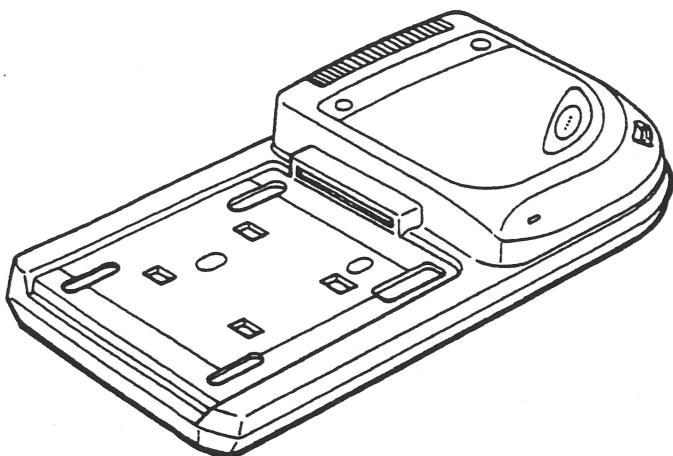


# SEGA<sup>TM</sup> SERVICE MANUAL

## SEGA CD II / MEGA CD II



NO.	002 - 2
ISSUED	JUNE, 1994

## SUPPLEMENT

### CONTENTS

1. DIFFERENCE TABLE .....	2
2. SCHEMATIC DIAGRAM .....	3
3. CIRCUIT BOARD DIAGRAM .....	9
4. EXPLODED VIEW & PARTS LIST	
4-1. Exploded View .....	11
4-2. Mechanical Parts List .....	12
4-3. Electrical Parts List .....	12
4-4. Accessories/Package List .....	16

**Sega Enterprises, Ltd.**

## BEFORE USING THIS SERVICE MANUAL

Although the products described in the service manual (No.002) used 1.6 × 0.8mm chips (leadless) resistors and capacitors, the size has been changed to 2.0 × 1.25mm and also the pattern has been changed. Use this service manual when servicing the products with serial No.T30282001 and later.

### 1. DIFFERENCE TABLE

#### 1-1. IC

	Service Manual No.002			Serial No.T30282001 and later		
No.	Circuit No.	Parts No.	Description	Circuit No.	Parts No.	Description
1	IC001	314-0367	IC 74HC04	IC951	315-0853	IC TC7S04F
2	IC002	314-0407	IC 74HC74	IC952	314-0407	IC 74HC74
3	IC110	837-9798	IC BD MEGA CD2 PCM BD			Not used

#### 1-2. CD Drive Unit

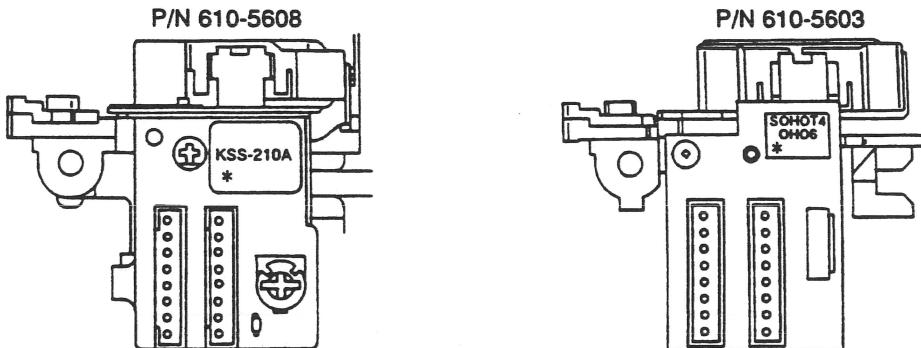
1) Differences electrical parts between CD DRIVE UNIT with P/N 610-5608 and P/N 610-5603.

Circuit No.	P/N 610-5608	P/N 610-5603	Circuit No.	P/N 610-5608	P/N 610-5603
Chip Resister			Chip Capacitor		
R414	1.8 kohm	2.2 kohm	C428	0.056 $\mu$ F	Not used
R421	220 kohm	82 kohm	C451	15 pF	8 pF
R422	150 kohm	Not used			
R423	220 kohm	270 kohm	Electrolytic Capacitor		
R424	15 kohm	20 kohm	C412	22 $\mu$ F/6.3V	47 $\mu$ F/6.3V
R426	4.7 kohm	3.3 kohm			
R448	91 ohm	82 ohm			
R449	10 kohm	0 ohm			
R450	33 kohm	Not used			
R491	150 kohm	180 kohm			

2) Tracking gain adjustment value.

