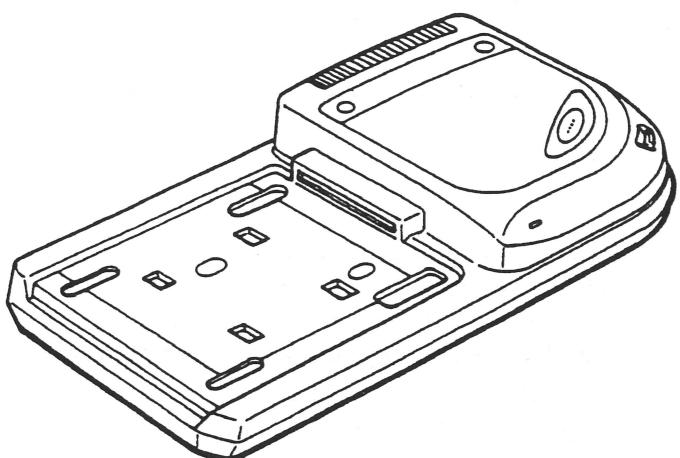


SEGATM SERVICE MANUAL

SEGA CD II / MEGA CD II



NO.	002
ISSUED	AUGUST, 1993

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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 °C Humidity : 10% to 80%RH (no condensation)	
Dimensions	396 (W) × 220 (D) × 84 (H) mm	

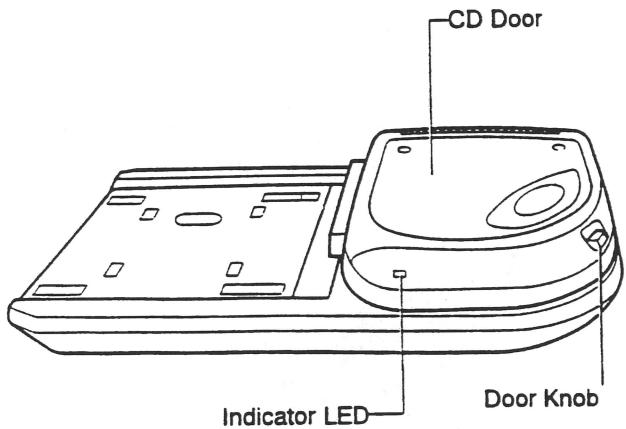
Specifications

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.

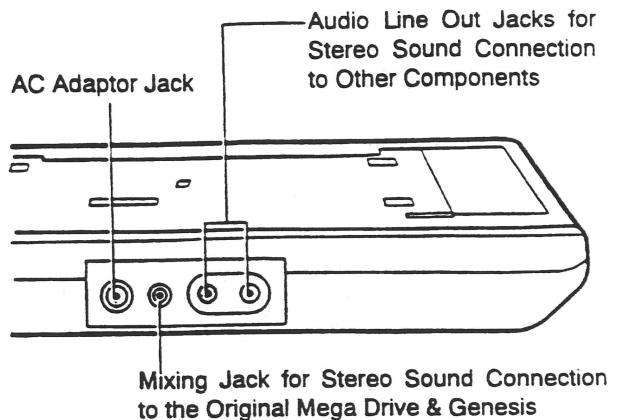
* Design and specifications are subject to change without notice.

2. IDENTIFYING PARTS

2-1. Front & Top View of Console

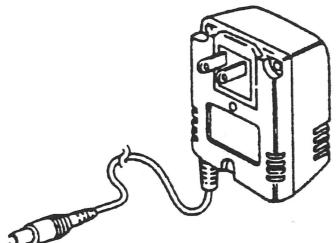


2-2. Back View of Console

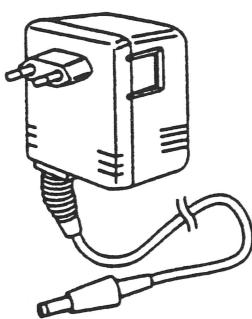


2-3. Accessories

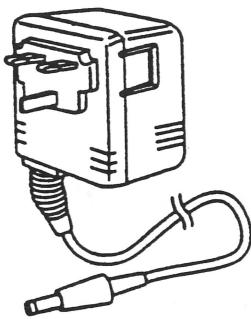
SEGA-CD II
AC Adaptor



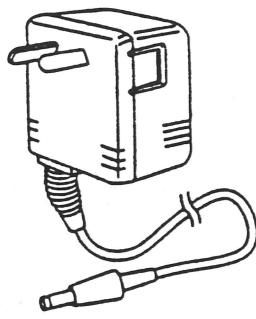
MEGA-CD II
AC Adaptor



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

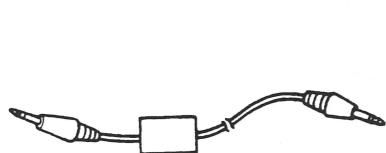


(U.K. and Kuwait)

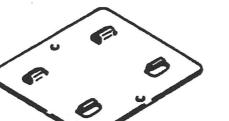
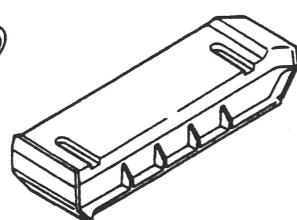
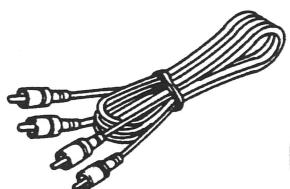


(Australia and New Zealand)

Stereo Mixing Cable
(Except Canada)



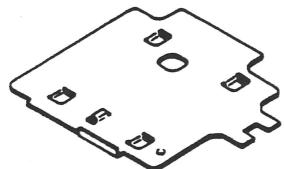
Audio RCA Cable
(Except USA & Canada)



Extension Panel
(Assy Spacer)



(Conn Plate A)



Steel Joining Plate
(Retainer Bracket)

Screw for Steel
Joining Plate



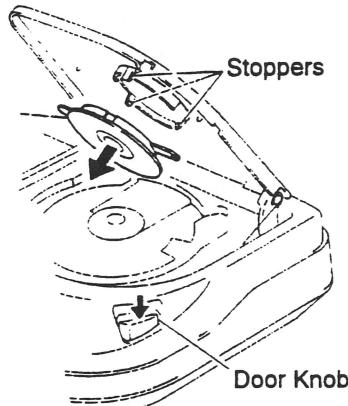
(Conn Plate B)

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

3. DISASSEMBLY

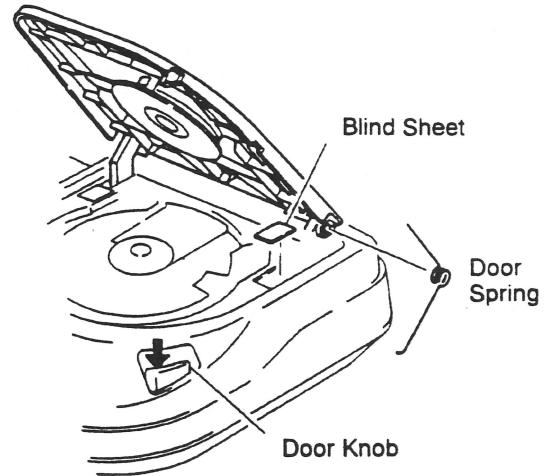
3-1. Chuck Disk Assembly Removal

- (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.



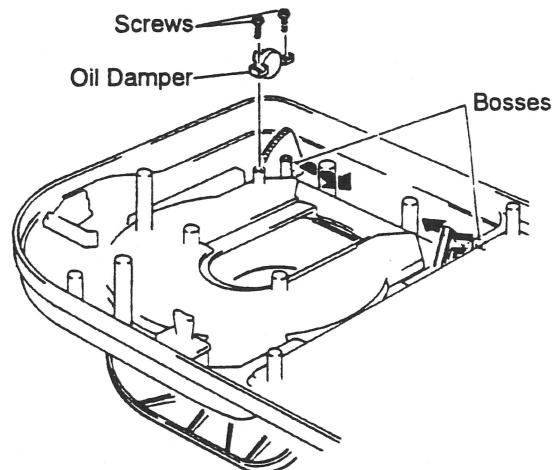
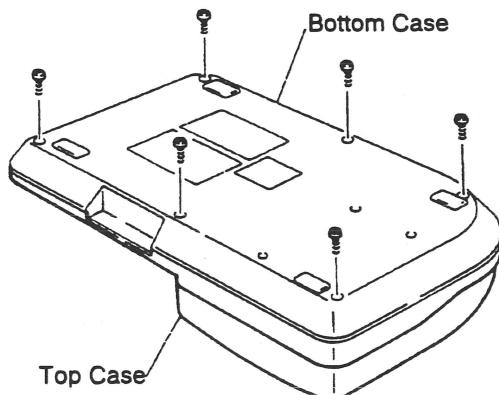
3-3. Door Removal

- (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.



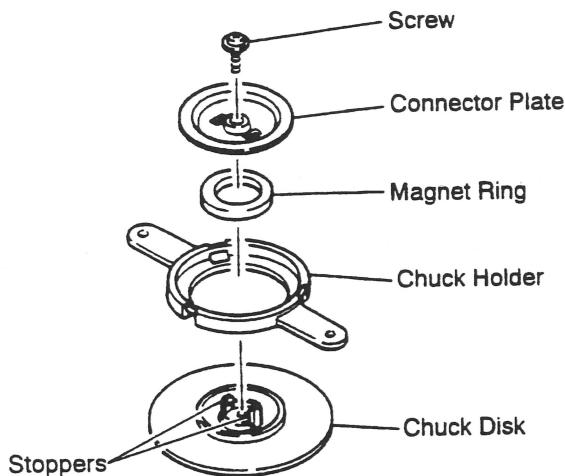
3-2. Top Case Assembly Removal

- (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.



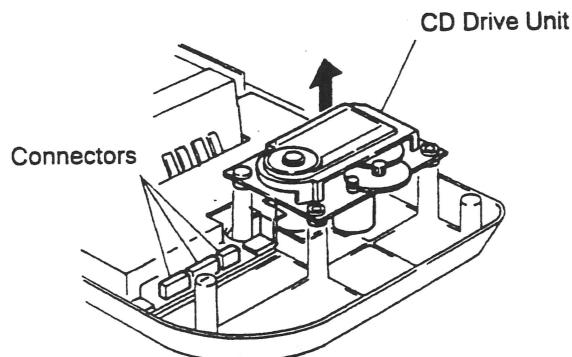
3-4. Dismantling the Chuck Disk Assembly

- (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.



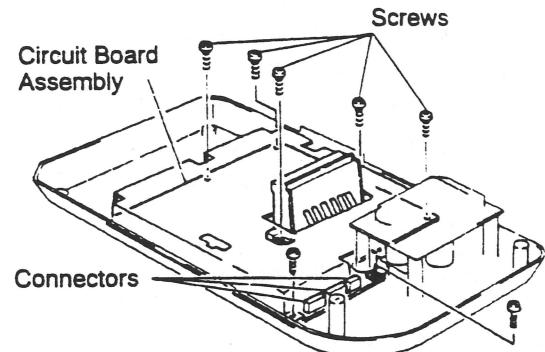
3-5. CD Drive Unit Removal

- (1) Remove the top case assembly. (See item 3-2)
- (2) Disconnect three (3) connectors and lift the CD drive unit.



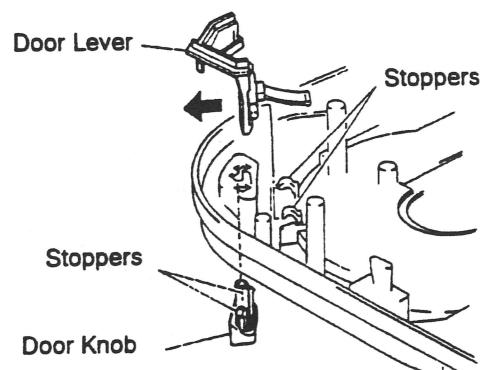
3-6. Circuit Board Assembly Removal

- (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

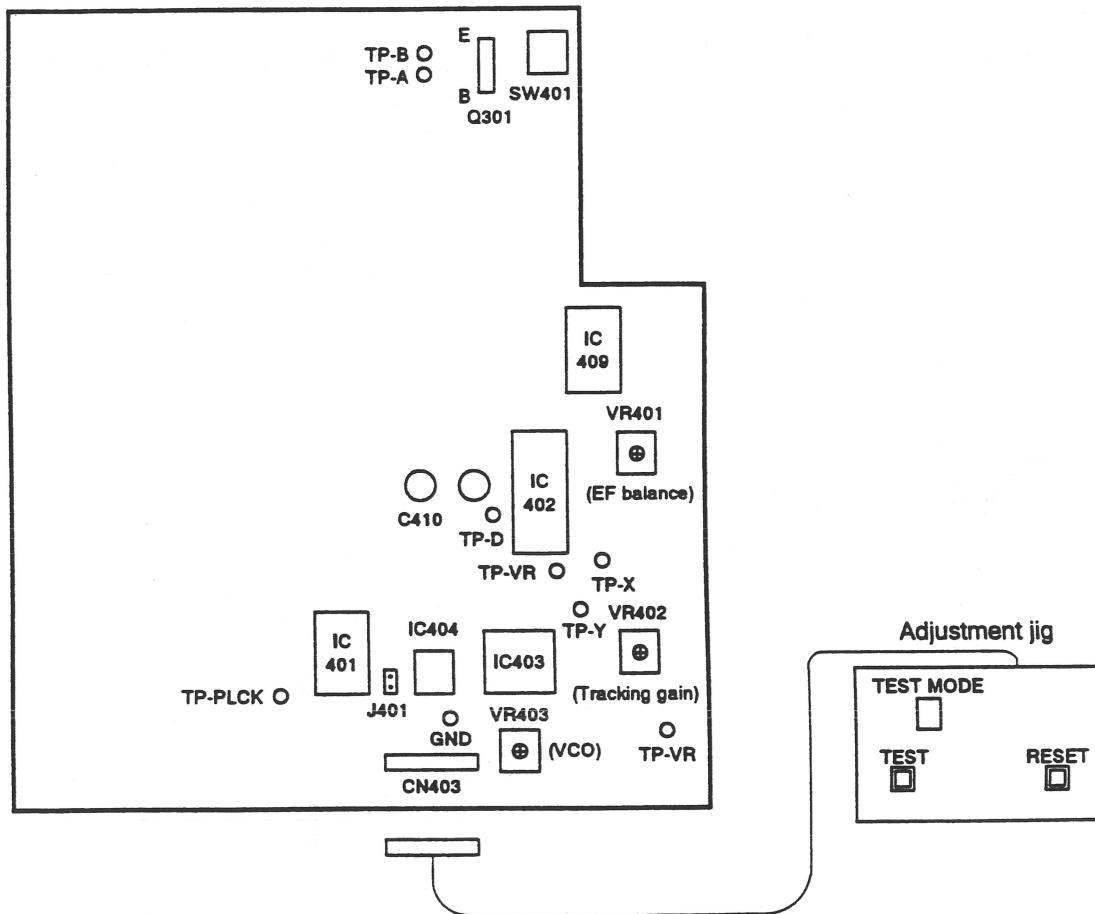
- 1) Connect both terminals of J401.
- 2) Turn SW401 on and fix it using plastic tape, etc.
- 3) Connect the jig to CN403.
- 4) Supply power to the unit and jig. (Use AC adaptor of MEGA CD II /SEGA CD II for jig)
- 5) Press the [RESET] switch of the jig so the counter reads "0".
- 6) Connect the Q301's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

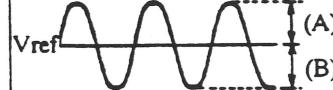
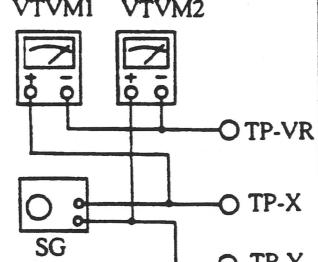
Note 2: Test mode 1 is for checking the laser power and keeps the pickup laser illuminated.

