

Service
Service
Service



AZ7262/00/05

AZ7263/11

AZ7264/06/11/13

AZ7266/17

AZ7267/00/05/06

AZ7268/00/01/05/10/11/17

SHARON PLATFORM 1

Service Manual



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TECHNICAL SPECIFICATION

General

Dimensions (WxHxD) : 134x30.5x154mm
 Weight without batteries : 250g

Power supply modes

DC-in socket : 4.5-5.5V
 Battery 2xLR6 : 1.8-3.6V
 Accu-pack AY3361 (NiCd) : 1.8-3.6V

Battery lifetime

Battery 2xLR6 : 6hrs typ.
 Accu-pack AY3361 (NiCd) : 3hrs typ.

Battery empty detection

Battery weak level : 2.0V nom. ± 200 mV
 Battery empty level : 1.8V nom. ± 100 mV

Charge circuit

Charge current : 200mA nom. $\pm 10\%$
 Charge time for 80% : 3.5hrs nom.
 Max. charge time : 7hrs nom.
 Temperature protection : 60°C ± 5 °C

Current consumption (DC-in=4.5V)

PLAY-mode : 210mA typ.
 JUMP-mode : 485mA typ.
 Stand-by (excl. recharge) : 150mA typ.

Current consumption (Batt. supply=2.25V)

PLAY-mode : 270mA typ.
 JUMP-mode : 460mA typ.
 Stand-by (excl. recharge) : 50 μ A typ.

Shock resistance

+X/-X direction : >4G
 +Y/-Y direction : >4G
 +Z/-Z direction : >3G

Shock resistance by use of car base

+X/-X direction : >6G
 +Y/-Y direction : >6G
 +Z/-Z direction : >6G

Headphone out (load impedance 16 Ω , except crosstalk)

Output power : 2x10mW ± 2 dB
 Frequency response (max vol.) : 20Hz-20kHz within 8dB
 S/N ratio (unw.) : >80dB (83dB typ.)
 S/N ratio (A-wght) : >82dB (85dB typ.)
 THD+N (1kHz, 1mW) : <0.3% (0.05% typ.)
 Channel crosstalk (1kHz, no load) : <-40dB
 Channel unbalance (-40dB) : <5dB
 Volume attenuation (1kHz) : >70dB

CD out (not on all versions)

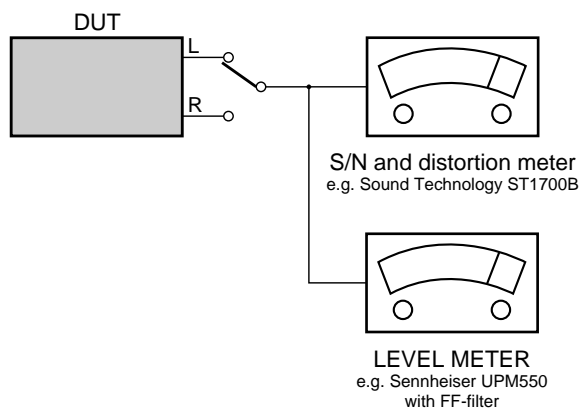
Output level (1kHz, 0dB) : 900mV ± 2 dB
 Frequency response : 20Hz-20kHz within 6dB
 S/N ratio (unw.) : >80dB (83dB typ.)
 S/N ratio (A-wght) : >85dB (88dB typ.)
 THD+N (1kHz, 0dB) : <0.2% (0.05% typ.)
 THD+N (10kHz, -20dB) : 0.5% typ.
 Channel crosstalk (1kHz) : <-45dB (-50dB typ.)
 Channel crosstalk (10kHz) : -40dB typ.
 Channel unbalance (1kHz, 0dB) : <1dB (0.5dB typ.)
 Dynamic range (1kHz, -60dB) : 90dB typ.

Laser

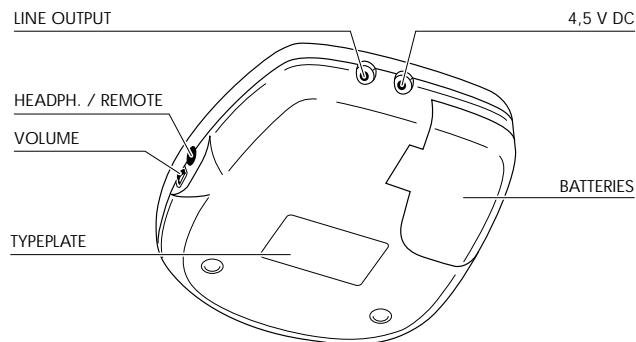
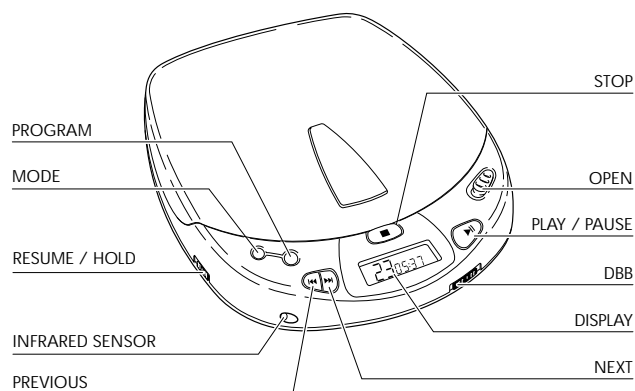
Output power : <5mW (3mW typ.)
 Wavelength : 780nm

Measurement setup

Use Audio Signal disc SBC429 4822 397 30184



CONNECTIONS AND CONTROLS



- DISPLAY**Window for showing the different playing modes, tracks and times
- ▶▶**Button for selecting the next music track or, if held down, for searching forward for a particular passage on the CD
- ◀◀**Button for selecting the previous music track or, if held down, for searching-backward for a particular passage on the CD
- VOLUME**Control for adjusting the volume at the headphone output
- RESUME/HOLD**Switch for activating the RESUME function (resuming CD play) and/or HOLD (blocking all buttons) function
- MODE** ○Button for selecting the different playing modes:
SHUFFLE → SHUFFLE REPEAT ALL → REPEAT 1 → REPEAT ALL → SCAN → off
- PROG**Button for storing tracks in a program and for reviewing the program
- DBB**Dynamic Bass Boost: Button for boosting the bass response
- STOP** ■Button for stopping CD play, deleting various settings, switching off the CD player and activating charging.
- OPEN**Slide control for opening the lid of the CD player
- ▶||**Button for starting and pausing CD play
- 🔊 / CD OUT**Headphone and remote control socket (3.5mm)
- 4.5 V DC**Socket for external power supply
- Battery compartment**for inserting batteries

FEATURES SHARON PLATFORM 1

| FEATURES SHARON 1 | AZ7261 | AZ7262 | AZ7263 | AZ7264 | AZ7266 | AZ7267 | AZ7268 |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|
| RESUME FUNCTION | X | X | X | X | X | X | X |
| DYNAMIC BASS BOOST | X | X | X | X | X | X | X |
| RECHARGE FUNCTION NiCd | X | X | X | X | X | X | X |
| CORD REMOTE CONTROL PREPARED | - | - | - | X | - | - | - |
| IR-REMOTE CONTROL PREPARED | - | - | X | - | - | - | - |
| LINE OUTPUT | - | - | X | - | - | - | - |

ACCESSORIES SHARON PLATFORM 1

| ACCESSORIES SHARON PLATFORM 1 | AZ7261 | | | | | | AZ7262 | | AZ7263 | | AZ7264 | | | AZ7266 | | AZ7267 | | | AZ7268 | | | | |
|------------------------------------|--------|-----|------|-----|-----|-----|--------|-----|--------|-----|--------|-----|-----|--------|-----|--------|-----|-----|--------|-----|-----|---|--|
| | /00 | /01 | /01Z | /11 | /14 | /17 | /00 | /05 | /11 | /06 | /11 | /13 | /17 | /00 | /05 | /06 | /00 | /05 | /10 | /11 | /17 | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| AY3160/00 AC/DC ADAPTOR | | | | | | | X | | | | | | | | | | X | | | | | | |
| AY3160/01 AC/DC ADAPTOR | X | | | | | | | | | | | | | | | | | X | | | | | |
| AY3160/05 AC/DC ADAPTOR | | | | | | X | | | | | | | | | | | | | X | | | | |
| AY3160/06 AC/DC ADAPTOR | | | | | | | | | | X | | | | | | | | | | | | | |
| AY3160/10 AC/DC ADAPTOR | | | | | | | | | | | | | | | | | | | | | X | | |
| AY3160/11 AC/DC ADAPTOR | | | | X | X | | | | X | | | | | | | | | | | | | X | |
| AY3160/13 AC/DC ADAPTOR | | | | | | | | | | | | X | | | | | | | | | | | |
| AY3160/17 AC/DC ADAPTOR | | | | | | X | | | | | | | | | | | | | | | | X | |
| AY3260/00 POUCH | O | O | O | O | O | O | O | O | X | O | X | | | | | | O | O | O | O | O | O | |
| AY3270/17 POUCH | | | | | | O | | | | | | | X | | | | | | | | | O | |
| AY3361/00 BATTERY PACK NiCd | O | O | O | O | O | O | X | | | O | O | X | | | | | O | O | O | O | O | O | |
| AY3501/00 CAR ADAPTOR CASSETTE | O | O | O | O | O | O | O | O | O | O | O | O | | | | | O | O | X | X | X | X | |
| AY3501/17 CAR ADAPTOR CASSETTE | | | | | | O | | | | | | | | | | | | | | | | X | |
| AY3545/00 CAR DC/DC CONVERTER | O | O | O | O | O | O | O | O | O | O | O | O | | | | | O | O | X | X | X | X | |
| AY3545/17 CAR DC/DC CONVERTER | | | | | | O | | | | | | | | | | | | | | | | X | |
| AY3563/00 CAR ADAPTOR PLATE | O | O | O | O | O | O | O | O | O | O | O | O | | | | | O | O | O | O | O | O | |
| AY3563/17 CAR ADAPTOR PLATE | | | | | | O | | | | | | | | | | | | | | | | O | |
| AY3671/00 EARPHONE | X | X | X | X | X | X | X | X | | | | | | | | | X | X | X | X | X | X | |
| AY3671/00s EARPHONE | | | | | | | | | | | | | | | | | | | | | | | |
| AY3680/17 HEADPHONE | | | | | | X | | | | | | | X | | | | | | | | | X | |
| AY3762/00 IN-CORD REMOTE CONTROL | | | | | | | | | | | X | | | | | | | | | | | | |
| AY3763/00 IN-CORD LCD REM. CONTROL | | | | | | | | | | | O | O | | | | | | | | | | | |
| AY3771/00 INFRARED REM. CONTROL | | | | | | | | | | | | | | | | | | | | | | | |
| AY3860/00 ACTIVE SPEAKER BOX | O | O | O | O | O | O | O | O | O | O | O | O | | | | | X | X | X | X | X | X | |
| AY3860/17 ACTIVE SPEAKER BOX | | | | | | O | | | | | | | X | | | | | | | | | X | |
| SBC1059 HIFI CORD (3.5mm → cinch) | X | O | O | O | O | O | O | O | X | O | O | O | O | | | | X | X | X | X | X | X | |

X...supplied with the set

O...optional available

SAFETY WARNINGS


(GB) WARNING

All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools at this potential.


(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD). Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfilez le braceleterti d'une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.
Safety components are marked by the symbol 

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.
Les composants de sécurité sont marqués 

(GB)

DANGER: Invisible laser radiation when open.
AVOID DIRECT EXPOSURE TO BEAM.

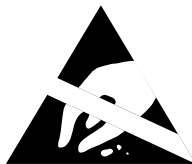
(S) Varning !

Osynlig laserstrålning när apparaten är öppnad och spårren är urkopplad. Betrakta ej strålen.

(GB)

After servicing and before returning the set to customer perform a leakage current measurement test from all exposed metal parts to earth ground, to assure no shock hazard exists.
The leakage current must not exceed 0.5mA.

ESD




(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren.
Sorgen Sie dafür, daß sie im Reparaturfall über ein Pulsarmband mit Widerstand mit dem Massepotential des Gerätes verbunden sind.
Halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

SAFETY



(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Gerätes darf nicht verändert werden. Für Reparaturen sind Originalersatzteile zu verwenden.
Sicherheitsbauteile sind durch das Symbol  markiert.



(DK) Advarsel !

Usynlig laserstrålning ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.


(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.


(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cautela alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa del apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.
De Veiligheidsonderdelen zijn aangeduid met het symbool 

(I)

Le norme di sicurezza estigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.
Componenti di sicurezza sono marcati con 

(SF) Varoitus !

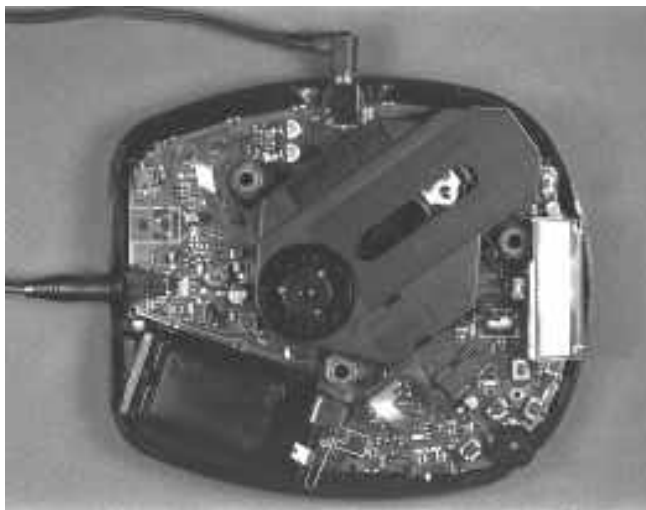
Avatussa laitteessa ja suojalukituksen ohitettaessa olet alttiina näkymättömälle laserisäteilylle. Älä katso säteeseen !

(F)

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

SERVICE HINTS

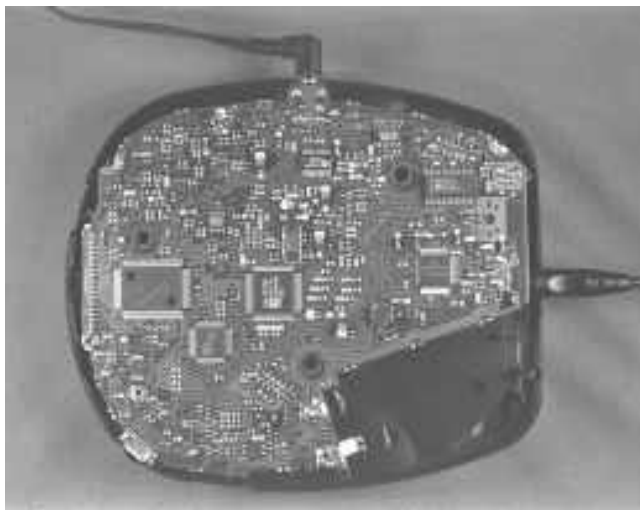
REPAIR POSITION COMPONENTSIDE



To get access to the componentside of the printed circuit board proceed as follows:

1. Disconnect DC-cable and headphone
2. Remove bottom screws
(remember hidden screw in battery compartment)
3. Open the CD-door
4. Lift the top-cabinet
5. Close the door-switch (e.g. paper-clip)
6. Supply the unit via external DC-socket

REPAIR POSITION COPPERSIDE



To get access to the copperside of the printed circuit board proceed as follows:

1. Disconnect DC-cable and headphone
2. Remove bottom screws
(remember hidden screw in battery compartment)
3. Open the CD-door
4. Lift the top-cabinet
5. Take the printed circuit board/drive unit out of the bottom
(take care of battery springs)
6. Position printed circuit board/drive unit into top-cabinet
7. Supply the unit via external DC-socket

The unit is now in a proper working position and can be turned in all directions necessary to get access for measurements.

