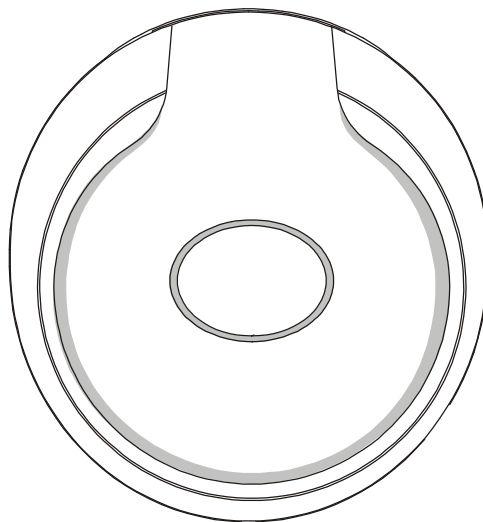


Service Manual

COMPACT DISC COMPACT PLAYER




PD-X3780SR

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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.

PERFORMANCE SPECIFICATIONS

GENERAL TEST CONDITION

| | |
|-----------------------|--|
| Power Supply | : AC-DC Adaptor 100V: 6V DC 60H Battery: 3V (AAx4) |
| | 120V: 6V DC 60Hz |
| | 230V: 6V DC 50Hz |
| | 110/220V: 6V |
| Headphone Output Load | : 32 ohm |
| Reference Output | : 15mW |
| Input Signal Source | : CBS SONY YED7 (PTD-001) SONY |
| | PHILIPS SBC 444A (TCD-725. TDC-73; TDC-712) A.Bex |

EARPHONE OUTPUT

| | TEST ITEMS | UNIT | NOMINAL | LIMIT |
|-----|--|------|---------|-------|
| 1. | 10%THD Output Power (1kHz, 0dB) (32 ohm) | mW | - | 15 |
| *2. | Signal to Noise Ratio (1kHz) | dB | 76 | 70 |
| *3. | Channel Separation (1kHz, 0dB) | dB | 33 | 30 |
| *4. | Total Harmonic Distortion 1kHz | % | 0.3 | 1 |
| 5. | Frequency Response (1kHz,0dB) 100Hz | dB | ±1 | ±3 |
| | 10kHz | dB | ±1 | ±3 |
| | 20kHz | dB | ±3 | ±6 |

* with External A Filter

PLAYABILITY TESTING

| | TEST ITEMS | UNIT | LIMIT |
|----|---|------|-------------|
| 1. | Interruption (PHILIP SBC-444A) | mm | 0.6 |
| 2. | Black Dot (PHILIP SBC-444A) | mm | 0.6 |
| 3. | Finger Print (ESP OFF) (PHILIPS SBC-444A) | - | TN0, 18, 19 |
| 4. | Vertical (A. Bex TDC-731R) | mm | 0.5 |
| 5. | Eccentricity (A. Bex TCD-712R) | µm | 140 |

ELECTRICAL PARTS LIST

| Ref. No. | Description | Mfr's Part No. | Qty. |
|--|--|----------------|------|
| PCB | | | |
| CD PCB | PCB 8761-01-01 195x143x0.8mm/2 (FR4) | 033-008761-100 | 1 |
| REMOTE PCB | PCB WRC7-01-01 168x80x0.8mm/6 (FR4) | 033-00WRC7-100 | 1 |
| REMOTE CONTROL PORTION | | | |
| RESISTORS | | | |
| R801,802,805,806 | CHIP RESISTOR 10 Kohm +-5% 1/16W (T&W) (0402/1005) | 001-310356-016 | 4 |
| R807,808 | CHIP RESISTOR 100 Kohm +-5% 1/16W (0402/1005) | 001-310456-016 | 2 |
| R803 | CHIP RESISTOR 1.2 Mohm +-5% 1/16W (0402/1005) | 001-312556-016 | 1 |
| R804 | CHIP RESISTOR 51 Kohm +-5% 1/16W (0402/1005) | 001-351356-016 | 1 |
| CAPACITORS | | | |
| C801,802,803 | CHIP CAP 0.01 uF/16V +-10% (0402/1005) (GRM36X7R103K16PT) | 003-510314-016 | 3 |
| C804,808 | CHIP CAP 0.1 uF/16V +80-20% (0402/1005) | 003-510484-016 | 2 |
| C805 | CHIP TANTALUM CAP 10 MFD/4V +-20% (A CASE:3216) | 006-A10000-04D | 1 |
| INTEGRATED CIRCUIT | | | |
| IC801 | ICDISPLAYDRIVER-LCD SPL10A2-203A-C (SUNPLUS) | 010-530102-000 | 1 |
| DIODES | | | |
| D802 | CHIP DIODE DAN202U | 011-040202-003 | 1 |
| D801 | CHIP DIODE DA227 (ROHM) | 011-040227-000 | 1 |
| SWITCHES | | | |
| SW802,804,807,809 | LUMI SWITCH LS7A2M-T (87-A90-665-18) | 021-007200-000 | 4 |
| SW801,803,806,808,811 | CHIP TACT SW SKQLLA/F1841501M/SKQLLAE010 SKQLLAE011/SKQLLAE012 (87-036-342-08J) | 021-SKQLLA-000 | 5 |
| MISCELLANEOUS | | | |
| | LCD-P-02D-2315SM000P JT4-02263 | 112-002263-000 | 1 |
| | 23.5x15.4x1.7mm TRANSIMISSIVE/POSITIVE HEADPHONE JACK HSJ1715-01-110 (BLACK) TC38-072-01/EJS-3-0935B | 116-001715-001 | 1 |
| MAIN UNIT | | | |
| RESISTORS | | | |
| R666 | RESISTOR 8.2 ohm +-5% 1/4W | 001-082850-014 | 1 |
| R604 | CHIP RESISTOR 10 ohm +-5% 1/16W (0402/1005) | 001-310056-016 | 1 |
| R101,150,608 | CHIP RESISTOR 100 ohm +-5% 1/16W (T&W) (0402/1005) | 001-310156-016 | 3 |
| R104,314,315,598,599 | CHIP RESISTOR 1 Kohm +-5% 1/16W (0402/1005) | 001-310256-016 | 5 |
| R3,123,401,402,501,506, 507,508,509,555,556,557, 558,609 | CHIP RESISTOR 10 Kohm +-5% 1/16W (T&W) (0402/1005) | 001-310356-016 | 14 |
| R103,502,504,505,514, 610 | CHIP RESISTOR 100 Kohm +-5% 1/16W (0402/1005) | 001-310456-016 | 6 |
| R120 | CHIP RESISTOR 1 Mohm +-5% 1/16W (T&W) (0402/1005) | 001-310556-016 | 1 |
| R605 | CHIP RESISTOR 12 Kohm +-5% 1/16W (0402/1005) | 001-312356-016 | 1 |
| R123 | CHIP RESISTOR 120 Kohm +-5% 1/16W (0402/1005) | 001-312456-016 | 1 |
| R603 | CHIP RESISTOR 1.5 Kohm +-5% 1/16W (0402/1005) | 001-315256-016 | 1 |
| R112 | CHIP RESISTOR 150 Kohm +-5% 1/16W (0402/1005) | 001-315456-016 | 1 |
| R303 | CHIP RESISTOR 180 Kohm +-5% 1/16W (0402/1005) | 001-318456-016 | 1 |
| R304,305,306,307,588 | CHIP RESISTOR 2.2 Kohm +-5% 1/16W (0402/1005) | 001-322256-016 | 5 |
| R121,553,554,611 | CHIP RESISTOR 22 Kohm +-5% 1/16W (0402/1005) | 001-322356-016 | 4 |
| R316 | CHIP RESISTOR 2.2 ohm +-5% 1/16W (0402/1005) | 001-322856-016 | 1 |
| R606,617 | CHIP RESISTOR 27 Kohm +-5% 1/16W (0402/1005) | 001-327356-016 | 2 |
| R117 | CHIP RESISTOR 270 Kohm +-5% 1/16W (0402/1005) | 001-327456-016 | 1 |
| R118,616 | CHIP RESISTOR 33 Kohm +-5% 1/16W (0402/1005) | 001-333356-016 | 2 |
| R114 | CHIP RESISTOR 470 ohm +-5% 1/16W (0402/1005) | 001-347156-016 | 1 |
| R119 | CHIP RESISTOR 4.7 Kohm +-5% 1/16W (0402/1005) | 001-347256-016 | 1 |
| R102,105,124 | CHIP RESISTOR 4.7 ohm +-5% 1/16W (0402/1005) | 001-347856-016 | 3 |

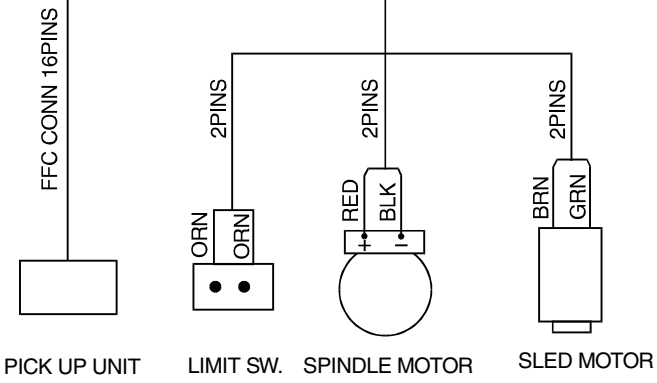
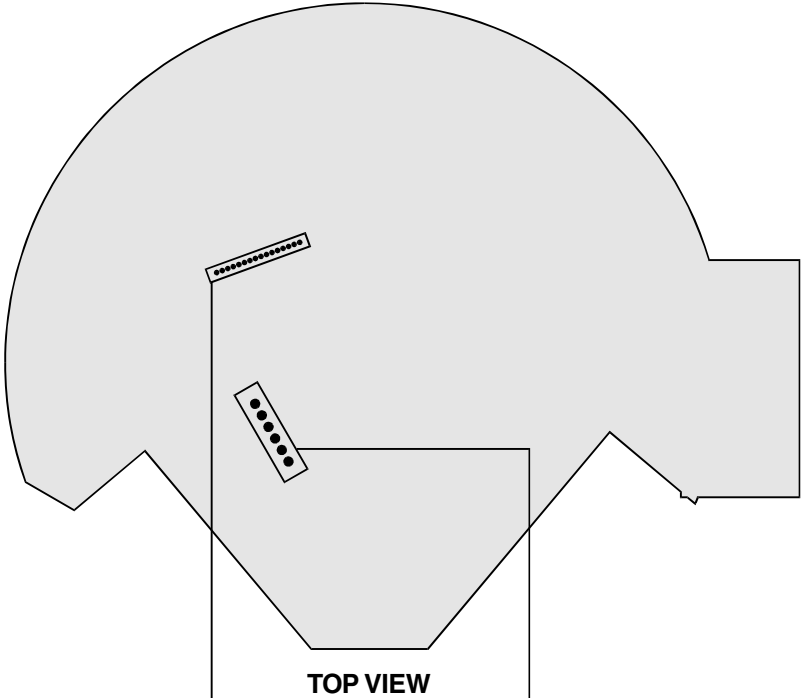
ELECTRICAL PARTS LIST - CONTINUED