4-3. Adjustment Parts Location



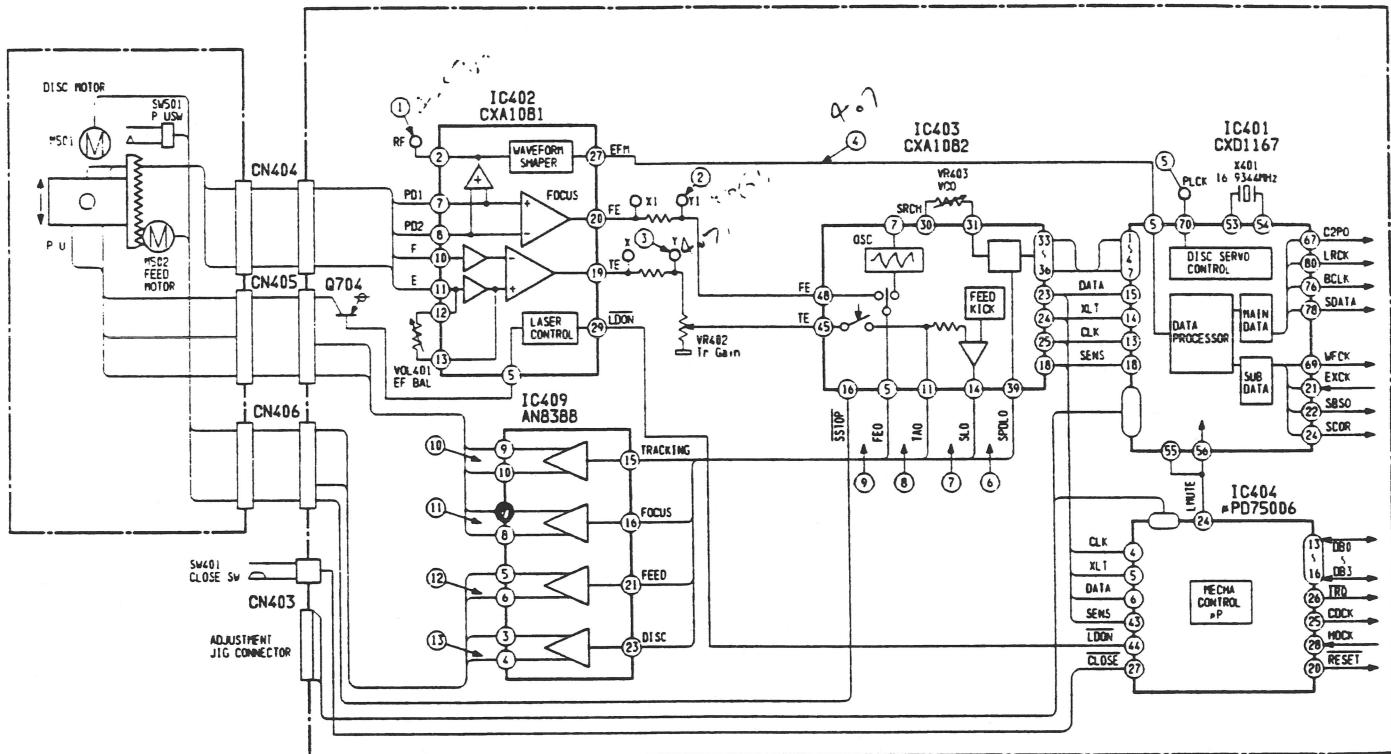
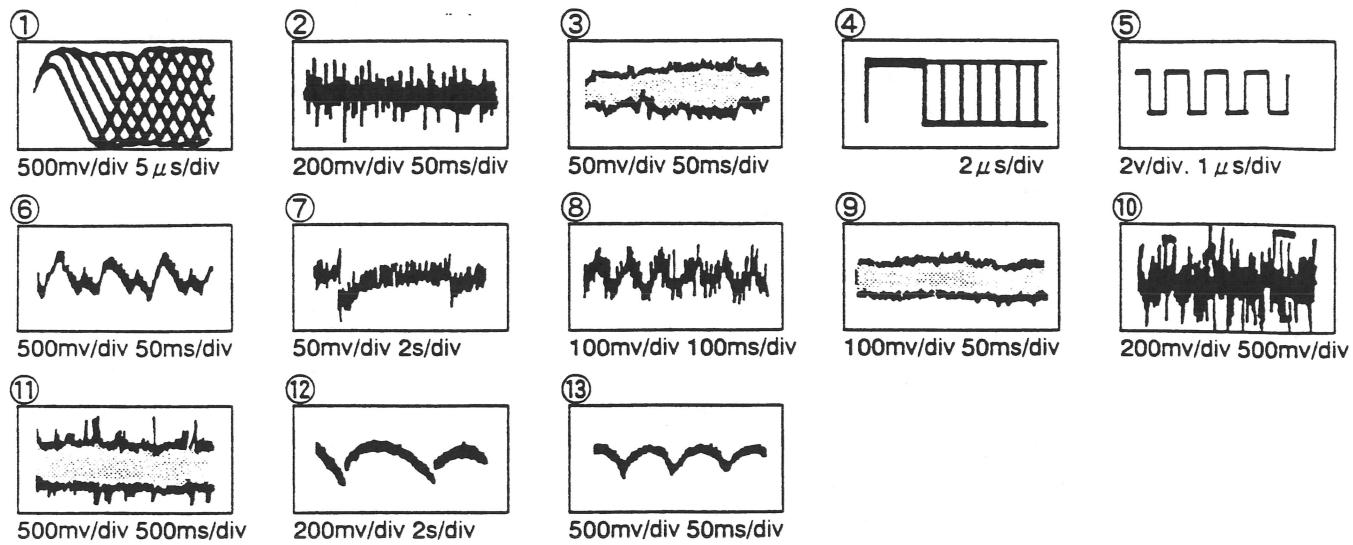
4-4. Adjustment

C5U/dv (4 G)

Adjustment name	Adjust- ment point	Test point	Test equipment	Adjustment procedure	Purpose	Faults due to incomplete 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 $4.320 \pm 0.05\text{MHz}$.	To reproduce a reference clock signal during CD play.	Small
						Large
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
				Large		
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
						Large

5. CD INTERFACE

5-1. CD Drive Block Diagram



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)
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)
RESET	I	Resets the CD hardware.	IC404	(20)

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)

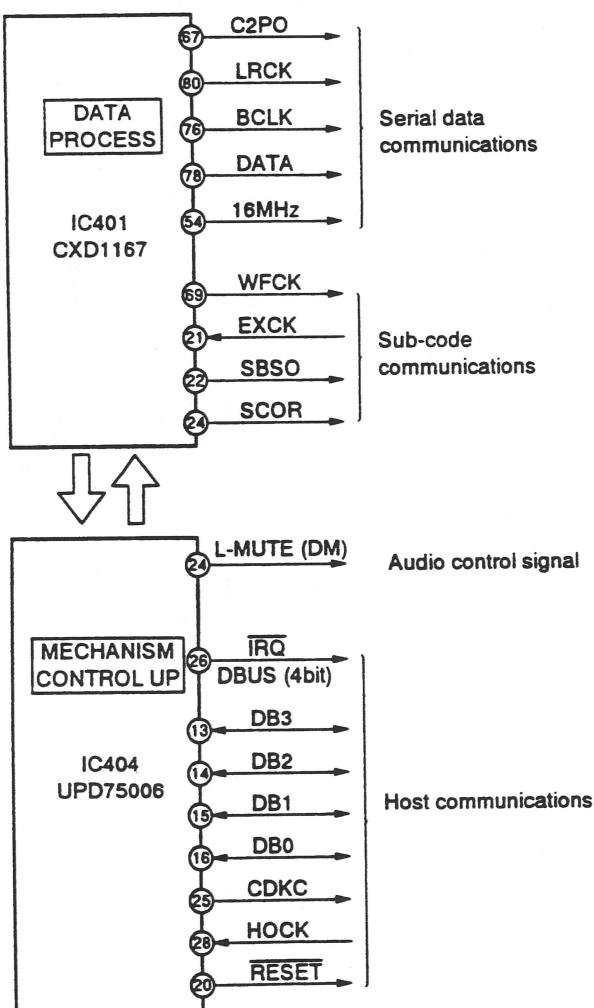


Check that an RF waveform of approx. 1.5Vp-p can be observed at IC402-2 (TP-RF).

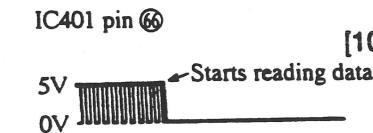
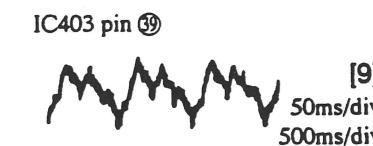
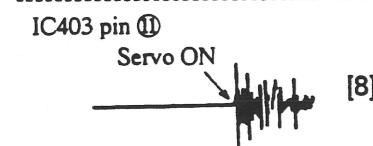
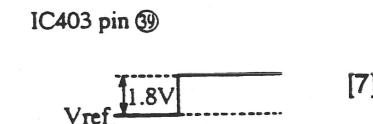
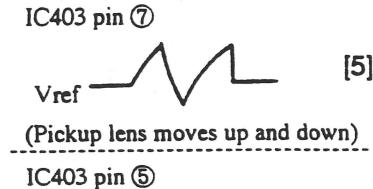
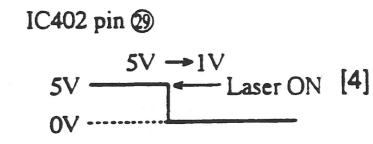
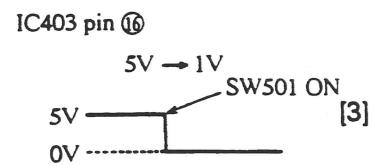
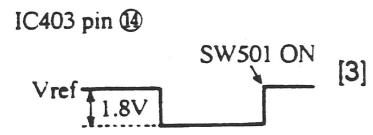
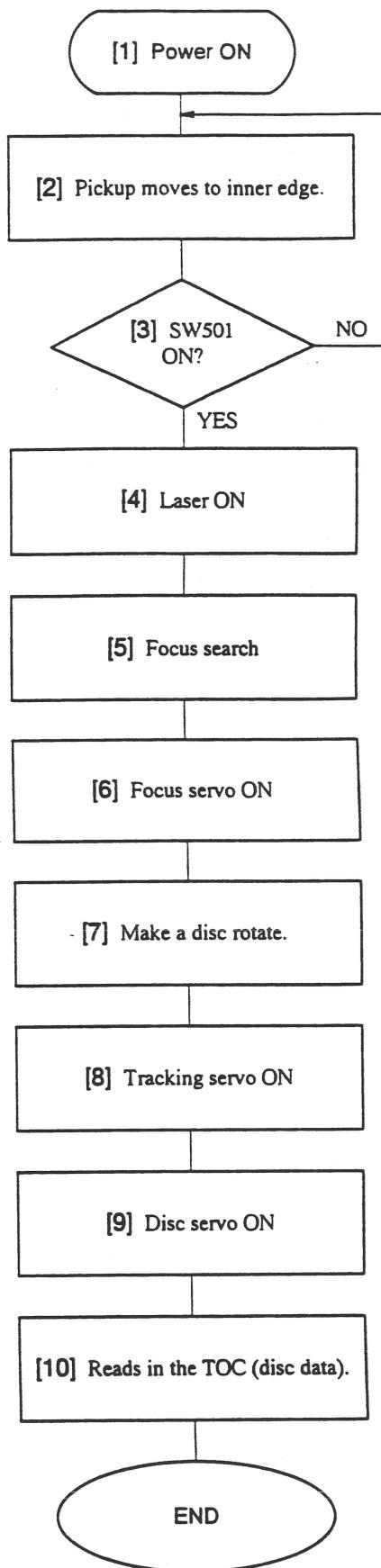
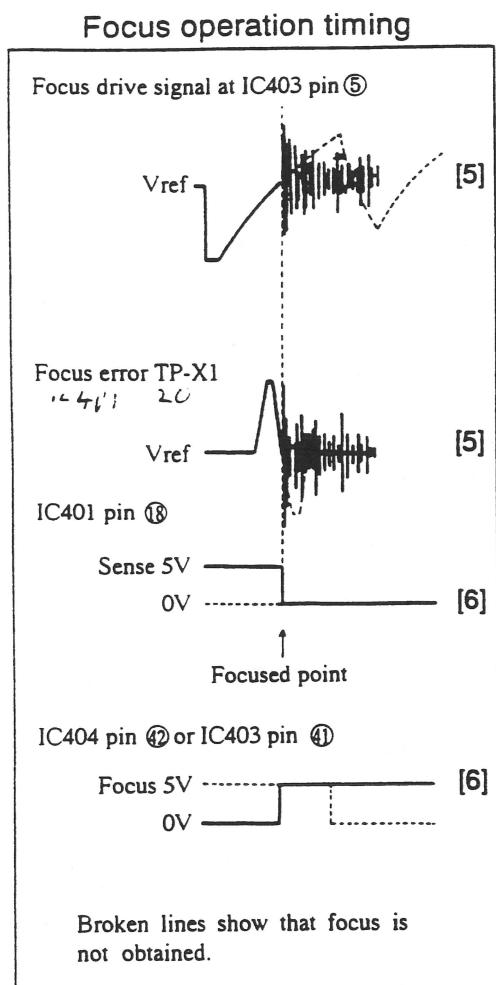


Replacement complete.

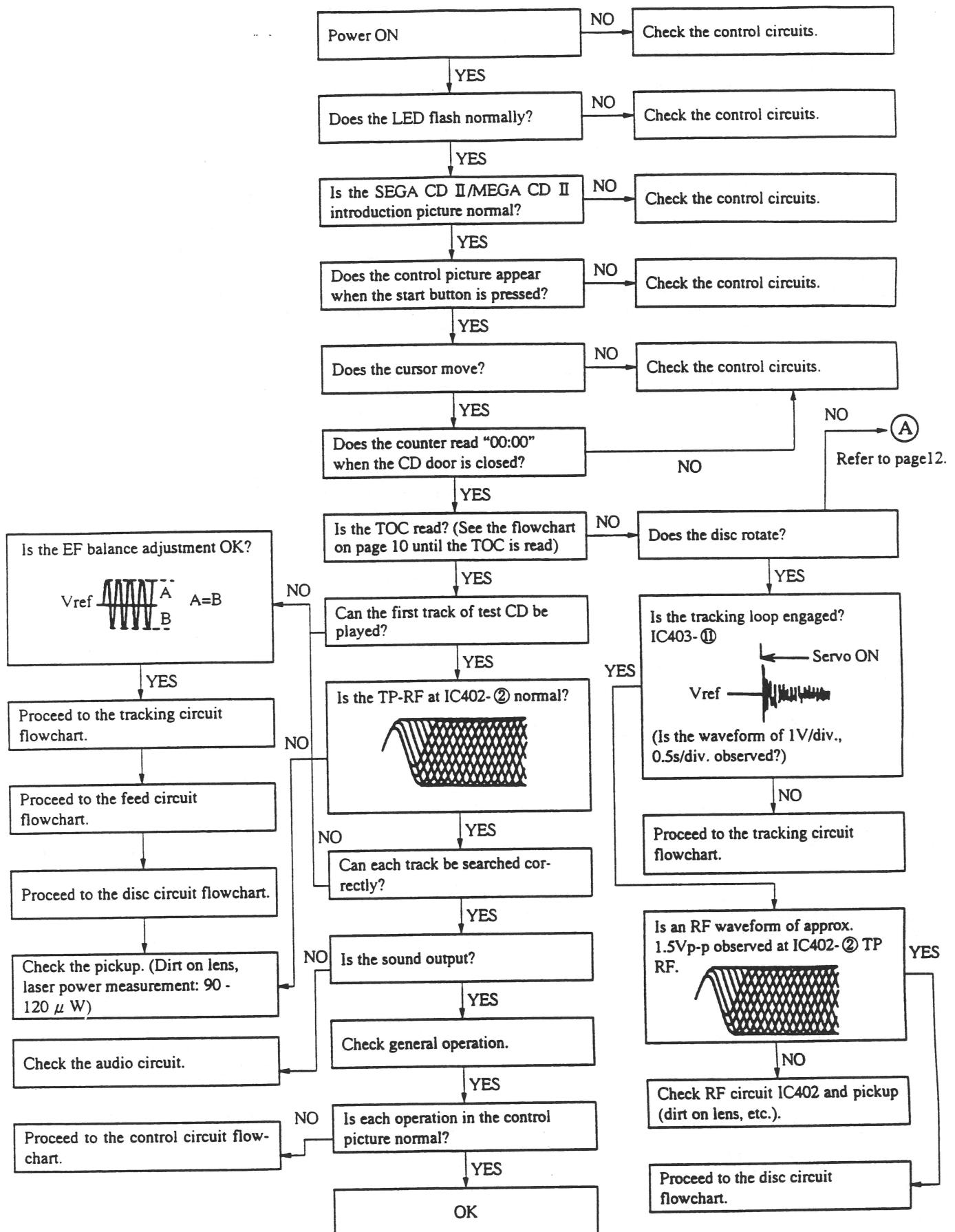
5-3. CD Interface Connection Reference Diagram