SERVICE TOOLS

Audio signal disc **SBC429**

4822 397 30184

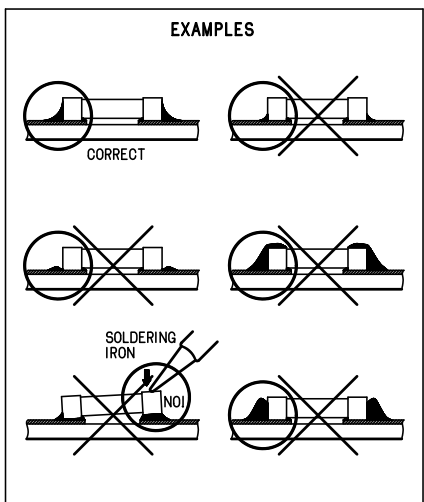
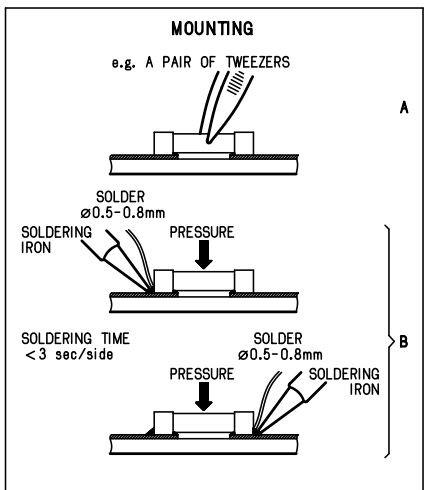
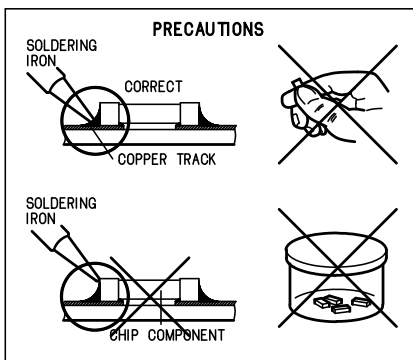
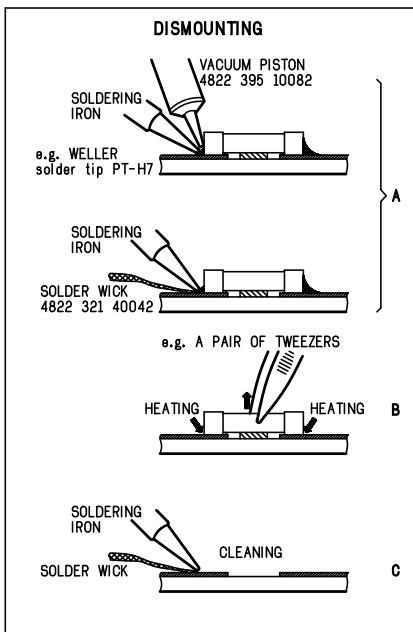
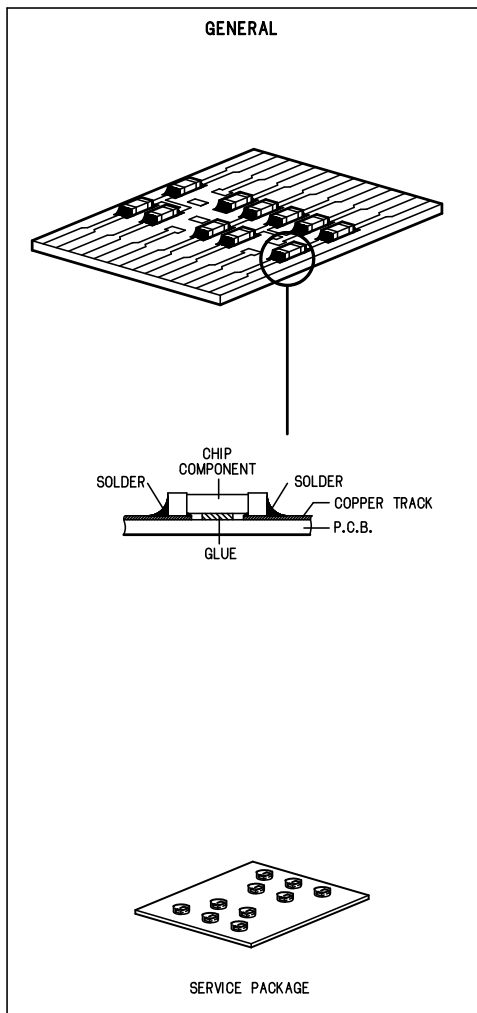
Playability test disc **SBC444**

4822 397 30245

Test disc **5** (disc without errors) + Test disc **5A** (disc with dropout errors, black spots and fingerprints) **SBC426/SBC426A**

4822 397 30096

HANDLING CHIP COMPONENTS



SERVICE TEST PROGRAM

1. PRELIMINARY SETUP

- To enter the service test program hold the keys "PLAY" and "STOP" depressed while turning POWER ON.
- The display shows the software-version of the built-in microprocessor (e.g. "855").
- The program is now in the main menu – various tests can be entered by pressing the corresponding buttons (see flow chart on next page or detailed description of test programs below).

2. DISPLAY TEST

Purpose: Check the internal display driver of the μ P and the display segments.

- To enter the display test start service test program and press the "NEXT" button.
- The display shows test pattern 1, all display segments are switched on.
- To exit the display test and return to the main menu press the "STOP" button.

3. KEY & REMOTE CONTROL TEST

Purpose: Check operation of keys, cord remote control and IR-remote control.

- To enter the key & remote control test start service test program and press the "MODE" button.
- The display shows "--".
- Hold keys on the set resp. the remote control depressed and check corresponding key codes on the display of the CD-player resp. the test patterns on the display of the remote control. Codes and patterns can be found in table 1 (see flow chart on next page).
- To exit the key & remote control test and return to the main menu press the "STOP" button.

4. PLAYBACK TEST WITH ERROR ANALYSIS

Purpose: Analyse errors that occur during playback.

- To enter the playback test start service test program and press the "PROG" button. Note that the playback test can only be entered if the CD-door is closed.
- The set reads the TOC and switches to stand-by mode.
- Press the "PLAY" button to start the error analysis.

As long as the playback is free of errors the display shows track and time information as in normal play-mode. In case of an error a corresponding error code will be displayed. The meaning of this error code can be found in table 2 (see flow chart on next page).

Note: Errors can either be "fatal" or "non fatal". Fatal errors lead to a stop of the playback while non-fatal errors only cause a short interruption of music. Fatal errors are displayed as long as the set is connected to the power source, non fatal errors are displayed until a new error occurs or a button is pressed.

- To stop the playback test disconnect the set from the power source.

5. SERVO TEST

Purpose: Check door- and inner-switch, movement of slide servo and acceleration of discmotor.

- To enter the servo test start service test program and press the "PLAY" button.
- The display shows "xy". "x" indicates state of door-switch; "y" indicates state of inner-switch. x,y = " / " means switch is open.
- To move slide outside hold the "NEXT" button depressed.
- To move slide inside hold the "PREV" button depressed.
- To accelerate the discmotor clockwise hold the "MODE" button depressed.
- To accelerate the discmotor counter-clockwise hold the "PROG" button depressed.
- To enter the focus test press the "PLAY" button, to exit the servo test and return to the main menu press the "STOP" button.

6. FOCUS TEST

Purpose: Check movement of lens and operation of focus servo.

- The focus servo loop is switched on and the set starts searching the focus. If the focus is OK the display shows " f ", else " - f ".
- When the disc is turned manually "focus noise" is audible.
- To move slide outside hold the "NEXT" button depressed.
- To move slide inside hold the "PREV" button depressed.
- To accelerate the discmotor clockwise hold the "MODE" button depressed.
- To accelerate the discmotor counter-clockwise hold the "PROG" button depressed.
- In case the focus is OK the discmotor test can be entered by pressing the "PLAY" button, to exit the focus test and return to the main menu press the "STOP" button.

7. DISCMOTOR TEST

Purpose: Check speed regulation of discmotor.

- The speed regulation is switched on and the discmotor starts rotating. If the speed reaches 75% of the nom. speed the display shows " d ", else " - d ".

Note: During this test the μ P displays the speed-flag of the CD7. As this IC can only monitor a small range of speed deviation the displayed information is not very reliable. In case of doubt check disc motor control circuit.

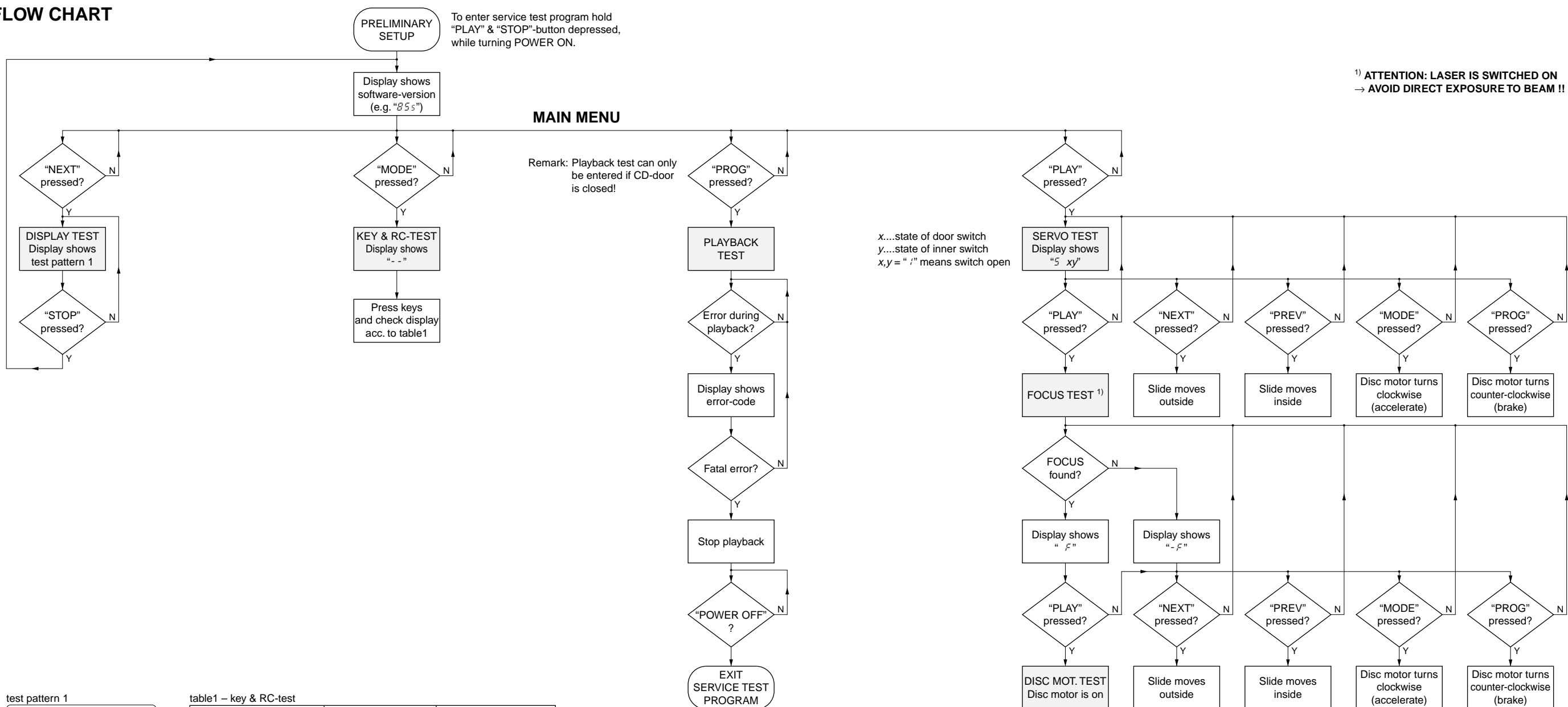
- To enter the radial test press the "PLAY" button, to exit the discmotor test and return to the main menu press the "STOP" button.

8. RADIAL TEST

Purpose: Check if radial loop locks and an audio signal is output.

- The display shows " r d ".
- The radial servo loop is switched on, mute is released and an audio signal is audible.
- To jump 10 tracks outside press the "NEXT" button.
- To jump 10 tracks inside press the "PREV" button.
- To exit the radial test and return to the main menu press the "STOP" button.

FLOW CHART



1) ATTENTION: LASER IS SWITCHED ON
→ AVOID DIRECT EXPOSURE TO BEAM !!

MAIN MENU

Remark: Playback test can only be entered if CD-door is closed!

x...state of door switch
y...state of inner switch
x,y = " / " means switch open

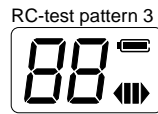
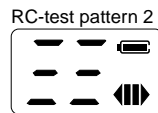
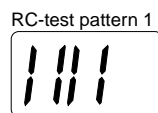
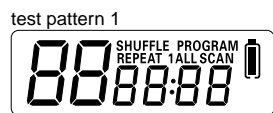


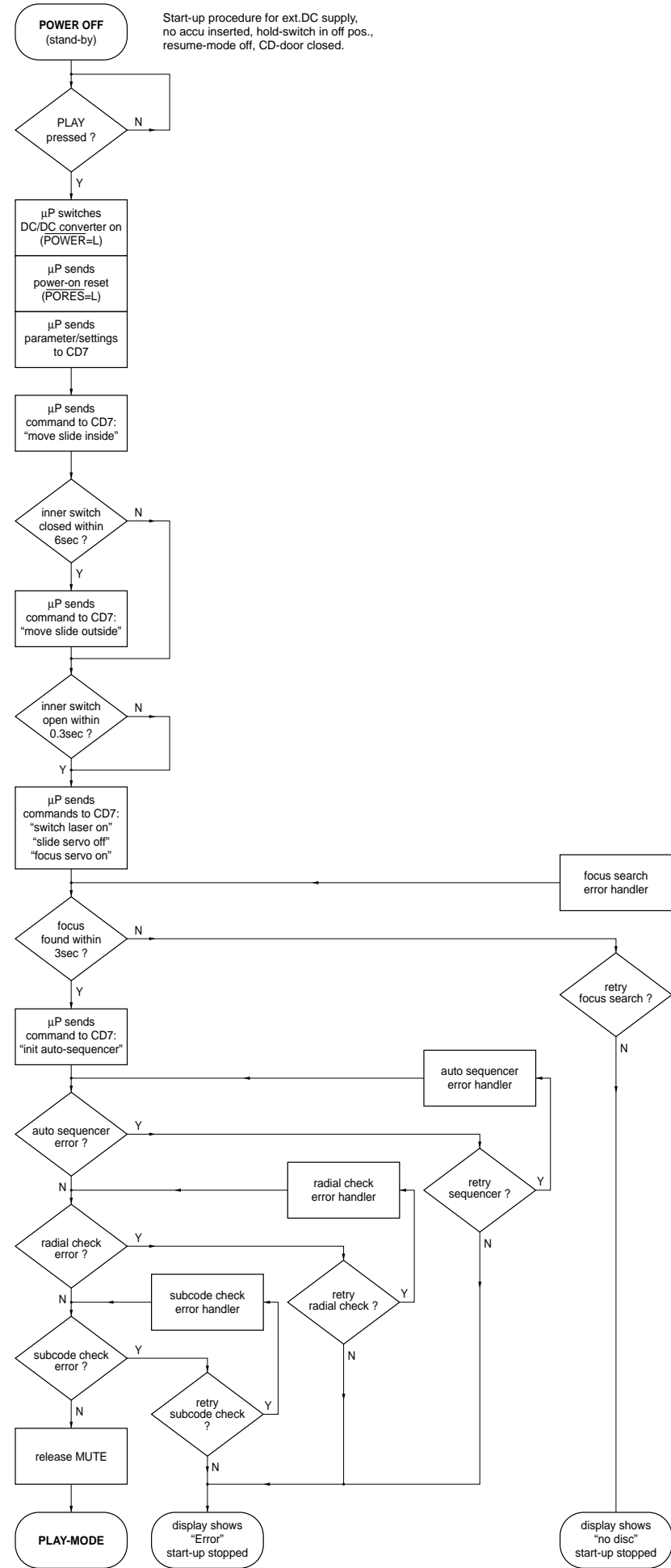
table1 – key & RC-test

| | DISPLAY SET | DISPLAY CORD RC | |
|--|---------------------|-------------------|--|
| KEYS OF SET | | | |
| PLAY | 01 | no change | |
| MODE | 02 | | |
| NEXT | 03 | | |
| PREVIOUS | 05 | | |
| PROGRAM | 07 | | |
| KEYS OF CORD-REMOTE CONTROL (not on all versions) | | | |
| PLAY | r-c 01 | RC-test pattern 1 | |
| NEXT | r-c 03 | RC-test pattern 2 | |
| PREVIOUS | r-c 05 | RC-test pattern 3 | |
| STOP | r-c 06 | no change | |
| KEYS OF IR-REMOTE CONTROL (not on all versions) | | | |
| DIGIT 0..9 | 1r-2000 ... 1r-2009 | no change | |
| STAND-BY | 1r-2012 | | |
| SHUFFLE | 1r-2028 | | |
| REPEAT | 1r-2029 | | |
| NEXT | 1r-2032 | | |
| PREVIOUS | 1r-2033 | | |
| SCAN | 1r-2043 | | |
| PAUSE | 1r-2048 | | |
| BACKWARD | 1r-2050 | | |
| FORWARD | 1r-2052 | | |
| PLAY | 1r-2053 | | |
| STOP | 1r-2054 | | |
| Press "STOP" on the CD-player to exit the key & RC-test. | | | |

