

Service Manual

CD5000/N1B, /T1B, /U1B, /F1B, /K1B
/N2B, /T2B, /U2B, /F2B, /K2B

CD Player

CD5000

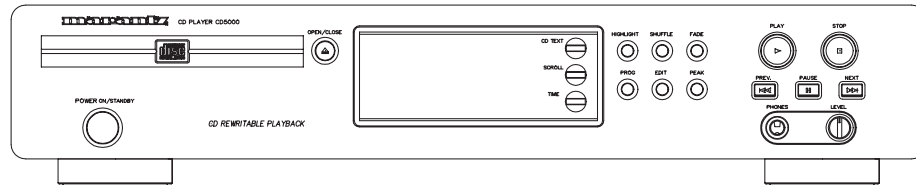


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Please use this service manual with referring to the user guide (D.F.U) without fail.

修理の際は、必ず取扱説明書を準備し操作方法を確認の上作業を行って下さい。

marantz®

- CD5000 -

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, **MARANTZ** company has created the ultimate in stereo sound. Only original **MARANTZ** parts can insure that your **MARANTZ** product will continue to perform to the specifications for which it is famous.

Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS :

Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature : any order form or Fax. must be signed, otherwise such part order will be considered as null and void.

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SHOCK, FIRE HAZARD SERVICE TEST :

CAUTION : After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard No. 1492.

In case of difficulties, do not hesitate to contact the Technical Department at above mentioned address.

TECHNICAL SPECIFICATION

General

Dimensions (WxHxD) : 435 x 86 x 265mm
 Weight : 2,9kg

Accessories

Instruction for use : 3139 116 19120 for /F
 : 3139 116 19130 for /K
 : 3139 116 18900 for /N, /T
 : 3139 116 19110 for /U

Remote control : 3139 228 82600

Mains voltage

/N, /T : 220-230V(±10%) 50Hz
 /K : 110-120/220/230V(±10%) 50/60Hz
 /U : 120V(±10%) 60Hz
 /F : 100V(±10%) 50/60Hz

Power consumption

stand by : ≤5W
 operating : approx. 8W

Audio performance

Number of channels : 2
 Output voltage (Line out) : 2V_{RMS} ±3dB
 Unbalance left-right : ≤1dB
 Frequency response : 20Hz-20kHz ≤0,4dB
 Signal to noise ratio : 108 dB typ.
 Dynamic range : 105dB typ. at 1kHz
 THD : ≤0,0063% at 1kHz
 Channel separation : 98dB typ. at 1kHz

Headphone output

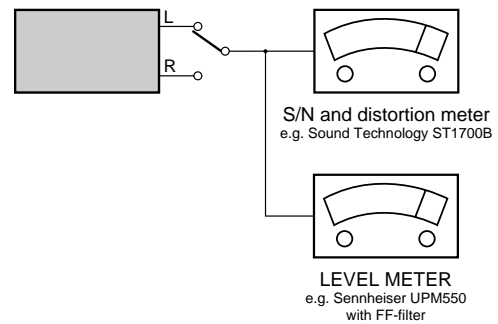
Output level (1kHz, 0dB) : ≥5V_{RMS}
 Unbalance left-right : ≤1,2dB
 Output impedance : 120Ω
 Load impedance : 32Ω - 600Ω
 Output power : 25mW at 32Ω
 : 52mW at 120Ω
 : 29mW at 600Ω

Laser

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

Measurement setup

Use Audio Signal disc SBC429 4822 397 30184



RC 5 Commands

System code = 20

Command	Code	Command	Code	Command	Code
KEY "0"	0	DISPLAY SCROLL	15	SHUFFLE	28
KEY "1"	1	PLAY	53	HIGHLIGHT	43
KEY "2"	2	STOP	54	REPEAT	29
KEY "3"	3	PAUSE	48	FADE	120
KEY "4"	4	TIME	11	VOLUME UP	16
KEY "5"	5	PREVIOUS	33	VOLUME DOWN	17
KEY "6"	6	REVIEW	50	STAND BY	12
KEY "7"	7	CUE	52	CD TEXT	88
KEY "8"	8	PROGRAM	36	NEXT	32
KEY "9"	9	REPEAT A/B	59		

(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 wristband 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.

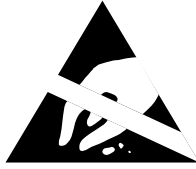
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(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.

ESD**(NL) WAARSCHUWING**

Alle IC's en vele andere halgeleiders 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 dit zelfde 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 dell'apparecchio tramite un braccialetto a resistenza.

Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB) AVAILABLE ESD PROTECTION EQUIPMENT :

anti-static table mat large 1200x650x1.25mm
small 600x650x1.25mm

anti-static wristband

connection box (3 press stud connections, 1M)

extendible cable (2m, 2M , to connect wristband to connection box)

connecting cable (3m, 2M , to connect table mat to connection box)

earth cable (1M , to connect any product to mat or to connection box)

KIT ESD3 (combining all 6 prior products - small table mat)

wristband tester

4822 466 10953

4822 466 10958

4822 395 10223

4822 320 11307

4822 320 11305

4822 320 11306

4822 320 11308

4822 310 10671

4822 344 13999

AVAILABLE JIG for FR980

Extension PCB and wire kit

4822 395 10815

(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

(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.

SAFETY**(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

(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.

(DK) Advarsel !

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

(SF) Varoitus !

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

(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.

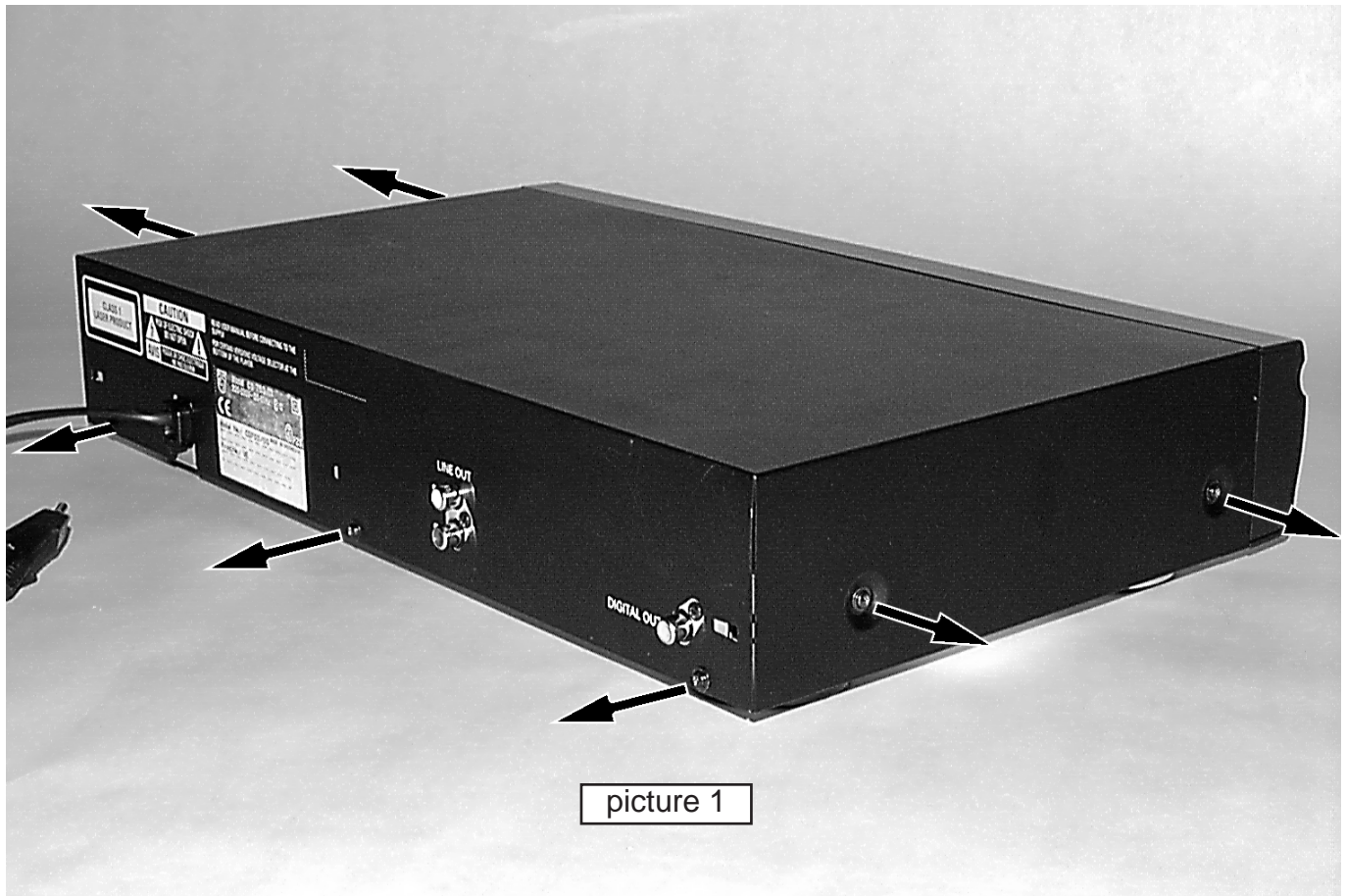
(F)

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

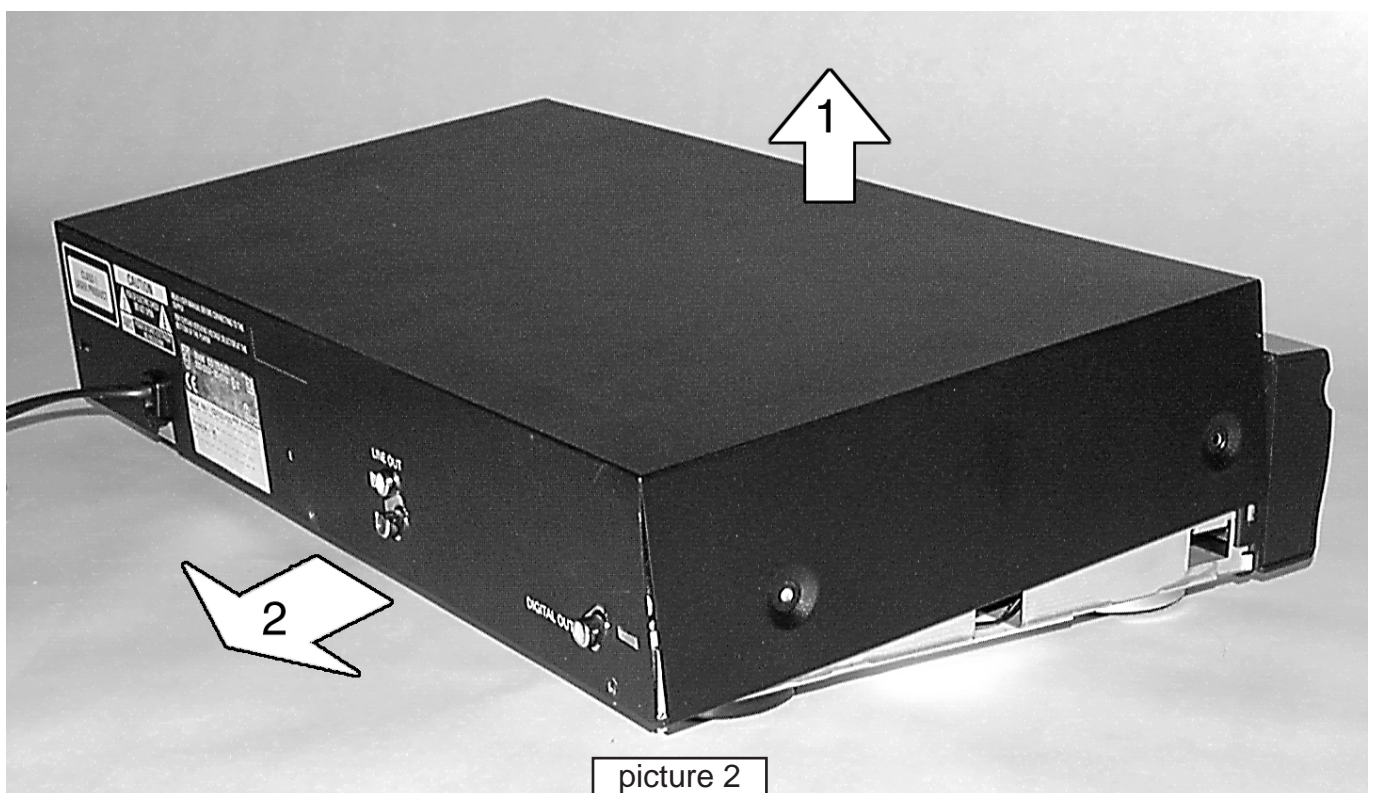
MECHANICAL INSTRUCTIONS

Dismantling Top Cover

- 1) Loosen 7x screw as shown in picture 1.



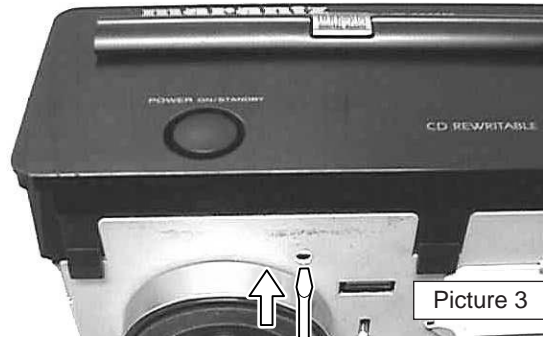
- 2) Lift top cover as shown in picture 2.
- 3) Remove top cover.



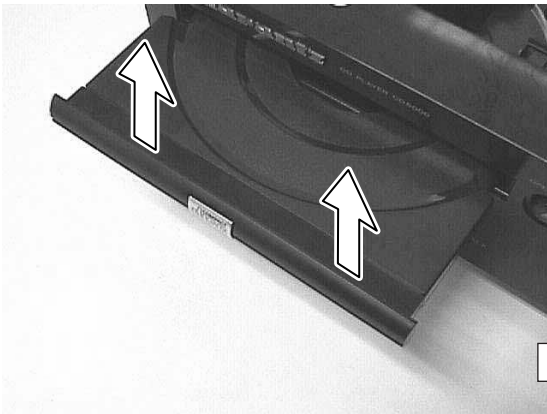
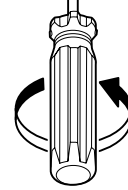
MECHANICAL INSTRUCTION

Dismantling Front

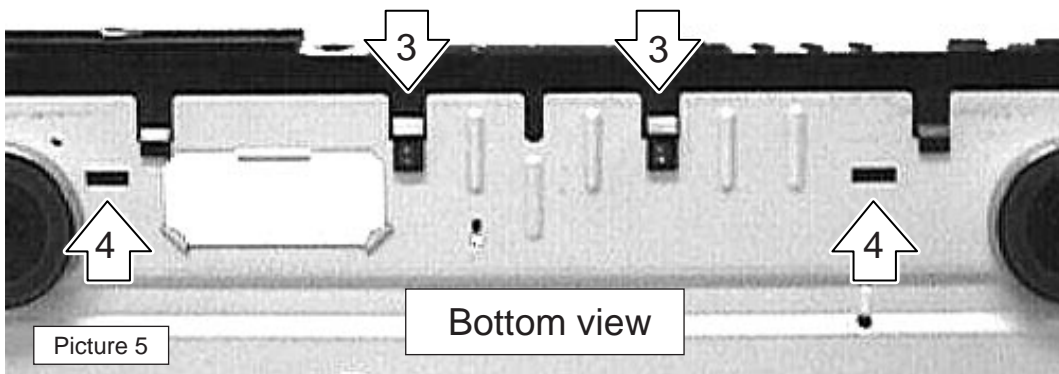
- 1) Press open/close button to open the tray. If the tray doesn't work, turn counterclockwise a small screwdriver into the hole as shown in picture 3. Then the tray comes out. After the first centimeter it is possible to pull the tray out by hand.
- 2) Release the door cover of the tray as shown in picture 4.
- 3) Loosen 2x screw as shown in picture 5.
- 4) Release 2x snap on button (see picture 5).
- 5) Release 2x snap on side (see picture 6).
- 6) Remove front.



Picture 3

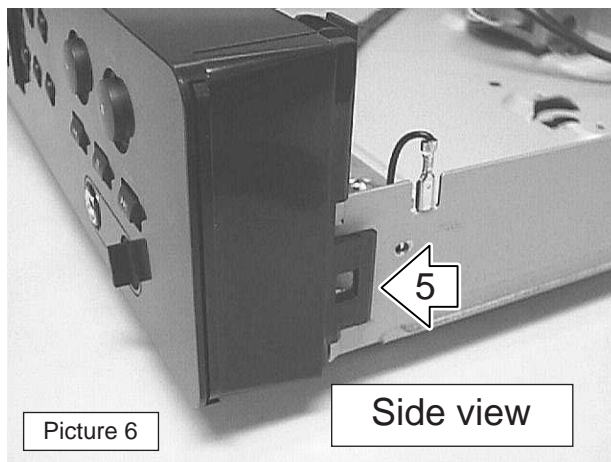


Picture 4



Picture 5

Bottom view



Picture 6

Side view

Dismantling hints CD Short Loader

Dismantling the tray

- a) Press open/close button to open the tray. If the tray doesn't work, use a small screwdriver as shown in Fig.1 step 1 to move the tray outside. After the first centimetre it is possible to pull the tray out by hand.
- b) Release two snaps and remove tray.

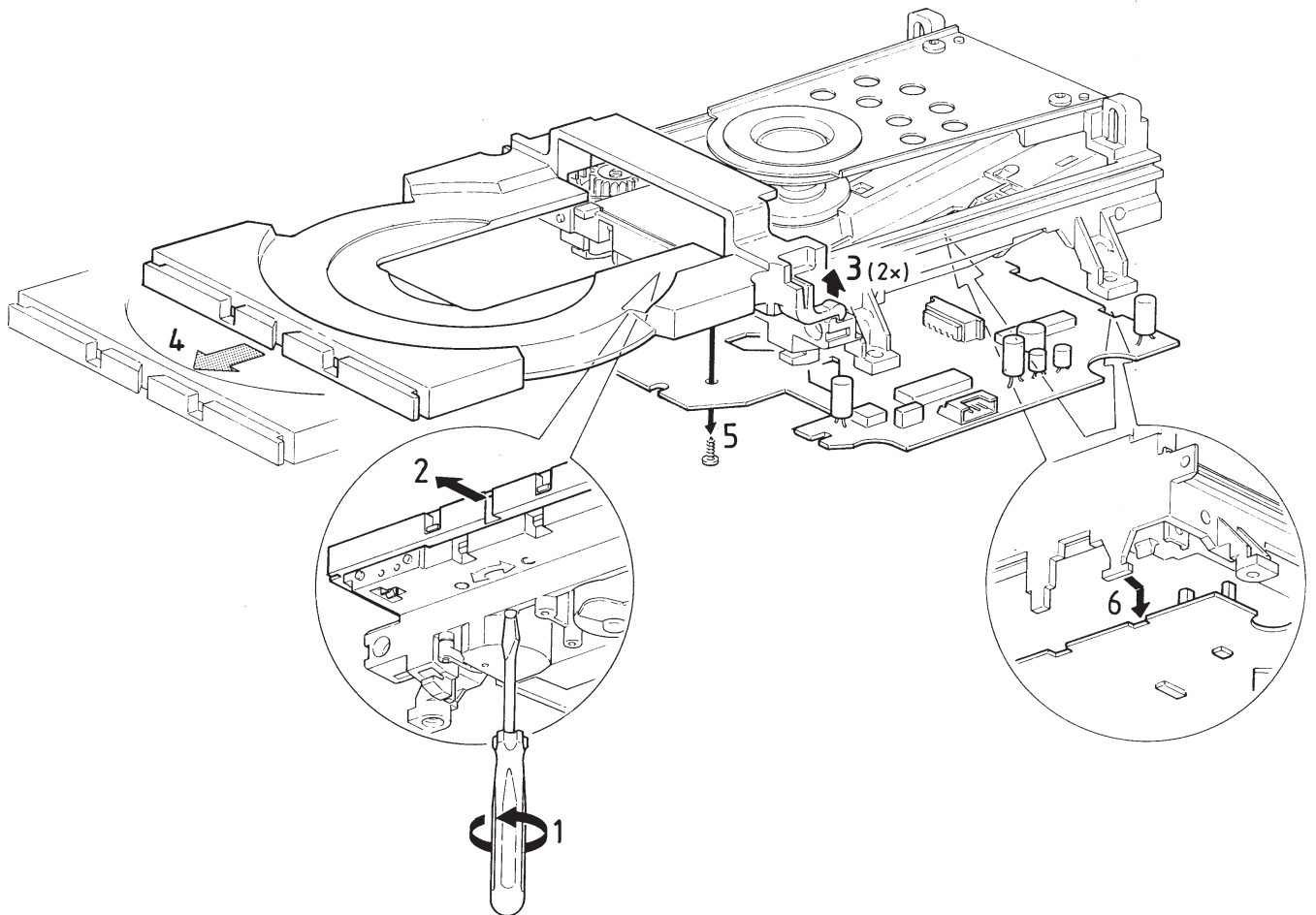


Fig. 1

Assembly of gear

- a) Use a pin (e.g. a paperclip) to align the cam wheel (a) with the gear wheel (b). See Fig. 2.
- b) Fix the wheels with the small plastic washers.