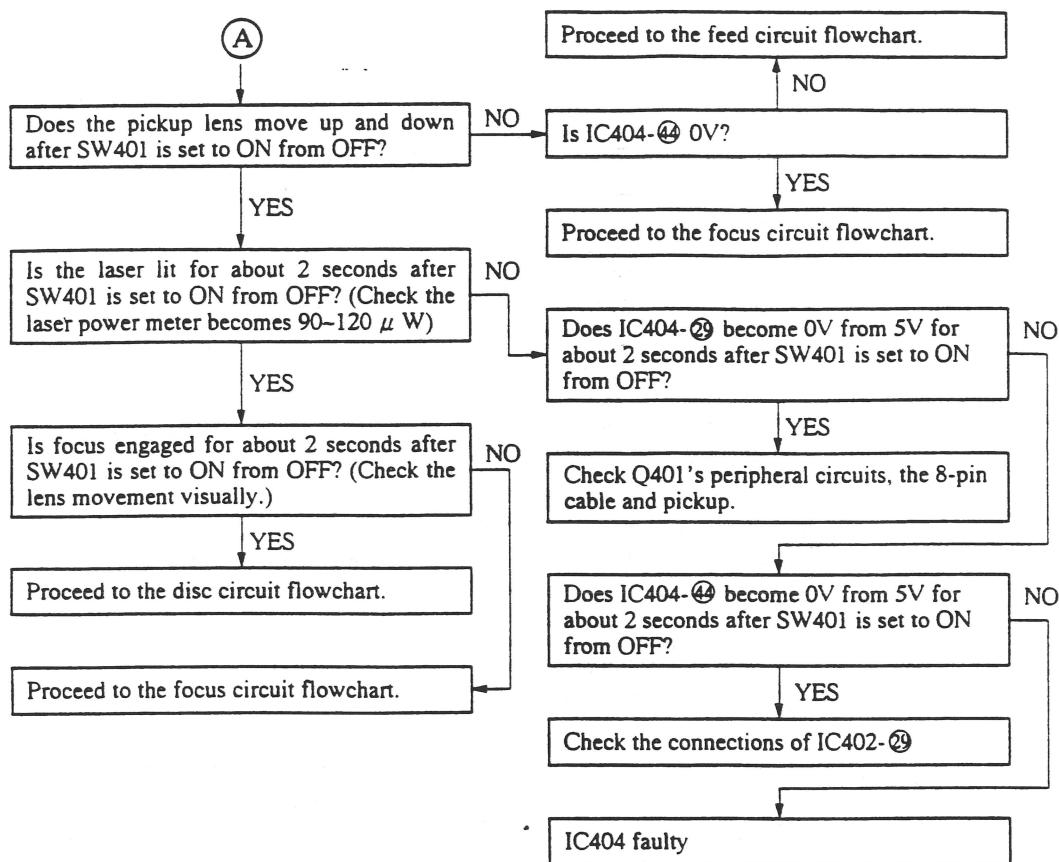


7. TOC (Total of Contents) READ-IN FLOWCHART

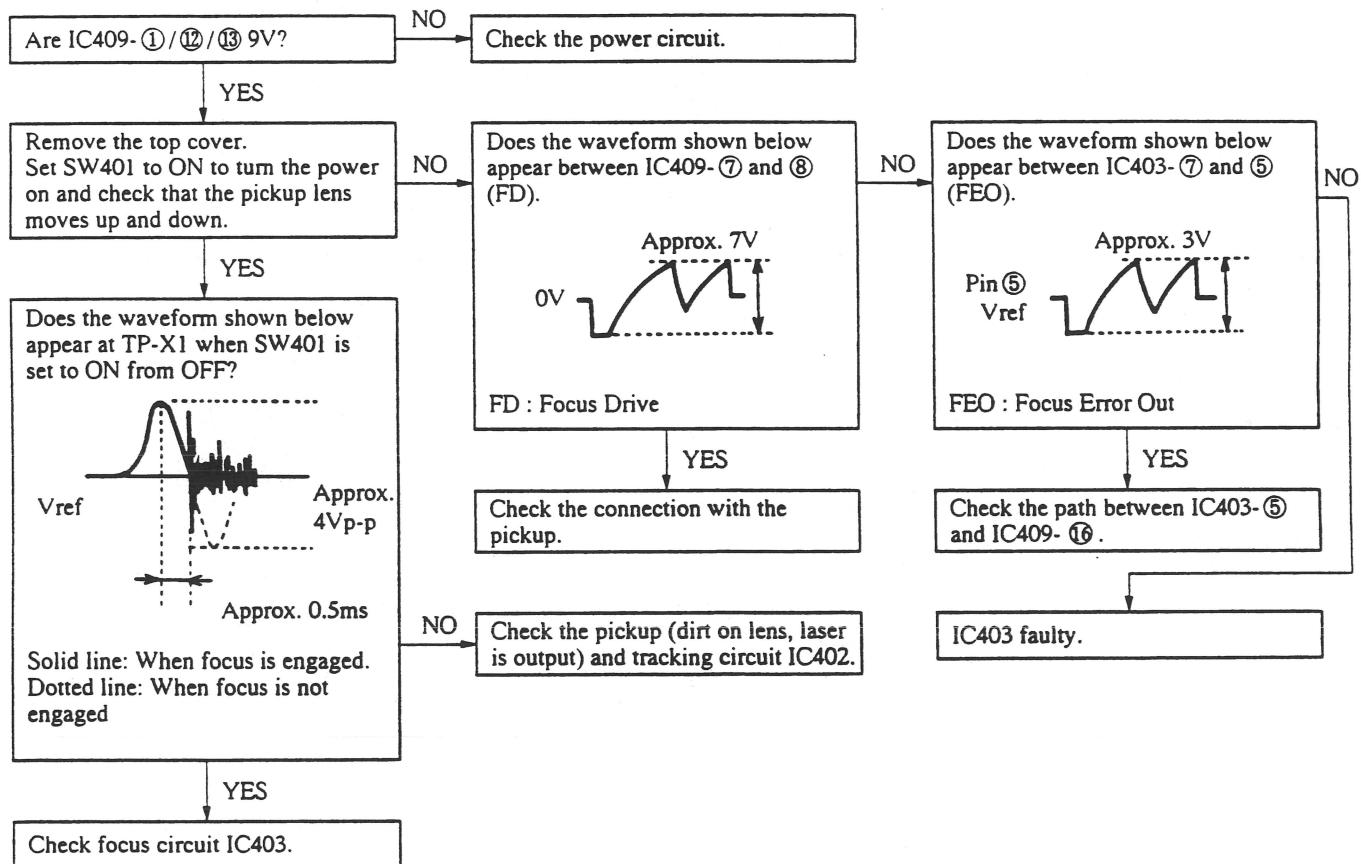


8. GUIDES FOR SERVICING

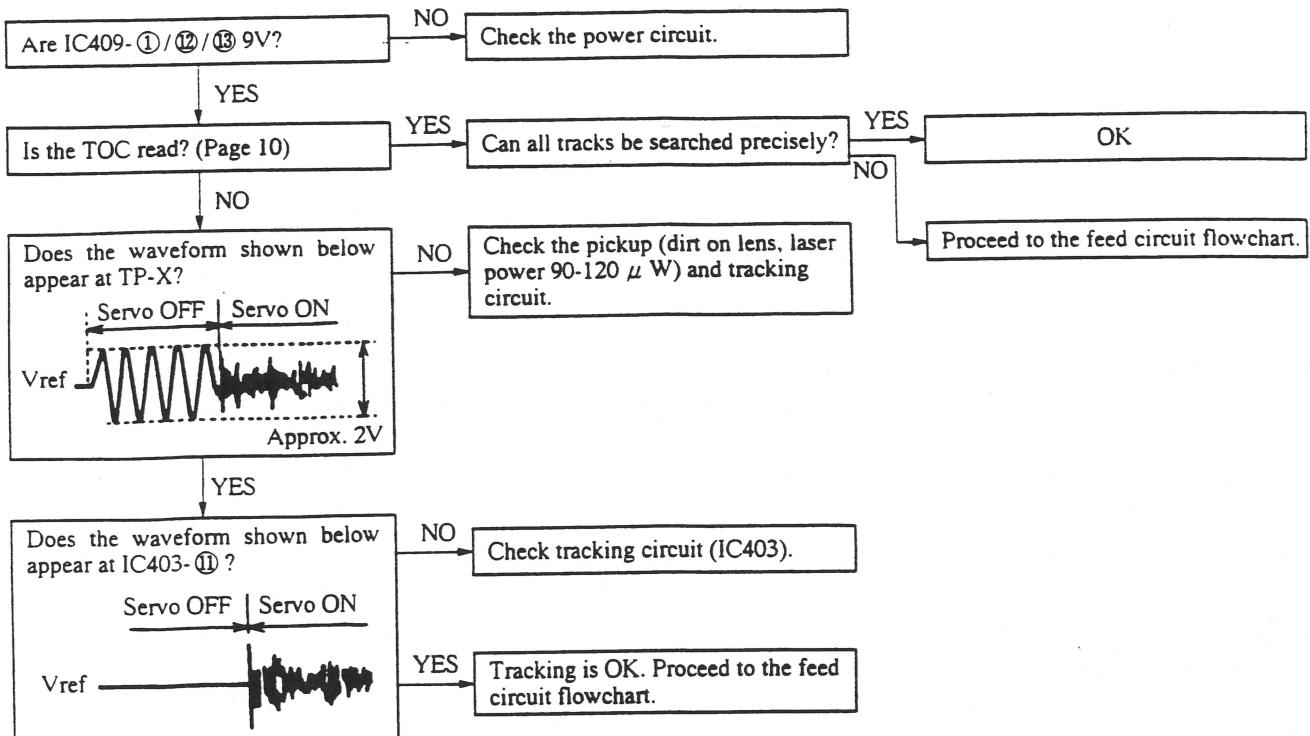




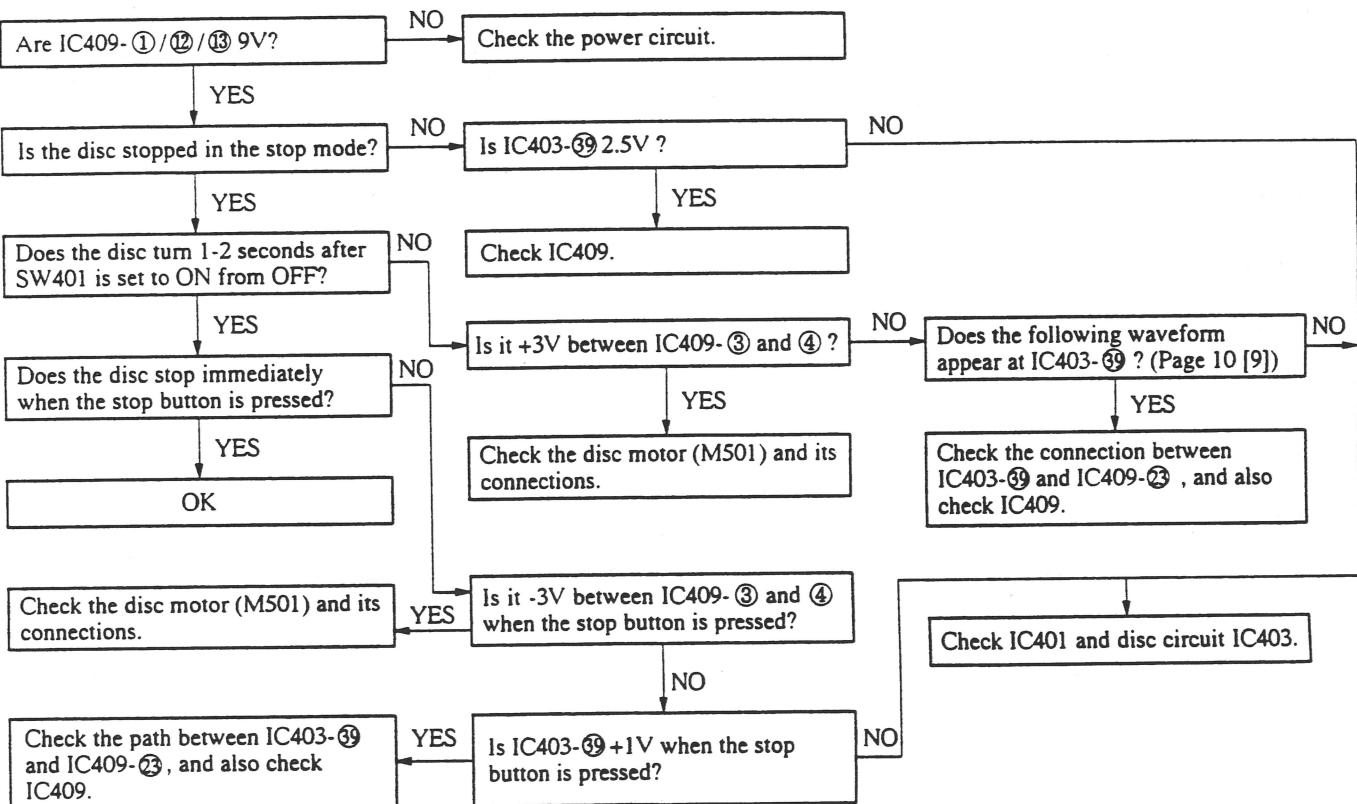
8-1. Focus Circuit Flowchart



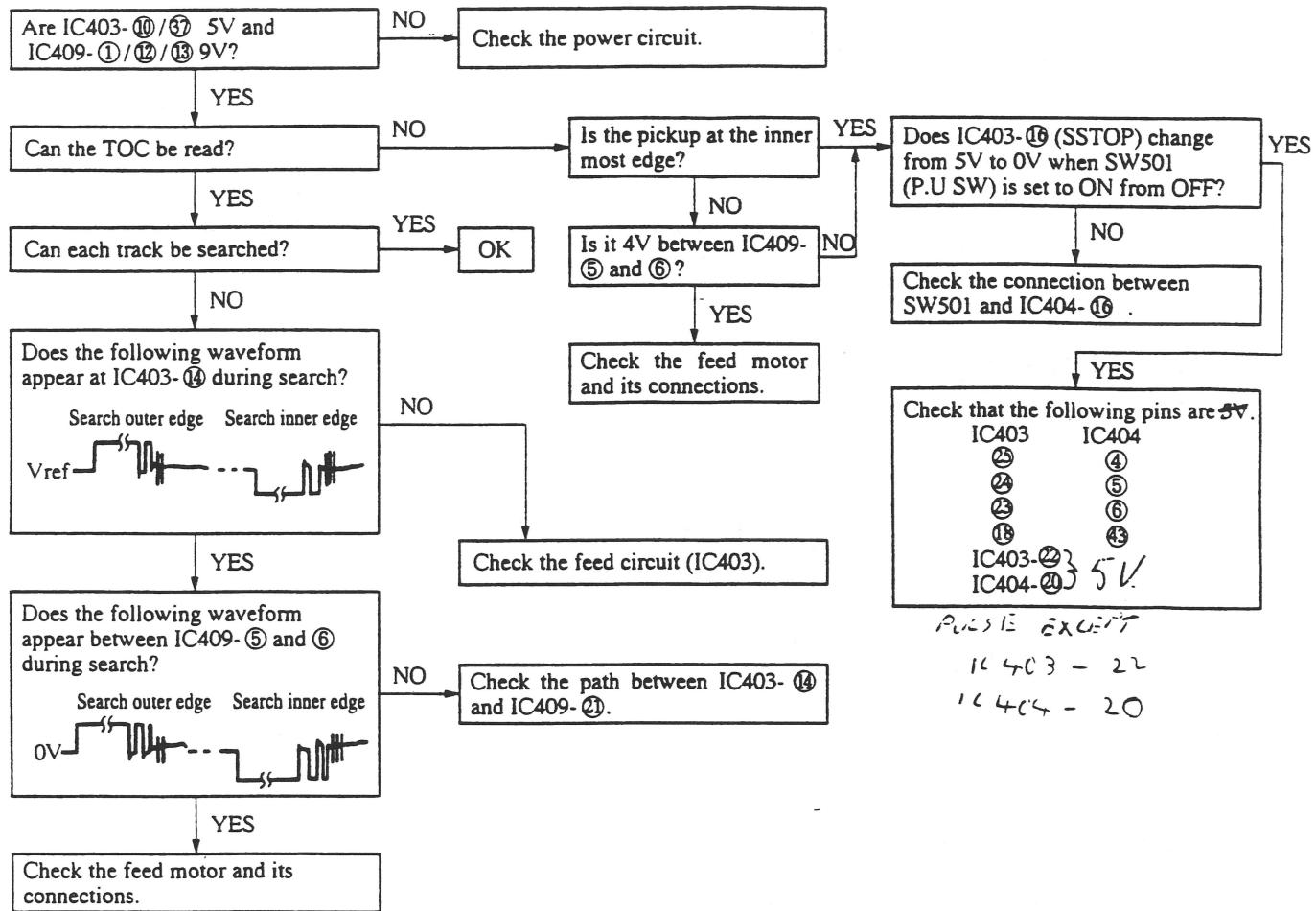
8-2. Tracking Circuit Flowchart



8-3. Disc Circuit Flowchart



8-4. Feed Circuit Flowchart



FAULT LOO

— Title screen, there's no start, no sound file

→ 1C 401 f. .

