)

⇩

Check that an RF waveform of approx. 1.5Vp-p can be observed at IC402-2 (TP-RF).

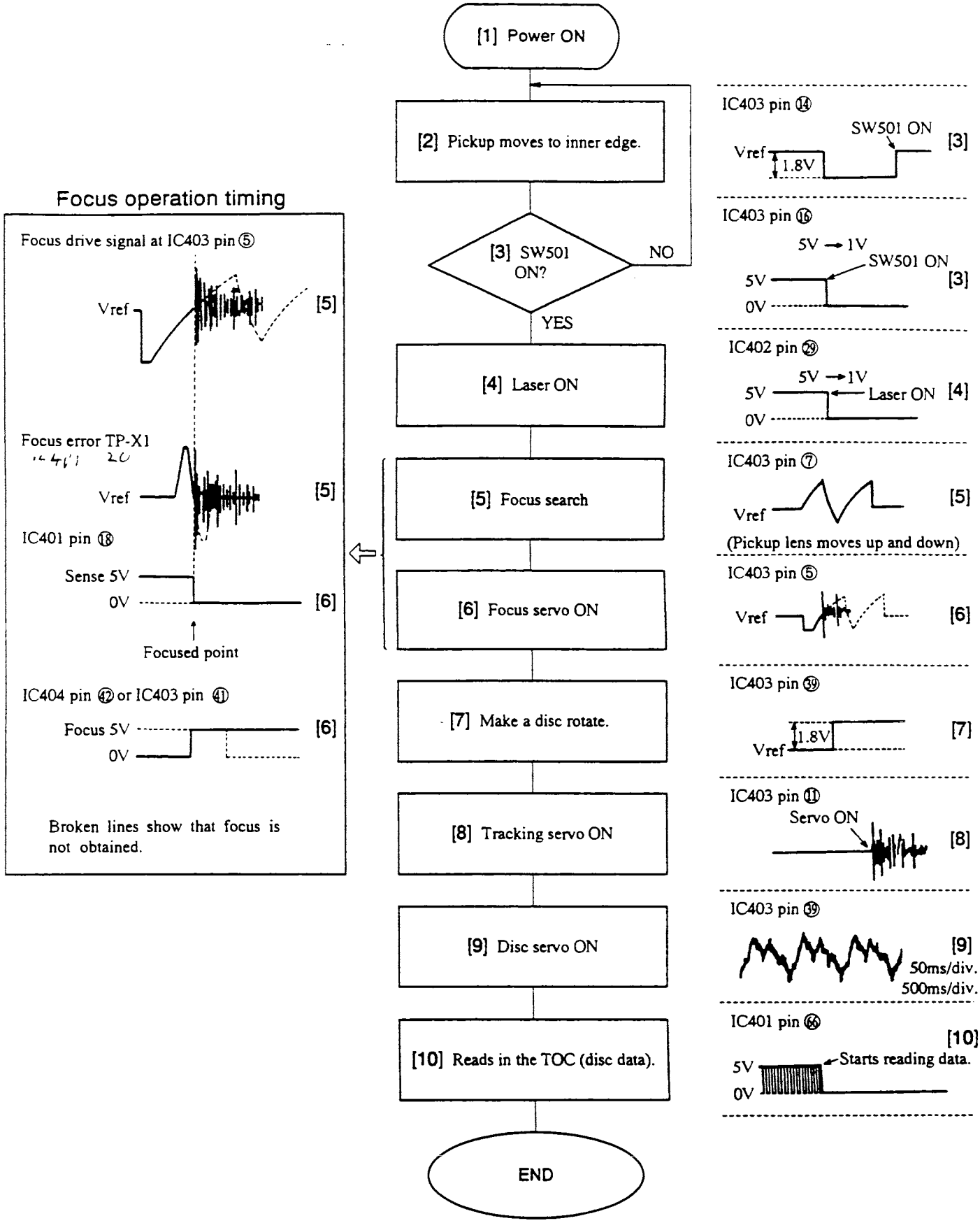


⇩

Replacement complete.

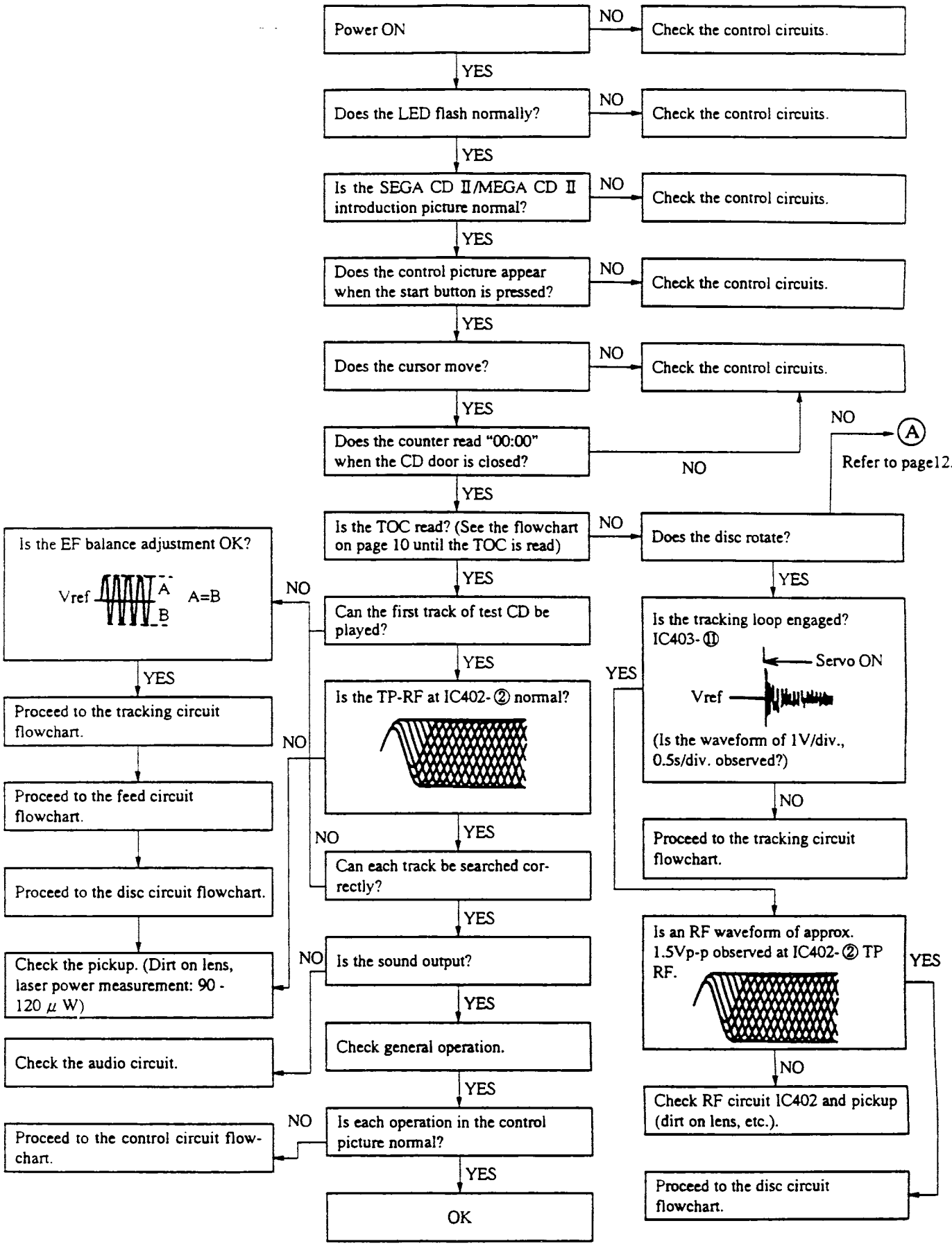
TABLE

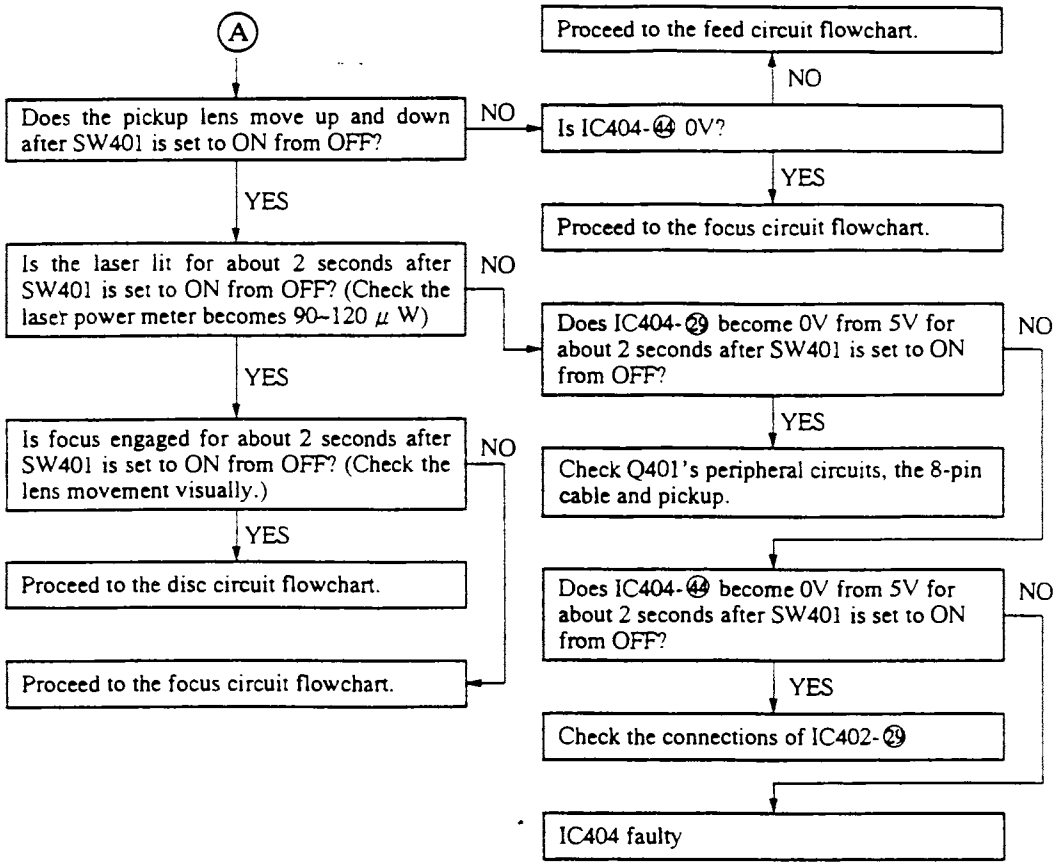
7. TOC (Total of Contents) READ-IN FLOWCHART



