

Service
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Service Manual



CONTENTS

Technical specification	1-2
Version variation	1-2
Service measurement setup.....	1-3
Service aids	1-4
Instructions on CD playability	2-1..2-2
Block diagram.....	3-1
Wiring diagram.....	4-1
Disassembly diagram.....	5-1
Main board	
Circuit diagram	6-1..6-3
Layout diagram.....	6-4..6-5
Servo board	
Circuit diagram	7-1..7-2
Layout diagram.....	7-3
Exploded view diagram	8-1

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TECHNICAL SPECIFICATION

Picture/Display

- Display screen type: LCD TFT
- Diagonal screen size: 7"
- Resolution: 800(W) x 480(H) x 3(RGB)
- Aspect ratio: Widescreen
- Brightness: 260 cd/m²
- Contrast ratio (typical): 400
- Effective viewing area: 157.2 x 82.32mm
- Pixel pitch: 0.1965(W) x 0.1715(H)
- Key illumination: Blue

Video Playback

- Playback Media: DVD, DVD-R/-RW, DVD+R/+RW, DVD+RW, Video CD, SVCD, Picture CD
- Disc Playback Modes: A-B Repeat, Chapter repeat, Disc Menu, Fast Backward, Fast Forward, OSD, PBC, Repeat, Resume Playback from Stop, Search forward/reverse, Slow Backward, Slow Forward, Still Picture, Zoom
- Video disc playback system: NTSC, PAL

Audio Playback

- Playback Media: CD, CD-R, CD-RW, MP3-CD, WMA, WMA-CD
- Compression format: Dolby Digital, MP3, WMA, WMA9
- Disc Playback Modes: Fast Forward/Backward, Introscan, Next/Previous Album Search, Next/Previous Track Search
- ID3 Tag support: Song title, artist, album
- MP3 bit rates: 32-320kbps and variable bit rate
- USB Direct / SD Modes: Play/Pause, Fast Backward/Fast Forward, Previous/Next, Repeat, Shuffle

Tuner/Reception/Transmission

- Tuner Bands: AM, FM Stereo
- Auto digital tuning
- Tuner Enhancements: Auto search and store
- No. of preset stations: 18(FM), 12(AM)

Sound

- Equalizer: 3-bands
- Equalizer settings: Classic, Jazz, Pop, Rock, Flat, Optimal, Techno, User defined
- Sound Enhancement: Dynamic Bass Boost
- Output power (MAX): MOSFET 50Wx4 Channels
- Output power (RMS): 24Wx4 channels (4 ohms, 10% T.H.D.)

Connectivity

- USB: USB 2.0 Host
- Memory card: SD, SDHC
- Video Output - Analog: Composite video out
- Preamp output: 2 pairs RCA(L/R)
- Sub-woofer preamp output: x1 (With gain control)
- AV input: Composite (CVBS) x1
- Bluetooth profiles: A2DP, AVRCP, Handsfree
- Bluetooth version: 2.0
- Navigation ready: Yes (Navigation box sold separately)
- Parking camera input: Yes (Switched on automatically in car reverse)

Security/Anti-theft

- Display blackout: 10/20 sec selectable

Accessories

- Remote control: Slim remote with battery
- User Manual: Brazilian Portuguese, Spanish, Simplified Chinese, Traditional Chinese
- Quick start guide: English, Traditional Chinese, Simplified Chinese, Brazilian Portuguese, Spanish

Power

- Power supply: 12V DC

Dimensions

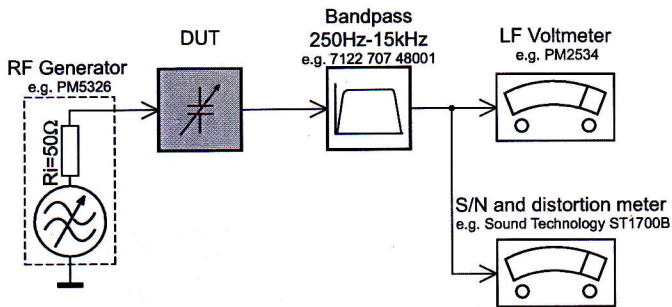
- Product dimensions (W x H x D): 178 x 100 x 185.4 mm
- Chassis: 2 Din

VERSION VARIATION

Type /Versions:		CED1700									
Board in used:	Service policy	/05	/00		/55	/58	/61				/98
		SERVO BOARD				C/M					
MAIN BOARD				C/M							C/M
Type /Versions:		CED1700									
Features	Feature difference	/05	/12		/55	/58	/61				/98
		RDS									
VOLTAGE SELECTOR											
ECO STANDBY - DARK											
* TIPS : C -- Component Lever Repair. M -- Module Lever Repair √ -- Used											

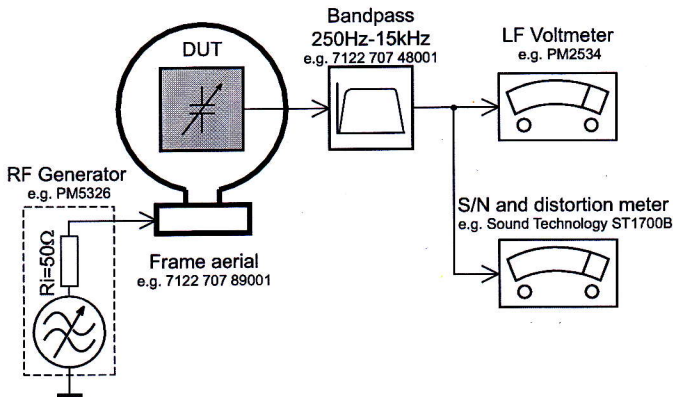
MEASUREMENT SETUP

Tuner FM



Use a bandpass filter to eliminate hum (50Hz, 100Hz) and disturbance from the pilotone (19kHz, 38kHz).

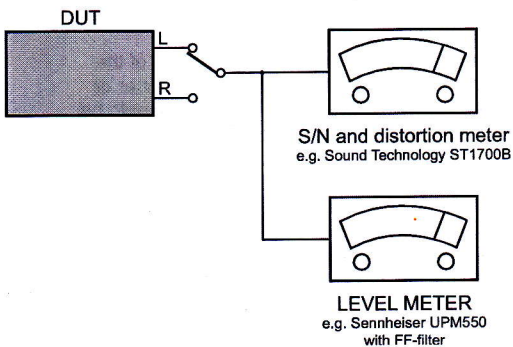
Tuner AM (MW,LW)



To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's cage. Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz, 100Hz).

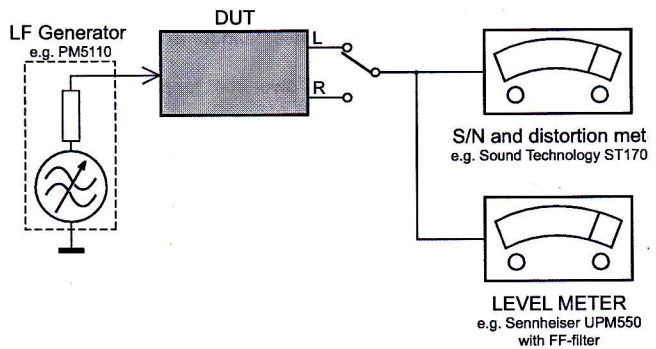
CD

Use Audio Signal Disc SBC429 4822 397 30184
(replaces test disc 3)



Recorder

Use Universal Test Cassette CrO2 SBC419 4822 397 30069
or Universal Test Cassette Fe SBC420 4822 397 30071



SERVICE AIDS

GB WARNING

All ICs and many other semi-conductors 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 also at this potential.