- i) Spine heaps -

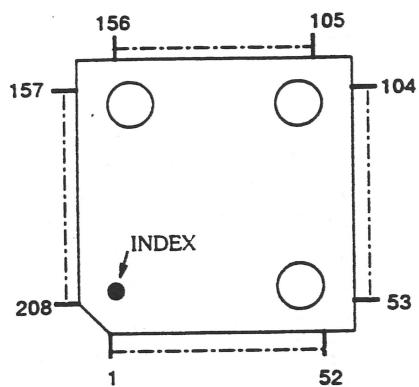
$\rightarrow 1(40^{\circ})$

Sound from T. CD driver distorted, but PCM sound OK
→ x 401 early

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	BEADS
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	BOADS
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	OEDR
65	O	OEDG
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

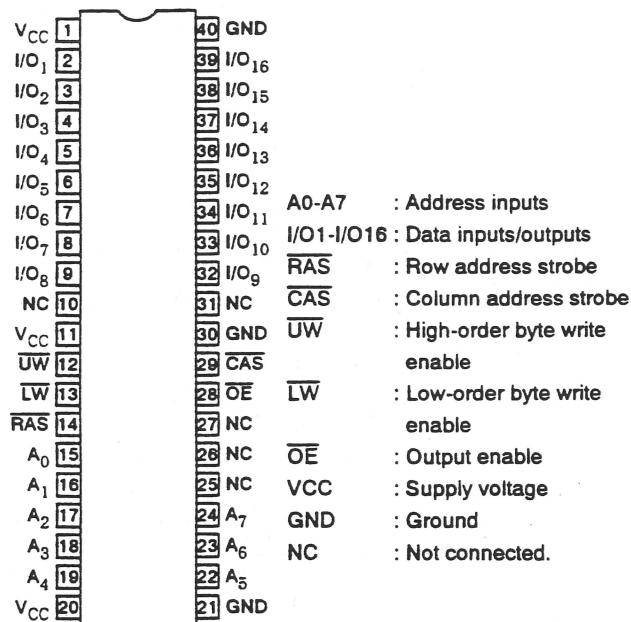
No.	I/O	Pin Name
85	-	V _{SS}
86	I	IIRQ
87	I	IDXM
88	I	ICDCK
89	O	OPPCM
90	I	IDTEN
91	I	IWAIT
92	O	OHRD
93	I	IIINT
94	O	OCDC
95	O	OPROE
96	-	V _{SS}
97	-	V _{DD}
98	O	OC2LR
99	I	IA19
100	I	IA18
101	I	IA17
102	I	IA16
103	I	IA15
104	I	IA14
105	I/O	BA13
106	I/O	BA12
107	-	V _{SS}
108	I/O	BA11
109	I/O	BA10
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	OIPLO
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

IC102/103 1Mbit Dynamic RAM

IC TC511664BJ-80
IC UPD421664-80

IC TC421664LE-70
IC UPD421664-80L

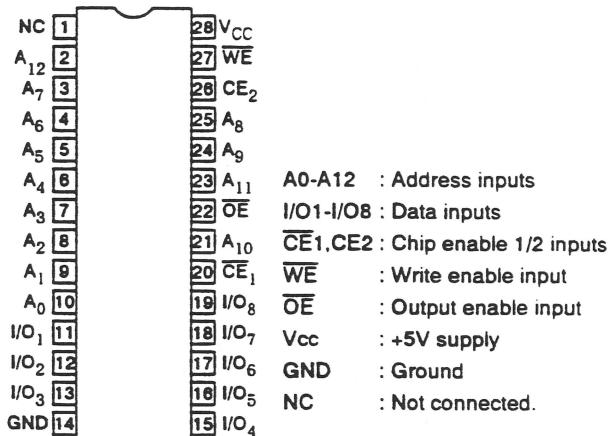
■ Top View & Pin Layout



IC104/105 8bit CMOS Static RAM

IC CKX5864BM-70
IC MB8464-90

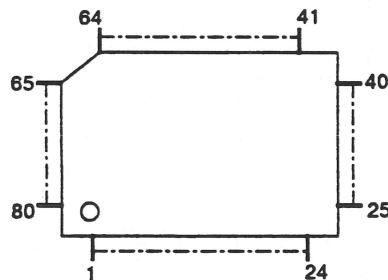
■ Top View & Pin Layout



IC106 CD-ROM LSI

IC LC89515

■ Top View



■ Description

No.	I/O	Pin Name									
1	-	V _{SS}	21	I/O	IO3	41	-	V _{SS}	61	O	EOP
2	O	RA6	22	I/O	IO2	42	I/O	D3	62	O	RCS
3	O	RA7	23	I/O	IO1	43	I/O	D4	63	O	HDE
4	O	RA8	24	-	V _{SS}	44	I/O	D5	64	-	V _{SS}
5	O	RA9	25	I	EXTAL	45	I/O	D6	65	I/O	HD7
6	O	RA10	26	O	XTAL	46	I/O	D7	66	I/O	HD6
7	O	RA11	27	I	TEST A	47	I	RS	67	I/O	HD5
8	O	RA12	28	I	TEST B	48	I	RD	68	I/O	HD4
9	O	RA13	29	I	CSEL	49	I	WR	69	I/O	HD3
10	O	RA14	30	I	LMSEL	50	I	CS	70	I/O	HD2
11	O	RA15	31	-	V _{DD}	51	O	INT	71	I/O	HD1
12	O	RWE	32	I	LRCK	52	-	V _{SS}	72	I/O	HD0
13	-	V _{SS}	33	I	SDATA	53	I	RESET	73	-	V _{DD}
14	O	ROE	34	I	BCK	54	I	ENABLE	74	I	SELDRO
15	I/O	ERA	35	I	C4LR	55	I	HRW	75	O	RA0
16	I/O	IO8	36	I	C2PO	56	I	HRD	76	O	RA1
17	I/O	IO7	37	O	MCK	57	I	CMD	77	O	RA2
18	I/O	IO6	38	I/O	D0	58	O	WAIT	78	O	RA3
19	I/O	IO5	39	I/O	D1	59	O	DTEN	79	O	RA4
20	I/O	IO4	40	I/O	D2	60	O	STEN	80	O	RA5

IC107 CMOS Dynamic RAM

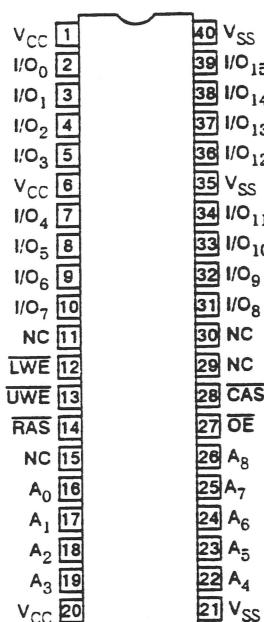
IC UPD424270LE-80

IC HM514270AJ-8

IC M5M44270AJ-8

IC MN414270SJ-08

■ Top View & Pin Layout



Input State				Output State	Operation Mode
RAS	CAS	UWE	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	RAS only refresh cycle
H→L L D D				Open	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

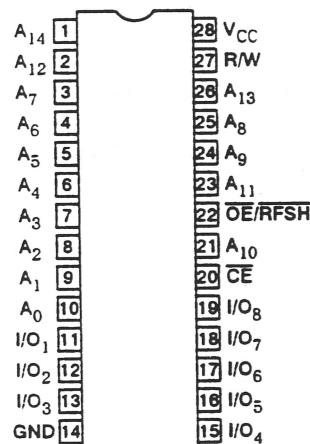
Note: H=High(inactive), L=Low(active), D=Don't care.

IC108/109 8bit CMOS Pseudo Static RAM

IC LH5P832N-10

IC TC51832AFL-10

■ Top View & Pin Layout

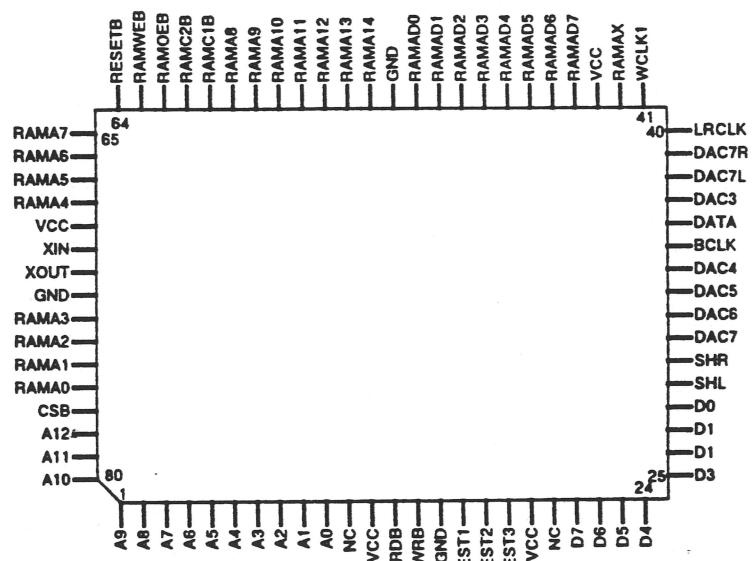


IC110 PCM Sound Source

IC RF5C164A

Parts No. : 315-5476A

■ Top View & Pin Layout



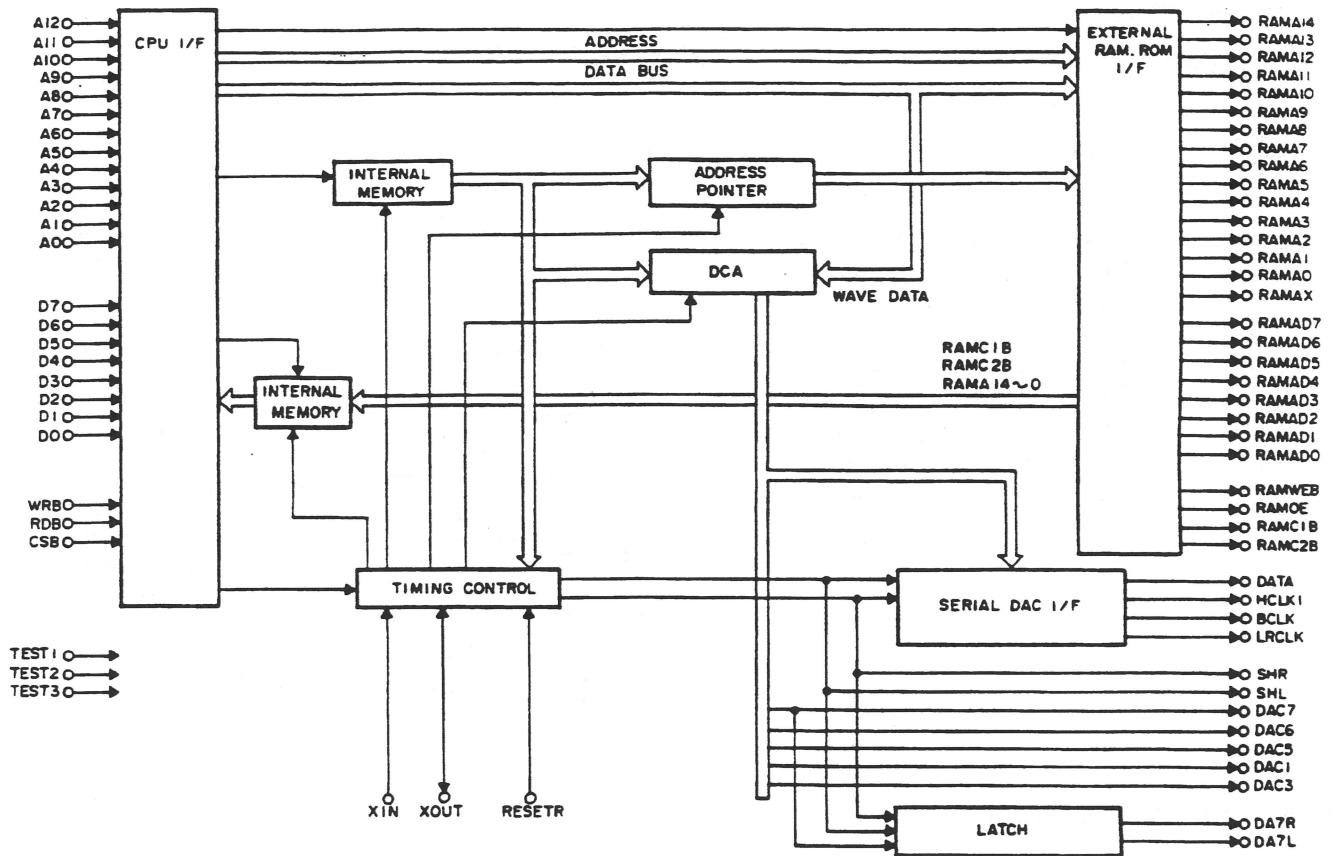
■ Pin Configuration and Pin Description

Symbol	Pin Name
A _c ~A ₁₄	Address Input
R/W	Read / Write Input
OE / RFSH	Output Enable / Refresh
CE	Chip Enable
I/O ₁ ~I/O ₈	Data Input / Output

■ Description (IC110)

Pin No.	Name	I/O	Function	Pin No.	Name	I/O	Function	
78	A12	I	Address signals from μ P.	75	RAMA1	O	Low address signals of the SRAM & MROM.	
79	A11			76	RAMA0	O	LSB address signal of the MROM.	
80	A10			42	RAMAX	O	High order 32k byte SRAM & MROM select signal.	
1	A9			61	RAMC2B	O	Low order 32k byte SRAM & MROM select signal.	
2	A8			6060	Note: The inter-	O	Signal to write data to the pseudo SRAM or SRAM.	
3	A7			63	RAMWEB	O	Signal to read data from the pseudo SRAM, SRAM or MROM.	
4	A6			62	RAMOEB	O	Multiplex signals of "R" and "L" data output to the parallel DAC.	
5	A5			31	DAC7	O	DAC7-3 "L" data sample/hold signal.	
6	A4			32	DAC6		DAC7-3 "R" data sample/hold signal.	
7	A3			33	DAC5		Signal obtained by sampling and holding the DAC7 output at SHR.	
8	A2			34	DAC4		Signal obtained by sampling and holding the DAC7 output at SHL.	
9	A1			37	DAC3		Word clock signal output to the serial DAC.	
10	A0			29	SHL	O	LR clock signal output to the serial DAC.	
21	D7	I/O	Data bus signals with μ P.	30	SHR	O	Digital audio data signal output to the serial DAC.	
22	D6			39	DAC7R	O	Bit clock signal output to the serial DAC.	
23	D5			38	DAC7L	O	Reset signal.	
24	D4			41	WCLK1	O	An external crystal oscillator is connected.	
25	D3			70	XIN	I	A clock signal is input to XIN directly.	
26	D2			71	XOUT	O	Test signal inputs. Normally, fixed at "L".	
27	D1			16	TEST1	I	However, TEST2 is fixed at "H" when an MROM or SRAM is used.	
28	D0			17	TEST2			
77	CSB	I	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.	18	TEST3			
13	RDB	I	High order address signals of the SRAM & MROM.	12	VCC	-	Power supply pins.	
14	WRB	I		19				
44	RAMAD7	43						
45	RAMAD6	69						
46	RAMAD5	15		GND	-	Ground pins.		
47	RAMAD4	52						
48	RAMAD3	72						
49	RAMAD2							
50	RAMAD1							
51	RAMAD0							
53	RAMA14	O						
54	RAMA13							
55	RAMA12							
56	RAMA11							
57	RAMA10							
58	RAMA9							
59	RAMA8							
65	RAMA7							
66	RAMA6							
67	RAMA5							
68	RAMA4							
73	RAMA3							
74	RAMA2							
Note: The interface with the serial DAC is formed in the MSB initial mode.								