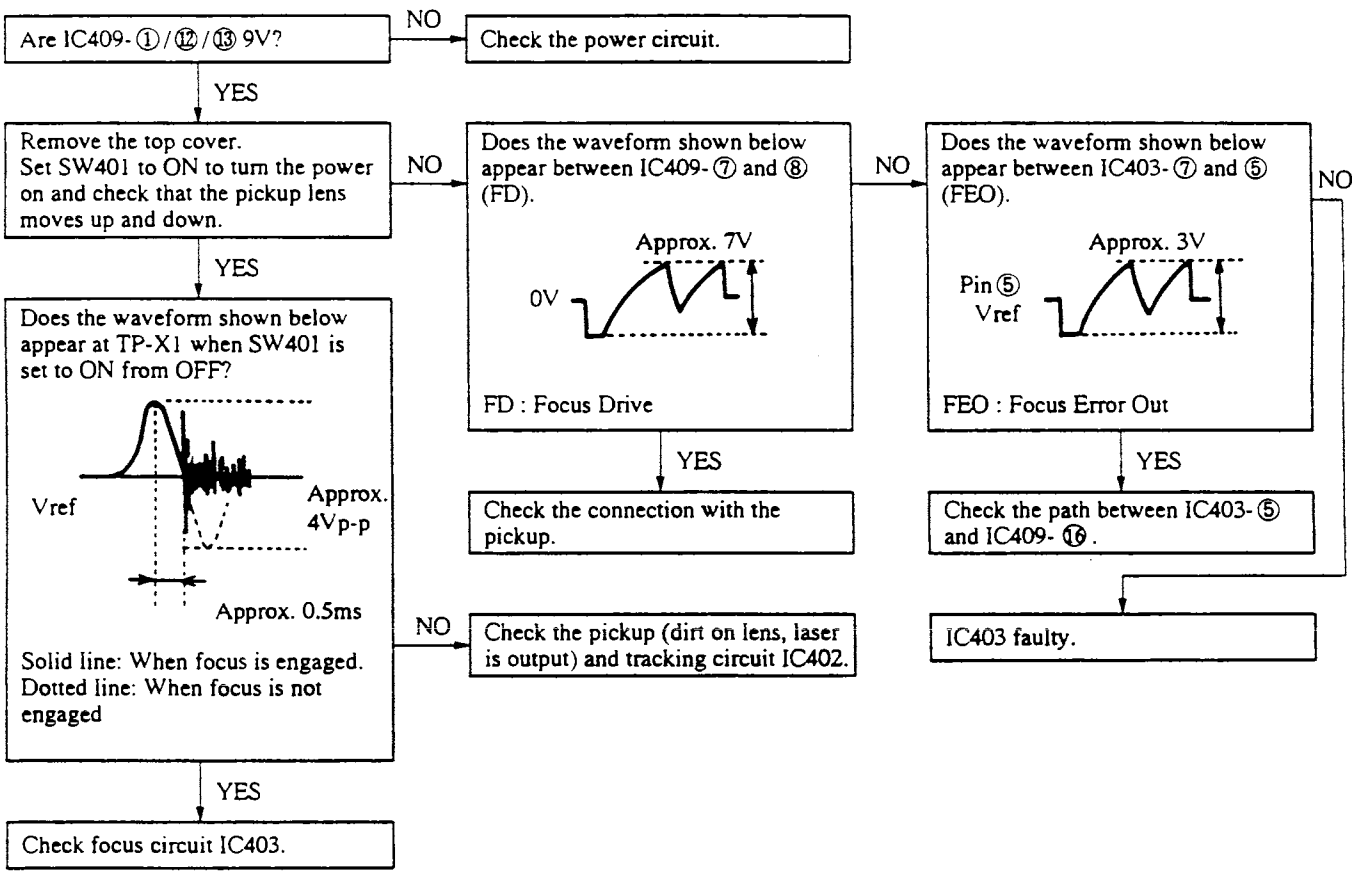
Focus operation timing

8. GUIDES FOR SERVICING

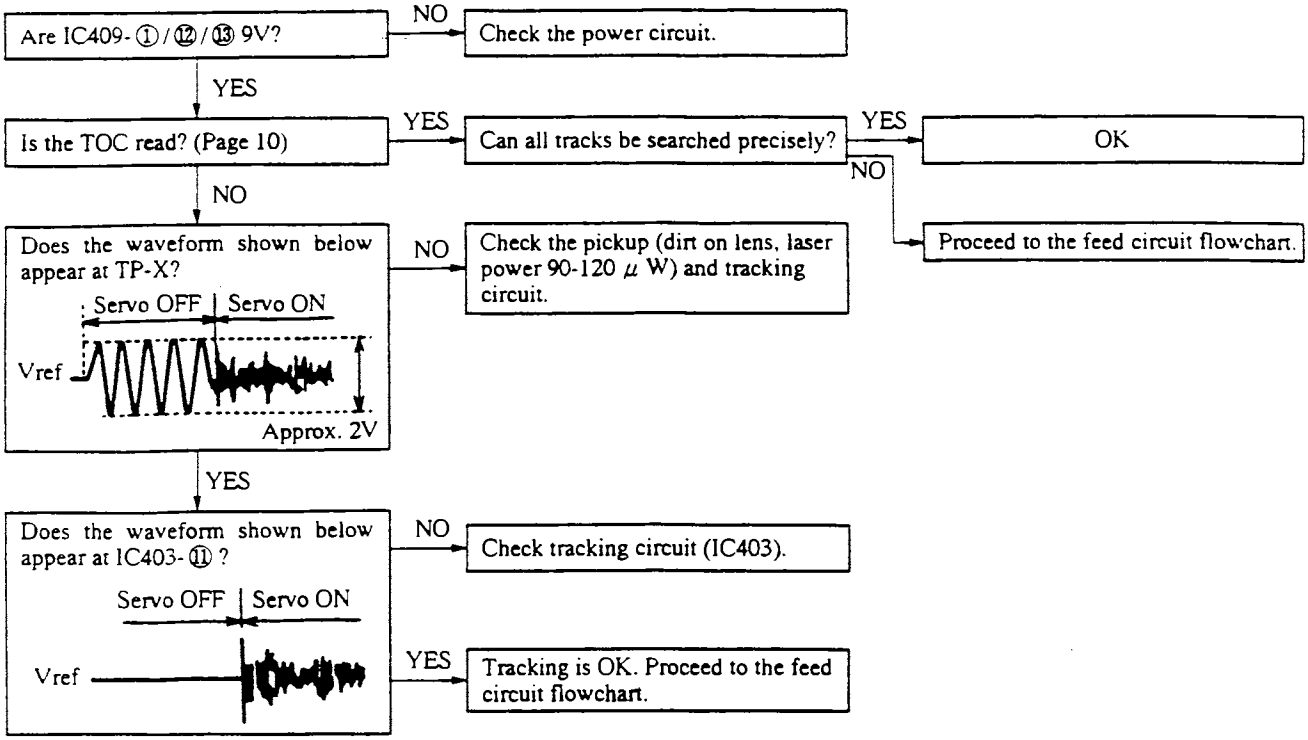




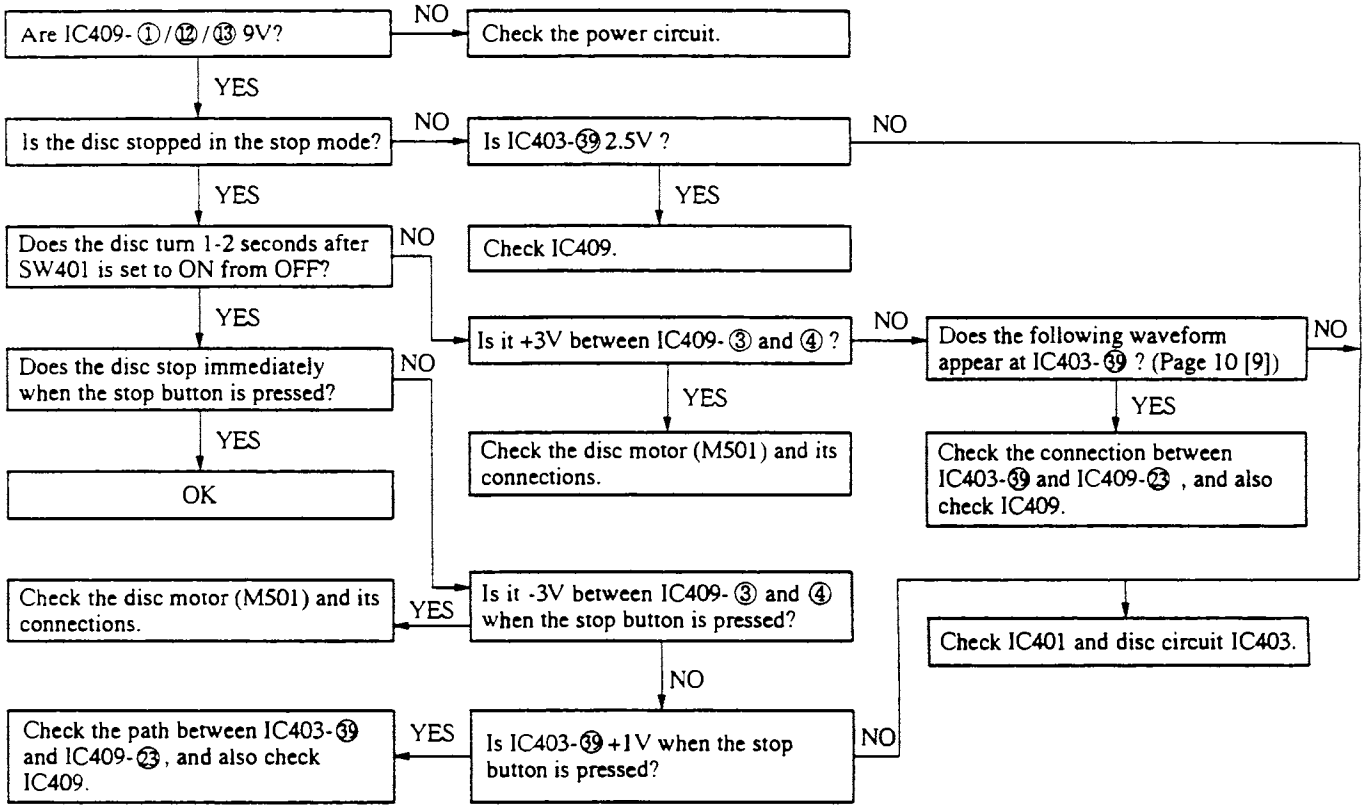
8-1. Focus Circuit Flowchart



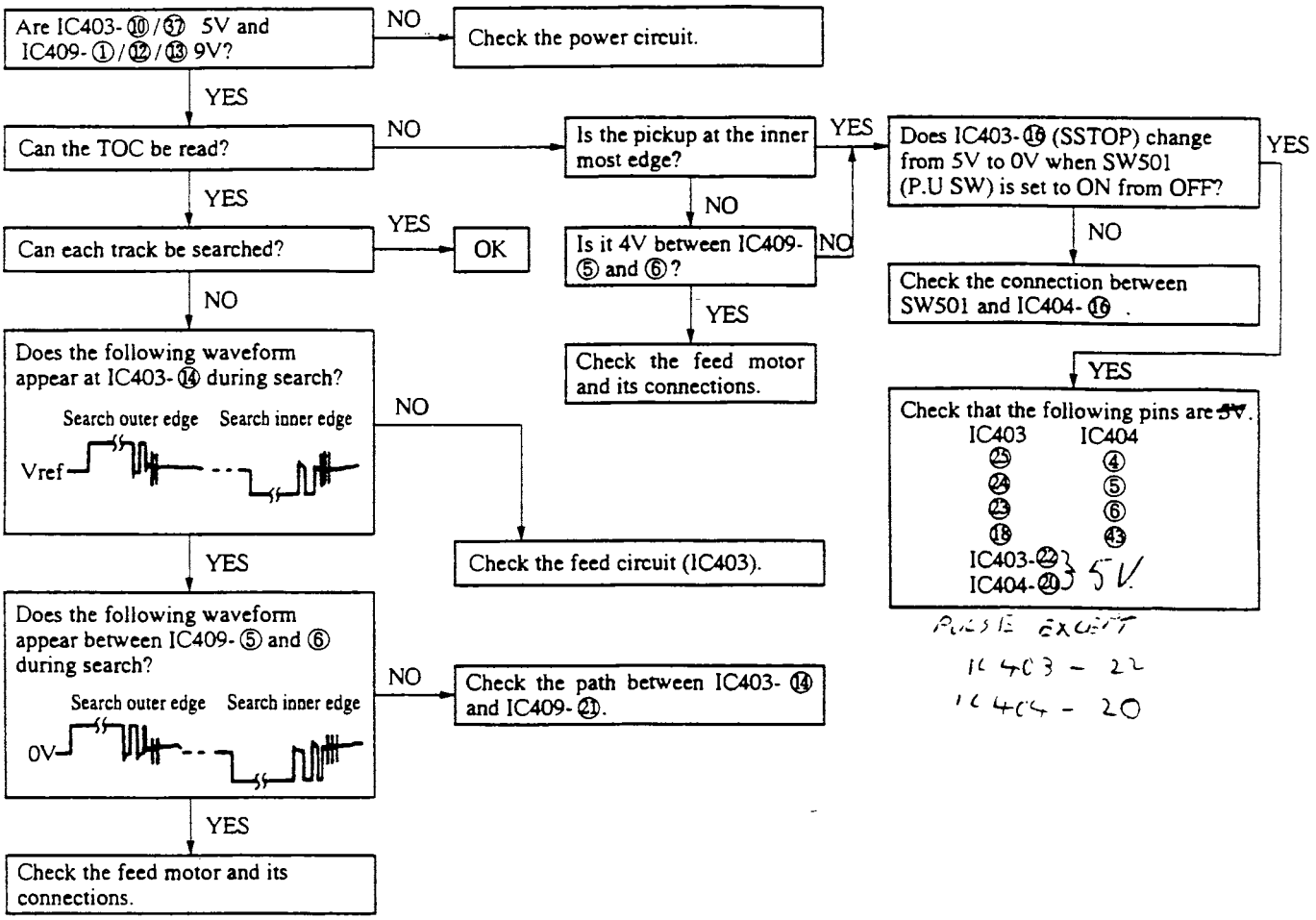
8-2. Tracking Circuit Flowchart



8-3. Disc Circuit Flowchart



8-4. Feed Circuit Flowchart

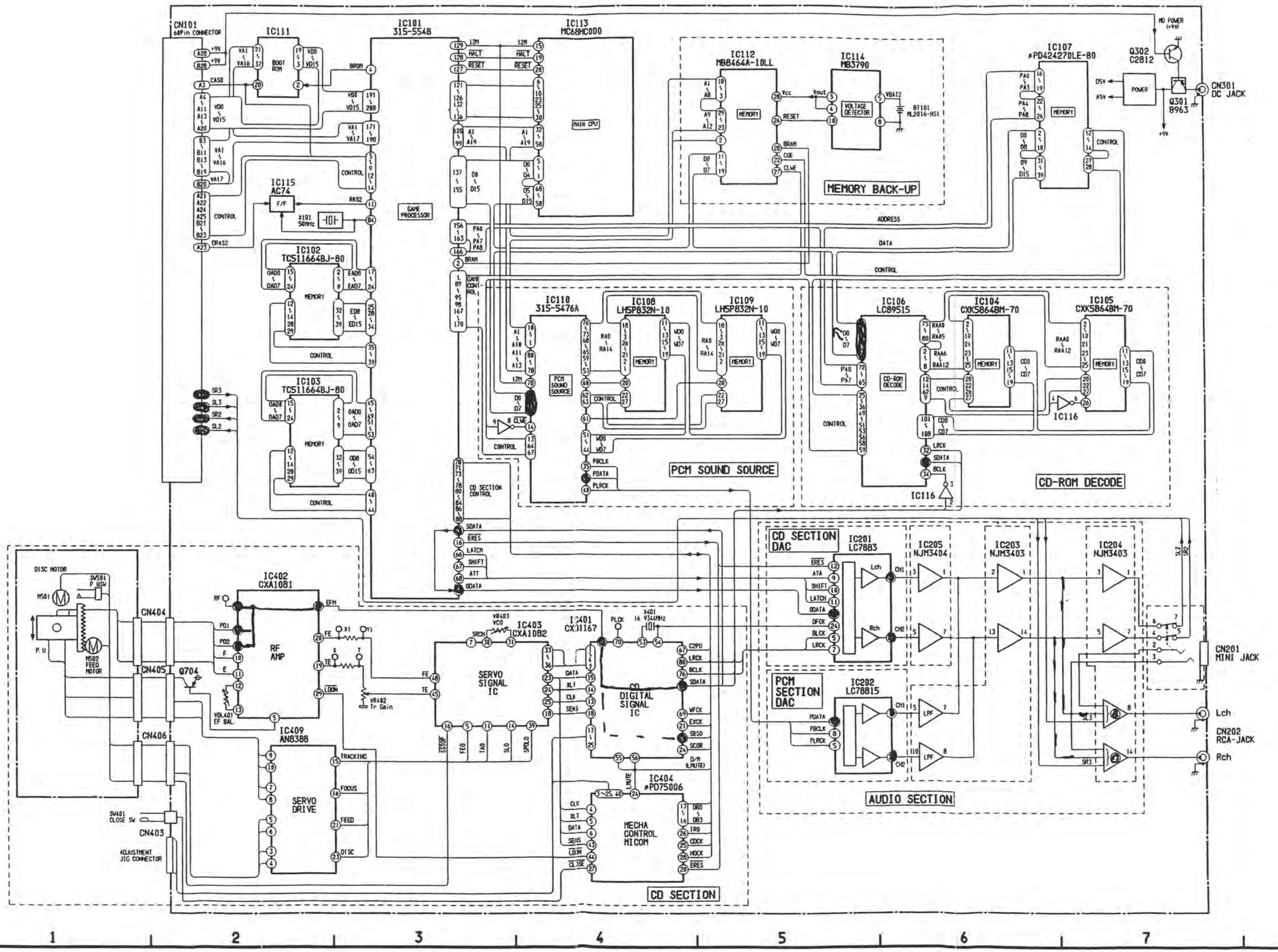


PULSE EXCEPT
IC403 - 22
IC404 - 20

FAULT LOG

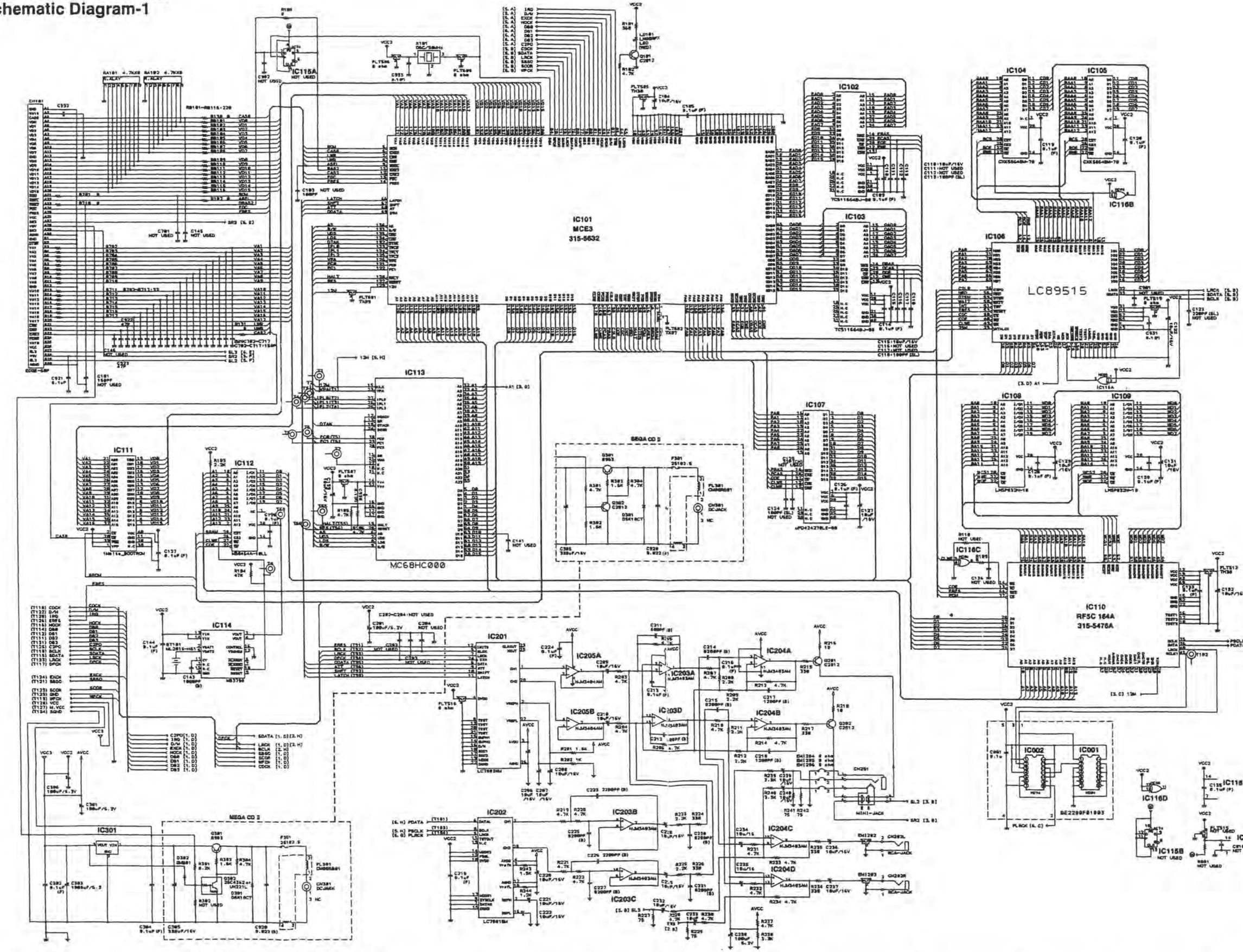
- Title screen frozen at start, no sound etc
  → IC 401 faulty
- Spins heaps then stops
  → IC 403
- Sound from CD driver distorted, but PCM sound OK
  → X401 faulty