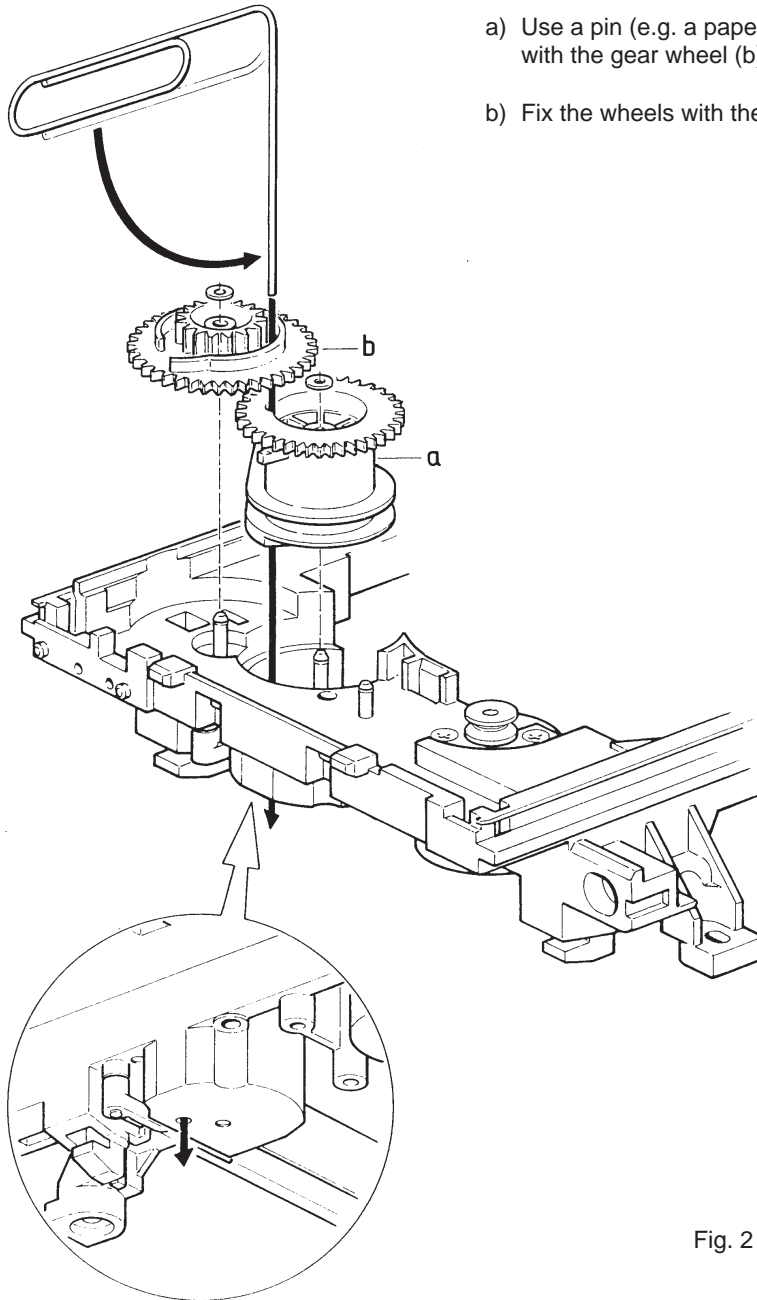


Fig. 2

- c) Mount idle wheel 2 (c) and idle wheel 1 (d) in any position. See Fig. 3.
- d) Fix the idle wheel 1 (d) with the small plastic washer.
- e) Mount the driving belt.

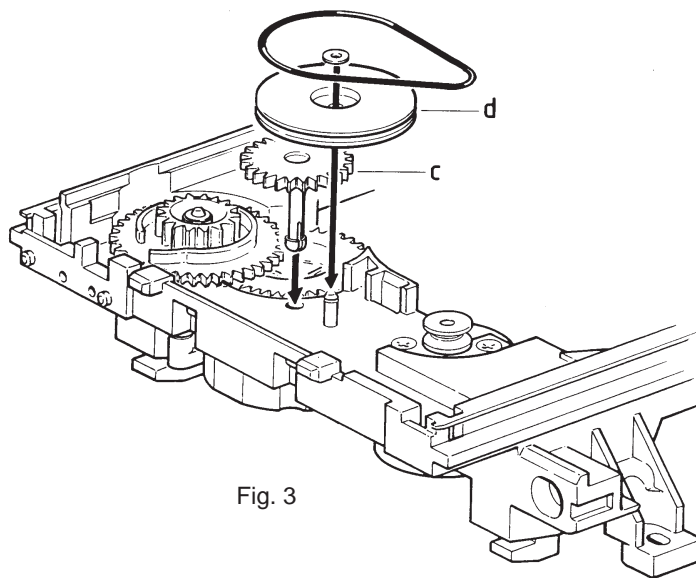


Fig. 3

- f) Mount the pinion guiding assy and the cover as shown in Fig. 4.
- g) Turn the gear wheel (b) counter clockwise to endposition.

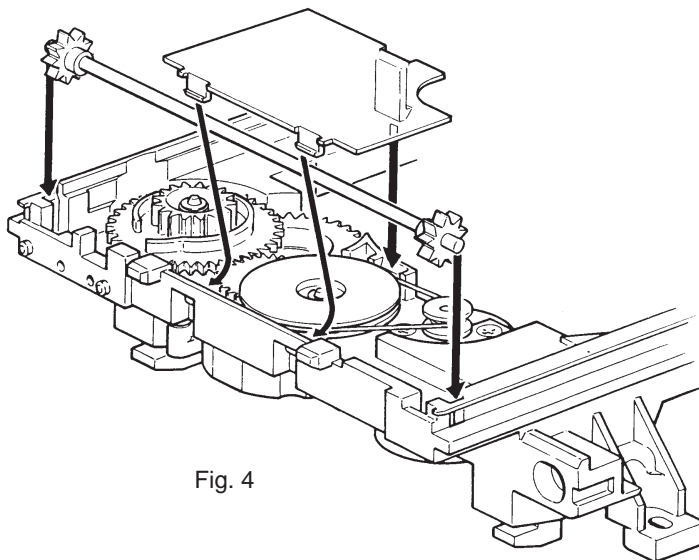


Fig. 4

- h) Mount the CD Mechanism as shown in Fig. 5.
- i) Mount the tray (Align the tray to the chassis and push it inside).

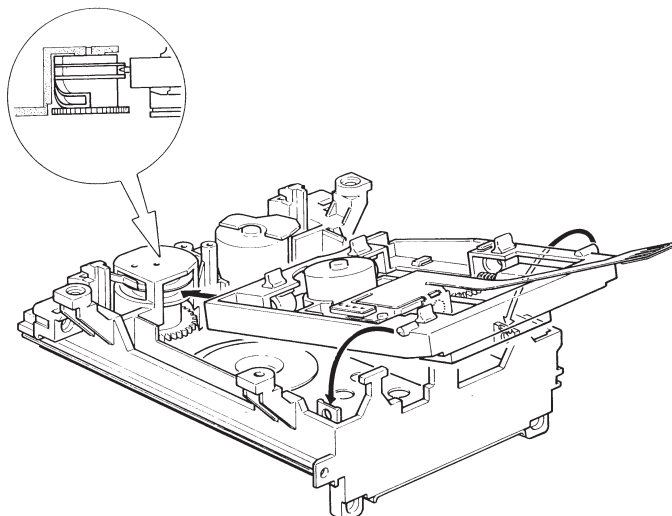


Fig. 5

Check if tray mechanism works correctly!

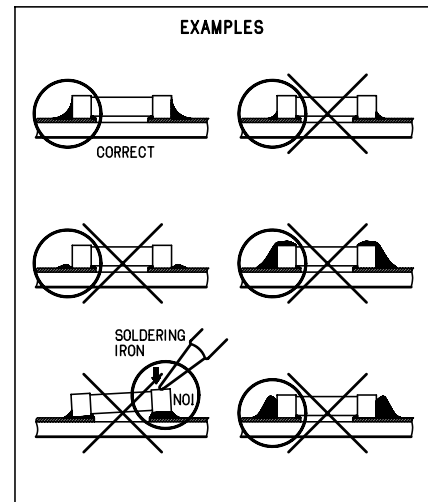
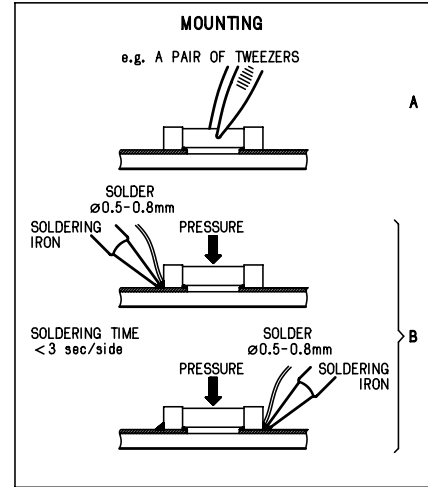
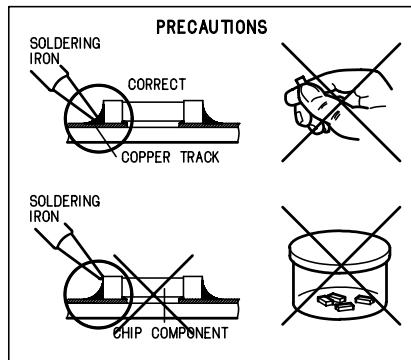
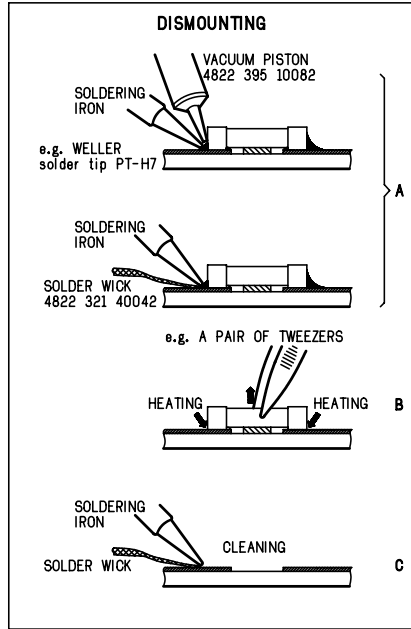
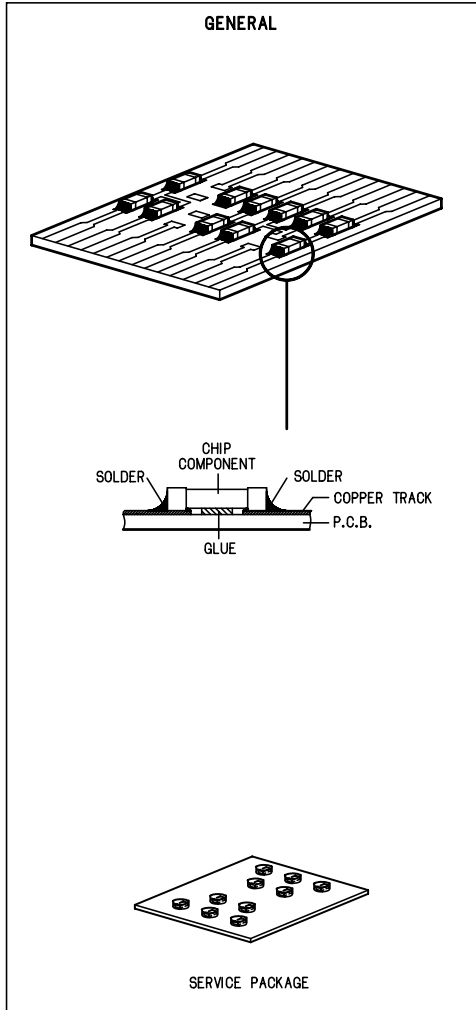
- 1) Turn the gear wheel (b) clockwise to its endposition (Use a small screwdriver as shown in Fig. 1 step 1).

The tray has to move to inner position first and then the CD mechanism has to move to its upper position.

- 2) Turn the gear wheel (b) counter clockwise to its endposition.

The CD Mechanism has to move to its lower position first and then the tray has to move outside.

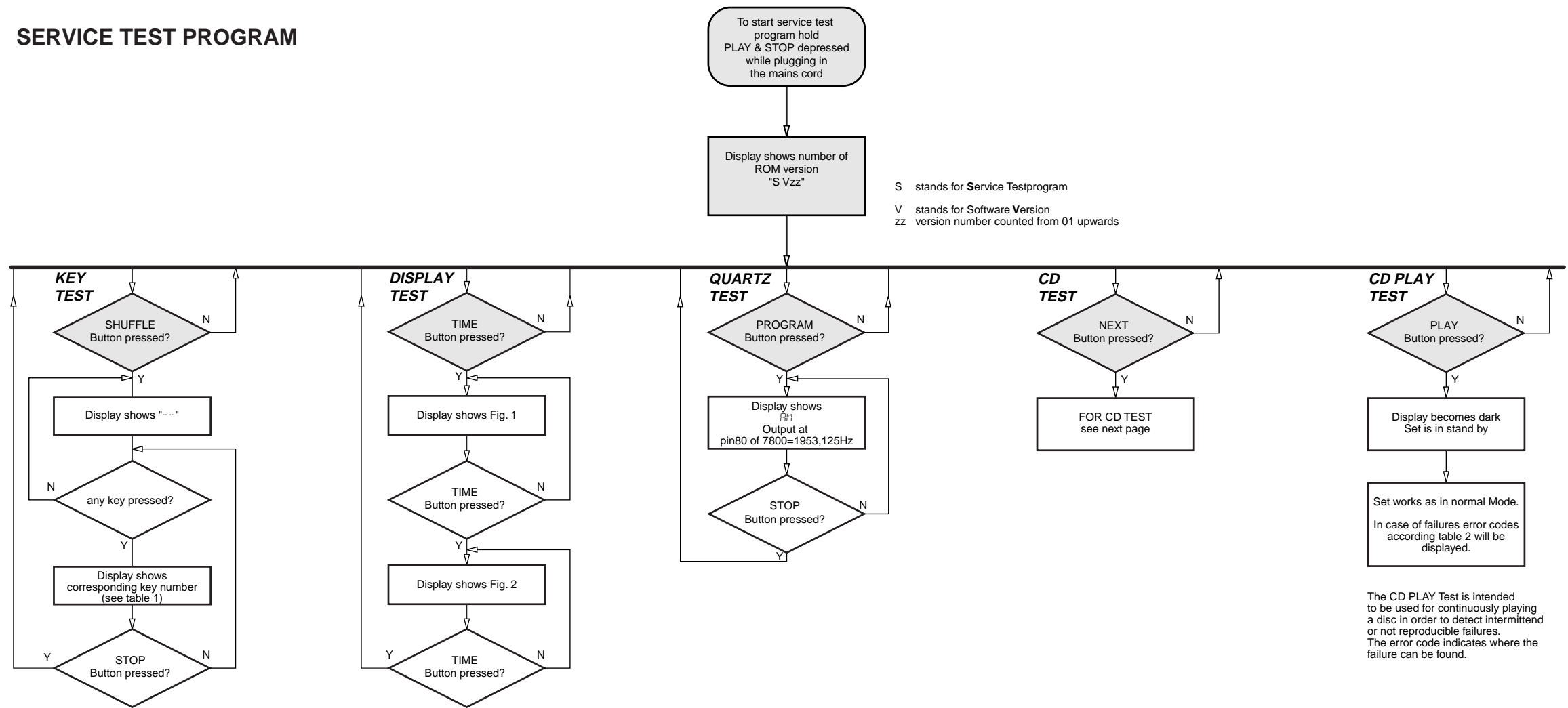
HANDLING CHIP COMPONENTS



SERVICE TOOLS

- TORX T10 screwdriver with shaftlength 150mm4822 395 50423
- TORX screwdriver set T6 - T20 SBC 163.....4822 395 50145
- Audio signal disc SBC 429.....4822 397 30184
- Playability test disc SBC444/444A.....4822 397 30245
- Test disc 444 (disc without errors) +
- Test disc 444A (disc with dropout errors, black spots and fingerprints)
- Burn in test disc SBC4424822 397 30155
(65 min. 1kHz signal at -30dB level without "pause")

SERVICE TEST PROGRAM



KEY TEST

Key	Number	Key	Number	Key	Number
Next	1	Shuffle	7	Fade	13
Previous	2	Scan	8	Time	14
Play	3	Program	9	CD-Text	15
Stop	EXIT	Peak search	10	Scroll	16
Open/Close	5	Repeat	11	Stand by	17
Edit	6	Pause	12	any RC button	RC

Table 1

DISPLAY TEST

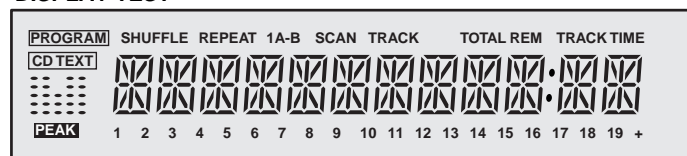


Fig. 1

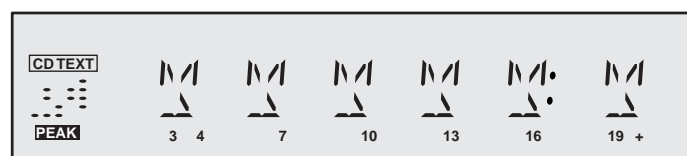


Fig. 2

CD PLAY TEST

Error number	Type	Description
1000	W	Focus error Triggered when the focus could not be found within a certain time when starting up the CD or when the focus is lost for a certain time during playing the CD.
1001	W	Radial error Triggered when the radial servo is not on track for a certain time during playing the CD.
1002	W	Slide in error Generated when the slide did not reach its inner position (innerswitch is closed) before 6 seconds have passed by. Innerswitch or slide motor problem.
1003	W	Slide out error Generated when the slide did not come out of its inner position (innerswitch is open) before 250ms have passed by. Innerswitch or slide motor problem.
1005	W	Jump error Generated when the jump destination could not be found within a certain time.
1006	W	Subcode error No valid subcode for a certain time.
1007	W	PLL error The Phase -Lock-Loop could not lock within a certain time.
1008	W	Turntable motor error Generated when the CD could not reach 75% of speed during starting up within a certain time. Disc motor problem
1020	F	Focus search error Focus point has not been found within a certain time.

