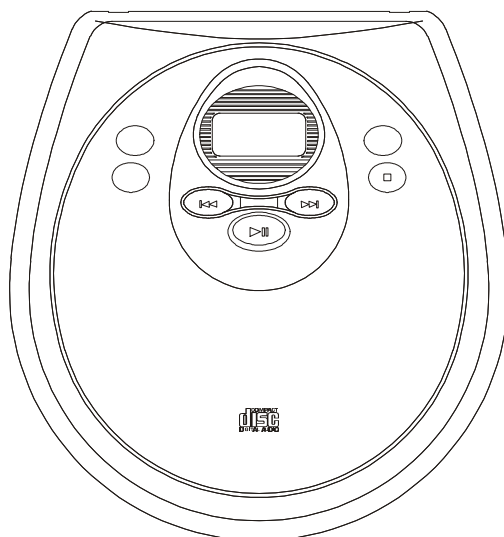


# Service Manual

## COMPACT DISC COMPACT PLAYER




DM8900-00

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## PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety characteristics. These safety characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by  in the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

# SPECIFICATIONS

## General

Compact disc digital audio system

- Digital filter two-time oversampling
- Three-spot optical pick up

Output (at 1kHz 0dB Level)

Line output (stereo minijack)  
Output level 0.4V(Rms) at 47K $\Omega$  at 1kHz  
Headphones/earphone (stereo minijack)  
15 mW + 15 mW at 16 $\Omega$  to 32 $\Omega$

Power requirements

2 size AA (LR6 or SUM-3) alkaline batteries, or DC IN 6V,  
450mA power adaptor  
Polarity of plug



Dimensions

Approx. 128 x 31 x 137 mm (w/h/d)

Weight

Approx. 205g (not incl.batteries)

## Operating voltage:

U.S.A., Canada: 120V AC $\pm$ 5% 60Hz	Middle East and Australia: 240V AC $\pm$ 5% 50Hz	UK and Germany: 230V AC $\pm$ 5% 50Hz
Chile: 230V AC $\pm$ 5% 50Hz	Singapore, Malaysia & Thailand: 200-240V AC $\pm$ 5% 50Hz	Japan: 100V AC $\pm$ 5% 50/60Hz

**Design and specifications are subject to change without notice.**

## PERFORMANCE SPECIFICATIONS

### GENERAL TEST CONDITION

Power Supply	: AC - DC Adaptor 100V: 6V DC 60Hz Battery:3V (AA x 2)
	120V: 6V DC 60Hz
	230V: 6V DC 50Hz
Lineout Load	: 47Kohm
Headphone Output	: 16ohm or 32ohm
Reference Output	: 5mW
Input Signal Source	: CBS SONY YED7 (PTD-001) SONY
	PHILIPS SBC 444A (TDC-725, TDC-731, TDC-712) A.Bex

### EARPHONE OUTPUT

	TEST ITEMS	UNIT	NOMINAL	LIMIT
1.	10% THD Output Power (1kHz, 0dB) (16 or 32ohm)	mW	-	15
*2.	Signal to Noise Ratio (1kHz)	dB	76	70
*3.	Channel Separation (1kHz, 0dB)	dB	55	45
*4.	Total Harmonic Distortion 1kHz	%	0.3	1
5.	Bass Boost Measured Signal is 0dB at 100Hz, Where Output Power is 5mW & Down by 20dB at 32ohm Loading	dB	8	+3-2
6.	Frequency response (1kHz, 0dB) 100Hz	dB	±1	±3
	10kHz	dB	±1	±3
	20kHz	dB	±3	±6

\*with External A Filter

### LINE OUT

	TEST ITEMS	UNIT	NOMINAL	LIMIT
1.	Output (1kHz, 0dB) 47kohm	Vrms	0.6	0.5
*2.	Signal to Noise Ratio (1kHz, 0dB)	dB	82	76
*3.	Channel Separation 1kHz	dB	70	60
*4.	Harmonic Distortion 1kHz	%	0.2	0.3
5.	Dynamic Range	dB	76	70
6.	De-emphasis 16kHz Signal with Emphasis Recording (-9.04dB as 0dB)	dB	0	±1
	5kHz Sgnal with Emphasis Recording (-4.53dB as 0dB)			
7.	Channel Balance (1kHz, 0dB)	dB	0.5	1
8.	Frequency Response (1kHz, 0dB) 100Hz	dB	±1	±3
	10kHz	dB	±1	±3
	20kHz	dB	±3	±6

### PLAYABILITY TESTING

	TEST ITEMS	UNIT	LIMIT
1.	Interruption (PHILIPS SBC-444A)	mm	0.6
2.	Black Dot (PHILIPS SBC-444A)	mm	0.6
3.	Finger Print (A. Bex TCD-725)	µm	65
4.	Vertical (A. Bex TDC-731A)	mm	0.5
5.	Eccentricity (A. Bex TDC-732)	µm	150

## ELECTRICAL PARTS LIST

Ref. No.	Description	Mfr's Part No.	Qty.
MAIN BOARD	PCB CDM52-01-01 122x199x0.8mm/2 (FR4) DOUBEL-SIDED	033-0CDM52-100	1
CONTROL BOARD	PCB CDM52C-01-02 125x176x1.0mm/12 (94HB) FLASH GOLD	033-CDM52C-100	1
<b>RESISTORS</b>			
R604,605	CHIP RESISTOR 33 ohm +-5% 1/10W (0805/2012)	001-333050-010	2
R320,609,245	CHIP RESISTOR 10 ohm +-5% 1/16W (0603/1608)	001-310052-016	3
R601	CHIP RESISTOR 100 ohm +-5% 1/16W (0603/1608)	001-310152-016	1
R104,217,243,309,310, 315,316,608	CHIP RESISTOR 1 Kohm +-5% 1/16W (0603/1608)	001-310252-016	8
R107,109,222,223,240, 241,218,511,513,117,118, 119,501,506	CHIP RESISTOR 10 Kohm +-5% 1/16W (0603/1608)	001-310352-016	14
R510,512,509,514,323, 508,311,312,603,613	CHIP RESISTOR 100 Kohm +-5% 1/16W (0603/1608)	001-310452-016	10
R122,242	CHIP RESISTOR 1 Mohm +-5% 1/16W (0603/1608)	001-310552-016	2
R317,318	CHIP RESISTOR 12 Kohm +-5% 1/16W (0603/1608)	001-312352-016	2
R202,615,111	CHIP RESISTOR 15 Kohm +-5% 1/16W (0603/1608)	001-315352-016	3
R114,142,201	CHIP RESISTOR 150 Kohm +-5% 1/16W (0603/1608)	001-315452-016	3
R502	CHIP RESISTOR 1.8 Kohm +-5% 1/16W (0603/1608) (MCR03EZJ-182)	001-318252-016	1
R620	CHIP RESISTOR 18 Kohm +-5% 1/16W (0603/1608)	001-318352-016	1
R101	CHIP RESISTOR 220 ohm +-5% 1/16W (0603/1608)	001-322152-016	1
R602,612	CHIP RESISTOR 22 Kohm +-5% 1/16W (0603/1608)	001-322352-016	2
R129,130,219	CHIP RESISTOR 220 Kohm +-5% 1/16W (0603/1608)	001-322452-016	3
R503	CHIP RESISTOR 2.7 Kohm +-5% 1/16W (0603/1608)	001-327252-016	1
R504	CHIP RESISTOR 3.3 Kohm +-5% 1/16W (0603/1608)	001-333252-016	1
R215	CHIP RESISTOR 33 Kohm +-5% 1/16W (0603/1608)	001-333352-016	1
R132	CHIP RESISTOR 39 Kohm +-5% 1/16W (0603/1608)	001-339352-016	1
R244	CHIP RESISTOR 390 Kohm +-5% 1/16W (0603/1608)	001-339452-016	1
R616	CHIP RESISTOR 47 ohm +-5% 1/16W (0603/1608)	001-347052-016	1
R126,505	CHIP RESISTOR 4.7 Kohm +-5% 1/16W (0603/1608)	001-347252-016	2
R124,125,128,127,220, 305	CHIP RESISTOR 47 Kohm +-5% 1/16W (0603/1608) (MCR03EZJ-473)	001-347352-016	6
R105,112	CHIP RESISTOR 4.7 ohm +-5% 1/16W (0603/1608)	001-347852-016	2
R610	CHIP RESISTOR 5.6 Kohm +-5% 1/16W (0603/1608)	001-356252-016	1
R617	CHIP RESISTOR 6.2 Kohm +-5% 1/16W (0603/1608)	001-362252-016	1
R221,313,314	CHIP RESISTOR 6.8 Kohm +-5% 1/16W (0603/1608)	001-368252-016	3
R614	CHIP RESISTOR 680 Kohm +-5% 1/16W (0603/1608)	001-368452-016	1
R322	CHIP RESISTOR 75 Kohm +-5% 1/16W (0603/1608)	001-375352-016	1
R108,231,232	CHIP RESISTOR 8.2 Kohm +-5% 1/16W (0603/1608)	001-382252-016	3
VR101	SEMI-FIXED 47K EVND8AA03BQ4 MATSUSHITA VR-C16M&G&010KA&SH&D (ROTARY VOLUME) RC1001GAX0A-HA1-A103-B28B160B01-N	002-473085-001 030-C10103-205	1 1
<b>CAPACITORS</b>			
C604,612,122	CHIP CAP 0.001 uF/50V +-10% (0603/1608) (MCH185C102KK/GRM39X7R102K50PT)	003-510212-050	3
C107,109,227,225,807	CHIP CAP 0.01 uF/25V +-10% (0603/1608) (MCH185C103KK/GRM39X7R103K25PT)	003-510312-025	5
C137,327,330,606,123, 240,241,310	CHIP CAP 1 uF/16V +80-20% (0805/2012) (EMK212F105ZG-T) (MCH213F105ZP)	003-510580-016	8

## ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
C609,610,139,134,120, 217,220,201,205,506,501, 601,302,320,116,215,228, 229,509,126,504 C114,125,130,313,314	CHIP CAP 0.1 uF/16V +80-20% (0603/1608) (MCH182F104ZK/GRM39Y5V104Z16PT) CHIP CAP 0.0022 uF/50V +-10% (0603/1608) (UMK107B222KZ-TM)	003-510482-016  003-522212-050	21  5
C221	CHIP CAP 0.22 uF/16V +80-20% (0603/1608)	003-522482-016	1
C605,124	CHIP CAP 0.0033 uF/50V +-10% (0603/1608)	003-533212-050	2
C216	(F003-547312-050) CHIP CAP 0.047 uF/16V +-10% (X7R) (0603/1608) (TMK107F473ZZ-T)	003-547312-016	1
C127	CHIP CAP 0.0068 uF/50V +-10% (0603/1608)	003-568212-050	1
C203,204,135	CHIP CAP 15 pF/50V +-5% NPO (0603/1608) (UMK107CH150JZ-TM)	003-615052-050	3
C138	CHIP CAP 2 pF/50V +-0.25pF NPO (0603/1608)	003-620832-050	1
C231	(F003-527012-050) CHIP CAP 27 pF/50V +-5% NPO (0603/1608) (UMK107CH270JZ-TM)	003-627052-050	1
C226	CHIP CAP 33 pF/50V +-5% NPO (0603/1608) (GRM39COG330J50PT/MCH185A330JK)	003-633052-050	1
C303,304	(F003-633151-050) CHIP CAP 330 pF/50V +-5% NPO (0603/1608) (GRM39COG331J50PT)	003-633152-050	2
C616	CHIP CAP 47 pF/50V +-5% NPO (0603/1608)	003-647052-050	1
C611,117	CHIP CAP 470 pF/50V +-5% NPO (0603/1608)	003-647152-050	2
C105	CHIP CAP 5 pF/50V +-0.25% NPO(0603/1608) (GRM39COG050C50PT/MCH185A050CK)	003-650832-050	1
C222	ELECT CAP 2.2 MFD/50V +-20% (SMALL SIZE) (4x7)	006-102000-50D	1
C332,112	ELECT CAP 3.3 MFD/50V +-20% (SMALL SIZE) (SRA/4x7)	006-103000-50C	2
C301,315,316,305,306, 136,508	ELECT CAP 4.7 MFD/50V +-20% (SMALL SIZE) (4x7)	006-104000-50D	7
C218	ELECT CAP 10 MFD/16V +-20% (SMALL SIZE) (4x7)	006-110000-16D	1
C331,552	ELECT CAP 22 MFD/16V +-20% (SMALL SIZE) (4x7)	006-122000-16D	2
C608	ELECT CAP 220 MFD/10V +-20% (SMALL SIZE) (6.3x7)	006-122100-10D	1
C613	ELECT CAP 33 MFD/16V +-20% (SMALL SIZE) (5x7)	006-133000-16D	1
C219	ELECT CAP 47 MFD/10V +-20% (SMALL SIZE) (5x7)	006-147000-10D	1
C322,108,214,230,319, 110,115	ELECT CAP 100 MFD/6.3V +-20% (SMALL SIZE) (5x7)	006-210100-06D	7
C334,335,603,602	ELECT CAP 220 MFD/4V +-20% (SMALL SIZE) (MAD/6.3x5)	006-222100-04C	4
<b>TRANSISTORS</b>			
Q101	TRLNPNSSST-RAD&&&&&& 2SA1774	008-101774-000	1
Q602,603	TR NPNGEN-RAD&SC-072 2SC4115SR/Q/S/STPR/STPQ/STPS	008-304115-000	2
Q104,301,303,304	TRLNPNSSST-RAD&&&&&& DTC114TE	008-A00114-F00	4
Q103,305	TRLNPNSSST-RAD&&&&&& DTA144TE	008-A00144-600	2
Q601	TR PNPPWR-BUK&SC-062 2SB1132Q (ROHM)	008-A01132-000	1
<b>INTEGRATED CIRCUITS</b>			
IC501	ICMCU-16K-LCD BU34581-5G 4 BIT 1 CHIP CPU	010-353458-002	1
IC201	ICCDP-005CDSP BU9526KS CD SERVO LSI	010-359526-000	1
IC301	IC BA3579FS	010-403579-000	1
IC601	IC BA5901K	010-405901-000	1
IC101	ICCDP-005CASP BA6387K CD RF AMPLIFIRE	010-406387-000	1
<b>DIODES</b>			
D602	DIODE 1SS133 (T-72) (87-020-465-08)	011-000133-000	1