9. BLOCK DIAGRAM

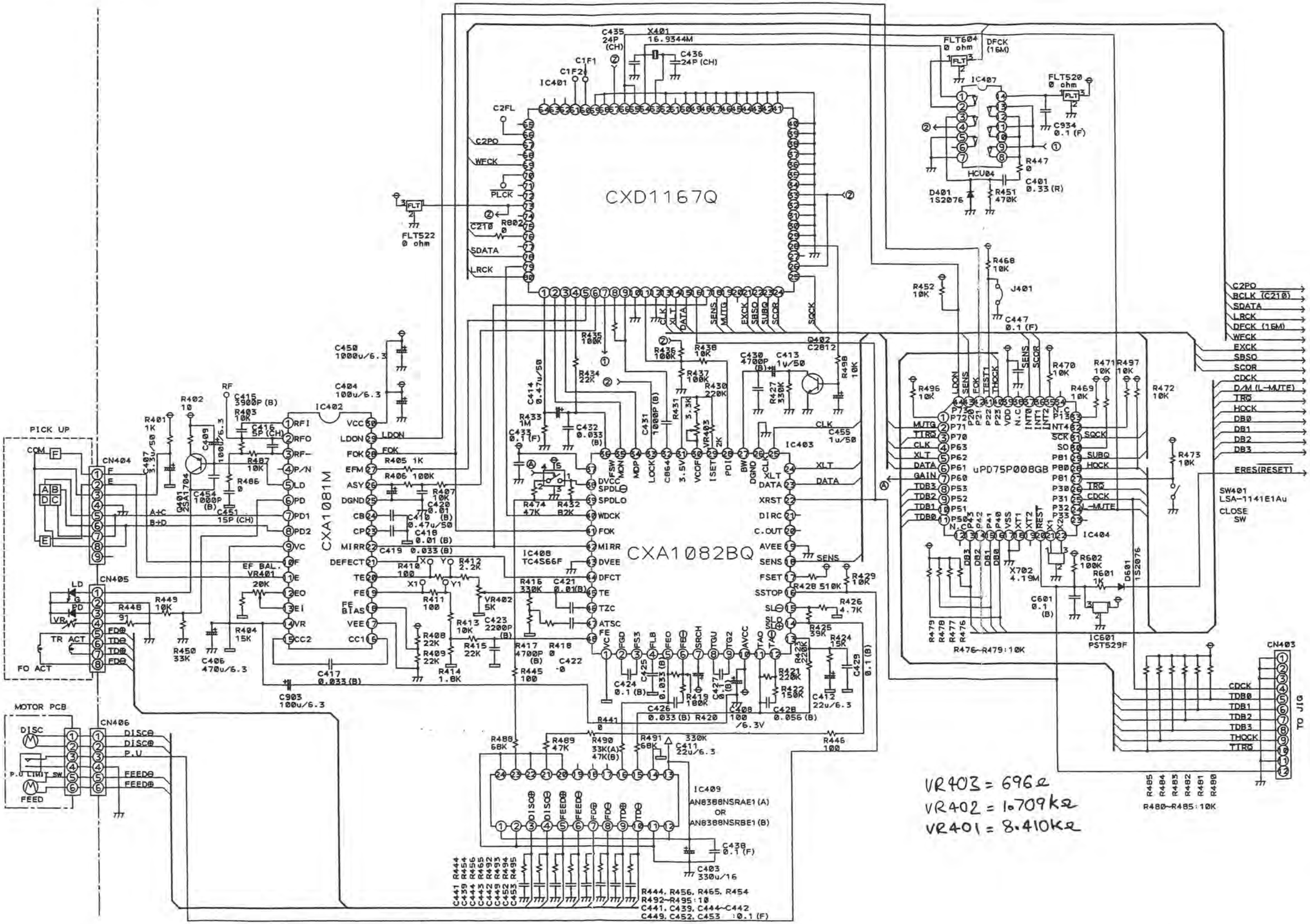


10. SCHEMATIC DIAGRAM

10-1. Schematic Diagram-1

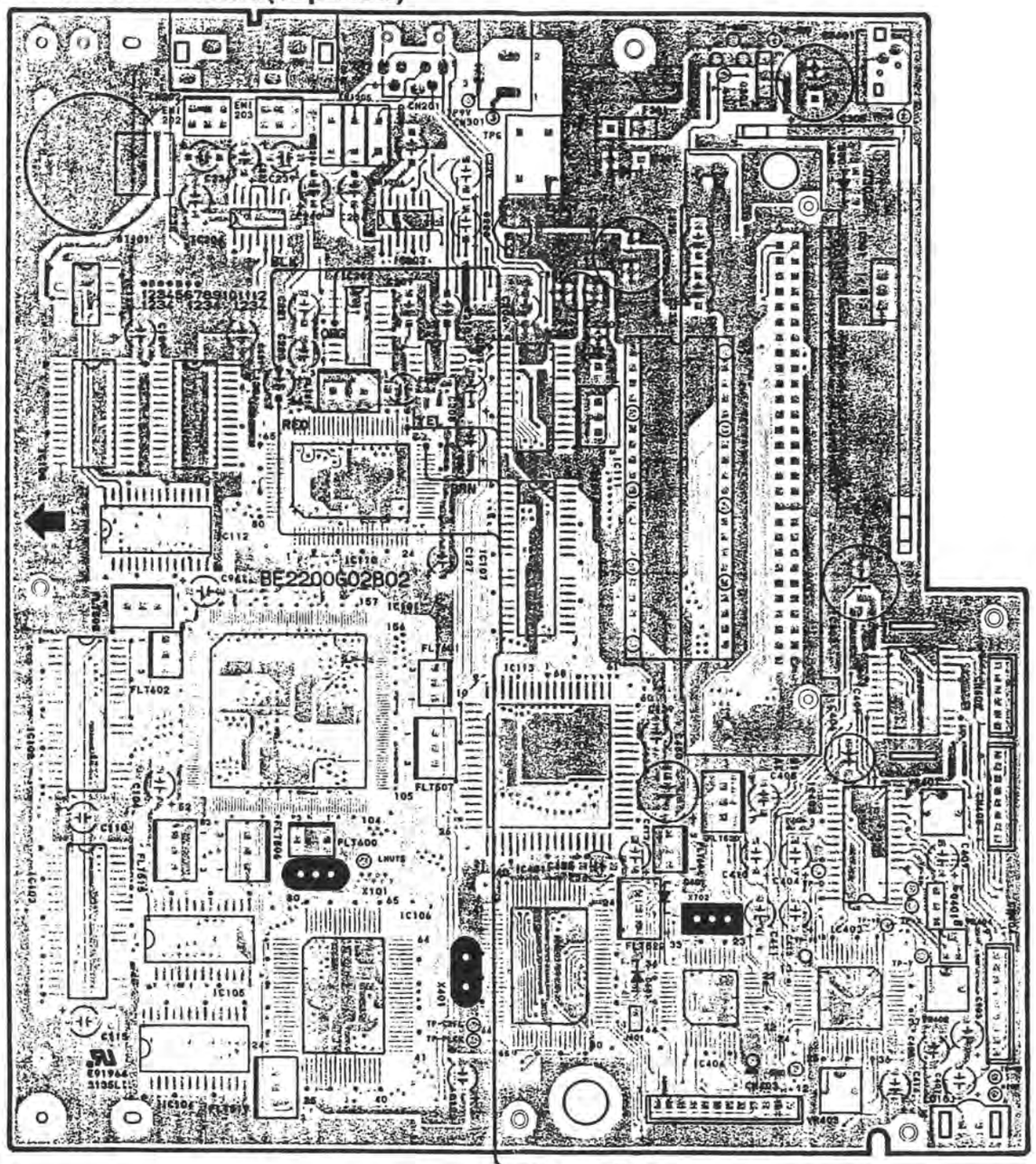


10-1. Schematic Diagram-2

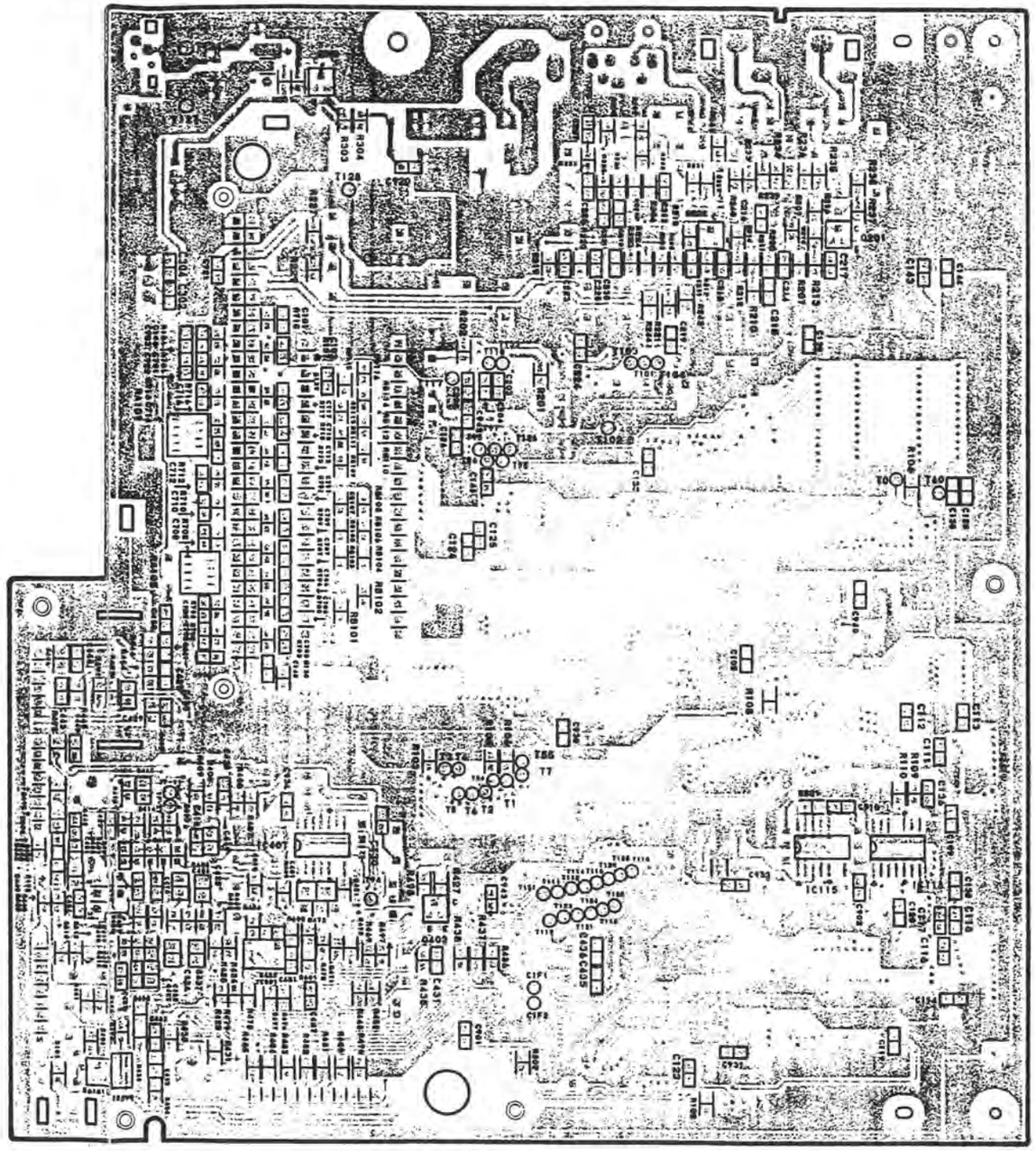


11. CIRCUIT BOARD DIAGRAM

11-1. Main Circuit Board(Top View)



11-2. Main Circuit Board(Bottom View)

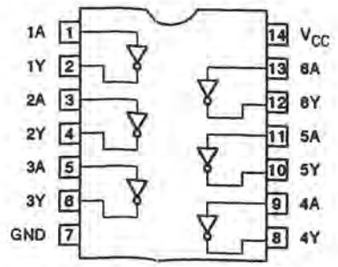


12. PARTS SPECIFICATIONS

IC001 HEX INVERTER

IC74HC04

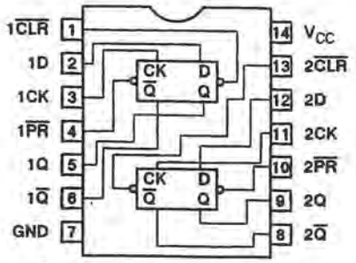
■ Top View & Pin Layout



IC002 DUAL D-TYPE FLIP FLOP

IC74HC74

■ Top View & Pin Layout

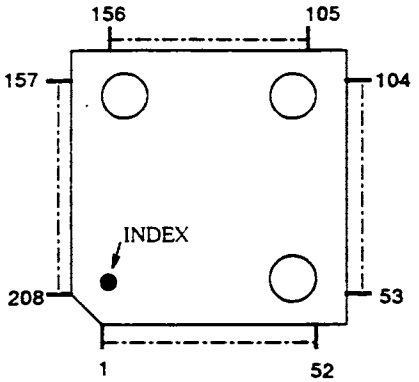


IC101 CUSTOM CHIP

IC MCE3

Parts No. : 315-5632

Top View



Description

No.	I/O	Pin Name
1	O	OCK25
2	O	OBRAM
3	–	V_{SS}
4	I	OXBROM
5	I	IROM
6	I	ICASO
7	I	ILWR
8	I	IUWR
9	I	IASEL
10	–	V_{DD}
11	I	IRAS2
12	I	ICAS2
13	I	IFDC
14	I	IFRES
15	–	V_{SS}
16	O	OERES
17	I/O	BEAD0
18	I/O	BEAD1
19	I/O	BEAD2
20	I/O	BEAD3
21	I/O	BEAD4
22	I/O	BEAD5
23	I/O	BEAD6
24	I/O	BEAD7
25	I/O	BED8
26	–	V_{SS}
27	–	V_{DD}
28	I/O	BED9
29	I/O	BED10
30	I/O	BED11
31	I/O	BED12
32	I/O	BED13
33	I/O	BED14
34	I/O	BED15
35	O	OERAS
36	O	OECAS
37	O	OEOE
38	–	V_{SS}
39	O	OEWE
40	O	OORAS
41	O	OOCAS
42	O	OOOE

No.	I/O	Pin Name
43	–	V_{DD}
44	O	OOWE
45	I/O	BOAD0
46	I/O	BOAD1
47	I/O	BOAD2
48	I/O	BOAD3
49	I/O	BOAD4
50	–	V_{SS}
51	I/O	BOAD5
52	I/O	BOAD6
53	I/O	BOAD7
54	I/O	BOD8
55	I/O	BOD9
56	I/O	BOD10
57	I/O	BOD11
58	I/O	BOD12
59	I/O	BOD13
60	–	V_{SS}
61	–	V_{DD}
62	I/O	BOD14
63	I/O	BOD15
64	O	OLEDR
65	O	OLEDG
66	O	OLATCH
67	O	OSHFT
68	O	OATT
69	O	ODTM
70	I	IWFCK
71	I	ISCOR
72	–	V_{SS}
73	I	ISBSO
74	O	OEXCK
75	I	ILRCK
76	I	IDATA
77	I	IC2PO
78	I/O	BDB3
79	–	V_{DD}
80	I/O	BDB2
81	I/O	BDB1
82	I/O	BDB0
83	O	OHOCK
84	I	ICK50

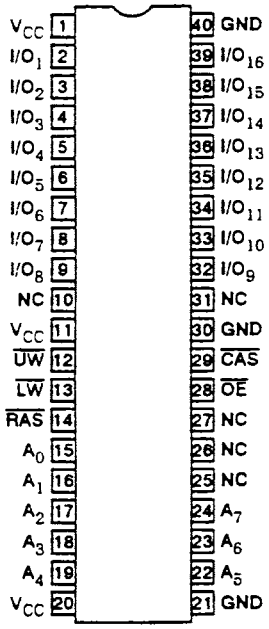
No.	I/O	Pin Name
85	–	V_{SS}
86	I	IIRQ
87	I	IDXM
88	I	ICDCK
89	O	OXPCM
90	I	IDTEN
91	I	IWAIT
92	O	OHRD
93	I	IINT
94	O	OCDC
95	O	OPROE
96	–	V_{SS}
97	–	V_{DD}
98	O	OC2LR
99	I	IA19
100	I	IA18
101	I	IA17
102	I	IA16
103	I	IA15
104	I	IA14
105	I/O	BA13
106	I/O	BA12
107	–	V_{SS}
108	I/O	BA11
109	I/O	BA10
110	I/O	BA9
111	I/O	BA8
112	I/O	BA7
113	I/O	BA6
114	–	V_{DD}
115	I/O	BA5
116	I/O	BA4
117	I/O	BA3
118	I/O	BA2
119	–	V_{SS}
120	I/O	BA1
121	I	IFC0
122	I	IFC1
123	O	OIPL0
124	O	OIPL1
125	O	OIPL2
126	O	OVPA
127	O	ORESET
128	O	OHALT
129	O	OCLK
130	–	V_{SS}
131	–	V_{DD}
132	O	ODTACK
133	I	IRXW
134	I	IXLDS
135	I	IXUDS
136	I	IXAS
137	I/O	BD0
138	I/O	BD1
139	I/O	BD2
140	I/O	BD3
141	I/O	BD4
142	–	V_{SS}
143	I/O	BD5
144	I/O	BD6
145	I/O	BD7
146	I/O	BD8

No.	I/O	Pin Name
147	–	V_{DD}
148	I/O	BD9
149	I/O	BD10
150	I/O	BD11
151	I/O	BD12
152	I/O	BD13
153	I/O	BD14
154	–	V_{SS}
155	I/O	BD15
156	I/O	BPRA0
157	I/O	BPRA1
158	I/O	BPRA2
159	I/O	BPRA3
160	I/O	BPRA4
161	I/O	BPRA5
162	I/O	BPRA6
163	I/O	BPRA7
164	–	V_{SS}
165	–	V_{DD}
166	I/O	BPRA8
167	O	OPRRAS
168	O	OPRCAS
169	O	OPRUWE
170	O	OPRLWE
171	I/O	IVA1
172	I/O	IVA2
173	I/O	IVA3
174	I/O	IVA4
175	I/O	IVA5
176	–	V_{SS}
177	I/O	IVA6
178	I/O	IVA7
179	I/O	IVA8
180	I/O	IVA9
181	I/O	IVA10
182	I/O	IVA11
183	–	V_{DD}
184	I/O	IVA12
185	I/O	IVA13
186	I/O	IVA14
187	I/O	IVA15
188	I/O	IVA16
189	–	V_{SS}
190	I	IVA17
191	I/O	BVD0
192	I/O	BVD1
193	I/O	BVD2
194	I/O	BVD3
195	I/O	BVD4
196	I/O	BVD5
197	I/O	BVD6
198	I/O	BVD7
199	I/O	BVD8
200	–	V_{SS}
201	–	V_{DD}
202	I/O	BVD9
203	I/O	BVD10
204	I/O	BVD11
205	I/O	BVD12
206	I/O	BVD13
207	I/O	BVD14
208	I/O	BVD15

IC102/103 1Mbit Dynamic RAM

IC TC511664BJ-80 IC TC421664LE-70
IC UPD421664-80 IC UPD421664-80L

Top View & Pin Layout

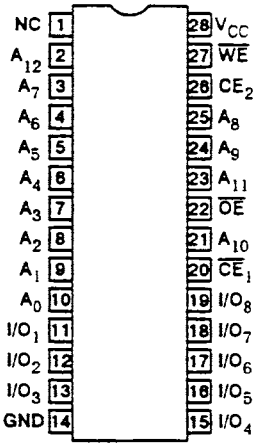


A0-A7 : Address inputs
I/O1-I/O16 : Data inputs/outputs
$\overline{RAS}$: Row address strobe
$\overline{CAS}$: Column address strobe
$\overline{UW}$: High-order byte write enable
$\overline{LW}$: Low-order byte write enable
$\overline{OE}$: Output enable
VCC : Supply voltage
GND : Ground
NC : Not connected.

IC104/105 8bit CMOS Static RAM

IC CKX5864BM-70 IC MB8464-80
IC MB8464-90

Top View & Pin Layout

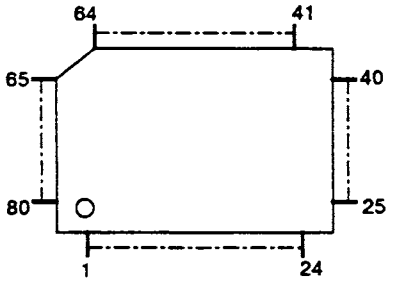


A0-A12 : Address inputs
I/O1-I/O8 : Data inputs
$\overline{CE1}$.CE2 : Chip enable 1/2 inputs
$\overline{WE}$: Write enable input
$\overline{OE}$: Output enable input
Vcc : +5V supply
GND : Ground
NC : Not connected.

IC106 CD-ROM LSI

IC LC89515

Top View



Description

No.	I/O	Pin Name
1	–	V_{SS}
2	O	RA6
3	O	RA7
4	O	RA8
5	O	RA9
6	O	RA10
7	O	RA11
8	O	RA12
9	O	RA13
10	O	RA14
11	O	RA15
12	O	$\overline{RWE}$
13	–	V_{SS}
14	O	$\overline{ROE}$
15	I/O	ERA
16	I/O	IO8
17	I/O	IO7
18	I/O	IO6
19	I/O	IO5
20	I/O	IO4

No.	I/O	Pin Name
21	I/O	IO3
22	I/O	IO2
23	I/O	IO1
24	–	V_{SS}
25	I	EXTAL
26	O	XTAL
27	I	TEST A
28	I	TEST B
29	I	CSEL
30	I	LMSEL
31	–	V_{DD}
32	I	LRCK
33	I	SDATA
34	I	BCK
35	I	C4LR
36	I	C2PO
37	O	MCK
38	I/O	D0
39	I/O	D1
40	I/O	D2

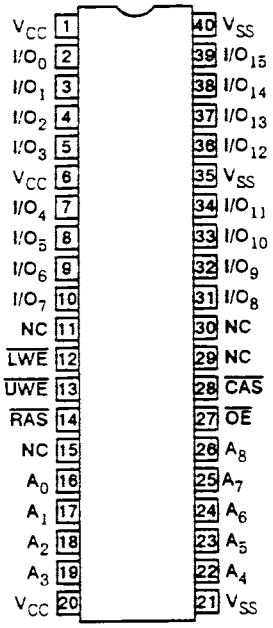
No.	I/O	Pin Name
41	–	V_{SS}
42	I/O	D3
43	I/O	D4
44	I/O	D5
45	I/O	D6
46	I/O	D7
47	I	RS
48	I	$\overline{RD}$
49	I	$\overline{WR}$
50	I	$\overline{CS}$
51	O	$\overline{INT}$
52	–	V_{SS}
53	I	$\overline{RESET}$
54	I	$\overline{ENABLE}$
55	I	$\overline{HRW}$
56	I	$\overline{HRD}$
57	I	$\overline{CMD}$
58	O	$\overline{WAIT}$
59	O	$\overline{DTEN}$
60	O	$\overline{STEN}$

No.	I/O	Pin Name
61	O	$\overline{EOP}$
62	O	$\overline{RCS}$
63	O	$\overline{HDE}$
64	–	V_{SS}
65	I/O	HD7
66	I/O	HD6
67	I/O	HD5
68	I/O	HD4
69	I/O	HD3
70	I/O	HD2
71	I/O	HD1
72	I/O	HD0
73	–	V_{DD}
74	I	$\overline{SELDRQ}$
75	O	RA0
76	O	RA1
77	O	RA2
78	O	RA3
79	O	RA4
80	O	RA5

IC107 CMOS Dynamic RAM

IC UPD424270LE-80 IC HM514270AJ-8 IC M5M44270AJ-8 IC MN414270SJ-08

■ Top View & Pin Layout



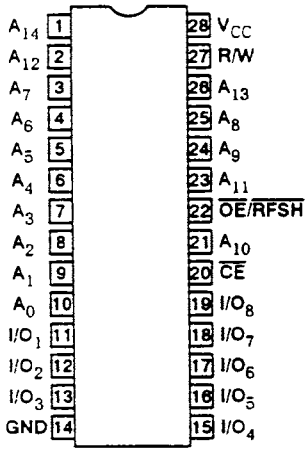
Input State				Output State	Operation Mode
$\overline{RAS}$	$\overline{CAS}$	$\overline{UWE}$	$\overline{LWE}$		
H	H	D	D	Open	Standby
H	L	H	H	Valid	Standby
L	L	H	H	Valid	Read cycle
L	L	L 2)	L 2)	Open	Early write cycle
L	L	L 2)	L 2)	Underlined	Delayed write cycle
L	L	H→L	H→L	Valid	Read modified write cycle
L	H	D	D	Open	$\overline{RAS}$ only refresh cycle
H→L	L	D	D	Open	$\overline{CAS}$ before /RAS refresh cycle
L	H→L	H	H	Valid	High-speed page mode read cycle
L	H→L	L 2)	L 2)	Open	High-speed page mode early write cycle
L	H→L	L 2)	L 2)	Underlined	High-speed page mode delayed write cycle
L	H→L	H→L	H→L	Valid	High-speed page mode read modified write cycle

Note: H=High(inactive), L=Low(active), D=Don't care.