| Ref. No. | Description | Mfr's Part No. | Qty. |
|--|--|----------------|------|
| R110,111,115,301,310,311 | CHIP RESISTOR 47 Kohm +-5% 1/16W (0402/1005) | 001-347356-016 | 6 |
| R2,106,107,108,109,615 | CHIP RESISTOR 56 Kohm +-5% 1/16W (0402/1005) | 001-356356-016 | 6 |
| R116 | CHIP RESISTOR 68 Kohm +-5% 1/16W (0402/1005) | 001-368356-016 | 1 |
| R122,302 | CHIP RESISTOR 75 Kohm +-5% 1/16W (0402/1005) | 001-375356-016 | 2 |
| R607 | CHIP RESISTOR 8.2 Kohm +-5% 1/16W (0402/1005) | 001-382256-016 | 1 |
| R312,313 | CHIP RESISTOR 9.1 Kohm +-5% 1/16W (0402/1005) | 001-391256-016 | 2 |
| CAPACITORS | | | |
| C1,2,3,4 | CERAMIC CAP 0.01 uF/16V +80%-20% (EP050YF103Z) (AXIAL TAPED 52mm) | 003-210380-016 | 4 |
| C608 | CHIP CAP 0.001 uF/50V +-10% (0402/1005) (GRM36X7R102K50PT) | 003-510214-050 | 1 |
| C103 | CHIP CAP 0.01 uF/50V +-10% (0402/1005) | 003-510314-050 | 1 |
| C105,107,110,111,115,117,119,126,128,129,130,134,135,137,401,501,503,504,505,506,507,508,509,604,606,612,615,616 | CHIP CAP 0.1 uF/16V +80-20% (0402/1005) | 003-510484-016 | 28 |
| C2,124,303,614 | CHIP CAP 1 uF/10V +80-20% (0603/1608) | 003-510582-010 | 4 |
| C121 | CHIP CAP 0.0022 uF/50V +-10% (0402/1005) (GRM36X7R222K50PT) | 003-522214-050 | 1 |
| C607,618,619,620,621 | CHIP CAP 0.022 uF/16V +-10% (0402/1005) | 003-522314-016 | 5 |
| C114 | CHIP CAP 0.22 uF/10V +80-20% (0402/1005) | 003-522484-010 | 1 |
| C1 | CHIP CAP 2.2 uF/16V +80-20% (0805/2012) | 003-522580-016 | 1 |
| C603 | CHIP CAP 47 pF/50V +-10% (0402/1005) | 003-547014-050 | 1 |
| C109,611 | (F003-647154-050) CHIP CAP 470 pF/50V +-5% (0402/1005) (GRM36X7R471J50PT) | 003-547154-050 | 2 |
| C304,305,306,307 | CHIP CAP 560 pF/50V +-10% (0402/1005) | 003-556114-050 | 4 |
| C125 | CHIP CAP 0.0068 uF/25V +-10% (0402/1005) | 003-568214-025 | 1 |
| C112 | CHIP CAP 120 pF/50V +-5% NPO (0402/1005) | 003-612154-050 | 1 |
| C131,132,150 | CHIP CAP 15 pF/50V +-5% NPO (0402/1005) (GRM36C0G150J50PT) | 003-615054-050 | 3 |
| C122,123 | CHIP CAP 150 pF/50V +-5% NPO (0402/1005) | 003-615154-050 | 2 |
| C101,102,108,610 | *CdF ELECT CAP 100 MFD/4V +-20% (SMALL SIZE) (MAD/5x5) | 006-210100-04C | 4 |
| C301,312,313,601,602,617 | ELECT CAP 220 MFD/4V +-20% (SMALL SIZE) (MAD/6.3x5) | 006-222100-04D | 6 |
| C605 | ELECT CAP 220 MFD/10V +-20% (SMALL SIZE) (8x5) | 006-222100-10D | 1 |
| C302 | *CdF ELECT CAP 47 MFD/4V +-20% (SMALL SIZE) (MAD/4x5) | 006-247000-04C | 1 |
| C113,403 | ELECT CAP 3.3 MFD/25V +-20% (SMALL SIZE) (MAC/3x5) | 006-303000-25C | 2 |
| C118,310,311 | *CdF ELECT CAP 4.7 MFD/16V +-20% (SMALL SIZE) (MAC/3x5) | 006-304000-16C | 3 |
| C609 | ELECT CAP 10 MFD/16V +-20% (SMALL SIZE) (3.5x5) | 006-310001-16C | 1 |
| C104,120,127,133,402 | CHIP TANTALUM CAP 100 MFD/4V +-20% | 006-A10100-04D | 5 |
| C502 | CHIP TANTALUM CAP 47 MFD/4V +-20% (B CASE:3528) (87-A10-953-08J) | 006-A47000-04C | 1 |
| C613 | ELECT CAP 47 MFD/16V +-20% MA (STRAIGHT) (TAPING PITCH:2.5mm/6.3x5/87-010-553-04) | 006-D4700A-16C | 1 |
| TRANSISTORS | | | |
| Q1 | TR NPNSST-TAP&&&-&&& DTC114YUA (87-A30-404-04C) | 008-A00114-P00 | 1 |
| Q104,401 | TR NPNSST-RAD&SC-072 DTC114TUA (ROHM) | 008-A00114-Q00 | 2 |
| Q102,301 | TR PNPGEN-TAP&SC-70& DTA124EUA (ROHM) (SMD) | 008-A00124-800 | 2 |

ELECTRICAL PARTS LIST - CONTINUED

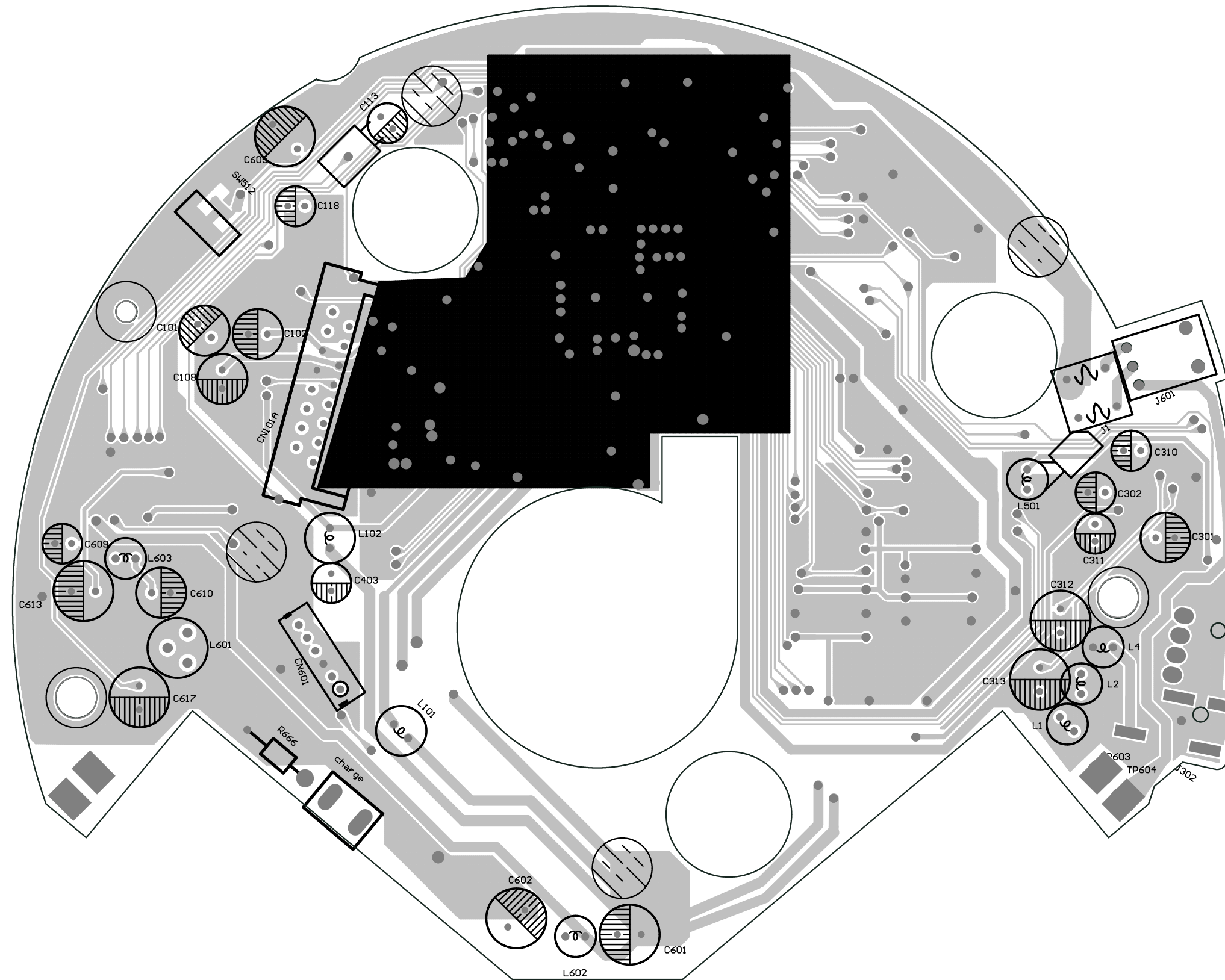
| Ref. No. | Description | Mfr's Part No. | Qty. |
|----------------------------|--|----------------|------|
| Q601 | TR PNPPWR-BUK&SC-062 2SB1132Q (ROHM) | 008-A01132-000 | 1 |
| Q101 | TR PNPGEN-TAP&&U-MT3 2SA1576A (ROHM) | 008-A01576-000 | 1 |
| Q602,603 | TR NPNPWR-TAP&SC-62& 2SD2150 | 008-A02150-000 | 2 |
| Q604,605 | TR NPNGEN-TAP&SC-70& 2SC4081 | 008-A04081-000 | 2 |
| Q502 | TR PNPGEN-RAD&SC-070 2SA1586GR (TOSHIBA) (89-115-865-08C) | 008-A15860-001 | 1 |
| INTEGRATED CIRCUITS | | | |
| IC402 | ICRAMS-04X016M HY57V641620HG | 010-695764-000 | 1 |
| IC501 | ICMCU-16K-LCD BU24590-8W 4BIT 1CHIP CPU | 010-352459-004 | 1 |
| IC101 | ICCDP-005CDSP BU9534KV CD SERVO, WITH BUILT IN DRAM CONTROLLER | 010-359534-000 | 1 |
| IC301 | ICAMP-HEAD-ST-0.001W BH4453F | 010-404453-000 | 1 |
| IC601 | ICMOTORDRIVER-04CH BH6575FV | 010-406575-000 | 1 |
| DIODE | | | |
| D603 | ZENER DIODE UDZ6.2B 1/5W (87-A40-196-08) | 011-010062-150 | 1 |
| INDUCTORS | | | |
| L601 | IFT R0002-CY45-950M-869123 7mm | 012-869123-007 | 1 |
| L501 | *CdF INDUCTOR 100 uH /1128/CEC-101K +-10% LAL03 TB 101K | 018-010014-000 | 1 |
| L602 | INDUCTOR 10 uH +-10% RL4055-100K 5x7.5mm w/UL TUBE =018-010015-000 | 018-010015-200 | 1 |
| L101,102 | *CdF INDUCTOR 10 uH +-10% LAL03TB100K (TAYIO YUDEN) | 018-010015-201 | 2 |
| L603 | CHOKE COIL 330 uH CW57-331K +-10% (5x7) | 018-030335-201 | 1 |
| L3,5,6,7,8 | CHIP INDUCTOR 100 uH LB2518T101M +-20% (TAYIO YUDEN) (87-A50-758-08) | 018-040014-300 | 5 |
| RESONATOR | | | |
| X201 | CERAMIC RESONATOR 16.93 MHz ZTA16.93MX (ZHEJIANG JIAKANG) | 020-001693-005 | 1 |
| SWITCH | | | |
| SW512 | PUSH SW 1P1T LEVER MPU11190MLB8 (87-A92-360-08) (CdF) | 021-111911-000 | 1 |
| MISCELLANEOUS | | | |
| L304,305 | H-P SET HP3215-009LT GREY,w/3.5mm STEREO SIL.GREY WIRE,MOLD:63223,SPY SIL,PNT BLK | 114-013215-000 | 1 |
| | REM.CONTROL LINE CORD L=760mm MOULDING SM3544+SR 8C CABLE GREY SLDG=1mm | 122-008020-070 | 1 |
| L303 | APD-EI35BSI&350MA/SO 230V:6Vdc BSI STD (320B-06351D/06035-PB3131-5)w/MADE IN CH | 133-020635-007 | 1 |
| | CD&-PTB-01-THOM-N CD MECHANISM TPP-35B | 153-000035-000 | 1 |
| L604 | *CdF BEAD COIL B3534/BA1203033534 100MHz w/FERRITE CORE (K6/CORE-TECH)(H6A/HUOHYOW) | 037-003534-100 | 2 |
| J601 | TOROIDAL COIL BA1203030835 100MHz | 037-120835-100 | 1 |
| CN101A | TOROIDAL COIL 26 uH TX2405020821-1 | 037-240502-261 | 1 |
| | HEADPHONE JACK 3.5mm 8 PINS EJS-4-3735 | 116-083735-000 | 1 |
| | DC JACK #TC18-077-01 (TAI CHUNG) (87-A60-122-019) | 120-118077-001 | 1 |
| | FFC/FPC CONNECTOR 16 PINS PITCH:1mm #D100-DRA-16 DOUBLE CONTACT | 135-D100DR-160 | 1 |
| | HEADER 6 PINS ZH-06AW PITCH:1.5mm HORIZONTAL TYPE | 135-ZH06AW-060 | 1 |