ESD



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 Δ .

**CLASS 1
LASER PRODUCT**

INFORMATION ABOUT LEAD-FREE SOLDERING

Philips CE is producing lead-free sets from 1.1.2005 onwards.

IDENTIFICATION:

Regardless of special logo (not always indicated) one must treat all sets from **1 Jan 2005** onwards, according next rules:

- On our website www.atyourservice.ce.Philips.com you find more information to:
 - * BGA-de-/soldering (+ baking instructions)
 - * Heating-profiles of BGAs and other ICs used in Philips-sets
 - * Lead free

You will find this and more technical information within the "magazine", chapter "workshop news".

For additional questions please contact your local repair-helpdesk.

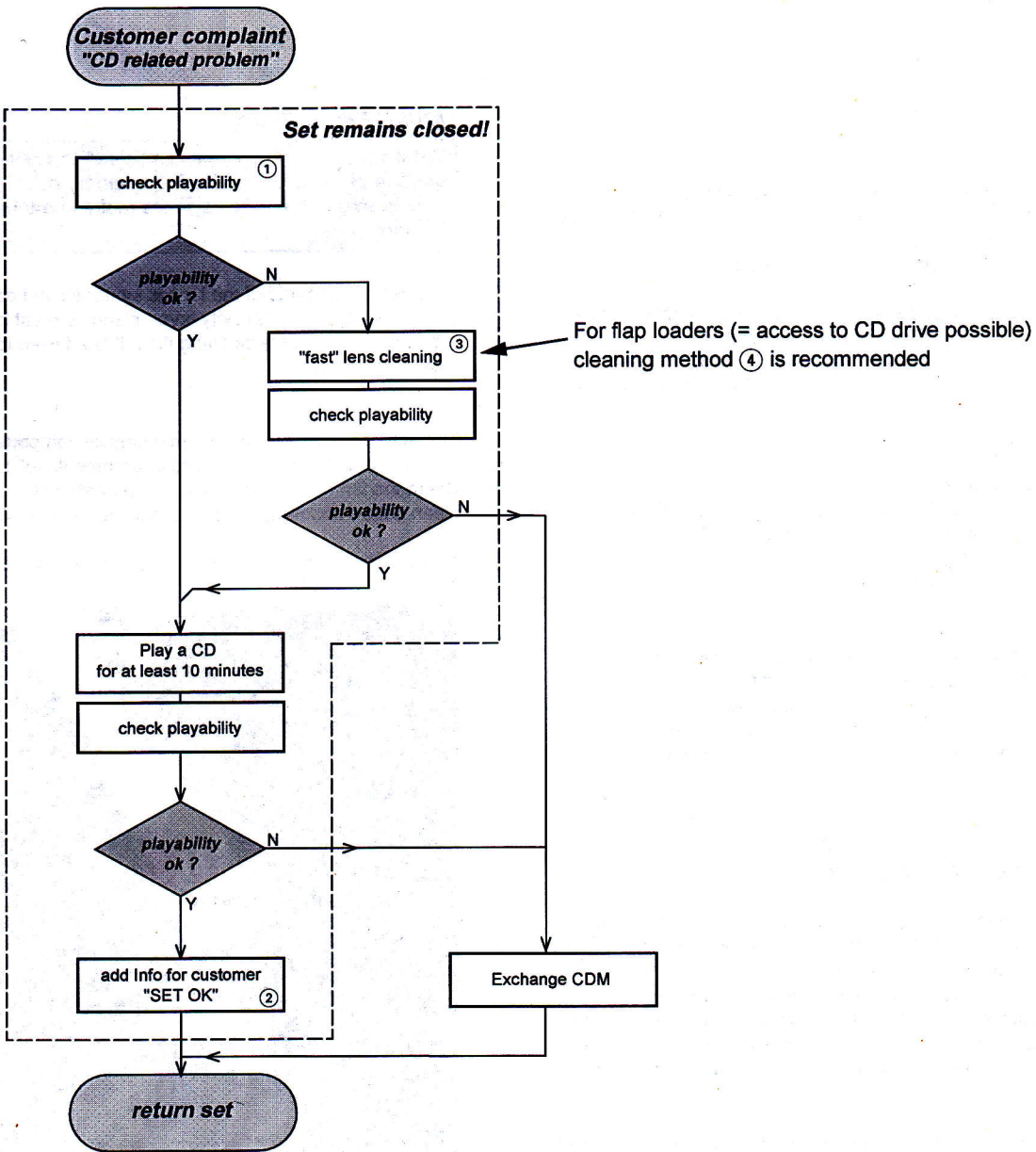


SERVICE INSTRUCTION

Safety regulations require that after a repair, the set must be returned in its original condition. Pay in particular attention to the following points:

- Route the wire trees correctly and fix them with the mounted cable clamps.
- Check the insulation of the AC Power lead for external damage.
- Check the strain relief of the AC Power cord for proper function.
- Check the electrical DC resistance between the AC Power Plug and the secondary side (only for sets which have a AC Power isolated power supply):
 1. Unplug the AC Power cord and connect a wire between the two pins of the AC Power plug.
 2. Set the AC Power switch to the "on" position (keep the AC Power cord unplugged!).
 3. Measure the resistance value between the pins of the AC Power plug and the metal shielding of the tuner or the aerial connection on the set. The reading should be larger than 4.5 Mohm (For U.S. it should be between 4.2 Mohm and 12 Mohm).
 4. Switch "off" the set, and remove the wire between the two pins of the AC Power plug.
- Check the cabinet for defects, to avoid touching of any inner parts by the customer.

INSTRUCTIONS ON CD PLAYABILITY



① - ④ For description - see following pages

INSTRUCTIONS ON CD PLAYABILITY

①

PLAYABILITY CHECK

For sets which are compatible with CD-RW discs
 use CD-RW Printed Audio Disc7104 099 96611
 TR 3 (Fingerprint)
 TR 8 (600µ Black dot) **maximum at 01:00**

- playback of these two tracks without audible disturbance
 playing time for: Fingerprint ≥10seconds
 Black dot from 00:50 to 01:10
- jump forward/backward (search) within a reasonable time

For all other sets
 use CD-DA SBC 444A4822 397 30245
 TR 14 (600µ Black dot) **maximum at 01:15**
 TR 19 (Fingerprint)
 TR 10 (1000µ wedge)

- playback of all these tracks without audible disturbance
 playing time for: 1000µ wedge ≥10seconds
 Fingerprint ≥10seconds
 Black dot from 01:05 to 01:25
- jump forward/backward (search) within a reasonable time

②

CUSTOMER INFORMATION

It is proposed to add an addendum sheet to the set which informs the customer that the set has been checked carefully - but no fault was found.
 The problem was obviously caused by a scratched, dirty or copy-protected CD. In case problems remain, the customer is requested to contact the workshop directly.
 The lens cleaning (method ③) should be mentioned in the addendum sheet.

The final wording in national language as well as the printing is under responsibility of the Regional Service Organizations.