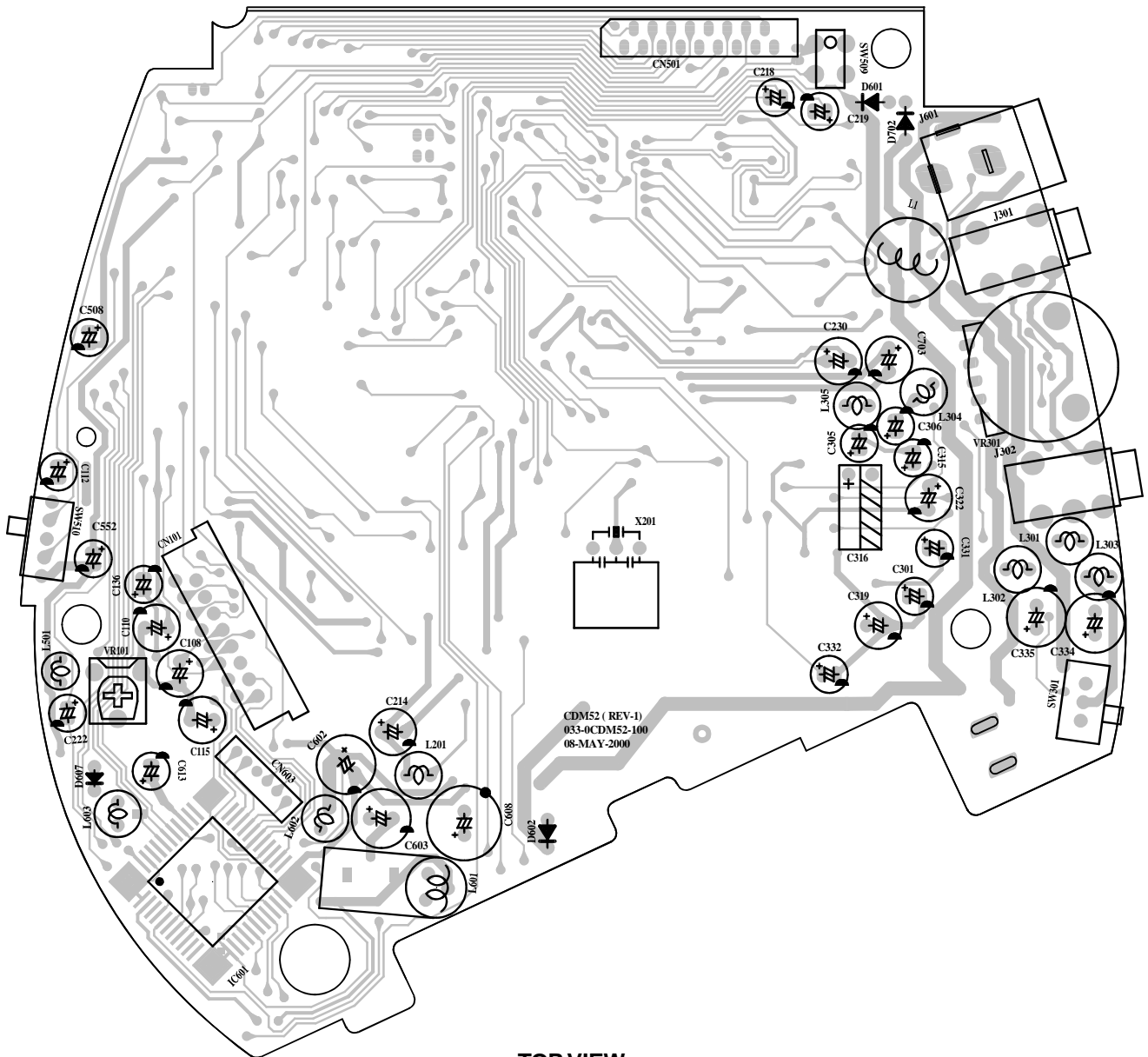
## ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
D607	DIODE RB100A/1S40	011-000100-000	1
D601,702	RECTIFIER IN-4001B	011-024001-000	2
D301,501	CHIP DIODE DAN222	011-040222-001	2
<b>INDUCTORS</b>			
L601	IFT R0002-CY68-950M-825549 10mm	012-825549-010	1
L602	INDUCTOR 10uH +-10% RL4055-100K 5x7.5mm w/UL TUBE =018-010015-000	018-010015-200	1
L603	INDUCTOR 33 uH +-10% RL4055-330K w/UL TUBE =018-010336-005	018-010336-200	1
L501	CHOKO COIL 100uH/RL4055-101K BLUE	018-030014-000	1
<b>RESONATOR</b>			
X101	CERAMIC RESONATOR 16.93 MHz ZTA16.93MX (ZHEJIANG JIAKANG)	020-001693-005	1
<b>SWITCHES</b>			
SW509	TACT SW (DETECTOR SWITCH) ESE11SV1 1P1T 151E-SE-11SV1 (RxO) DS-20	021-001111-000	1
SW301	SLIDE SW 1P2T SSH-12-4403/SK12D07VG3NSA	025-120031-100	1
SW510	SLIDE SW 1P2T SSH-12-4403/SK12D07VG3NSA	025-120031-100	1
<b>WIRES</b>			
	JP WIRE AWG26#1007 3x3mm 40mm BLACK	051-673040-009	1
	FFC CABLE 17 PINS L=55mm P=1mm UL2896	040-170055-100	1
	SMCD-17x48-ESX8(BL)P1.0-S4+3-K-F-M-N(35)		
<b>MISCELLANEOUS</b>			
	HEADPHONE SET #XBS-15	114-000015-000	1
	APD-EI35VDE&350MA/SO 230V:6Vdc VDE STD (35V-D0635) w/MADE IN CHINA	133-020635-001	1
	LCD-P-02D-2616SM000P JT4-00033 26x16x2.8mm REFLECTIVE/POSITIVE	112-000033-000	1
	CD&-PTC-01-SAN&-N CD MECHANISM TYPE:DA23 (SANYO)	153-000023-000	1
L1,302,304,305,201	BEAD COIL #B3534/BA1203033534 100MHz w/FERRITE CORE (K6/CORE-TECH) (H6A/HUOHYOW)	037-003534-100	5
L303	TOROIDAL COIL BA1203030835 100MHz	037-120835-100	1
L301	TOROIDAL COIL T953628-1/TX2409033628-1 w/FERRITE CORE (K6/CORE-TECH) (H6A/HUOHYO)	037-953628-260	1
	HEAT SEAL CONN 13 PINS 13mm PITCH:1mm YUTEK/TAIWAN 1310S-13C	059-130013-100	1
	HEADPHONE JACK HSJ1715-01-112 (GREEN) TC38-072-02/EJS-3-0935G	116-001715-000	1
	HEADPHONE JACK HSJ1715-01-110 (BLACK) TC38-072-01/EJS-3-0935B	116-001715-001	1
	POWER JACK DC,470 (HE0470-01-230)	120-100470-000	1
	HEADER JST 6 PINS W150V-06T PITCH 1.5mm VERTICAL TYPE	135-B06BZR-061	1
	FFC CONN SOCKET 16PINS P:1mm TAIKO DENKI HORIZONTAL TOC-A16X-B2/D100-SRA-16	135-TOCA16-160	1
	FFC CONN SOCKET 17 PINS P=1mm #GF102-17S-TS (=135-TOCB17-170)	135-TOCB17-171	1