Table 2

W = Warning
 Error number remains on display till next warning/error
 F = Fatal error
 Set stops playing → Error number remains on display

SERVICE TEST PROGRAM CD-Part

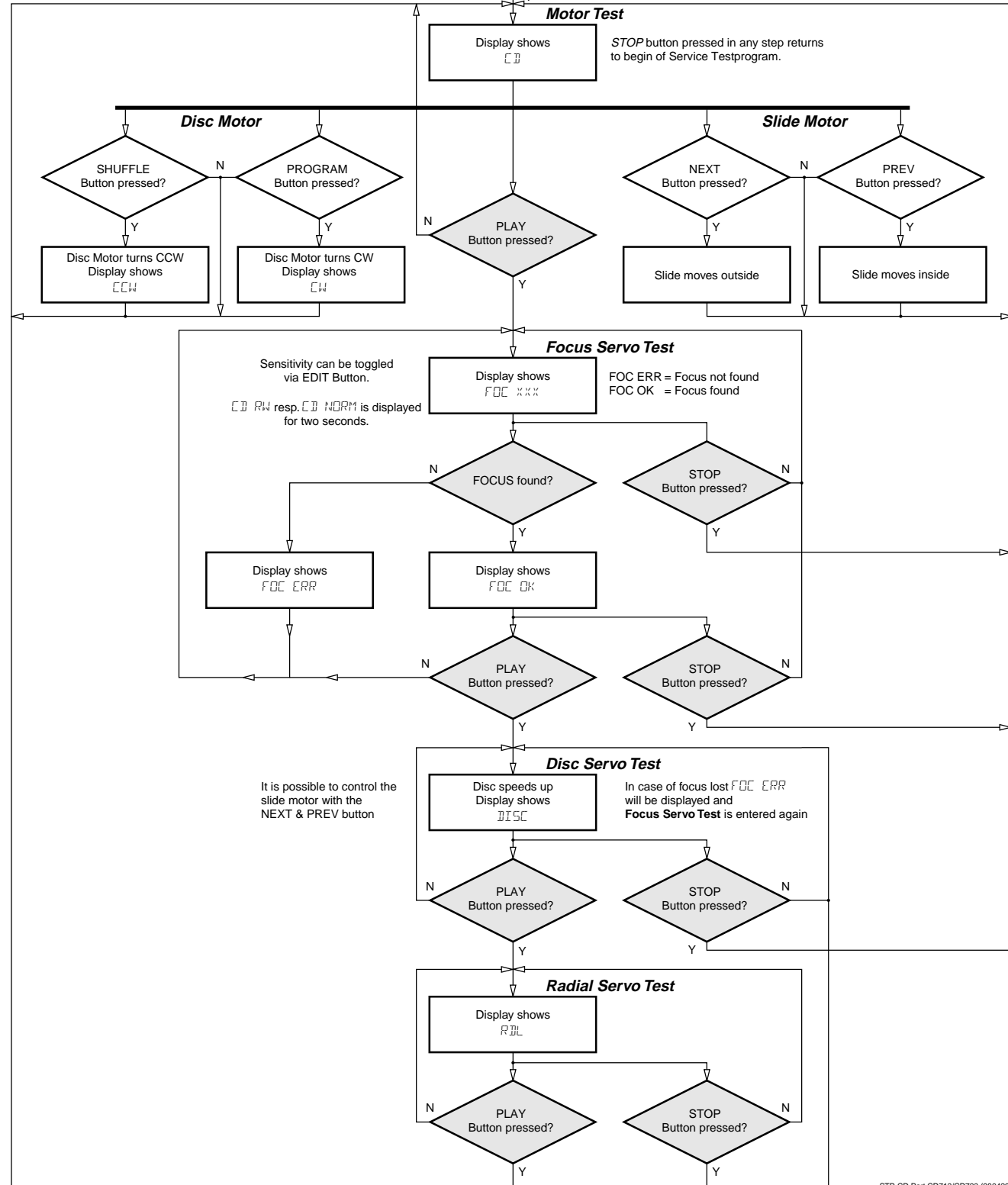


To start service test program hold PLAY & PAUSE depressed while plugging in the mains cord

Display shows number of ROM version "S Vzz"

Since the CD-RW reflects much less light than an ordinary CD-A, the gain of the HF-amplifier stage and the sensitivity of the ADC inside the signal processor must be increased. The gain is switched via the HG line (pin41 of CD7), the ADC-sensitivity is switched via software (µP → CD7). During start-up the correct mode is chosen automatically; in the service test program it can be switched manually in order to allow individual measurements in both conditions.

NOTE: If sensitivity is switched to high the set will not work with normal Audio CDs!

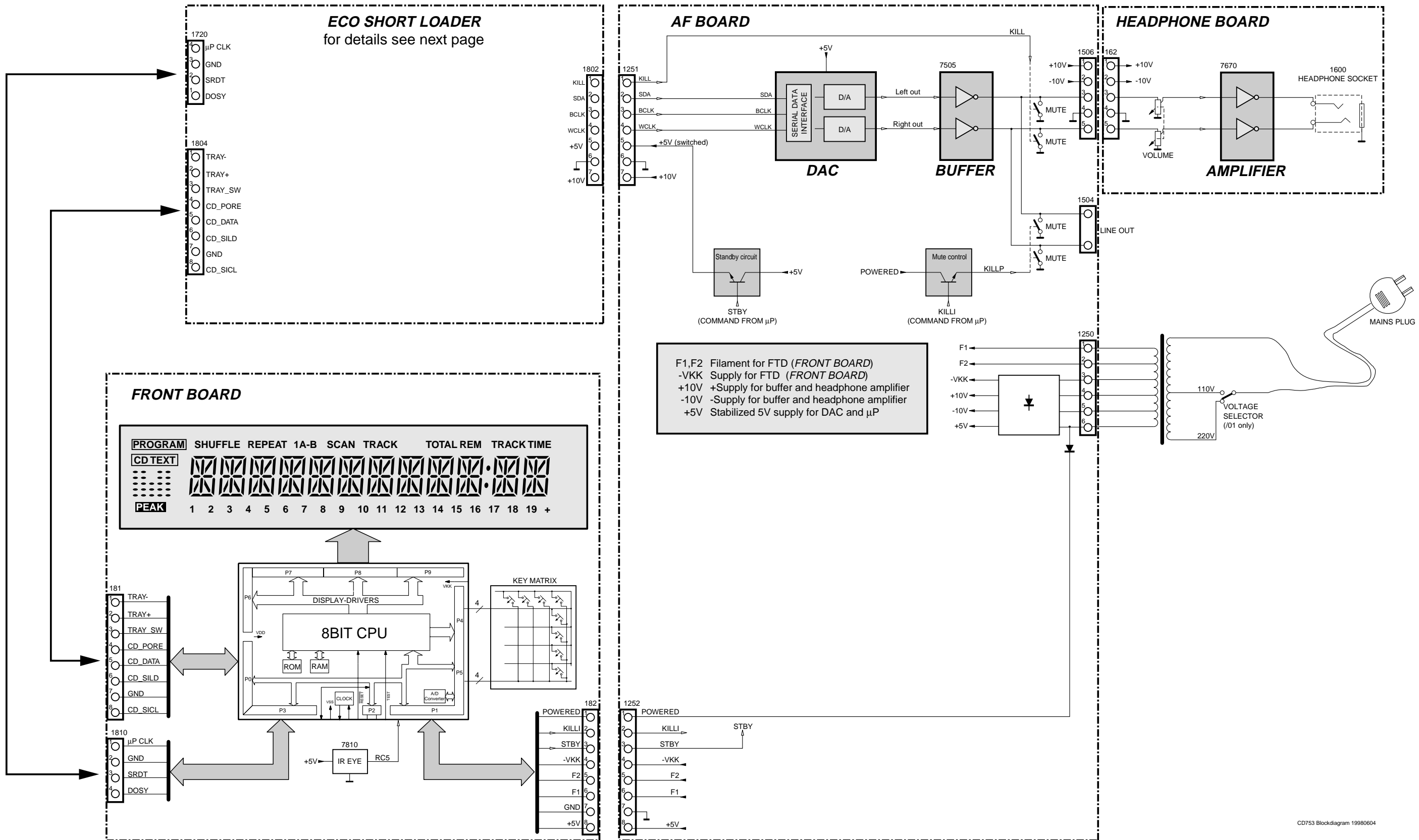


Abbreviations CD Part

SAA7372 – DECODER AND DIGITAL SERVO IC CD7

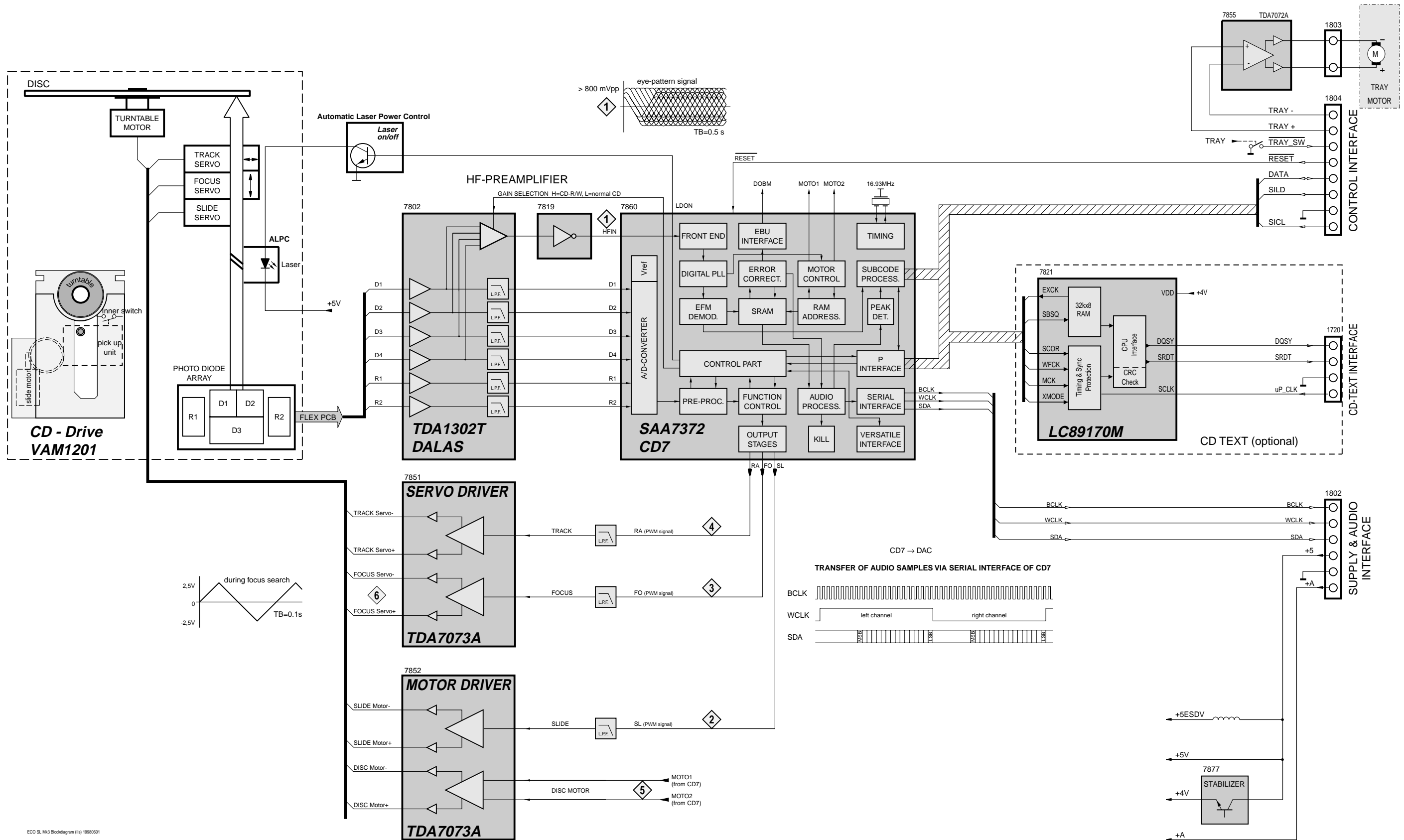
Pin	Name	Direction	Description
1	VSSA1	GND	supply (analog) of CD7
2	VDDA1	+4V	supply (analog) of CD7
3	D1	HF-preamp → CD7	unipolar current input (central diode signal input)
4	D2	HF-preamp → CD7	unipolar current input (central diode signal input)
5	D3	HF-preamp → CD7	unipolar current input (central diode signal input)
6	VRL	GND	reference input for ADC
7	D4	HF-preamp → CD7	unipolar current input (central diode signal input)
8	R1	HF-preamp → CD7	unipolar current input (satellite diode signal input)
9	R2	HF-preamp → CD7	unipolar current input (satellite diode signal input)
10	IREFT	→ CD7	current reference for calibration ADC
11	VRH	not connected	reference output from ADC
12	VSSA2	GND	supply (analog) of CD7
13	SELPLL	+4V	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	+4V	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	not connected	16.9344MHz system clock output
25	CL11	not connected	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	+4V	supply (digital) of CD7
31	DOBM	CD7 → digital output	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 → servo driver	motor output2 of CD7; versatile (3-state)
35	SBSY	not connected	subcode block sync (3-state)
36	SFSY	not connected	subcode frame sync (3-state)
37	RCK	GND	subcode clock input
38	SUB	not connected	P to W subcode bits (3-state)
39	VSS2	GND	supply (digital) of CD7
40	V5	not connected	versatile output pin of CD7
41	V4	not connected	versatile output pin of CD7
42	V3	not connected	versatile output pin of CD7 (open drain)
43	KILL	CD7 →	kill output; programmable (open drain)
44	MISC	not connected	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	+4V	supply (digital) of CD7
48	BCLK	CD7 → DAC	serial bit clock output (3-state)
49	VSS3	GND	supply (digital) of CD7
50	CL4	not connected	4.2336MHz µP clock output
51	SDA	µP → CD7	µP interface data I/O line (open drain output)
52	SCL	µP → CD7	µP interface clock line
53	RAB	µP → CD7	µP interface R/W and load control line
54	SILD	µP → CD7	µP interface R/W and load control line
55	NC		no connection
56	VSS4	GND	supply (digital) of CD7
57	RESET	µP → CD7	power-on reset input (active low)
58	STATUS	not connected	servo interrupt request line/CD7 status register output (open drain)
59	VDD3C	+4V	supply core (digital)
60	C2FAIL	not connected	indication of correction failure (open drain)
61	CFLG	not connected	correction flag output (open drain)
62	V1	→ CD7	versatile input pin
63	V2	→ CD7	versatile input pin
64	LDON	CD7 → 7820	laser drive on output (open drain)