	P/N 610-5608	P/N 610-5603
Tracking gain adjustment value.	1 kHz/0 dB	800 Hz/0 dB

How to discriminate CD DRIVE UNIT between P/N 610-5608 and P/N 610-5603



(\*) The CD DRIVE UNIT can be discriminated by checking the indication in the label pasted here.

- In case of KSS-210A ···· P/N 610-5608
- In case of SOHOT4 ···· P/N 610-5603

Fig. 1

Circuit No.	Parts No.	Description	Circuit No.	Parts No.	Description
R 707	476-2330-J-10	RES CHIP 33 OHM 1/10W 5%	C 216	151-0405	CAP CER CP 0.1UF/16V F Z
R 708	476-2330-J-10	RES CHIP 33 OHM 1/10W 5%	C 217	151-0412	CAP CER CP 1200PF/50V B K
R 709	476-2330-J-10	RES CHIP 33 OHM 1/10W 5%	C 218	151-0412	CAP CER CP 1200PF/50V B K
R 710	476-2330-J-10	RES CHIP 33 OHM 1/10W 5%	C 219	151-0405	CAP CER CP 0.1UF/16V F Z
R 711	476-2330-J-10	RES CHIP 33 OHM 1/10W 5%	C 220	150-0439	CAP E 10UF/16V 20%
R 712	476-2330-J-10	RES CHIP 33 OHM 1/10W 5%	C 221	150-0439	CAP E 10UF/16V 20%
R 713	476-2330-J-10	RES CHIP 33 OHM 1/10W 5%	C 222	150-0439	CAP E 10UF/16V 20%
R 714	476-2330-J-10	RES CHIP 33 OHM 1/10W 5%	C 223	151-0413	CAP CER CP 2200PF/50V B K
R 715	476-2330-J-10	RES CHIP 33 OHM 1/10W 5%	C 224	151-0405	CAP CER CP 0.1UF/16V F Z
R 716	476-2330-J-10	RES CHIP 33 OHM 1/10W 5%	C 225	151-0411	CAP CER CP 8200PF/50V B K
R 717	476-2330-J-10	RES CHIP 33 OHM 1/10W 5%	C 226	151-0413	CAP CER CP 2200PF/50V B K
R 718	479-5010-J-10	RES CHIP 0 OHM 1/10W	C 227	151-0411	CAP CER CP 8200PF/50V B K
R 801	NOT USED	NOT USED	C 228	150-0439	CAP E 10UF/16V 20%
R 802	479-5010-J-10	RES CHIP 0 OHM 1/10W	C 229	150-0439	CAP E 10UF/16V 20%
C 101	NOT USED	NOT USED	C 230	151-0411	CAP CER CP 8200PF/50V B K
C 103	NOT USED	NOT USED	C 231	151-0411	CAP CER CP 8200PF/50V B K
C 104	150-0439	CAP E 10UF/16V 20%	C 232	150-0439	CAP E 10UF/16V 20%
C 105	151-0405	CAP CER CP 0.1UF/16V F Z	C 233	150-0439	CAP E 10UF/16V 20%
C 109	151-0405	CAP CER CP 0.1UF/16V F Z	C 234	150-0439	CAP E 10UF/16V 20%
C 110	150-0439	CAP E 10UF/16V 20%	C 235	150-0439	CAP E 10UF/16V 20%
C 111	NOT USED	NOT USED	C 236	150-0439	CAP E 10UF/16V 20%
C 112	NOT USED	NOT USED	C 237	150-0439	CAP E 10UF/16V 20%
C 113	151-0406	CAP CER CP 100PF/50V SL J	C 238	150-0440	CAP E 100UF/6.3V 20%
C 114	151-0405	CAP CER CP 0.1UF/16V F Z	C 239	150-0439	CAP E 10UF/16V 20%
C 115	150-0439	CAP E 10UF/16V 20%	C 240	150-0439	CAP E 10UF/16V 20%
C 116	NOT USED	NOT USED	C 301	150-0440	CAP E 100UF/6.3V 20%
C 117	NOT USED	NOT USED	C 302	151-0405	CAP CER CP 0.1UF/16V F Z
C 118	151-0406	CAP CER CP 100PF/50V SL J	C 303	150-0441	CAP E 1000UF/6.3V 20%
C 119	151-0405	CAP CER CP 0.1UF/16V F Z	C 304	151-0405	CAP CER CP 0.1UF/16V F Z
C 305	150-0249		C 305	150-0249	CAP E 330UF 16V U-TYPE
C 120	151-0405	CAP CER CP 0.1UF/16V F Z	C 306	150-0440	CAP E 100UF/6.3V 20%