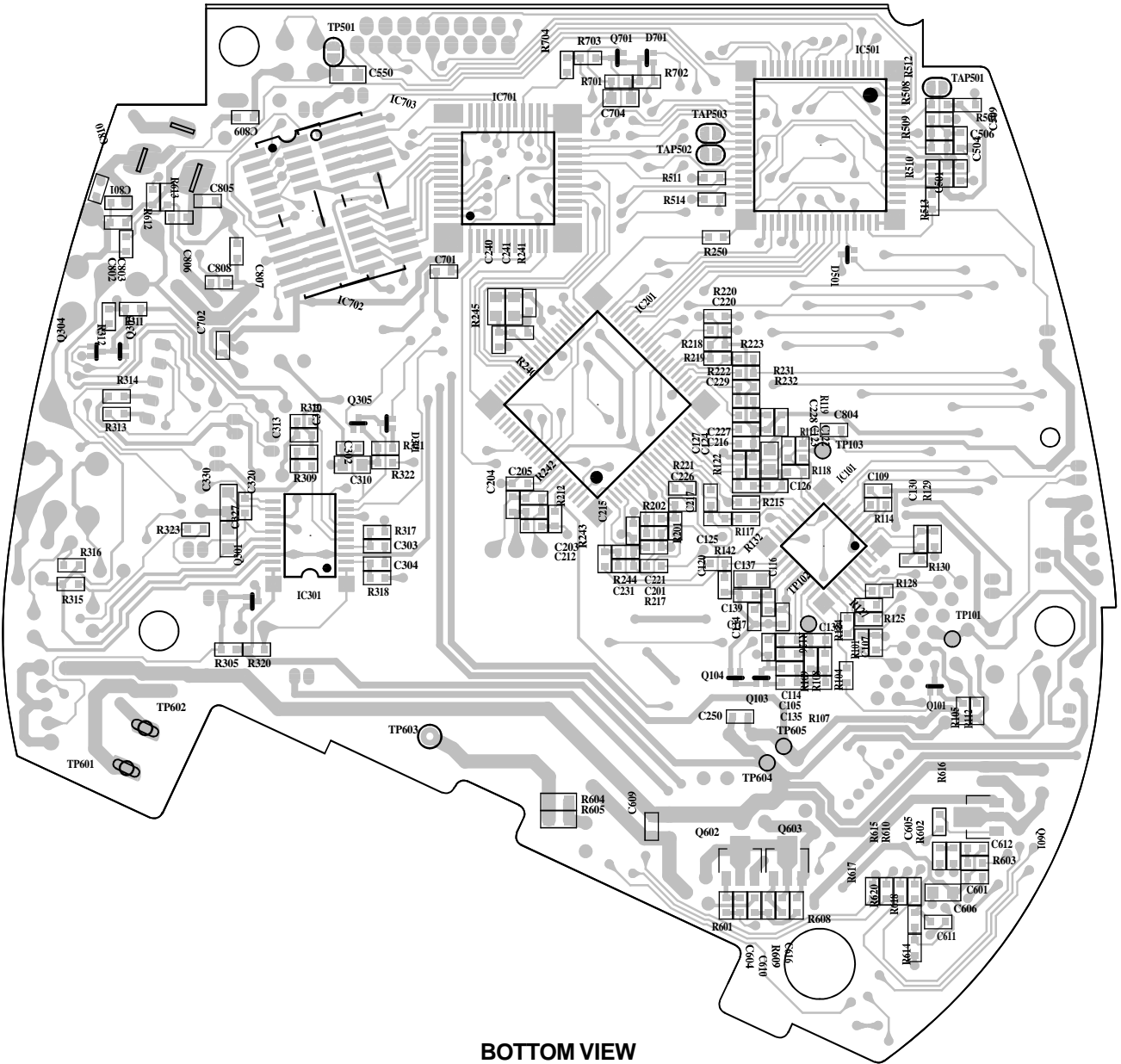
# PRINTED CIRCUIT BOARDS

## MAIN BOARD

CDM52-01-01

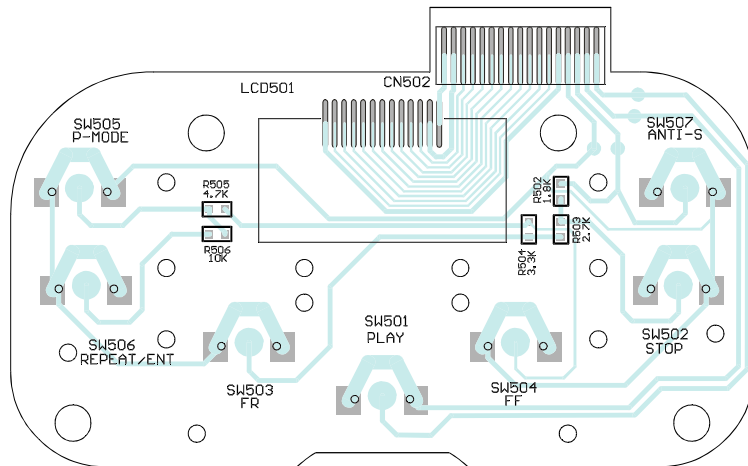


**MAIN BOARD  
CDM52-01-01**



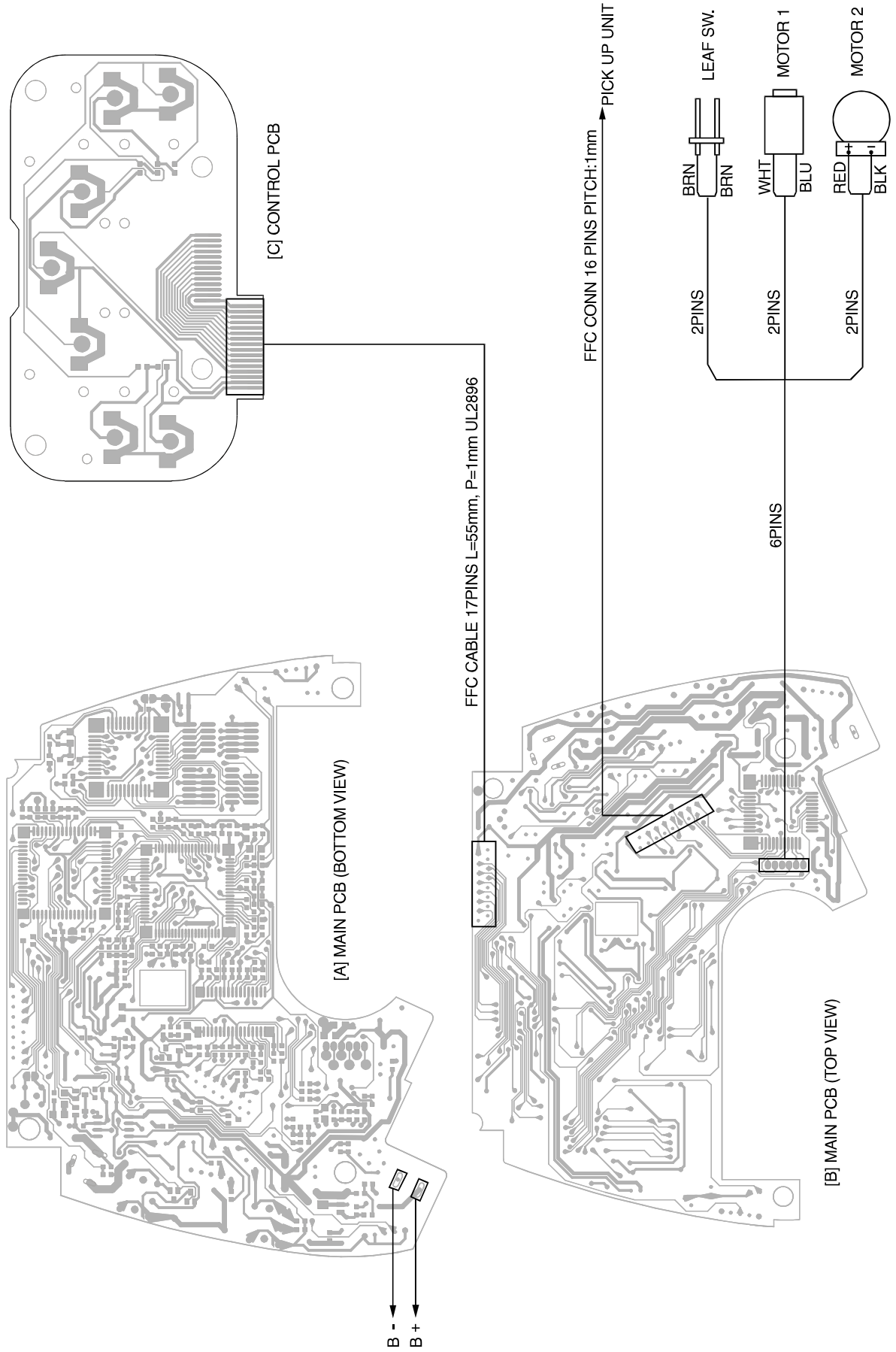
**BOTTOM VIEW**

**CONTROL BOARD  
CDM52C-01-02**





# WIRING DIAGRAM



## VOLTAGE CHART

THE MEASURED VALUE IS DC VOLTAGE

UNIT:V

TEST CONDITION: CD PLAY

IC501 (BU34581-5G)

<b>PIN'S NUMBER</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
	0	1.49	0	0	0	0	0	0
<b>PIN'S NUMBER</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>
	1.49	1.49	0	0	0	1.54	1.49	1.49
<b>PIN'S NUMBER</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>
	0	3.11	3.10	3.10	0	0	3.10	3.10
<b>PIN'S NUMBER</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>32</b>
	3.10	0	3.10	3.06	0.05	0	0	0
<b>PIN'S NUMBER</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>	<b>37</b>	<b>38</b>	<b>39</b>	<b>40</b>
	3.05	3.02	0.15	0	2.82	0.99	0	0
<b>PIN'S NUMBER</b>	<b>41</b>	<b>42</b>	<b>43</b>	<b>44</b>	<b>45</b>	<b>46</b>	<b>47</b>	<b>48</b>
	3.08	0.03	3.11	3.07	0	3.07	3.09	0
<b>PIN'S NUMBER</b>	<b>49</b>	<b>50</b>	<b>51</b>	<b>52</b>	<b>53</b>	<b>54</b>	<b>55</b>	<b>56</b>
	1.46	1.53	0	3.07	3.10	3.10	2.87	3.10
<b>PIN'S NUMBER</b>	<b>57</b>	<b>58</b>	<b>59</b>	<b>60</b>	<b>61</b>	<b>62</b>	<b>63</b>	<b>64</b>
	2.85	0	2.86	0	1.45	1.45	1.45	1.45

IC601 (BA5901K)

<b>PIN'S NUMBER</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>
	4.84	5.96	3.08	0.84	0.13	0.62	1.19	0.02	0.78	0.17	0.14
<b>PIN'S NUMBER</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>
	3.11	3.02	0.62	3.11	1.57	0	1.57	3.10	1.59	0	1.53
<b>PIN'S NUMBER</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>32</b>	<b>33</b>
	0	1.12	0.09	0	0	0	0	0	0	0	0
<b>PIN'S NUMBER</b>	<b>34</b>	<b>35</b>	<b>36</b>	<b>37</b>	<b>38</b>	<b>39</b>	<b>40</b>	<b>41</b>	<b>42</b>	<b>43</b>	<b>44</b>
	0	0.12	0.88	5.80	1.55	5.74	3.05	0.05	5.90	0	0.47