BLOCKDIAGRAM



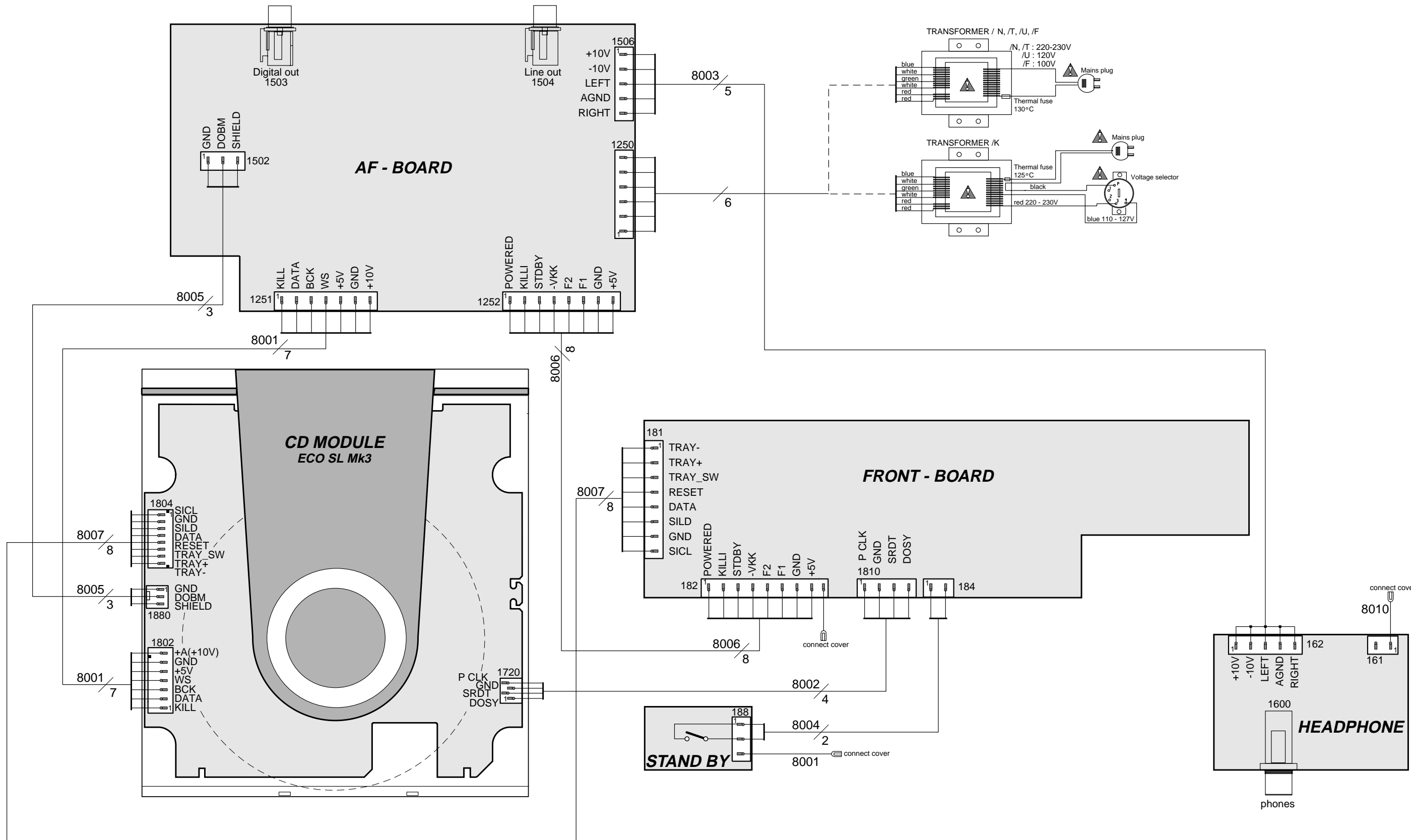
CD753 Blockdiagram 19980604

BLOCKDIAGRAM ECO SHORTLOADER MK3

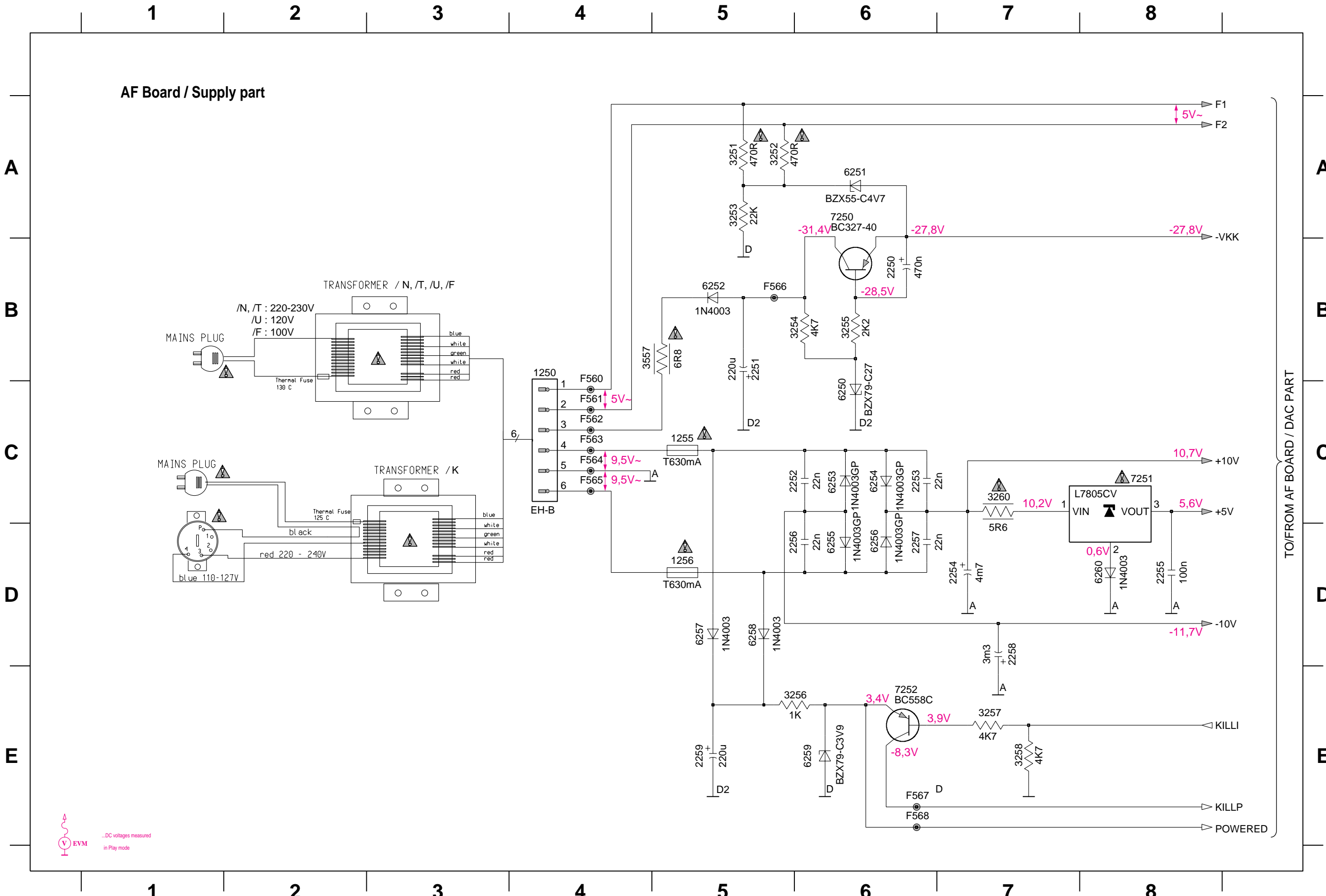


ECO SL MK3 Blockdiagram (It) 1998001

WIRING DIAGRAM



AF Board / Supply part

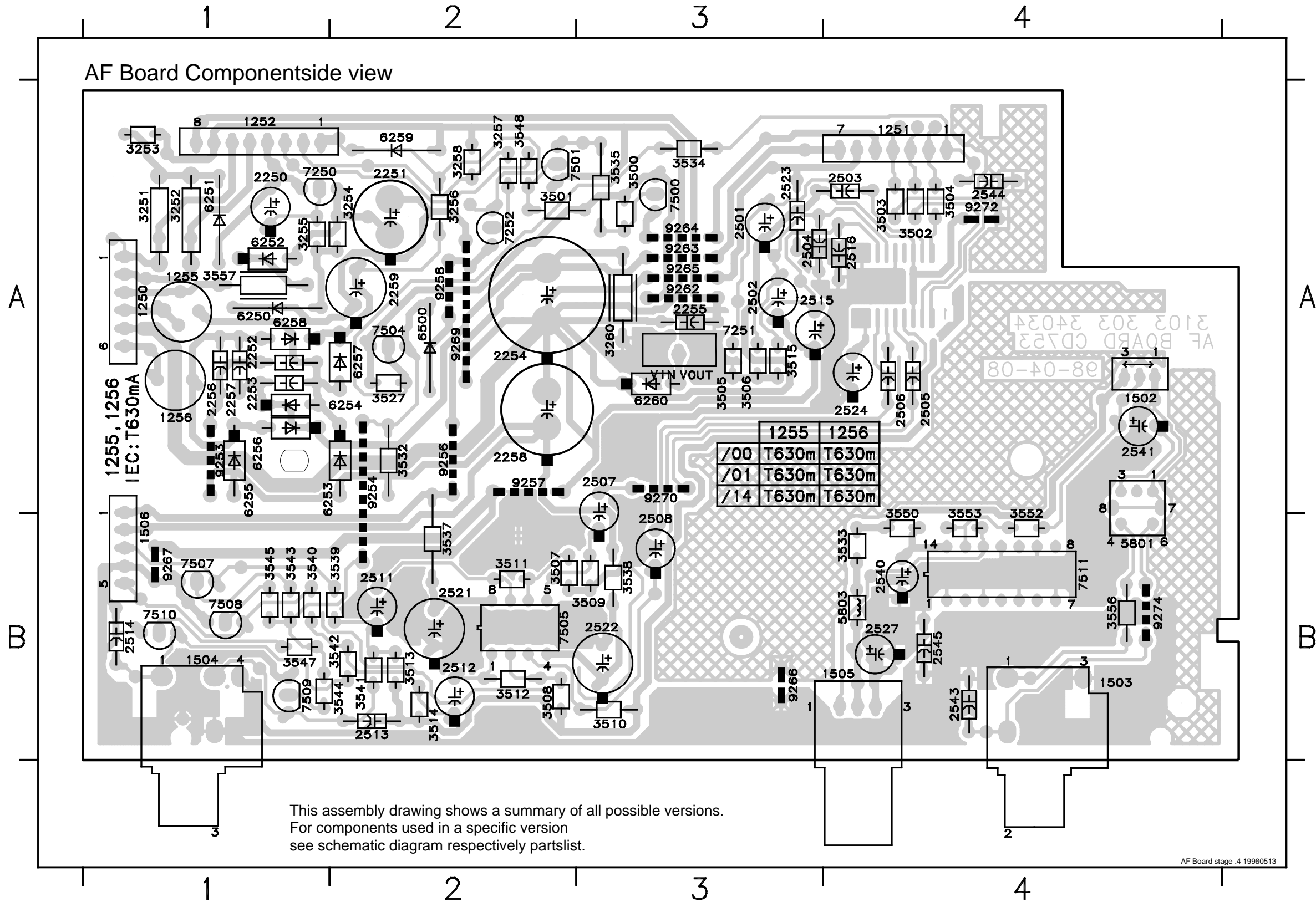


TO/FROM AF BOARD / DAC PART

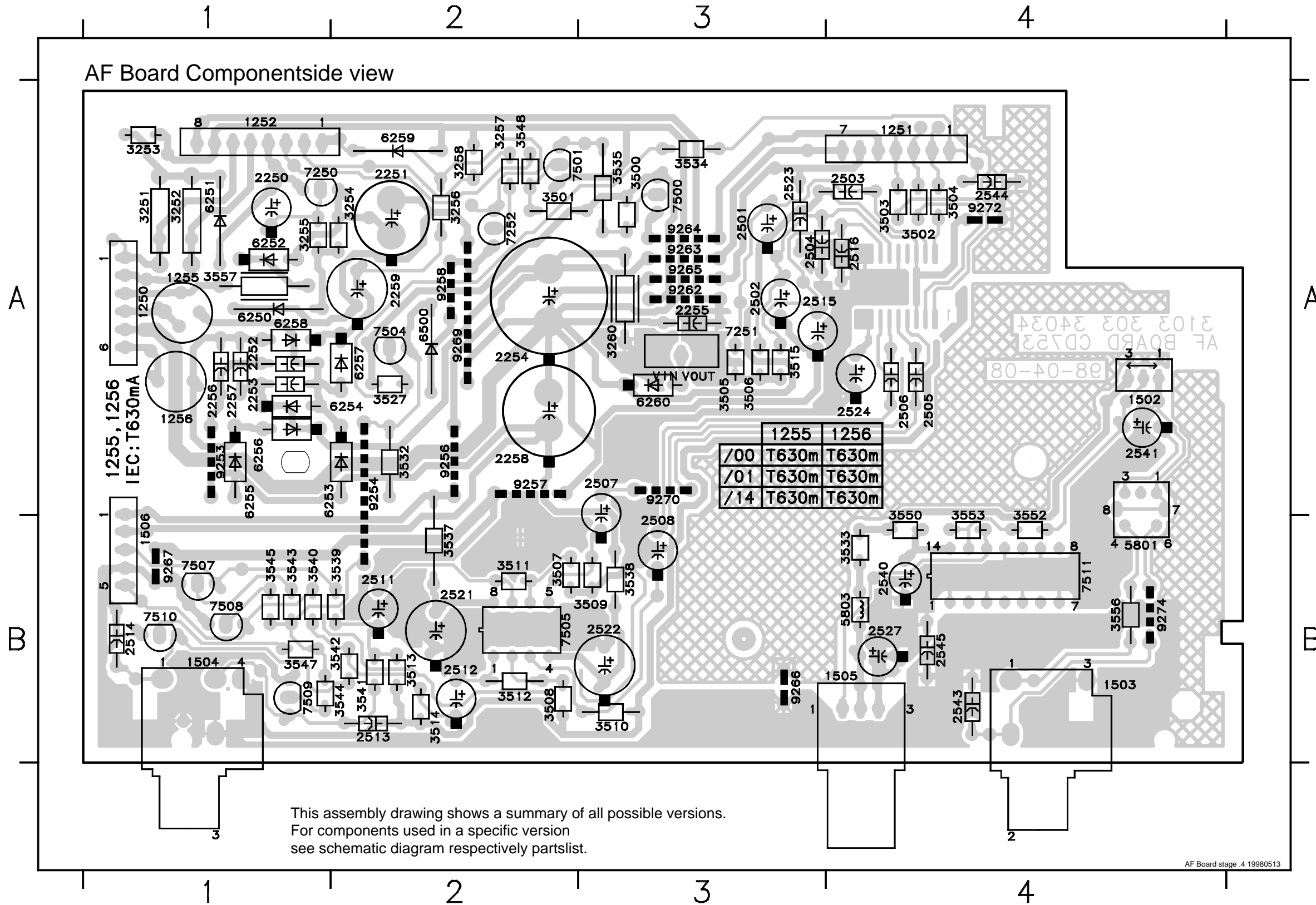
- 1250 B4
- 1255 C5
- 1256 D5
- 2250 B6
- 2251 B5
- 2252 C6
- 2253 C6
- 2254 D7
- 2255 D8
- 2256 D6
- 2257 D6
- 2258 D7
- 2259 E5
- 3251 A5
- 3252 A5
- 3253 A5
- 3254 B6
- 3255 B6
- 3256 E6
- 3257 E7
- 3258 E7
- 3260 C7
- 3557 B4
- 6250 C6
- 6251 A6
- 6252 B5
- 6253 C6
- 6254 C6
- 6255 D6
- 6256 D6
- 6257 D5
- 6258 D5
- 6259 E6
- 6260 D8
- 7250 A6
- 7251 C8
- 7252 E6
- F560 C4
- F561 C4
- F562 C4
- F563 C4
- F564 C4
- F565 C4
- F566 B5
- F567 E6
- F568 E6

EVM
 ...DC voltages measured
 in Play mode

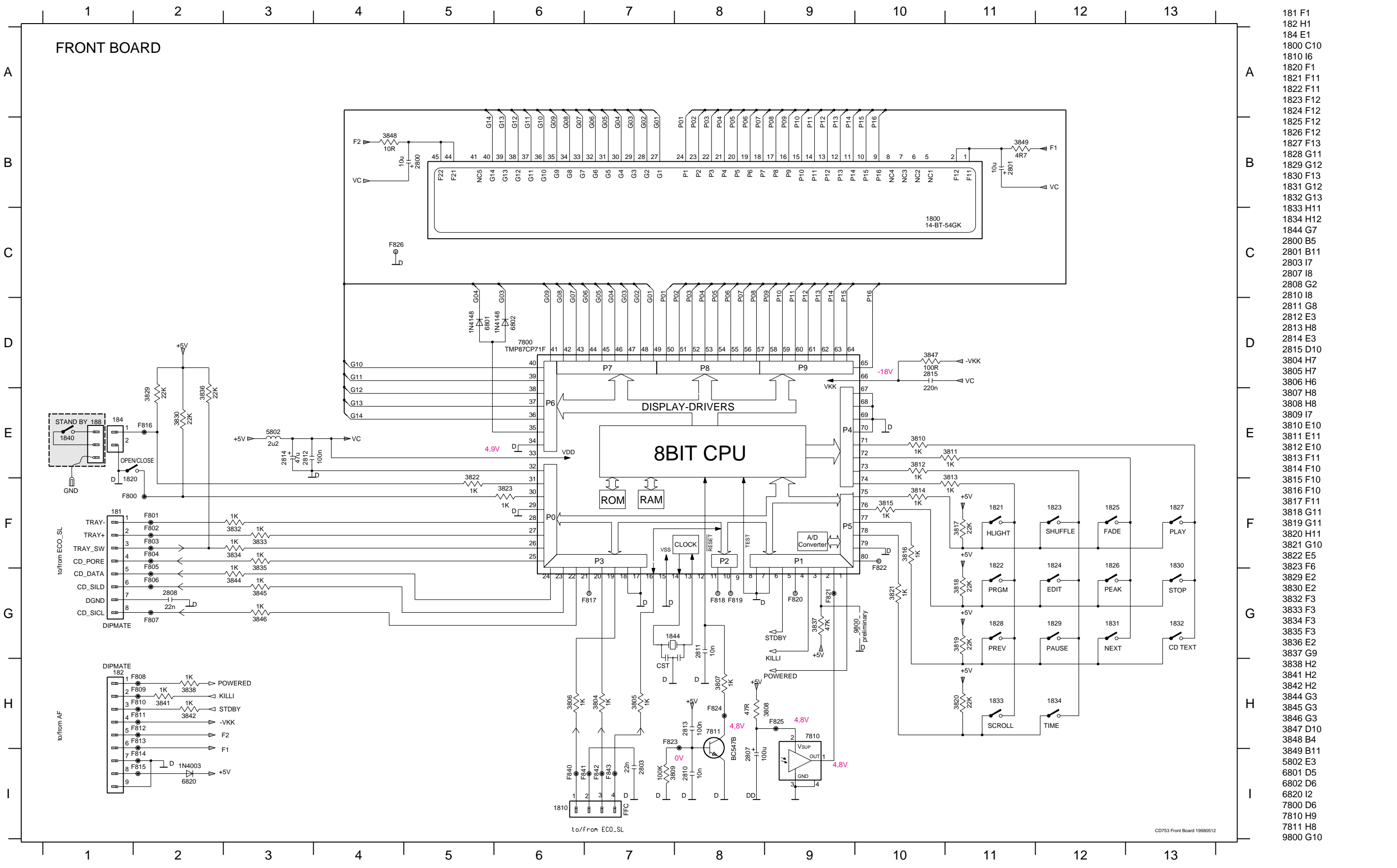
1250 A1	1506 B1	2258 A2	2508 B3	2523 A3	3252 A1	3501 A2	3510 B3	3534 A3	3544 B2	5801 B4	6257 A2	7501 A2	9254 A2	9267 B1
1251 A4	2250 A1	2259 A2	2511 B2	2524 A4	3253 A1	3502 A4	3511 B2	3535 A3	3545 B1	5803 B4	6258 A1	7504 A2	9256 A2	9269 A2
1252 A1	2251 A2	2501 A3	2512 B2	2527 B4	3254 A2	3503 A4	3512 B2	3537 B2	3547 B1	6250 A1	6259 A2	7505 B2	9257 A2	9270 A3
1255 A1	2252 A1	2502 A3	2513 B2	2540 B4	3255 A1	3504 A4	3513 B2	3538 B3	3548 A2	6251 A1	6260 A3	7507 B1	9258 A2	9272 A4
1256 A1	2253 A1	2503 A4	2514 B1	2541 A4	3256 A2	3505 A3	3514 B2	3539 B2	3550 A4	6252 A1	6500 A2	7508 B1	9259 A3	9274 B4
1502 A4	2254 A2	2504 A3	2515 A3	2543 B4	3257 A2	3506 A3	3515 A3	3540 B1	3552 A4	6253 A1	7250 A1	7509 B1	9263 A3	
1503 B4	2255 A3	2505 A4	2516 A4	2544 A4	3258 A2	3507 B2	3527 A2	3541 B2	3553 A4	6254 A2	7251 A3	7510 B1	9264 A3	
1504 B1	2256 A1	2506 A4	2521 B2	2545 B4	3260 A3	3508 B2	3532 A2	3542 B2	3556 B4	6255 A1	7252 A2	7511 B4	9265 A3	
1505 B4	2257 A1	2507 A3	2522 B3	3251 A1	3500 A3	3509 B3	3533 B4	3543 B1	3557 A1	6256 A1	7500 A3	9253 A1	9266 B3	



1250 A1	1506 B1	2258 A2	2508 B3	2523 A3	3252 A1	3501 A2	3510 B3	3534 A3	3544 B2	5801 B4	6257 A2	7501 A2	9254 A2	9267 B1
1251 A4	2250 A1	2259 A2	2511 B2	2524 A4	3253 A1	3502 A4	3511 B2	3535 A3	3545 B1	5803 B4	6258 A1	7504 A2	9256 A2	9269 A2
1252 A1	2251 A2	2501 A3	2512 B2	2527 B4	3254 A2	3503 A4	3512 B2	3537 B2	3547 B1	6250 A1	6259 A2	7505 B2	9257 A2	9270 A3
1255 A1	2252 A1	2502 A3	2513 B2	2540 B4	3255 A1	3504 A4	3513 B2	3538 B3	3548 A2	6251 A1	6260 A3	7507 B1	9258 A2	9272 A4
1256 A1	2253 A1	2503 A4	2514 B1	2541 A4	3256 A2	3505 A3	3514 B2	3539 B2	3550 A4	6252 A1	6500 A2	7508 B1	9259 A3	9274 B4
1502 A4	2254 A2	2504 A3	2515 A3	2543 B4	3257 A2	3506 A3	3515 A3	3540 B1	3552 A4	6253 A1	7250 A1	7509 B1	9263 A3	
1503 B4	2255 A3	2505 A4	2516 A4	2544 A4	3258 A2	3507 B2	3527 A2	3541 B2	3553 A4	6254 A2	7251 A3	7510 B1	9264 A3	
1504 B1	2256 A1	2506 A4	2521 B2	2545 B4	3260 A3	3508 B2	3532 A2	3542 B2	3556 B4	6255 A1	7252 A2	7511 B4	9265 A3	
1505 B4	2257 A1	2507 A3	2522 B3	3251 A1	3500 A3	3509 B3	3533 B4	3543 B1	3557 A1	6256 A1	7500 A3	9253 A1	9266 B3	