④

LIQUID LENS CLEANING

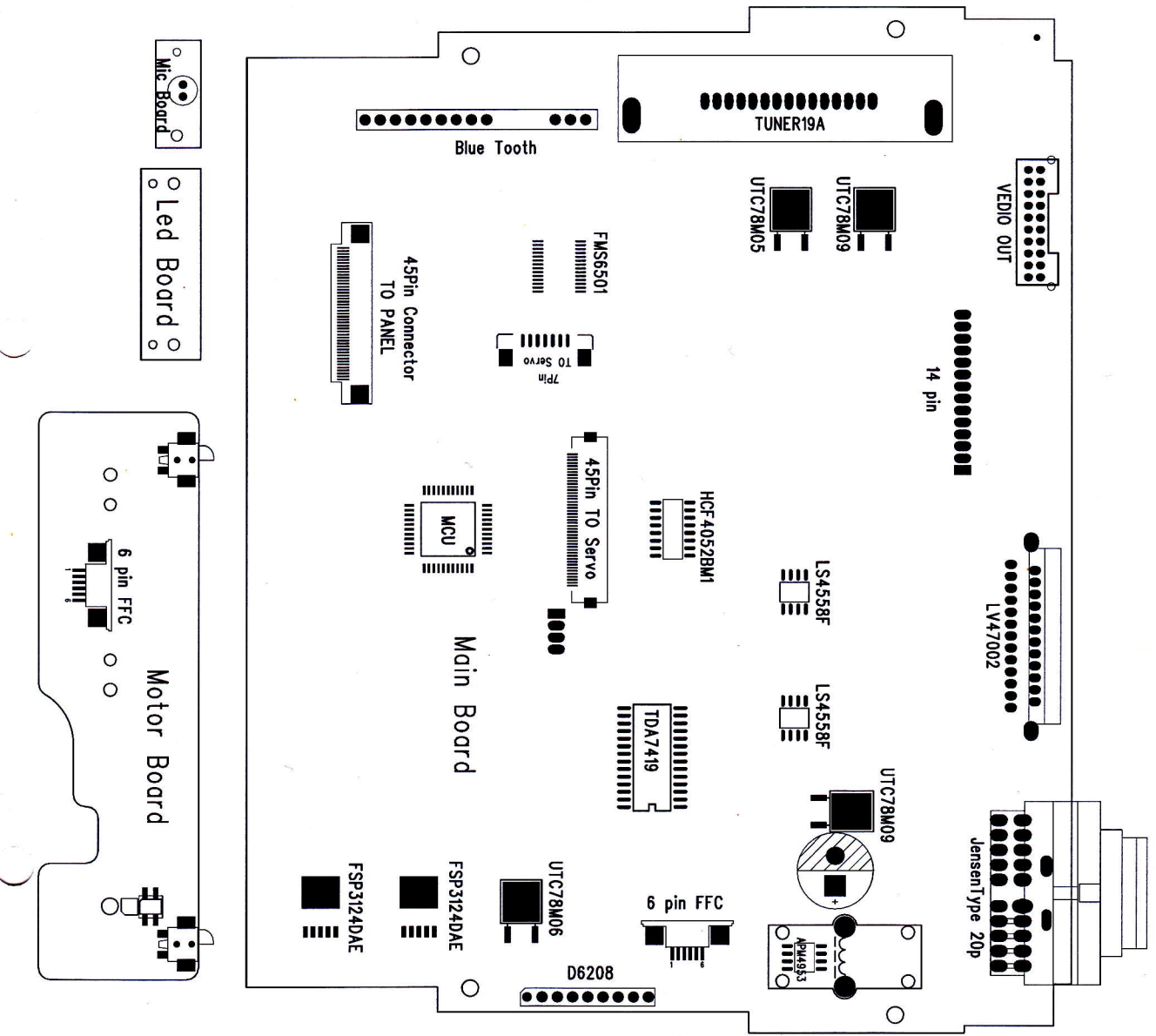
Before touching the lens it is advised to clean the surface of the lens by blowing clean air over it. This to avoid that little particles make scratches on the lens.

Because the material of the lens is synthetic and coated with a special anti-reflectivity layer, cleaning must be done with a non-aggressive cleaning fluid. It is advised to use "Cleaning Solvent"

The actuator is a very precise mechanical component and may not be damaged in order to guarantee its full function. Clean the lens gently (don't press too hard) with a soft and clean cotton bud moistened with the special lens cleaner.

The direction of cleaning must be in the way as indicated in the picture below.