IC108/109 8bit CMOS Pseudo Static RAM

IC LH5P832N-10 IC TC51832FL-10
IC TC51832AFL-10

■ Top View & Pin Layout



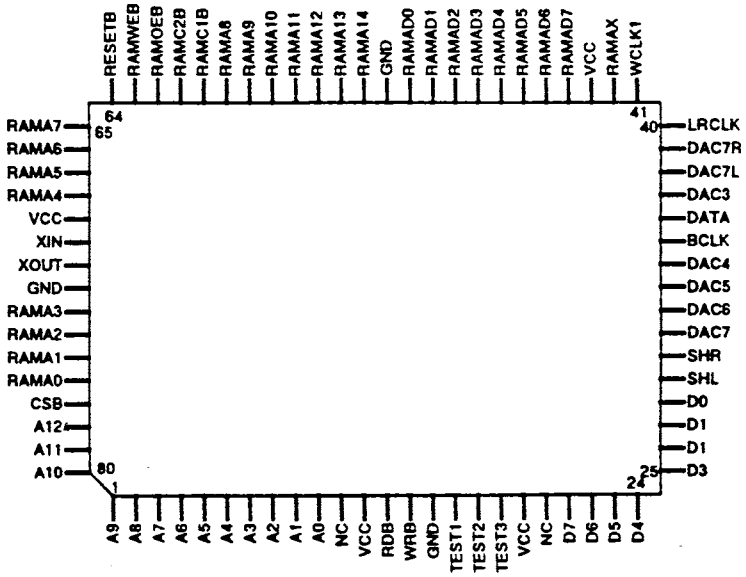
■ Pin Configuration and Pin Description

Symbol	Pin Name
A_0~A_{14}	Address Input
R/W	Read / Write Input
$\overline{OE}$ / $\overline{RFSH}$	Output Enable / Refresh
$\overline{CE}$	Chip Enable
I/O_1~I/O_8	Data Input / Output

IC110 PCM Sound Source

IC RF5C164A
Parts No. : 315-5476A

■ Top View & Pin Layout



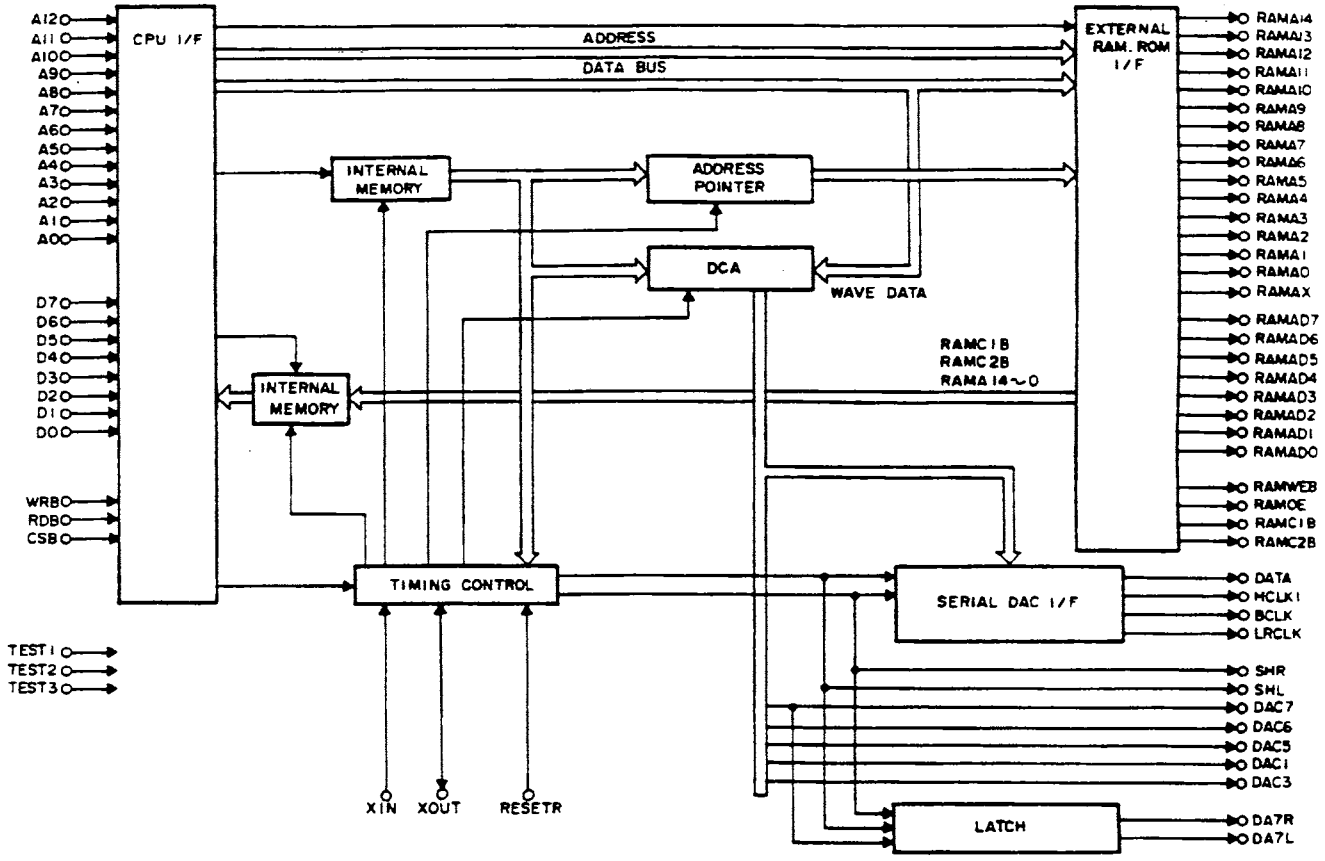
■ Description (IC110)

Pin No.	Name	I/O	Function
78	A12	I	Address signals from μP.
79	A11		
80	A10		
1	A9		
2	A8		
3	A7		
4	A6		
5	A5		
6	A4		
7	A3		
8	A2		
9	A1		
10	A0		
21	D7	I/O	Data bus signals with μP.
22	D6		
23	D5		
24	D4		
25	D3		
26	D2		
27	D1		
28	D0		
77	CSB	I	Chip select signal from μP.
13	RDB	I	Read signal from μP.
14	WRB	I	Write signal from μP.
44	RAMAD7	I/O	When connected to a pseudo SRAM, these pins provide multiplex signals of the low order address/data to the SRAM, and when connected to an MROM, these pins provide data input signal from the MROM. When connected to an SRAM, these pins also provide data bus signals to the SRAM.
45	RAMAD6		
46	RAMAD5		
47	RAMAD4		
48	RAMAD3		
49	RAMAD2		
50	RAMAD1		
51	RAMAD0		
53	RAMA14	O	High order address signals of the SRAM & MROM.
54	RAMA13		
55	RAMA12		
56	RAMA11		
57	RAMA10		
58	RAMA9		
59	RAMA8		
65	RAMA7	O	Low address signals of the SRAM & MROM.
66	RAMA6		
67	RAMA5		
68	RAMA4		
73	RAMA3		
74	RAMA2		

Pin No.	Name	I/O	Function
75	RAMA1	O	Low address signals of the SRAM & MROM.
76	RAMA0		
42	RAMAX	O	LSB address signal of the MROM.
61	RAMC2B	O	High order 32k byte SRAM & MROM select signal.
6060	Note: The inter-	O	Low order 32k byte SRAM & MROM select signal.
63	RAMWEB	O	Signal to write data to the pseudo SRAM or SRAM.
62	RAMOEB	O	Signal to read data from the pseudo SRAM, SRAM or MROM.
31	DAC7	O	Multiplex signals of "R" and "L" data output to the parallel DAC.
32	DAC6		
33	DAC5		
34	DAC4		
37	DAC3		
29	SHL	O	DAC7-3 "L" data sample/hold signal.
30	SHR	O	DAC7-3 "R" data sample/hold signal.
39	DAC7R	O	Signal obtained by sampling and holding the DAC7 output at SHR.
38	DAC7L	O	Signal obtained by sampling and holding the DAC7 output at SHL.
41	WCLK1	O	Word clock signal output to the serial DAC.
40	LRCLK	O	LR clock signal output to the serial DAC.
36	DATA	O	Digital audio data signal output to the serial DAC.
35	BCLK	O	Bit clock signal output to the serial DAC.
64	RESETB	I	Reset signal.
70	XIN	I	An external crystal oscillator is connected. A clock signal is input to XIN directly.
71	XOUT	O	
16	TEST1	I	Test signal inputs. Normally, fixed at "L". However, TEST2 is fixed at "H" when an MROM or SRAM is used.
17	TEST2		
18	TEST3		
12	VCC	–	Power supply pins.
19			
43			
69			
15	GND	–	Ground pins.
52			
72			

Note: The interface with the serial DAC is formed in the MSB initial mode.

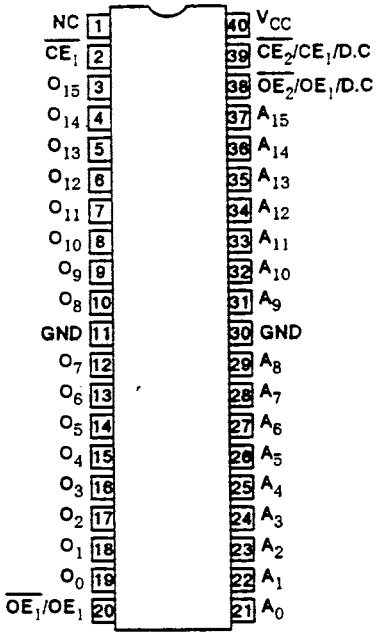
■ Block Diagram (IC110)



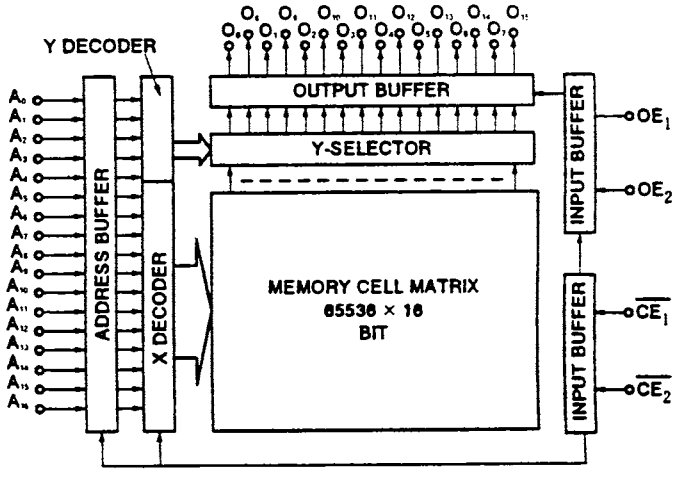
IC111 1Mbit CMOS Masked Programable ROM

IC SEGA-CD2 BOOT ROM EP IC SEGA-CD2 USA BOOT ROM IC MEGA-CD2 BOOT EP MULTI
IC MEGA-CD2 (PAL) BOOT ROM

■ Top View & Pin Layout



■ Block Diagram



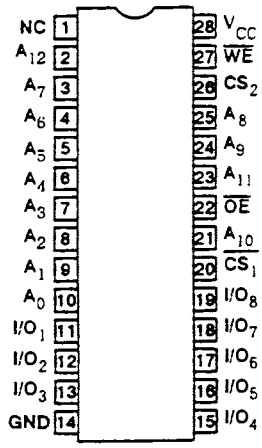
■ Operation Mode

$\overline{CE_1}$	CE_2	OE_1	OE_2	Mode	Output
I	×	×	×	Non-selective	High Impedance
×	I	×	×		
A	A	I	×	Selective	
A	A	×	I		
A	A	A	A		Data

IC112 64k(8k × 8)bit Static RAM

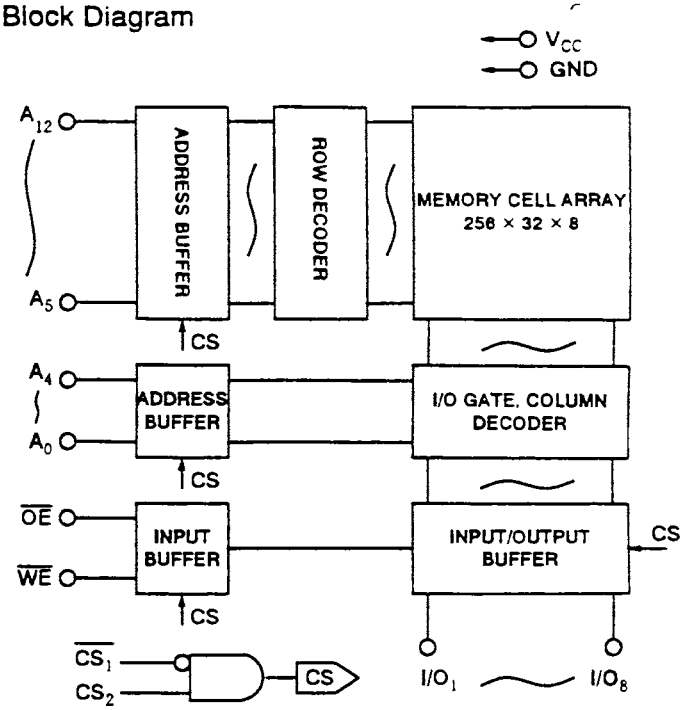
IC MB8464A-10LL

■ Top View & Pin Layout



A_0-A_{12}	:Address inputs
I/O_1-I/O_8	:Data inputs/outputs
$\overline{CS_1}$	:Chip select 1
CS_2	:Chip select 2
$\overline{OE}$	:Output enable
$\overline{WE}$	:Write enable
V_{CC}	:Power supply (+5V)
GND	:Ground
NC	:Not connected

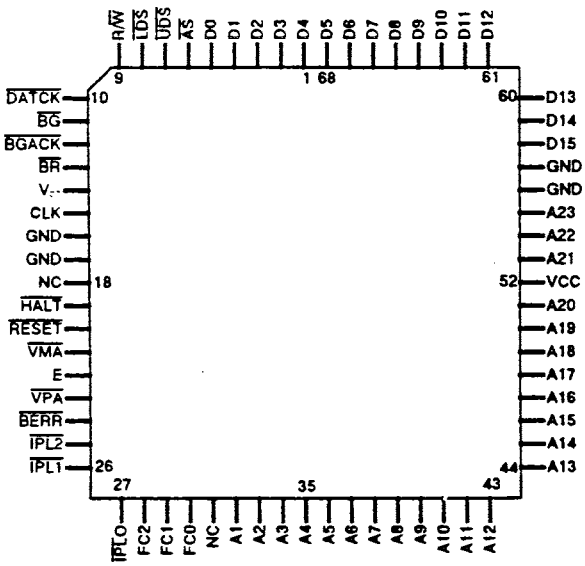
■ Block Diagram



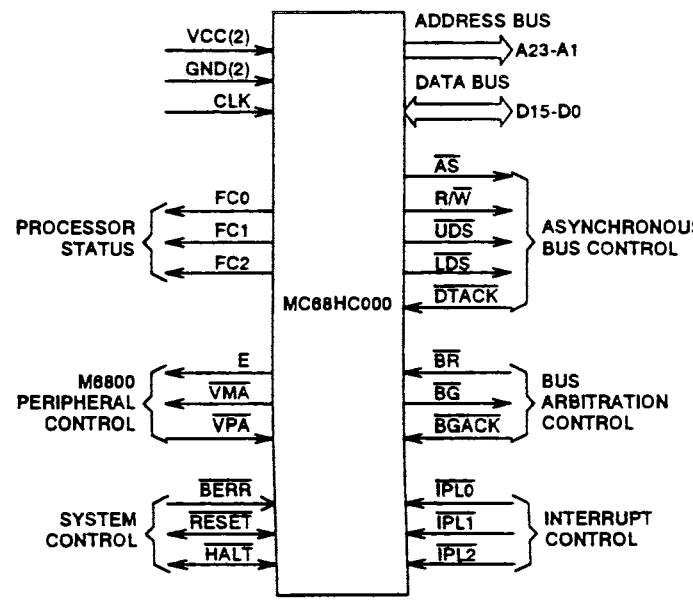
IC113 16/32-Bit Microprocessor

IC MC68HC000FN12 IC HD68HC000CP-12 IC TMP68HC000T-12

■ Top View & Pin Layout



■ Signal Description



■ Description

No.	Pin Name	I/O	Function
1	D_4	I/O	Data Bus
2	D_3		
3	D_2		
4	D_1		
5	D_0		
6	$\overline{AS}$	O	Address Strobe
7	$\overline{UDS}$	O	Upper Data Strobe
8	$\overline{LDS}$	O	Lower Data Strobe
9	$R/\overline{W}$	O	Read/Write
10	$\overline{DTACK}$	I	Data Transfer Acknowledge
11	$\overline{BG}$	O	Bus Grant
12	$\overline{BGACK}$	I	Bus Grant Acknowledge
13	$\overline{BR}$	I	Bus Request
14	V_{CC}	–	Power Supply
15	CLK	I	Clock
16	V_{SS}	–	GND
17	V_{SS}		
18	NC	–	Not Connected
19	$\overline{HALT}$	I/O	Halt
20	$\overline{RES}$	I/O	Reset
21	$\overline{VMA}$	O	Valid Memory Address
22	E	O	Enable

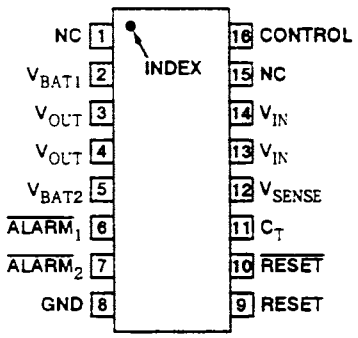
No.	Pin Name	I/O	Function
23	$\overline{VPA}$	I	Valid Peripheral Address
24	$\overline{BERR}$	I	Bus Error
25	$\overline{IPL_2}$	I	Interrupt Control
26	$\overline{IPL_1}$		
27	$\overline{IPL_0}$		
28	FC_2	O	Processor Status
29	FC_1		
30	FC_0		
31	N.C	–	
32	A_1	O	Address Bus
33	A_2		
34	A_3		
35	A_4		
36	A_5		
37	A_6		
38	A_7		
39	A_8		
40	A_9		
41	A_{10}		
42	A_{11}		
43	A_{12}		
44	A_{13}		
45	A_{14}		

No.	Pin Name	I/O	Function
46	A_{15}	O	Address Bus
47	A_{16}		
48	A_{17}		
49	A_{18}		
50	A_{19}		
51	A_{20}		
52	V_{CC}	–	Power Supply
53	A_{21}	O	Address Bus
54	A_{22}		
55	A_{23}		
56	V_{SS}	–	GND
57	V_{SS}		
58	D_{15}	I/O	Data Bus
59	D_{14}		
60	D_{13}		
61	D_{12}		
62	D_{11}		
63	D_{10}		
64	D_9		
65	D_8		
66	D_7		
67	D_6		
68	D_5		