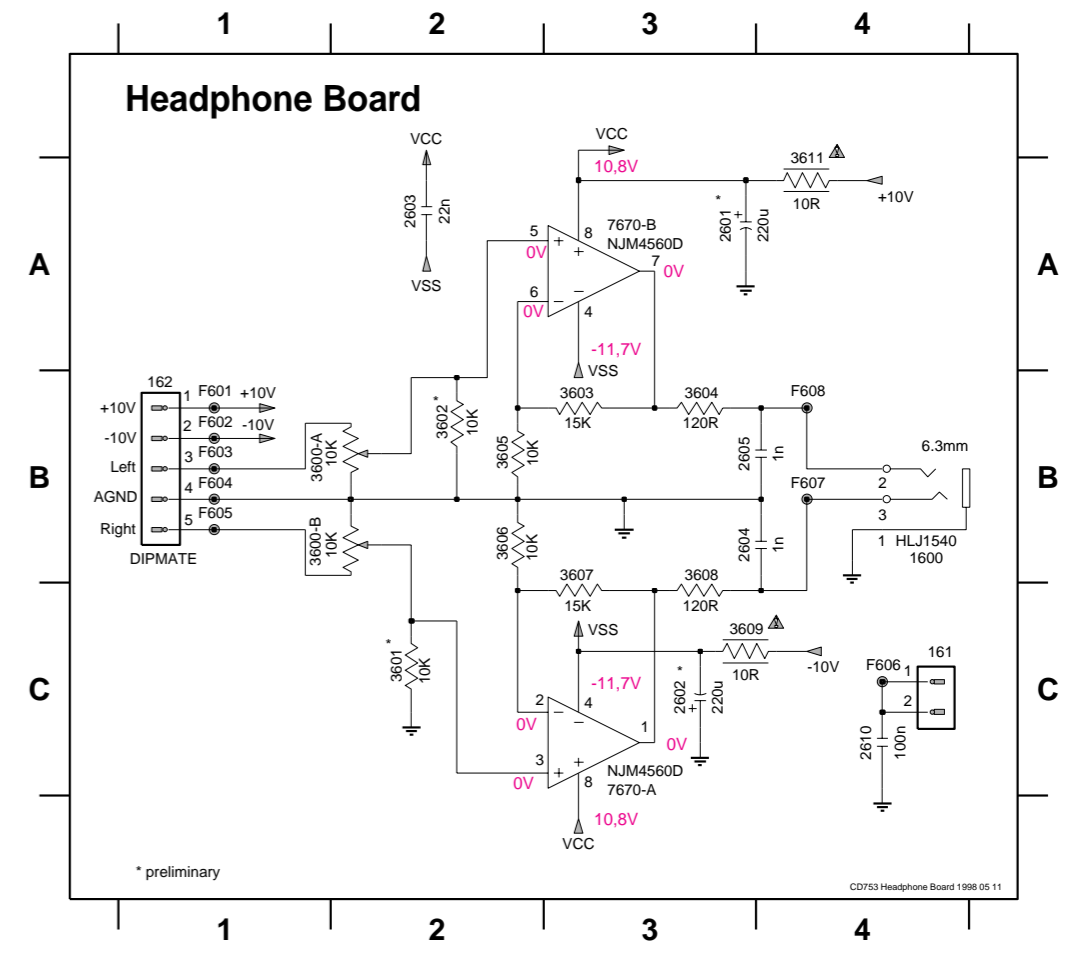
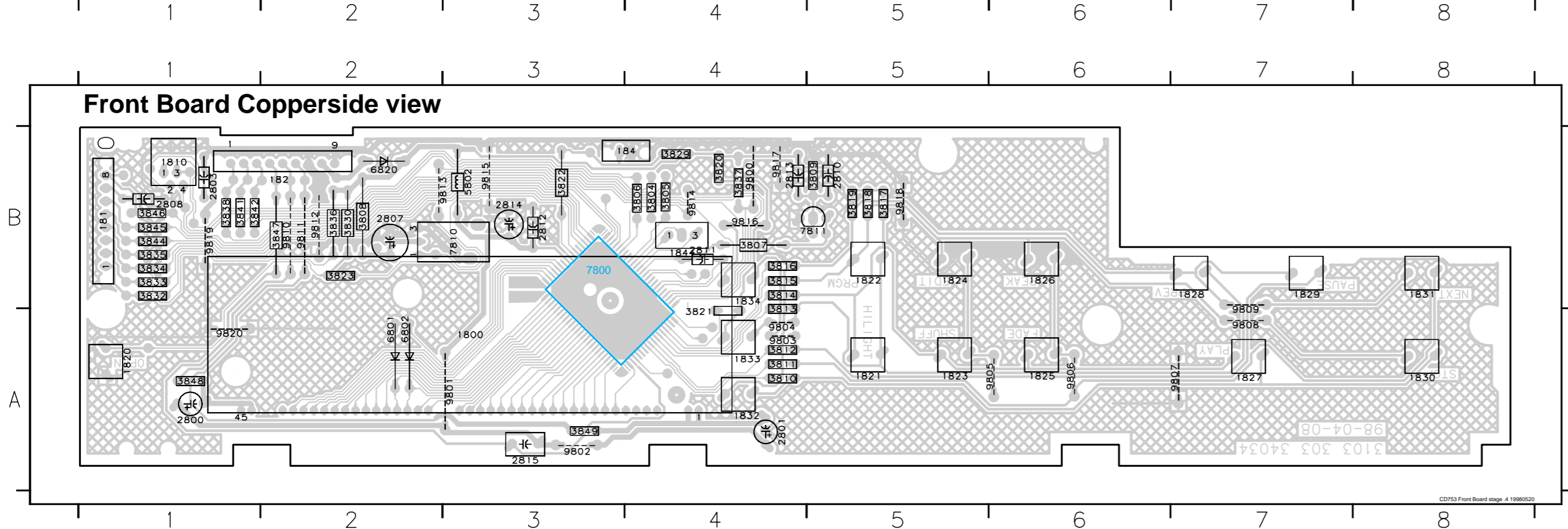
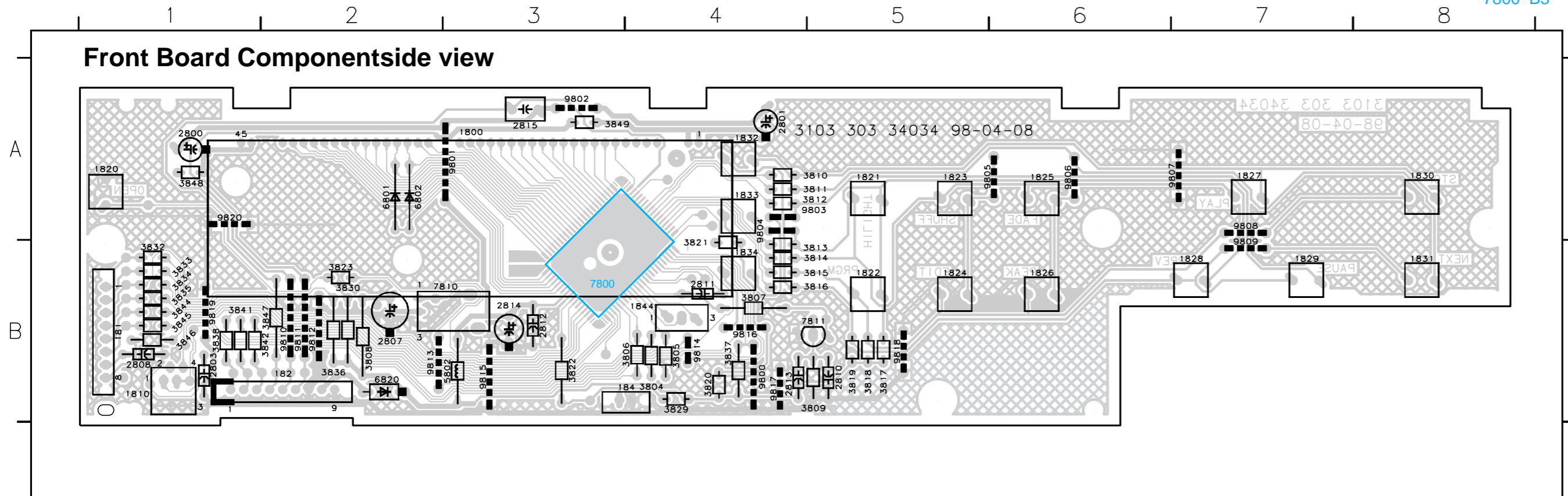


FRONT BOARD

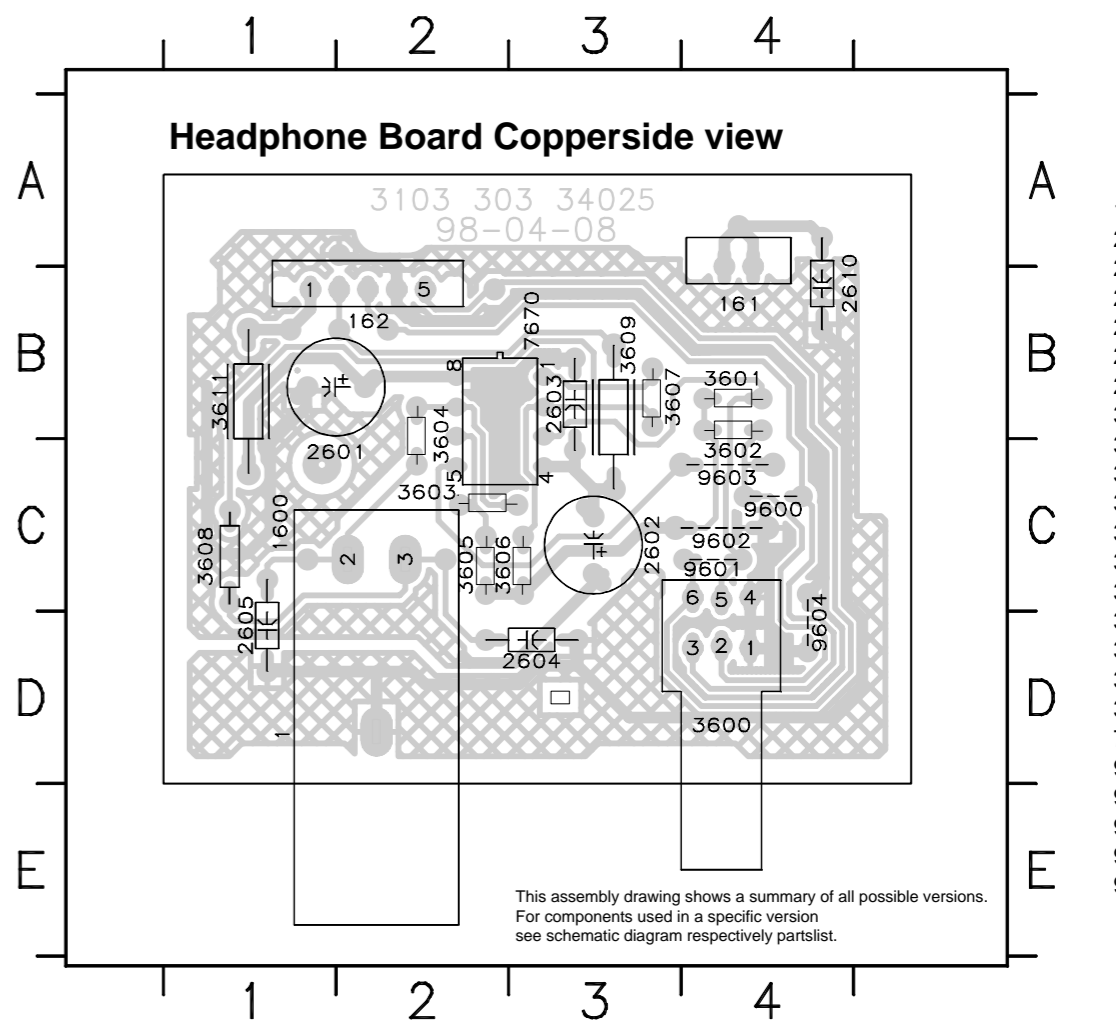


- 181 F1
- 182 H1
- 184 E1
- 1800 C10
- 1810 I6
- 1820 F1
- 1821 F11
- 1822 F11
- 1823 F12
- 1824 F12
- 1825 F12
- 1826 F12
- 1827 F13
- 1828 G11
- 1829 G12
- 1830 F13
- 1831 G12
- 1832 G13
- 1833 H11
- 1834 H12
- 1844 G7
- 2800 B5
- 2801 B11
- 2803 I7
- 2807 I8
- 2808 G2
- 2810 I8
- 2811 G8
- 2812 E3
- 2813 H8
- 2814 E3
- 2815 D10
- 3804 H7
- 3805 H7
- 3806 H6
- 3807 H8
- 3808 H8
- 3809 I7
- 3810 E10
- 3811 E11
- 3812 E10
- 3813 F11
- 3814 F10
- 3815 F10
- 3816 F10
- 3817 F11
- 3818 G11
- 3819 G11
- 3820 H11
- 3821 G10
- 3822 E5
- 3823 F6
- 3829 E2
- 3830 E2
- 3832 F3
- 3833 F3
- 3834 F3
- 3835 F3
- 3836 E2
- 3837 G9
- 3838 H2
- 3841 H2
- 3842 H2
- 3844 G3
- 3845 G3
- 3846 G3
- 3847 D10
- 3848 B4
- 3849 B11
- 5802 E3
- 6801 D5
- 6802 D6
- 6820 I2
- 7800 D6
- 7810 H9
- 7811 H8
- 9800 G10

181 B1	1821 A5	1827 A7	1833 A4	2807 B2	2814 B3	3808 B2	3814 B5	3820 B4	3832 B1	3838 B1	3847 B2	6820 B2	9803 A5	9809 A7	9815 B3
182 B2	1822 B5	1828 B7	1834 B4	2808 B1	2815 A3	3809 B5	3815 B5	3821 A4	3833 B1	3841 B1	3848 A1	7810 B3	9804 A4	9810 B2	9816 B4
184 B3	1823 A5	1829 B7	1844 B4	2810 B5	3804 B4	3810 A5	3816 B5	3822 B3	3834 B1	3842 B2	3849 A3	7811 B5	9805 A5	9811 B2	9817 B4
1800 A3	1824 B5	1830 A8	2800 A1	2811 B4	3805 B4	3811 A5	3817 B5	3823 B2	3835 B1	3844 B1	5802 B3	9800 B4	9806 A6	9812 B2	9818 B5
1810 B1	1825 A6	1831 B8	2801 A4	2812 B3	3806 B3	3812 A5	3818 B5	3829 B4	3836 B2	3845 B1	6801 A2	9801 A3	9807 A6	9813 B2	9819 B1
1820 A1	1826 B6	1832 A4	2803 B1	2813 B4	3807 B4	3813 B5	3819 B5	3830 B2	3837 B4	3846 B1	6802 A2	9802 A3	9808 A7	9814 B4	9820 A1
															7800 B3



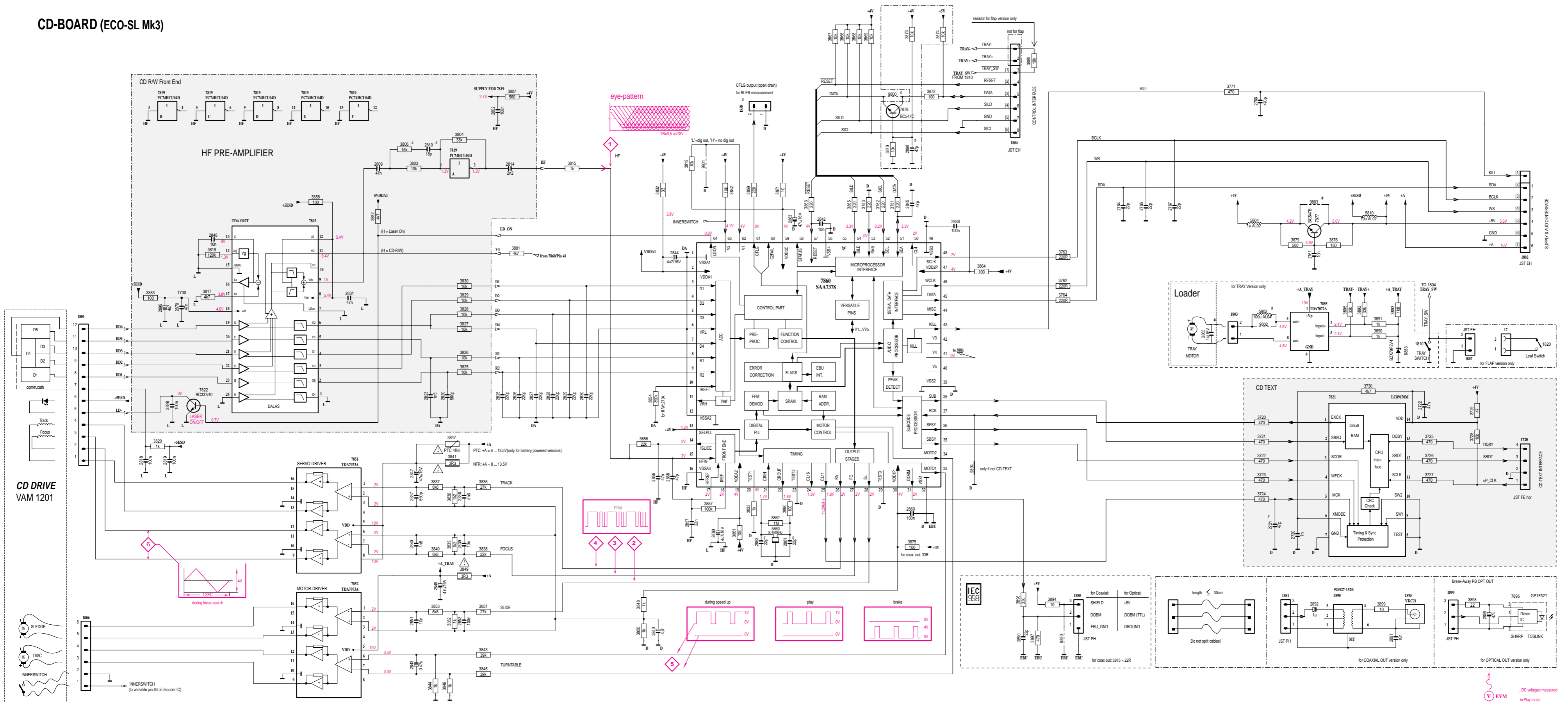
- 161 C4
- 162 B1
- 1600 B4
- 2601 A3
- 2602 C3
- 2603 A2
- 2604 B3
- 2605 B3
- 2610 C4
- 3600-A B1
- 3600-B B1
- 3601 C2
- 3602 B2
- 3603 B3
- 3604 B3
- 3605 B2
- 3606 B2
- 3607 B3
- 3611 A4
- 3608 B3
- 3609 C3
- 7670-A C3
- 7670-B A3



- 161 B4
- 162 B2
- 1600 D2
- 2601 B2
- 2602 C3
- 2603 B3
- 2604 D3
- 2605 D1
- 2610 B4
- 3600 D4
- 3601 B4
- 3602 B4
- 3603 C2
- 3604 B2
- 3605 D2
- 3606 D3
- 3607 B3
- 3608 C1
- 3609 B3
- 3611 B1
- 7670 B3
- 9600 C4
- 9601 C4
- 9602 C4
- 9603 C4
- 9604 D4

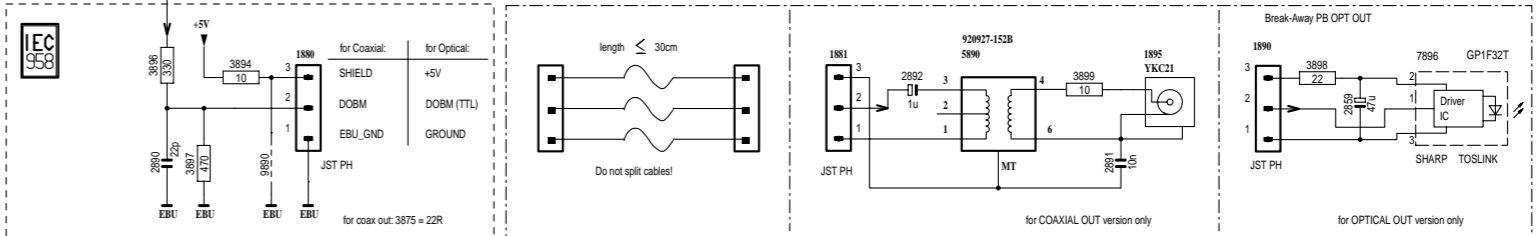
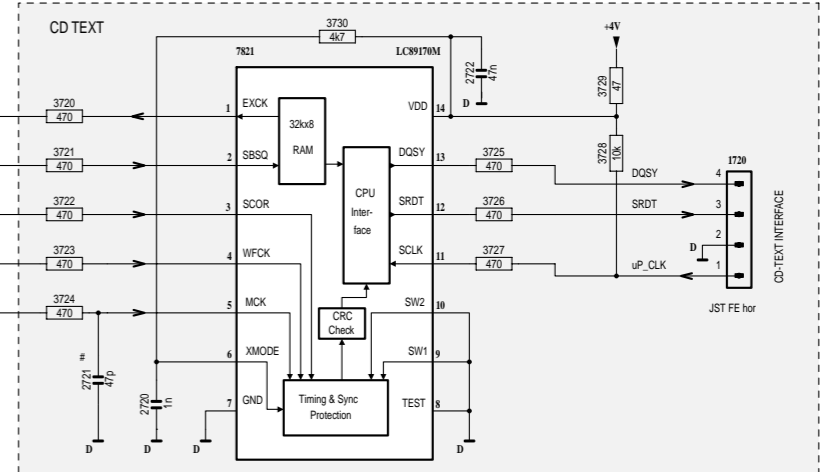
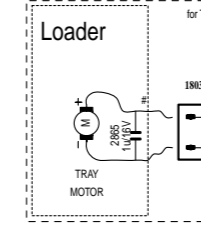
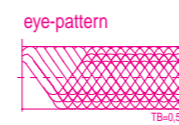
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram respectively partlist.