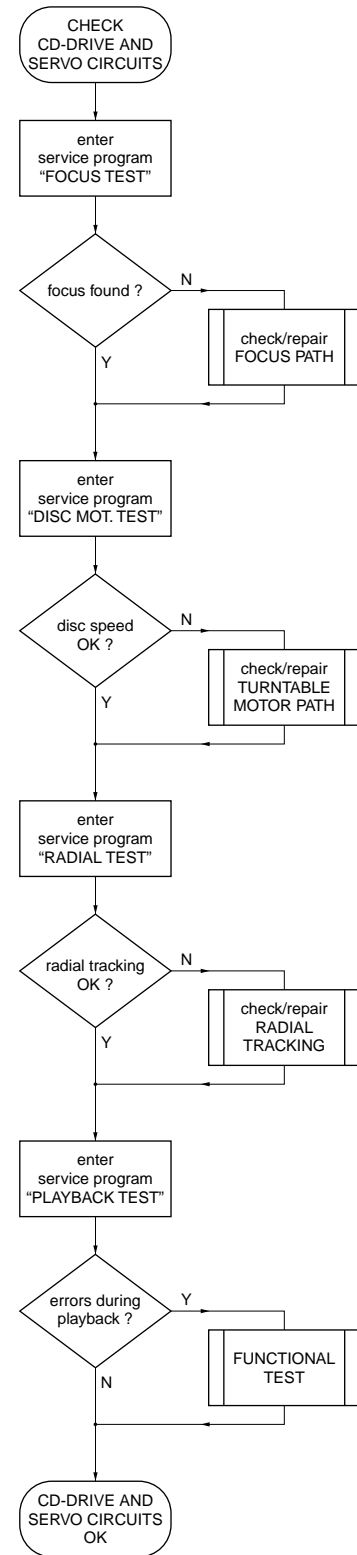
table2 – playback error analysis

| CODE | ERROR | TYPE | CAUSE |
|--------|---------------------|-----------|---|
| E 1001 | sledge out error | non fatal | The slide did not come out of it's inner position (inner switch of CDM12 doesn't open) before 160ms have passed by. |
| E 1002 | focus error | non fatal | Focus point lost. |
| E 1003 | radial error | non fatal | The offtrack values of CD7 don't decrease properly when jumping tracks, or CD7 indicates offtrack while radial tracking is switched on. |
| E 1004 | subcode error | non fatal | No valid subcode information for 250ms. |
| E 1011 | sledge in error | fatal | The slide did not reach it's inner pos. (inner switch of CDM12 doesn't close) before 4 seconds have passed by. |
| E 1012 | focus search error | fatal | The focus point could not be found inbetween 4 seconds. |
| E 1013 | fatal radial error | fatal | Radial error occured 25 times. |
| E 1014 | fatal subcode error | fatal | No valid subcode information for 6 seconds. |
| E 1018 | motor N1 error | fatal | The disc didn't reach 75% of the nom. speed inbetween 3 sec. |

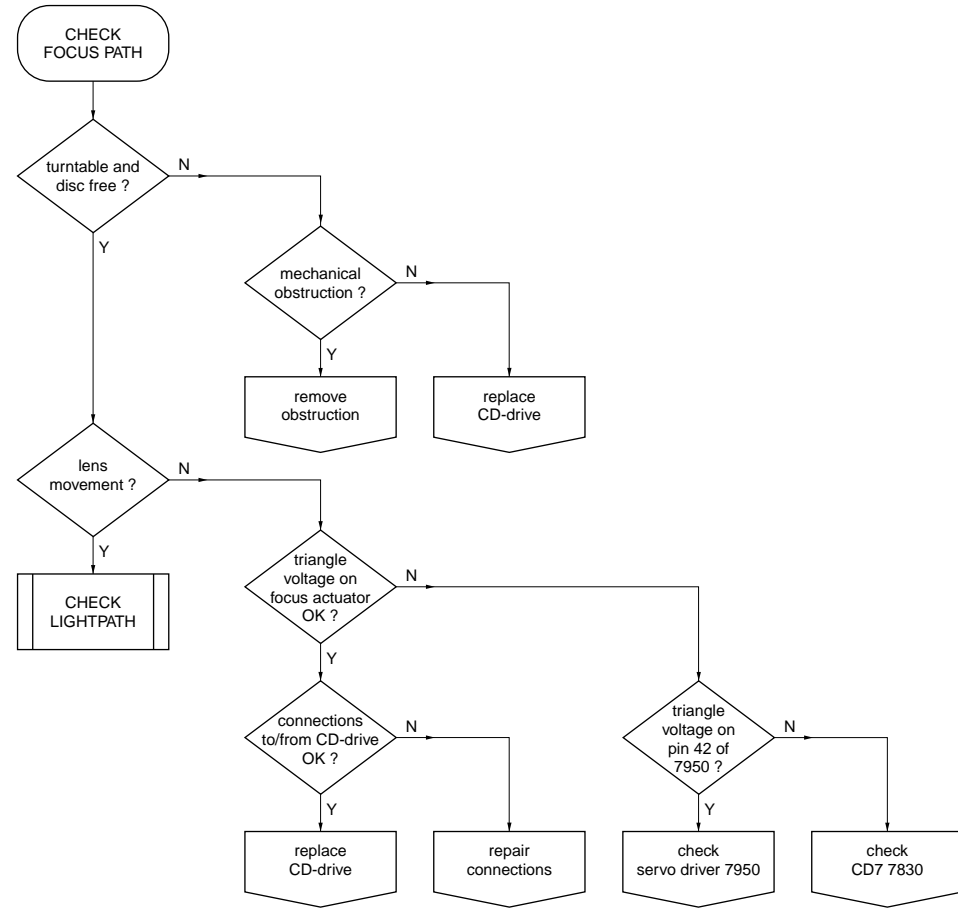
START-UP PROCEDURE



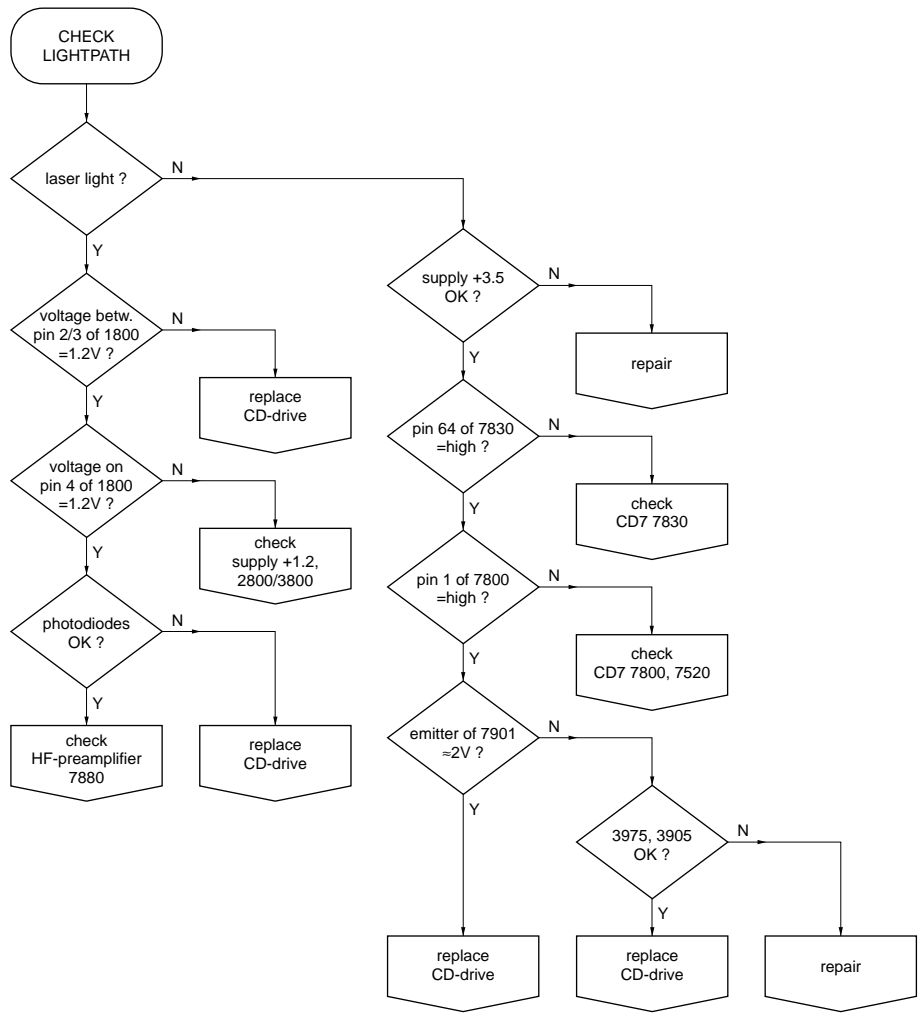
MAIN FAULT FINDING GUIDE



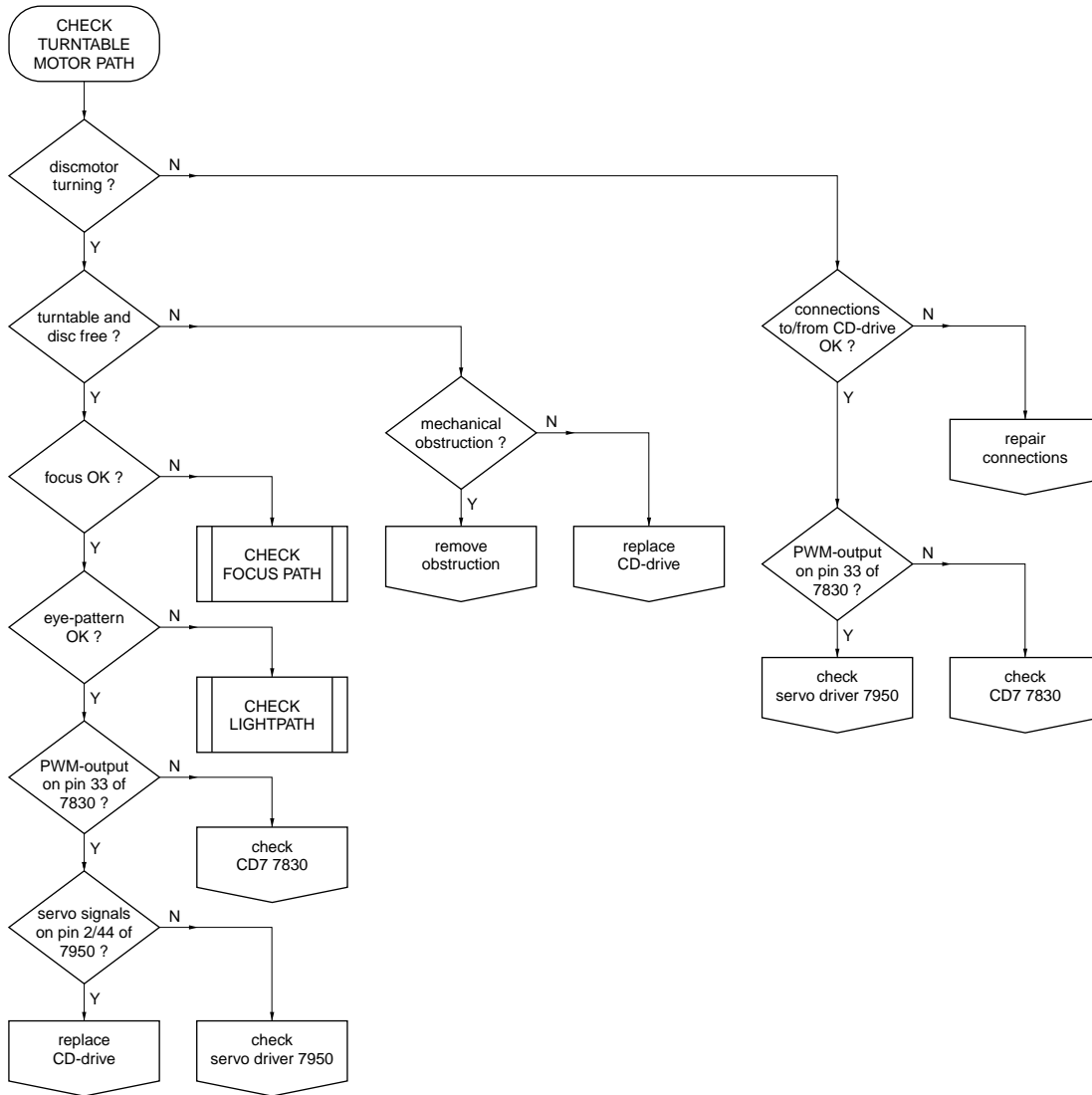
FAULT FINDING GUIDE FOCUS PATH



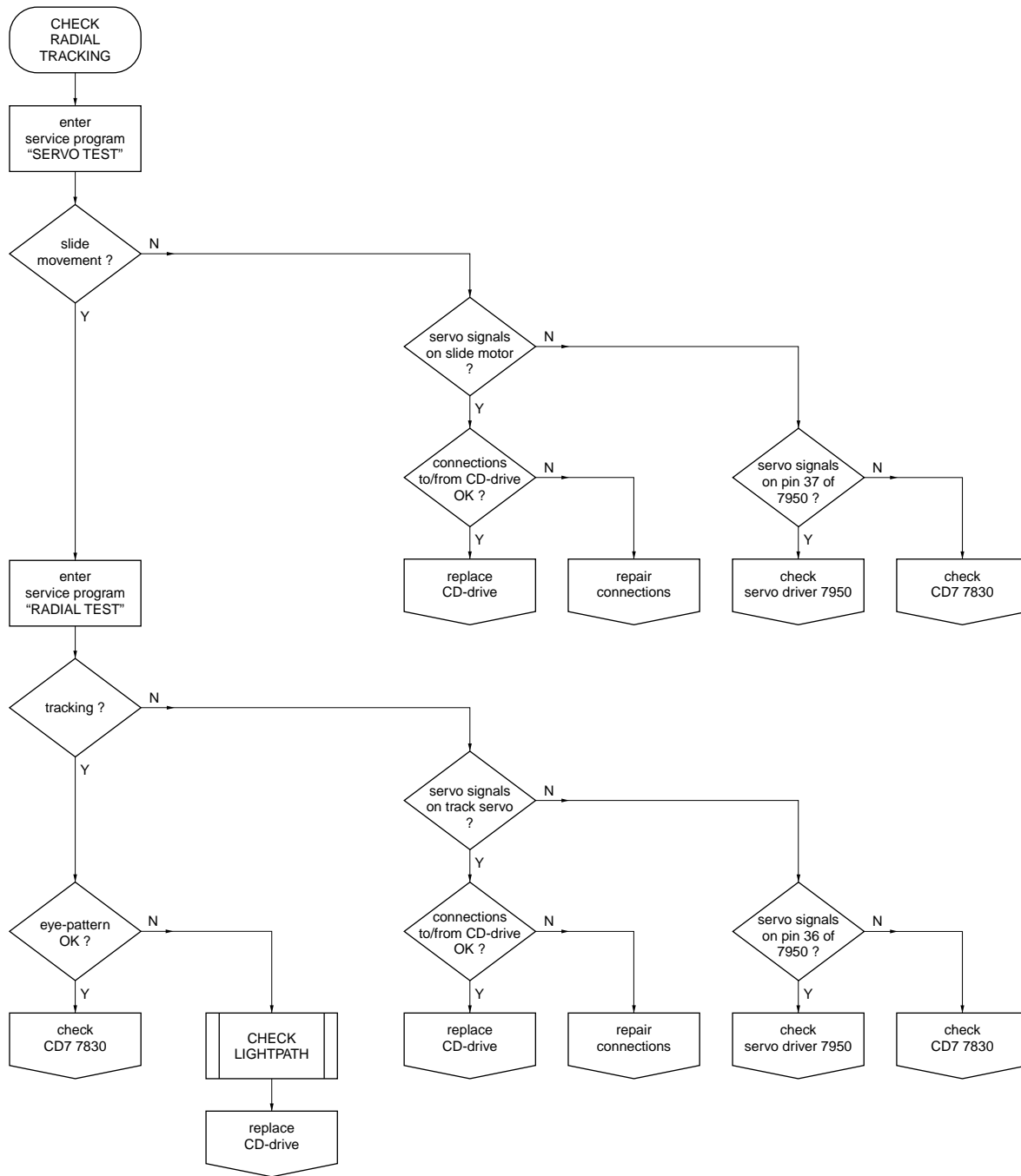
FAULT FINDING GUIDE LIGHTPATH



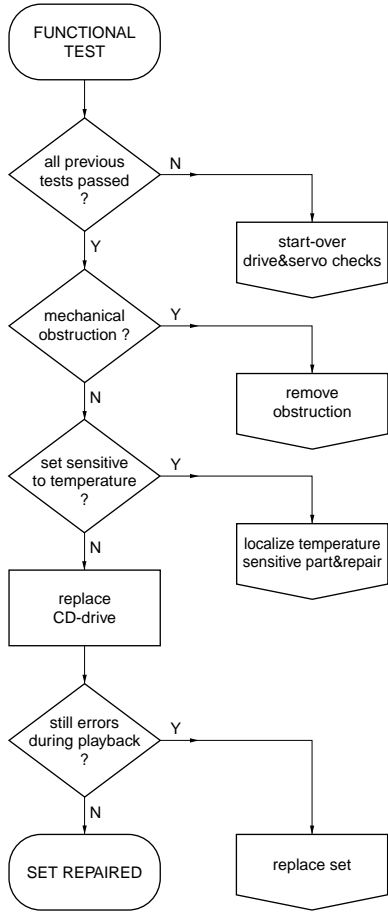
FAULT FINDING GUIDE TURNTABLE MOTOR PATH