■ Block Diagram (IC110)



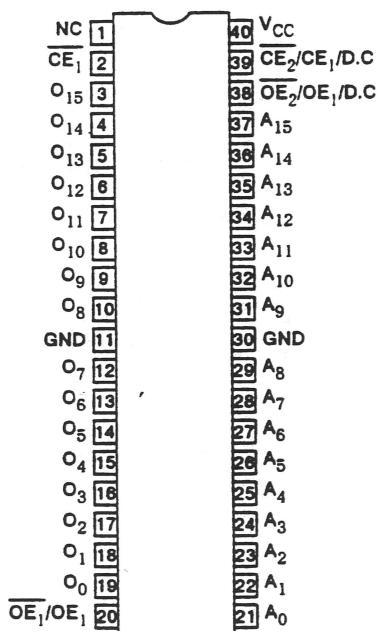
IC111 1Mbit CMOS Masked Programmable ROM

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

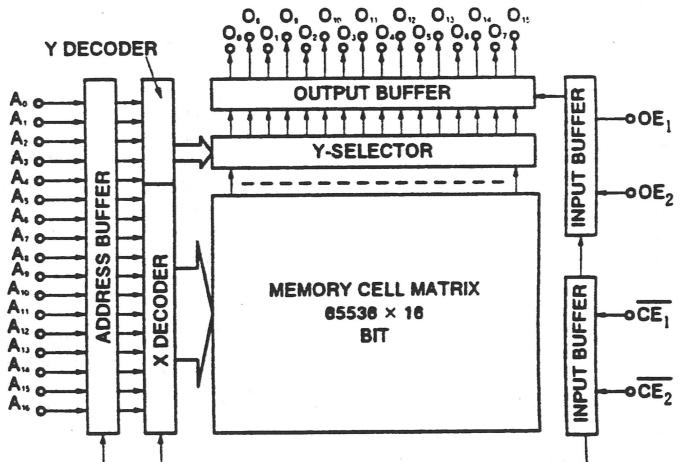
IC SEGA-CD2 USA BOOT ROM

IC MEGA-CD2 BOOT EP MULTI

■ Top View & Pin Layout



■ Block Diagram



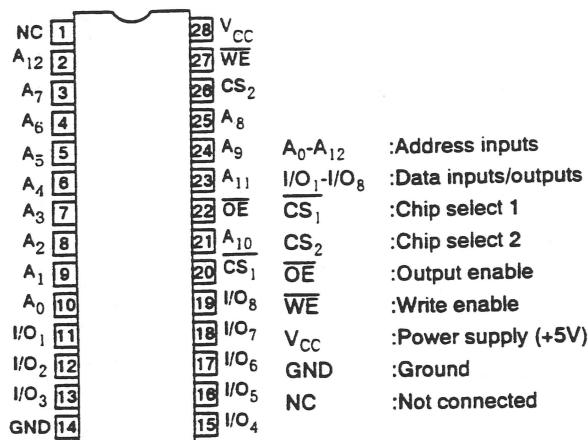
■ Operation Mode

CE ₁	CE ₂	OE ₁	OE ₂	Mode	Output
I	X	X	X	Non-selective	High Impedance
X	I	X	X		
A	A	I	X	Selective	Data
A	A	X	I		
A	A	A	A		

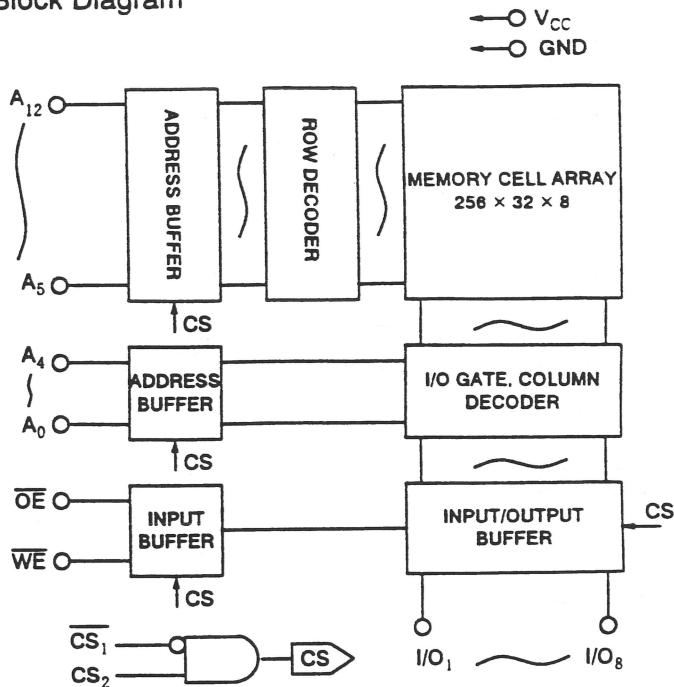
IC112 64k(8k × 8)bit Static RAM

IC MB8464A-10LL

■ Top View & Pin Layout



■ Block Diagram

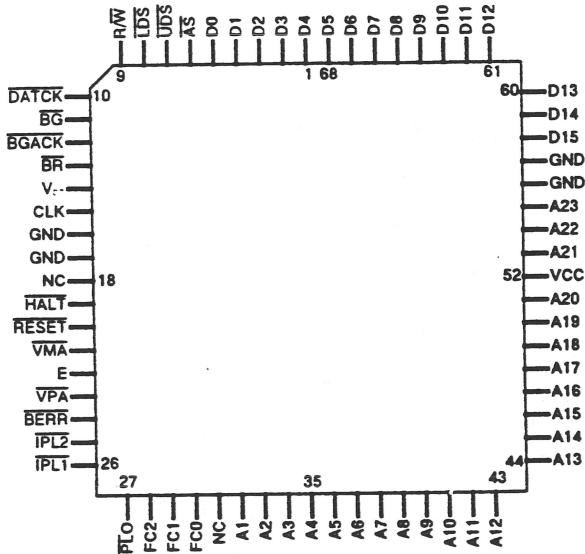


IC113 16/32-Bit Microprocessor

IC MC68HC000FN12

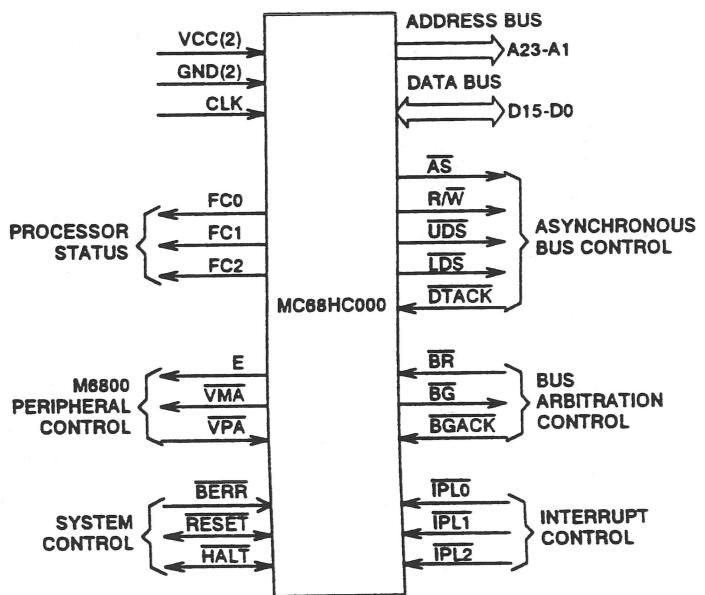
IC HD68HC000CP-12

■ Top View & Pin Layout



IC TMP68HC000T-12

■ Signal Description



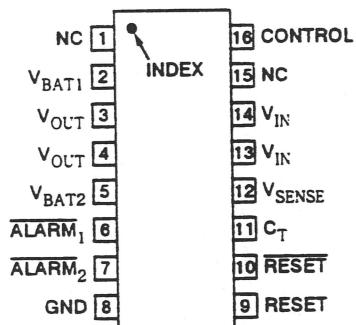
■ Description

No.	Pin Name	I/O	Function	No.	Pin Name	I/O	Function	No.	Pin Name	I/O	Function
1	D ₄			23	VPA	I	Valid Peripheral Address	46	A ₁₅		
2	D ₃			24	BERR	I	Bus Error	47	A ₁₆		
3	D ₂	I/O	Data Bus	25	IPL ₂	I		48	A ₁₇	O	Address Bus
4	D ₁			26	IPL ₁	I	Interrupt Control	49	A ₁₈		
5	D ₀			27	IPL ₀			50	A ₁₉		
6	AS	O	Address Strobe	28	FC ₂	O		51	A ₂₀		
7	UDS	O	Upper Data Strobe	29	FC ₁	O	Processor Status	52	V _{CC}	-	Power Supply
8	LDS	O	Lower Data Strobe	30	FC ₀			53	A ₂₁	O	Address Bus
9	R/W	O	Read/Write	31	N.C.	-		54	A ₂₂		
10	DTACK	I	Data Transfer Acknowledge	32	A ₁			55	A ₂₃		
11	BG	O	Bus Grant	33	A ₂			56	V _{SS}	-	GND
12	BGACK	I	Bus Grant Acknowledge	34	A ₃			57	V _{SS}		
13	BR	I	Bus Request	35	A ₄			58	D ₁₅		
14	V _{CC}	-	Power Supply	36	A ₅			59	D ₁₄		
15	CLK	I	Clock	37	A ₆			60	D ₁₃		
16	V _{SS}	-	GND	38	A ₇			61	D ₁₂		
17	V _{SS}	-		39	A ₈			62	D ₁₁		
18	NC	-	Not Connected	40	A ₉			63	D ₁₀		
19	HALT	I/O	Halt	41	A ₁₀			64	D ₉		
20	RES	I/O	Reset	42	A ₁₁			65	D ₈		
21	VMA	O	Valid Memory Address	43	A ₁₂			66	D ₇		
22	E	O	Enable	44	A ₁₃			67	D ₆		
				45	A ₁₄			68	D ₅		

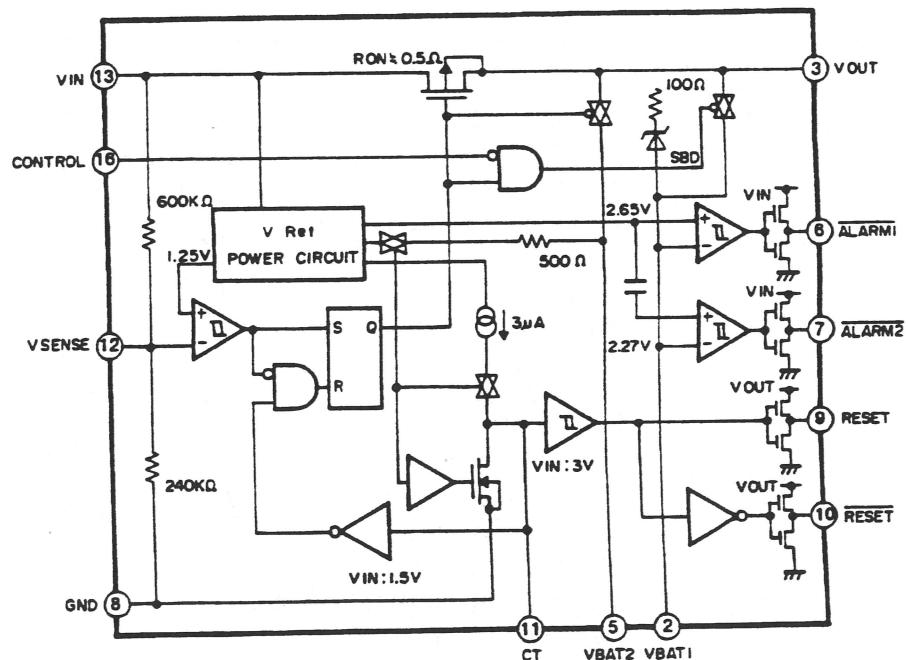
IC114 Battery Back-up

IC MB3790

■ Top View & Pin Layout



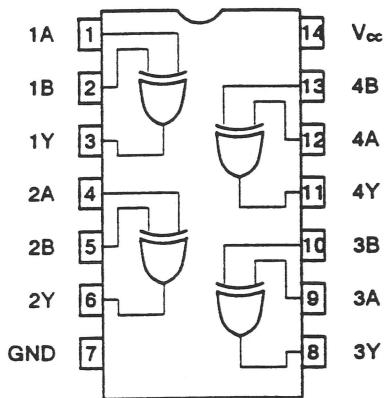
■ Block Diagram



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

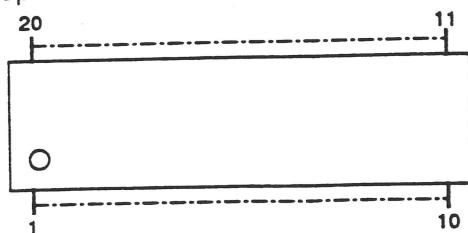
Pin	Name	I/O	Function
1	CH1OUT	O	DAC CH-1 output.
2	VrefH	-	Reference voltage "H" input.
3	AVDD	-	Power supply of analog circuits.
4	DVDD	-	Power supply of digital circuits.
5	BLCK	I	Bit clock.
6	DATA	I	Digital audio data input. Input from the MSB in the bit serial state.
7	LRCK	I	L/R clock input. LRCK= "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

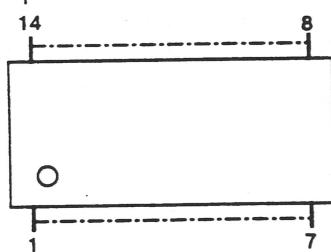
Pin No.	Name	I/O	Function
1	CH1OUT	O	CH-1 output. (L-ch)
2	REFH	-	Reference voltage "H".
3	VrefH	-	Reference voltage "H" input.
4	AVDD	-	Supply voltage of analog circuits.
5	LRCK/WCLK	I	LR clock/word clock input .
6	DATAL	I	Digital audio data input.
7	DATAR	I	Digital audio data input.
8	BCLK	I	Bit clock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

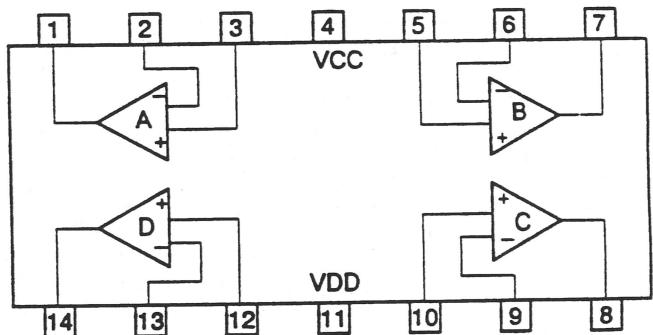
IC203/204 Quad Operational Amplifier

IC NJM3403AM

■ Top View



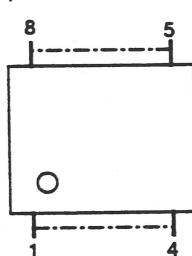
■ Pin Layout



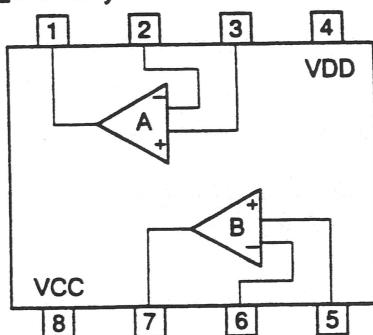
IC205 Dual Operational Amplifier

IC NJM3404AM

■ Top View



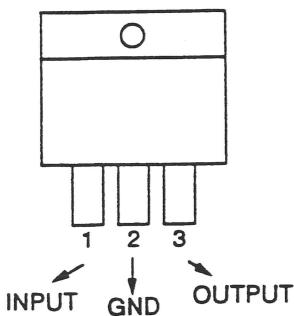
■ Pin Layout



IC301 3-Terminal Voltage Regulator

IC UPC2405HF

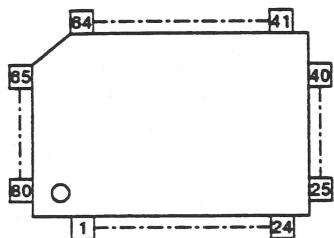
■ Front View



IC401 Digital Processor for CD

IC CXD1167Q

■ Top View

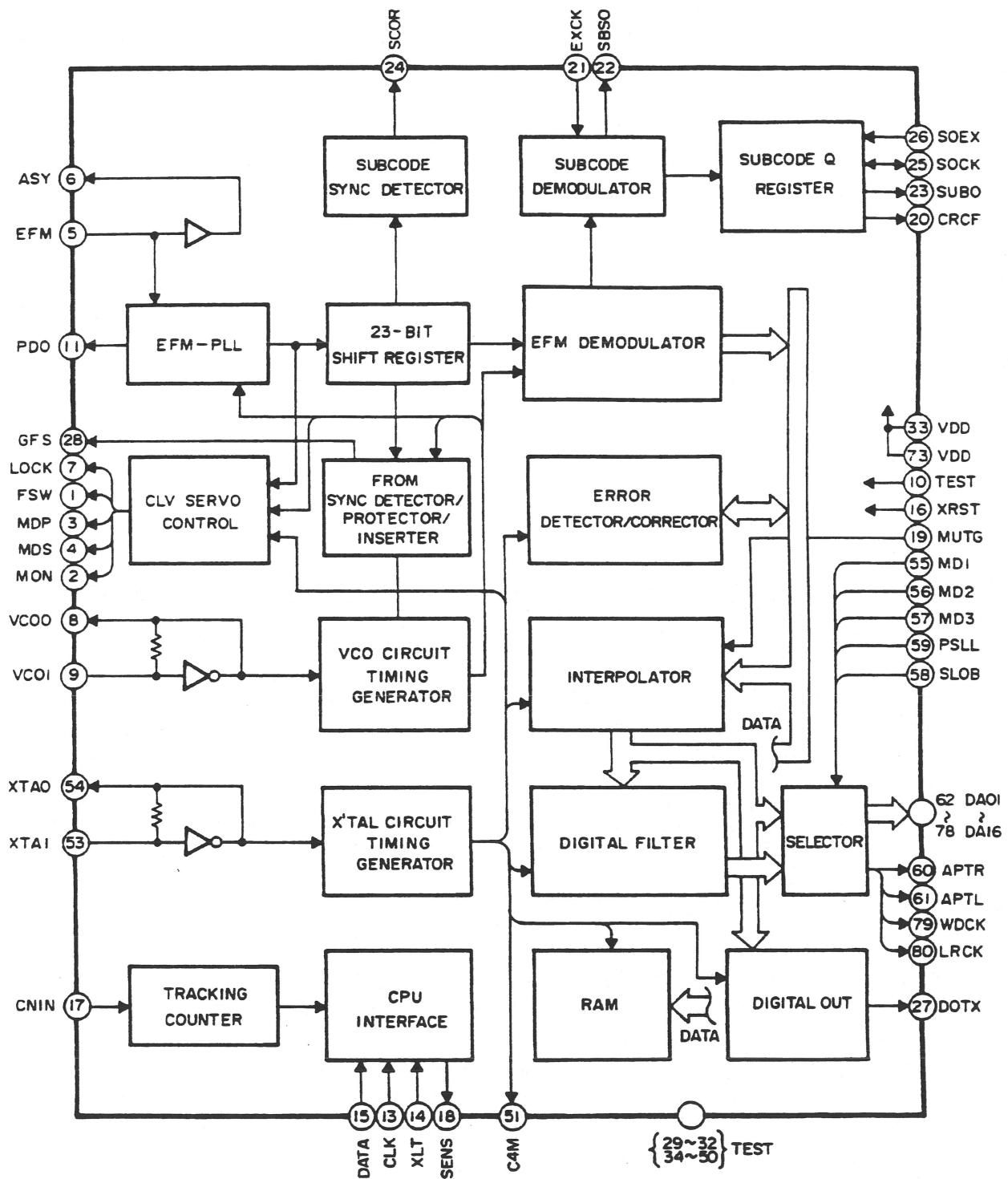


■ Description

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 ATT 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. (<u>WFCK</u> is output when DO is off)
28	GFS	O	Output to display the frame sync locked state.
29			
30	TEST	I	Fixed at "H" or "L", do not set to open.
31			
32			
33	V _{DD}	-	Power supply. (+5V)
34			
35			
36			
37			
38			
39			
40			
41			
42	TEST	I	Fixed at "H" or "L", do not set to open.
43			
44			
45			
46			
47			
48			
49			
50			
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". 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". 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.