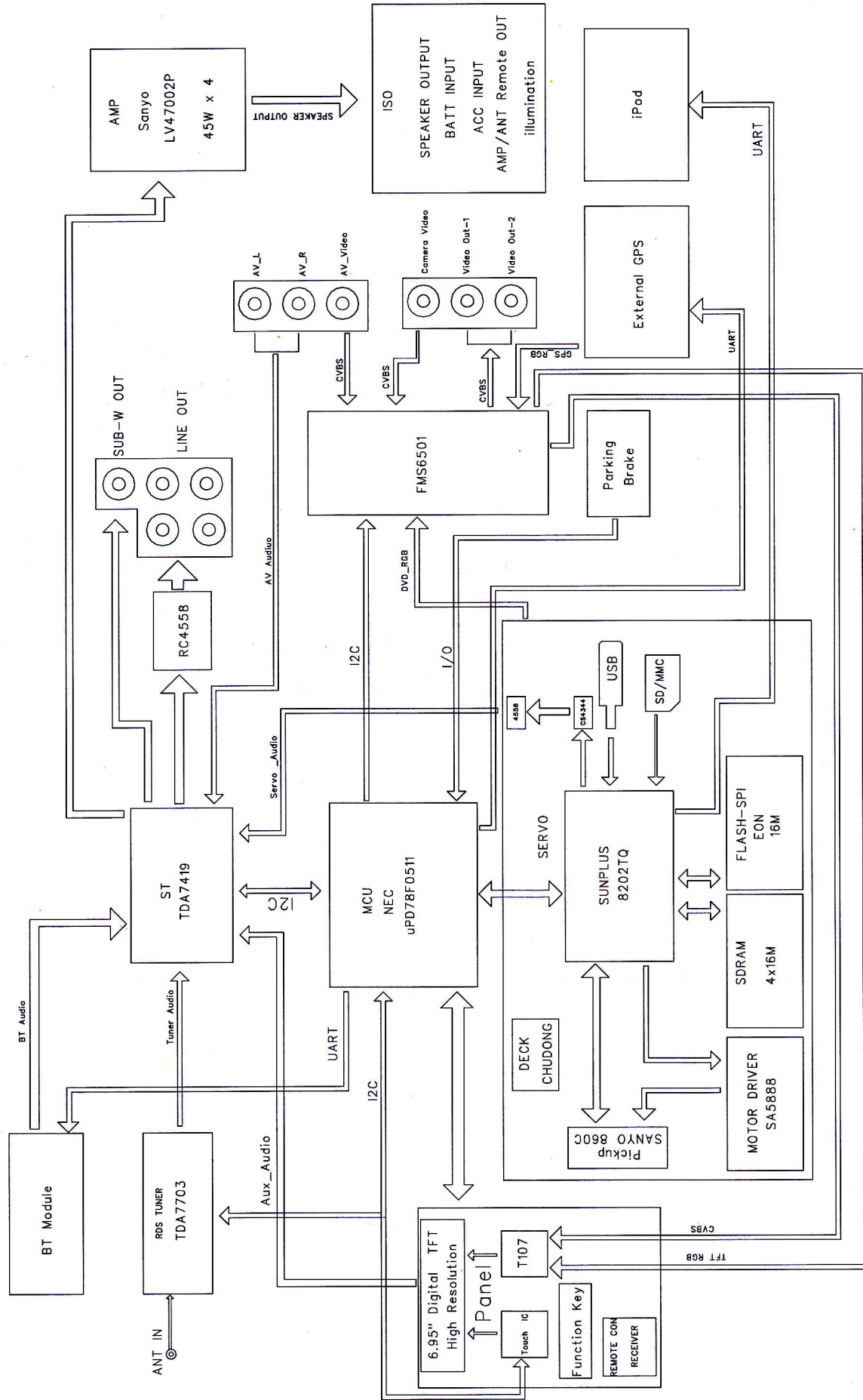




SET BLOCK DIAGRAM

3-1

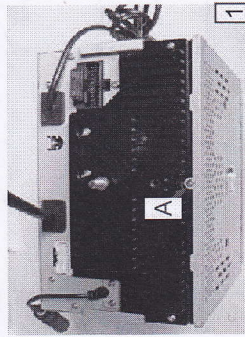
3-1



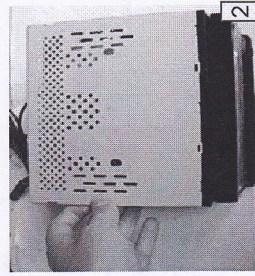
SET DISASSEMBLY DIAGRAM

MAIN UNIT DISSEMBLY INSTRUCTIONS

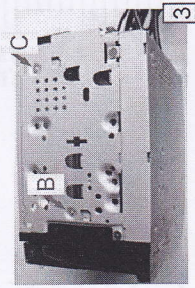
- Step1:Remove screw "A" as indicated to open the panel
- Step2:Open top cover be carefully to avoid scratch
- Step3:Remove screw "B" & "C" as indicated on right side
- Step4:Remove screw "D" & "E" as indicated on left side
- Step5:Before take out DVD loader,please disassemble USB cable(position "X") and flat cable (position "Y")



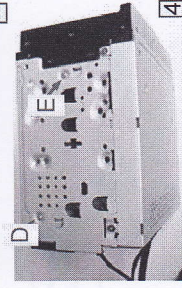
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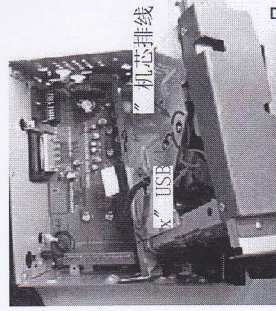
2



3

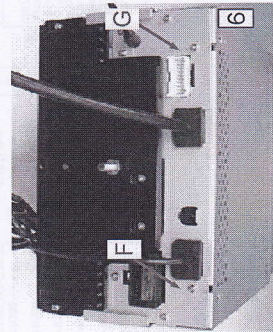


4

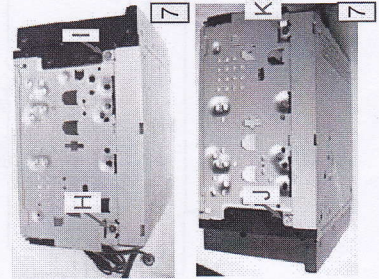


5

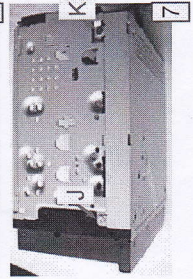
- Step6:Remove screw "F" & "G" on back side as indicated
- Step7:Remove screw "H" & "I" on right side and "J" & "K" on left side as indicated
- Step8:Remove the bottom lid
- Step9:Remove screw "L" & "M" on right side and "N" & "O" on left side as indicated to take out the panel