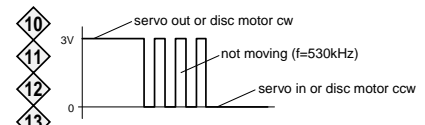
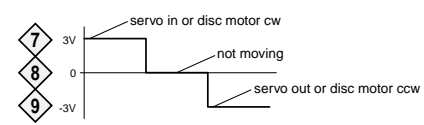
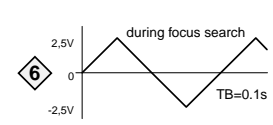
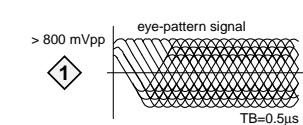
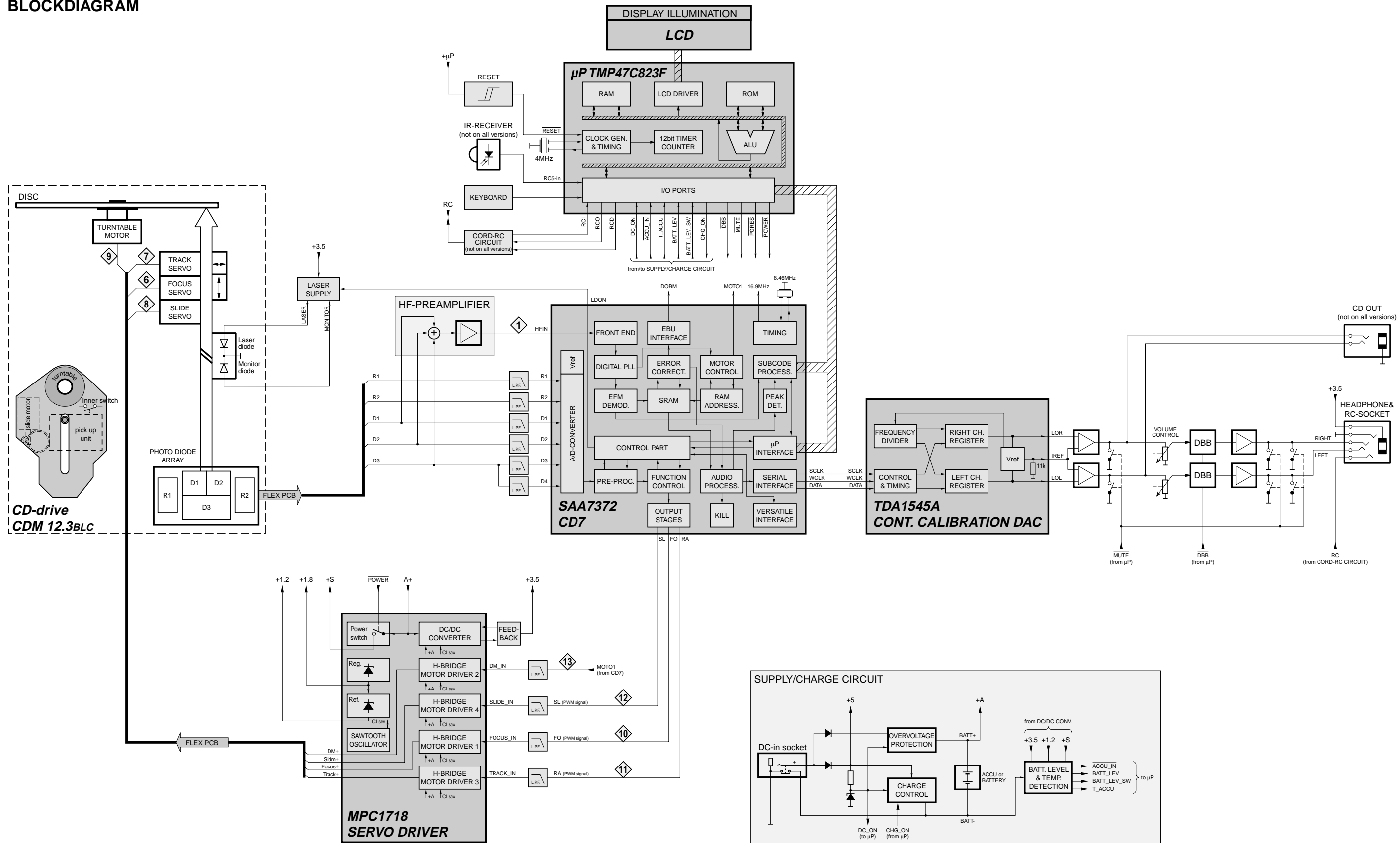
FAULT FINDING GUIDE RADIAL TRACKING



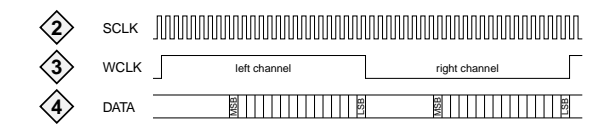
FAULT FINDING GUIDE FUNCTIONAL TEST



BLOCKDIAGRAM



CD7 → DAC TRANSFER OF AUDIO SAMPLES VIA SERIAL INTERFACE OF CD7



PINNING OF INTEGRATED CIRCUITS

SAA7372 – DECODER AND DIGITAL SERVO IC CD7

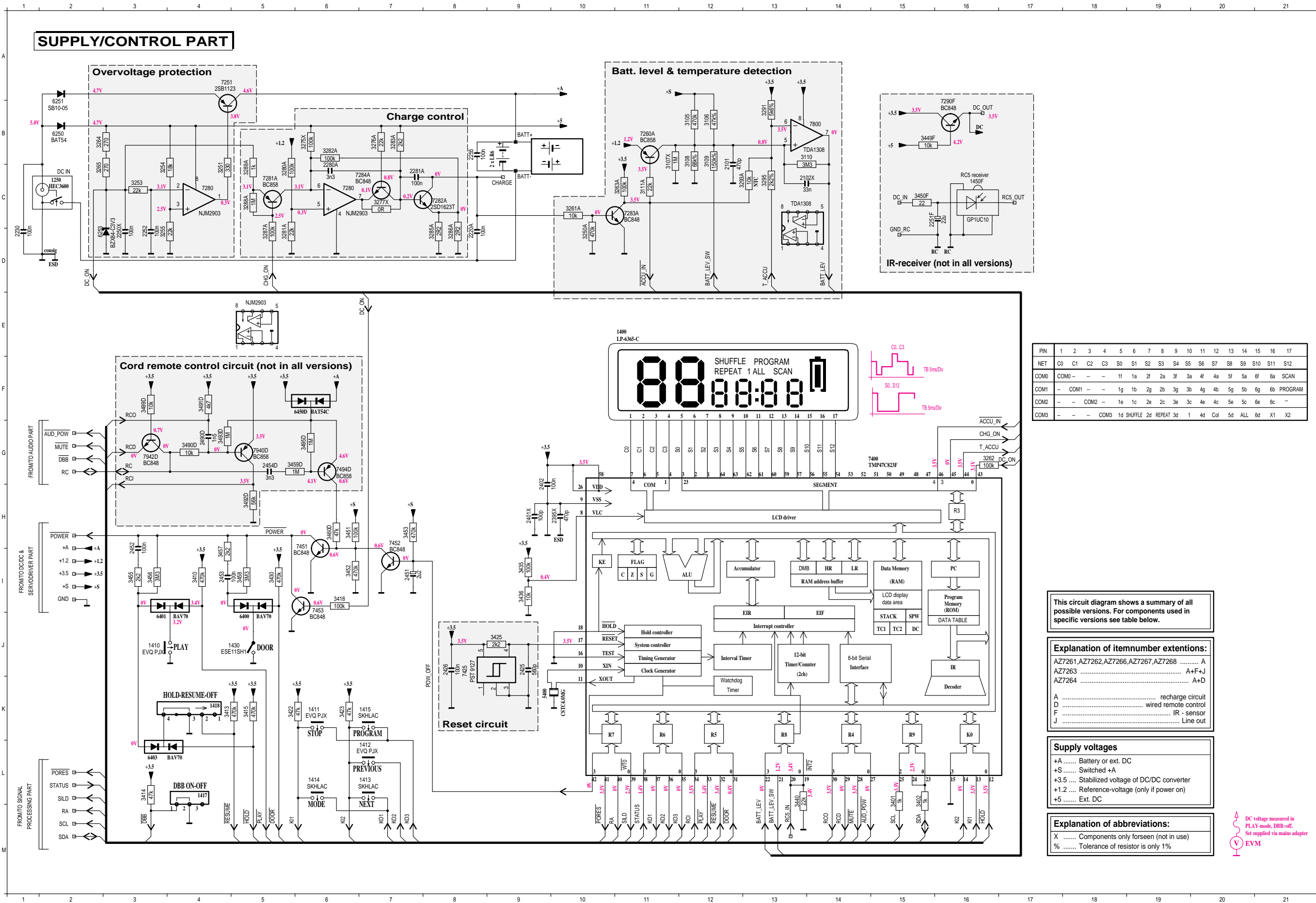
| Pin | Name | Direction | Description |
|-----|--------|--------------------|--|
| 1 | VSSA1 | GND | supply (analog) of CD7 |
| 2 | VDDA1 | +3.5 | supply (analog) of CD7 |
| 3 | D1 | CD-drive → CD7 | unipolar current input (central diode signal input) |
| 4 | D2 | CD-drive → CD7 | unipolar current input (central diode signal input) |
| 5 | D3 | CD-drive → CD7 | unipolar current input (central diode signal input) |
| 6 | VRL | GND | reference input for ADC |
| 7 | D4 | CD-drive → CD7 | unipolar current input (central diode signal input) |
| 8 | R1 | CD-drive → CD7 | unipolar current input (satellite diode signal input) |
| 9 | R2 | CD-drive → CD7 | unipolar current input (satellite diode signal input) |
| 10 | IREFT | → CD7 | current reference for calibration ADC |
| 11 | VRH | | reference output from ADC |
| 12 | VSSA2 | GND | supply (analog) of CD7 |
| 13 | SELPLL | +3.5 | selects whether internal clock multiplier PLL is used |
| 14 | ISLICE | CD7 → | current feedback from data slicer |
| 15 | HFIN | → CD7 | comparator signal input |
| 16 | VSSA3 | GND | supply (analog) of CD7 |
| 17 | HFREF | → CD7 | comparator common mode input |
| 18 | IREF | → CD7 | reference current pin (nom. VDD/2) |
| 19 | VDDA2 | +3.5 | supply (analog) of CD7 |
| 20 | TEST1 | GND | test control input |
| 21 | CRIN | X-Tal → CD7 | crystal/resonator input |
| 22 | CDOUT | X-Tal → CD7 | crystal/resonator output |
| 23 | TEST2 | GND | test control input |
| 24 | CL16 | CD7 → | 16.9344MHz system clock output |
| 25 | CL11 | CD7 → | 11.2896MHz or 5.6448MHz clock output (3-state) |
| 26 | RA | CD7 → servo driver | radial actuator output |
| 27 | FO | CD7 → servo driver | focus actuator output |
| 28 | SL | CD7 → servo driver | slide actuator output |
| 29 | TEST3 | GND | test control input |
| 30 | VDD1P | +3.5 | supply (digital) of CD7 |
| 31 | DOBM | CD7 → | bi-phase mark output (3-state) |
| 32 | VSS1 | GND | supply (digital) of CD7 |
| 33 | MOTO1 | CD7 → servo driver | motor output1 of CD7; versatile (3-state) |
| 34 | MOTO2 | CD7 → | motor output2 of CD7; versatile (3-state) |
| 35 | SBSY | CD7 → | subcode block sync (3-state) |
| 36 | SFSY | CD7 → | subcode frame sync (3-state) |
| 37 | RCK | → CD7 | subcode clock input |
| 38 | SUB | CD7 → | P to W subcode bits (3-state) |
| 39 | VSS2 | GND | supply (digital) of CD7 |
| 40 | V5 | CD7 → | versatile output pin of CD7 |
| 41 | V4 | CD7 → | versatile output pin of CD7 |
| 42 | V3 | CD7 → | versatile output pin of CD7 (open drain) |
| 43 | KILL | CD7 → | kill output; programmable (open drain) |
| 44 | MISC | CD7 → | C2 error flag; output only defined in CD-ROM modes (3-state) |
| 45 | DATA | CD7 → DAC | serial data output (3-state) |
| 46 | WCLK | CD7 → DAC | word clock output (3-state) |
| 47 | VDD2P | +3.5 | supply (digital) of CD7 |
| 48 | SCLK | CD7 → DAC | serial bit clock output (3-state) |
| 49 | VSS3 | GND | supply (digital) of CD7 |
| 50 | CL4 | CD7 → | 4.2336MHz μ P clock output |
| 51 | SDA | μ P → CD7 | μ P interface data I/O line (open drain output) |
| 52 | SCL | μ P → CD7 | μ P interface clock line |
| 53 | RAB | μ P → CD7 | μ P interface R/W and load control line |
| 54 | SILD | μ P → CD7 | μ P interface R/W and load control line |
| 55 | NC | | no connection |
| 56 | VSS4 | GND | supply (digital) of CD7 |
| 57 | RESET | μ P → CD7 | power-on reset input (active low) |
| 58 | STATUS | CD7 → μ P | servo interrupt request line/CD7 status register output (open drain) |
| 59 | VDD3C | +3.5 | supply core (digital) |
| 60 | C2FAIL | CD7 → | indication of correction failure (open drain) |
| 61 | CFLG | CD7 → | correction flag output (open drain) |
| 62 | V1 | → CD7 | versatile input pin |
| 63 | V2 | → CD7 | versatile input pin |
| 64 | LDON | CD7 → Laser supply | laser drive on output (open drain) |