IC201 (BU9526KS)

<b>PIN'S NUMBER</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
	1.57	1.48	3.11	1.67	1.55	0.3	1.56	1.56	0	0
<b>PIN'S NUMBER</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
	1.03	3.04	1.56	1.57	3.10	1.51	1.54	1.55	1.55	1.56
<b>PIN'S NUMBER</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>
	1.56	1.56	1.54	1.57	1.62	1.56	1.58	1.64	0.30	0
<b>PIN'S NUMBER</b>	<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>	<b>37</b>	<b>38</b>	<b>39</b>	<b>40</b>
	0	0	0.03	0	0.28	3.07	0	0	3.09	3.11
<b>PIN'S NUMBER</b>	<b>41</b>	<b>42</b>	<b>43</b>	<b>44</b>	<b>45</b>	<b>46</b>	<b>47</b>	<b>48</b>	<b>49</b>	<b>50</b>
	3.10	3.10	0	3.10	0	0	0	0	0	0
<b>PIN'S NUMBER</b>	<b>51</b>	<b>52</b>	<b>53</b>	<b>54</b>	<b>55</b>	<b>56</b>	<b>57</b>	<b>58</b>	<b>59</b>	<b>60</b>
	1.44	3.11	0	1.55	1.05	1.52	0	0	0	0
<b>PIN'S NUMBER</b>	<b>61</b>	<b>62</b>	<b>63</b>	<b>64</b>	<b>65</b>	<b>66</b>	<b>67</b>	<b>68</b>	<b>69</b>	<b>70</b>
	0	1.02	0	0	1.55	0	0	1.55	1.01	1.51
<b>PIN'S NUMBER</b>	<b>71</b>	<b>72</b>	<b>73</b>	<b>74</b>	<b>75</b>	<b>76</b>	<b>77</b>	<b>78</b>	<b>79</b>	<b>80</b>
	1.48	0	0	0	0	0	3.11	0	0	1.51

## VOLTAGE CHART - CONTINUED

### IC301 (BA3579FS)

<b>PIN'S NUMBER</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
	0	1.48	0	1.47	0	1.39	0	0.70	0	0
<b>PIN'S NUMBER</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
	1.54	0.70	1.54	0	1.54	0.69	1.00	0	1.00	3.11

### IC101 (BA6387K)

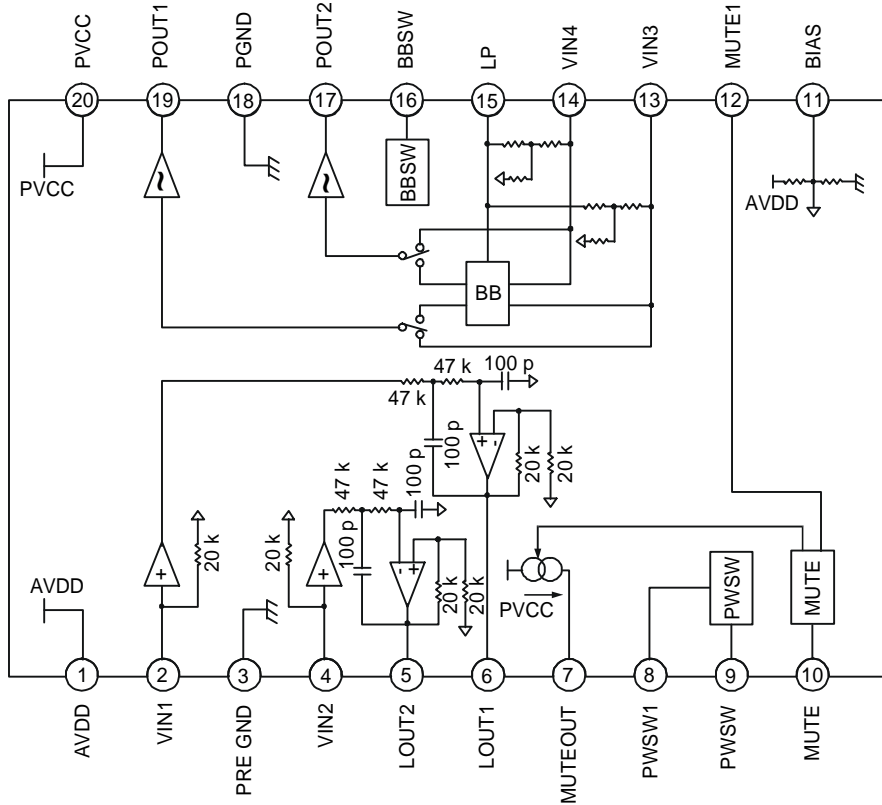
<b>PIN'S NUMBER</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
	1.56	0.97	0	1.18	1.49	2.21	0	2.32
<b>PIN'S NUMBER</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>
	0	1.15	2.21	3.05	1.54	0	0	0
<b>PIN'S NUMBER</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>
	1.58	0	1.77	1.08	3.11	1.56	1.35	1.56
<b>PIN'S NUMBER</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>32</b>
	1.56	1.56	1.56	1.56	1.58	1.56	1.56	1.56

## ALIGNMENT SET-UP PROCEDURES

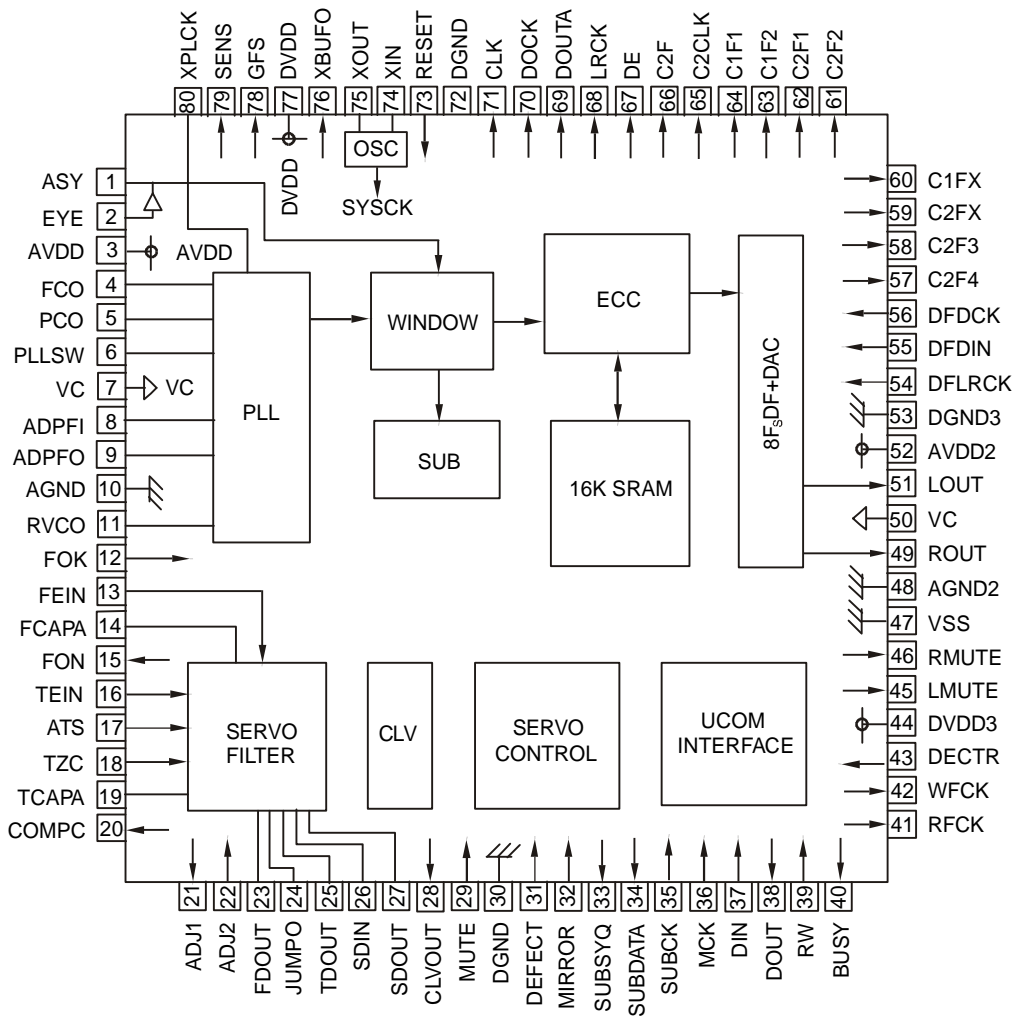
There is no need to adjust the CD servo PWB. Because auto-adjustment function has been set by the CPU.