WIRING DIAGRAM



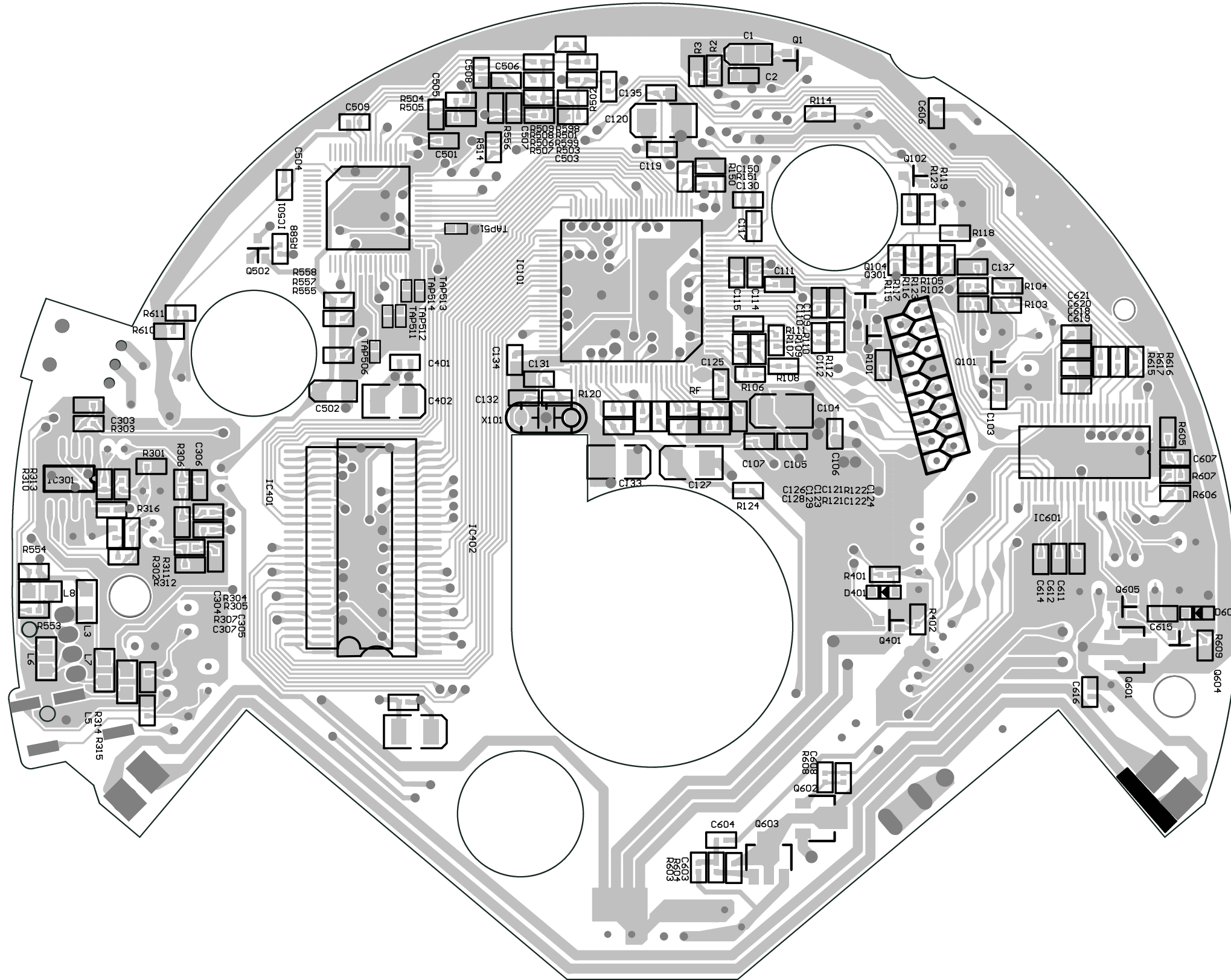
PRINTED CIRCUIT BOARDS

CD PCB
8761-01-01



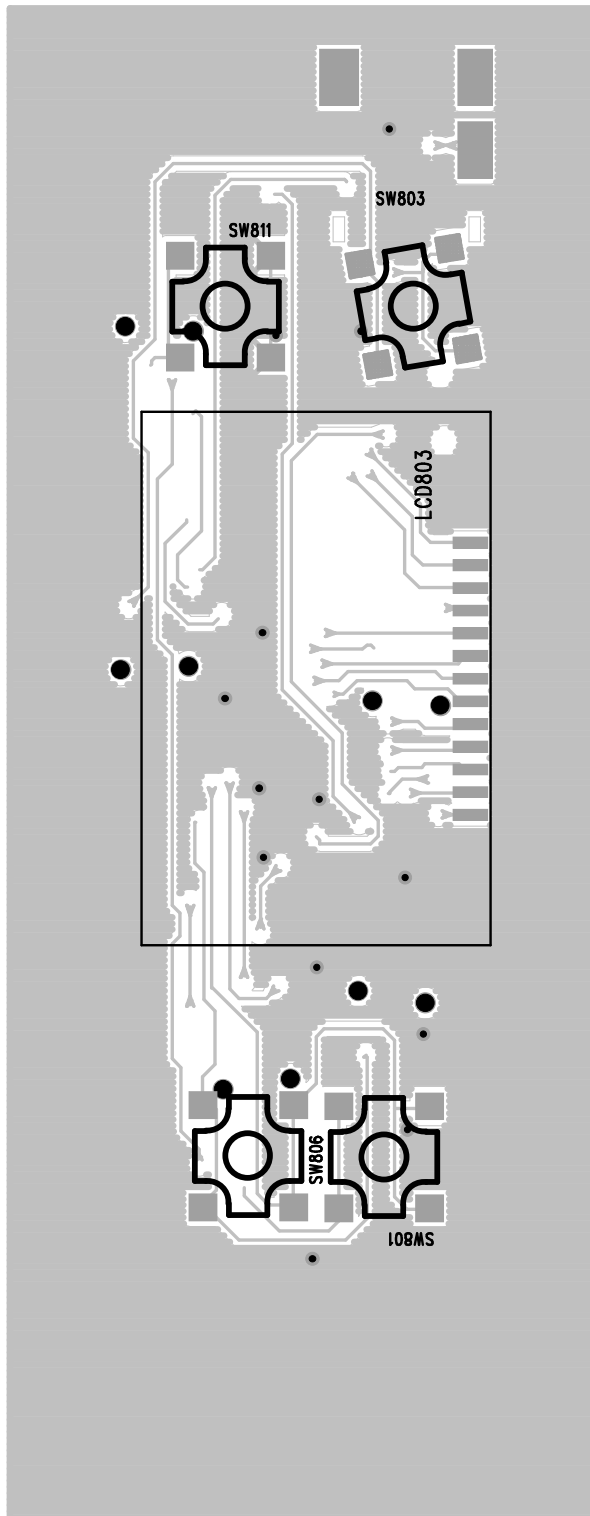
TOP VIEW

CD PCB
8761-01-01



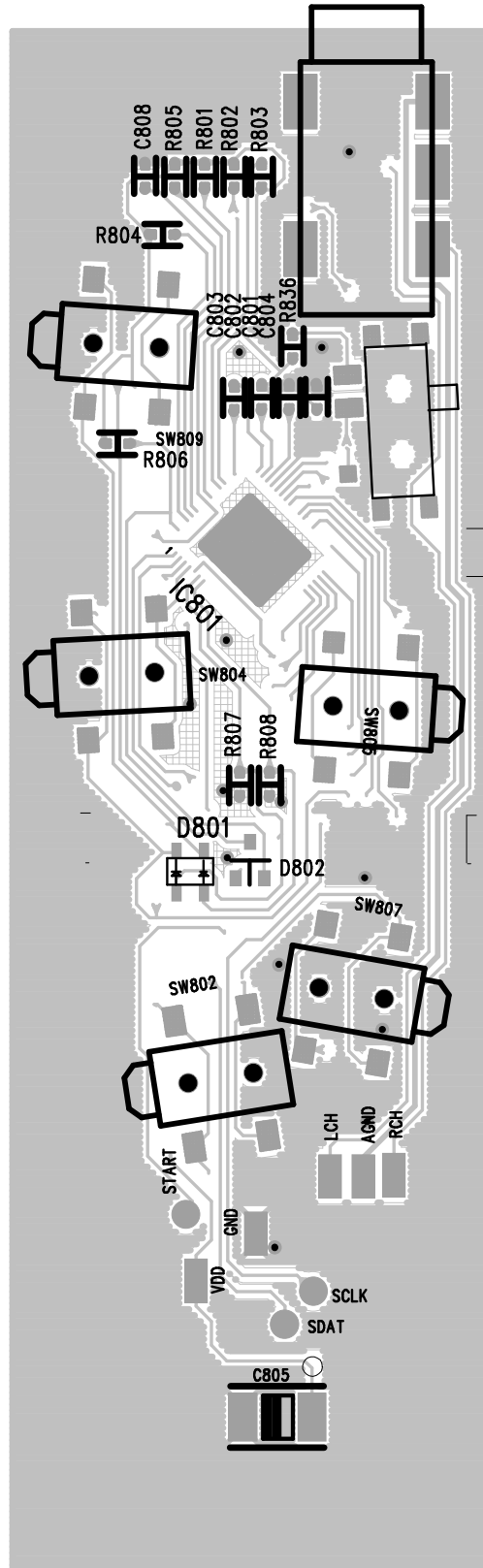
BOTTOM VIEW

REMOTE PCB
WRC7-01-01



TOP VIEW

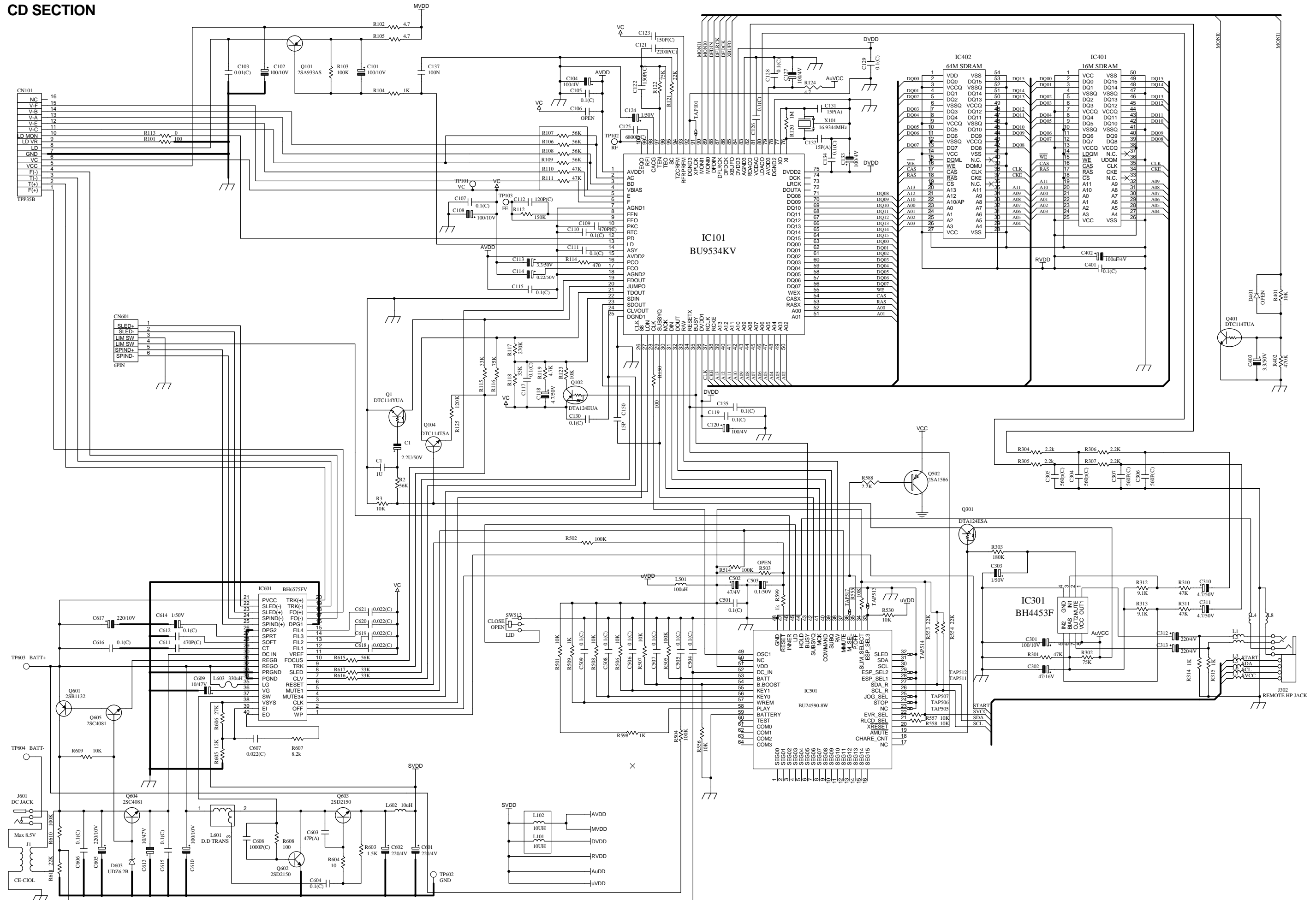
REMOTE PCB
WRC7-01-01



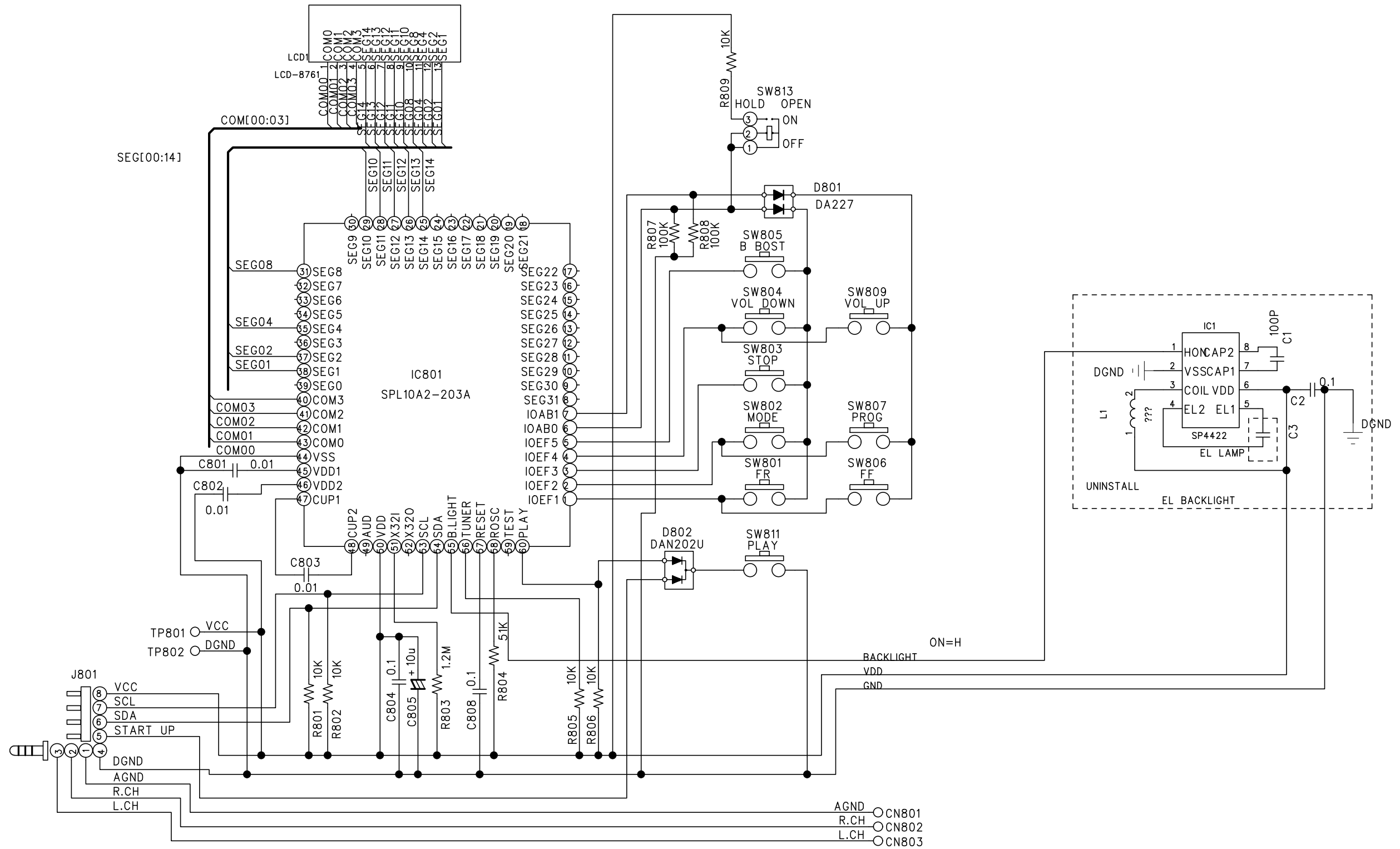
BOTTOM VIEW

SCHEMATIC DIAGRAMS

CD SECTION



REMOTE SECTION



VOLTAGE CHART

THE MEASURED VALUE IS DC VOLTAGE

UNIT: V

CD SECTION

TEST CONDITION: CD PLAY

IC101 (BU9534KV)

| | | | | | | | | | | |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| PIN'S NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| CD PLAY | 2.51 | 1.30 | 1.30 | 1.27 | 1.32 | 1.32 | 0 | 1.27 | 1.27 | 1.92 |
| PIN'S NUMBER | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| CD PLAY | 0.77 | 0.18 | 1.66 | 1.27 | 2.52 | 1.27 | 1.33 | 0 | 1.24 | 1.27 |
| PIN'S NUMBER | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| CD PLAY | 1.37 | 1.28 | 1.28 | 1.42 | 0 | 1.26 | 2.52 | 1.24 | 0 | 2.50 |