MPC1718 – 4-STAGE PWM SERVODRIVER

| Pin | Name | Direction | Description |
|-----|--------|-------------------------------|--|
| 1 | Hin2 | → servo driver | power supply for H-bridge output section 2 |
| 2 | Hout2A | servo driver → disc motor | H-bridge PWM output 2A |
| 3 | DCout2 | DC/DC converter 2 → LC-filter | connects H-bridge DC/DC converter 2 to LC-filter |
| 4 | Vin | +A | power supply for servo driver |
| 5 | DCout1 | DC/DC converter 1 → LC-filter | connects H-bridge DC/DC converter 1 to LC-filter |
| 6 | Gnd1,2 | GND | ground for H-bridge section 1 and 2 |
| 7 | Hout1A | servo driver → focus servo | H-bridge PWM output 1A |
| 8 | Hin1 | → servo driver | power supply for H-bridge output section 1 |
| 9 | Hout1B | servo driver → focus servo | H-bridge PWM output 1B |
| 10 | Vout | servo driver → | PWM output of DC/DC converter of VLG power supply |
| 11 | DTC | → servo driver | dead time control pin (used to set duty value of Vout output) |
| 12 | FBout | servo driver → | feedback for DC/DC converter of VLG power supply |
| 13 | INM | → servo driver | inverting input for DC/DC converter of VLG power supply |
| 14 | INP | → servo driver | non-inverting input for DC/DC converter of VLG power supply |
| 15 | VBias | servo driver → | bias stabilizing capacitor connection pin for DC/DC converter |
| 16 | Vd | servo driver → +S | power switch output pin of servo driver |
| 17 | S.Gnd | GND | ground for internal logic of servo driver |
| 18 | Vref | servo driver → +1.2 | band-gap reference voltage output of servo driver |
| 19 | VG | +VG → servo driver | gate drive power supply for output transistor, power is supplied by using the Cg pin to form a charge pump. |
| 20 | Cg | servo driver → | charge pump step-up capacitor connection |
| 21 | Vreg | servo driver → +1.8 | regulator output pin |
| 22 | Cosc | servo driver → | sawtooth waveform output, synchronized to the clock |
| 23 | Sync | → servo driver | external clock input for separate excitation |
| 24 | Power | μ P → servo driver | power control pin (low-active) |
| 25 | Hout3B | servo driver → track servo | H-bridge PWM output 3B |
| 26 | Hin3 | → servo driver | power supply for H-bridge output section 3 |
| 27 | Hout3A | servo driver → track servo | H-bridge PWM output 3A |
| 28 | Gnd3,4 | GND | ground for H-bridge section 3 and 4 |
| 29 | DCout3 | DC/DC converter 3 → LC-filter | connects H-bridge DC/DC converter 3 to LC-filter |
| 30 | Vin | +A | power supply for servo driver |
| 31 | DCout4 | DC/DC converter 4 → LC-filter | connects H-bridge DC/DC converter 4 to LC-filter |
| 32 | Hout4A | servo driver → slide servo | H-bridge PWM output 4A |
| 33 | Hin4 | → servo driver | power supply for H-bridge output section 4 |
| 34 | Hout4B | servo driver → slide servo | H-bridge PWM output 4B |
| 35 | Lim2,4 | +LF | input pin, limits LC-filter output voltages of sections 2 and 4 |
| 36 | Vinp3 | CD7 → servo driver | control input pin, receives track servo signals from CD7 |
| 37 | Vinp4 | CD7 → servo driver | H-bridge output is controlled by voltage between this pin and Vc control input pin, receives slide servo signals from CD7 |
| 38 | VLG | +3.5 | H-bridge output is controlled by voltage between this pin and Vc power supply for motor control circuit |
| 39 | S.Gnd | GND | ground for internal logic of servo driver |
| 40 | Vc | DR_REF | reference voltage for motor control circuit |
| 41 | Vinp2 | CD7 → servo driver | control input pin, receives disc motor control signals from CD7 |
| 42 | Vinp1 | CD7 → servo driver | H-bridge output is controlled by voltage between this pin and Vc control input pin, receives focus servo signals from CD7 |
| 43 | Lim1,3 | +LF → servo driver | H-bridge output is controlled by voltage between this pin and Vc input pin, limits LC-filter output voltages of sections 1 and 3 |
| 44 | Hout2B | servo driver → disc motor | H-bridge PWM output 2B |

TDA1545A – CONTINUOUS CALIBRATION DAC

| Pin | Name | Direction | Description |
|-----|------|-----------|--------------------------|
| 1 | BCK | CD7 → DAC | bit clock input of DAC |
| 2 | WS | CD7 → DAC | word select input of DAC |
| 3 | DATA | CD7 → DAC | data input of DAC |
| 4 | GND | GND | ground |
| 5 | VDD | +LFD | supply voltage |
| 6 | IOL | DAC → | left channel output |
| 7 | IREF | DAC → | reference voltage output |
| 8 | IOR | DAC → | right channel output |



| PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|------|-------|-------|------|----|---------|----|--------|----|----|----|-----|----|-----|----|-----|---------|-----|
| NET | C0 | C1 | C2 | C3 | S0 | S1 | S2 | S3 | S4 | S5 | S6 | S7 | S8 | S9 | S10 | S11 | S12 |
| COM0 | COM0- | - | - | 1f | 1a | 2f | 2a | 3f | 3a | 4f | 4a | 5f | 5a | 6f | 6a | SCAN | |
| COM1 | - | COM1- | - | 1g | 1b | 2g | 2b | 3g | 3b | 4g | 4b | 5g | 5b | 6g | 6b | PROGRAM | |
| COM2 | - | COM2- | - | 1e | 1c | 2e | 2c | 3e | 3c | 4e | 4c | 5e | 5c | 6e | 6c | - | |
| COM3 | - | - | COM3 | 1d | SHUFFLE | 2d | REPEAT | 3d | 1 | 4d | COM | 5d | ALL | 6d | X1 | X2 | |

This circuit diagram shows a summary of all possible versions. For components used in specific versions see table below.

Explanation of itemnumber extensions:
 AZ7261,AZ7262,AZ7266,AZ7267,AZ7268 A
 AZ7263 A+F+J
 AZ7264 A+D

A recharge circuit
 D wired remote control
 F IR - sensor
 J Line out

Supply voltages

- +A Battery or ext. DC
- +S Switched +A
- +3.5 Stabilized voltage of DC/DC converter
- +1.2 Reference-voltage (only if power on)
- +5 Ext. DC

Explanation of abbreviations:

- X Components only forseen (not in use)
- % Tolerance of resistor is only 1%

⚡ DC voltage measured in PLAY-mode, DBB=off.
 ⚡ Set supplied via mains adapter
 ⚡ EVM

- 1250 C 2
- 1400 E12
- 1410 J 3
- 1411 K 6
- 1412 L 7
- 1413 L 7
- 1414 L 6
- 1415 K 7
- 1417 L 4
- 1418 K 4
- 1430 J 5
- 1450F C16
- 2101 B12
- 2102X C14
- 2200A D 8
- 2230 D 1
- 2250X D 3
- 2251F C15
- 2252 D 3
- 2255 B 8
- 2280A C 6
- 2281A C 7
- 2395X H10
- 2401X H 9
- 2402 G 9
- 2425 J 9
- 2426 J 8
- 2451 I 7
- 2452 H 3
- 2453 I 4
- 2454D G 5
- 2490D G 4
- 3105 B12
- 3106 B12
- 3107X B11
- 3108 B12
- 3109 B12
- 3110 B14
- 3111A C11
- 3250A D10
- 3251 C 4
- 3253 C 3
- 3254 C 3
- 3255 D 3
- 3261A C10
- 3262 G16
- 3263A C11
- 3264 B 2
- 3265 C 2
- 3275X B 6
- 3276A B 7
- 3277X C 7
- 3280A C 5
- 3281A D 5
- 3282A B 6
- 3283A B 7
- 3284A C 5
- 3285A C 5
- 3286A D 8
- 3287A D 5
- 3288A C 5
- 3289A C 5
- 3291 B13
- 3293A C13
- 3294 C14
- 3401 L15
- 3402 L15
- 3410 I 4
- 3413 K 4
- 3414 L 3
- 3415 K 5
- 3418 I 6
- 3422 K 5
- 3423 K 6
- 3425 J 9
- 3430 I 5
- 3449F B15
- 3450F C15
- 3451 I 6
- 3452 I 6
- 3453 H 7
- 3455 I 3
- 3456 I 3
- 3457 I 4
- 3458 I 5
- 3459D G 6
- 3460D H 6
- 3490D G 4
- 3491F 4
- 3492D H 5
- 3493D G 4
- 3495D G 6
- 3499F 3
- 5400 K 9
- 6250 B 2
- 6251 B 2
- 6253 D 2
- 6400 J 5
- 6401 J 4
- 6403 L 3
- 6460F 6
- 7251 A 4
- 7260A B11
- 7260 C 4
- 7260 C 6
- 7281A C 5
- 7282A C 8
- 7283A C11
- 7284A C 6
- 7290F B16
- 7400 I 9
- 7425 J 8
- 7451 H 6
- 7452 H 7
- 7453 I 6
- 7494D G 6
- 7800 B14
- 7940D G 5
- 7942D G 3

SERVO DRIVER PART

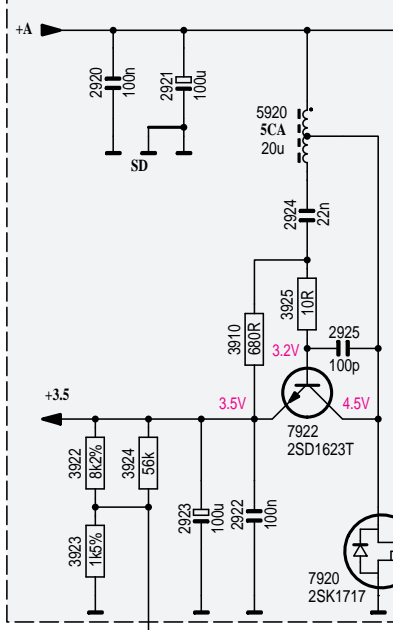
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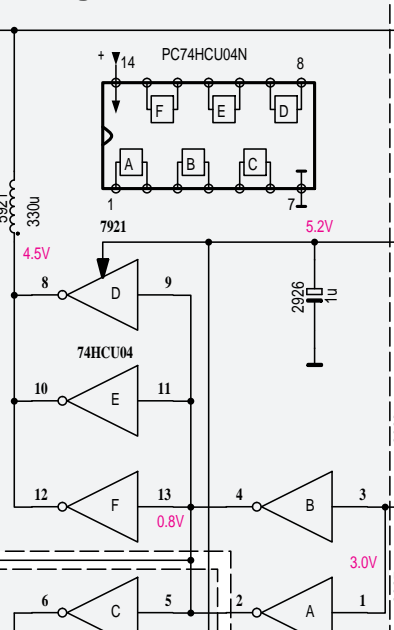
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AZ7261,AZ7262,AZ7266,AZ7267,AZ7268 A
AZ7263 A+F+J
AZ7264 A+D
A recharge circuit
D wired remote control
F IR - sensor
J Line out

Supply voltages
+A Battery or ext. DC
+S Switched +A
+3.5 Stabilized voltage of DC/DC converter
+1.2 Reference-voltage (only if power on)
+5 Ext. DC

+3.5V DC/DC Converter



Voltage Doubler

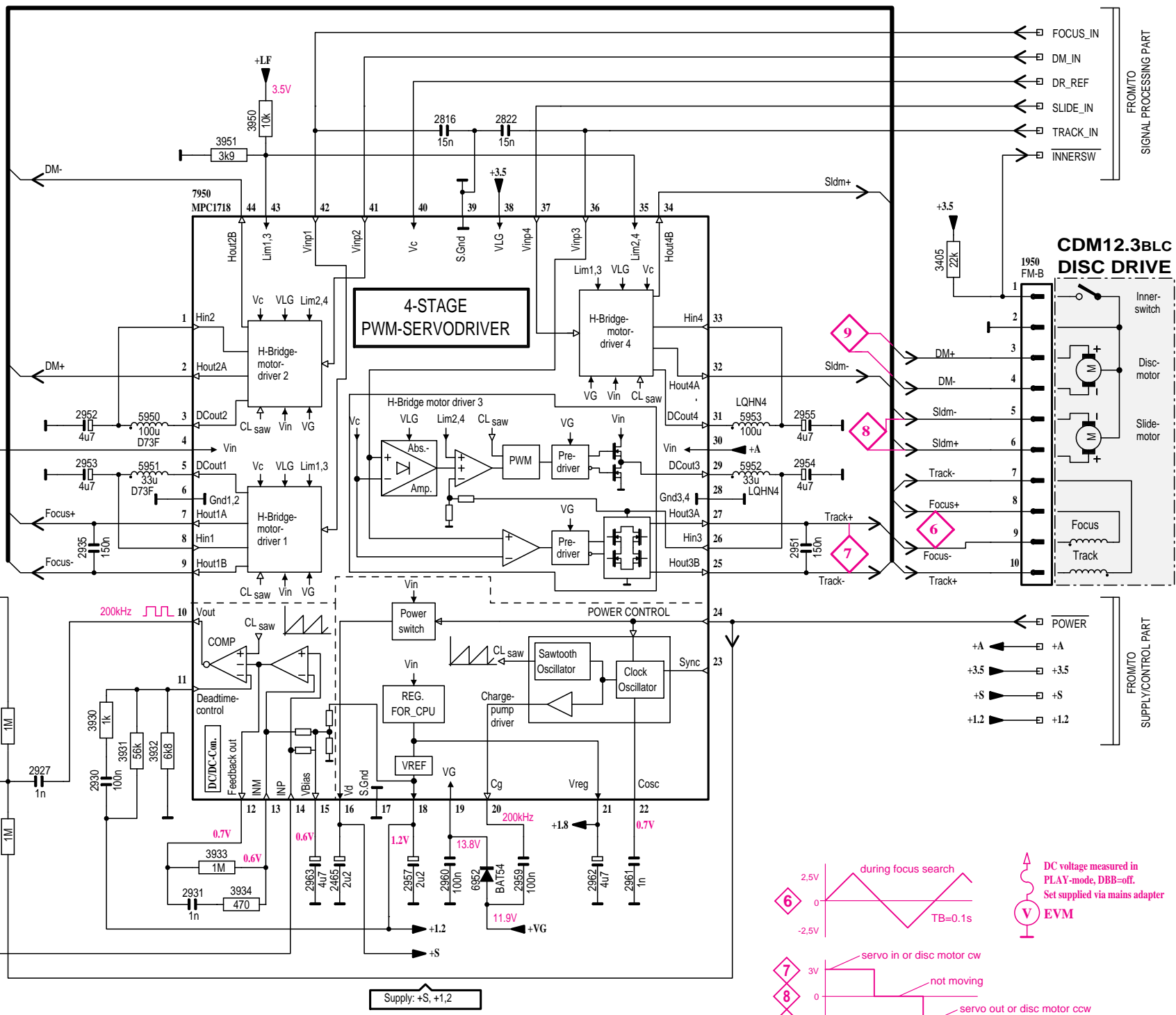


+VG 5

Voltage Doubler (4X)

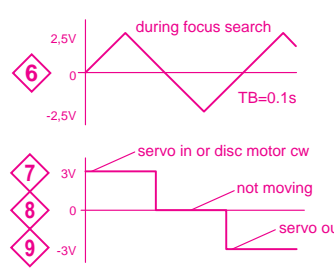


Supply: +3.5, +VG



4-STAGE PWM-SERVO DRIVER

CDM12.3BLC DISC DRIVE

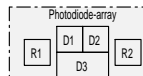


DC voltage measured in PLAY-mode, DBB-off. Set supplied via mains adapter
EVM

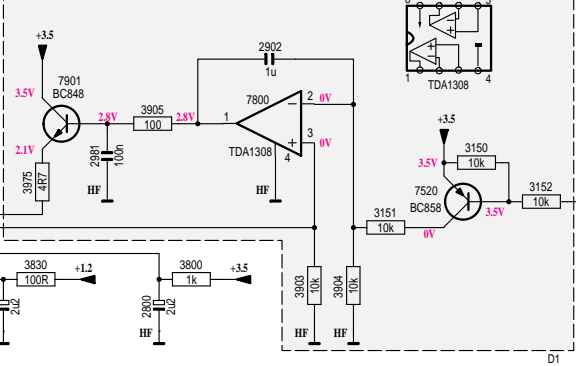
- 1950 C14
- 2465 H 9
- 2816 B10
- 2822 B10
- 2920 E 2
- 2921 E 2
- 2922 H 3
- 2923 H 2
- 2924 F 3
- 2925 G 3
- 2926 F 5
- 2927 H 6
- 2930 H 7
- 2931 I 8
- 2935 F 7
- 2951 F12
- 2952 E 7
- 2953 E 7
- 2954 E12
- 2955 E12
- 2957 H 9
- 2958 H 4
- 2959 H10
- 2960 H10
- 2961 H11
- 2962 H11
- 2963 H 8
- 3405 C14
- 3910 G 3
- 3922 G 2
- 3923 H 2
- 3924 G 2
- 3925 F 3
- 3926 G 6
- 3927 H 6
- 3930 G 7
- 3931 G 7
- 3932 G 7
- 3933 H 8
- 3934 I 8
- 3950 B 8
- 3951 B 8
- 5920 E 3
- 5921 F 4
- 5950 E 7
- 5951 E 7
- 5952 E12
- 5953 E12
- 6952 H10
- 7920 H 3
- 7921 F 4
- 7922 G 3
- 7950 C 7

SIGNAL PROCESSING PART

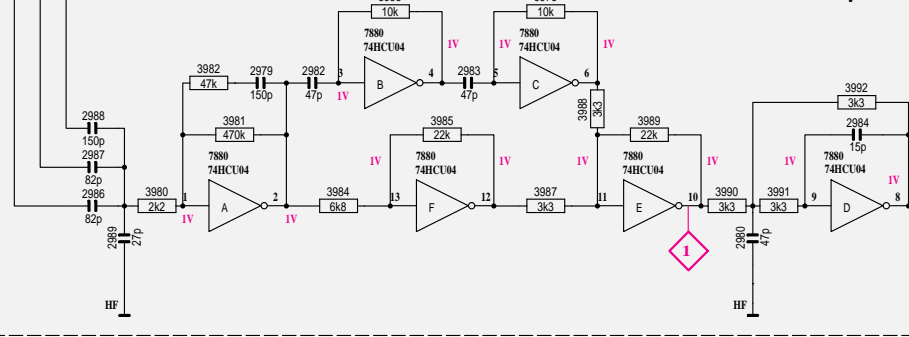
CDM12.3BLC DISC DRIVE



Laser supply



HF-Preamplifier



This circuit diagram shows a summary of all possible versions. For components used in specific versions see table below.