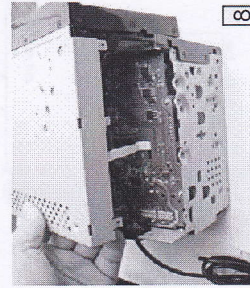
6



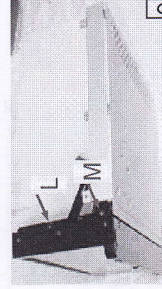
7



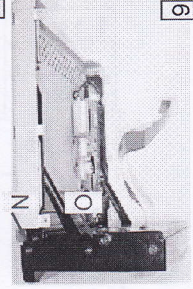
7



8



9

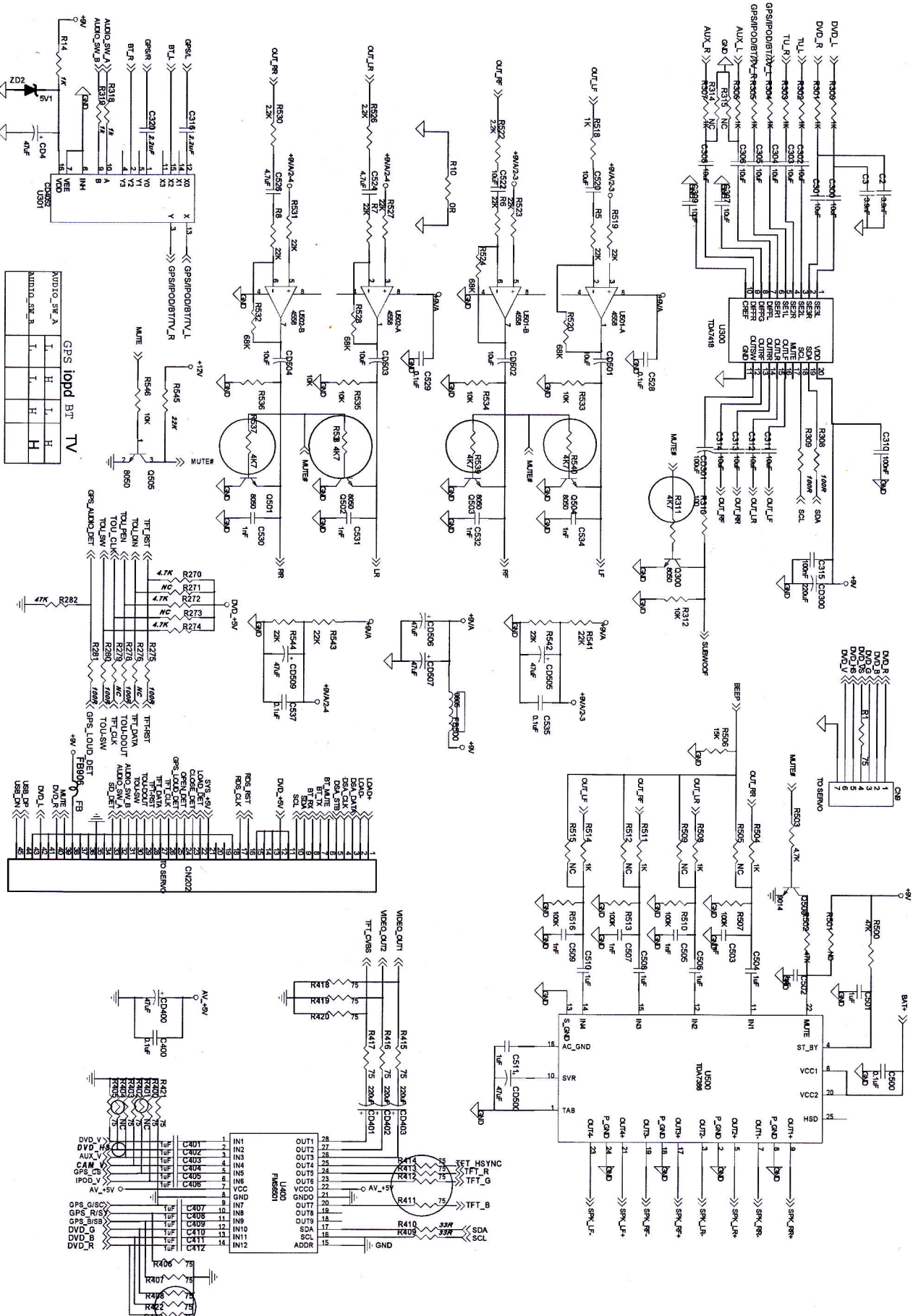


9

VIDEO & AUDIO UNIT
 Careful Disassembly - Page 20 of 27

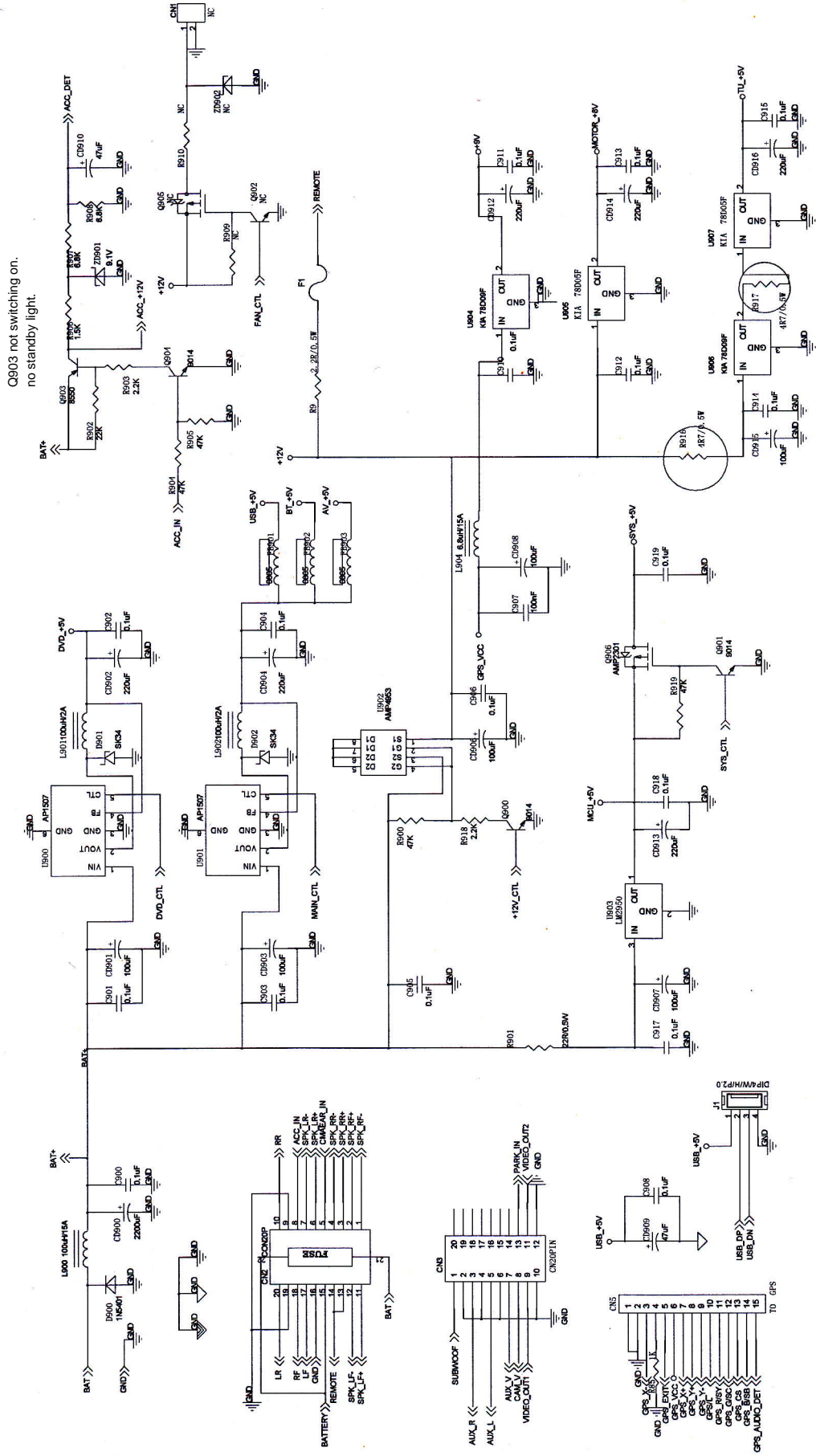
CIRCUIT DIAGRAM - MAIN BOARD AUDIO & VIDEO PART

