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Portable compact disc player AZ6811/00/01/05/10/17

Service
Service
Service

AZ6812/17
AZ6813/00/01/05/17

Service Manual

COMPACT disc DIGITAL AUDIO

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(S)
Varning!
Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betakta ej strålen.

(DK)
Advarsel!
Usynlig laserstråling ved abning når sikkerhedsafbrydere er une af funktion. Undgå udsaettelse for stråling.

(SF)
Varoitus!
Laite sisältaa laserdiodin, joka lähettää näkymätöntä silmille vaarallista lasersäteilyä.

CLASS 1
LASER PRODUCT
3122 110 03420

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

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SPECIFICATION

GENERAL:

AC/DC-ADAPTOR

Type	:	SBC 6608
Mains	:	220 V / 50 Hz 120 V / 60 Hz for /17
DC out	:	6,3 V stabilized / 400 mA max.
Power Consumption	:	8 W max.

BATTERY

Type	:	4 x R6 (6 V nom.)
Lifetime	:	6,5 hours at stationary mode
Power Consumption	:	1,5 W max. (500 µW in stand by)

ACCU-PACKAGE

Type	:	SBC 6411
Input voltage	:	6 - 7 V DC stabilized
Charging current	:	200 mA
Charging time	:	6 hours
Accu-output	:	4 V / 0,6 Ah

HEADPHONE

Type	:	SBC 3124
Frequency response	:	20 - 20.000 Hz
Impedance	:	32 Ohms at 1kHz
Maximum power input	:	20mW

CD-PART:

Frequency response	:	20 - 20.000 Hz ± 4 dB
S/N ratio	:	80 dB min.
THD	:	0,2 % max. at 1 kHz
Output power	:	2 x 20 mW max. into 32 Ohms
Line output level	:	0,6 V_{rms} typ.
Channel difference	:	2 dB max.
Channel crosstalk	:	-50 dB min. at 1 kHz
Deemphasis	:	0 or 15/50 µs switched automat. by subcode on the disc
DAC	:	Dual 16 bit, 4 f_s

LASER:

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

(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

(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.

(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 enfiler le bracelet serti 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).
Unsorgfähltige Behandlung im Reparaturfall kan die Lebensdauer drastisch reduzieren.
Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.
Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

(I) **AVVERTIMENTO**

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione 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)
Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

(NL)
Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

(F)
Les normes de sécurité exigent que l'appareil soit remis à l'etat d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

(D)
Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht veränderd werden für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)
Le norme di sicurezza esigono che l'appareccio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambiago identici a quelli specificati.

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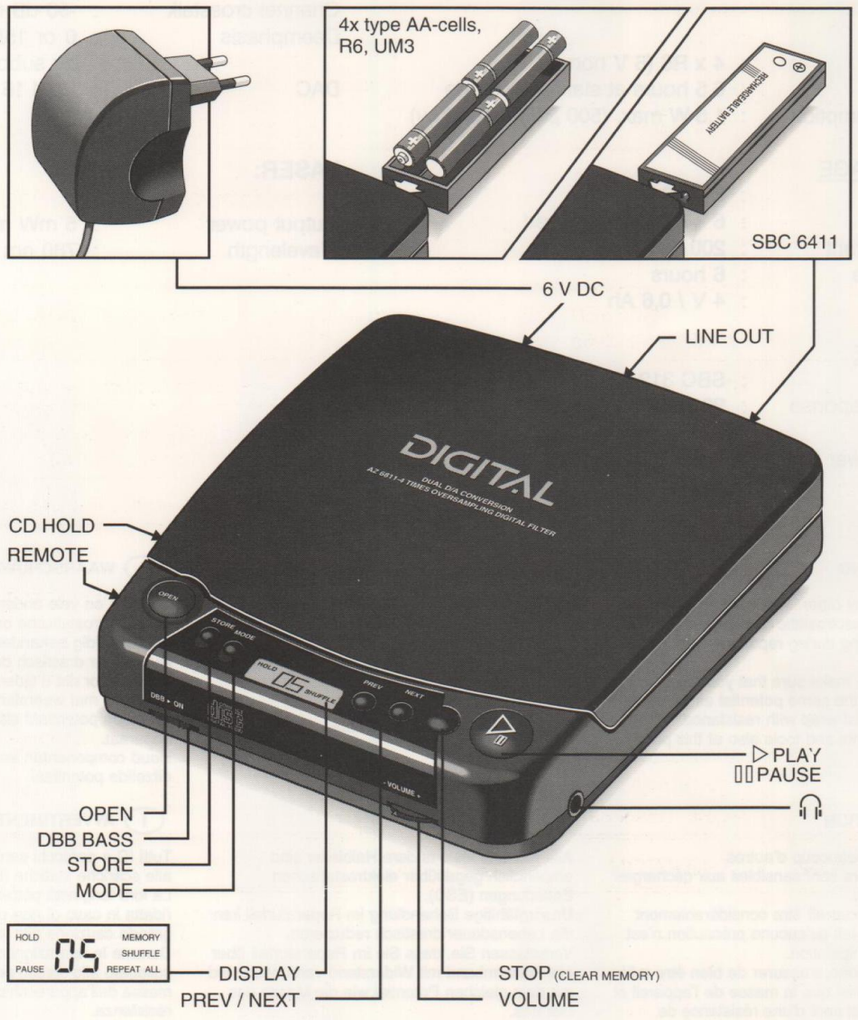