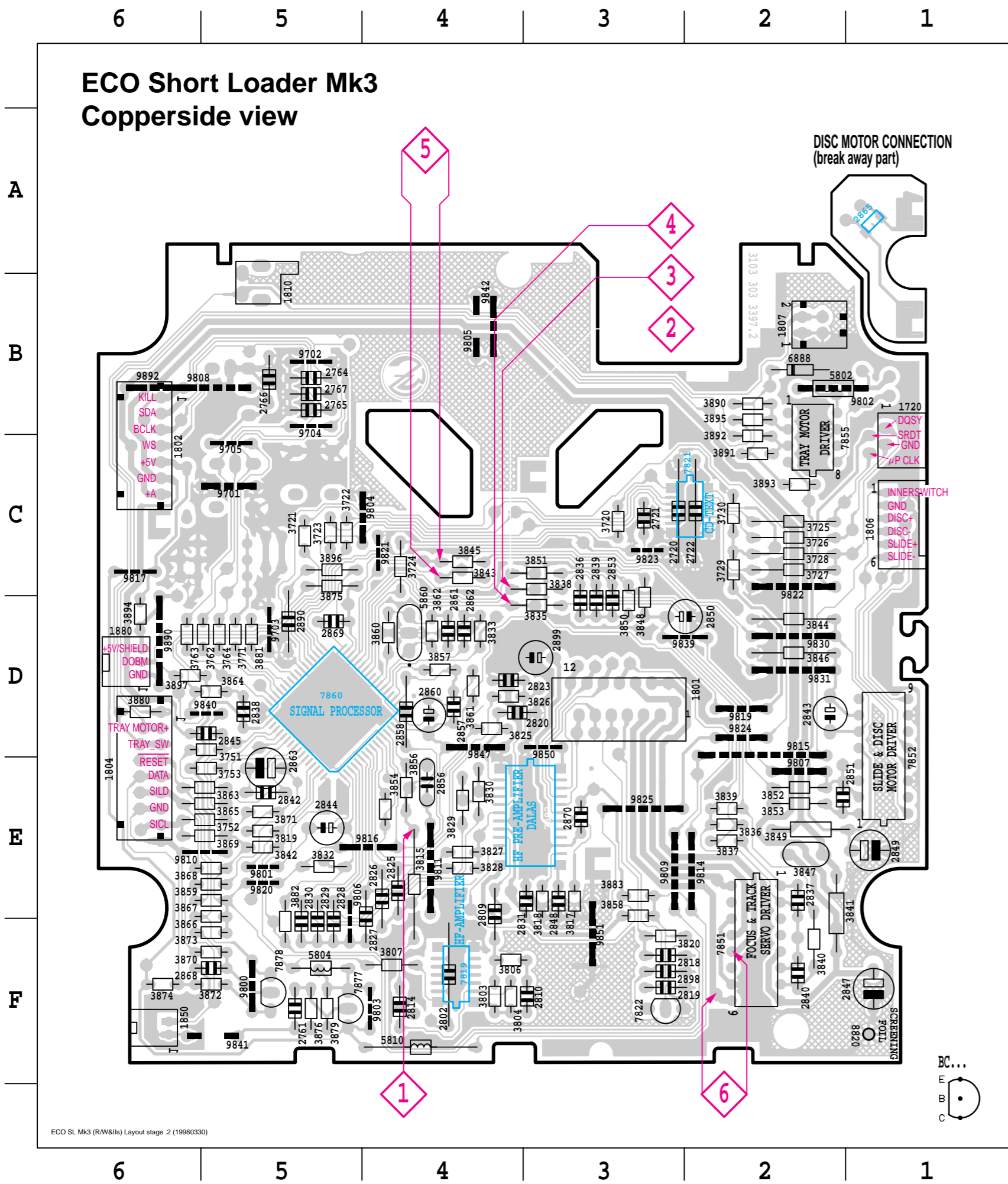
CD-BBOARD (ECO-SL Mk3)



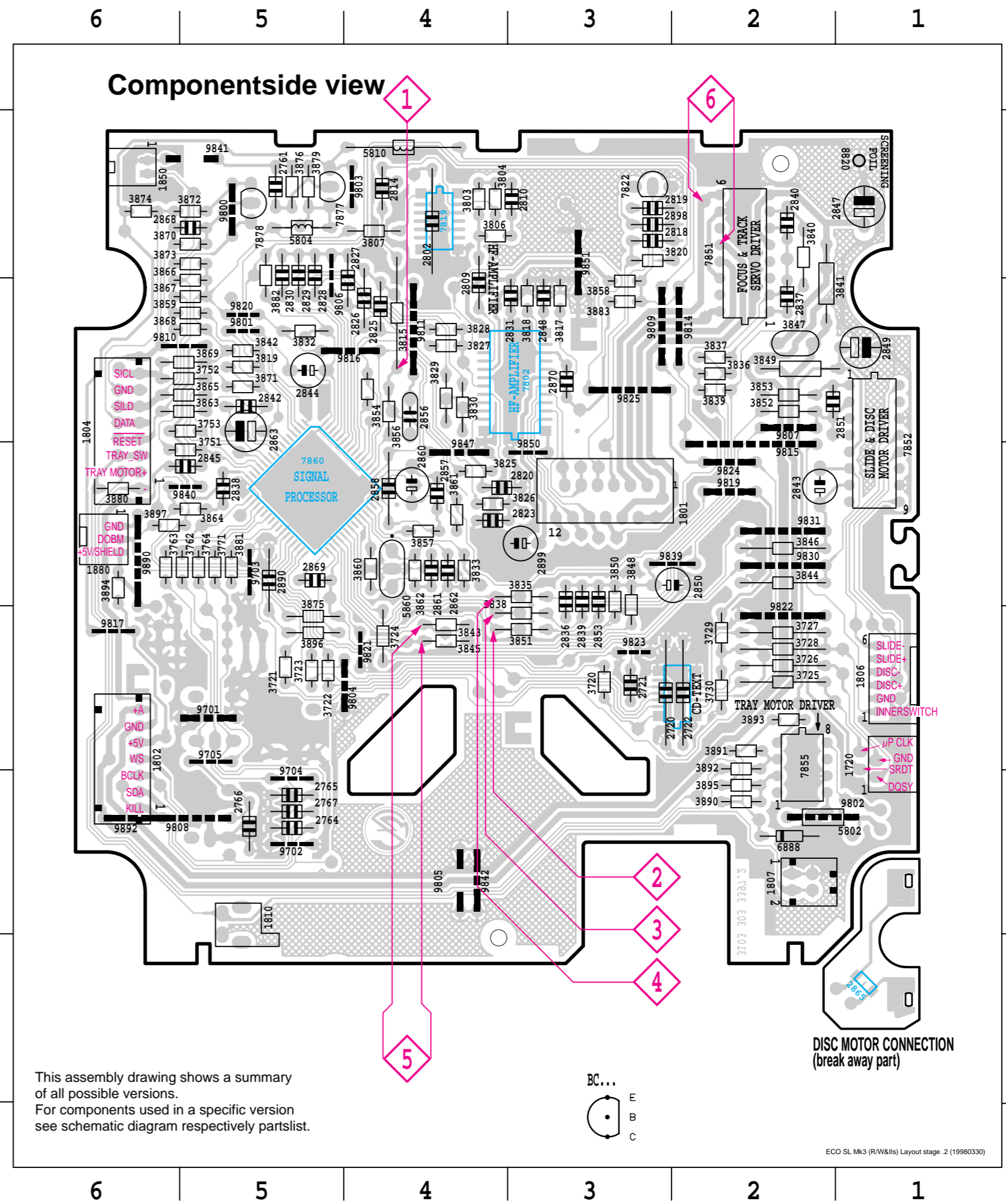
... for provision only

- 1720 J32
- 1801 G2
- 1802 F32
- 1803 G26
- 1804 D21
- 1806 M2
- 1807 H31
- 1810 H30
- 1820 H32
- 1850 C16
- 1880 M23
- 1881 M27
- 1890 M30
- 1895 M29
- 2720 L27
- 2721 L27
- 2722 I30
- 2761 F28
- 2764 E24
- 2766 C26
- 2767 E25
- 2802 C10
- 2809 D8
- 2810 D9
- 2814 D11
- 2818 J3
- 2819 J4
- 2820 I9
- 2823 I9
- 2825 I11
- 2826 I11
- 2827 I11
- 2828 I12
- 2829 I12
- 2830 I12
- 2831 G7
- 2836 K10
- 2837 K9
- 2838 E20
- 2839 L10
- 2840 L9
- 2842 E17
- 2843 N9
- 2844 F14
- 2845 E19
- 2847 J9
- 2848 F5
- 2849 M9
- 2850 N14
- 2851 N9
- 2853 N10
- 2856 K14
- 2857 L15
- 2858 K14
- 2859 M31
- 2860 L15
- 2861 L17
- 2862 L16
- 2863 E17
- 2865 H26
- 2868 D19
- 2869 K19
- 2870 G4
- 2890 N21
- 2891 N29
- 2892 M28
- 2898 I4
- 2899 G4
- 3720 I27
- 3721 J27
- 3722 J27
- 3723 K27
- 3724 K27
- 3725 J30
- 3726 J30
- 3727 K30
- 3728 J31
- 3729 I31
- 3730 I29
- 3751 E19
- 3752 E19
- 3753 E18
- 3762 F22
- 3764 G22
- 3771 C26
- 3803 D9
- 3804 C10
- 3806 D9
- 3807 C11
- 3815 D12
- 3817 G4
- 3818 F5
- 3819 D15
- 3820 J3
- 3825 H10
- 3826 H10
- 3827 G10
- 3828 G10
- 3829 G10
- 3830 G10
- 3832 E14
- 3833 K16
- 3835 K10
- 3836 K10
- 3837 K9
- 3838 L10
- 3839 L10
- 3840 L9
- 3841 J10
- 3842 E15
- 3843 N10
- 3844 O9
- 3845 O10
- 3846 O9
- 3847 J10
- 3848 M14
- 3849 M10
- 3850 N14
- 3851 M10
- 3852 N10
- 3853 M9
- 3854 I14
- 3856 J14
- 3857 K15
- 3858 E7
- 3859 E16
- 3860 K17
- 3861 L16
- 3862 K16
- 3863 F17
- 3864 F21
- 3865 E18
- 3866 A18
- 3867 A18
- 3868 A18
- 3869 A18
- 3870 D19
- 3871 E16
- 3872 C20
- 3873 A19
- 3874 A20
- 3875 L19
- 3876 F28
- 3879 F27
- 3880 B22
- 3881 F11
- 3882 E8
- 3883 G3
- 3889 H29
- 3891 G29
- 3892 G29
- 3893 G29
- 3894 M22
- 3895 G28
- 3896 M22
- 3897 N22
- 3898 M31
- 3899 M29
- 5804 E26
- 5810 E29
- 5860 L16
- 5890 M28
- 6888 H30
- 7802 E7
- 7819 C3
- 7819 C4
- 7819 C5
- 7819 C6
- 7819 C7
- 7819 D10
- 7821 I28
- 7822 I5
- 7851 J8
- 7852 M8
- 7855 G28
- 7860 F15
- 7877 E28
- 7878 C19
- 7896 M32
- 9800 C19
- 9801 D15
- 9802 G27
- 9803 E28
- 9804 J20
- 9890 N22

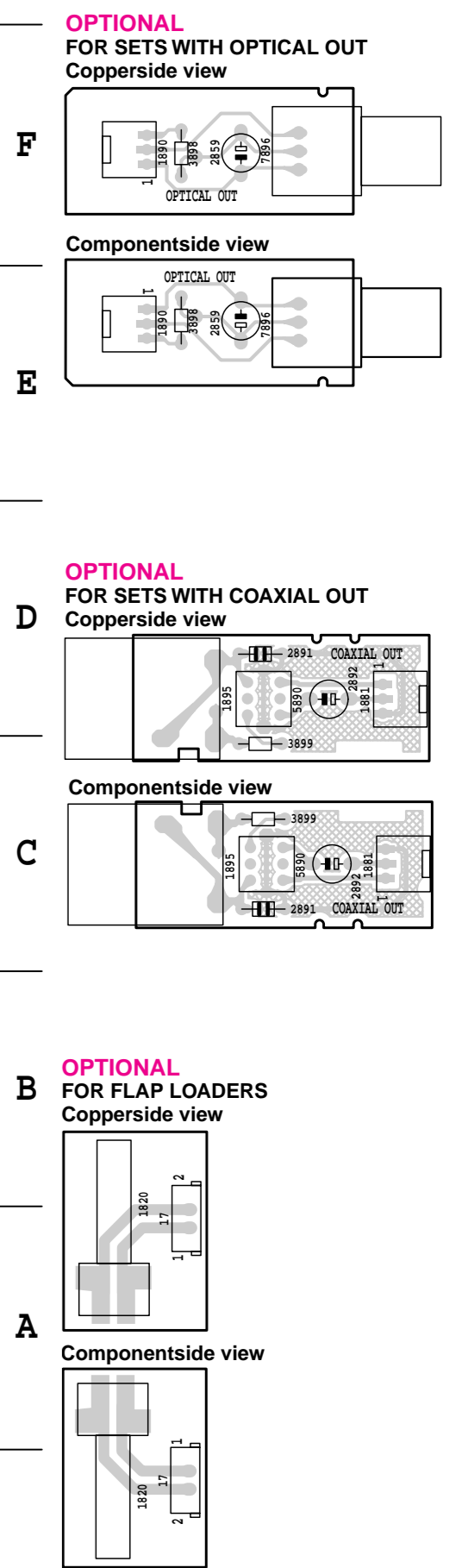




17	opt.	3844	D2
1720	C1	3845	C4
1801	D3	3846	D2
1802	C6	3847	E2
1804	E6	3848	D3
1806	C1	3849	E2
1807	B2	3850	D3
1810	B5	3851	C3
1820	B3	3852	E2
1850	F6	3853	E2
1880	D6	3854	E4
1881	opt.	3856	E4
1890	opt.	3857	D4
1895	opt.	3858	E3
2720	C3	3859	E5
2721	C3	3860	D4
2722	C2	3861	D4
2761	F5	3862	D4
2764	B5	3863	E5
2765	B5	3864	D5
2766	B5	3865	E5
2767	B5	3866	E5
2802	F4	3867	E5
2809	F4	3868	E5
2810	F3	3869	E5
2814	F4	3870	F5
2818	F3	3871	E5
2819	F3	3872	F5
2820	D4	3873	F5
2823	D4	3874	F6
2825	F4	3875	C5
2826	F4	3876	E5
2827	F4	3877	F5
2828	F5	3878	F5
2829	F5	3879	F5
2830	F5	3880	D6
2831	E3	3881	D5
2832	F5	3882	F5
2833	E3	3883	E3
2836	D3	3890	B2
2837	F2	3891	E2
2838	D6	3892	C2
2839	D3	3893	C2
2840	F2	3894	D6
2842	E5	3895	B2
2843	D2	3896	C5
2844	E5	3897	D6
2845	D5	3898	D6
2847	F5	3899	opt.
2848	E3	5802	B2
2849	E1	5804	F5
2850	D2	5810	F4
2851	E2	5860	D4
2853	D3	5890	opt.
2856	F4	6888	B2
2857	F4	7819	F4
2858	D4	7819	F4
2859	opt.	7822	F3
2860	D4	7851	F2
2861	D4	7852	D1
2862	D4	7855	C2
2863	E5	7860	D5
2865	A1	7877	F5
2868	F5	7878	F5
2869	D6	7896	opt.
2870	E3	9701	C5
2890	D5	9702	B5
2891	opt.	9703	D5
2896	opt.	9704	B5
2898	F3	9705	C5
2899	D3	9800	F5
3720	C3	9801	E5
3721	C5	9802	B2
3722	C5	9803	F4
3723	C5	9804	C4
3724	C4	9805	B4
3725	C5	9806	F5
3726	C5	9807	E2
3727	C2	9808	B5
3728	C2	9809	E3
3729	C2	9810	E5
3730	C2	9811	E4
3751	D5	9814	E2
3752	E5	9815	D2
3753	F4	9816	F4
3762	D5	9817	C6
3763	D6	9819	D2
3764	D5	9820	E5
3771	D5	9821	C4
3803	F4	9822	C2
3804	F4	9823	C3
3806	F4	9824	D2
3807	F4	9825	D2
3815	F4	9830	D2
3817	E3	9831	D2
3818	E3	9839	D2
3819	E5	9840	D5
3820	F3	9841	F5
3825	D4	9842	B4
3828	D4	9842	D4
3827	F4	9850	D3
3828	F4	9851	F3
3829	F4	9890	D6
3830	F4	9892	B6
3832	E5		
3833	D4		
3836	D3		
3836	E2		
3837	E2		
3838	C3		
3839	F2		
3840	F2		
3841	E2		
3842	E2		
3843	C5		



This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram respectively partlist.



WARNING

CHARGED CAPACITORS ON THE CD BOARD MAY DAMAGE THE CD-ELECTRONICS WHEN CONNECTING A NEW CD DRIVE. THAT'S WHY, BESIDES THE SAFETY MEASURES LIKE

- SWITCH OFF POWER SUPPLY
- ESD PROTECTION

ADDITIONAL ACTIONS MUST BE TAKEN BY THE REPAIR TECHNICIAN.