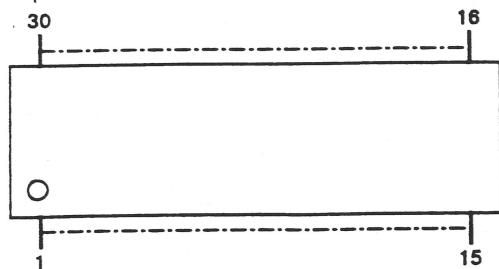
■ Block Diagram



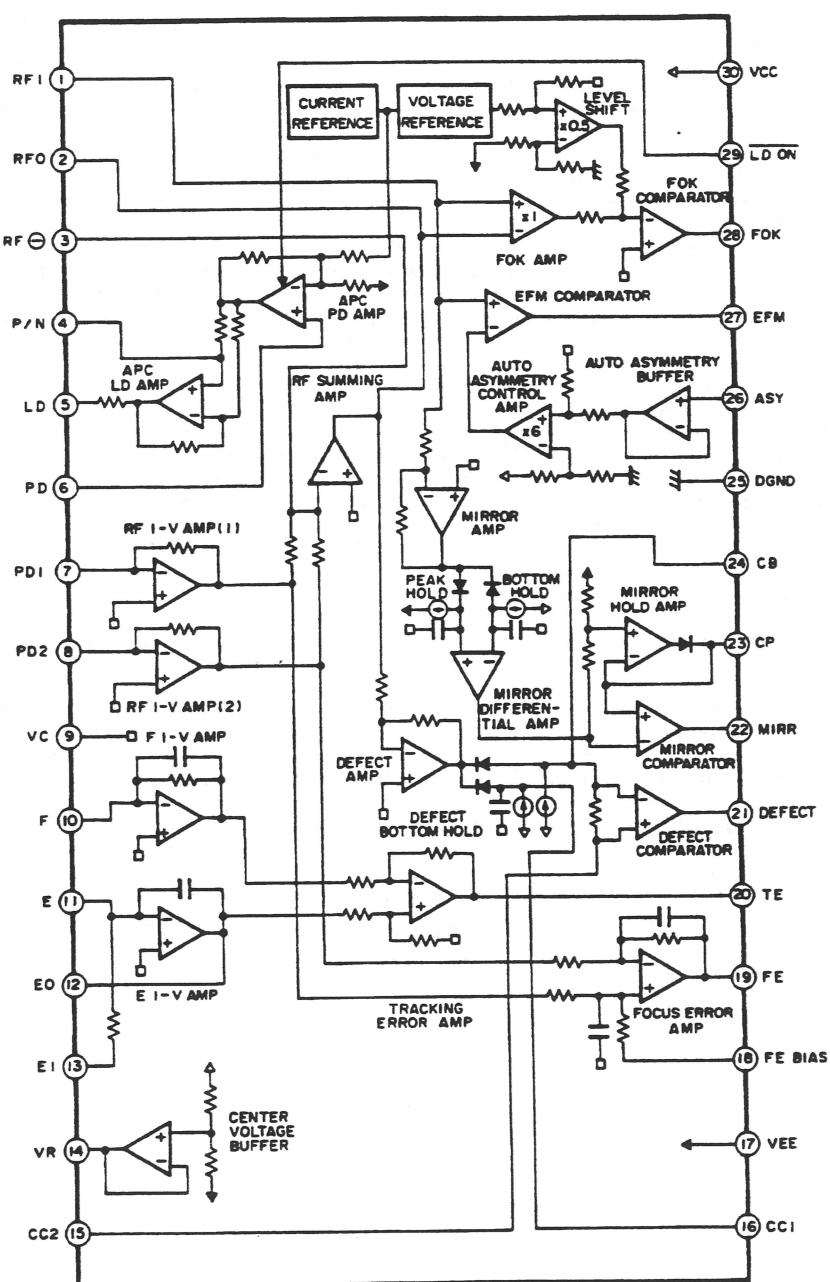
IC402 RF Amplifier for CD

IC CXA1081M

■ Top View



■ Block Diagram



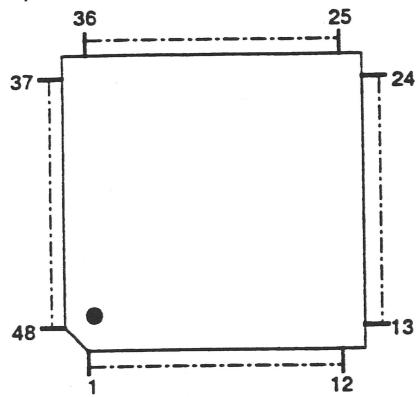
Pin No.	Name	I/O	Function
1	RFI	I	The RF summing amp outputs are capacity-coupled before input.
2	RFO	O	RF summing amp output. Eye pattern check point
3	RF \ominus	I	RF summing amp feedback input.
4	P/N	I	Laser diode (LD) P-sub/N-sub switching. (DC voltage: when switched to N-sub)
5	LD	O	Automatic power 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. (V_{EE})
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	<u>LD ON</u>	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. ($V_{CC} = 2.5V$, $V_{EE} = D_{GND} = - 2.5V$, $VC = GND$)

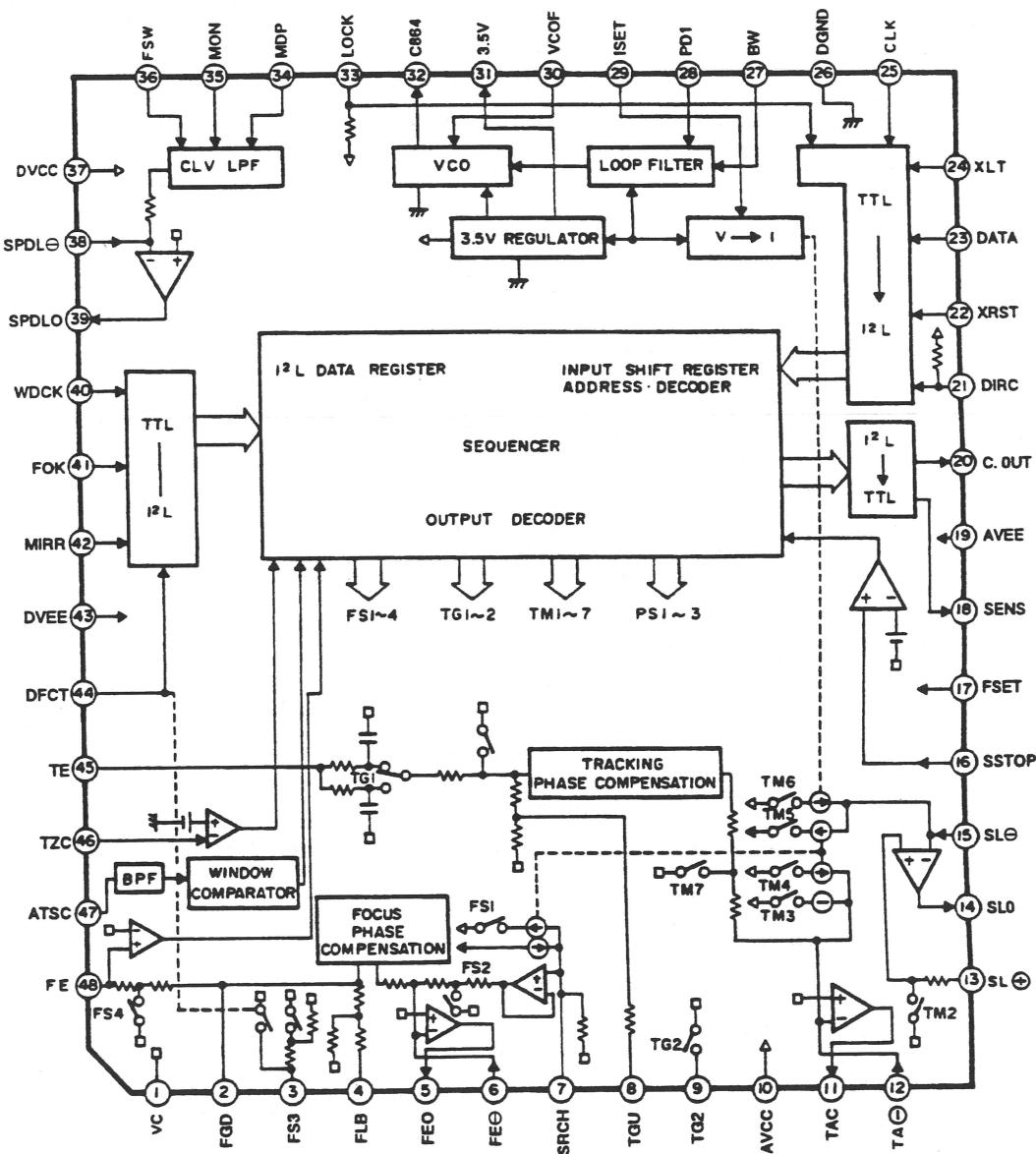
IC403 Servo Signal Processor for CD

IC CXA1082Q

■ Top View



■ Block Diagram



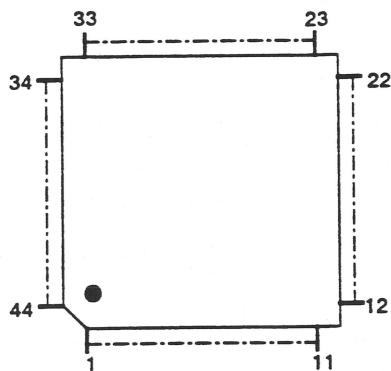
■ Description

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 \ominus	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 \ominus	I	Tracking amp inverting input.
13	SL \oplus	I	Sled amp non-inverting input.
14	SLO	O	Sled drive output.
15	SL \ominus	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 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 ⑩ .
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 \ominus	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

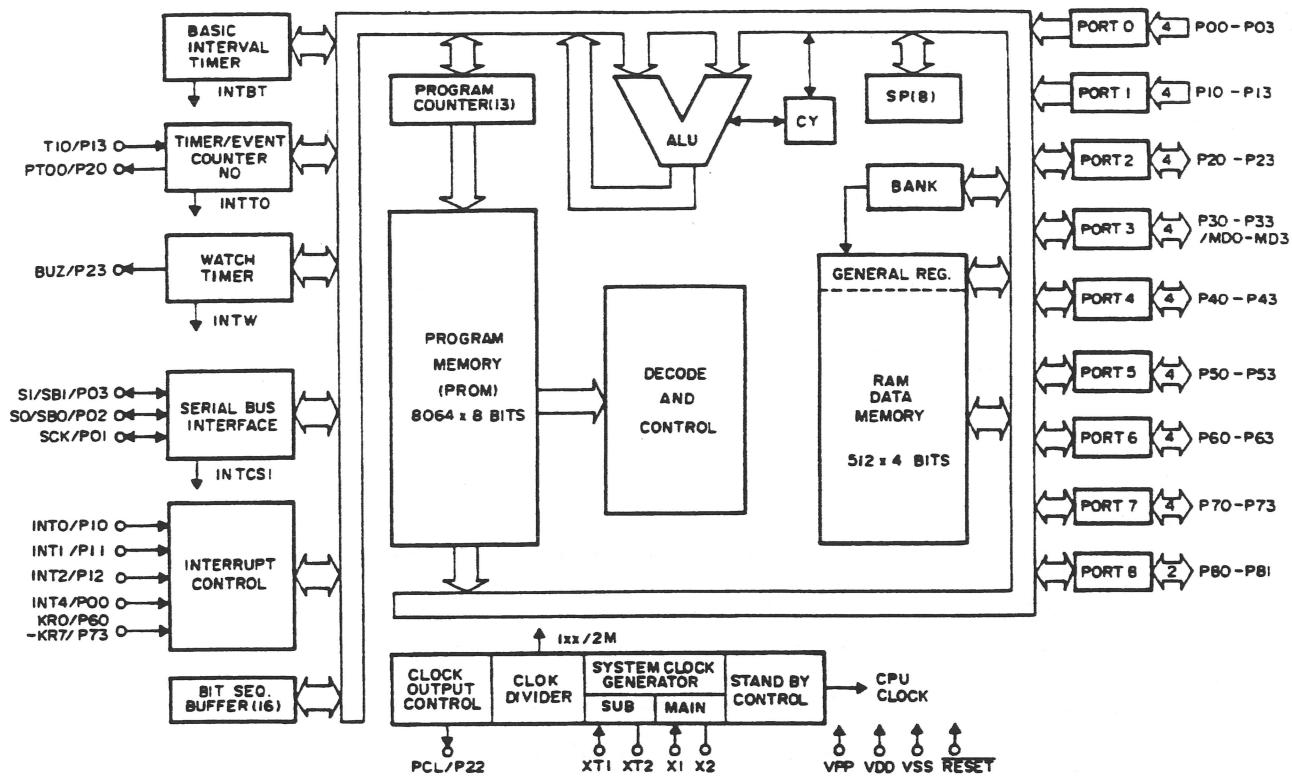
■ Top View



■ 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	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

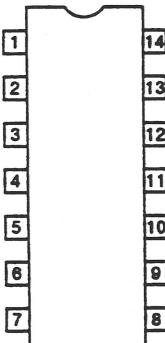


IC407 CMOS Inverter

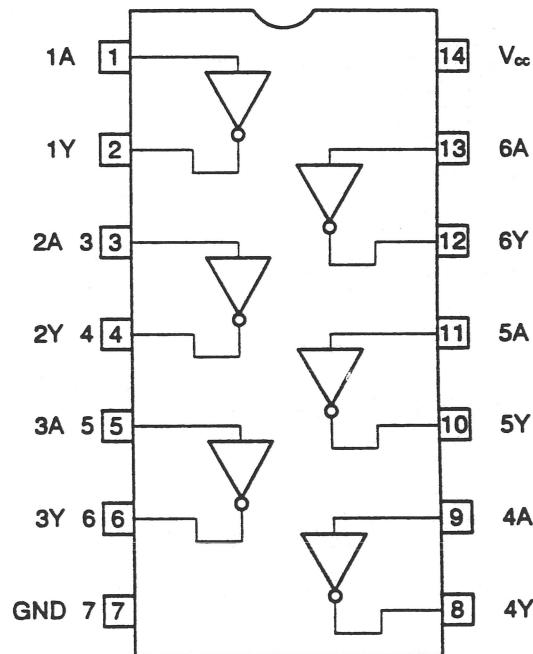
IC 74HC04

Parts No. : 314-0571

■ Top View



■ Pin Layout



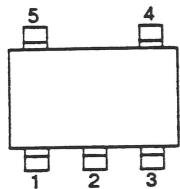
■ Truth Table

A	Y
L	H
H	L

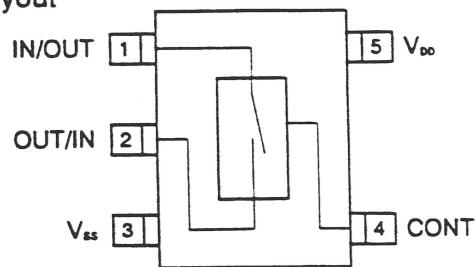
IC408 Bilateral Switch

IC TC4S66F-TE85R

■ Top View



■ Pin Layout

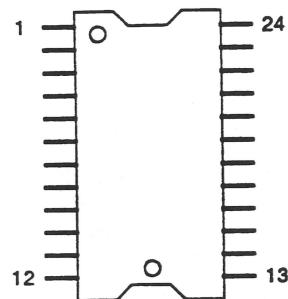


IC409 4ch Linear Driver

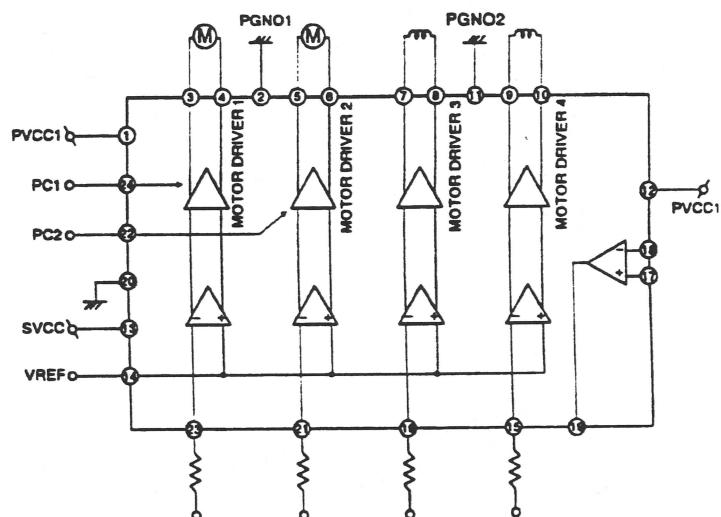
IC AN8388SR

IC AN8388NSRBE1

■ Top View



■ Block Diagram



■ Description

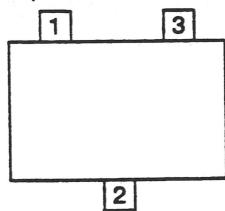
Pin No.	Function
1	Driver power supply pin 1
2	Driver ground pin 1
3	Motor driver 1 reverse run output
4	Motor driver 1 forward run output
5	Motor driver 2 reverse run output
6	Motor driver 2 forward run output
7	Motor driver 3 reverse run output
8	Motor driver 3 forward run output
9	Motor driver 4 reverse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