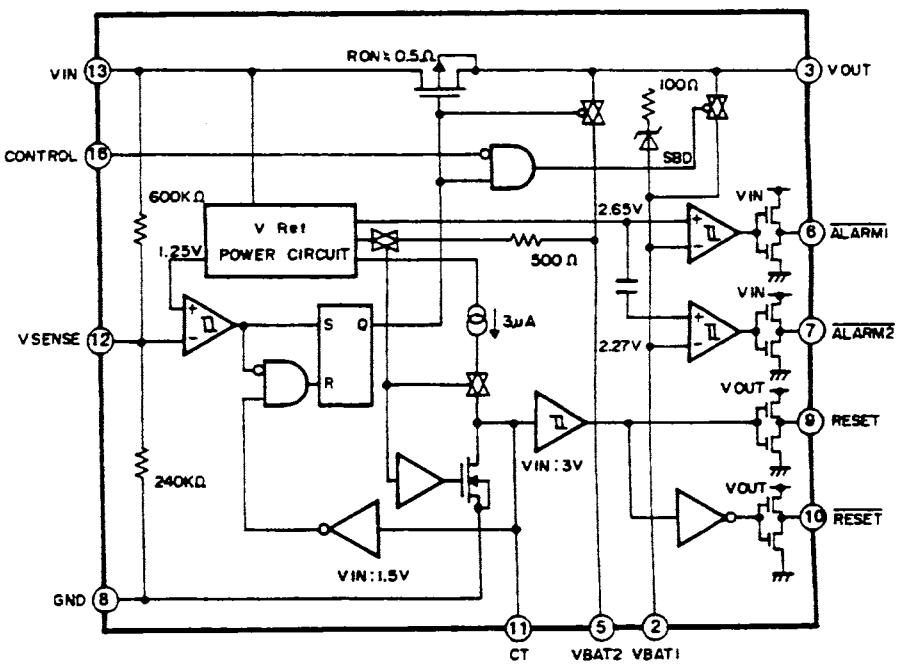
IC114 Battery Back-up

IC MB3790

■ Top View & Pin Layout



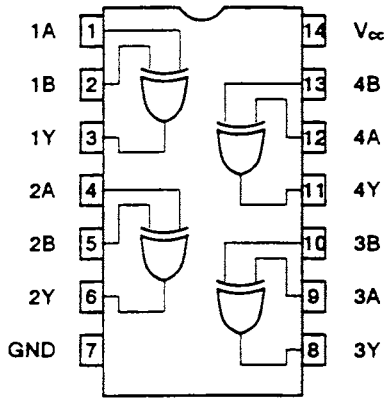
■ Block Diagram



IC116 CMOS Quad Exclusive OR Gate

IC TC74HC86

Top View & Pin Layout



Truth Table

A	B	Y
H	H	L
L	H	H
H	L	H
L	L	L

IC201 18Bit Digital Filter & 16Bit D/A Converter

IC LC7883KM

Top View

Description

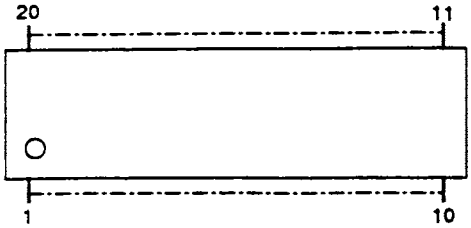
Pin	Name	I/O	Function
1	CH1OUT	O	DAC CH-1 output.
2	VrefH	–	Reference voltage "H" input.
3	AVDD	–	Power supply of analog circuits.
4	DVDD	–	Power supply of digital circuits.
5	BLCK	I	Bit clock.
6	DATA	I	Digital audio data input. Input from the MSB in the bit serial state.
7	LRCK	I	L/R clock input. LRCK= "H" CH1 LRCK= "L" CH2
8	TEST	I	Test pin. (normally, set to "L")
9	ATT	I	Attenuator data input. Input from the LSB in the bit serial state.
10	SHIFT	I	Attenuator data transfer clock input.
11	LATCH	I	Attenuator data latch clock input.
12	INITB	I	Initializing signal input. (normally, set to "H")
13	TEST	I	Test pin. (normally, set to "L")

Pin	Name	I/O	Function
14	EMPH2	I	De-emphasis setting pins.
15	EMPH1		
16	D/N	I	Double/Normal speed switching pin.
17	SOC2	I	Input source select inputs. (PULL-DOWN)
18	SOC1		
19	MODE	I	Operation mode setting pin. (PULL-DOWN)
20	TEST	I	Test pins. (normally, set to "L") (PULL-DOWN)
21			
22	DGND	–	Ground of digital circuits.
23	CLKOUT	O	Clock output. 392Fs: 1/2 XOUT 384Fs, 448Fs, 512Fs : XOUT
24	XIN	I	Crystal oscillator input.
25	XOUT	O	Crystal oscillator output.
26	AGND	–	Ground of analog circuits.
27	VrefL	–	Reference voltage "L" input.
28	CH2OUT	O	DAC CH-2 output.

IC202 16Bit D/A Converter

IC LC78815M

Top View



Description

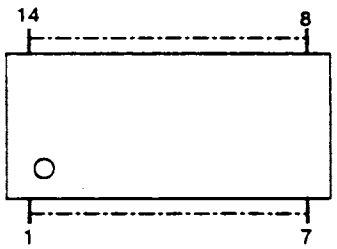
Pin No.	Name	I/O	Function
1	CH1OUT	O	CH-1 output. (L-ch)
2	REFH	–	Reference voltage "H".
3	VrefH	–	Reference voltage "H" input.
4	AVDD	–	Supply voltage of analog circuits.
5	LRCK /WCLK	I	LR clock/word clock input .
6	DATAL	I	Digital audio data input.
7	DATAR	I	Digital audio data input.
8	BCLK	I	Bit clock input.
9	SYSCLK	I	System clock input.
10	DVDD	–	Supply voltage of digital circuits.
11	TSTOUT	O	Test output.

Pin No.	Name	I/O	Function
12	FSEL	–	"L" : Digital audio data is input from the DATAL and DATAR pins simultaneously. "H" : Digital audio data is input from the DATAL pin by time-sharing.
13	MODE1	–	Interface switching.
14	MOCE2		
15	DGND	–	Ground of digital circuits.
16	REFL	–	Reference voltage "L".
17	AGND	–	Ground of analog circuits.
18	VrefL	–	Reference voltage "L" input.
19	NC	–	Not connected.
20	CH2OUT	O	CH-2 output. (R-ch)

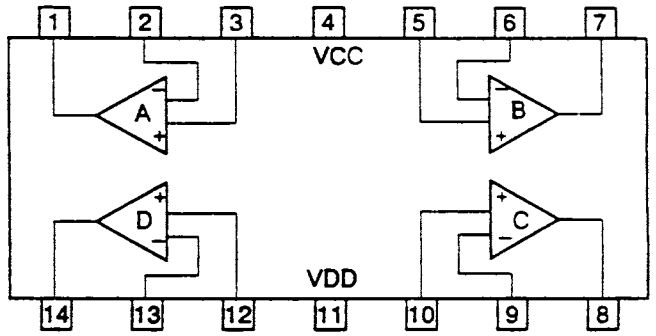
IC203/204 Quad Operational Amplifier

IC NJM3403AM

Top View



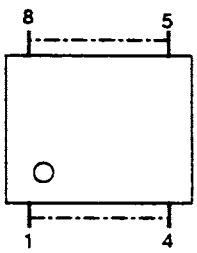
Pin Layout



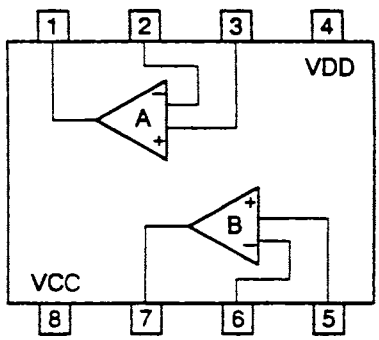
IC205 Dual Operational Amplifier

IC NJM3404AM

Top View



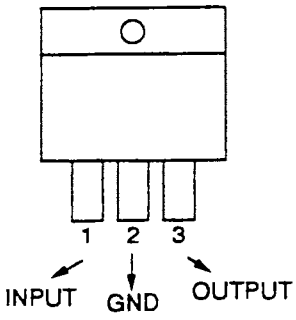
Pin Layout



IC301 3-Terminal Voltage Regulator

IC UPC2405HF

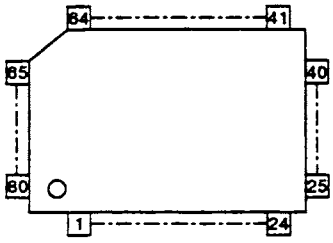
■ Front View



IC401 Digital Processor for CD

IC CXD1167Q

■ Top View

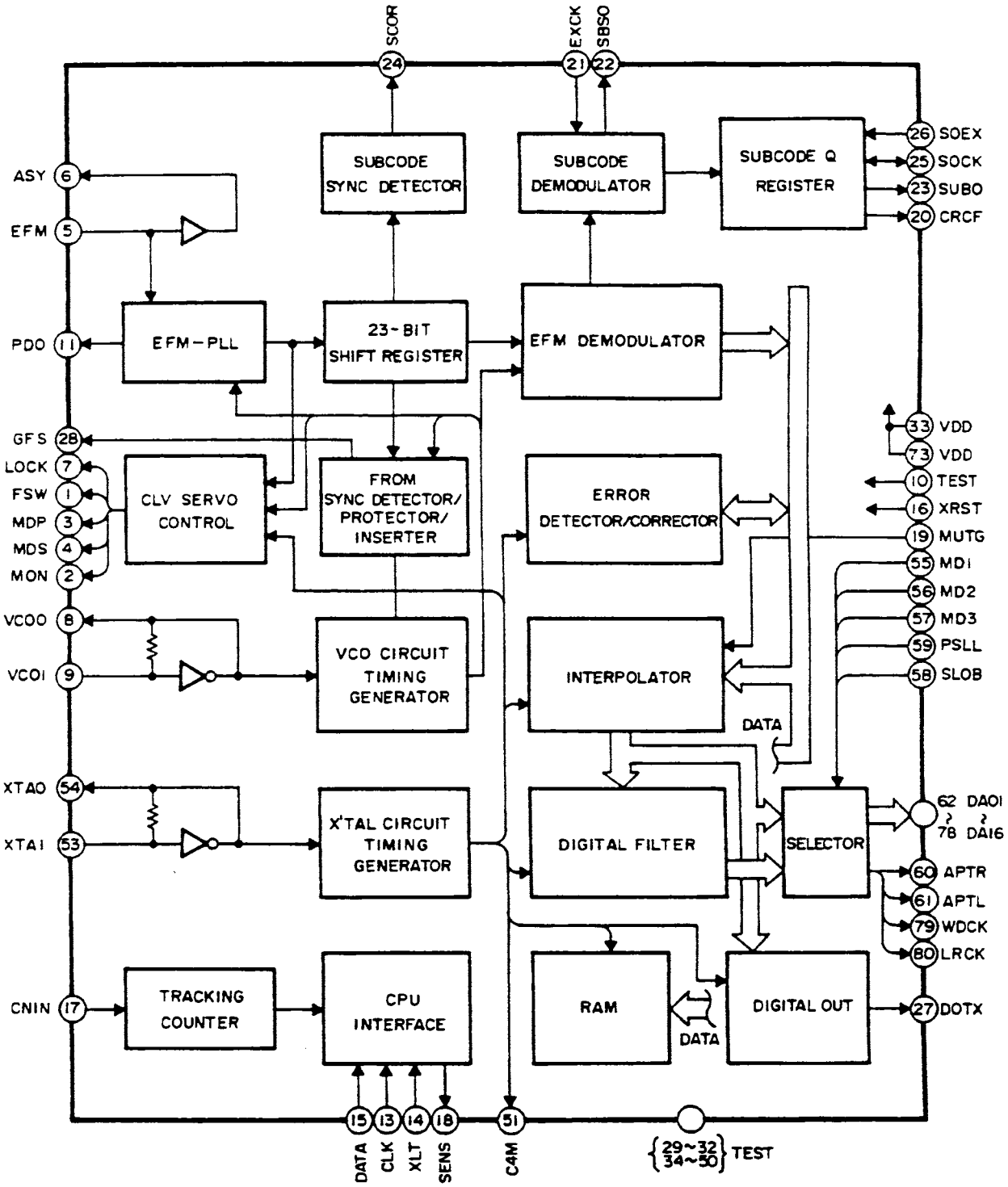


■ Description

Pin No.	Name	I/O	Function
1	FSW	O	Output to switch the time constant of the spindle motor's output filter.
2	MON	O	Spindle motor on/off control output.
3	MDP	O	Spindle motor drive output. Coarse control in the CLV-S mode and phase control in the CLV-P mode.
4	MDS	O	Spindle motor drive output. Speed control in the CLV-P mode.
5	EFM	I	EFM signal input from the RF amplifier.
6	ASY	O	Output to control the slice level of the EFM signal.
7	LOCK	O	When the GFS signal is sampled by WFCK/16 and the level is "H", this pin outputs "H" ; when the level is "L" for 8 times continuously, this pin outputs "L".
8	VCOO	O	VCO output. When locked to the EFM signal, the frequency is 8.6436MHz. (17.2872MHz in the double speed mode)
9	VCOI	I	VCO input.
10	TEST	I	(0V)
11	PDO	O	Output obtained by comparing the phases of the EFM signal and VCO/2.
12	V_{SS}	–	GND (0V)
13	CLK	I	Serial data transfer clock input from CPU. Latches the data at the leading edge of the clock signal.
14	XLT	I	Latch input from CPU. Latches the data in the 8-bit shift register, (serial data from CPU) in each register.
15	DATA	I	Serial data input from CPU.
16	XRST	I	System reset input. Reset when "L" is input.
17	CNIN	I	Tracking pulse input.
18	SENS	O	Outputs the internal state according to the address.
19	MUTG	I	Muting input. When ATTM of internal register A is "L", MUTG "L" causes the normal state and MUTG "H", causes muting.
20	CRCF	O	Outputs the CRC check results of subcode Q.
21	EXCK	I	Clock input for serial output of subcodes.
22	SBSO	O	Serial output of subcodes.
23	SUBQ	O	Subcode Q output.

Pin No.	Name	I/O	Function
24	SCOR	O	Subcode sync S0 + S1 output.
25	SQCK	I/O	Subcode Q reading clock.
26	SQEX	I	SQCK select input. (see CPU interface)
27	DOTX	O	Digital output. ($\overline{\text{WFCK}}$ is output when DO is off)
28	GFS	O	Output to display the frame sync locked state.
29 30 31 32	TEST	I	Fixed at "H" or "L", do not set to open.
33	V_{DD}	–	Power supply. (+5V)
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	TEST	I	Fixed at "H" or "L", do not set to open.
51	C4M	O	Crystal oscillator's frequency divided output. f = 4.2336MHz. (8.4672MHz during double-speed play)
52	V_{SS}	–	GND (0V)
53	XTAI	I	Crystal oscillator input. The frequency is determined as 8.4672MHz or 16.9344MHz (during double-speed play) by the mode select inputs.
54	XTAO	O	Crystal oscillator output. The frequency is determined as 8.4672MHz or 16.9344MHz (during double-speed play) by the mode select inputs.
55	MD1	I	Mode select input 1.
56	MD2	I	Mode select input 2.
57	MD3	I	Mode select input 3.
58	SLOB	I	Input to switch the audio data output code. "L": complementary output, "H": offset binary output.
59	PSSL	I	Input to switch the audio data output mode. "L": serial output, "H": parallel output.
60	APTR	O	Aperture correction control output. "H": R-ch.
61	APTL	O	Aperture correction control output. "H": L-ch.
62	DA01	O	DA01 (LSB of parallel audio data) output when PSSL is "H". C1F1 output when PSSL is "L".
63	DA02	O	DA02 output when PSSL is "H". C1F2 output when PSSL is "L".
64	DA03	O	DA03 output when PSSL is "H". C2F1 output when PSSL is "L".
65	DA04	O	DA04 output when PSSL is "H". C2F2 output when PSSL is "L".
66	DA05	O	DA05 output when PSSL is "H". C2FL output when PSSL is "L".
67	DA06	O	DA06 output when PSSL is "H". C2PO output when PSSL is "L".
68	DA07	O	DA07 output when PSSL is "H". RFCK output when PSSL is "L".
69	DA08	O	DA08 output when PSSL is "H". WFCK output when PSSL is "L".
70	DA09	O	DA09 output when PSSL is "H". $\overline{\text{PLCK}}$ output when PSSL is "L".
71	DA10	O	DA10 output when PSSL is "H". UGFS output when PSSL is "L".
72	DA11	O	DA11 output when PSSL is "H". GTOP output when PSSL is "L".
73	V_{DD}	–	Power supply. (+5V)
74	DA12	O	DA12 output when PSSL is "H". RA0V output when PSSL is "L".
75	DA13	O	DA13 output when PSSL is "H". C4LR output when PSSL is "L".
76	DA14	O	DA14 output when PSSL is "H". BCLK output when PSSL is "L".
77	DA15	O	DA15 output when PSSL is "H". $\overline{\text{BCLK}}$ output when PSSL is "L".
78	DA16	O	DA16 (MSB of parallel audio data) output when PSSL is "H". DATA output when PSSL is "L".
79	WDCK	O	Strobe signal output. 176.4kHz (352.8kHz in double-speed play) when DF is on, and 88.2kHz (176.4kHz in double-speed play) when DF is off.
80	LRCK	O	Strobe signal output. 88.2kHz (176.4kHz in double-speed play) when DF is on, and 44.1kHz (88.2kHz in double-speed play) when DF is off.