| PIN'S NUMBER | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| CD PLAY | 0.64 | 0 | 2.36 | 2.51 | 2.52 | 2.52 | 1.25 | 2.52 | 2.10 | 0 |
| PIN'S NUMBER | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| CD PLAY | 0 | 2.00 | 1.12 | 1.06 | 2.00 | 1.68 | 2.10 | 2.41 | 1.68 | 1.69 |
| PIN'S NUMBER | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| CD PLAY | 0.93 | 0.57 | 2.10 | 2.10 | 2.41 | 1.31 | 1.44 | 1.48 | 1.47 | 1.34 |
| PIN'S NUMBER | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| CD PLAY | 1.45 | 0 | 1.48 | 1.27 | 1.39 | 1.45 | 0 | 1.38 | 1.46 | 0 |
| PIN'S NUMBER | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| CD PLAY | 1.46 | 1.27 | 1.29 | 1.24 | 2.52 | 0 | 0 | 0 | 2.52 | 1.26 |
| PIN'S NUMBER | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| CD PLAY | 0 | 1.26 | 0 | 2.52 | 2.52 | 2.52 | 3 | 3 | 3 | 0.02 |
| PIN'S NUMBER | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
| CD PLAY | 2.51 | 0 | 1.74 | 0 | 0.37 | 1.29 | 1.26 | 0.82 | 1.27 | 1.33 |