The following steps have to be done when replacing the CDM mechanism:

1. Disconnect old CD drive flexfoil from printed board
2. Connect paperclip to CD drive flexfoil to short-circuit flexfoil (fig.1)
3. Short-circuit printed board with **brass-sheet (4822 321 11197)** plugged into the flexfoil connector (fig.2)
4. Remove old CD drive
5. Position new CD drive in its studs
6. Remove short-circuit from printed board connector
7. Remove short-circuit from flexfoil of new CD drive
8. Connect new flexfoil to print connector (fig.3)

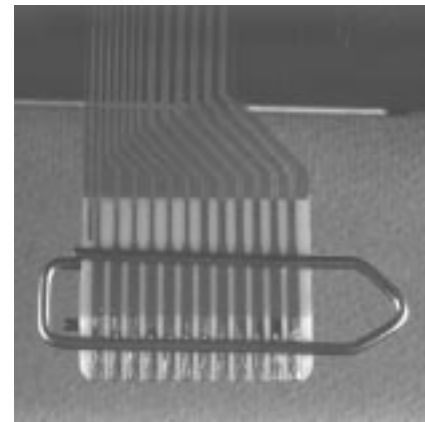


fig.1

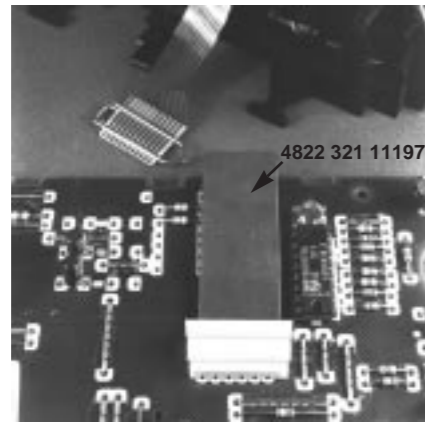


fig.2

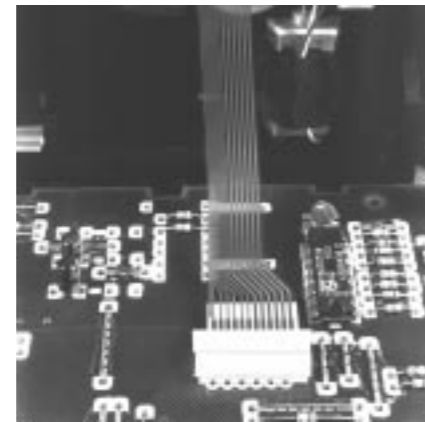
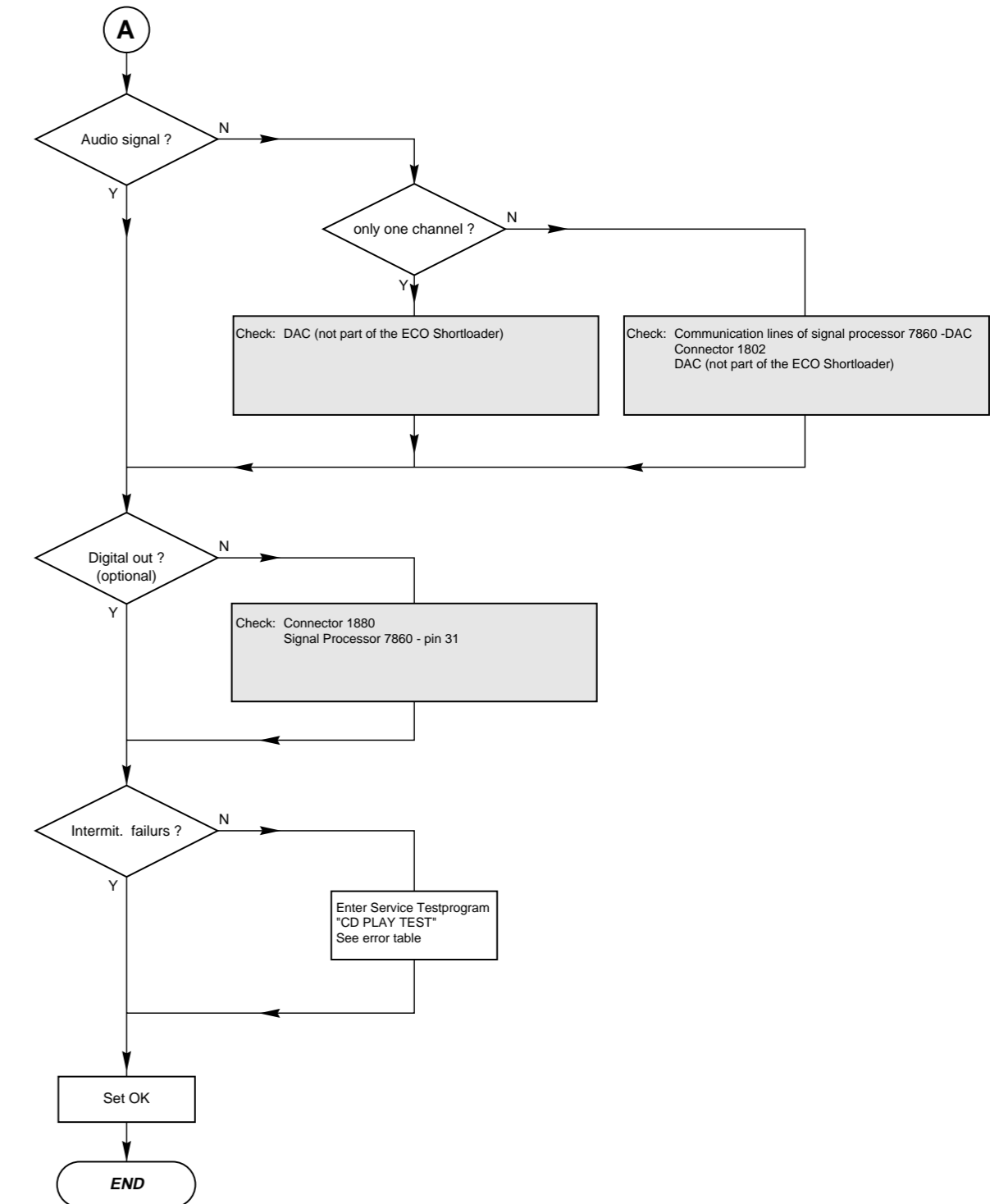
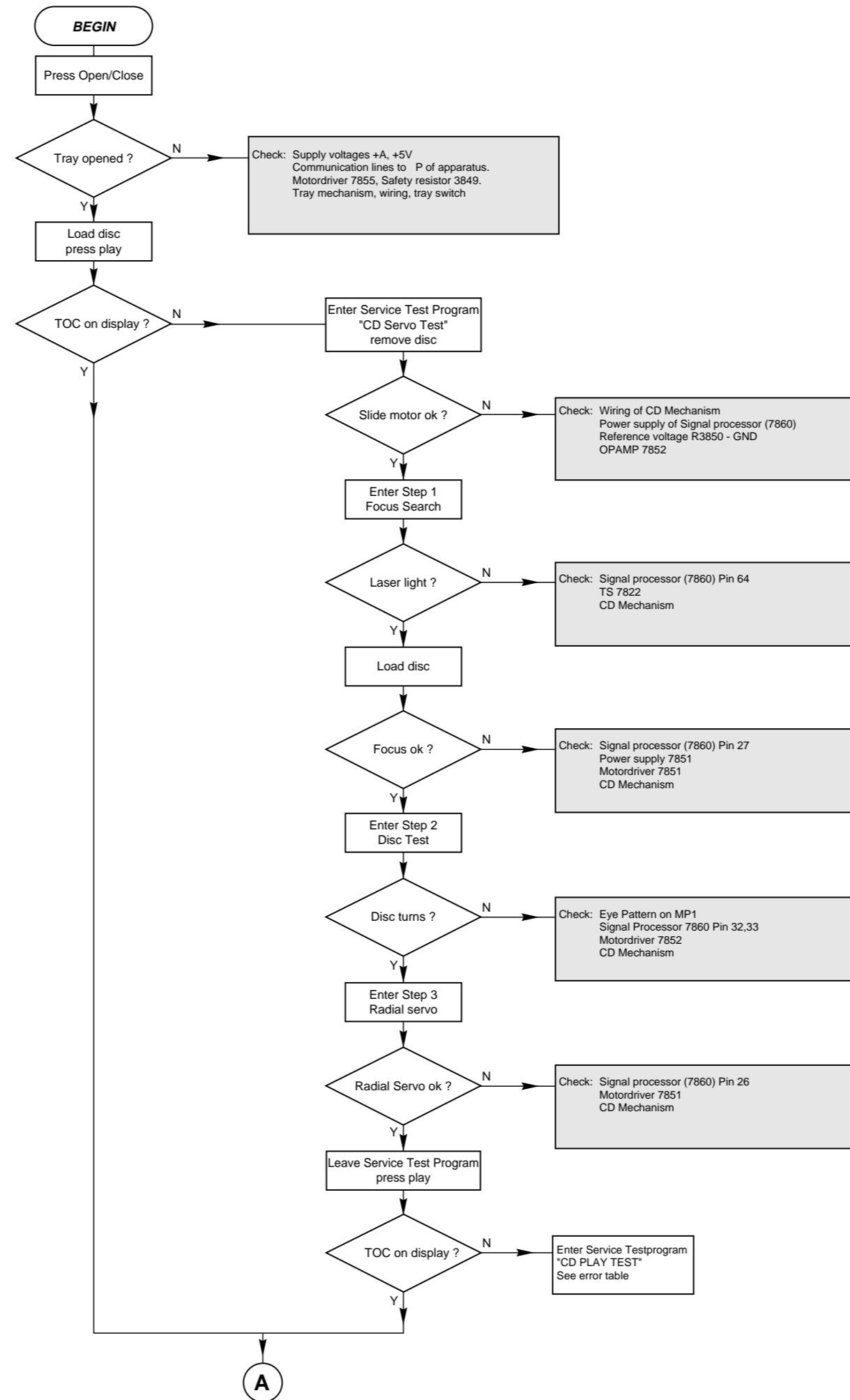


fig.3

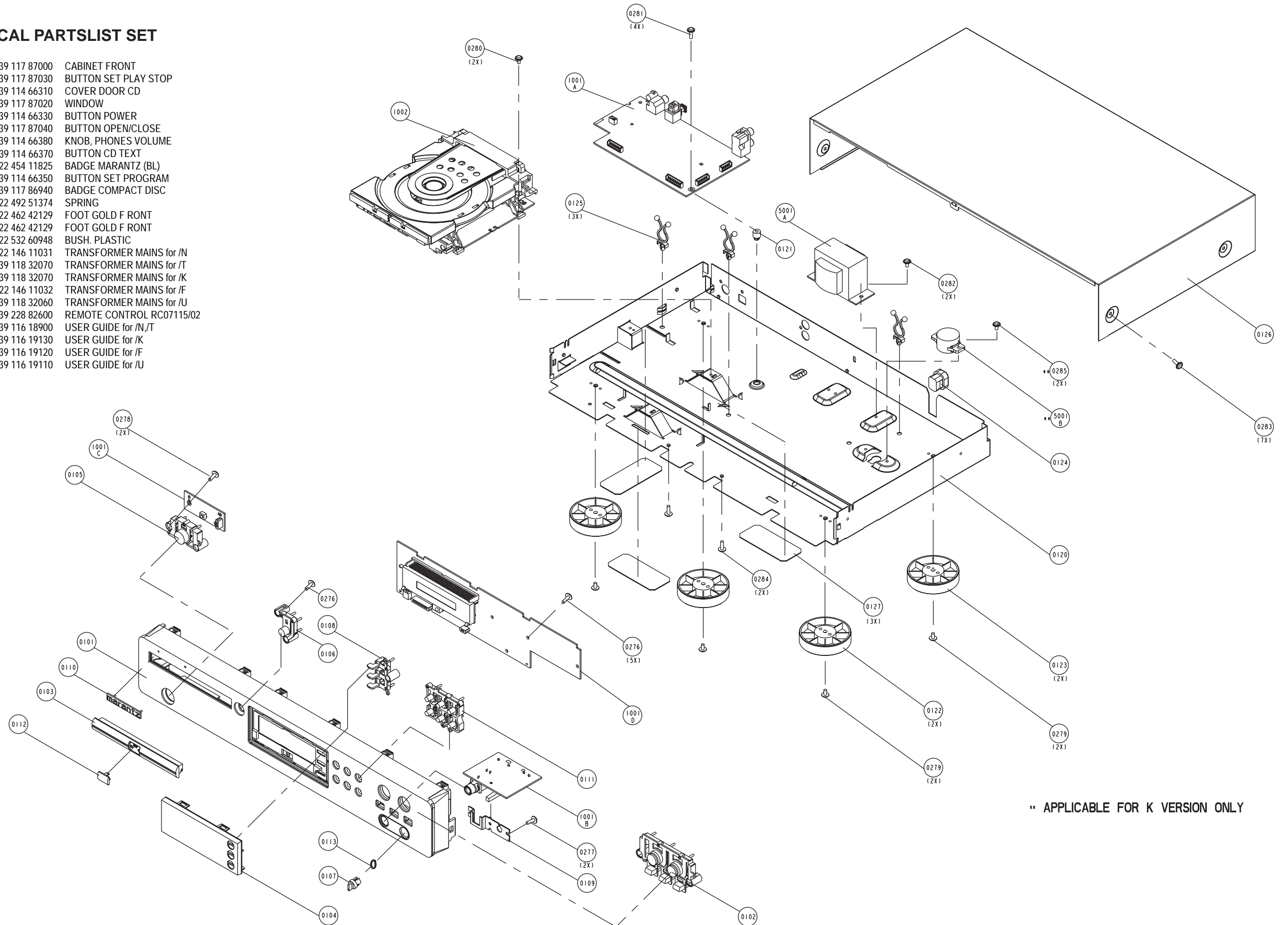
Remarks



EXPLODED VIEW of SET

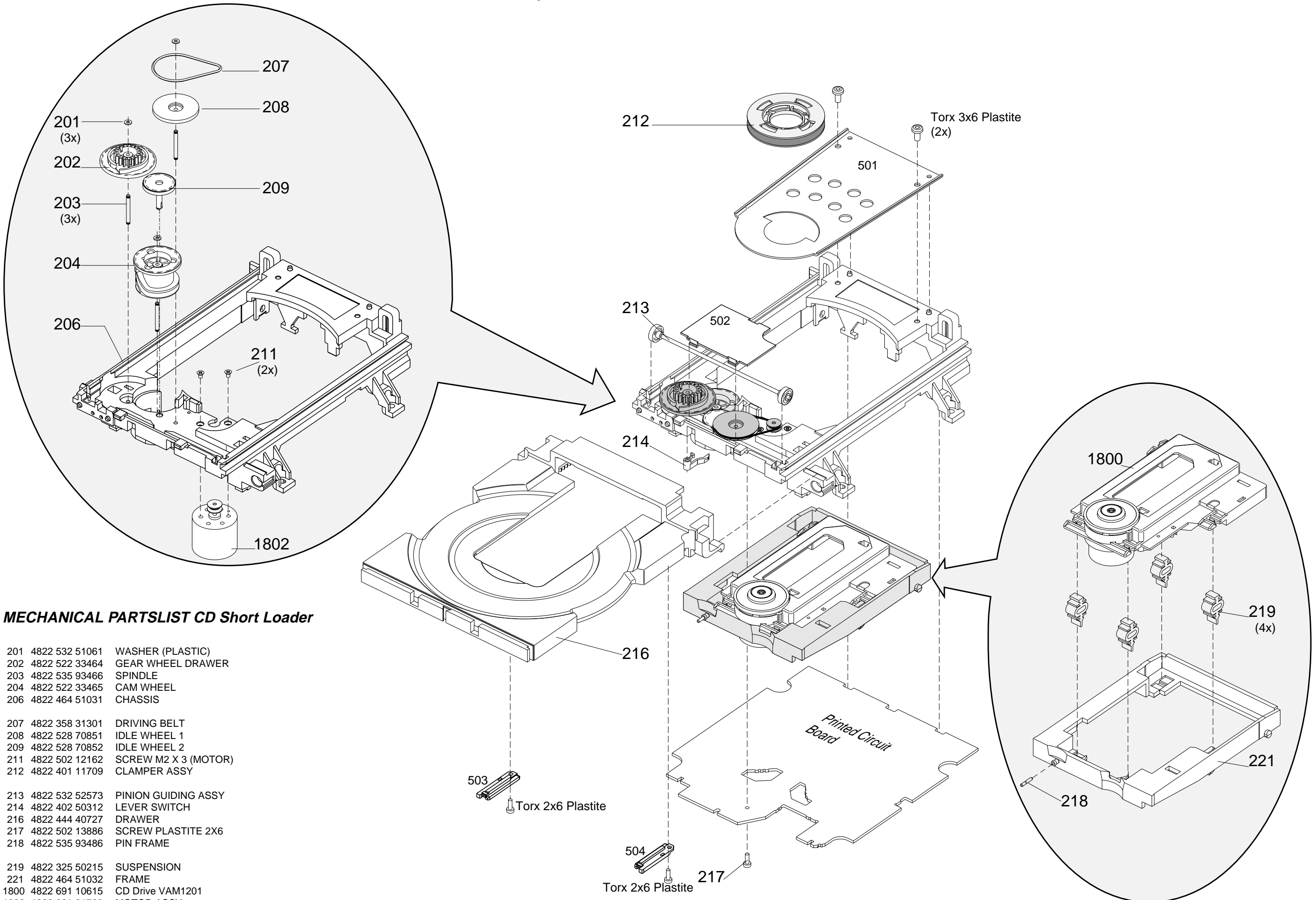
MECHANICAL PARTSLIST SET

0101	3139 117 87000	CABINET FRONT
0102	3139 117 87030	BUTTON SET PLAY STOP
0103	3139 114 66310	COVER DOOR CD
0104	3139 117 87020	WINDOW
0105	3139 114 66330	BUTTON POWER
0106	3139 117 87040	BUTTON OPEN/CLOSE
0107	3139 114 66380	KNOB, PHONES VOLUME
0108	3139 114 66370	BUTTON CD TEXT
0110	4822 454 11825	BADGE MARANTZ (BL)
0111	3139 114 66350	BUTTON SET PROGRAM
0112	3139 117 86940	BADGE COMPACT DISC
0113	4822 492 51374	SPRING
0122	4822 462 42129	FOOT GOLD F RONT
0123	4822 462 42129	FOOT GOLD F RONT
0124	4822 532 60948	BUSH. PLASTIC
5001	▲ 4822 146 11031	TRANSFORMER MAINS for /N
5001	▲ 3139 118 32070	TRANSFORMER MAINS for /T
5001	▲ 3139 118 32070	TRANSFORMER MAINS for /K
5001	▲ 4822 146 11032	TRANSFORMER MAINS for /F
5001	▲ 3139 118 32060	TRANSFORMER MAINS for /U
	3139 228 82600	REMOTE CONTROL RC07115/02
	3139 116 18900	USER GUIDE for /N,/T
	3139 116 19130	USER GUIDE for /K
	3139 116 19120	USER GUIDE for /F
	3139 116 19110	USER GUIDE for /U



** APPLICABLE FOR K VERSION ONLY

Exploded view CD Short Loader



MECHANICAL PARTSLIST CD Short Loader

201	4822 532 51061	WASHER (PLASTIC)
202	4822 522 33464	GEAR WHEEL DRAWER
203	4822 535 93466	SPINDLE
204	4822 522 33465	CAM WHEEL
206	4822 464 51031	CHASSIS
207	4822 358 31301	DRIVING BELT
208	4822 528 70851	IDLE WHEEL 1
209	4822 528 70852	IDLE WHEEL 2
211	4822 502 12162	SCREW M2 X 3 (MOTOR)
212	4822 401 11709	CLAMPER ASSY
213	4822 532 52573	PINION GUIDING ASSY
214	4822 402 50312	LEVER SWITCH
216	4822 444 40727	DRAWER
217	4822 502 13886	SCREW PLASTITE 2X6
218	4822 535 93486	PIN FRAME
219	4822 325 50215	SUSPENSION
221	4822 464 51032	FRAME
1800	4822 691 10615	CD Drive VAM1201
1802	4822 361 21708	MOTOR ASSY
	4822 502 30735	SCREW 3 X 6 PLASTITE

ELECTRICAL PARTSLIST CD BOARD**MISCELLANEOUS**

1720	4822 265 11183	CON. FLEX FOIL 4 PIN SIDE ENTRY
1800	4822 691 10615	CD DRIVE VAM1201
1801	4822 267 51453	CON. FLEX FOIL 12 PIN SIDE ENTRY
1810	4822 276 13503	TRAY SWITCH
8002	4822 320 12385	FLEX FOIL 4P 100mm (CD Text)