# IC BLOCK DIAGRAMS & IC PINS DESCRIPTION

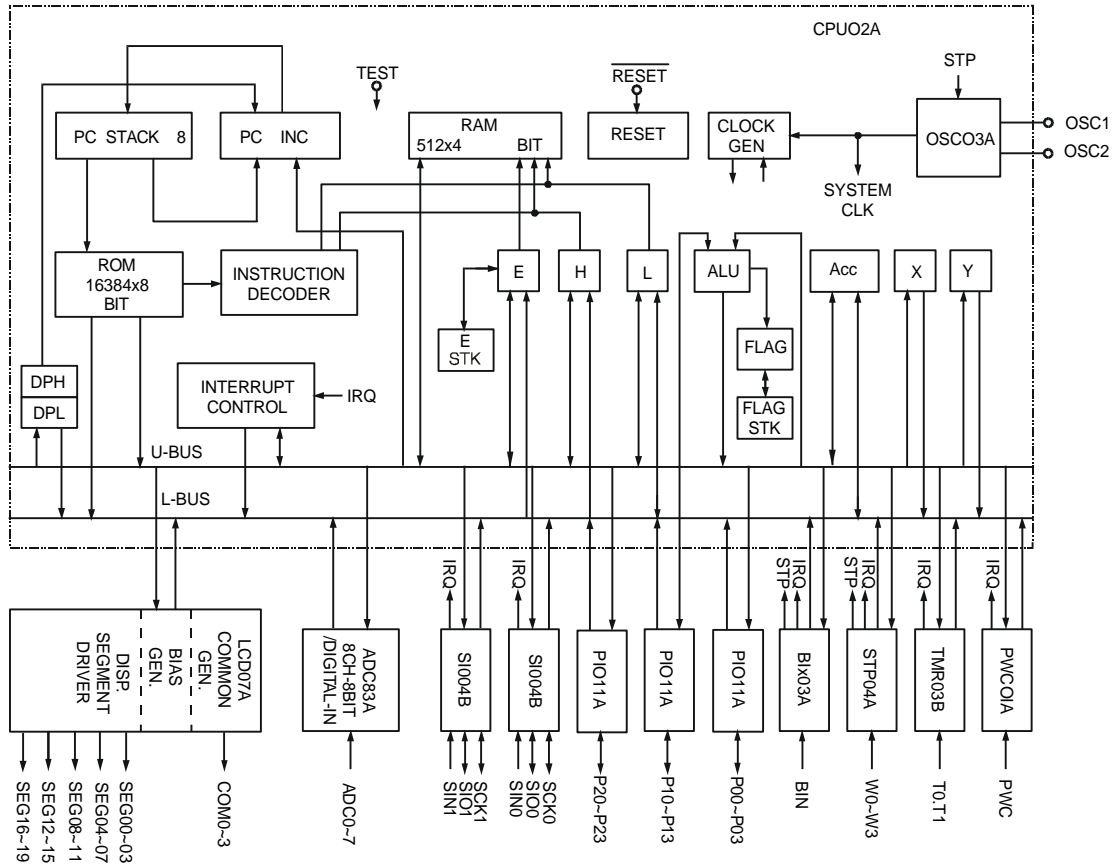
## IC301 BA3579FS



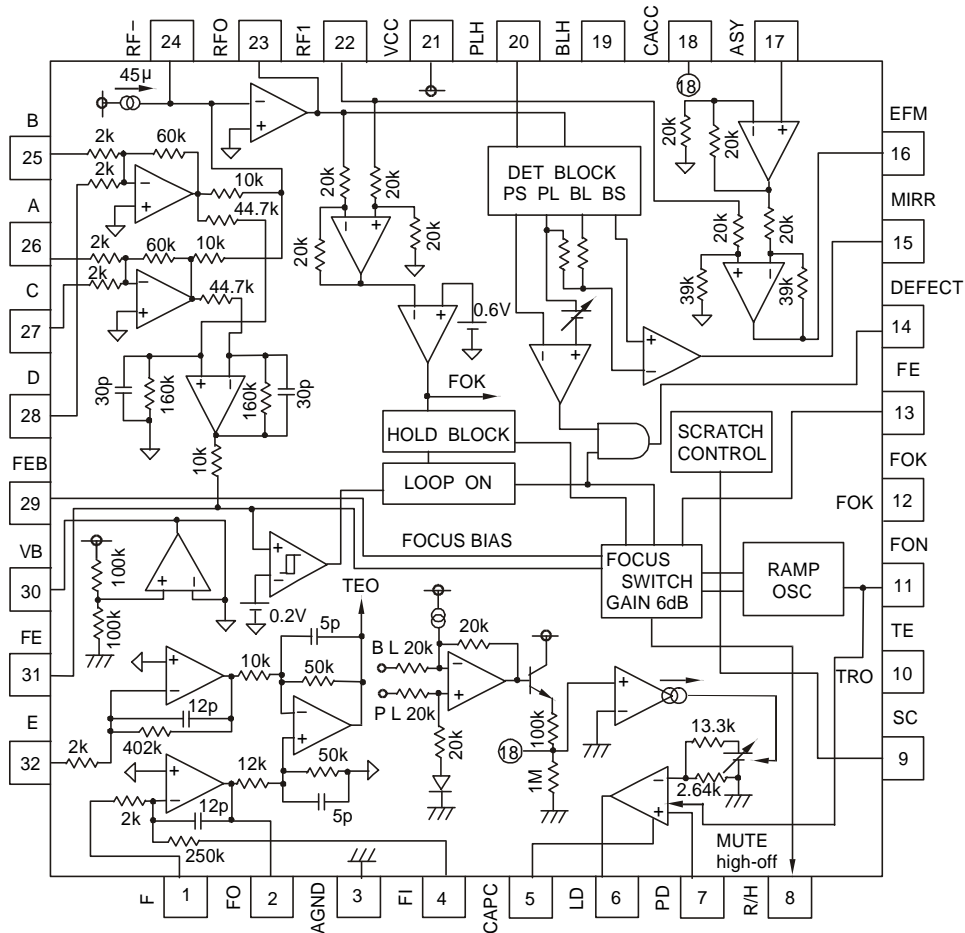
## IC201 BU9526KS



# IC501 BU34581-5G



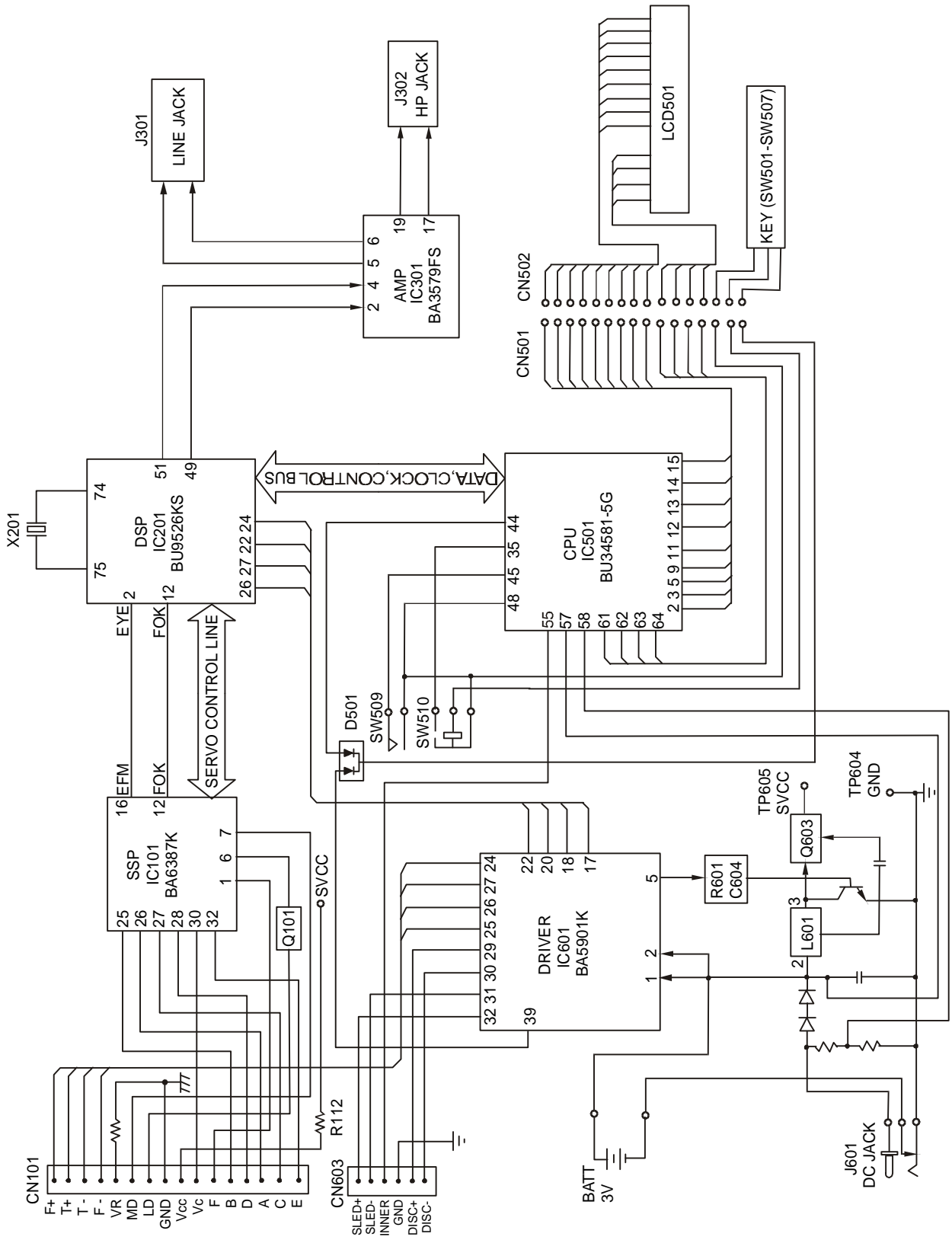
# IC101 BA6387K



## IC601 BA5901K PINS DESCRIPTION

Pin No.	Pin Name	Function
1	BSEN	Battery voltage monitor terminal
2	BATT	Battery power supply input terminal
3	RESET	Cassette detection output terminal
4	DEAD	Dead-time setting terminal
5	SW	Booster transistor drive terminal
6	EO	Error amplifier output terminal
7	EI	Error amplifier input terminal
8	SPRT	Short-circuit protection setting terminal
9	CT	Triangular wave output terminal
10	N.C	
11	OP-	Operational amplifier negative input terminal
12	VSYSI	Control circuit power supply input terminal
13	OPOUT	Operational amplifier output terminal
14	OP+	Operational amplifier positive input terminal
15	VSYS2	Pre-driver power supply input terminal
16	VREF	Reference power supply input terminal
17	IN3	CH3 control signal input terminal
18	IN4	CH4 control signal input terminal
19	MUTE34	CH3/CH4 mute terminal
20	IN2	CH2 control signal input terminal
21	MUTE2	CH2 mute terminal
22	IN1	CH1 control signal input terminal
23	BRAKE1	CH1 brake terminal
24	OUT4R	CH4 negative output
25	OUT4F	CH4 positive output
26	OUT3R	CH3 negative output
27	OUT3F	CH3 positive output
28	POWGND	Power unit power supply ground
29	OUT2F	CH2 positive output
30	OUT2R	CH2 negative output
31	OUT1F	CH1 positive output
32	OUT1R	CH1 negative output
33	RCHG	Charging current setting terminal
34	AMUTE	Reset inversion output terminal
35	EMP	"Empty" detection output terminal
36	HVCC	H-bridge power supply input terminal
37	PSW	PWM transistor drive terminal
38	CLK	External clock synchronization input terminal
39	START	Boost DC/DC converter starting terminal
40	OFF	Boost DC/DC converter OFF terminal
41	CHGVCC	Charging circuit power supply input terminal
42	SEL	"Empty" detection level switching terminal
43	PREGND	Pre-unit power supply ground terminal
44	PWMFIL	PWM phase compensation terminal