IC402 (HY57V641620HG)

| | | | | | | | | | | |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| PIN'S NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| CD PLAY | 2.52 | 1.47 | 2.52 | 1.45 | 1.44 | 0 | 1.33 | 1.47 | 2.52 | 0 |
| PIN'S NUMBER | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| CD PLAY | 0 | 0 | 0 | 2.52 | 0 | 2.40 | 0 | 2.09 | 0 | 0 |
| PIN'S NUMBER | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| CD PLAY | 0 | 1.99 | 0.45 | 0.56 | 0.53 | 0.43 | 2.52 | 0 | 0.54 | 0 |
| PIN'S NUMBER | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| CD PLAY | 1.99 | 1.99 | 1.00 | 1.00 | 2.10 | 0 | 2.52 | 1.25 | 0 | 0 |
| PIN'S NUMBER | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| CD PLAY | 0 | 1.49 | 0 | 1.43 | 0 | 0 | 1.37 | 1.44 | 2.52 | 1.45 |
| PIN'S NUMBER | 51 | 52 | 53 | 54 | | | | | | |
| CD PLAY | 1.33 | 0 | 1.25 | 0 | | | | | | |

IC601 (BH6575FV)

| | | | | | | | | | | |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| PIN'S NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| CD PLAY | 2.47 | 2.51 | 1.26 | 2.51 | 0 | 0 | 1.27 | 1.27 | 1.27 | 1.27 |
| PIN'S NUMBER | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| CD PLAY | 0 | 1.26 | 1.27 | 1.27 | 1.27 | 0 | 0.12 | 0 | 0 | 0.22 |
| PIN'S NUMBER | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| CD PLAY | 2.53 | 0 | 0 | 0 | 0.40 | 0 | 0 | 1.11 | 0.50 | 0 |
| PIN'S NUMBER | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| CD PLAY | 0 | 2.52 | 0 | 0 | 2.52 | 5.94 | 0.27 | 2.52 | 0.91 | 0.42 |

VOLTAGE CHART - CONTINUED

IC301 (BH4453F)

| | | | | | | | | |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| PIN'S NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| CD PLAY | 0.88 | 1.34 | 0.93 | 0 | 0.93 | 0.93 | 0.88 | 2.51 |

IC501 (BU24590-8W)

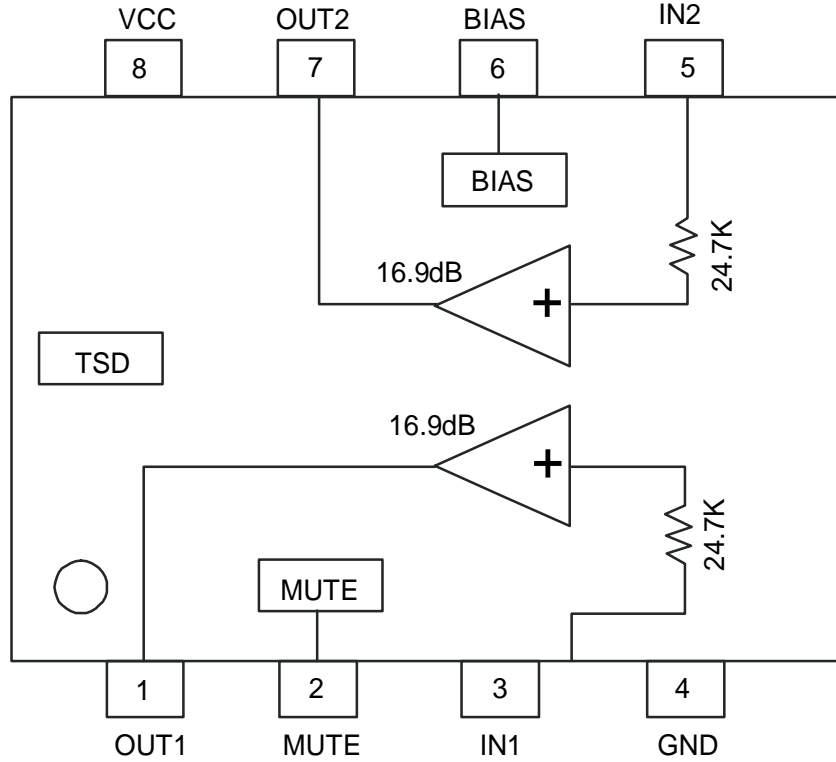
| | | | | | | | | |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| PIN'S NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| CD PLAY | 1.26 | 1.26 | 1.26 | 1.26 | 1.26 | 1.26 | 1.26 | 1.26 |
| PIN'S NUMBER | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| CD PLAY | 1.26 | 0 | 1.26 | 1.26 | 1.26 | 0 | 0 | 0 |
| PIN'S NUMBER | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| CD PLAY | 2.52 | 0 | 2.52 | 2.52 | 2.52 | 2.52 | 2.52 | 2.51 |
| PIN'S NUMBER | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
| CD PLAY | 2.51 | 0 | 0 | 0 | 0 | 2.51 | 2.51 | 0.42 |
| PIN'S NUMBER | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| CD PLAY | 0 | 2.52 | 2.51 | 2.51 | 0.02 | 2.38 | 0 | 0.18 |
| PIN'S NUMBER | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
| CD PLAY | 2.51 | 0 | 2.52 | 2.51 | 0 | 2.51 | 2.46 | 0 |
| PIN'S NUMBER | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 |
| CD PLAY | 1.25 | 1.10 | 2.52 | 0.02 | 1.21 | 1.26 | 2.52 | 2.52 |
| PIN'S NUMBER | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
| CD PLAY | 2.52 | 0 | 0.02 | 0 | 0 | 1.27 | 0 | 0 |

ALIGNMENT SET-UP PROCEDURES

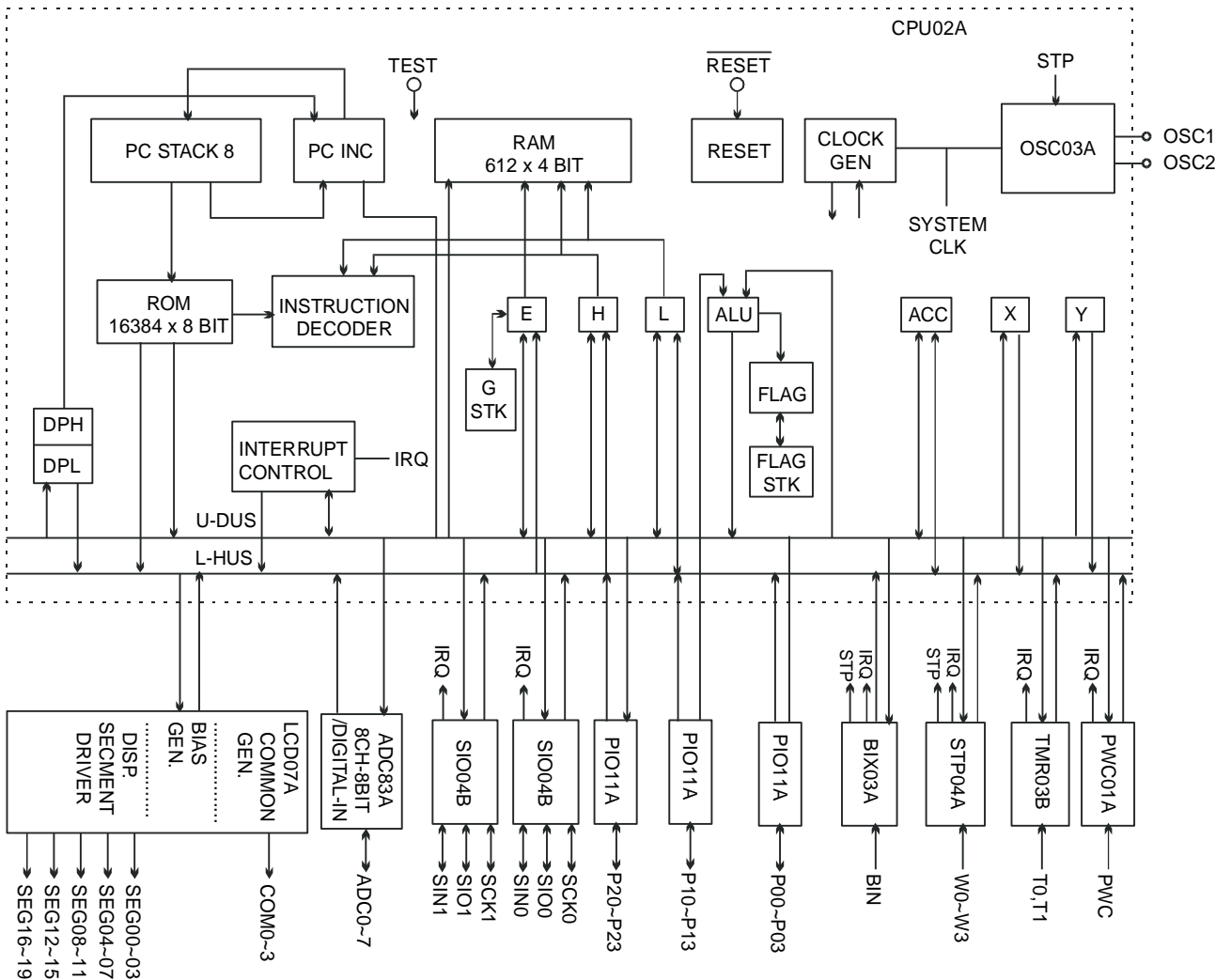
There is no need to adjust the CD servo PWB. Because auto-adjustment function has been set by the CPU.