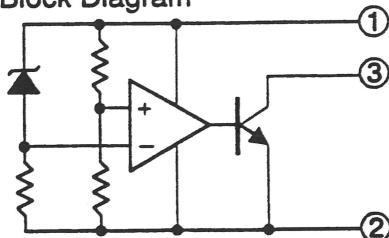
IC601 System Reset

IC PST529F MMP3P

■ Top View

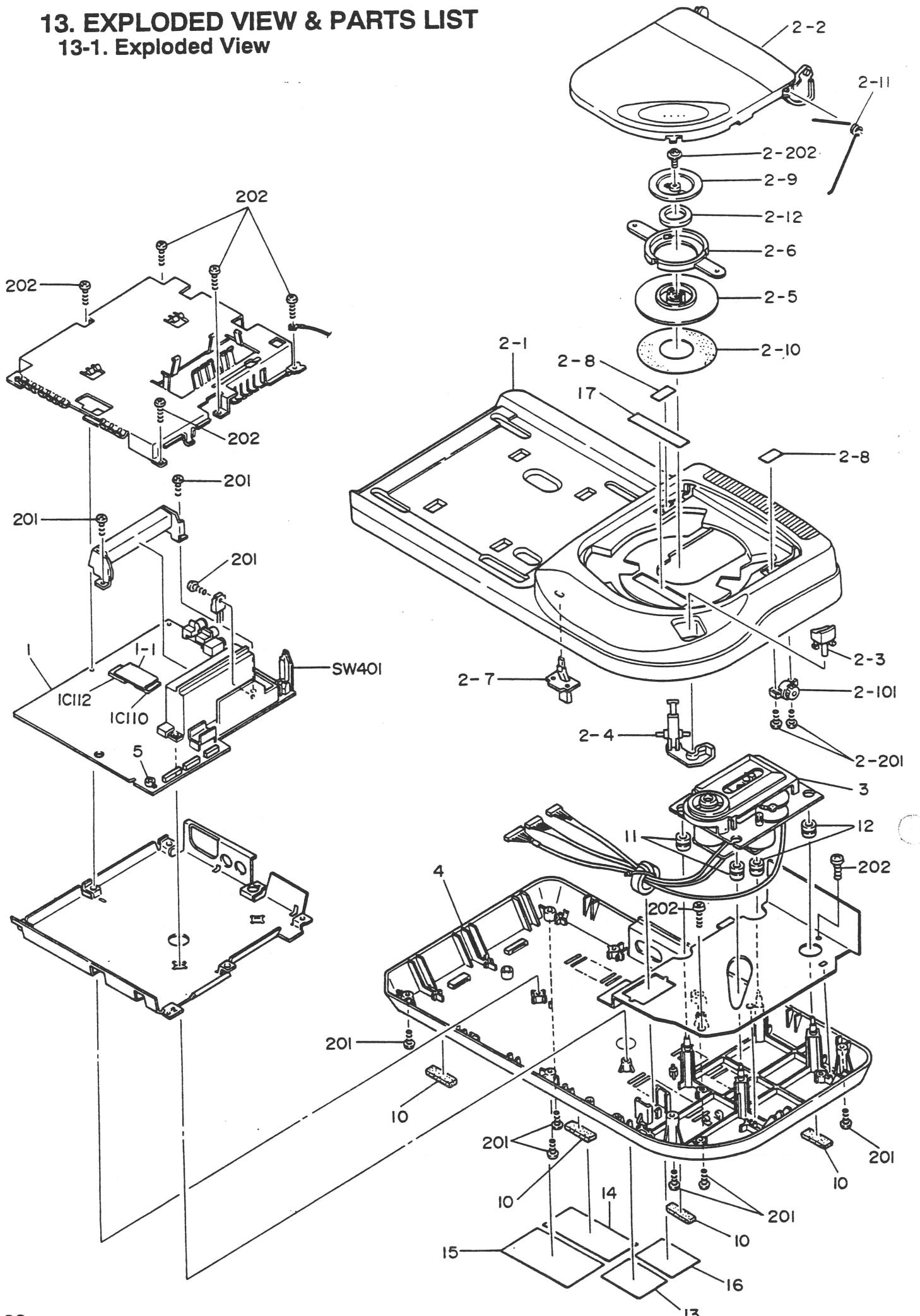


■ Block Diagram



13. EXPLODED VIEW & PARTS LIST

13-1. Exploded View



13-2. Mechanical Parts' List

13-3. Electrical Parts List

Ref. No.	Parts No.	Description	Circuit No.	Parts No.	Description
1 1 1-1	837-9615 837-9616 837-9798	IC BD SEGA-CD2 MAIN BD USA(CBA) [S] IC BD MEGA-CD2 MAIN BD MULTI (CBA) [M] IC BD MEGA-CD2 PCM BD	IC001 IC002 IC101	314-0367 314-0407 315-5632	IC 74HC04 IC 74HC74 IC CUSTOM CHIP MCE3 FUJITSU
2-1	253-6661	TOP CASE MEGA-CD2 EXPORT	IC102	315-0745-80	IC TC511664BJ-80 SOJ TOSHIBA
2-2 2-2	253-6635 253-6636	DOOR SEGA-CD2 USA [S] DOOR MEGA-CD2 MULTI [M]	IC102 IC102	315-0804-70 315-0804-80	IC UPD421664LE-70 SOJ NEC IC UPD421664-80 SOJ NEC
2-3 2-3	253-6562-01 253-6562-02	DOOR KNOB SEGA-CD2 USA [S] DOOR KNOB MEGA-CD2 MULTI [M]	IC103 IC103	315-0745-80 315-0804-70	IC TC511664BJ-80 SOJ TOSHIBA IC UPD421664LE-70 SOJ NEC
2-4 2-5 2-6 2-7 2-8 2-9 2-10 2-11 2-12	253-6563 253-6564 253-6565 253-6566 253-6569 250-5306 601-6983 125-5101 113-0020	DOOR LEVER MEGA-CD2 CHUCK DISK MEGA-CD2 CHUCK HOLDER MEGA-CD2 LED LENS MEGA-CD2 BLIND SHEET MEGA-CD2 CONNECT PLATE MEGA-CD2 CHUCK SHEET MEGA-CD2 DOOR SPRING MEGA-CD2 MAGNET MEGA-CD2	IC103 IC104 IC105 IC106 IC107 IC107 IC107 IC107	315-0804-80 315-0805-80 315-0745-80 315-0796-70 315-0796-70 315-5181-01 315-0739-80 315-0777-80 315-0818 315-0822-80	IC UPD421664-80 SOJ NEC IC UPD421664-80L SOJ NEC IC TC511664BJ-80 SOJ TOSHIBA IC CXK5864BM-70 SOP SONY IC CXK5864BM-70 SOP SONY IC LC89515 QFP SANYO IC UPD424270LE-80 NEC IC HMs14270AJ-8 SOJ HITACHI IC M5M44270AJ-8 SOJ MITSUBISHI IC MN14270SJ-08 SOJ PANASONIC
2-101 2-201 2-202	601-7018 012-P00210 029-000016	OIL DAMPER MEGA-CD2 TAP SCR PH M2×10 CUP SCR M2.6×5	IC108 IC108 IC108	315-0760-10 315-0677 315-0759-10	IC LH5P832N-10 SOP SHARP IC TC51832FL-10 SOP TOSHIBA IC TC51832AFL-10 SOP TOSHIBA
3	610-5424	CD DRIVE UNIT MEGA-CD2	IC109	315-0760-10	IC LH5P832N-10 SOP SHARP
4 5 10 11 12	253-6651 253-6567 601-6982 601-6984 601-7002	BOTTOM CASE MEGA-CD2 EXPORT LED HOLDER MEGA-CD2 RUBBER FOOT MEGA-CD2 RUBBER DAMPER A MEGA-CD2 RUBBER DAMPER B MEGA-CD2	IC109 IC109 IC109	315-0677 315-0759-10	IC TC51832FL-10 SOP TOSHIBA IC TC51832AFL-10 SOP TOSHIBA
13 13	670-3119 670-3120	LABEL SER. NO. SEGA-CD2 [S] LABEL SER. NO. MEGA-CD2 MULTI [M]	IC111 IC111	EPR-15511 MPR-15511A	IC SEGA-CD2 BOOT ROM EP [S] IC SEGA-CD2 USA BOOT ROM [S]
14 14 14	670-0248 670-2774 670-3349	SEAL CUSTOMER SERVICE [S] LABEL CAUTION LASER EUROPE [M] LABEL CUSTOMER SERVICE SOC [S]	IC112	315-0635	IC MEGACD2 BOOT EP MULTI [M] IC MEGACD2(PAL) BOOT ROM [M]
15 15	670-3204 670-3417	LABEL FCC SEGA-CD2 USA [S] LABEL FCC SEGA-CD2 CAN [S]	IC113 IC113	315-0637 315-0650 315-0626	IC MC68HC000FN12 PLCC MOTOROLA IC HD68HC000CP-12 PLCC HITACHI IC TMP68HC000T-12 PLCC TOSHIBA
16 16	670-3126-01 670-2708	LABEL FDA MK-4101 USA [S] SEAL RFI MARK MEGA-CD MULTI [M]	IC114 IC116 IC201	313-5190 314-0549-01 313-5184	IC MB3790 SOP 16PIN FUJITSU IC TC74HC86 SOP TOSHIBA IC LC7883KM SOP SANYO
17 17	670-3209 670-3210	CAUTION LABEL SEGA-CD2 [S] CAUTION LABEL MEGA-CD2 MULTI [M]	IC202 IC203 IC204 IC205 IC301	313-5231 313-5249 313-5249 313-5250 313-5193	IC LC78815M SOP 20P SANYO IC NJM3403AM SOP IC NJM3403AM SOP IC NJM3404AM SOP IC UPC2405HF NEC
201	012-P00310	TAP SCR PH M3×10	IC301 IC401 IC402 IC403	315-0798 315-0799 313-5251 313-5252	IC CXD1167Q QFP IC CXA1081M SOP IC CXA1082Q QFP
202	012-P00308	TAP SCR PH M3×8	IC404 IC404 IC407 IC408	315-0808 314-0571 313-5253	IC UPD75P008GB QFP IC UPD75006GB QFP
			IC409 IC409 IC601	314-0572 314-0585 314-0573	IC 74HCU04 SOP IC TC4S66F-TE85R
			X 101 X 401 X 702	230-5103 230-5104 230-5109	IC AN8388SR SOP IC AN8388NSRBE1 SOP
			Q 101 Q 101	482-5191 482-5192	IC PST529F MMP3 RESET IC
			Q 201 Q 201	482-5191 482-5192	XTAL OSC 50.000MHZ JX0-7 XTAL OSC 16.934MHz HC-49U CER OSC 4.19MHZ
			Q 202 Q 202	482-5191 482-5192	XSTR CHIP 2SC2812-5-CP-TB XSTR CHIP 2SC2812-6-CP-TB
					XSTR CHIP 2SC2812-5-CP-TB XSTR CHIP 2SC2812-6-CP-TB

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

Circuit No.	Parts No.	Description	Circuit No.	Parts No.	Description	
Q 301	482-5193	XSTR 2SB963 M	R 220	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	
Q 301	482-5194	XSTR 2SB963 L	R 221	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	
Q 301	482-5195	XSTR 2SB963 K	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%	
Q 302	482-5191	XSTR CHIP 2SC2812-5-CP-TB	[S]	R 224	476-1331-J-16	RES CHIP 330 OHM 1/16W 5%
Q 302	482-5192	XSTR CHIP 2SC2812-6-CP-TB	[S]	R 225	476-1222-J-16	RES CHIP 2. 2kOHM 1/16W 5%
Q 302	482-5204	XSTR CHIP 2SC4362	[M]	R 226	476-1331-J-16	RES CHIP 330 OHM 1/16W 5%
Q 302	482-5205	XSTR CHIP UN221L	[M]	R 227	476-1750-J-16	RES CHIP 750HM 1/16W 5%
			R 228	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	
Q 401	482-5196	XSTR 2SA1704 S-AN	R 229	476-1750-J-16	RES CHIP 750HM 1/16W 5%	
Q 401	482-5197	XSTR 2SA1704 T-AN	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%	
Q 402	482-5191	XSTR CHIP 2SC2812-5-CP-TB	R 232	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	
Q 402	482-5192	XSTR CHIP 2SC2812-6-CP-TB	R 233	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	
BT101	401-0037	BATTERY ML2016-HS1 SANYO	R 234	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	
D 301	481-5119	DIODE DSK10-ET1	R 235	476-1331-J-16	RES CHIP 330 OHM 1/16W 5%	
D 302	481-5121	DIODE GMB01-BT	R 236	476-1331-J-16	RES CHIP 330 OHM 1/16W 5%	
D 401	481-5120	DIODE 1S2076RE	R 237	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	
D 601	481-5121	DIODE GMB01-BT	R 238	476-1332-J-16	RES CHIP 3. 3kOHM 1/16W 5%	
LD101	390-5449	LED LN88RPX	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%	
FLT505	271-0058	FILMAC TH30333MAT	R 241	476-1750-J-16	RES CHIP 750HM 1/16W 5%	
FLT506	479-5009	RES 0 OHM 1/4W	R 242	476-1750-J-16	RES CHIP 750HM 1/16W 5%	
FLT507	479-5009	RES 0 OHM 1/4W	R 243	476-1152-J-16	RES CHIP 1. 5kOHM 1/16W 5%	
FLT512	271-0058	FILMAC TH30333MAT	R 244	476-1122-J-16	RES CHIP 1. 2kOHM 1/16W 5%	
FLT516	479-5009	RES 0 OHM 1/4W	R 301	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	
FLT519	479-5009	RES 0 OHM 1/4W	R 301	476-1822-J-16	RES CHIP 8. 2kOHM 1/16W 5%	
FLT520	479-5009	RES 0 OHM 1/4W	R 302	476-1162-J-16	RES CHIP 1. 6kOHM 1/16W 5%	
FLT522	479-5009	RES 0 OHM 1/4W	R 302	NOT USED	NOT USED	
FLT600	479-5009	RES 0 OHM 1/4W	R 303	476-1162-J-16	RES CHIP 1. 6kOHM 1/16W 5%	
FLT601	271-0059	FILMAC TX09500NBT	R 304	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	
FLT602	271-0060	FILMAC TX07520NBT	R 401	476-1102-J-16	RES CHIP 1kOHM 1/16W 5%	
FLT604	479-5009	RES 0 OHM 1/4W	R 402	476-2100-J-10	RES CHIP 10 OHM 1/10W 5%	
EMI202	271-0007	EMI FILTER STX222MB	R 403	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	
EMI202	479-5009	RES 0 OHM 1/4W	R 404	476-1153-J-16	RES CHIP 15kOHM 1/16W 5%	
EMI203	271-0007	EMI FILTER STX222MB	R 405	476-1102-J-16	RES CHIP 1kOHM 1/16W 5%	
EMI203	479-5009	RES 0 OHM 1/4W	R 406	476-1104-J-16	RES CHIP 100kOHM 1/16W 5%	
EMI204	479-5009	RES 0 OHM 1/4W	R 407	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	
EMI205	479-5009	RES 0 OHM 1/4W	R 408	476-1223-J-16	RES CHIP 22kOHM 1/16W 5%	
EMI206	479-5009	RES 0 OHM 1/4W	R 409	476-1223-J-16	RES CHIP 22kOHM 1/16W 5%	
FL301	271-0054	LINE FILTER CM08RB01	R 410	476-1101-J-16	RES CHIP 100 OHM 1/16W 5%	
F 301	514-5044	FUSE PICO II 25202.5 RADIAL	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 101	476-1361-J-16	RES CHIP 360 OHM 1/16W 5%	R 413	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	
R 102	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	R 414	476-1182-J-16	RES CHIP 1. 8kOHM 1/16W 5%	
R 103	476-1222-J-16	RES CHIP 2. 2kOHM 1/16W 5%	R 415	476-1223-J-16	RES CHIP 22kOHM 1/16W 5%	
R 104	476-1473-J-16	RES CHIP 47kOHM 1/16W 5%	R 416	476-1334-J-16	RES CHIP 330kOHM 1/16W 5%	
R 105	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	R 417	151-0421	CAP CER CHIP 4700PF/50V B K	
R 106	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	R 418	479-5007-J-16	RES CHIP 0 OHM 1/16W J	
R 107	479-5007-J-16	RES CHIP 0 OHM 1/16W J	R 419	476-1184-J-16	RES CHIP 180kOHM 1/16W 5%	
R 108	479-5007-J-16	RES CHIP 0 OHM 1/16W J	R 420	476-1334-J-16	RES CHIP 330kOHM 1/16W 5%	
R 109	479-5007-J-16	RES CHIP 0 OHM 1/16W J	R 421	476-1224-J-16	RES CHIP 220kOHM 1/16W 5%	
R 130	479-5007-J-16	RES CHIP 0 OHM 1/16W J	R 422	476-1154-J-16	RES CHIP 150kOHM 1/16W 5%	
R 131	479-5007-J-16	RES CHIP 0 OHM 1/16W J	R 423	476-1224-J-16	RES CHIP 220kOHM 1/16W 5%	
R 201	476-1162-J-16	RES CHIP 1. 6k OHM 1/16W 5%	R 424	476-1153-J-16	RES CHIP 15kOHM 1/16W 5%	
R 202	476-1102-J-16	RES CHIP 1kOHM 1/16W 5%	R 425	476-1393-J-16	RES CHIP 39kOHM 1/16W 5%	
R 203	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	R 426	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 427	476-1334-J-16	RES CHIP 330kOHM 1/16W 5%	
R 205	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	R 428	476-1514-J-16	RES CHIP 510kOHM 1/16W 5%	
R 206	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	R 429	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	
R 207	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	R 430	476-1224-J-16	RES CHIP 220kOHM 1/16W 5%	
R 208	476-1222-J-16	RES CHIP 2. 2kOHM 1/16W 5%	R 431	476-1332-J-16	RES CHIP 3. 3kOHM 1/16W 5%	
R 209	476-1222-J-16	RES CHIP 2. 2kOHM 1/16W 5%	R 432	476-1823-J-16	RES CHIP 82kOHM 1/16W 5%	
R 210	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	R 433	476-1105-J-16	RES CHIP 1MOHM 1/16W 5%	
R 211	476-1222-J-16	RES CHIP 2. 2kOHM 1/16W 5%	R 434	476-1223-J-16	RES CHIP 22kOHM 1/16W 5%	
R 212	476-1222-J-16	RES CHIP 2. 2kOHM 1/16W 5%	R 435	476-1104-J-16	RES CHIP 100kOHM 1/16W 5%	
R 213	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	R 436	476-1104-J-16	RES CHIP 100kOHM 1/16W 5%	
R 214	476-1472-J-16	RES CHIP 4. 7kOHM 1/16W 5%	R 437	476-1104-J-16	RES CHIP 100kOHM 1/16W 5%	
R 215	476-1331-J-16	RES CHIP 330 OHM 1/16W 5%	R 438	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	
R 216	476-1100-J-16	RES CHIP 10 OHM 1/16W 5%	R 441	479-5007-J-16	RES CHIP 0 OHM 1/16W J	
R 217	476-1331-J-16	RES CHIP 330 OHM 1/16W 5%	R 444	476-2100-J-10	RES CHIP 10 OHM 1/10W 5%	
R 218	476-1100-J-16	RES CHIP 10 OHM 1/16W 5%	R 445	476-1101-J-16	RES CHIP 100 OHM 1/16W 5%	
R 219	476-1472-J-16	RES CHIP 4. 7kOHM 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