C 122	150-0439	CAP E 10UF/16V 20%			
C 123	NOT USED	NOT USED	C 401	151-0456	CAP CER CP 0.33UF/16V R K
C 124	NOT USED	NOT USED	C 403	150-0249	CAP E 330UF/16V U-TYPE
C 125	NOT USED	NOT USED	C 404	150-0440	CAP E 100UF/6.3V 20%
C 126	151-0405	CAP CER CP 0.1UF/16V F Z	C 405	NOT USED	NOT USED
C 127	150-0439	CAP E 10UF/16V 20%	C 406	150-0301	CAP E 470UF/6.3V U-TYPE
C 128	151-0405	CAP CER CP 0.1UF/16V F Z	C 407	150-0329	CAP E 3.3UF/50V U-TYPE
C 129	150-0439	CAP E 10UF/16V 20%	C 408	150-0440	CAP E 100UF/6.3V 20%
C 130	151-0405	CAP CER CP 0.1UF/16V F Z	C 409	150-0440	CAP E 100UF/6.3V 20%
C 131	150-0439	CAP E 10UF/16V 20%	C 410	150-0442	CAP E 0.47UF/50V 20%
C 132	150-0439	CAP E 10UF/16V 20%	C 411	150-0443	CAP E 22UF/6.3V 20%
C 133	151-0405	CAP CER CP 0.1UF/16V F Z	C 412	150-0443	CAP E 22UF/6.3V 20%
C 135	151-0405	CAP CER CP 0.1UF/16V F Z	C 412	150-0467	CAP E 47UF/6.3V 20% [KS, KM]
C 136	NOT USED	NOT USED			[SS, SM]
C 137	151-0405	CAP CER CP 0.1UF/16V F Z	C 413	150-0016	CAP E 1UF/50V
C 138	151-0405	CAP CER CP 0.1UF/16V F Z	C 414	150-0442	CAP E 0.47UF/50V 20%
C 139	150-0439	CAP E 10UF/16V 20%	C 415	151-0415	CAP CER CP 3900PF/50V B K
C 141	NOT USED	NOT USED	C 416	151-0416	CAP CER CP 5PF/50V CH C
C 143	151-0409	CAP CER CP 1000PF/50V B K	C 417	151-0506	CAP CER CP 0.033UF/25V B K
C 144	151-0405	CAP CER CP 0.1UF/16V F Z	C 418	151-0418	CAP CER CP 0.01UF/50V B K
C 145	NOT USED	NOT USED	C 418	151-0509	CAP CER CP 0.01UF/25V B K
C 146	NOT USED	NOT USED	C 419	151-0506	CAP CER CP 0.033UF/25V B K
C 201	150-0440	CAP E 100UF/6.3V 20%	C 420	151-0418	CAP CER CP 0.01UF/50V B K
C 202	NOT USED	NOT USED	C 420	151-0509	CAP CER CP 0.01UF/25V B K
C 203	NOT USED	NOT USED	C 421	151-0418	CAP CER CP 0.01UF/50V B K
C 204	NOT USED	NOT USED	C 421	151-0509	CAP CER CP 0.01UF/25V B K
C 206	150-0439	CAP E 10UF/16V 20%	C 422	479-5010-J-10	RES CHIP 00HM 1/10W
C 207	150-0439	CAP E 10UF/16V 20%	C 423	151-0413	CAP CER CP 2200PF/50V B K
C 208	150-0439	CAP E 10UF/16V 20%	C 424	151-0507	CAP CER CP 0.1UF/25V B K
C 209	150-0439	CAP E 10UF/16V 20%	C 425	151-0506	CAP CER CP 0.033UF/25V B K
C 210	150-0439	CAP E 10UF/16V 20%	C 426	151-0506	CAP CER CP 0.033UF/25V B K
C 211	151-0410	CAP CER CP 680PF/50V B K			
C 212	151-0410	CAP CER CP 680PF/50V B K	C 427	151-0507	CAP CER CP 0.1UF/25V B K
C 213	151-0405	CAP CER CP 0.1UF/16V F Z	C 428	151-0508	CAP CER CP 0.056UF/16V B K
C 214	151-0411	CAP CER CP 8200PF/50V B K	C 428	NOT USED	NOT USED
C 215	151-0411	CAP CER CP 8200PF/50V B K			[KS, KM]
[NOTE] [KS]: SEGA CD II, CD DRIVE UNIT P/N 610-5608			[SS]: SEGA CD II, CD DRIVE UNIT P/N 610-5603		
[KM]: MEGA CD II, CD DRIVE UNIT P/N 610-5608			[SM]: MEGA CD II, CD DRIVE UNIT P/N 610-5603		