IC LEAD IDENTIFICATION AND INTERNAL DIAGRAMS

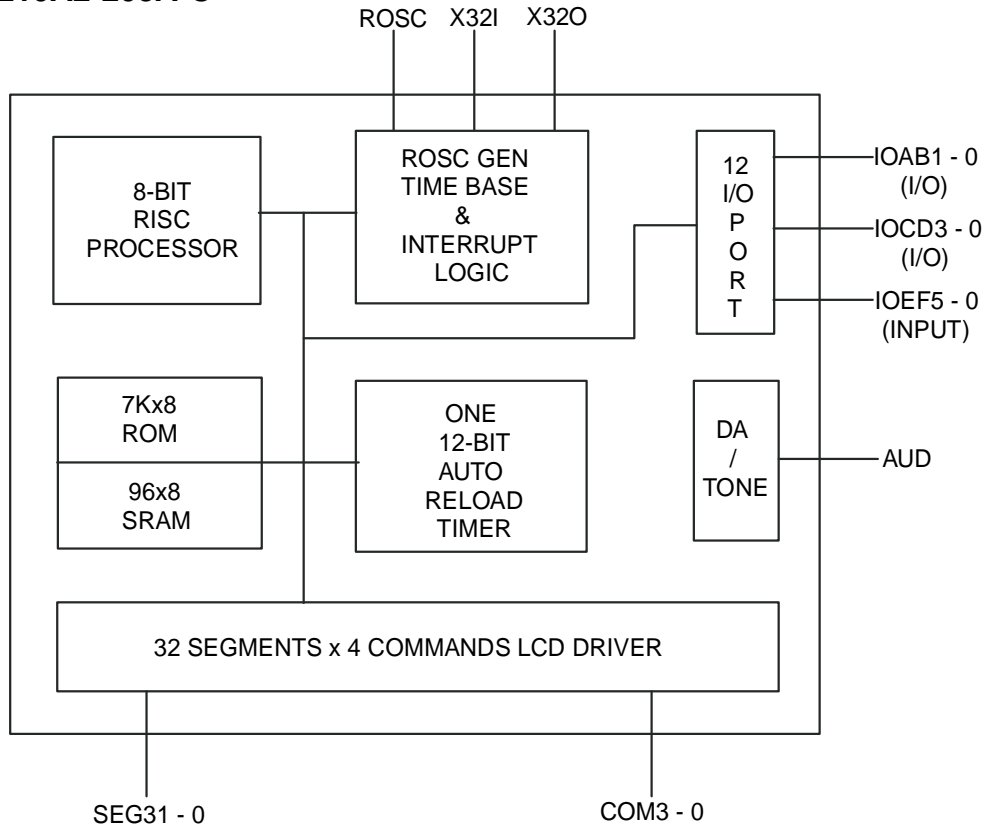
IC301 BH4453F



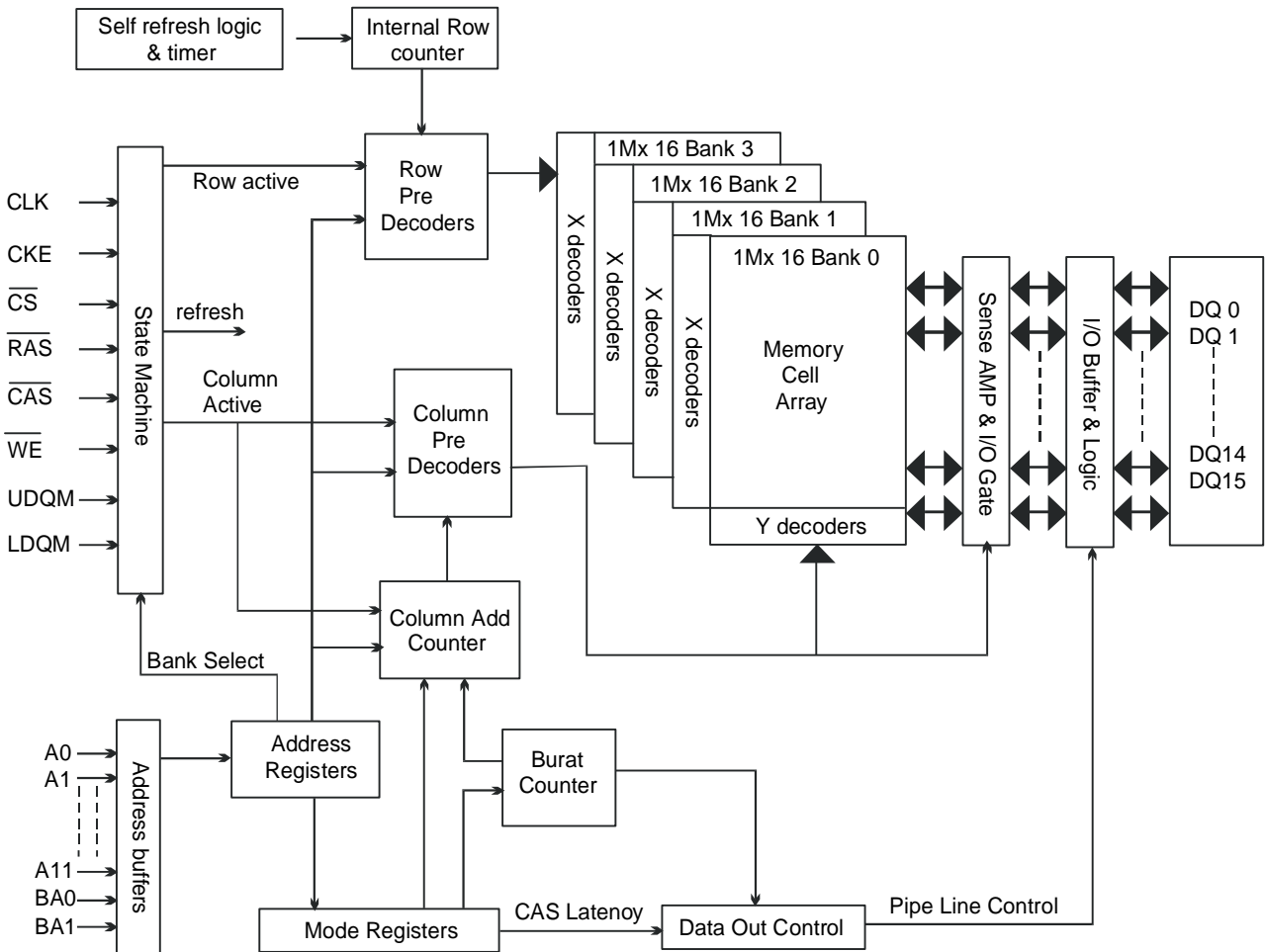
IC501 BU24590-8W



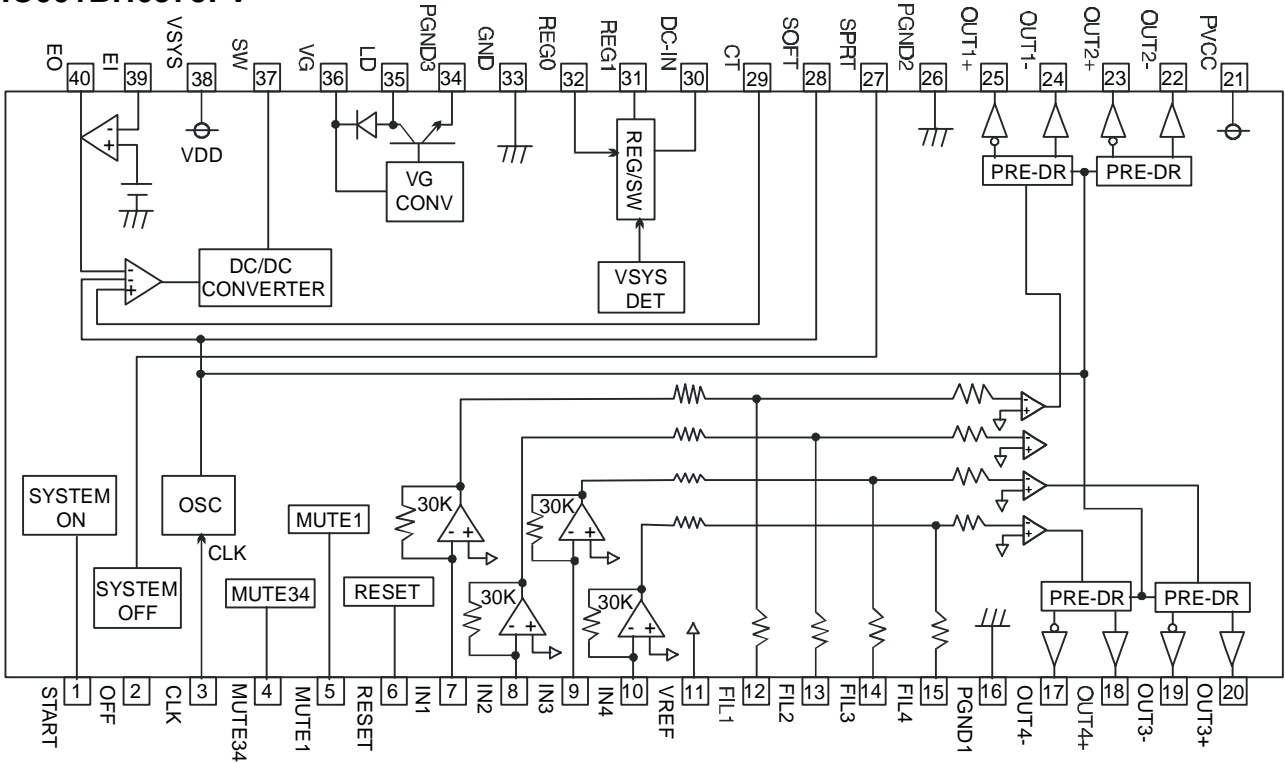
IC801 SPL10A2-203A-C



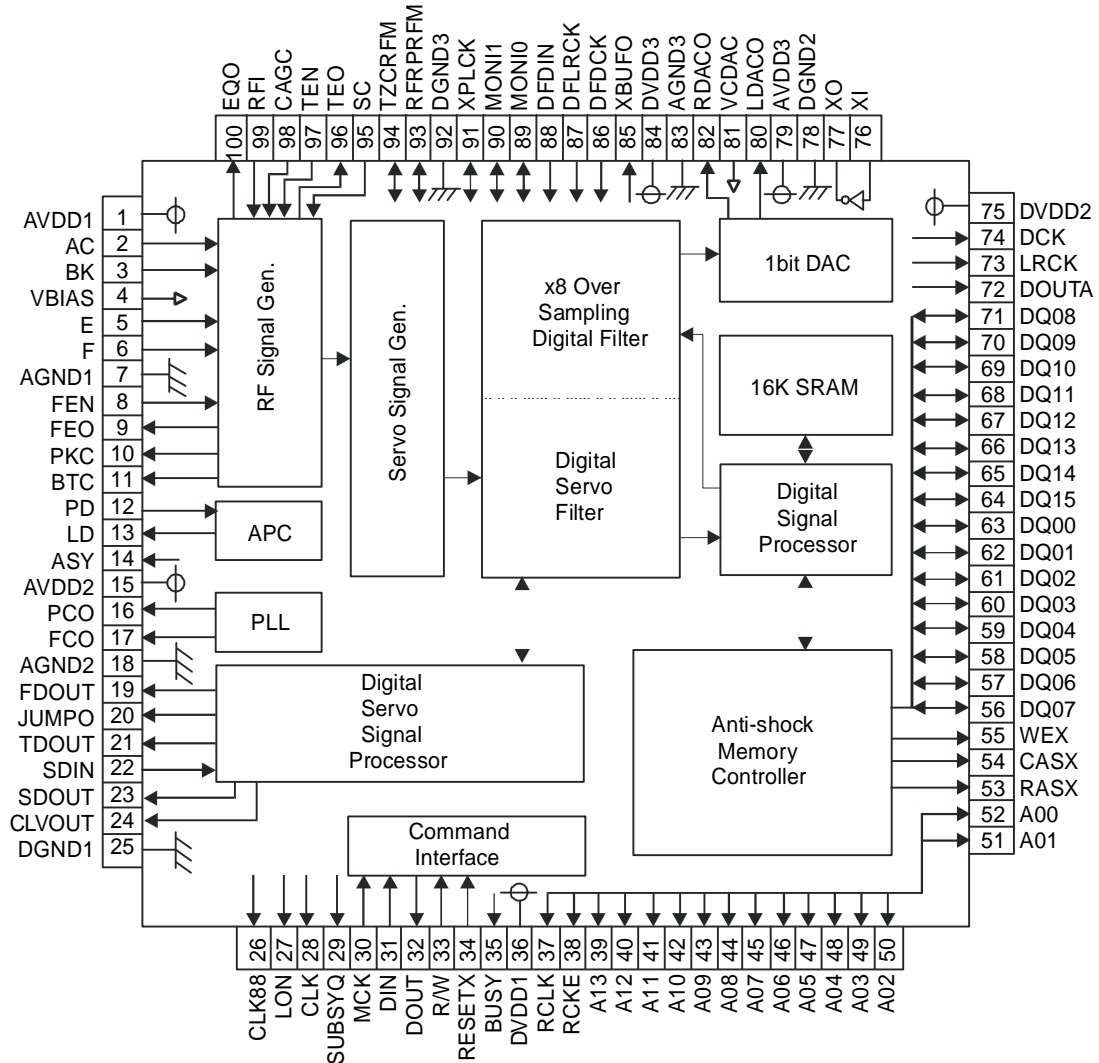
IC402 HY57V641620HG



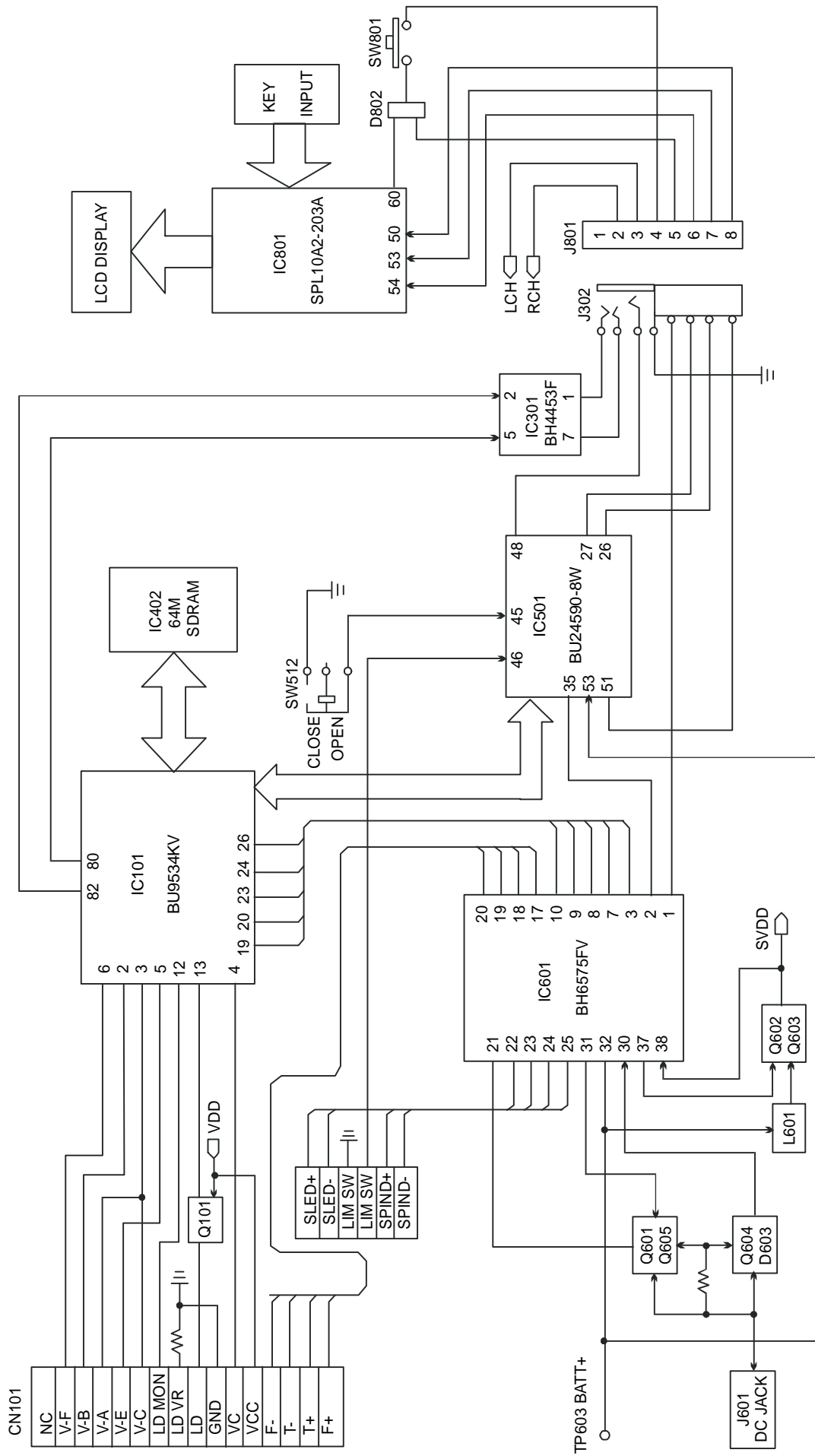
IC601BH6575FV



IC101 BU9534KV



BLOCK DIAGRAM



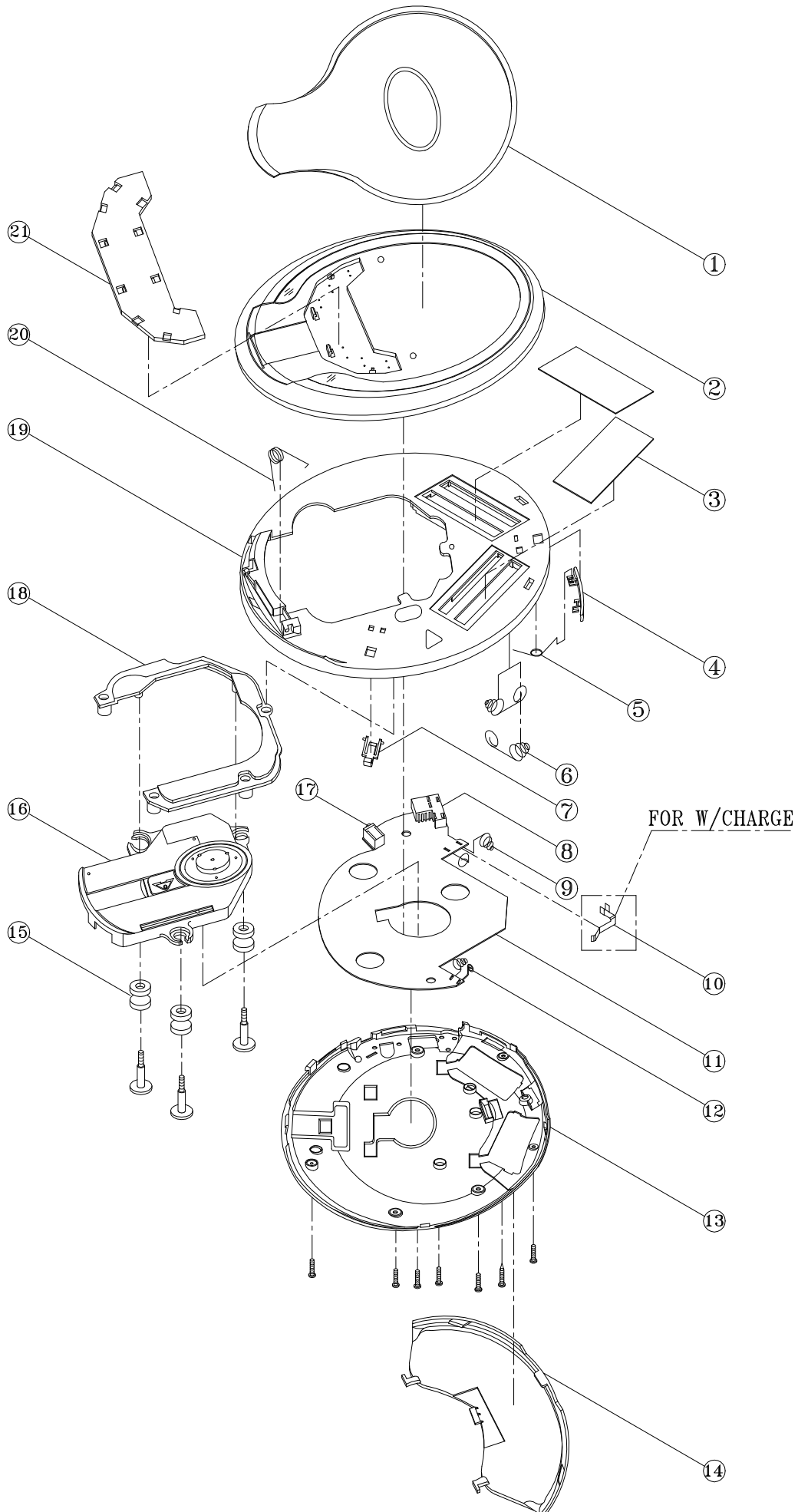
EXPLODED DRAWING PARTS LIST

| Ref. No. | Description | Mfr's Part No. | Qty. |
|-------------------------------|--|----------------------------------|----------------|
| REMOTE CONTROL PORTION | | | |
| 1 | FRONT CAB, MOLD C.GREY 7C (ABS) CAV:1, w/SPY (w/o HOLD) | 500-WRC701-xxx | 1 |
| 2 | PLAY/PAUSE/STOP KNOB, MOLD C.GREY 7C (ABS) CAV:1, w/SPY | 510-WRC703-xxx | 1 |
| 3 | LCD COVER, STAINLESS IRON T=0.3mm | 600-WRC714-000 | 1 |
| 4 | ZEBRA CONNECTOR, 23.6x1.5x1.9mm | 100-052301-190 | 1 |
| 5 | REMOTE PCB WRC7-01-01 | 033-00WRC7-100 | 1 |
| 6 | HEADPHONE JACK HSJ1715-01-110 (BLACK), TC38-072-01/EJS-3-0935B | 116-001715-001 | 1 |
| 7 | REAR CAB, MOLD C.GREY 7C (ABS) CAV:1, w/SPY | 500-WRC702-xxx | 1 |
| 8 | BASS BOOST KNOB, MOLD D.GREY (1524A) (ABS) CAV:1 | 510-WRC710-001 | 1 |
| 9 | PLAY MODE/PROG KNOB, MOLD D.GREY (1524A) (ABS) CAV:1 | 510-WRC709-001 | 2 |
| 10 | CLIP SPRING, D=0.6 SPRING STEEL WIRE w/NICKEL PLATED | 561-MDP123-001 | 1 |
| 11 | RC CLIP, MOLD D.GREY(1524A) (POM) CAV:4 | 500-990917-001 | 1 |