# BLOCK DIAGRAM

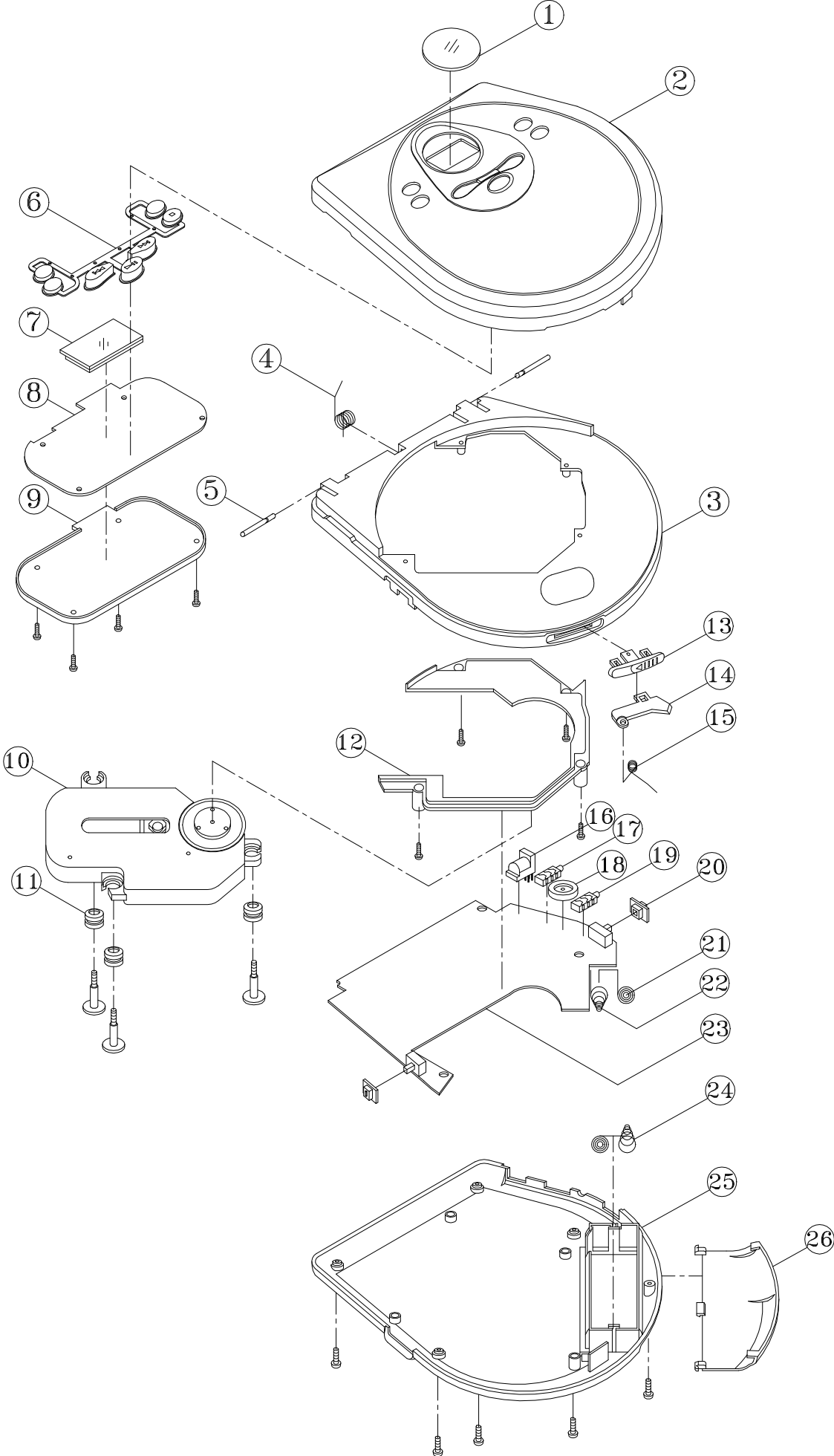


## EXPLODED DRAWING & MECHANICAL PARTS LIST

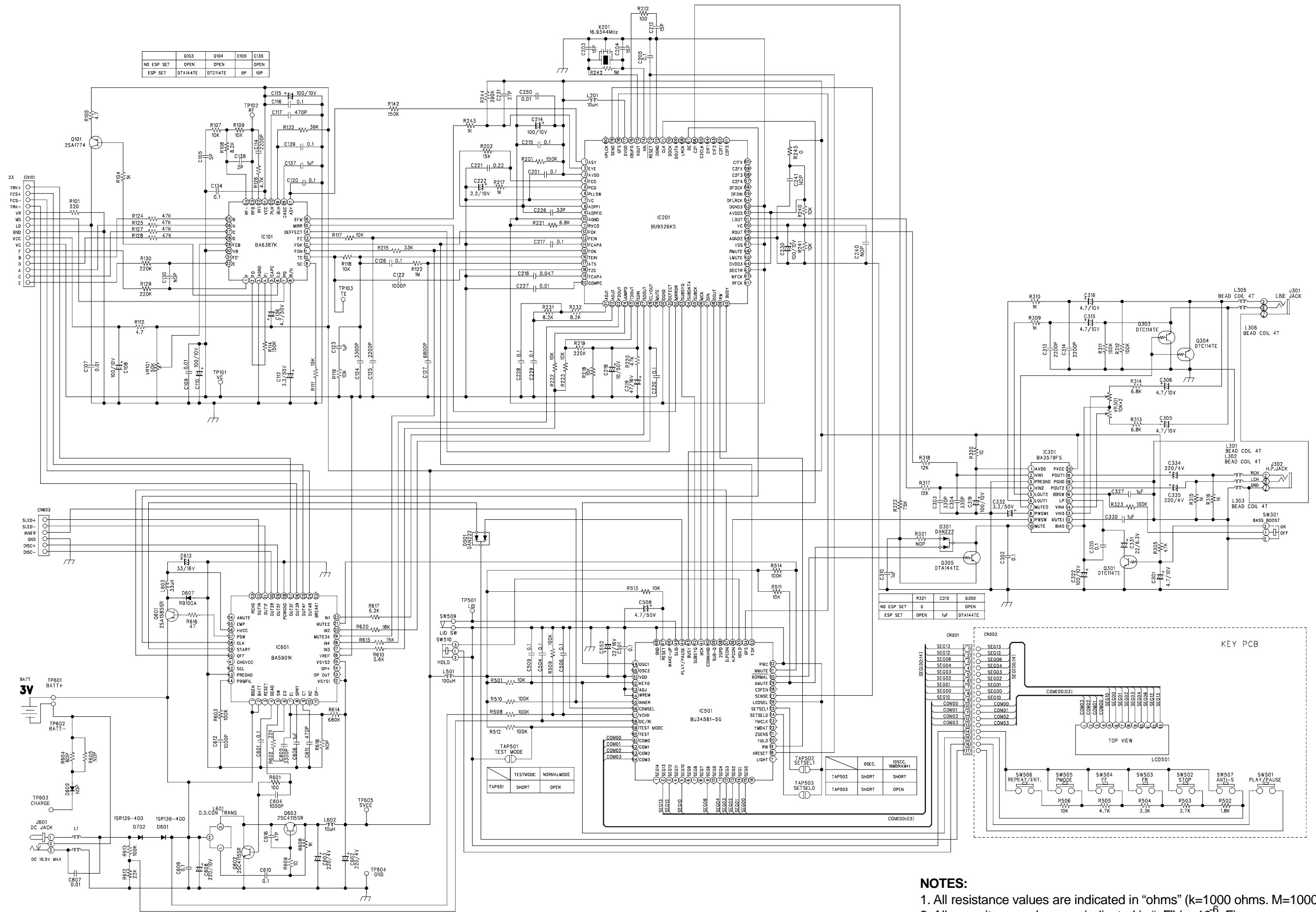
Ref. No.	Description	Mfr's Part No.	Qty.
1	DISPLAY PLATE, 0.5mm THK, TRANSPARENT PVC, w/o PRINTING	650-890003-000	1
2	CD DOOR, MOLD C.GR 2C (ABS), w/SPY & PNT	500-890001-xxx	1
3	MIDDLE CAB (w/LOCK), MOLD D.GR (1524A), (ABS) CAV:2, (SONY/SANYO/SAMSUNG/THOMSON)	500-890302-000	1
4	CD DOOR SPRING, DIA:0.7mm SPRING WIRE (NICKEL PLATED)	561-890318-000	1
5	CD DOOR PIN, SUS 405	609-890317-000	2
6	CD KNOB SET, MOLD C.GREY 5C (ABS), w/SPY	510-890002-xxx	1
7	LCD-P-02D-2616SM000P JT4-00033, 26x16x2.8mm REFLECTIVE/POSITIVE	112-000033-000	1
8	CONTROL BOARD CDM52C-01-02 125x176x1.0mm/12 (94HB), FLASH GOLD	033-CDM52C-100	1
9	PCB COVER, MOLD D.GREY (1524A) (ABS) CAV:4	500-890308-000	1
10	CD&-PTC-01-SAN&-N CD MECHANISM TYPE:DA23 (SANYO)	153-000023-000	1
11	CD CUSHION (RUBBER)	700-890314-000	3
12	CD MECH BRACKET, MOLD D.GREY(1524A) (ABS) CAV:2 (FOR SANYO)	505-890312-000	1
13	OPEN KNOB, MOLD D.GREY(1524A) (ABS) CAV:4	510-890306-000	1
14	DOOR LOCK, MOLD D.GREY(1524A) (PC) CAV:6	509-890309-000	1
15	DOOR LOCK SPRING, DIA:0.6mm, SPRING WIRE (NICKEL PLATED)	561-890322-001	1
16	POWER JACK DC, (HE0470-01-230)	120-100470-000	1
17	HEADPHONE JACK HSJ1715-01-112 (GREEN), TC38-072-02/EJS-3-0935G	116-001715-000	1
18	VR-C16M&G&010KA&SH&D (ROTARY VOLUME), RC1001GAX0A-HA1-A103-B28B160B01-N	030-C10103-205	1