#### 4-4. Accessories/Package List

Circuit No.	Parts No.	Description	No.	Parts No.	Description	
C 429	151-0507	CAP CER CP 0.1UF/25V B K	1	610-5507	ASSY CD ROM MDP ROAD AVENGER [KM, SM]	
C 430	151-0421	CAP CER CH 4700PF/50V B K	2	400-5100B	AC ADAPTOR AC120V/DC10V 1.2A [KS, SS]	
C 431	151-0409	CAP CER CP 1000PF/50V B K	2	400-5100B-01	AC ADAPTOR AC120V/DC10V 1.2A [KS, SS]	
C 432	151-0506	CAP CER CP 0.033UF/25V B K	2	400-5122C	AC ADAPTOR AC230V/DC10V 1.2A [KM, SM]	
C 433	151-0405	CAP CER CP 0.1UF/16V F Z	3	600-6201	STEREO MIXING CABLE W/CORE	
C 435	151-0422	CAP CER CP 24PF/50V CH J	4	600-6204	AUDIO RCA CABLE L=2M UNION [KM, SM]	
C 436	151-0422	CAP CER CP 24PF/50V CH J	5	610-5491	ASSY SPACER MEGA-CD2 EXPORT	
C 438	151-0405	CAP CER CP 0.1UF/16V F Z	6	250-5346	HOLD PLATE SPACER MEGA-CD2 A	
C 439	151-0405	CAP CER CP 0.1UF/16V F Z	7	250-5333	RETAINER BRACKET CD2 EXPORT	
C 441	151-0405	CAP CER CP 0.1UF/16V F Z	8	250-5329	CONN PLATE A ACCESSORY CD2 EXP	
C 442	151-0405	CAP CER CP 0.1UF/16V F Z	9	250-5330	CONN PLATE B ACCESSORY CD2 EXP	
C 443	151-0405	CAP CER CP 0.1UF/16V F Z	10	000-F00410	M SCR FH M4X10	
C 444	151-0405	CAP CER CP 0.1UF/16V F Z	11	671-3240-01	MA CTN SEGA-CD2 USA [KS, SS]	
C 447	151-0405	CAP CER CP 0.1UF/16V F Z	11	671-3240-01E	MA CTN SEGA-CD2 USA E [KS, SS]	
C 449	151-0405	CAP CER CP 0.1UF/16V F Z	11	671-3240-03	MA CTN MEGA-CD2 MULTI 4180 [KM, SM]	
C 450	150-0441	CAP E 1000UF/6.3V 20%	11	671-3240-06	MA CTN MEGA-CD2 MULTI 4182 [KM, SM]	
C 451	151-0436	CAP CER CP 15PF/50V CH J	[KS, KM]	12	672-1257	OPERATION MANUAL CD2 USA [KS, SS]
C 451	151-0501	CAP CER CP 8PF/50V CH J	[SS, SM]	12	672-1258	OPERATION MANUAL CD2 MULTI [KM, SM]
C 452	151-0405	CAP CER CP 0.1UF/16V F Z	12	672-1258-01	OPERATION MANUAL CD2 MULTI 01 [KM, SM]	
C 453	151-0405	CAP CER CP 0.1UF/16V F Z	12	672-1258-02	OPERATION MANUAL CD2 MULTI 02 [KM, SM]	
C 454	151-0409	CAP CER CP 1000PF/50V B K	12	672-1258-02A	OPERATION MANUAL CD2 MULTI 02A [KM, SM]	
C 455	150-0016	CAP E 1UF/50V		13	671-3322-01	BOX & PACK SET CD2 USA [KS, SS]