| 12 | (F531-MDP124-000) CLIP SPRING PIN, DIA:1.2x8mm, STAINLESS STEEL | 700-MDP124-000 | 1 |
| 13 | VOLUME KNOB, MOLD D.GREY(1524A) (ABS) CAV:1 | 510-WRC708-001 | 1 |
| 14 | LCD HOLDER, MOLD D.GREY(1524A) (ABS) CAV:1 | 500-WRC713-001 | 1 |
| 15 | LCD-P-02D-2315SM000P JT4-02263, 23.5x15.4x1.7mm, TRANSIMISSIVE/POSITIVE | 112-002263-000 | 1 |
| 16 | SKIP UP/DOWN KNOB, MOLD C.GREY 7C (ABS) CAV:1, w/SPY | 510-WRC705-002 | 1 |
| 17 | APD-EI35BSI&350MA/SO 230V:6Vdc BSI STD, (320B-06351D/06035-PB3131-5) w/MADE IN CH | 133-020635-007 | 1 |
| 18 | DISP. LENS, TRANS(J-SK820) (PMMA) CAV:4, w/PNT SCREW 1.7x3.5mm FLAT HEAD (B TYPE) (1.7x3.5IPBHNI) | 500-WRC712-030 720-220170-350 | 1 1 |
| MAIN UNIT | | | |
| 1 | DOOR PANEL, 0.5 ALUM w/SCRATCH SAND BLISTING, w/PNT | 600-876122-xxx | 1 |
| 2 | CD DOOR, MOLD TRANS(J-SK820) (PC) CAV:1 w/SPY | 500-876101-xxx | 1 |
| 3 | CENTER PLATE, BLK PET SHEET T=0.2, S:49x24mm | 650-876119-000 | 2 |
| 4 | OPEN KNOB, MOLD D.GREY(1524A) (ABS) CAV:2, w/PSY | 510-876105-xxx | 1 |
| 5 | LOCK SPRING, DIA=0.4mm SUS WIRE | 561-876115-000 | 1 |
| 6 | BATTERY SPRING (+/-) DIA=0.6mm SPRING WIRE NIKEL WIRE | 535-876114-000 | 2 |
| 7 | SWITCH LEVER, MOLD D.GREY(1524A) (ABS) CAV:4 | 509-876106-000 | 1 |
| 8 | HEADPHONE JACK 3.5mm 8 PINS EJS-4-3735 | 116-083735-000 | 1 |
| 9 | BATTERY SPRING (-) DIA=0.6mm SPRING WIER NICKEL WIRE | 535-876113-000 | 2 |
| 10 | BATTERY CHARGE PLATE, PHOSPHOR BRONZE T=0.2mm | 650-876121-000 | 1 |
| 11 | CD PCB 8761-01-01 | 033-008761-100 | 1 |