CAPACITORS

2720	4822 122 33197	1nF	10%	50V
2722	4822 126 12785	47nF	10%	50V
2761	4822 121 51387	10nF	20%	16V
2764	4822 122 33191	22pF	5%	50V
2765	4822 122 33191	22pF	5%	50V
2766	4822 122 33519	470pF	10%	50V
2767	4822 122 33191	22pF	5%	50V
2802	4822 126 12882	100nF	20%	50V
2809	4822 126 12785	47nF	10%	50V
2814	4822 126 12339	2,2nF	10%	16V
2818	4822 126 12882	100nF	20%	50V
2819	4822 126 12882	100nF	20%	50V
2820	4822 122 10459	560pF	10%	50V
2823	4822 126 12878	1,5nF	10%	16V
2825	4822 122 10466	220pF	10%	50V
2826	4822 122 10466	220pF	10%	50V
2827	4822 122 10466	220pF	10%	50V
2828	4822 122 10466	220pF	10%	50V
2829	4822 122 10466	220pF	10%	50V
2830	4822 122 10466	220pF	10%	50V
2831	4822 126 12785	47nF	10%	50V
2836	4822 126 13098	5,6nF	20%	16V
2837	4822 122 10459	560pF	10%	50V
2838	4822 126 12882	100nF	20%	50V
2839	4822 121 51387	10nF	20%	16V
2840	4822 122 10576	1,8nF	10%	16V
2842	4822 121 51387	10nF	20%	16V
2843	5322 124 41948	0,47 μ F	20%	50V
2844	4822 124 22726	4,7 μ F	20%	35V
2845	4822 122 33848	47pF	5%	50V
2847	4822 124 40433	47 μ F	20%	25V
2848	4822 121 51387	10nF	20%	16V
2849	4822 124 40433	47 μ F	20%	25V
2850	4822 124 22726	4,7 μ F	20%	35V
2851	4822 121 51387	10nF	20%	16V
2853	4822 126 12882	100nF	20%	50V
2856	4822 121 70619	22nF	10%	50V
2857	4822 126 11585	22nF	20%	50V
2858	4822 122 33848	47pF	5%	50V
2860	4822 124 22726	4,7 μ F	20%	35V
2861	4822 122 33191	22pF	5%	50V
2862	4822 122 33191	22pF	5%	50V
2863	4822 124 81286	47 μ F	20%	16V
2869	4822 126 12882	100nF	20%	50V
2870	4822 126 12785	47nF	10%	50V
2890	4822 122 33191	22pF	5%	50V
2898	4822 126 12882	100nF	20%	50V
2899	4822 124 22726	4,7 μ F	20%	35V

RESISTORS

3720	4822 116 83883	470 Ω	5%	0,16W
3721	4822 116 83883	470 Ω	5%	0,16W
3722	4822 116 83883	470 Ω	5%	0,16W
3723	4822 116 83883	470 Ω	5%	0,16W
3724	4822 116 83883	470 Ω	5%	0,16W
3725	4822 116 83883	470 Ω	5%	0,16W
3726	4822 116 83883	470 Ω	5%	0,16W
3727	4822 116 83883	470 Ω	5%	0,16W
3728	4822 050 21003	10k Ω	1%	0,6W
3729	4822 116 52195	47 Ω	5%	0,5W
3730	4822 116 52283	4,7k Ω	5%	0,5W
3751	4822 116 83872	220 Ω	5%	0,5W
3752	4822 116 83872	220 Ω	5%	0,5W
3753	4822 116 83872	220 Ω	5%	0,5W
3762	4822 116 83872	220 Ω	5%	0,5W
3763	4822 116 83872	220 Ω	5%	0,5W
3764	4822 116 83872	220 Ω	5%	0,5W
3771	4822 116 83883	470 Ω	5%	0,16W
3803	4822 050 21003	10k Ω	1%	0,6W
3804	4822 116 52257	22k Ω	5%	0,5W
3807	4822 116 52226	560 Ω	5%	0,5W
3815	4822 050 11002	1k Ω	5%	0,2W
3817	4822 116 52283	4,7k Ω	5%	0,5W
3818	4822 116 52239	120k Ω	5%	0,5W
3820	4822 050 11002	1k Ω	5%	0,2W
3825	4822 050 21003	10k Ω	1%	0,6W
3826	4822 050 21003	10k Ω	1%	0,6W
3827	4822 050 21003	10k Ω	1%	0,6W
3828	4822 050 21003	10k Ω	1%	0,6W
3829	4822 050 21003	10k Ω	1%	0,6W
3830	4822 050 21003	10k Ω	1%	0,6W
3832	4822 116 52191	33 Ω	5%	0,5W
3833	4822 050 11002	1k Ω	5%	0,2W
3835	4822 116 52264	27k Ω	5%	0,5W
3836	4822 116 52207	1,2k Ω	5%	0,5W
3837	4822 116 83961	6,8k Ω	5%	0,16W
3838	4822 116 52257	22k Ω	5%	0,5W
3839	4822 116 52207	1,2k Ω	5%	0,5W
3840	4822 116 83961	6,8k Ω	5%	0,16W
3841▲	4822 052 10338	3,3 Ω		NFR25
3842	4822 050 21003	10k Ω	1%	0,6W
3843	4822 116 83882	39k Ω	5%	0,5W
3844	4822 050 11002	1k Ω	5%	0,2W
3845	4822 116 83882	39k Ω	5%	0,5W
3846	4822 050 11002	1k Ω	5%	0,2W
3848	4822 050 11002	1k Ω	5%	0,2W
3849▲	4822 052 10338	3,3 Ω		NFR25
3850	4822 050 11002	1k Ω	5%	0,2W
3851	4822 116 52264	27k Ω	5%	0,5W
3852	4822 050 11002	1k Ω	5%	0,2W
3853	4822 116 83961	6,8k Ω	5%	0,16W
3854	4822 116 83878	270k Ω	5%	0,5W
3856	4822 116 52257	22k Ω	5%	0,5W
3857	4822 116 52234	100k Ω	5%	0,5W
3858	4822 116 52175	100 Ω	5%	0,5W
3859	4822 116 83872	220 Ω	5%	0,5W
3860	4822 116 52175	100 Ω	5%	0,5W
3861	4822 116 52175	100 Ω	5%	0,5W
3862	4822 116 83866	1M Ω	5%	0,5W

ELECTRICAL PARTSLIST CD BOARD**RESISTORS**

3863	4822 116 83872	220Ω	5%	0,5W
3864	4822 116 52175	100Ω	5%	0,5W
3865	4822 116 83872	220Ω	5%	0,5W
3866	4822 050 21003	10kΩ	1%	0,6W
3867	4822 050 21003	10kΩ	1%	0,6W
3868	4822 050 21003	10kΩ	1%	0,6W
3869	4822 050 21003	10kΩ	1%	0,6W
3870	4822 050 21003	10kΩ	1%	0,6W
3871	4822 116 52176	10Ω	5%	0,5W
3872	4822 116 52175	100Ω	5%	0,5W
3873	4822 050 21003	10kΩ	1%	0,6W
3874	4822 050 21003	10kΩ	1%	0,6W
3875	4822 116 52191	33Ω	5%	0,5W
3876	4822 116 52213	180Ω	5%	0,5W
3879	4822 116 52226	560Ω	5%	0,5W
3881	4822 116 52283	4,7kΩ	5%	0,5W
3882	4822 116 52283	4,7kΩ	5%	0,5W
3883	4822 116 52175	100Ω	5%	0,5W
3890	4822 050 11002	1kΩ	5%	0,2W
3891	4822 050 11002	1kΩ	5%	0,2W
3892	4822 050 23303	33kΩ	1%	0,6W
3893	4822 116 52249	1,8kΩ	5%	0,16W
3894	4822 116 52176	10Ω	5%	0,5W
3895	4822 050 23303	33kΩ	1%	0,6W
3896	4822 116 52219	330Ω	5%	0,5W
3897	4822 116 83883	470Ω	5%	0,5W

COILS

5804	4822 157 53302	1μH
5810	4822 157 11517	10μH
5860	4822 242 10566	CRYSTAL 8.4672MHz

DIODES

6888	4822 130 80655	BZX79-F2V4
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TRANSISTORS

7822	4822 130 41344	BC337-40
7877	4822 130 40959	BC547B
7878	4822 130 44503	BC547C

INTEGRATED CIRCUITS

7802©	4822 209 12636	TDA1302T/N1	HF PRE AMPLIFIER
7819©	5322 209 11517	PC74HCU04T	HF AMPLIFIER
7821	4822 209 16143	LC89170M	CD TEXT
7851	4822 209 32852	TDA7073A/N2	SERVO DRIVER
7852	4822 209 32852	TDA7073A/N2	MOTOR DRIVER
7855©	4822 209 31519	TDA7072A	TRAY MOTOR DRIVER
7860©	4822 209 12752	SAA7378GP	SIGNAL PROCESSOR

ELECTRICAL PARTSLIST HEADPHONE BOARD**MISCELLANEOUS**

1600	4822 267 31453	HEADPHONE SOCKET 6,3mm
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CAPACITORS

2603	4822 126 11585	22nF	20%	50V
2604	4822 122 33197	1nF	10%	50V
2605	4822 122 33197	1nF	10%	50V
2610	4822 126 12882	100nF	20%	50V

RESISTORS

3600	4822 101 21199	POTMETER 2x10Kw		
3603	4822 116 52244	15kΩ	5%	0,5W
3604	4822 116 52206	120Ω	5%	0,5W
3605	4822 050 21003	10kΩ	1%	0,6W
3606	4822 050 21003	10kΩ	1%	0,6W
3607	4822 116 52244	15kΩ	5%	0,5W
3608	4822 116 52206	120Ω	5%	0,5W
3609▲	4822 052 10109	10Ω	5%	NFR
3611▲	4822 052 10109	10Ω	5%	NFR

INTEGRATED CIRCUITS

7670	4822 209 83274	NJM4560D
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ELECTRICAL PARTSLIST SET**MISCELLANEOUS**

5001▲	4822 146 11031	TRANSFORMER MAINS for /N
5001▲	3139 118 32070	TRANSFORMER MAINS for /T
5001▲	4822 146 11032	TRANSFORMER MAINS for /K
5001▲	3139 118 32060	TRANSFORMER MAINS for /F
5001▲	3139 118 32050	TRANSFORMER MAINS for /U
	3139 228 82600	RC07115/02 (Remote Control)

ELECTRICAL PARTSLIST AF BOARD**MISCELLANEOUS**

1255	▲	4822 071 56301	FUSE T 630mA/250V
1256	▲	4822 071 56301	FUSE T 630mA/250V
1503		4822 267 31729	CINCH SOCKET DIGITAL OUT
1504		4822 265 20553	CINCH SOCKET LINE OUT
1505		4822 130 10845	GP1F32T TOSLINK

CAPACITORS

2250		4822 124 41407	0,47μF	20%	63V
2251		4822 124 11769	220μF	20%	50V
2252		4822 126 11585	22nF	20%	50V
2253		4822 126 11585	22nF	20%	50V
2254		4822 124 11878	4700μF	20%	16V
2255		4822 126 12882	100nF	20%	50V
2256		4822 126 11585	22nF	20%	50V
2257		4822 126 11585	22nF	20%	50V
2258		4822 124 40784	3300μF	20%	16V
2259		4822 124 80144	220μF	20%	25V
2500		4822 126 11585	22nF	20%	50V
2501		4822 124 40433	47μF	20%	25V
2502		4822 124 40433	47μF	20%	25V
2503		4822 121 51387	10nF	20%	16V
2504		4822 121 51387	10nF	20%	16V
2505		4822 122 33519	470pF	10%	50V
2506		4822 122 33519	470pF	10%	50V
2507		2020 012 93432	47μF	20%	25V
2508		2020 012 93432	47μF	20%	25V
2511		2020 012 93432	47μF	20%	25V
2512		2020 012 93432	47μF	20%	25V
2513		4822 122 33519	470pF	10%	50V
2514		4822 122 33519	470pF	10%	50V
2515		4822 124 40433	47μF	20%	25V
2516		4822 121 51387	10nF	20%	16V
2521		2020 012 93679	220μF	20%	25V
2522		2020 012 93679	220μF	20%	25V
2523		4822 121 51387	10nF	20%	16V
2524		4822 124 40433	47μF	20%	25V
2527		4822 124 40433	47μF	20%	25V
2540		4822 124 81151	22μF	20%	50V
2541		4822 124 21913	1μF	20%	63V
2543		4822 126 12882	100nF	20%	50V
2544		4822 126 11585	22nF	20%	50V

RESISTORS

3251	▲	4822 053 10471	470Ω	5%	1W
3252	▲	4822 053 10471	470Ω	5%	1W
3253		4822 116 52257	22kΩ	5%	0,5W
3254		4822 116 52283	4,7kΩ	5%	0,5W
3255		4822 116 52256	2,2kΩ	5%	0,16W
3256		4822 050 11002	1kΩ	5%	0,2W
3257	▲	4822 116 52283	4,7kΩ	5%	0,5W
3258		4822 116 52283	4,7kΩ	5%	0,5W
3260	▲	4822 052 10568	5,6Ω	5%	0,33W
3500		4822 116 52289	5,6kΩ	5%	0,16W
3501		4822 050 21003	10kΩ	1%	0,6W
3502		4822 116 52175	100Ω	5%	0,5W
3503		4822 116 52175	100Ω	5%	0,5W
3504		4822 116 52175	100Ω	5%	0,5W
3505		4822 116 52175	100Ω	5%	0,5W
3506		4822 116 52175	100Ω	5%	0,5W
3507		4822 116 52283	4,7kΩ	5%	0,5W
3508		4822 116 52283	4,7kΩ	5%	0,5W

RESISTORS

3509		4822 116 52283	4,7kΩ	5%	0,5W
3510		4822 116 52283	4,7kΩ	5%	0,5W
3511		4822 116 52263	2,7kΩ	5%	0,5W
3512		4822 116 52263	2,7kΩ	5%	0,5W
3513		4822 116 83884	47kΩ	5%	0,16W
3514		4822 116 83884	47kΩ	5%	0,16W
3515		4822 116 52175	100Ω	5%	0,5W
3527		4822 116 52256	2,2kΩ	5%	0,16W
3532		4822 116 83874	220kΩ	5%	0,5W
3533		4822 116 52191	33Ω	5%	0,5W
3534		4822 050 21003	10kΩ	1%	0,6W
3535		4822 116 52289	5,6kΩ	5%	0,16W
3537		4822 116 83872	220Ω	5%	0,5W
3538		4822 116 83872	220Ω	5%	0,5W
3539		4822 050 11002	1kΩ	5%	0,2W
3540		4822 050 11002	1kΩ	5%	0,2W
3541		4822 050 11002	1kΩ	5%	0,2W
3542		4822 050 11002	1kΩ	5%	0,2W
3543		4822 050 11002	1kΩ	5%	0,2W
3544		4822 050 11002	1kΩ	5%	0,2W
3545		4822 050 11002	1kΩ	5%	0,2W
3547		4822 050 11002	1kΩ	5%	0,2W
3548		4822 116 52256	2,2kΩ	5%	0,16W
3550		4822 116 52256	2,2kΩ	5%	0,16W
3552		4822 116 52256	2,2kΩ	5%	0,16W
3553		4822 116 52257	22kΩ	5%	0,5W
3556		4822 116 52119	68Ω	5%	0,5W
3557	▲	4822 052 10688	6,8Ω	5%	0,33W

COIL

5801		4822 156 31058	100μH
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DIODES

6250		4822 130 34379	BZX79-C27
6251		4822 130 34174	BZX79-B4V7
6252		4822 130 31878	1N4003G
6253		4822 130 31878	1N4003G
6254		4822 130 31878	1N4003G
6255		4822 130 31878	1N4003G
6256		4822 130 31878	1N4003G
6257		4822 130 31878	1N4003G
6258		4822 130 31878	1N4003G
6259		4822 130 31981	BZX79-C3V9
6260		4822 130 31878	1N4003G
6500		4822 130 30621	1N4148

TRANSISTORS

7250		4822 130 41327	BC327-40
7252		5322 130 60068	BC558C
7500		4822 130 41327	BC327-40
7501		5322 130 60068	BC558C
7504		4822 130 44568	BC557B
7507		4822 130 41344	BC337-40
7508		4822 130 41344	BC337-40
7509		4822 130 41344	BC337-40
7510		4822 130 41344	BC337-40

INTEGRATED CIRCUITS

7251	▲	4822 209 80817	L7805CV	5V REGULATOR
7502		4822 209 33252	TDA1549T/N1	DAC
7505		4822 209 83274	NJM4560D	DUAL OP. AMP
7511		5322 209 11323	74HCU04N	

ELECTRICAL PARTSLIST FRONT BOARD**MISCELLANEOUS**

1800	3139 110 51980	DISPLAY
1810	4822 265 11183	CON. FLEX FOIL 4PIN SIDE ENTRY
1820	4822 276 13114	TACT SWITCH
1821	4822 276 13114	TACT SWITCH
1822	4822 276 13114	TACT SWITCH
1823	4822 276 13114	TACT SWITCH
1824	4822 276 13114	TACT SWITCH
1825	4822 276 13114	TACT SWITCH
1826	4822 276 13114	TACT SWITCH
1827	4822 276 13114	TACT SWITCH
1828	4822 276 13114	TACT SWITCH
1829	4822 276 13114	TACT SWITCH
1830	4822 276 13114	TACT SWITCH
1831	4822 276 13114	TACT SWITCH
1832	4822 276 13114	TACT SWITCH
1833	4822 276 13114	TACT SWITCH
1834	4822 276 13114	TACT SWITCH
1840	4822 276 13114	TACT SWITCH
7810	4822 130 10165	GP1U28XP, IR EYE
8002	4822 320 12385	FLEX FOIL 4P 100mm (CD Text)

CAPACITORS

2800	4822 124 22726	4,7 μ F	20%	35V
2801	4822 124 22726	4,7 μ F	20%	35V
2803	4822 126 11585	22nF	20%	50V
2807	4822 124 40207	100 μ F	20%	25V
2808	4822 126 11585	22nF	20%	50V
2810	4822 121 51387	10nF	20%	16V
2811	4822 121 51387	10nF	20%	16V
2812	4822 126 12882	100nF	20%	50V
2813	4822 126 12882	100nF	20%	50V
2814	4822 124 40433	47 μ F	20%	25V
2815	4822 121 42408	220nF	5%	63V

RESISTORS

3804	4822 050 11002	1k Ω	5%	0,2W
3805	4822 050 11002	1k Ω	5%	0,2W
3806	4822 050 11002	1k Ω	5%	0,2W
3807	4822 050 11002	1k Ω	5%	0,2W
3808	4822 116 52195	47 Ω	5%	0,5W
3809	4822 116 52234	100k Ω	5%	0,5W
3810	4822 050 11002	1k Ω	5%	0,2W
3811	4822 050 11002	1k Ω	5%	0,2W
3812	4822 050 11002	1k Ω	5%	0,2W
3813	4822 050 11002	1k Ω	5%	0,2W
3814	4822 050 11002	1k Ω	5%	0,2W
3815	4822 050 11002	1k Ω	5%	0,2W
3816	4822 050 11002	1k Ω	5%	0,2W
3817	4822 116 52257	22k Ω	5%	0,5W
3818	4822 116 52257	22k Ω	5%	0,5W
3819	4822 116 52257	22k Ω	5%	0,5W
3820	4822 116 52257	22k Ω	5%	0,5W
3821	4822 050 11002	1k Ω	5%	0,2W
3822	4822 050 11002	1k Ω	5%	0,2W
3823	4822 050 11002	1k Ω	5%	0,2W

RESISTORS

3829	4822 116 52257	22k Ω	5%	0,5W
3830	4822 116 52257	22k Ω	5%	0,5W
3832	4822 050 11002	1k Ω	5%	0,2W
3833	4822 050 11002	1k Ω	5%	0,2W
3834	4822 050 11002	1k Ω	5%	0,2W
3835	4822 050 11002	1k Ω	5%	0,2W
3836	4822 116 52257	22k Ω	5%	0,5W
3837	4822 116 83884	47k Ω	5%	0,16W
3838	4822 050 11002	1k Ω	5%	0,2W
3841	4822 050 11002	1k Ω	5%	0,2W
3842	4822 050 11002	1k Ω	5%	0,2W
3844	4822 050 11002	1k Ω	5%	0,2W
3845	4822 050 11002	1k Ω	5%	0,2W
3846	4822 050 11002	1k Ω	5%	0,2W
3847	4822 116 52175	100 Ω	5%	0,5W
3848	4822 116 52176	10 Ω	5%	0,5W
3849	4822 050 24708	4,7 Ω	1%	0,6W

COILS

1844	4822 242 72066	CERAMIC FILTER 8,0MHz
5802	4822 156 21721	2,2 μ H

DIODES

6801	4822 130 30621	1N4148
6802	4822 130 30621	1N4148
6820	4822 130 31878	1N4003G

TRANSISTORS

7811	4822 130 40959	BC547B
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INTEGRATED CIRCUITS

7800 ©	4822 209 16739	TMP87CP71-83780 MICROPROCESSOR
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