KEY-FUNCTIONS, POWER ON / OFF, SHUT OFF FUNCTIONS, CONNECTIONS

KEY-FUNCTION	CONDITION	ACTION
PLAY	POWER OFF	Starts playing the first track
	POWER ON / STOP	Starts playing the first or the preselected title or the first programmed title or the first randomized title
	POWER ON / PLAY	Toggles between PLAY/PAUSE
STOP	PLAY	Set goes into STOP-mode
	STOP	Clears the program, "C" is shown for 500ms in the display
NEXT	STOP	Selects the next track which is shown in the display
	PLAY	Skips forward to next track
	PLAY / MEMORY	Skips to the next programmed title
	PLAY / SHUFFLE	Skips to the next shuffled title
	KEY DEPRESSED FOR MORE THAN 0.5s	Fast forward till the key is released, high speed after 6s
PREV	STOP	Selects the previous track which is shown in the display
	PLAY	If more than 2s of the current title are played the set plays this title again, else it skips back to the previous track
	PLAY / MEMORY	Skips to the previous programmed title if less than 2s
	PLAY / SHUFFLE	Plays this title again
	KEY DEPRESSED FOR MORE THAN 0.5s	Fast backward till the key is released, high speed after 6s
MODE	POWER ON	Scrolls the functions SHUFFLE, SHUFFLE REPEAT ALL, REPEAT ALL, REPEAT
STORE	POWER ON	Stores the selected title and shows "P" for 500ms in the display
	KEY DEPRESSED FOR MORE THAN 3s	Shows all programmed titles blinking in the display (DISPLAY MEMORY)
CD-FUNCTION	**CONDITION**	**ACTION**
CLOSE DOOR	POWER OFF	Power on - Start up - Read TOC - Stop - Show max. title
OPEN DOOR	POWER ON / OFF	Power off - Clear display - Clear TOC - Clear program
HOLD	POWER ON	All keys are ignored, HOLD flag is shown on the display.
	POWER OFF	It's not possible to switch on the set with the PLAY button to prevent unintentional power consumption.
SHUT OFF	STOP	The set shuts off after approx. 30s since the last physical action. If a program is stored the shut off time is 3min.
	AC/DC ADAPTOR CONNECTED & STOP	The set goes after 30s into STANDBY (display off, LF-part off, servo part off). The set can be "waked up" using the remote control.
CONNECTION		
6 V DC	Socket for the mains adaptor / battery charger SBC 6608	
PHONES	Headphone output	
LINE OUT	Linear output for hifi-systems	
REMOTE	Socket for the optional IR remote control SBC 6209 or the wired remote control SBC 6211	