C 601	151-0507	CAP CER CP 0.1UF/25V B K		13	671-3980-01	BOX & PACK SET CD2 USA DP [KS, SS]
C 701	NOT USED	NOT USED		13	671-3322-03	BOX & PACK SET CD2 MULTI 4180 [KM, SM]
C 702	151-0437	CAP CER CP 150PF/50V CH J		13	671-3322-06	BOX & PACK SET CD2 MULTI 4182 [KM, SM]
C 703	151-0437	CAP CER CP 150PF/50V CH J		13	671-3980-03	BOX & PACK SET CD2 MUL 4180 DP [KM, SM]
C 704	151-0437	CAP CER CP 150PF/50V CH J		13	671-3980-05	BOX & PACK SET CD2 MUL 4182 DP [KM, SM]
C 705	151-0437	CAP CER CP 150PF/50V CH J		14	670-3211	BUSINESS REPLY MAIL CD2 USA [KS, SS]
C 706	151-0437	CAP CER CP 150PF/50V CH J		14	670-2779	EPILEPSY WARNING SHEET MULTI [KM, SM]
C 707	151-0437	CAP CER CP 150PF/50V CH J		14	670-3551	EPILEPSY WARNING SHEET MUL V2 [KM, SM]
C 708	151-0437	CAP CER CP 150PF/50V CH J		15	670-3311	GUARANTEE CARD CD2 MULTI [KM, SM]
C 709	151-0437	CAP CER CP 150PF/50V CH J		15	670-3311-01	GUARANTEE CARD CD2 MULTI 01 [KM, SM]
C 710	151-0437	CAP CER CP 150PF/50V CH J		16	SGM-4218	POLY BAG 300*550*0.05 EXP 6
C 711	151-0437	CAP CER CP 150PF/50V CH J		17	SGM-4245	POLY BAG 200*310*0.05 EXP 6
C 712	151-0437	CAP CER CP 150PF/50V CH J		19	SGM-4207	POLY BAG 70*100*0.05
C 713	151-0437	CAP CER CP 150PF/50V CH J		20	SGM-4220	POLY BAG 120*300*0.02
C 714	151-0437	CAP CER CP 150PF/50V CH J		21	SGM-4259	POLY BAG 80*180*0.05
C 715	151-0437	CAP CER CP 150PF/50V CH J		22	670-3265	CROSS SELL POSTER GEN2 USA [KS, SS]
C 716	151-0437	CAP CER CP 150PF/50V CH J				
C 717	151-0437	CAP CER CP 150PF/50V CH J				
C 810	NOT USED	NOT USED				
C 901	NOT USED	NOT USED				
C 902	NOT USED	NOT USED				
C 903	150-0440	CAP E 1000UF/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 932	NOT USED	NOT USED				
C 933	151-0405	CAP CER CP 0.1UF/16V F Z				
C 934	151-0405	CAP CER CP 0.1UF/16V F Z				
C 951	151-0405	CAP CER CP 0.1UF/16V F Z				
C 952	151-0405	CAP CER CP 0.1UF/16V F Z				

【NOTE】 [KS] : SEGA CD II, CD DRIVE UNIT P/N 610-5608  
 [KM] : MEGA CD II, CD DRIVE UNIT P/N 610-5608

[SS] : SEGA CD II, CD DRIVE UNIT P/N 610-5603  
 [SM] : MEGA CD II, CD DRIVE UNIT P/N 610-5603

**SEGA**<sup>TM</sup>