6 - 1

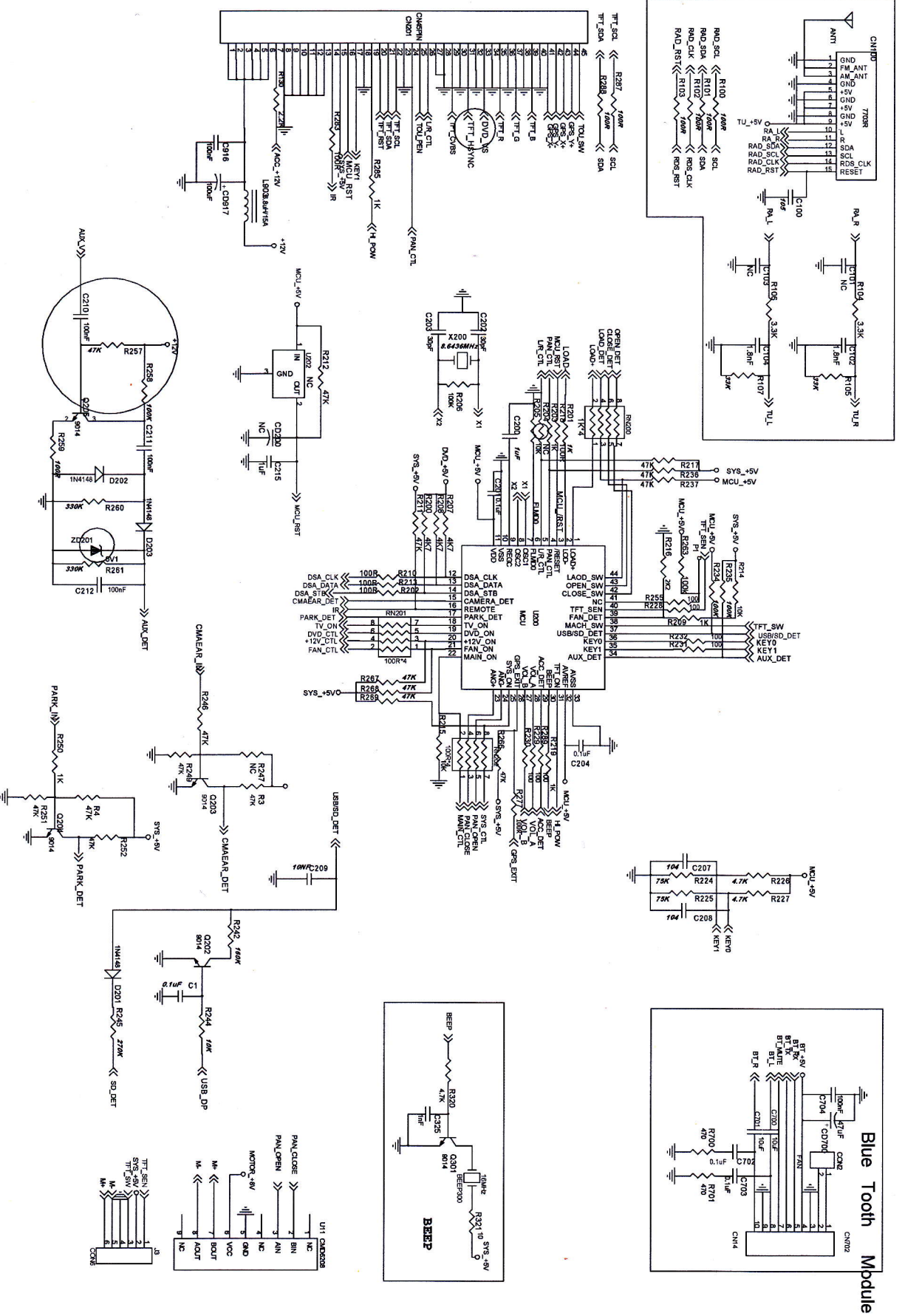


6 - 1

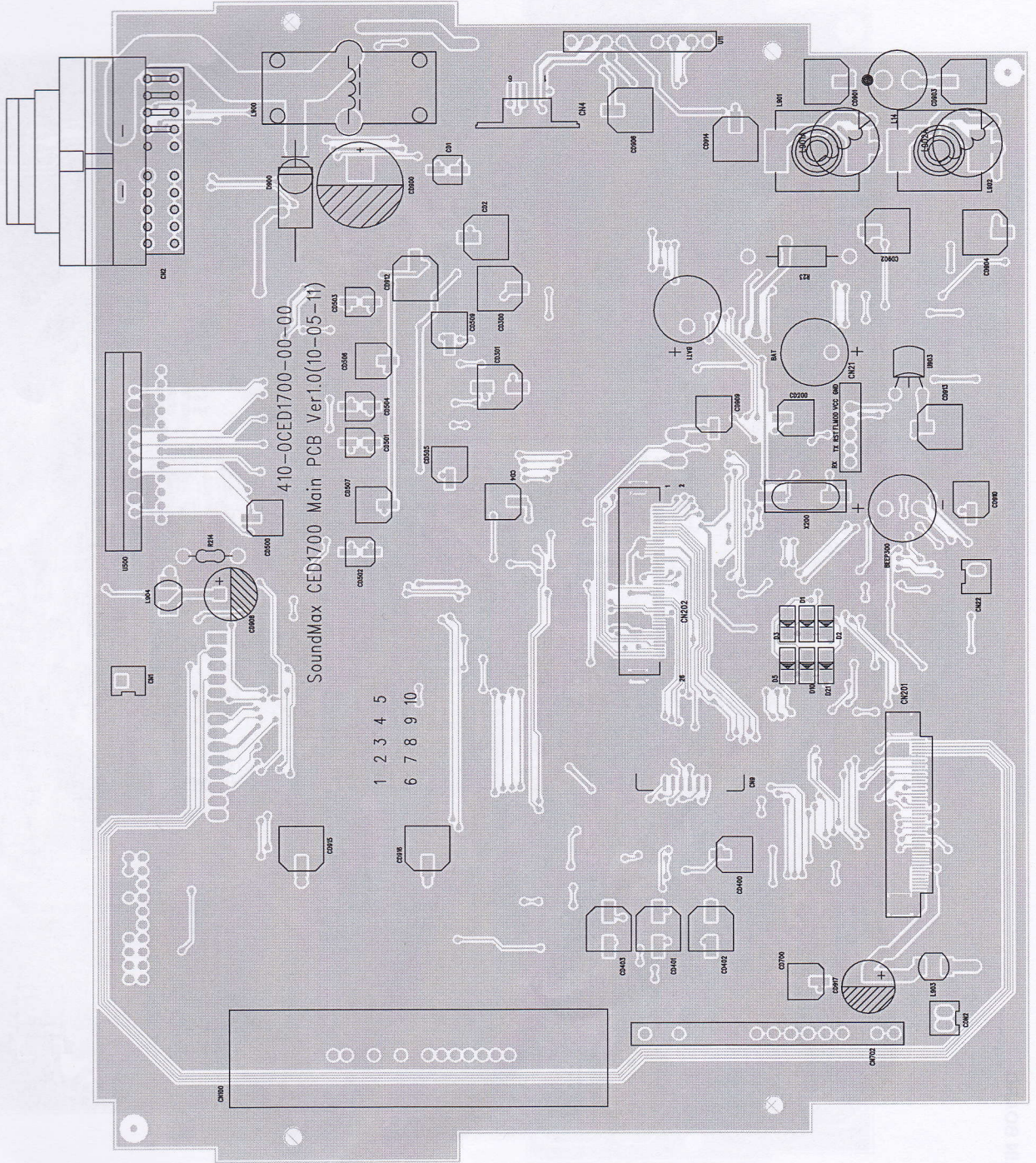
CIRCUIT DIAGRAM - MAIN BOARD POWER PART 1