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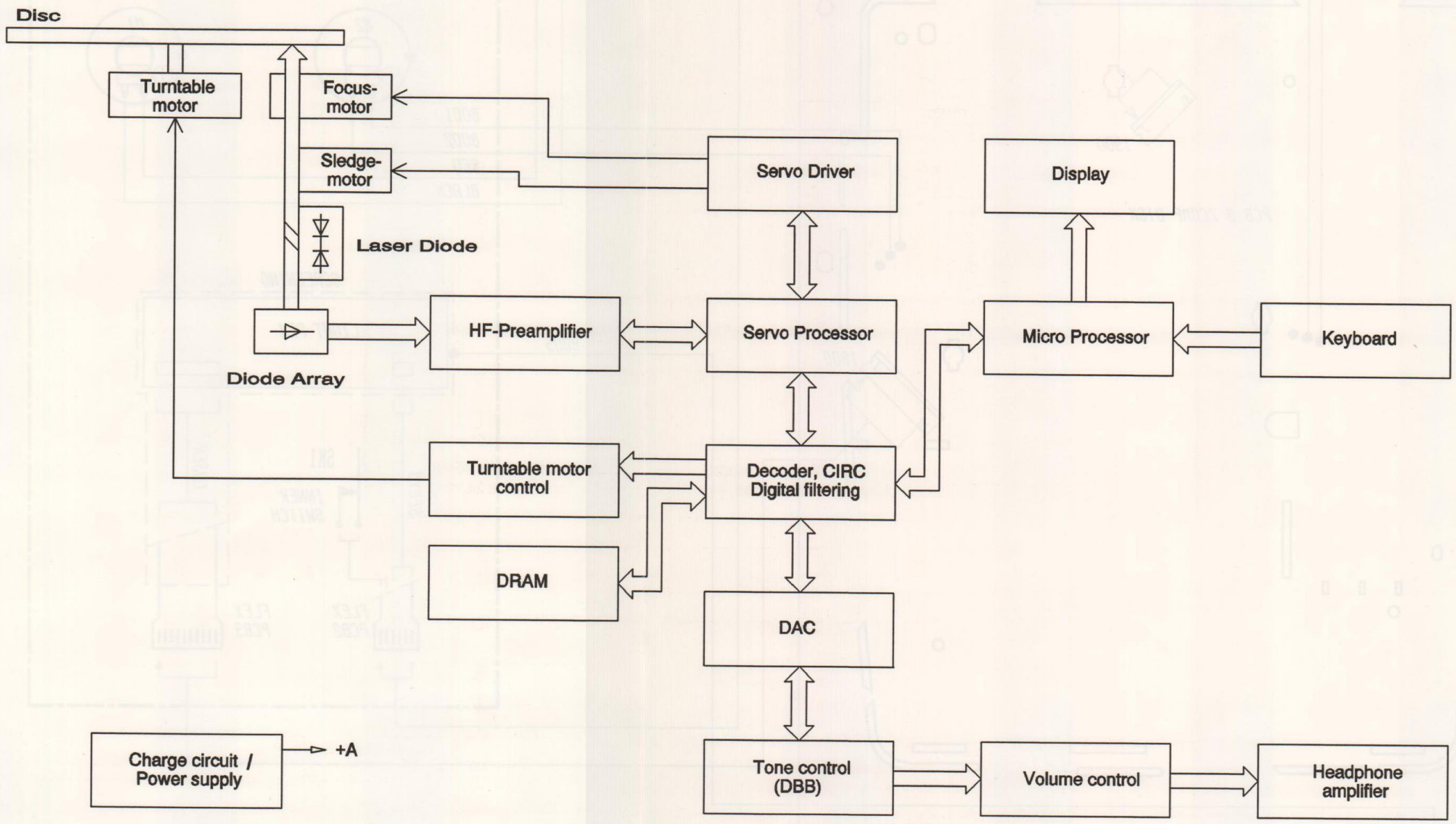
BLOCKDIAGRAM