| 12 | BATTERY SPRING (+) DIA=0.6mm SPRING WIRE NICKEL WIRE | 535-876112-000 | 2 |
| 13 | BOTTOM CABINET, MOLD D.GR(1524A) (ABS) CAV:1, w/SPY, ENGRAVING | 500-876125-xxx | 1 |
| 14 | BATTERY DOOR, MOLD D.GREY(1524A) (ABS) CAV:2, w/SPY, ENGRAVING | 500-876104-xxx | 1 |
| 15 | CD CUSHION (THOMSON), MOLDED RUBBER CR HARDNESS 40 | 700-876116-000 | 3 |
| 16 | CD&-PTB-01-THOM-N CD MECHANISM TPP-35B | 153-000035-000 | 1 |
| 17 | DC JACK #TC18-077-01 (TAI CHUNG) (87-A60-122-019) | J601 120-118077-001 | 1 |
| 18 | DECK BRACKET, MOLD D.GR(1524A) (ABS) CAV:2, w/SPY (FOR THOMSON) | 505-876107-xxx | 1 |
| 19 | MIDDLE CABINET, MLD D.GREY(1524A) (ABS) CAV:1, w/SPY, ENGRAVING | 500-876124-xxx | 1 |
| 20 | DOOR SPRING, DIA=0.7mm SPRING WIRE NICKEL WIRE | 561-876111-000 | 1 |
| 21 | CD DOOR BRACKET, MOLD D.GREY (1524A) (ABS) CAV:2 SPEAKER FELT SONY BOND FILM SP7600, WIDTH 500mm (100M/ROLL) | UNIT"RL" 700-090412-002 | 1 0.0000309 |

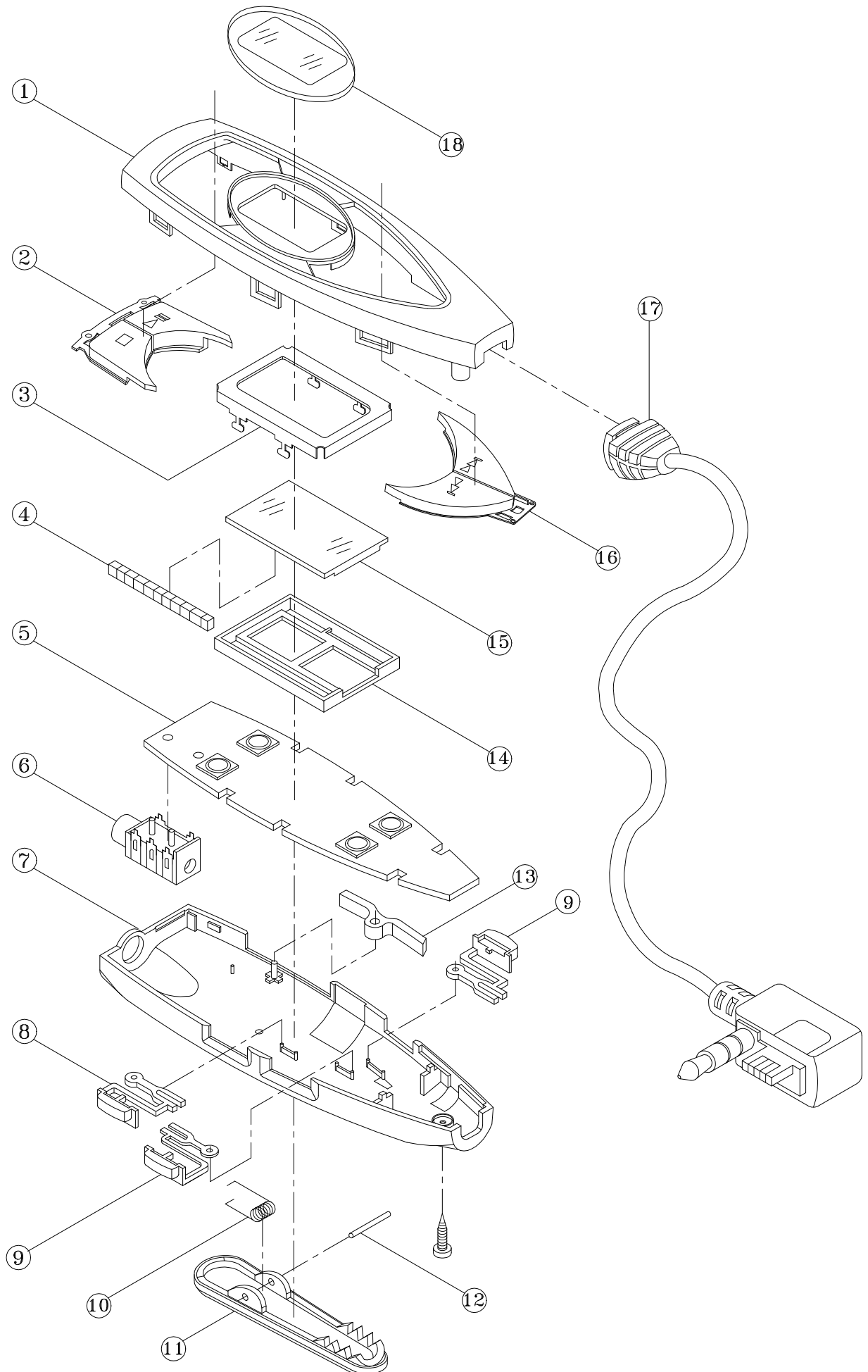
EXPLODED DRAWING PARTS LIST - CONTINUED

| Ref. No. | Description | Mfr's Part No. | Qty. |
|----------|---|----------------|------|
| | SCREW 1.7x7mm PB T.T.S. BLACK H=0.8mm (03PTTP1.7x7.0AB) 7/BOTTOM CABINET TO MIDDLE CABINET | 722-020173-071 | 7 |
| | CD SCREW (THOMSON), MOLDED STEEL MAT:1018 | 723-048761-000 | 3 |
| | SOLDER PASTE (500G/BOTTLE) (0Z63-330F-40-10) UNIT"GM" | 055-300000-002 | 1.2 |

EXPLODED DRAWING - MAIN UNIT



EXPLODED DRAWING - REMOTE CONTROL



JANUARY, 2003