Explanation of itemnumber extensions:

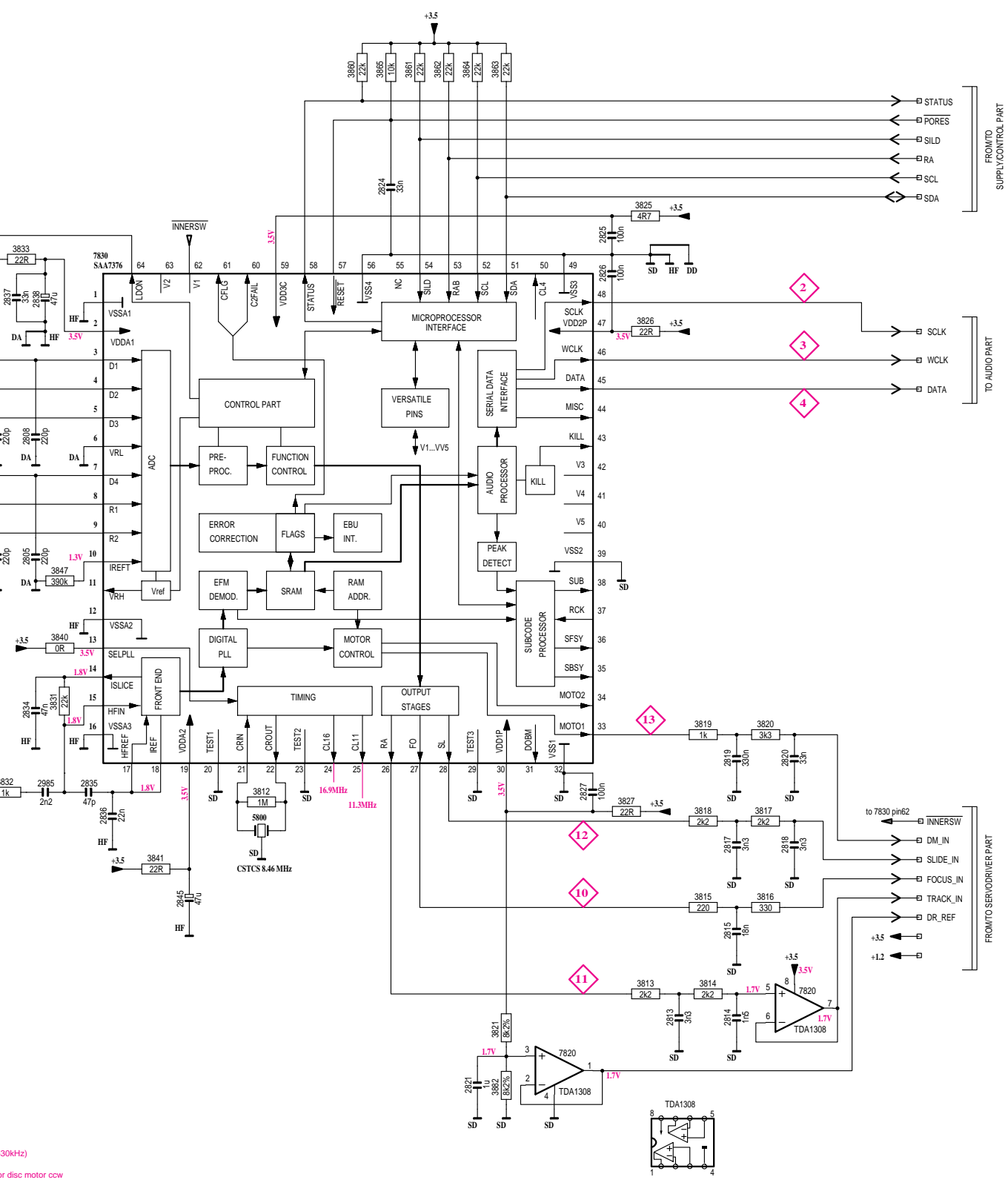
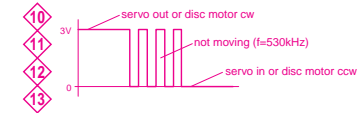
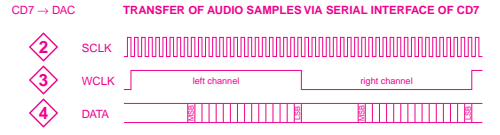
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- AZ7263 A+F+J
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- A recharge circuit
- D wired remote control
- F IR - sensor
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Supply voltages

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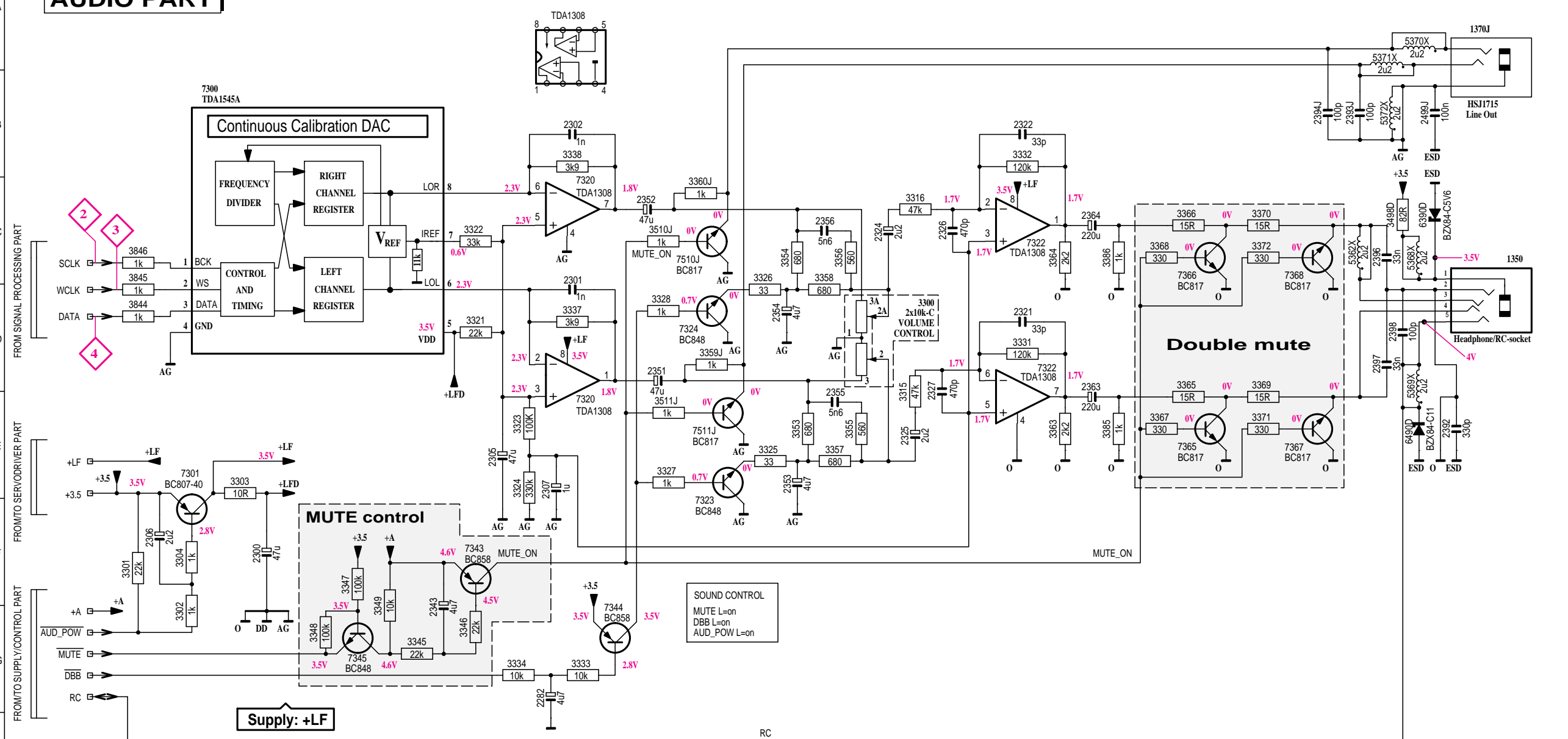
Explanation of abbreviations:

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- % Tolerance of resistor is only 1%



- 1800 C 3
- 2800 D 5
- 2801 G 10
- 2802 G 10
- 2803 G 11
- 2804 G 11
- 2805 G 12
- 2806 F 11
- 2807 F 11
- 2808 F 12
- 2809 F 10
- 2810 F 10
- 2811 F 9
- 2813 L 18
- 2814 L 19
- 2815 K 19
- 2817 J 19
- 2818 J 20
- 2819 J 19
- 2820 J 20
- 2821 L 16
- 2824 C 15
- 2825 C 18
- 2826 D 18
- 2827 L 18
- 2831 D 4
- 2833 K 7
- 2834 H 12
- 2835 J 2
- 2836 J 13
- 2837 D 12
- 2838 D 12
- 2845 J 13
- 2902 B 6
- 2979 H 6
- 2980 J 10
- 2981 C 5
- 2982 H 7
- 2983 B 9
- 2984 H 11
- 2985 J 2
- 2986 J 5
- 3150 C 8
- 3151 D 7
- 3152 C 8
- 3800 D 6
- 3801 H 11
- 3804 E 11
- 3805 E 11
- 3806 F 11
- 3807 F 11
- 3808 G 11
- 3809 E 9
- 3810 E 9
- 3811 E 9
- 3812 J 4
- 3813 K 18
- 3814 K 19
- 3815 J 19
- 3816 J 19
- 3817 J 19
- 3818 J 19
- 3819 J 19
- 3820 J 19
- 3821 L 17
- 3825 C 18
- 3826 D 18
- 3830 D 4
- 3831 H 12
- 3832 J 2
- 3833 D 12
- 3840 H 12
- 3841 J 13
- 3847 G 12
- 3860 B 15
- 3861 B 16
- 3862 B 16
- 3863 B 17
- 3864 B 16
- 3865 B 15
- 3903 D 6
- 3904 D 7
- 3905 C 5
- 3973 H 8
- 3974 K 7
- 3975 C 4
- 3980 J 5
- 3981 J 6
- 3982 H 6
- 3983 H 7
- 3984 J 7
- 3985 J 8
- 3987 J 8
- 3988 J 9
- 3989 J 9
- 3990 J 10
- 3991 H 10
- 3992 H 11
- 5800 J 4
- 7520 C 8
- 7800 C 6
- 7820 L 17
- 7820 K 20
- 7830 D 12
- 7880 J 6
- 7880 H 7
- 7880 H 8
- 7880 H 11
- 7880 J 9
- 7880 J 7
- 7880 J 17
- 7901 C 5

AUDIO PART



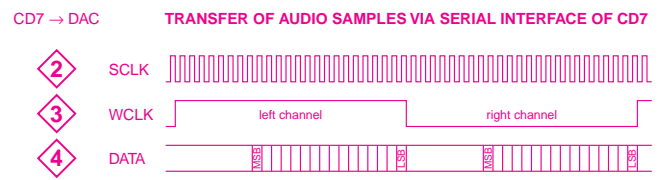
This circuit diagram shows a summary of all possible versions. For components used in specific versions see table next right.

Explanation of itemnumber extensions:
 AZ7261,AZ7262,AZ7266,AZ7267,AZ7268 A
 AZ7263 A+F+J
 AZ7264 A+D

A recharge circuit
 D wired remote control
 F IR - sensor
 J Line out

Supply voltages
 +A Battery or ext. DC
 +S Switched +A
 +3.5 Stabilized voltage of DC/DC converter
 +1.2 Reference-voltage (only if power on)
 +5 Ext. DC

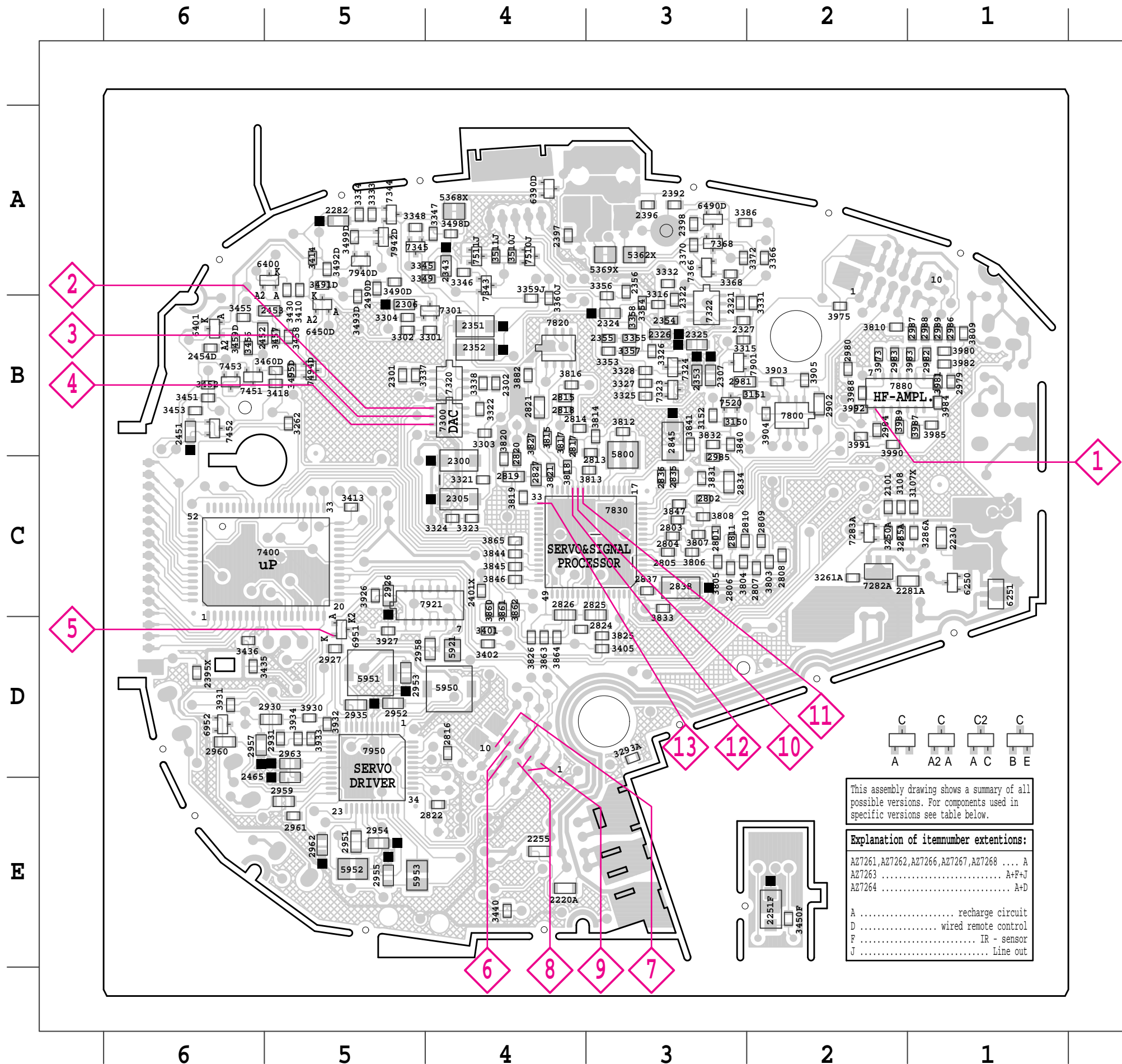
Explanation of abbreviations:
 X Components only forseen (not in use)
 % Tolerance of resistor is only 1%