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

Circuit No.	Parts No.	Description	Circuit No.	Parts No.	Description
R 450	476-1333-J-16	RES CHIP 33kOHM 1/16W 5%	VR403	475-0075	V. RES C TRM 2kOHM B RADIAL
R 451	476-1474-J-16	RES CHIP 470kOHM 1/16W 5%	RA101	477-0152	RES PACK CP 8x4.7kOHM W/COMM
R 452	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	RA102	477-0152	RES PACK CP 8x4.7kOHM W/COMM
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%	C 001	151-0434	CAP CER CP 0.1UF/0.5V F Z
R 465	476-2100-J-10	RES CHIP 10kOHM 1/16W 5%	C 104	150-0439	CAP E 10UF/16V 20%
R 468	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 105	151-0405	CAP CER CP 0.1UF/16V F Z
R 469	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 109	151-0405	CAP CER CP 0.1UF/16V F Z
R 470	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 110	150-0439	CAP E 10UF/16V 20%
R 471	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 113	151-0406	CAP CER CP 100PF/50V SL J
R 472	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 114	151-0405	CAP CER CP 0.1UF/16V F Z
R 473	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 115	150-0439	CAP E 10UF/16V 20%
R 474	476-1473-J-16	RES CHIP 47kOHM 1/16W 5%	C 118	151-0406	CAP CER CP 100PF/50V SL J
R 476	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 119	151-0405	CAP CER CP 0.1UF/16V F Z
R 477	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 120	151-0405	CAP CER CP 0.1UF/16V F Z
R 478	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 122	150-0439	CAP E 10UF/16V 20%
R 479	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 126	151-0405	CAP CER CP 0.1UF/16V F Z
R 480	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 127	150-0439	CAP E 10UF/16V 20%
R 481	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 128	151-0405	CAP CER CP 0.1UF/16V F Z
R 482	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 129	150-0439	CAP E 10UF/16V 20%
R 483	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 130	151-0405	CAP CER CP 0.1UF/16V F Z
R 484	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 131	150-0439	CAP E 10UF/16V 20%
R 485	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 132	150-0439	CAP E 10UF/16V 20%
R 486	479-5007-J-16	RES CHIP 0 OHM 1/16W J	C 133	151-0405	CAP CER CP 0.1UF/16V F Z
R 487	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 135	151-0405	CAP CER CP 0.1UF/16V F Z
R 488	476-1683-J-16	RES CHIP 68kOHM 1/16W 5%	C 137	151-0405	CAP CER CP 0.1UF/16V F Z
R 489	476-1473-J-16	RES CHIP 47kOHM 1/16W 5%	C 138	151-0405	CAP CER CP 0.1UF/16V F Z
R 490	476-1333-J-16	RES CHIP 33kOHM 1/16W 5%	C 139	150-0439	CAP E 10UF/16V 20%
R 490	476-1473-J-16	RES CHIP 47kOHM 1/16W 5%	C 143	151-0409	CAP CER CP 1000PF/50V B K
R 492	476-2100-J-10	RES CHIP 10 OHM 1/10W 5%	C 144	151-0405	CAP CER CP 0.1UF/16V F Z
R 493	476-2100-J-10	RES CHIP 10 OHM 1/10W 5%	C 201	150-0440	CAP E 100UF/6.3V 20%
R 494	476-2100-J-10	RES CHIP 10 OHM 1/10W 5%	C 206	150-0439	CAP E 10UF/16V 20%
R 495	476-2100-J-10	RES CHIP 10 OHM 1/10W 5%	C 207	150-0439	CAP E 10UF/16V 20%
R 496	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 208	150-0439	CAP E 10UF/16V 20%
R 497	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 209	150-0439	CAP E 10UF/16V 20%
R 498	476-1103-J-16	RES CHIP 10kOHM 1/16W 5%	C 210	150-0439	CAP E 10UF/16V 20%
R 601	476-1102-J-16	RES CHIP 1kOHM 1/16W 5%	C 211	151-0410	CAP CER CP 680PF/50V B K
R 602	476-1104-J-16	RES CHIP 100kOHM 1/16W 5%	C 212	151-0410	CAP CER CP 680PF/50V B K
R 701	479-5007-J-16	RES CHIP 0 OHM 1/16W 5%	C 213	151-0405	CAP CER CP 0.1UF/16V F Z
R 702	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 214	151-0411	CAP CER CP 8200PF/50V B K
R 703	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 215	151-0411	CAP CER CP 8200PF/50V B K
R 704	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 216	151-0405	CAP CER CP 0.1UF/16V F Z
R 705	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 217	151-0412	CAP CER CP 1200PF/50V B K
R 706	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 218	151-0412	CAP CER CP 1200PF/50V B K
R 707	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 219	151-0405	CAP CER CP 0.1UF/16V F Z
R 708	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 220	150-0439	CAP E 10UF/16V 20%
R 709	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 221	150-0439	CAP E 10UF/16V 20%
R 710	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 222	150-0439	CAP E 10UF/16V 20%
R 711	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 223	151-0413	CAP CER CP 2200PF/50V B K
R 712	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 224	151-0405	CAP CER CP 0.1UF/16V F Z
R 713	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 225	151-0411	CAP CER CP 8200PF/50V B K
R 714	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 226	151-0413	CAP CER CP 2200PF/50V B K
R 715	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 227	151-0411	CAP CER CP 8200PF/50V B K
R 716	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 228	150-0439	CAP E 10UF/16V 20%
R 717	476-1330-J-16	RES CHIP 33 OHM 1/16W 5%	C 229	150-0439	CAP E 10UF/16V 20%
R 718	479-5007-J-16	RES CHIP 0 OHM 1/16W	C 230	151-0411	CAP CER CP 8200PF/50V B K
R 802	479-5007-J-16	RES CHIP 0 OHM 1/16W	C 231	151-0411	CAP CER CP 8200PF/50V B K
RB101	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 232	150-0439	CAP E 10UF/16V 20%
RB102	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 233	150-0439	CAP E 10UF/16V 20%
RB103	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 234	150-0439	CAP E 10UF/16V 20%
RB104	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 235	150-0439	CAP E 10UF/16V 20%
RB105	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 236	150-0439	CAP E 10UF/16V 20%
RB106	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 237	150-0439	CAP E 10UF/16V 20%
RB107	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 238	150-0440	CAP E 1000UF/6.3V 20%
RB108	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 239	150-0439	CAP E 10UF/16V 20%
RB109	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 240	150-0439	CAP E 10UF/16V 20%
RB110	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 301	150-0440	CAP E 100UF/6.3V 20%
RB111	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 302	151-0405	CAP CER CP 0.1UF/16V F Z
RB112	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 303	150-0441	CAP E 1000UF/6.3V 20%
RB113	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 304	151-0405	CAP CER CP 0.1UF/16V F Z
RB114	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 305	150-0249	CAP E 330UF 16V U-TYPE
RB115	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 306	150-0440	CAP E 100UF/6.3V 20%
RB116	476-1221-J-16	RES CHIP 220 OHM 1/16W 5%	C 401	151-0456	CAP CER CP 0.33UF/16V R K
VR401	475-0073	V. RES C TRM 20kOHM B RADIAL	C 403	150-0249	CAP E 330UF 16V U-TYPE
VR402	475-0074	V. RES C TRM 5kOHM B RADIAL	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	Circuit No.	Parts No.	Description
C 407	150-0329	CAP E 3.3UF 50V U-TYPE	CN406	212-5281	CONN E8G-701B-00
C 408	150-0440	CAP E 100UF/6.3V 20%	SW401	510-5050 250-5342	LEAF SW LSA-1141E2AU SW COVER CD2 SY(FOR SW401)
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	1	610-5507	ASSY CD ROM MDP ROAD AVENGER [M]
C 421	151-0419	CAP CER CP 0.1UF/50V B K	1	610-5574	ASSY CD ROM GEN W/SEWER SHARK [S]
C 422	479-5007-J-16	RES CHIP O OHM 1/16W J	2	400-5100B	AC ADAPTOR AC120V/DC10V 1.2A [S]
C 423	151-0413	CAP CER CP 2200PF/50V B K	2	400-5100B-01	AC ADAPTOR AC120V/DC10V 1.2A [S]
C 424	151-0419	CAP CER CP 0.1UF/50V B K	2	400-5122C	AC ADAPTOR AC230V/DC10V 1.2A(EXCEPT U.K., KUWAIT, AUSTRALIA & NEWZEALAND) [M]
C 425	151-0417	CAP CER CP 0.033UF/50V B K	2	400-5127A	AC ADAPTOR AC240V/DC10V 1.2A (FOR U.K., KUWAIT) [M]
C 426	151-0417	CAP CER CP 0.033UF/50V B K	2	400-5128A	AC ADAPTOR AC240V/DC10V 1.2A (FOR AUSTRALIA & NEWZEALAND) [M]
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	3	600-6201	STEREO MIXING CABLE W/CORE
C 430	151-0421	CAP CER CHIP 4700PF/50V B K	4	600-6204	AUDIO RCA CABLE L=2M UNION [M]
C 431	151-0409	CAP CER CP 1000PF/50V B K	5	610-5491	ASSY SPACER MEGA-CD2 EXPORT
C 432	151-0417	CAP CER CP 0.033UF/50V B K	6	250-5346	HOLD PLATE SPACER MEGA-CD2 A
C 433	151-0405	CAP CER CP 0.1UF/16V F Z	7	250-5333	RETAINER BRACKET CD2 EXPORT
C 435	151-0422	CAP CER CP 24PF/50V CH J	8	250-5329	CONN PLATE A ACCESSORY CD2 EXP
C 436	151-0422	CAP CER CP 24PF/50V CH J	9	250-5330	CONN PLATE B ACCESSORY CD2 EXP
C 438	151-0405	CAP CER CP 0.1UF/16V F Z	10	000-F00410	M SCR FH M4×10
C 439	151-0405	CAP CER CP 0.1UF/16V F Z	11	671-3240-01E	MA CTN SEGA-CD2 USA E(FOR MK-4101) [S]
C 441	151-0405	CAP CER CP 0.1UF/16V F Z	11	671-3240-03	MA CTN MEGA-CD2 MULTI 4180 (FOR MK-4180) [M]
C 442	151-0405	CAP CER CP 0.1UF/16V F Z	11	671-3240-05	MA CTN SEGA-CD2 CAN 4101-22 (FOR MK-4101-22) [S]
C 443	151-0405	CAP CER CP 0.1UF/16V F Z	11	671-3240-06	MA CTN MEGA-CD2 MULTI 4182 (FOR MK-4182) [M]
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%	12	672-1257	OPERATION MANUAL CD2 USA [S]
C 451	151-0436	CAP CER CP 15PF/50V CH J	12	672-1332	OPERATION MANUAL CD2 CANADA [S]
C 452	151-0405	CAP CER CP 0.1UF/16V F Z	12	672-1258-01	OPERATION MANUAL CD2 MULTI 01 [M]
C 453	151-0405	CAP CER CP 0.1UF/16V F Z			
C 454	151-0409	CAP CER CP 1000PF/50V B K	13	671-3322-01	BOX & PACK SET CD2 USA (FOR MK-4101) [S]
C 455	150-0016	CAP E 1UF 50V	13	671-3322-05	BOX & PACK SET CD2 CAN 4101-22 (FOR MK-4101-22) [S]
C 601	151-0419	CAP CER CP 0.1UF/50V B K	13	671-3322-03	BOX & PACK SET CD2 MULTI 4180 (FOR MK-4180) [S]
C 702	151-0437	CAP CER CP 150PF/50V CH J	13	671-3322-06	BOX & PACK SET CD2 MULTI 4182 (FOR MK-4182) [M]
C 703	151-0437	CAP CER CP 150PF/50V CH J	14	670-3211	BUSINESS REPLY MAIL CD2 USA [S]
C 704	151-0437	CAP CER CP 150PF/50V CH J	14	670-4106	BUSINESS REPLY MAIL SOC [S]
C 705	151-0437	CAP CER CP 150PF/50V CH J	15	670-3311	GUARANTEE CARD CD2 MULTI (EXCEPT AUSTRALIA & NEWZEALAND) [M]
C 706	151-0437	CAP CER CP 150PF/50V CH J	15	670-3327	WARRANTY CARD OZISOFT AUS (FOR AUSTRALIA & NEWZEALAND) [M]
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 1000UF/6.3V 20%	16	SGM-4218	POLY BAG 300×550×0.05 EXP6
C 920	151-0438	CAP CER CP 0.022UF/25V B K	17	SGM-4245	POLY BAG 200×310×0.05 EXP6
C 921	151-0405	CAP CER CP 0.1UF/16V F Z	19	SGM-4207	POLY BAG 70×100×0.05
C 922	151-0439	CAP CER CP 47PF/50V CH J	20	SGM-4220	POLY BAG 120×300×0.02
C 923	151-0439	CAP CER CP 47PF/50V CH J	21	670-3265	CROSS SELL POSTER GEN2 USA [S]
C 930	151-0405	CAP CER CP 0.1UF/16V F Z	22	672-1473-22	PLAY INSTR CDU SEWER SHARK CAN [S]
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			

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.

SEGATM