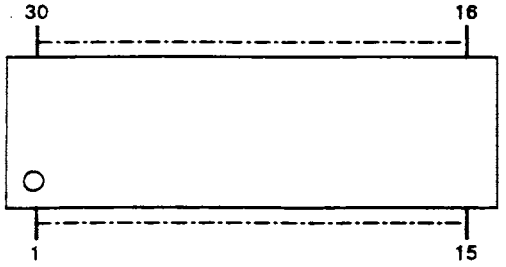
Block Diagram



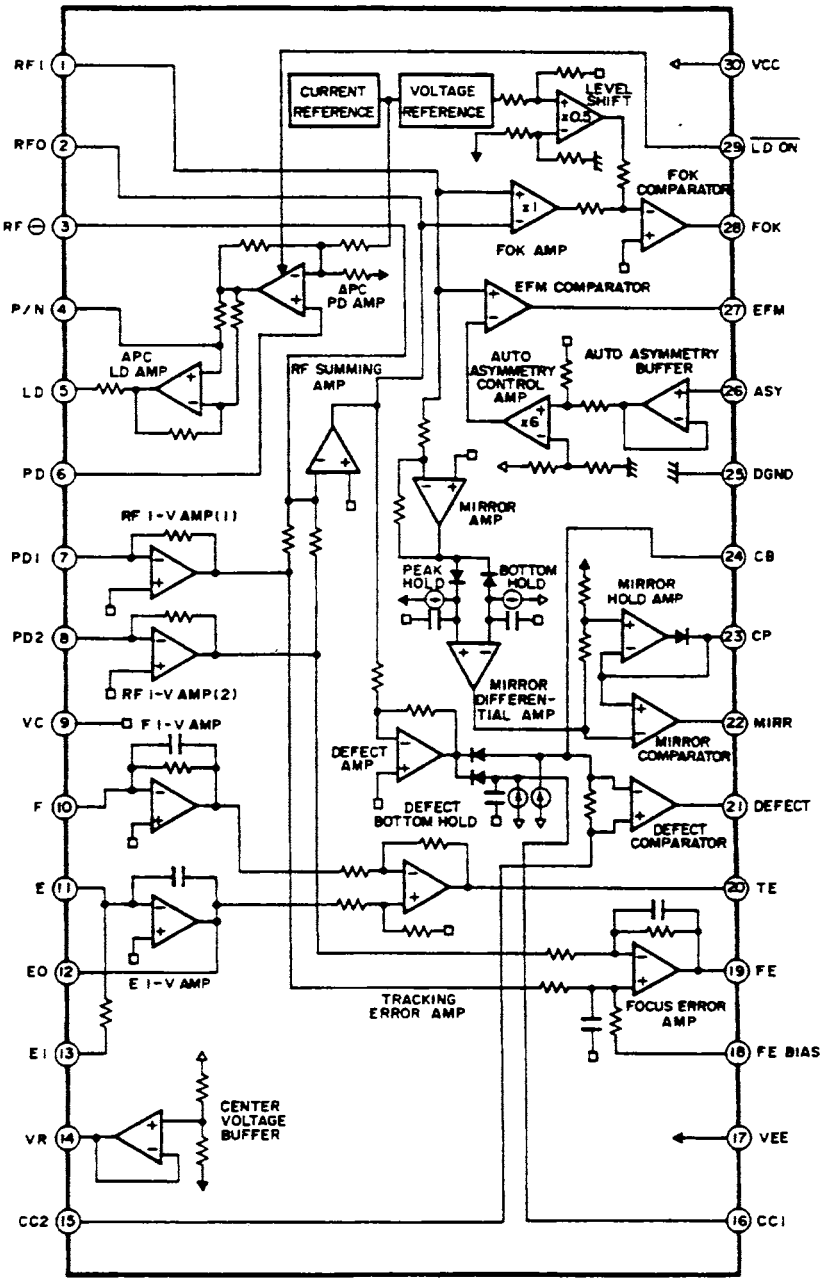
IC402 RF Amplifier for CD

IC CXA1081M

■ Top View



■ Block Diagram



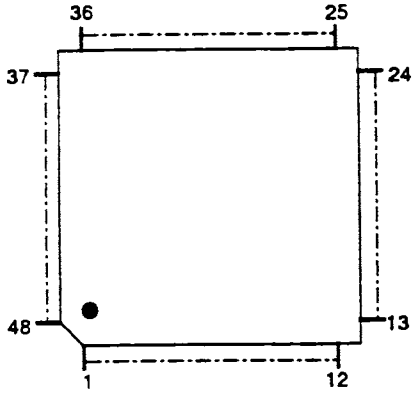
Pin No.	Name	I/O	Function
1	RFI	I	The RF summing amp outputs are capacity-coupled before input.
2	RFO	O	RF summing amp output. Eye pattern check point
3	RF⊖	I	RF summing amp feedback input.
4	P/N	I	Laser diode (LD) P-sub/N-sub switching. (DC voltage: when switched to N-sub)
5	LD	O	Automatic power control (APC) LD amp output. (DC voltage, when switched to N-sub, PD open)
6	PD	I	Automatic power control(APC) PD amp input. (DC voltage: open)
7	PD1	I	RF I-V amp (1) inverting input. Connected to the A + C terminal of the photodiode and the current is input.
8	PD2	I	RF I-V amp (2) inverting input. Connected to the B + D terminal of the photodiode and the current is input.
9	VC	–	With positive/negative power supplies: GND. With single power supply: VR. (connected to pin 14)
10	F	I	F I-V amp inverting input. Connected to the F terminal of the photodiode and the current is input.
11	E	I	E I-V amp inverting input. Connected to the E terminal of the photodiode and the current is input.
12	EO	O	E I-V amp output.
13	EI	I	E I-V amp feedback input. Used to adjust the gain of the E I-V amp.
14	VR	O	$(V_{CC} + V_{EE})$ /2 V DC output.
15	CC2	I	The DEFECT bottom hold outputs are capacity-coupled and input.
16	CC1	O	DEFECT bottom hold output.
17	V_{EE}	–	With positive/negative power supplies: Negative power supply pin. With single power supply: GND.
18	FE BIAS	I	Bias pin for the non-inverting input of focus error amp. Used for CMR adjustment of the focus error amp.
19	FE	O	Focus error amp output.
20	TE	O	Tracking error amp output.
21	DEFECT	O	DEFECT comparator output. (DC voltage: with 10k Ω resistor connected)
22	MIRR	O	MIRR comparator output. (DC voltage: with 10k Ω resistor connected)
23	CP	I	A MIRR hold capacitor is connected. Non-inverting input of the MIRR comparator.
24	CB	I	A DEFECT bottom hold capacitor is connected.
25	D_{GND}	–	With positive/negative power supplies: GND. With single power supply: GND. (VEE)
26	ASY	I	Auto asymmetry control input.
27	EFM	O	EFM comparator output. (DC voltage: with 10k Ω load resistor connected)
28	FOK	O	Focus OK comparator output. (DC voltage: with 10k Ω load resistor connected)
29	$\overline{\text{LD ON}}$	I	Laser diode (LD) on/off switching. (DC voltage: when LD is turned on)
30	V_{CC}	–	Positive power supply.

Note: Values in brackets ( ) are for CXA1081Q. (V_{CC} =2.5V, V_{EE} = D_{GND} = − 2.5V, VC=GND)

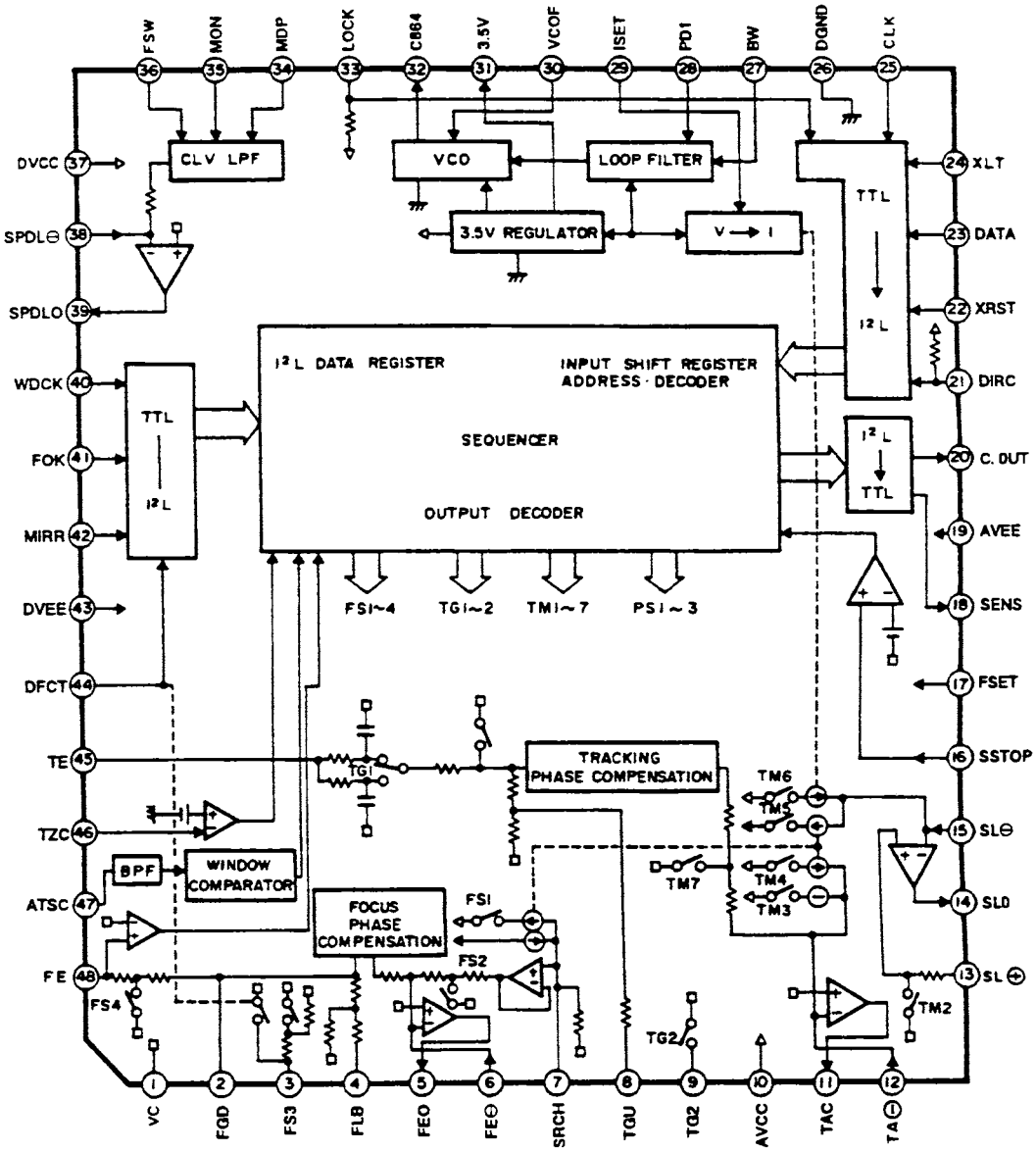
IC403 Servo Signal Processor for CD

IC CXA1082Q

■ Top View



■ Block Diagram



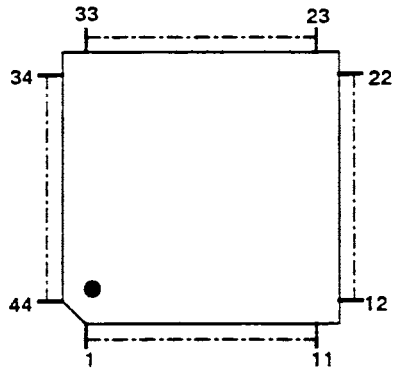
■ Description

Pin No.	Name	I/O	Function
2	FGD	–	A capacitor is inserted between this pin and pin ③ to decrease the focus servo high-frequency gain.
3	FS3	–	FS3 is turned on or off to switch the focus servo high-frequency gain.
4	FLB	–	Time constant components are connected externally to boost the focus servo low frequencies.
5	FEO	O	Focus drive output.
6	FE⊖	I	Focus amp inverting input.
7	SRCH	–	Time constant components are connected externally to form the focus search waveform.
8	TGU	–	Time constant components are connected externally to switch the tracking high-frequency gain.
9	TG2	–	Time constant components are connected externally to switch the tracking high-frequency gain.
11	TAO	O	Tracking drive output.
12	TA⊖	I	Tracking amp inverting input.
13	SL⊕	I	Sled amp non-inverting input.
14	SLO	O	Sled drive output.
15	SL⊖	I	Sled amp inverting input.
16	SSTOP	–	Signal to detect whether the limit switch that detects the disc innermost edge is turned on or off.
17	FSET	–	Determines the peak of the focus/tracking phase compensation and the frequency (fo) of CLV LPF.
18	SENS	O	Outputs FZC, AS, TZC, SSTOP and $\overline{\text{BUSY}}$, instructed by commands from the CPU.
20	C.OUT	O	Outputs a signal to count the number of tracks.
21	DIRC	–	Used to jump one track. A 47k Ω pull-up resistor is incorporated.
22	XRST	–	Reset when "L" is input to the reset input.
23	DATA	I	Serial data input from the CPU.
24	XLT	I	Latch input from the CPU.
25	CLK	I	Serial data transfer clock input from the CPU.
27	BW	–	Time constant components of the loop filter is connected externally.
28	PDI	I	The CX23035/CXD1135 phase comparator output PDO is input.
29	ISET	–	Supplies the current that determines the levels of the focus search, track jump and sled kick.
30	VCOF	–	The VCO free-running frequency is proportional to the resistance between this pin and pin ㉛.
32	C864	O	8.64MHz VCO output.
33	LOCK	–	"L" activates the sled run-out prevention circuit. A 47k Ω pull-up resistor is incorporated.
34	MDP	–	The MDP pin of the CX23035/CXD1135 is connected.
35	MON	–	The MON pin of the CX23035/CXD1135 is connected.
36	FSW	–	Time constant components of the LPF for the CLV servo error signal are connected externally.
38	SPDL⊖	I	Spindle drive amp inverting input.
39	SPDLO	O	Spindle drive output.
40	WDCK	I	Clock input for auto sequence. Normally, 88.2kHz is input.
41	FOK	I	FOK signal input.
42	MIRR	I	Mirror signal input.
44	DFCT	I	DEFECT signal input. "H" activates the defect troubleshooting circuit.
45	TE	I	Tracking error signal input.
46	TZC	I	Tracking zero-cross comparator input.
47	ATSC	I	ATSC detection window comparator input.
48	FE	I	Focus error signal input.

IC404 4Bit Single Chip Microcomputer

IC UPD75P008GB IC UPD75006GB

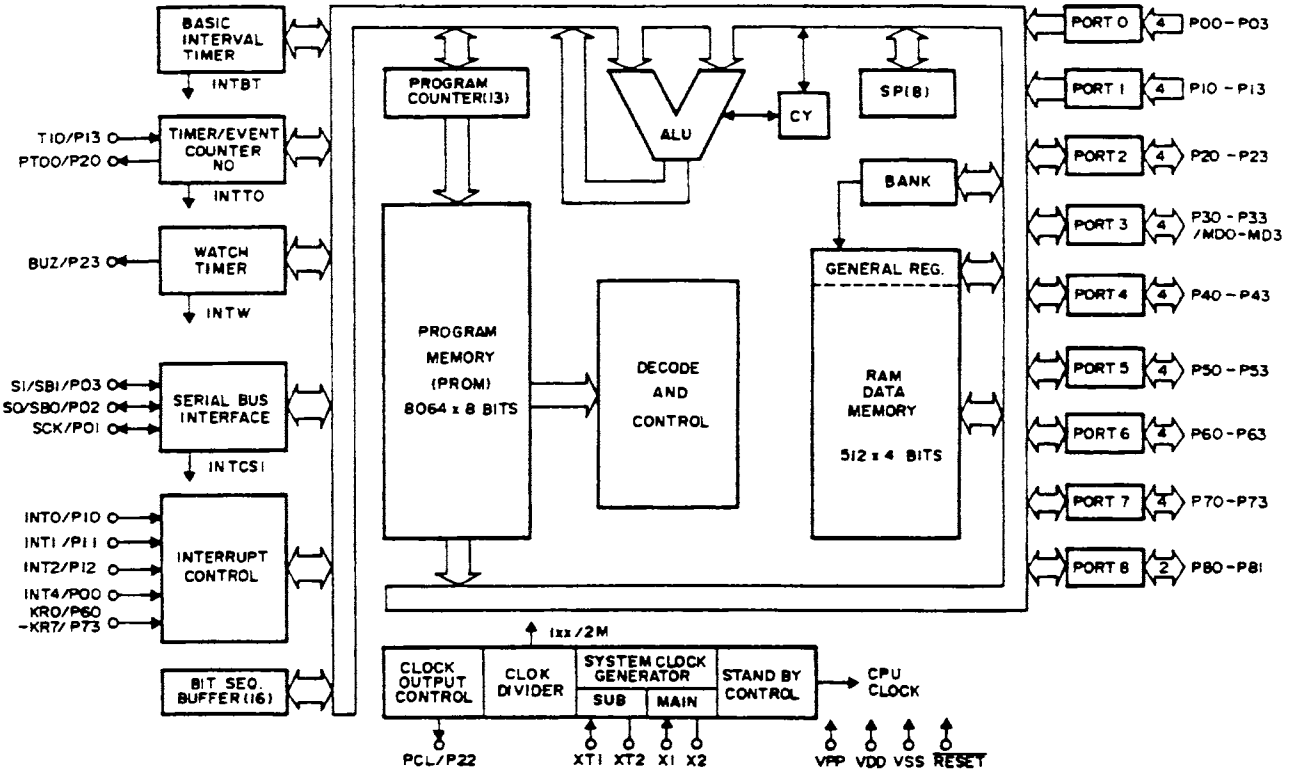
■ Top View



■ Description

Pin No.	Port Name	Pin Name	I/O	Function
1	P72	–		Not used.
2	P71	MUTG	O	Digital muting control for CXD1167Q. "H": Muting.
3	P70	TIR Q	–	Not used.
4	P63	CLK	O	Serial data transfer to CXA1082BQ and CXD1167Q.
5	P62	XLT		
6	P61	DATA		
7	P60	GAIN	–	Disc servo gain switching.
8	P53	TDB3	–	Not used.
9	P52	TDB2	–	
10	P51	TDB1	–	
11	P50	TDB0	–	
13	P43	DB3	I/O	Data bus with the host CPU.
14	P42	DB2		
15	P41	DB1		
16	P40	DB0		
23	P33	–	–	Not used.
24	P32	L-MUTE	O	Muting output. "L": during music play, "H": in other modes.
25	P31	CDCK	O	CD mechanism control clock.
26	P30	$\overline{IRQ}$	O	Interrupt request.
27	P81		I	Open/close switch.
28	P80	HOCK	I	Host CPU clock.
29	P03(SI)	SUB Q	I	Q-code serial data input.
30	P02(SO)	–	–	Not used.
31	P01(SCK)	SQCK	O	Serial clock to read Q codes.
32	P00(INT4)	–	–	Not used.
33	P13	–	–	Not used.
35	P12(INT2)	–	–	Not used.
36	P11(INT1)	SCOR	I	External interrupt request to read Q codes. Interrupt at the leading edge.
37	P10(INT0)	SENS1	I	CXA1082/CXD1167Q sensing input.
40	P23	THOCK	–	Not used.
41	P22	TEST1	I	Test input. "H": Normal, "L": Test.
42	P21	FOK	I	Focus OK signal input.
43	P20	SENS	I	CXA1082/CXD1167Q sensing input.
44	P73	LDON	O	Laser diode on/off switching. "H": LD ON.

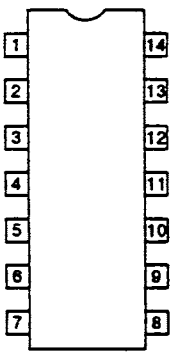
■ Block Diagram



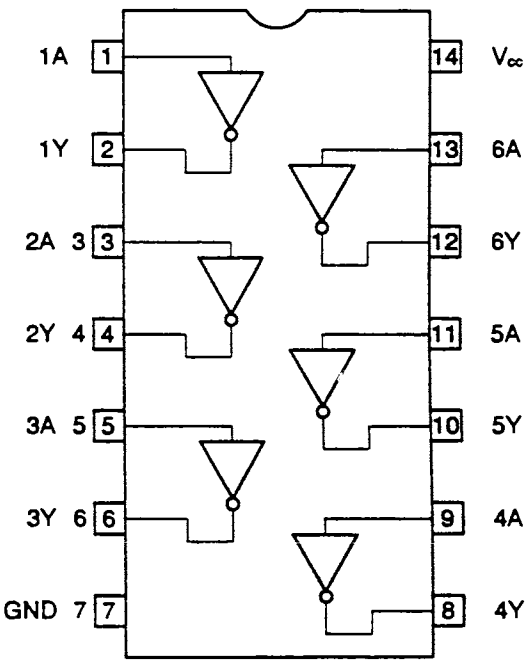
IC407 CMOS Inverter

IC 74HCU04
Parts No. : 314-0571

■ Top View



■ Pin Layout



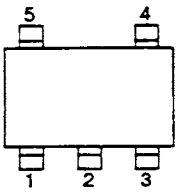
■ Truth Table

A	Y
L	H
H	L

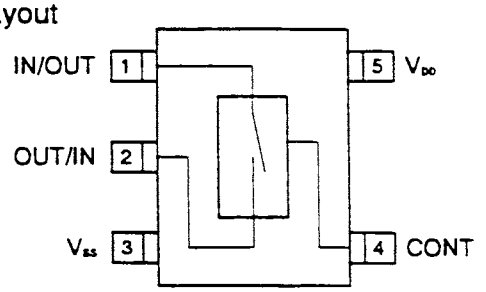
IC408 Bilateral Switch

IC TC4S66F-TE85R

■ Top View



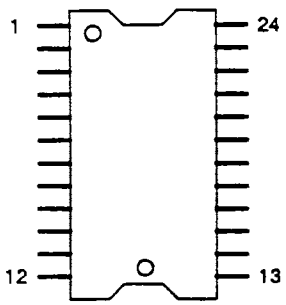
■ Pin Layout



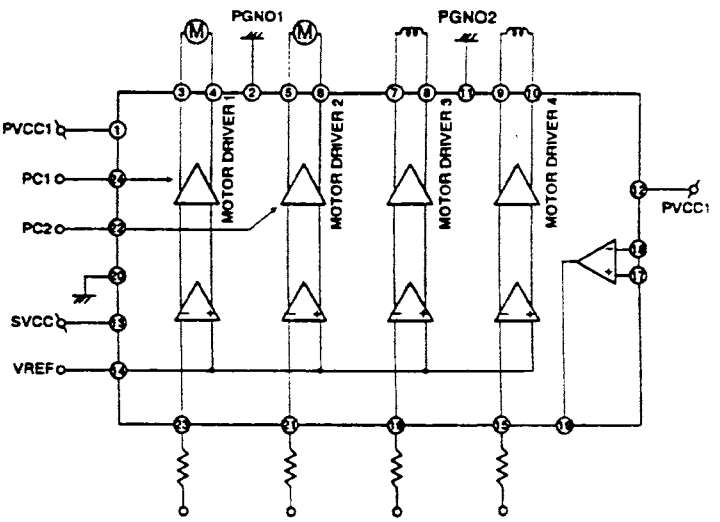
IC409 4ch Linear Driver

IC AN8388SR IC AN8388NSRBE1

■ Top View



■ Block Diagram



■ Description

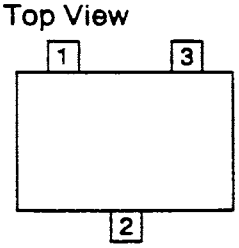
Pin No.	Function
1	Driver power supply pin 1
2	Driver ground pin 1
3	Motor driver 1 reverse run output
4	Motor driver 1 forward run output
5	Motor driver 2 reverse run output
6	Motor driver 2 forward run output
7	Motor driver 3 reverse run output
8	Motor driver 3 forward run output
9	Motor driver 4 reverse run output
10	Motor driver 4 forward run output
11	Driver ground pin 2
12	Driver power supply pin 2