CIRCUIT DIAGRAM - MAIN BOARD
POWER PART 2

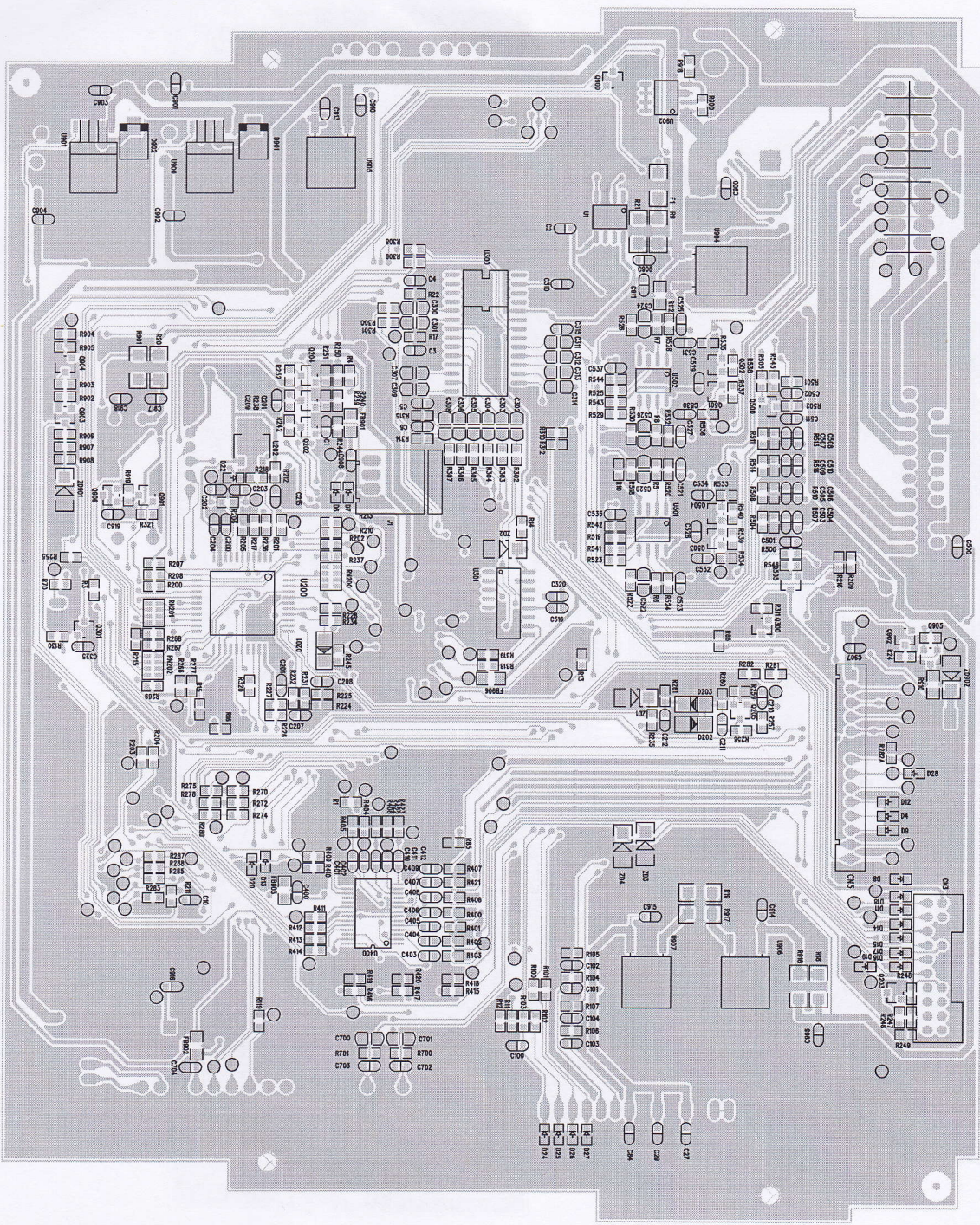


LAYOUT DIAGRAM - MAIN BOARD
COMPONENT SIDE

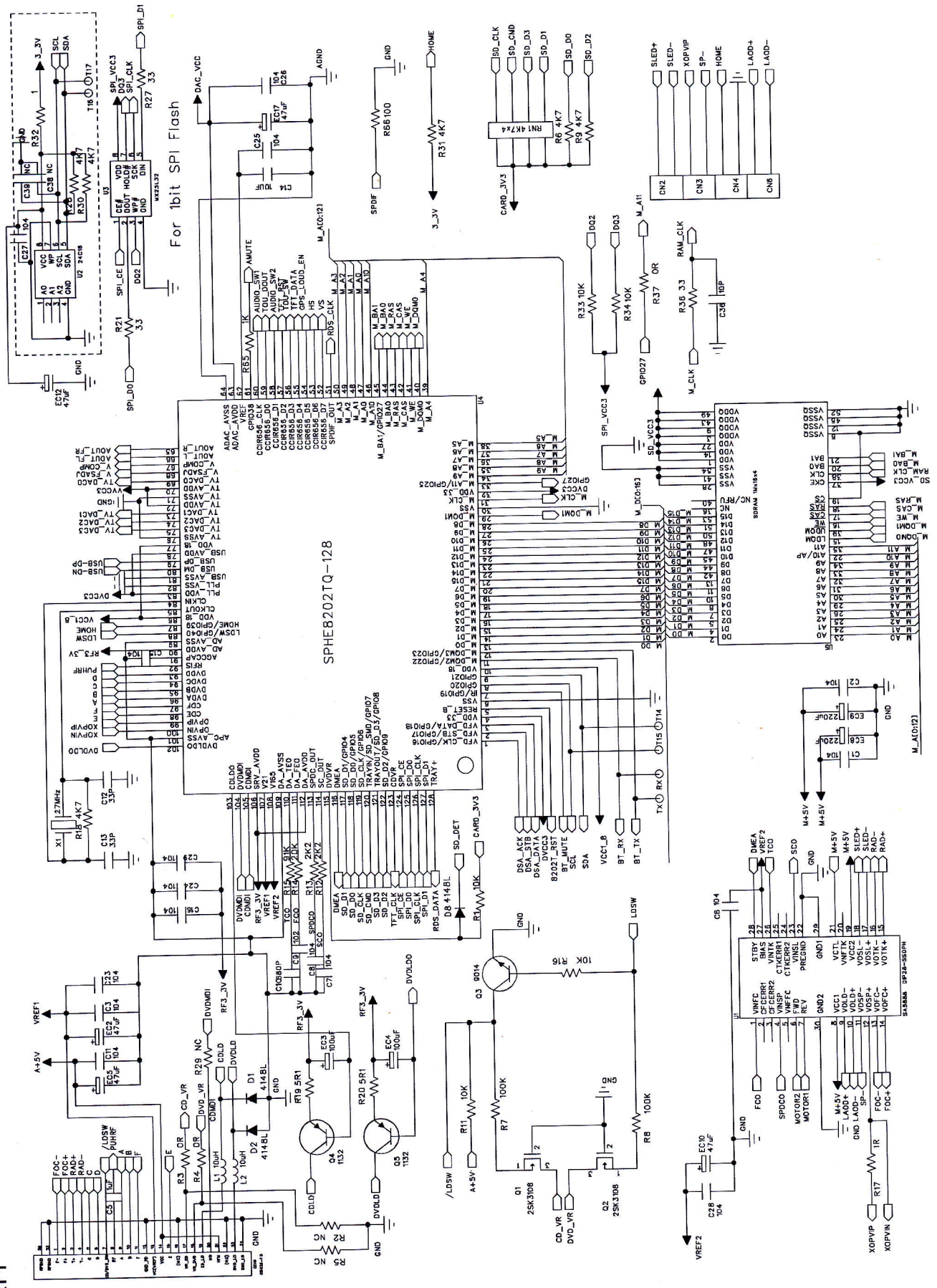


CS6658 8085
FWA011 01/03/04/05/06/07/08/09/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/52/53/54/55/56/57/58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/92/93/94/95/96/97/98/99/100