19	HEADPHONE JACK HSJ1715-01-110 (BLACK), TC38-072-01/EJS-3-0935B	116-001715-001	1
20	SLIDE KNOB, MOLD D.GREY(1524A) (ABS) CAV:8	510-890307-000	2
21	BATTERY SPRING (+), DIA:0.7mm SPRING WIRE w/NICKEL	535-890320-000	1
22	BATTERY SPRING (-), DIA:0.7mm SPRING WIRE w/NICKEL	535-890321-000	1
23	MAIN BOARD CDM52-01-01 122x199x0.8mm/2 (FR4) DOUBEL-SIDED	033-0CDM52-100	1
24	BATTERY SPRING (+/-), DIA:0.7mm SPRING WIRE w/NICKEL	535-890319-000	1
25	BOTTOM CABINET (w/LOCK), MOLD D.GREY(1524A) (ABS) CAV:2	500-890303-000	1
26	BATTERY DOOR, MOLD D.GREY(1524A) (ABS) CAV:4	500-890310-000	1
	FIBRE WASHER Ø2.6xØ6x0.4mm	FOR MECHA 532-302606-040	2
	RUBBER WASHER, DIA:8x3.2x0.6mm BL. (SILICON)	532-700108-330	2
	RUBBER FOAM, 28x4x2mm	700-880117-000	0.18
	SPK. BOX FELT 80x8x0.3mm, BLACK	700-993856-000	0.12
	SCREW 2x5mm PB T.T.S. w/CHROMATE PLATED (PTTP 2.0x5.0 MC)	722-020200-052	1
	SCREW 2x6mm PB T.T.S. NI (01 PTP 2x6 NI)	4/CD MECHA.BKT. 722-020200-060	4
	SCREW 2x8mm PB T.T.S. w/CHROMATE PLATING (PTTP2x8MC)	5/BOTT.CAB. 722-020200-082	5
	SCREW 1.7x3mm B TYPE T.T.S. BLACK (H=3.0/=T=0.2), (#OK-BT3002-1.7x3.0AB)	722-060177-301	4
	CD SCREW, STEEL	723-048903-000	3



# EXPLODED DRAWING



# SCHEMATIC DIAGRAM



**NOTES:**

1. All resistance values are indicated in "ohms" (k=1000 ohms. M=1000 kohms).
2. All capacitance values are indicated in "µF" ( $\mu=10^{-6}$ µF).

**NOTES:**

***ALCO ELECTRONICS LTD***  
***APRIL, 2002***