DC voltage measured in PLAY-mode, DBB=off.
 Set supplied via mains adapter
 EVM

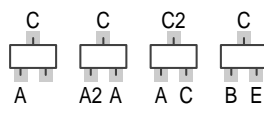
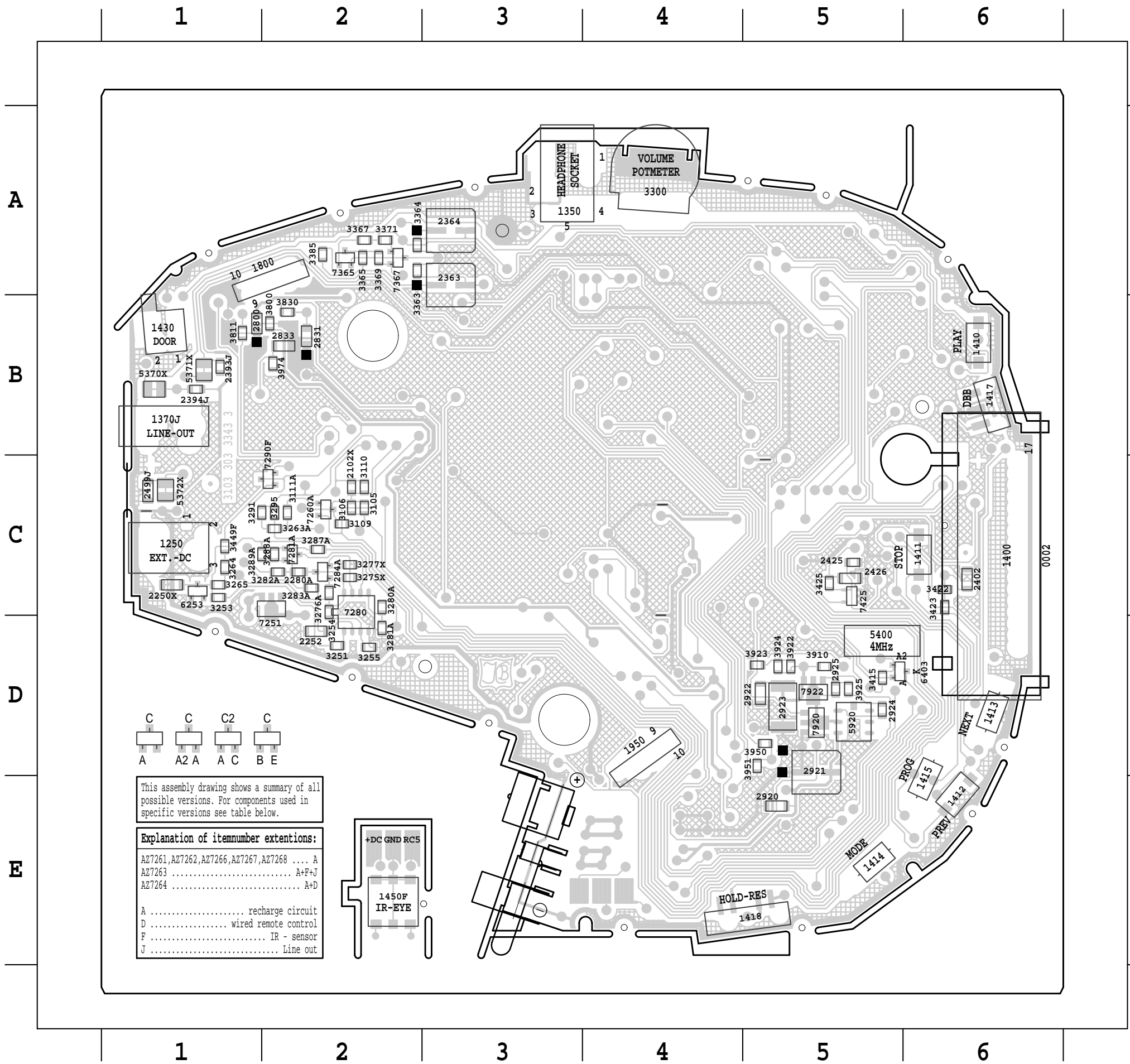
- 1350 C14
- 1370J A14
- 2282 G 5
- 2300 F 3
- 2301 C 6
- 2302 B 6
- 2305 E 5
- 2306 F 2
- 2307 E 5
- 2321 D10
- 2322 B10
- 2324 C 8
- 2325 E 9
- 2326 C 9
- 2327 D 9
- 2343 F 4
- 2351 D 6
- 2352 C 6
- 2353 E 8
- 2354 D 7
- 2355 E 8
- 2356 C 8
- 2363 D10
- 2364 C10
- 2392 E14
- 2393J B13
- 2394J B12
- 2396 C13
- 2397 D13
- 2398 D13
- 2499J B13
- 3300 D 8
- 3301 F 1
- 3302 G 2
- 3303 E 2
- 3304 F 2
- 3315 D 9
- 3316 C 9
- 3321 D 5
- 3322 C 5
- 3323 E 5
- 3324 E 5
- 3325 E 7
- 3326 C 7
- 3327 E 6
- 3328 D 6
- 3331 D10
- 3332 B10
- 3333 G 6
- 3334 G 6
- 3337 D 6
- 3338 B 6
- 3345 G 6
- 3346 G 6
- 3347 G 6
- 3349 F 6
- 3353 E 8
- 3354 C 8
- 3355 E 8
- 3356 C 8
- 3357 E 8
- 3358 C 8
- 3359J D 7
- 3360J C 7
- 3363 E10
- 3364 C10
- 3365 D11
- 3366 C11
- 3367 E11
- 3368 C11
- 3369 D12
- 3370 C12
- 3371 E12
- 3372 C12
- 3385 E11
- 3386 C11
- 3498D C13
- 3510J C 6
- 3511J E 6
- 3844 D 1
- 3845 C 1
- 3846 C 1
- 5362X C13
- 5368X C13
- 5369X D13
- 5370X A13
- 5371X A13
- 5372X B13
- 6390D C13
- 6490D E13
- 7300 B 2
- 7301 E 2
- 7320 D 5
- 7320 C 5
- 7322 C10
- 7322 D10
- 7323 F 7
- 7324 D 6
- 7343 F 4
- 7344 F 6
- 7345 G 4
- 7365 E11
- 7366 C11
- 7367 E12
- 7368 C12
- 7510J C 6
- 7511J E 7

PRINTED CIRCUIT BOARD – COPPERSIDE VIEW



| | | | | |
|-----------|-----------|-----------|-----------|-----------|
| 2101 C 2 | 2835 C 3 | 3338 B 4 | 3819 C 4 | 7282A C 2 |
| 2220A E 4 | 2836 C 3 | 3345 A 4 | 3820 C 4 | 7283A C 2 |
| 2230 C 1 | 2837 C 3 | 3346 A 4 | 3821 C 4 | 7300 B 4 |
| 2251F E 2 | 2838 C 3 | 3347 A 4 | 3825 D 3 | 7301 B 4 |
| 2255 E 4 | 2845 B 3 | 3348 A 5 | 3826 D 4 | 7320 B 4 |
| 2281A C 1 | 2902 B 2 | 3349 A 4 | 3827 B 4 | 7322 B 3 |
| 2282 A 5 | 2926 C 5 | 3353 B 3 | 3831 C 3 | 7323 B 3 |
| 2300 C 4 | 2927 D 5 | 3354 B 3 | 3832 B 3 | 7324 B 3 |
| 2301 B 5 | 2930 D 5 | 3355 B 3 | 3833 C 3 | 7343 A 4 |
| 2302 B 4 | 2931 D 5 | 3356 B 3 | 3840 B 3 | 7344 A 5 |
| 2305 C 4 | 2935 D 5 | 3357 B 3 | 3841 B 3 | 7345 A 5 |
| 2306 B 5 | 2951 E 5 | 3358 B 3 | 3844 C 4 | 7366 A 3 |
| 2307 B 3 | 2952 D 5 | 3359J B 4 | 3845 C 4 | 7368 A 3 |
| 2321 B 3 | 2953 D 5 | 3360J B 4 | 3846 C 4 | 7400 C 5 |
| 2322 B 3 | 2954 E 5 | 3366 A 2 | 3847 C 3 | 7451 B 6 |
| 2324 B 3 | 2955 E 5 | 3368 A 3 | 3860 C 4 | 7452 B 6 |
| 2325 B 3 | 2957 D 6 | 3370 A 3 | 3861 C 4 | 7453 B 6 |
| 2326 B 3 | 2958 D 4 | 3372 A 3 | 3862 C 4 | 7494D B 5 |
| 2327 B 3 | 2959 E 5 | 3386 A 3 | 3863 D 4 | 7510J A 4 |
| 2343 A 4 | 2960 D 6 | 3401 D 4 | 3864 D 4 | 7511J A 4 |
| 2351 B 4 | 2961 E 5 | 3402 D 4 | 3865 C 4 | 7520 B 3 |
| 2352 B 4 | 2962 E 5 | 3405 D 3 | 3882 B 4 | 7800 B 2 |
| 2353 B 3 | 2963 D 5 | 3410 A 5 | 3903 B 2 | 7820 B 4 |
| 2354 B 3 | 2979 B 1 | 3413 C 5 | 3904 B 2 | 7830 C 3 |
| 2355 B 3 | 2980 B 2 | 3414 A 5 | 3905 B 2 | 7880 B 2 |
| 2356 A 3 | 2981 B 3 | 3418 B 5 | 3926 C 5 | 7901 B 3 |
| 2392 A 3 | 2982 B 1 | 3430 A 5 | 3927 D 5 | 7921 C 4 |
| 2395X D 6 | 2983 B 2 | 3435 D 6 | 3930 D 5 | 7940D A 5 |
| 2396 A 3 | 2984 B 2 | 3436 D 6 | 3931 D 6 | 7942D A 5 |
| 2397 A 4 | 2985 C 3 | 3440 E 4 | 3932 D 5 | 7950 D 5 |
| 2398 A 3 | 2986 B 1 | 3450F E 2 | 3933 D 5 | |
| 2401X C 4 | 2987 B 1 | 3451 B 6 | 3934 D 5 | |
| 2451 B 6 | 2988 B 1 | 3452 B 6 | 3973 B 2 | |
| 2452 B 6 | 2989 B 1 | 3453 B 6 | 3975 B 2 | |
| 2453 B 5 | 3107X C 1 | 3455 B 6 | 3980 B 1 | |
| 2454D B 6 | 3108 C 2 | 3456 B 6 | 3981 B 1 | |
| 2465 E 5 | 3150 B 3 | 3457 B 5 | 3982 B 1 | |
| 2490D A 5 | 3151 B 2 | 3458 B 5 | 3983 B 1 | |
| 2801 C 3 | 3152 B 3 | 3459D B 6 | 3984 B 1 | |
| 2802 C 3 | 3250A C 2 | 3460D B 5 | 3985 B 1 | |
| 2803 C 3 | 3261A C 2 | 3490D A 5 | 3987 B 1 | |
| 2804 C 3 | 3262 B 5 | 3491D A 5 | 3988 B 2 | |
| 2805 C 3 | 3285A C 2 | 3492D A 5 | 3989 B 2 | |
| 2806 C 3 | 3286A C 1 | 3493D B 5 | 3990 B 2 | |
| 2807 C 2 | 3293A D 3 | 3495D B 5 | 3991 B 2 | |
| 2808 C 2 | 3301 B 4 | 3498D A 4 | 3992 B 2 | |
| 2809 C 2 | 3302 B 5 | 3499D A 5 | 5362X A 3 | |
| 2810 C 3 | 3303 B 4 | 3510J A 4 | 5368X A 4 | |
| 2811 C 3 | 3304 B 5 | 3511J A 4 | 5369X A 3 | |
| 2813 B 3 | 3315 B 3 | 3803 C 2 | 5800 B 3 | |
| 2814 B 4 | 3316 B 3 | 3804 C 3 | 5921 D 4 | |
| 2815 B 4 | 3321 C 4 | 3805 C 3 | 5950 D 4 | |
| 2816 D 4 | 3322 B 4 | 3806 C 3 | 5951 D 5 | |
| 2817 B 4 | 3323 C 4 | 3807 C 3 | 5952 E 5 | |
| 2818 B 4 | 3324 C 4 | 3808 C 3 | 5953 E 5 | |
| 2819 C 4 | 3325 B 3 | 3809 B 1 | 6250 C 1 | |
| 2820 C 4 | 3326 B 3 | 3810 B 2 | 6251 C 1 | |
| 2821 B 4 | 3327 B 3 | 3812 B 3 | 6390D A 4 | |
| 2822 E 4 | 3328 B 3 | 3813 C 3 | 6400 A 5 | |
| 2824 D 4 | 3331 B 2 | 3814 B 3 | 6401 B 6 | |
| 2825 C 3 | 3332 A 3 | 3815 B 4 | 6450D B 5 | |
| 2826 C 4 | 3333 A 5 | 3816 B 4 | 6490D A 3 | |
| 2827 C 4 | 3334 A 5 | 3817 B 4 | 6951 D 5 | |
| 2834 C 3 | 3337 B 5 | 3818 C 4 | 6952 D 6 | |

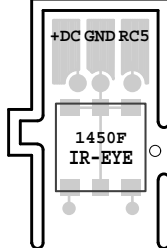
PRINTED CIRCUIT BOARD - COMPONENTSIDE VIEW



This assembly drawing shows a summary of all possible versions. For components used in specific versions see table below.

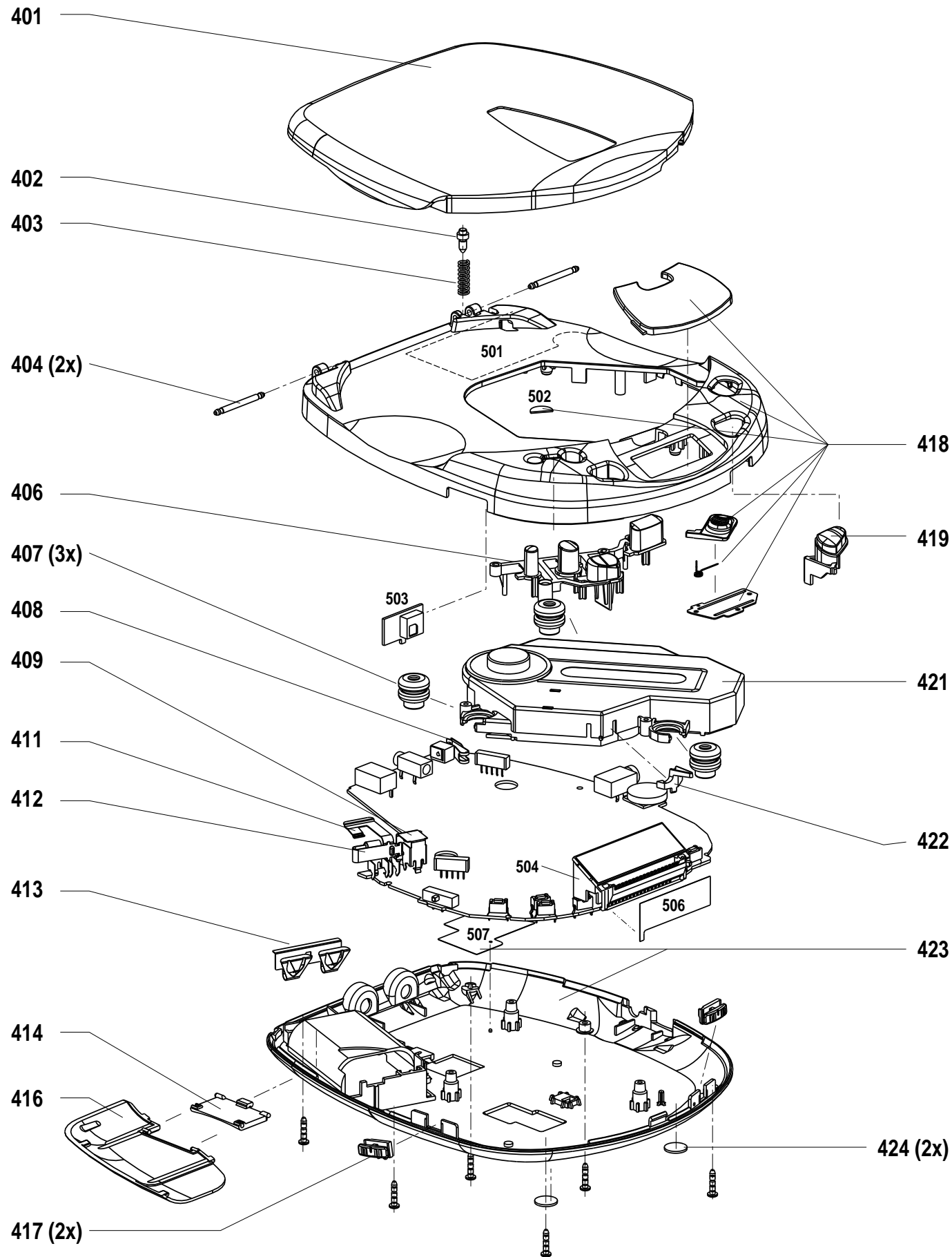
Explanation of item number extensions:

AZ7261, AZ7262, AZ7266, AZ7267, AZ7268 ... A
 AZ7263 A+F+J
 AZ7264 A+D
 A recharge circuit
 D wired remote control
 F IR - sensor
 J Line out



| | |
|-----------|-----------|
| 1250 C 1 | 3365 A 2 |
| 1350 A 3 | 3367 A 2 |
| 1370J B 1 | 3369 A 2 |
| 1400 C 6 | 3371 A 2 |
| 1410 B 6 | 3385 A 2 |
| 1411 C 6 | 3415 D 5 |
| 1412 E 6 | 3422 C 6 |
| 1413 D 6 | 3423 C 6 |
| 1414 E 6 | 3425 C 5 |
| 1415 E 6 | 3449F C 1 |
| 1417 B 6 | 3800 B 2 |
| 1418 E 5 | 3811 B 1 |
| 1430 B 1 | 3830 B 2 |
| 1450F E 2 | 3910 D 5 |
| 1800 A 2 | 3922 D 5 |
| 1950 E 4 | 3923 D 5 |
| 2102X C 2 | 3924 D 5 |
| 2250X C 1 | 3925 D 5 |
| 2252 D 2 | 3950 D 5 |
| 2280A C 2 | 3951 D 5 |
| 2363 A 3 | 3974 B 2 |
| 2364 A 3 | 5370X B 1 |
| 2393J B 1 | 5371X B 1 |
| 2394J B 1 | 5372X C 1 |
| 2402 C 6 | 5400 D 5 |
| 2425 C 5 | 5920 D 5 |
| 2426 C 5 | 6253 C 1 |
| 2499J C 1 | 6403 D 5 |
| 2800 B 1 | 7251 C 2 |
| 2831 B 2 | 7260A C 2 |
| 2833 B 2 | 7280 C 2 |
| 2920 E 5 | 7281A C 2 |
| 2921 D 5 | 7284A C 2 |
| 2922 D 5 | 7290F C 2 |
| 2923 D 5 | 7365 A 2 |
| 2924 D 5 | 7367 A 2 |
| 2925 D 5 | 7425 C 5 |
| 3105 C 2 | 7920 D 5 |
| 3106 C 2 | 7922 D 5 |
| 3109 C 2 | |
| 3110 C 2 | |
| 3111A C 2 | |
| 3251 D 2 | |
| 3253 C 1 | |
| 3254 C 2 | |
| 3255 D 2 | |
| 3263A C 2 | |
| 3264 C 1 | |
| 3265 C 1 | |
| 3275X C 2 | |
| 3276A C 2 | |
| 3277X C 2 | |
| 3280A C 2 | |
| 3281A D 2 | |
| 3282A C 2 | |
| 3283A C 2 | |
| 3287A C 2 | |
| 3288A C 2 | |
| 3289A C 1 | |
| 3291 C 1 | |
| 3295 C 2 | |
| 3300 A 4 | |
| 3363 A 2 | |
| 3364 A 2 | |

EXPLODED VIEW



MECHANICAL PARTSLIST

| | | |
|-----|----------------|--|
| 401 | 4822 443 10305 | DOOR-CD ASSEMBLY AZ7261, AZ7263, AZ7266, AZ7267, AZ7268 (not for /17) |
| 401 | 4822 443 10306 | DOOR-CD ASSEMBLY AZ7261, AZ7263, AZ7266, AZ7267, AZ7268 (only for /17) |
| 401 | 4822 443 10311 | DOOR-CD ASSEMBLY AZ7262, AZ7264 (not for /17) |
| 401 | 4822 443 10312 | DOOR-CD ASSEMBLY AZ7262, AZ7264 (only for /17) |
| 402 | 4822 402 10347 | PIN-OPEN |
| 403 | 4822 492 11071 | SPRING-OPEN |
| 404 | 4822 535 10247 | SPINDLE |
| 406 | 4822 410 10532 | BUTTON-SET-PRINTED |
| 407 | 4822 529 10346 | RUBBER DAMPER |
| 408 | 4822 492 11169 | SPRING-SWITCH |
| 409 | 4822 492 11066 | SPRING-BATTERY + |
| 411 | 4822 492 11171 | SPRING-DETECTION |
| 412 | 4822 492 11067 | SPRING-BATTERY - |
| 413 | 4822 492 11065 | SPRING-BATTERY-SHORT |
| 414 | 4822 417 11281 | HINGE-DOOR-BATTERY-LACQUERED |
| 416 | 4822 443 10236 | DOOR-BATTERY-LACQUERED |
| 417 | 4822 463 11028 | SLIDER |
| 418 | 4822 449 80075 | CABINET ASSEMBLY AZ7261, AZ7263, AZ7266, AZ7267, AZ7268 |
| 418 | 4822 449 80076 | CABINET ASSEMBLY AZ7262 |
| 418 | 4822 449 80077 | CABINET ASSEMBLY AZ7263 |
| 418 | 4822 449 80078 | CABINET ASSEMBLY AZ7264 |
| 419 | 4822 410 10531 | BUTTON-PLAY-PRINTED |
| 421 | 4822 691 10487 | CDM-12.3BLC DISC DRIVE |
| 422 | 4822 402 61554 | PROTECTION BRACKET |
| 423 | 4822 442 00384 | BOTTOM ASSEMBLY AZ7261, AZ7263, AZ7266, AZ7267, AZ7268 |
| 423 | 4822 442 00385 | BOTTOM ASSEMBLY AZ7262 |
| 423 | 4822 442 00386 | BOTTOM ASSEMBLY AZ7263 |
| 423 | 4822 442 00387 | BOTTOM ASSEMBLY AZ7264 |
| 424 | 4822 462 41819 | RUBBER FOOT |
| 502 | 4822 466 62624 | RUBBER PAD CABINET |
| | 4822 502 21247 | SCREW M1,7x9 |

RESISTORS

| | | | | |
|------|------------------|------------------|----|-------|
| 3805 | © 4822 051 20103 | 10kΩ | 5% | 0,1W |
| 3806 | © 4822 051 20103 | 10kΩ | 5% | 0,1W |
| 3807 | © 4822 051 20103 | 10kΩ | 5% | 0,1W |
| 3808 | © 4822 051 20103 | 10kΩ | 5% | 0,1W |
| 3809 | © 4822 117 11149 | 82kΩ | 1% | 0,1W |
| 3810 | © 4822 117 11149 | 82kΩ | 1% | 0,1W |
| 3811 | © 4822 051 20393 | 39kΩ | 5% | 0,1W |
| 3812 | © 4822 051 20105 | 1MΩ | 5% | 0,1W |
| 3813 | © 4822 117 11449 | 2,2kΩ | 1% | 0,1W |
| 3814 | © 4822 117 11449 | 2,2kΩ | 1% | 0,1W |
| 3815 | © 4822 051 20221 | 220Ω | 5% | 0,1W |
| 3816 | © 4822 051 20331 | 330Ω | 5% | 0,1W |
| 3817 | © 4822 117 11449 | 2,2kΩ | 1% | 0,1W |
| 3818 | © 4822 117 11449 | 2,2kΩ | 1% | 0,1W |
| 3819 | © 4822 051 10102 | 1kΩ | 2% | 0,25W |
| 3820 | © 4822 051 20332 | 3,3kΩ | 5% | 0,1W |
| 3821 | © 4822 117 11437 | 8,2kΩ | 1% | 0,1W |
| 3825 | © 4822 051 20478 | 4,7Ω | 5% | 0,1W |
| 3826 | © 4822 051 20229 | 22Ω | 5% | 0,1W |
| 3827 | © 4822 051 20229 | 22Ω | 5% | 0,1W |
| 3830 | © 4822 051 20101 | 100Ω | 5% | 0,1W |
| 3831 | © 4822 051 20223 | 22kΩ | 5% | 0,1W |
| 3832 | © 4822 051 10102 | 1kΩ | 2% | 0,25W |
| 3833 | © 4822 051 20229 | 22Ω | 5% | 0,1W |
| 3840 | © 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3841 | © 4822 051 20229 | 22Ω | 5% | 0,1W |
| 3844 | © 4822 051 10102 | 1kΩ | 2% | 0,25W |
| 3845 | © 4822 051 10102 | 1kΩ | 2% | 0,25W |
| 3846 | © 4822 051 10102 | 1kΩ | 2% | 0,25W |
| 3847 | © 4822 051 20394 | 390kΩ | 5% | 0,1W |
| 3860 | © 4822 051 20223 | 22kΩ | 5% | 0,1W |
| 3861 | © 4822 051 20223 | 22kΩ | 5% | 0,1W |
| 3862 | © 4822 051 20223 | 22kΩ | 5% | 0,1W |
| 3863 | © 4822 051 20223 | 22kΩ | 5% | 0,1W |
| 3864 | © 4822 051 20223 | 22kΩ | 5% | 0,1W |
| 3865 | © 4822 051 20103 | 10kΩ | 5% | 0,1W |
| 3882 | © 4822 117 11437 | 8,2kΩ | 1% | 0,1W |
| 3903 | © 4822 051 20103 | 10kΩ | 5% | 0,1W |
| 3904 | © 4822 051 20103 | 10kΩ | 5% | 0,1W |
| 3905 | © 4822 051 20101 | 100Ω | 5% | 0,1W |
| 3910 | © 4822 051 20681 | 680Ω | 5% | 0,1W |
| 3922 | © 4822 117 11437 | 8,2kΩ | 1% | 0,1W |
| 3923 | © 4822 117 11139 | 1,5kΩ | 1% | 0,1W |
| 3924 | © 4822 051 20563 | 56kΩ | 5% | 0,1W |
| 3925 | © 4822 051 20109 | 10Ω | 5% | 0,1W |
| 3926 | © 4822 051 20105 | 1MΩ | 5% | 0,1W |
| 3927 | © 4822 051 20105 | 1MΩ | 5% | 0,1W |
| 3930 | © 4822 051 10102 | 1kΩ | 2% | 0,25W |
| 3931 | © 4822 051 20563 | 56kΩ | 5% | 0,1W |
| 3932 | © 4822 051 20682 | 6,8kΩ | 5% | 0,1W |
| 3933 | © 4822 051 20105 | 1MΩ | 5% | 0,1W |
| 3934 | © 4822 051 20471 | 470Ω | 5% | 0,1W |
| 3950 | © 4822 051 20103 | 10kΩ | 5% | 0,1W |
| 3951 | © 4822 051 20392 | 3,9kΩ | 5% | 0,1W |
| 3973 | © 4822 051 20103 | 10kΩ | 5% | 0,1W |
| 3974 | © 4822 051 20471 | 470Ω | 5% | 0,1W |
| 3975 | © 4822 051 20478 | 4,7Ω | 5% | 0,1W |
| 3980 | © 4822 117 11449 | 2,2kΩ | 1% | 0,1W |
| 3981 | © 4822 051 20474 | 470kΩ | 5% | 0,1W |
| 3982 | © 4822 051 20473 | 47kΩ | 5% | 0,1W |
| 3983 | © 4822 051 20103 | 10kΩ | 5% | 0,1W |
| 3984 | © 4822 051 20682 | 6,8kΩ | 5% | 0,1W |
| 3985 | © 4822 051 20223 | 22kΩ | 5% | 0,1W |
| 3987 | © 4822 051 20332 | 3,3kΩ | 5% | 0,1W |

RESISTORS

| | | | | |
|------|------------------|-------|----|------|
| 3988 | © 4822 051 20332 | 3,3kΩ | 5% | 0,1W |
| 3989 | © 4822 051 20223 | 22kΩ | 5% | 0,1W |
| 3990 | © 4822 051 20332 | 3,3kΩ | 5% | 0,1W |
| 3991 | © 4822 051 20332 | 3,3kΩ | 5% | 0,1W |
| 3992 | © 4822 051 20332 | 3,3kΩ | 5% | 0,1W |

COILS

| | | | |
|------|------------------|--------------|--------------|
| 5400 | 4822 242 72527 | CERAMIC RES. | 4,0MHz |
| 5800 | © 4822 242 81546 | CERAMIC RES. | 8,46MHz |
| 5920 | © 4822 146 10412 | 20μH | 395HN-A002EG |
| 5921 | © 4822 157 10393 | 330μH | 10% LQH3N |
| 5950 | © 4822 157 10394 | 100μH | 20% D73F |
| 5951 | © 4822 157 10395 | 33μH | 20% D73F |
| 5952 | © 4822 157 10396 | 33μH | 10% LQH4N |
| 5953 | © 4822 157 70753 | 100μH | 10% LQH4N |

DIODES

| | | |
|------|------------------|-----------------------|
| 1450 | © 4822 214 11453 | GP1UC10P RC5-RECEIVER |
| 6250 | © 4822 130 80622 | BAT54 |
| 6251 | © 4822 130 82588 | SB10-05PCP |
| 6253 | © 4822 130 33003 | BZX84-C3V3 |
| 6390 | © 4822 130 80125 | BZX84-C5V6 |
| 6400 | © 5322 130 34331 | BAV70 |
| 6401 | © 5322 130 34331 | BAV70 |
| 6403 | © 5322 130 34331 | BAV70 |
| 6450 | © 4822 130 82594 | BAT54C |
| 6490 | © 4822 130 81338 | BZX84-C11 |
| 6951 | © 4822 130 82262 | BAT54S |
| 6952 | © 4822 130 80622 | BAT54 |

TRANSISTORS

| | | |
|------|------------------|----------|
| 7251 | © 4822 130 62808 | 2SB1123 |
| 7260 | © 5322 130 42012 | BC858 |
| 7281 | © 5322 130 42012 | BC858 |
| 7282 | © 4822 130 63646 | 2SD1623T |
| 7283 | © 4822 130 61207 | BC848 |
| 7284 | © 4822 130 61207 | BC848 |
| 7290 | © 4822 130 61207 | BC848 |
| 7301 | © 5322 130 60123 | BC807-40 |
| 7323 | © 4822 130 61207 | BC848 |
| 7324 | © 4822 130 61207 | BC848 |
| 7343 | © 5322 130 42012 | BC858 |
| 7344 | © 5322 130 42012 | BC858 |
| 7345 | © 4822 130 61207 | BC848 |
| 7365 | © 4822 130 42133 | BC817 |
| 7366 | © 4822 130 42133 | BC817 |
| 7367 | © 4822 130 42133 | BC817 |
| 7368 | © 4822 130 42133 | BC817 |
| 7451 | © 4822 130 61207 | BC848 |
| 7452 | © 4822 130 61207 | BC848 |
| 7453 | © 4822 130 61207 | BC848 |
| 7494 | © 5322 130 42012 | BC858 |
| 7510 | © 4822 130 42133 | BC817 |
| 7511 | © 4822 130 42133 | BC817 |
| 7520 | © 5322 130 42012 | BC858 |
| 7901 | © 4822 130 61207 | BC848 |
| 7920 | © 4822 130 63357 | 2SK1717 |
| 7922 | © 4822 130 63646 | 2SD1623T |
| 7940 | © 5322 130 42012 | BC858 |
| 7942 | © 4822 130 61207 | BC848 |

INTEGRATED CIRCUITS

| | | |
|--------|----------------|---------------------------|
| 7280 © | 4822 209 71448 | NJM2903M |
| 7300 © | 4822 209 33164 | TDA1545AT/N2 |
| 7320 © | 4822 209 33165 | TDA1308T/N1 |
| 7322 © | 4822 209 33165 | TDA1308T/N1 |
| 7400 © | 4822 209 13566 | μP TMP47C823F SHARON1-PB1 |
| 7425 © | 4822 209 12991 | PST9127N |
| 7800 © | 4822 209 33165 | TDA1308T/N1 |
| 7820 © | 4822 209 33165 | TDA1308T/N1 |
| 7830 © | 4822 209 13554 | SAA7376GP/M1 |
| 7880 © | 5322 209 11517 | PC74HCU04T |
| 7921 © | 5322 209 11517 | PC74HCU04T |
| 7950 © | 4822 209 12994 | MPC1718FB |