LAYOUT DIAGRAM - MAIN BOARD
COPPER SIDE

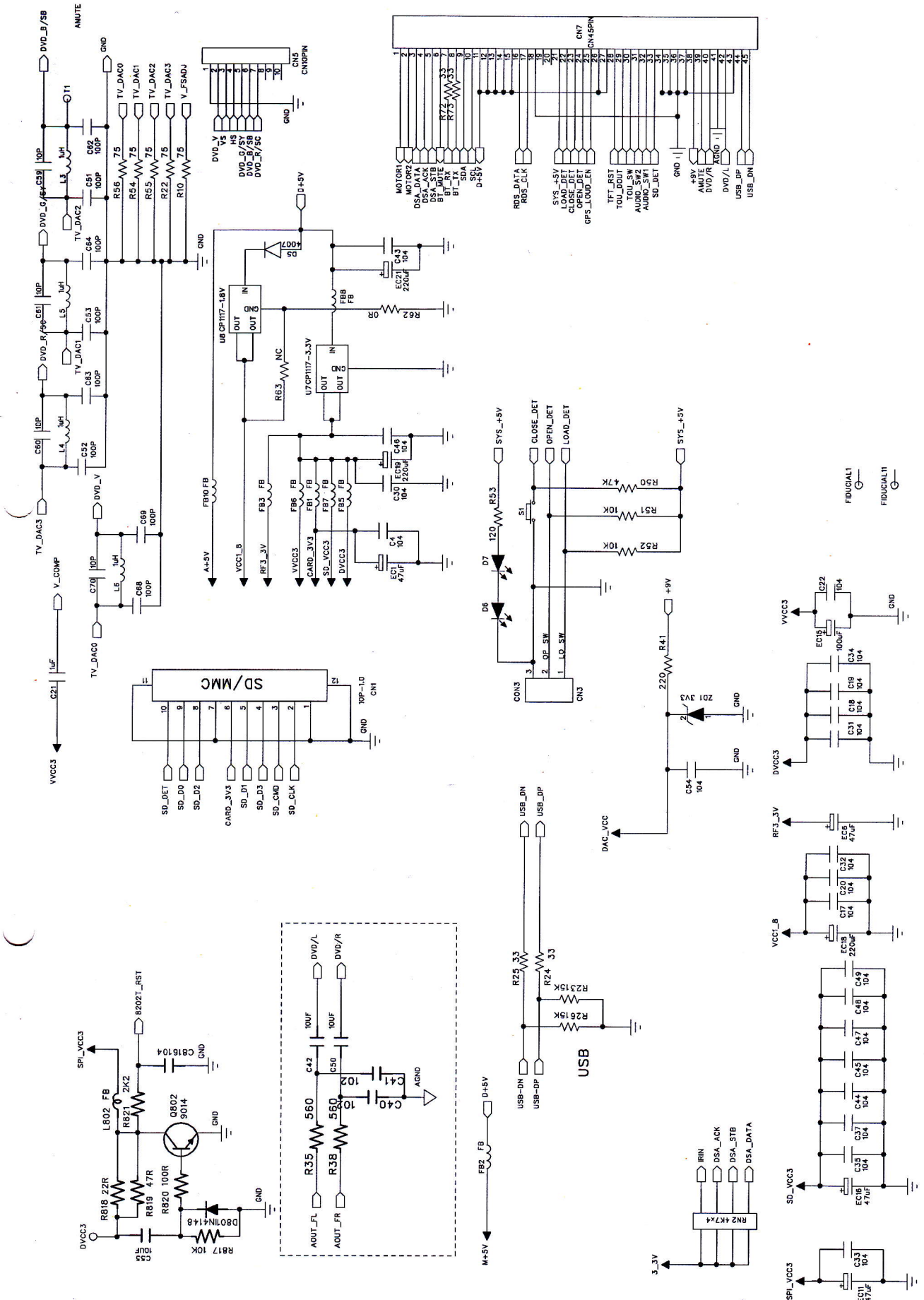


CIRCUIT DIAGRAM - SERVO BOARD PART 1

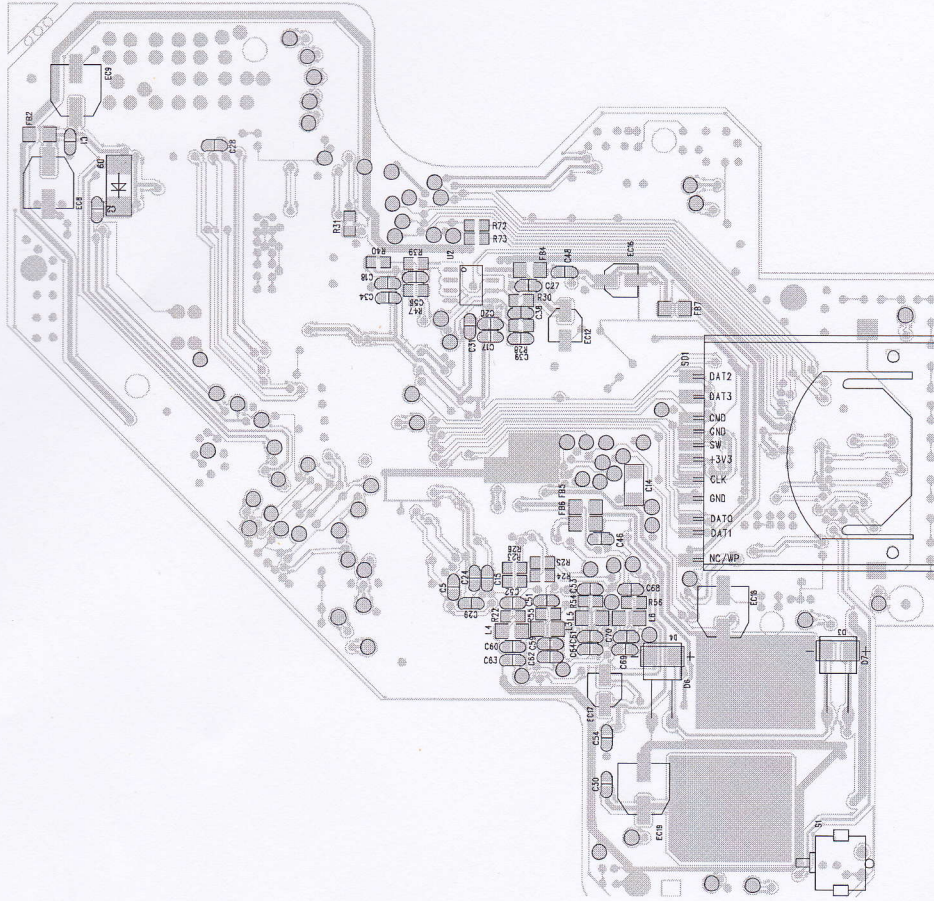


CIRCUIT DIAGRAM - SERVO BOARD
PART 2

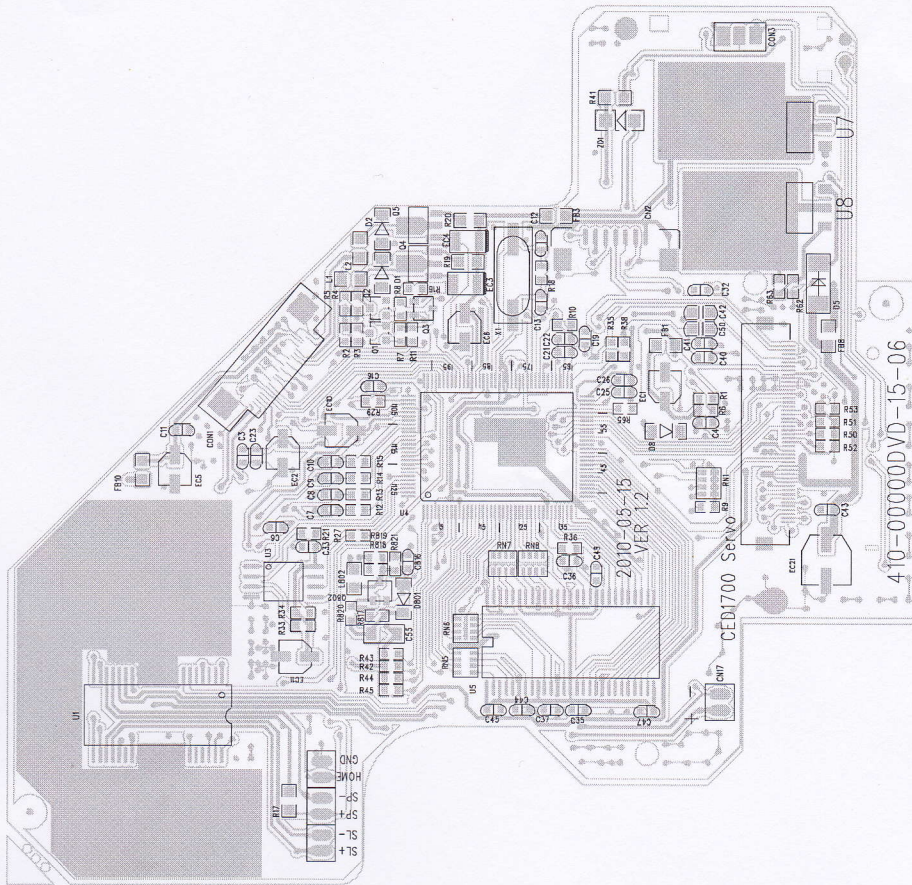
7-2



7-2



LAYOUT DIAGRAM - SERVO BOARD



410-00000VD-15-06