Pin No.	Function
13	Power supply pin
14	VREF input pin
15	Motor driver 4 input
16	Motor driver 3 input
17	OP amp forward input pin
18	OP amp reverse input pin
19	OP amp output
20	Ground pin
21	Motor driver 2 input
22	PC2 (power cutoff) input
23	Motor driver 1 input
24	PC1 (power cutoff) input

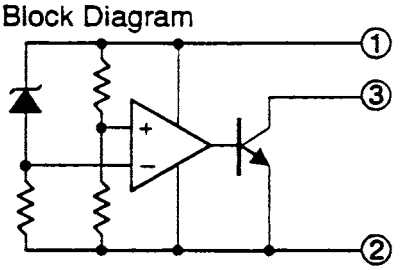
IC601 System Reset

IC PST529F MMP3P

■ Top View

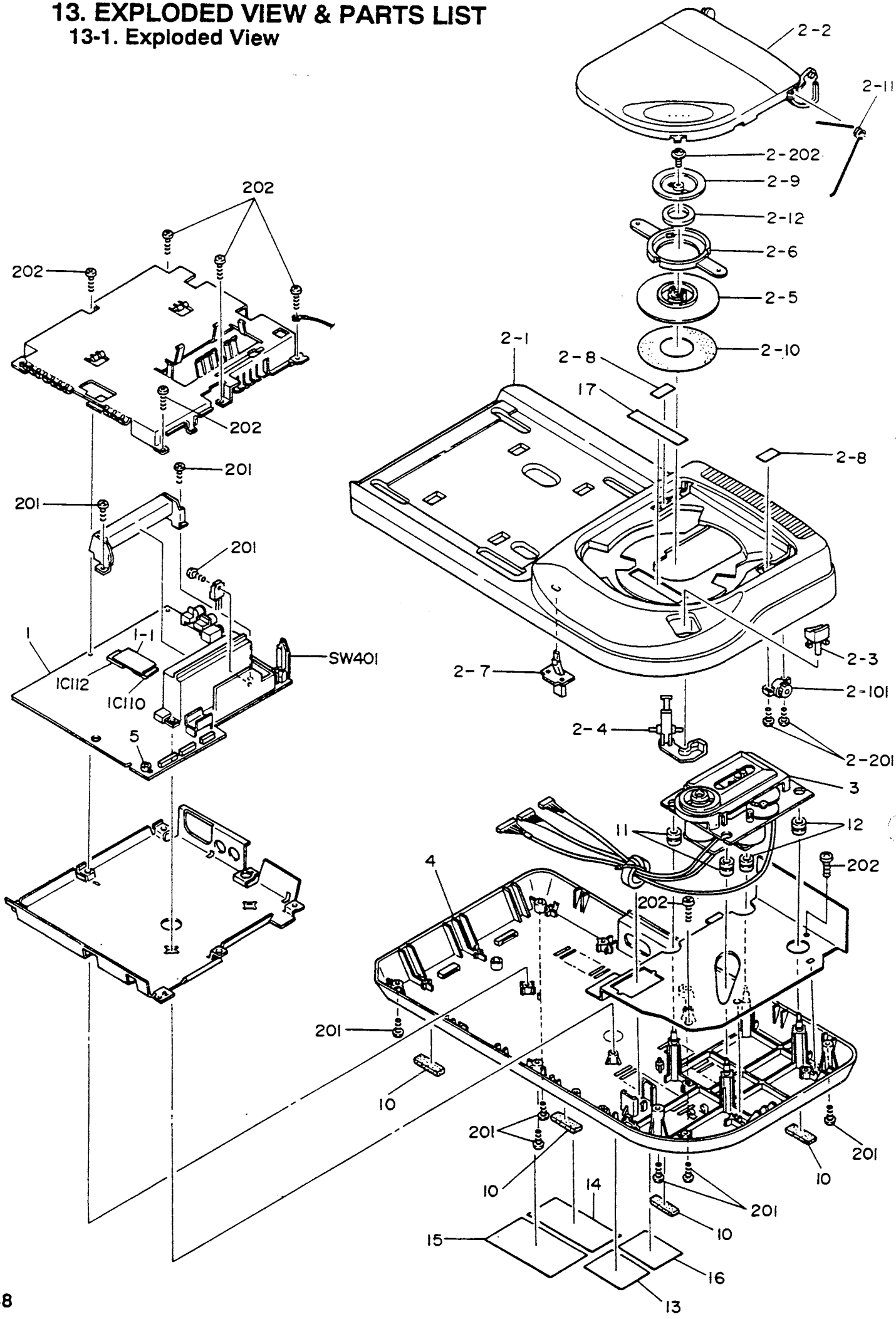


■ Block Diagram



13. EXPLODED VIEW & PARTS LIST

13-1. Exploded View



13-2. Mechanical Parts List

Ref. No.	Parts No.	Description
1	837-9615	IC BD SEGA-CD2 MAIN BD USA(CBA) [S]
1	837-9616	IC BD MEGA-CD2 MAIN BD MULTI(CBA) [M]
1-1	837-9798	IC BD MEGA-CD2 PCM BD
2-1	253-6661	TOP CASE MEGA-CD2 EXPORT
2-2	253-6635	DOOR SEGA-CD2 USA [S]
2-2	253-6636	DOOR MEGA-CD2 MULTI [M]
2-3	253-6562-01	DOOR KNOB SEGA-CD2 USA [S]
2-3	253-6562-02	DOOR KNOB MEGA-CD2 MULTI [M]
2-4	253-6563	DOOR LEVER MEGA-CD2
2-5	253-6564	CHUCK DISK MEGA-CD2
2-6	253-6565	CHUCK HOLDER MEGA-CD2
2-7	253-6566	LED LENS MEGA-CD2
2-8	253-6569	BLIND SHEET MEGA-CD2
2-9	250-5306	CONNECT PLATE MEGA-CD2
2-10	601-6983	CHUCK SHEET MEGA-CD2
2-11	125-5101	DOOR SPRING MEGA-CD2
2-12	113-0020	MAGNET MEGA-CD2
2-101	601-7018	OIL DAMPER MEGA-CD2
2-201	012-P00210	TAP SCR PH M2×10
2-202	029-000016	CUP SCR M2.6×5
3	610-5424	CD DRIVE UNIT MEGA-CD2
4	253-6651	BOTTOM CASE MEGA-CD2 EXPORT
5	253-6567	LED HOLDER MEGA-CD2
10	601-6982	RUBBER FOOT MEGA-CD2
11	601-6984	RUBBER DAMPER A MEGA-CD2
12	601-7002	RUBBER DAMPER B MEGA-CD2
13	670-3119	LABEL SER. NO. SEGA-CD2 [S]
13	670-3120	LABEL SER. NO. MEGA-CD2 MULTI [M]
14	670-0248	SEAL CUSTOMER SERVICE [S]
14	670-2774	LABEL CAUTION LASER EUROPE [M]
14	670-3349	LABEL CUSTOMER SERVICE SOC [S]
15	670-3204	LABEL FCC SEGA-CD2 USA [S]
15	670-3417	LABEL FCC SEGA-CD2 CAN [S]
16	670-3126-01	LABEL FDA MK-4101 USA [S]
16	670-2708	SEAL RFI MARK MEGA-CD MULTI [M]
17	670-3209	CAUTION LABEL SEGA-CD2 [S]
17	670-3210	CAUTION LABEL MEGA-CD2 MULTI [M]
201	012-P00310	TAP SCR PH M3×10
202	012-P00308	TAP SCR PH M3×8

13-3. Electrical Parts List

Circuit No.	Parts No.	Description
IC001	314-0367	IC 74HC04
IC002	314-0407	IC 74HC74
IC101	315-5632	IC CUSTOM CHIP MCE3 FUJITSU
IC102	315-0745-80	IC TC511664BJ-80 SOJ TOSHIBA
IC102	315-0804-70	IC UPD421664LE-70 SOJ NEC
IC102	315-0804-80	IC UPD421664-80 SOJ NEC
IC102	315-0805-80	IC UPD421664-80L SOJ NEC
IC103	315-0745-80	IC TC511664BJ-80 SOJ TOSHIBA
IC103	315-0804-70	IC UPD421664LE-70 SOJ NEC
IC103	315-0804-80	IC UPD421664-80 SOJ NEC
IC103	315-0805-80	IC UPD421664-80L SOJ NEC
IC104	315-0796-70	IC CXK5864BM-70 SOP SONY
IC105	315-0796-70	IC CXK5864BM-70 SOP SONY
IC106	315-5181-01	IC LC89515 QFP SANYO
IC107	315-0739-80	IC UPD424270LE-80 NEC
IC107	315-0777-80	IC HM514270AJ-8 SOJ HITACHI
IC107	315-0818	IC M5M44270AJ-8 SOJ MITSUBISHI
IC107	315-0822-80	IC MN414270SJ-08 SOJ PANASONIC
IC108	315-0760-10	IC LH5P832N-10 SOP SHARP
IC108	315-0677	IC TC51832FL-10 SOP TOSHIBA
IC108	315-0759-10	IC TC51832AFL-10 SOP TOSHIBA
IC109	315-0760-10	IC LH5P832N-10 SOP SHARP
IC109	315-0677	IC TC51832FL-10 SOP TOSHIBA
IC109	315-0759-10	IC TC51832AFL-10 SOP TOSHIBA
IC110	315-5476A	IC CUSTOM CHIP RF5C164A RICHO
IC111	EPR-15511	IC SEGA-CD2 BOOT ROM EP [S]
IC111	MPR-15511A	IC SEGA-CD2 USA BOOT ROM [S]
IC111	EPR-15512	IC MEGA-CD2 BOOT EP MULTI [M]
IC111	MPR-15512A	IC MEGA-CD2(PAL) BOOT ROM [M]
IC112	315-0635	IC MB8464A-10LL PF-G-BND FUJITSU
IC113	315-0637	IC MC68HC000FN12 PLCC MOTOROLA
IC113	315-0650	IC HD68HC000CP-12 PLCC HITACHI
IC113	315-0626	IC TMP68HC000T-12 PLCC TOSHIBA
IC114	313-5190	IC MB3790 SOP 16PIN FUJITSU
IC116	314-0549-01	IC TC74HC86 SOP TOSHIBA
IC201	313-5184	IC LC7883KM SOP SANYO
IC202	313-5231	IC LC78815M SOP 20P SANYO
IC203	313-5249	IC NJM3403AM SOP
IC204	313-5249	IC NJM3403AM SOP
IC205	313-5250	IC NJM3404AM SOP
IC301	313-5193	IC UPC2405HF NEC
IC401	315-0798	IC CXD1167Q QFP
IC402	313-5251	IC CXA1081M SOP
IC403	313-5252	IC CXA1082Q QFP
IC404	315-0799	IC UPD75P008GB QFP
IC404	315-0808	IC UPD75006GB QFP
IC407	314-0571	IC 74HCU04 SOP
IC408	313-5253	IC TC4S66F-TE85R
IC409	314-0572	IC AN8388SR SOP
IC409	314-0585	IC AN8388NSRBE1 SOP
IC601	314-0573	IC PST529F MMP3P RESET IC
X 101	230-5103	XTAL OSC 50.000MHZ JX0-7
X 401	230-5104	XTAL OSC 16.9344MHz HC-49U
X 702	230-5109	CER OSC 4.19MHZ
Q 101	482-5191	XSTR CHIP 2SC2812-5-CP-TB
Q 101	482-5192	XSTR CHIP 2SC2812-6-CP-TB
Q 201	482-5191	XSTR CHIP 2SC2812-5-CP-TB
Q 201	482-5192	XSTR CHIP 2SC2812-6-CP-TB
Q 202	482-5191	XSTR CHIP 2SC2812-5-CP-TB
Q 202	482-5192	XSTR CHIP 2SC2812-6-CP-TB

Note: [S] →SEGA CD II
[M] →MEGA CD II

Circuit No.	Parts No.	Description	
Q 301	482-5193	XSTR 2SB963 M	
Q 301	482-5194	XSTR 2SB963 L	
Q 301	482-5195	XSTR 2SB963 K	
Q 302	482-5191	XSTR CHIP 2SC2812-5-CP-TB	[S]
Q 302	482-5192	XSTR CHIP 2SC2812-6-CP-TB	[S]
Q 302	482-5204	XSTR CHIP 2SC4362	[M]
Q 302	482-5205	XSTR CHIP UN221L	[M]
Q 401	482-5196	XSTR 2SA1704 S-AN	
Q 401	482-5197	XSTR 2SA1704 T-AN	
Q 402	482-5191	XSTR CHIP 2SC2812-5-CP-TB	
Q 402	482-5192	XSTR CHIP 2SC2812-6-CP-TB	
BT101	401-0037	BATTERY ML2016-HS1 SANYO	
D 301	481-5119	DIODE DSK10-ET1	
D 302	481-5121	DIODE GMB01-BT	[M]
D 401	481-5120	DIODE 1S2076RE	
D 601	481-5121	DIODE GMB01-BT	
L0101	390-5449	LED LN88RPX	
FLT505	271-0058	FILMAC TH30333MAT	
FLT506	479-5009	RES 0 OHM 1/4W	
FLT507	479-5009	RES 0 OHM 1/4W	
FLT512	271-0058	FILMAC TH30333MAT	
FLT516	479-5009	RES 0 OHM 1/4W	
FLT519	479-5009	RES 0 OHM 1/4W	
FLT520	479-5009	RES 0 OHM 1/4W	
FLT522	479-5009	RES 0 OHM 1/4W	
FLT600	479-5009	RES 0 OHM 1/4W	
FLT601	271-0059	FILMAC TX09500NBT	
FLT602	271-0060	FILMAC TX07520NBT	
FLT604	479-5009	RES 0 OHM 1/4W	
EMI202	271-0007	EMI FILTER STX222MB	
EMI202	479-5009	RES 0 OHM 1/4W	
EMI203	271-0007	EMI FILTER STX222MB	
EMI203	479-5009	RES 0 OHM 1/4W	
EMI204	479-5009	RES 0 OHM 1/4W	
EMI205	479-5009	RES 0 OHM 1/4W	
EMI206	479-5009	RES 0 OHM 1/4W	
FL301	271-0054	LINE FILTER CM08RB01	
F 301	514-5044	FUSE PICO II 25202.5 RADIAL	
R 101	476-1361-J-16	RES CHIP 360 OHM 1/16W 5%	
R 102	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 103	476-1222-J-16	RES CHIP 2.2kOHM 1/16W 5%	
R 104	476-1473-J-16	RES CHIP 47kOHM 1/16W 5%	
R 105	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 106	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 107	479-5007-J-16	RES CHIP 0 OHM 1/16W J	
R 108	479-5007-J-16	RES CHIP 0 OHM 1/16W J	
R 109	479-5007-J-16	RES CHIP 0 OHM 1/16W J	
R 130	479-5007-J-16	RES CHIP 0 OHM 1/16W J	
R 131	479-5007-J-16	RES CHIP 0 OHM 1/16W J	
R 201	476-1162-J-16	RES CHIP 1.6k OHM 1/16W 5%	
R 202	476-1102-J-16	RES CHIP 1kOHM 1/16W 5%	
R 203	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 204	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 205	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 206	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 207	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 208	476-1222-J-16	RES CHIP 2.2kOHM 1/16W 5%	
R 209	476-1222-J-16	RES CHIP 2.2kOHM 1/16W 5%	
R 210	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 211	476-1222-J-16	RES CHIP 2.2kOHM 1/16W 5%	
R 212	476-1222-J-16	RES CHIP 2.2kOHM 1/16W 5%	
R 213	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 214	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 215	476-1331-J-16	RES CHIP 330 OHM 1/16W 5%	
R 216	476-1100-J-16	RES CHIP 10 OHM 1/16W 5%	
R 217	476-1331-J-16	RES CHIP 330 OHM 1/16W 5%	
R 218	476-1100-J-16	RES CHIP 10 OHM 1/16W 5%	
R 219	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 220	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 221	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 222	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 223	476-1222-J-16	RES CHIP 2.2kOHM 1/16W 5%	
R 224	476-1331-J-16	RES CHIP 330 OHM 1/16W 5%	
R 225	476-1222-J-16	RES CHIP 2.2kOHM 1/16W 5%	
R 226	476-1331-J-16	RES CHIP 330 OHM 1/16W 5%	
R 227	476-1750-J-16	RES CHIP 75OHM 1/16W 5%	
R 228	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 229	476-1750-J-16	RES CHIP 75OHM 1/16W 5%	
R 230	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 231	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 232	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 233	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 234	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 235	476-1331-J-16	RES CHIP 330 OHM 1/16W 5%	
R 236	476-1331-J-16	RES CHIP 330 OHM 1/16W 5%	
R 237	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 238	476-1332-J-16	RES CHIP 3.3kOHM 1/16W 5%	
R 239	476-1332-J-16	RES CHIP 3.3kOHM 1/16W 5%	
R 240	476-1332-J-16	RES CHIP 3.3kOHM 1/16W 5%	
R 241	476-1750-J-16	RES CHIP 75OHM 1/16W 5%	
R 242	476-1750-J-16	RES CHIP 75OHM 1/16W 5%	
R 243	476-1152-J-16	RES CHIP 1.5kOHM 1/16W 5%	
R 244	476-1122-J-16	RES CHIP 1.2kOHM 1/16W 5%	
R 301	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	[S]
R 301	476-1822-J-16	RES CHIP 8.2kOHM 1/16W 5%	[M]
R 302	476-1162-J-16	RES CHIP 1.6kOHM 1/16W 5%	[S]
R 302	NOT USED	NOT USED	[M]
R 303	476-1162-J-16	RES CHIP 1.6kOHM 1/16W 5%	
R 304	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 401	476-1102-J-16	RES CHIP 1kOHM 1/16W 5%	
R 402	476-2100-J-10	RES CHIP 10 OHM 1/10W 5%	
R 403	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	
R 404	476-1153-J-16	RES CHIP 15kOHM 1/16W 5%	
R 405	476-1102-J-16	RES CHIP 1kOHM 1/16W 5%	
R 406	476-1104-J-16	RES CHIP 100kOHM 1/16W 5%	
R 407	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	
R 408	476-1223-J-16	RES CHIP 22kOHM 1/16W 5%	
R 409	476-1223-J-16	RES CHIP 22kOHM 1/16W 5%	
R 410	476-1101-J-16	RES CHIP 100 OHM 1/16W 5%	
R 411	476-1101-J-16	RES CHIP 100 OHM 1/16W 5%	
R 412	476-1222-J-16	RES CHIP 2.2kOHM 1/16W 5%	
R 413	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	
R 414	476-1182-J-16	RES CHIP 1.8kOHM 1/16W 5%	
R 415	476-1223-J-16	RES CHIP 22kOHM 1/16W 5%	
R 416	476-1334-J-16	RES CHIP 330kOHM 1/16W 5%	
R 417	151-0421	CAP CER CHIP 4700PF/50V B K	
R 418	479-5007-J-16	RES CHIP 0 OHM 1/16W J	
R 419	476-1184-J-16	RES CHIP 180kOHM 1/16W 5%	
R 420	476-1334-J-16	RES CHIP 330kOHM 1/16W 5%	
R 421	476-1224-J-16	RES CHIP 220kOHM 1/16W 5%	
R 422	476-1154-J-16	RES CHIP 150kOHM 1/16W 5%	
R 423	476-1224-J-16	RES CHIP 220kOHM 1/16W 5%	
R 424	476-1153-J-16	RES CHIP 15kOHM 1/16W 5%	
R 425	476-1393-J-16	RES CHIP 39kOHM 1/16W 5%	
R 426	476-1472-J-16	RES CHIP 4.7kOHM 1/16W 5%	
R 427	476-1334-J-16	RES CHIP 330kOHM 1/16W 5%	
R 428	476-1514-J-16	RES CHIP 510kOHM 1/16W 5%	
R 429	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	
R 430	476-1224-J-16	RES CHIP 220kOHM 1/16W 5%	
R 431	476-1332-J-16	RES CHIP 3.3kOHM 1/16W 5%	
R 432	476-1823-J-16	RES CHIP 82kOHM 1/16W 5%	
R 433	476-1105-J-16	RES CHIP 1MOHM 1/16W 5%	
R 434	476-1223-J-16	RES CHIP 22kOHM 1/16W 5%	
R 435	476-1104-J-16	RES CHIP 100kOHM 1/16W 5%	
R 436	476-1104-J-16	RES CHIP 100kOHM 1/16W 5%	
R 437	476-1104-J-16	RES CHIP 100kOHM 1/16W 5%	
R 438	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	
R 441	479-5007-J-16	RES CHIP 0 OHM 1/16W J	
R 444	476-2100-J-10	RES CHIP 10 OHM 1/10W 5%	
R 445	476-1101-J-16	RES CHIP 100 OHM 1/16W 5%	
R 446	476-1101-J-16	RES CHIP 100 OHM 1/16W 5%	
R 447	479-5007-J-16	RES CHIP 0 OHM 1/16W J	
R 448	476-1910-J-16	RES CHIP 910HM 1/16W 5%	
R 449	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	

Note: [S] → SEGA CD II
[M] → MEGA CD II

Note: All chip resistors and capacitors are 1.6 × 0.8 mm.

Circuit No.	Parts No.	Description
R 450	476-1333-J-16	RES CHIP 33kOHM 1/16W 5%
R 451	476-1474-J-16	RES CHIP 470kOHM 1/16W 5%
R 452	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 454	476-2100-J-10	RES CHIP 10 OHM 1/10W 5%
R 456	476-2100-J-10	RES CHIP 10 OHM 1/10W 5%
R 465	476-2100-J-10	RES CHIP 10 OHM 1/10W 5%
R 468	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 469	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 470	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 471	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 472	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 473	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 474	476-1473-J-16	RES CHIP 47kOHM 1/16W 5%
R 476	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 477	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 478	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 479	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 480	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 481	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 482	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 483	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 484	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 485	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 486	479-5007-J-16	RES CHIP 0 OHM 1/16W J
R 487	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 488	476-1683-J-16	RES CHIP 68kOHM 1/16W 5%
R 489	476-1473-J-16	RES CHIP 47kOHM 1/16W 5%
R 490	476-1333-J-16	RES CHIP 33kOHM 1/16W 5%
R 490	476-1473-J-16	RES CHIP 47kOHM 1/16W 5%
R 491	476-1683-J-16	RES CHIP 68kOHM 1/16W 5%
R 492	476-2100-J-10	RES CHIP 10 OHM 1/10W 5%
R 493	476-2100-J-10	RES CHIP 10 OHM 1/10W 5%
R 494	476-2100-J-10	RES CHIP 10 OHM 1/10W 5%
R 495	476-2100-J-10	RES CHIP 10 OHM 1/10W 5%
R 496	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 497	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 498	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%
R 601	476-1102-J-16	RES CHIP 1kOHM 1/16W 5%
R 602	476-1104-J-16	RES CHIP 100kOHM 1/16W 5%
R 701	479-5007-J-16	RES CHIP 0 OHM 1/16W 5%
R 702	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 703	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 704	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 705	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 706	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 707	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 708	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 709	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 710	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 711	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 712	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 713	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 714	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 715	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 716	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 717	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%
R 718	479-5007-J-16	RES CHIP 0 OHM 1/16W
R 802	479-5007-J-16	RES CHIP 0 OHM 1/16W
RB101	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
RB102	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
RB103	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
RB104	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
RB105	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
RB106	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
RB107	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
RB108	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
RB109	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
RB110	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
RB111	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
RB112	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
RB113	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
RB114	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
RB115	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
RB116	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%
VR401	475-0073	V. RES C TRM 20kOHM B RADIAL
VR402	475-0074	V. RES C TRM 5kOHM B RADIAL
VR403	475-0075	V. RES C TRM 2kOHM B RADIAL
RA101	477-0152	RES PACK CP 8×4. 7kOHM W/COMM
RA102	477-0152	RES PACK CP 8×4. 7kOHM W/COMM
C 001	151-0434	CAP CER CP 0. 1UF/0. 5V F Z
C 104	150-0439	CAP E 10UF/16V 20%
C 105	151-0405	CAP CER CP 0. 1UF/16V F Z
C 109	151-0405	CAP CER CP 0. 1UF/16V F Z
C 110	150-0439	CAP E 10UF/16V 20%
C 113	151-0406	CAP CER CP 100PF/50V SL J
C 114	151-0405	CAP CER CP 0. 1UF/16V F Z
C 115	150-0439	CAP E 10UF/16V 20%
C 118	151-0406	CAP CER CP 100PF/50V SL J
C 119	151-0405	CAP CER CP 0. 1UF/16V F Z
C 120	151-0405	CAP CER CP 0. 1UF/16V F Z
C 122	150-0439	CAP E 10UF/16V 20%
C 126	151-0405	CAP CER CP 0. 1UF/16V F Z
C 127	150-0439	CAP E 10UF/16V 20%
C 128	151-0405	CAP CER CP 0. 1UF/16V F Z
C 129	150-0439	CAP E 10UF/16V 20%
C 130	151-0405	CAP CER CP 0. 1UF/16V F Z
C 131	150-0439	CAP E 10UF/16V 20%
C 132	150-0439	CAP E 10UF/16V 20%
C 133	151-0405	CAP CER CP 0. 1UF/16V F Z
C 135	151-0405	CAP CER CP 0. 1UF/16V F Z
C 137	151-0405	CAP CER CP 0. 1UF/16V F Z
C 138	151-0405	CAP CER CP 0. 1UF/16V F Z
C 139	150-0439	CAP E 10UF/16V 20%
C 143	151-0409	CAP CER CP 1000PF/50V B K
C 144	151-0405	CAP CER CP 0. 1UF/16V F Z
C 201	150-0440	CAP E 100UF/6. 3V 20%
C 206	150-0439	CAP E 10UF/16V 20%
C 207	150-0439	CAP E 10UF/16V 20%
C 208	150-0439	CAP E 10UF/16V 20%
C 209	150-0439	CAP E 10UF/16V 20%
C 210	150-0439	CAP E 10UF/16V 20%
C 211	151-0410	CAP CER CP 680PF/50V B K
C 212	151-0410	CAP CER CP 680PF/50V B K
C 213	151-0405	CAP CER CP 0. 1UF/16V F Z
C 214	151-0411	CAP CER CP 8200PF/50V B K
C 215	151-0411	CAP CER CP 8200PF/50V B K
C 216	151-0405	CAP CER CP 0. 1UF/16V F Z
C 217	151-0412	CAP CER CP 1200PF/50V B K
C 218	151-0412	CAP CER CP 1200PF/50V B K
C 219	151-0405	CAP CER CP 0. 1UF/16V F Z
C 220	150-0439	CAP E 10UF/16V 20%
C 221	150-0439	CAP E 10UF/16V 20%
C 222	150-0439	CAP E 10UF/16V 20%
C 223	151-0413	CAP CER CP 2200PF/50V B K
C 224	151-0405	CAP CER CP 0. 1UF/16V F Z
C 225	151-0411	CAP CER CP 8200PF/50V B K
C 226	151-0413	CAP CER CP 2200PF/50V B K
C 227	151-0411	CAP CER CP 8200PF/50V B K
C 228	150-0439	CAP E 10UF/16V 20%
C 229	150-0439	CAP E 10UF/16V 20%
C 230	151-0411	CAP CER CP 8200PF/50V B K
C 231	151-0411	CAP CER CP 8200PF/50V B K
C 232	150-0439	CAP E 10UF/16V 20%
C 233	150-0439	CAP E 10UF/16V 20%
C 234	150-0439	CAP E 10UF/16V 20%
C 235	150-0439	CAP E 10UF/16V 20%
C 236	150-0439	CAP E 10UF/16V 20%
C 237	150-0439	CAP E 10UF/16V 20%
C 238	150-0440	CAP E 100UF/6. 3V 20%
C 239	150-0439	CAP E 10UF/16V 20%
C 240	150-0439	CAP E 10UF/16V 20%
C 301	150-0440	CAP E 100UF/6. 3V 20%
C 302	151-0405	CAP CER CP 0. 1UF/16V F Z
C 303	150-0441	CAP E 1000UF/6. 3V 20%
C 304	151-0405	CAP CER CP 0. 1UF/16V F Z
C 305	150-0249	CAP E 330UF 16V U-TYPE
C 306	150-0440	CAP E 100UF/6. 3V 20%
C 401	151-0456	CAP CER CP 0. 33UF/16V R K
C 403	150-0249	CAP E 330UF 16V U-TYPE
C 404	150-0440	CAP E 100UF/6. 3V 20%
C 406	150-0301	CAP E 470UF/6. 3V U-TYPE

Note: [S] →SEGA CD II
[M] →MEGA CD II

Note: All chip resistors and capacitors are 1.6 × 0.8 mm.

Circuit No.	Parts No.	Description
C 407	150-0329	CAP E 3.3UF 50V U-TYPE
C 408	150-0440	CAP E 100UF/6.3V 20%
C 409	150-0440	CAP E 100UF/6.3V 20%
C 410	150-0442	CAP E 0.47UF/50V 20%
C 411	150-0443	CAP E 22UF/6.3V 20%
C 412	150-0443	CAP E 22UF/6.3V 20%
C 413	150-0016	CAP E 1UF 50V
C 414	150-0442	CAP E 0.47UF/50V 20%
C 415	151-0415	CAP CER CP 3900PF/50V B K
C 416	151-0416	CAP CER CP 5PF/50V CH C
C 417	151-0417	CAP CER CP 0.033UF/50V B K
C 418	151-0419	CAP CER CP 0.1UF/50V B K
C 419	151-0417	CAP CER CP 0.033UF/50V B K
C 420	151-0419	CAP CER CP 0.1UF/50V B K
C 421	151-0419	CAP CER CP 0.1UF/50V B K
C 422	479-5007-J-16	RES CHIP 0 OHM 1/16W J
C 423	151-0413	CAP CER CP 2200PF/50V B K
C 424	151-0419	CAP CER CP 0.1UF/50V B K
C 425	151-0417	CAP CER CP 0.033UF/50V B K
C 426	151-0417	CAP CER CP 0.033UF/50V B K
C 427	151-0419	CAP CER CP 0.1UF/50V B K
C 428	151-0420	CAP CER CP 0.056UF/50V B K
C 429	151-0419	CAP CER CP 0.1UF/50V B K
C 430	151-0421	CAP CER CHIP 4700PF/50V B K
C 431	151-0409	CAP CER CP 1000PF/50V B K
C 432	151-0417	CAP CER CP 0.033UF/50V B K
C 433	151-0405	CAP CER CP 0.1UF/16V F Z
C 435	151-0422	CAP CER CP 24PF/50V CH J
C 436	151-0422	CAP CER CP 24PF/50V CH J
C 438	151-0405	CAP CER CP 0.1UF/16V F Z
C 439	151-0405	CAP CER CP 0.1UF/16V F Z
C 441	151-0405	CAP CER CP 0.1UF/16V F Z
C 442	151-0405	CAP CER CP 0.1UF/16V F Z
C 443	151-0405	CAP CER CP 0.1UF/16V F Z
C 444	151-0405	CAP CER CP 0.1UF/16V F Z
C 447	151-0405	CAP CER CP 0.1UF/16V F Z
C 449	151-0405	CAP CER CP 0.1UF/16V F Z
C 450	150-0441	CAP E 1000UF/6.3V 20%
C 451	151-0436	CAP CER CP 15PF/50V CH J
C 452	151-0405	CAP CER CP 0.1UF/16V F Z
C 453	151-0405	CAP CER CP 0.1UF/16V F Z
C 454	151-0409	CAP CER CP 1000PF/50V B K
C 455	150-0016	CAP E 1UF 50V
C 601	151-0419	CAP CER CP 0.1UF/50V B K
C 702	151-0437	CAP CER CP 150PF/50V CH J
C 703	151-0437	CAP CER CP 150PF/50V CH J
C 704	151-0437	CAP CER CP 150PF/50V CH J
C 705	151-0437	CAP CER CP 150PF/50V CH J
C 706	151-0437	CAP CER CP 150PF/50V CH J
C 707	151-0437	CAP CER CP 150PF/50V CH J
C 708	151-0437	CAP CER CP 150PF/50V CH J
C 709	151-0437	CAP CER CP 150PF/50V CH J
C 710	151-0437	CAP CER CP 150PF/50V CH J
C 711	151-0437	CAP CER CP 150PF/50V CH J
C 712	151-0437	CAP CER CP 150PF/50V CH J
C 713	151-0437	CAP CER CP 150PF/50V CH J
C 714	151-0437	CAP CER CP 150PF/50V CH J
C 715	151-0437	CAP CER CP 150PF/50V CH J
C 716	151-0437	CAP CER CP 150PF/50V CH J
C 717	151-0437	CAP CER CP 150PF/50V CH J
C 903	150-0440	CAP E 100UF/6.3V 20%
C 920	151-0438	CAP CER CP 0.022UF/25V B K
C 921	151-0405	CAP CER CP 0.1UF/16V F Z
C 922	151-0439	CAP CER CP 47PF/50V CH J
C 923	151-0439	CAP CER CP 47PF/50V CH J
C 930	151-0405	CAP CER CP 0.1UF/16V F Z
C 931	151-0405	CAP CER CP 0.1UF/16V F Z
C 933	151-0405	CAP CER CP 0.1UF/16V F Z
C 934	151-0405	CAP CER CP 0.1UF/16V F Z
CN101	209-5068	EDGE CONN 60PIN CD2 CUSTOM
CN201	210-5114	STEREO MINIJACK HSJ2000-01-010
CN202	210-5115	RCA JACK YKC21-0242
CN301	212-5378	DC JACK HEC0470-01-630
CN403	212-5382	PIN HEADER ST IL-S-12P-S2T2-EF
CN404	212-5379	CONN BASE 9P B9B-PH-K-S
CN405	212-5380	CONN BASE 8P B8B-PH-K-S
CN406	212-5281	CONN E8G-701B-00
SW401	510-5050	LEAF SW LSA-1141E2AU
	250-5342	SW COVER CD2 SY(FOR SW401)

13-4. Accessories/Package List

No.	Parts No.	Description
1	610-5507	ASSY CD ROM MDP ROAD AVENGER [M]
1	610-5574	ASSY CD ROM GEN W/SEWER SHARK [S]
2	400-5100B	AC ADAPTOR AC120V/DC10V 1.2A [S]
2	400-5100B-01	AC ADAPTOR AC120V/DC10V 1.2A [S]
2	400-5122C	AC ADAPTOR AC230V/DC10V 1.2A(EXCEPT U.K, KUWAIT, AUSTRALIA & NEWZEALAND) [M]
2	400-5127A	AC ADAPTOR AC240V/DC10V 1.2A (FOR U.K, KUWAIT) [M]
2	400-5128A	AC ADAPTOR AC240V/DC10V 1.2A (FOR AUSTRALIA & NEWZEALAND) [M]
3	600-6201	STEREO MIXING CABLE W/CORE
4	600-6204	AUDIO RCA CABLE L=2M UNION [M]
5	610-5491	ASSY SPACER MEGA-CD2 EXPORT
6	250-5346	HOLD PLATE SPACER MEGA-CD2 A
7	250-5333	RETAINER BRACKET CD2 EXPORT
8	250-5329	CONN PLATE A ACCESSORY CD2 EXP
9	250-5330	CONN PLATE B ACCESSORY CD2 EXP
10	000-F00410	M SCR FH M4×10
11	671-3240-01E	MA CTN SEGA-CD2 USA E(FOR MK-4101) [S]
11	671-3240-03	MA CTN MEGA-CD2 MULTI 4180 (FOR MK-4180) [M]
11	671-3240-05	MA CTN SEGA-CD2 CAN 4101-22 (FOR MK-4101-22) [S]
11	671-3240-06	MA CTN MEGA-CD2 MULTI 4182 (FOR MK-4182) [M]
12	672-1257	OPERATION MANUAL CD2 USA [S]
12	672-1332	OPERATION MANUAL CD2 CANADA [S]
12	672-1258-01	OPERATION MANUAL CD2 MULTI 01 [M]
13	671-3322-01	BOX & PACK SET CD2 USA (FOR MK-4101) [S]
13	671-3322-05	BOX & PACK SET CD2 CAN 4101-22 (FOR MK-4101-22) [S]
13	671-3322-03	BOX & PACK SET CD2 MULTI 4180 (FOR MK-4180) [M]
13	671-3322-06	BOX & PACK SET CD2 MULTI 4182 (FOR MK-4182) [M]
14	670-3211	BUSINESS REPLY MAIL CD2 USA [S]
14	670-4106	BUSINESS REPLY MAIL SOC [S]
15	670-3311	GUARANTEE CARD CD2 MULTI (EXCEPT AUSTRALIA & NEWZEALAND) [M]
15	670-3327	WARRANTY CARD OZISOFT AUS (FOR AUSTRALIA & NEWZEALAND) [M]
16	SGM-4218	POLY BAG 300×550×0.05 EXP6
17	SGM-4245	POLY BAG 200×310×0.05 EXP6
19	SGM-4207	POLY BAG 70×100×0.05
20	SGM-4220	POLY BAG 120×300×0.02
21	670-3265	CROSS SELL POSTER GEN2 USA [S]
22	672-1473-22	PLAY INSTR CDU SEWER SHARK CAN [S]

NOTE: Accessory Provided

Model No.	MK-4101	MK-4101-22	MK-4180	MK-4182
Country	USA	Canada	Except USA & Canada	Except USA, Canada & Kuwait
CD Soft	–	Sewer Shark	Road Avenger	–

Note: [S] → SEGA CD II
[M] → MEGA CD II

Note: All chip resistors and capacitors are 1.6 × 0.8 mm.

SEGA™

Printed in Japan (I)