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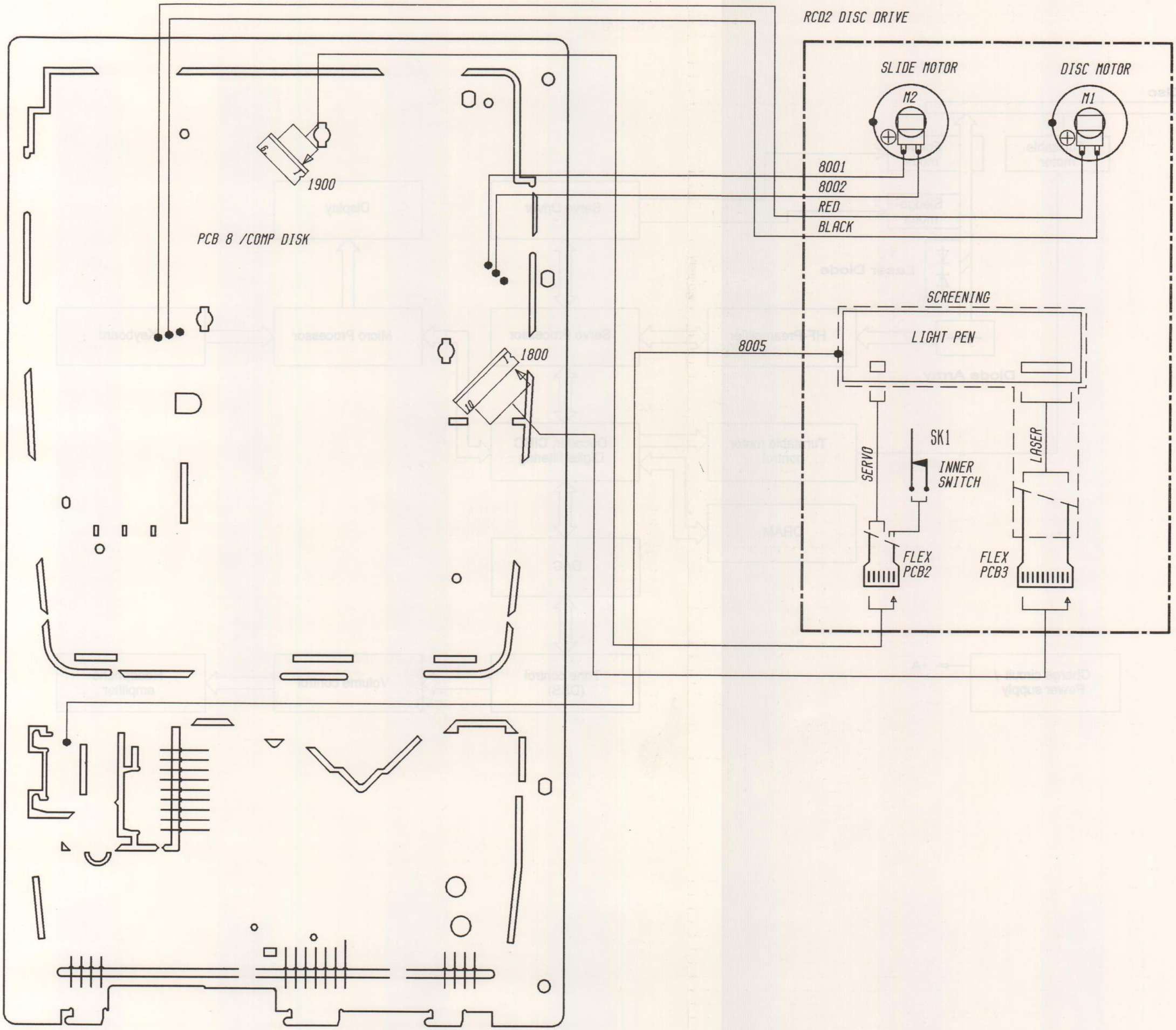
WIRING DIAGRAM



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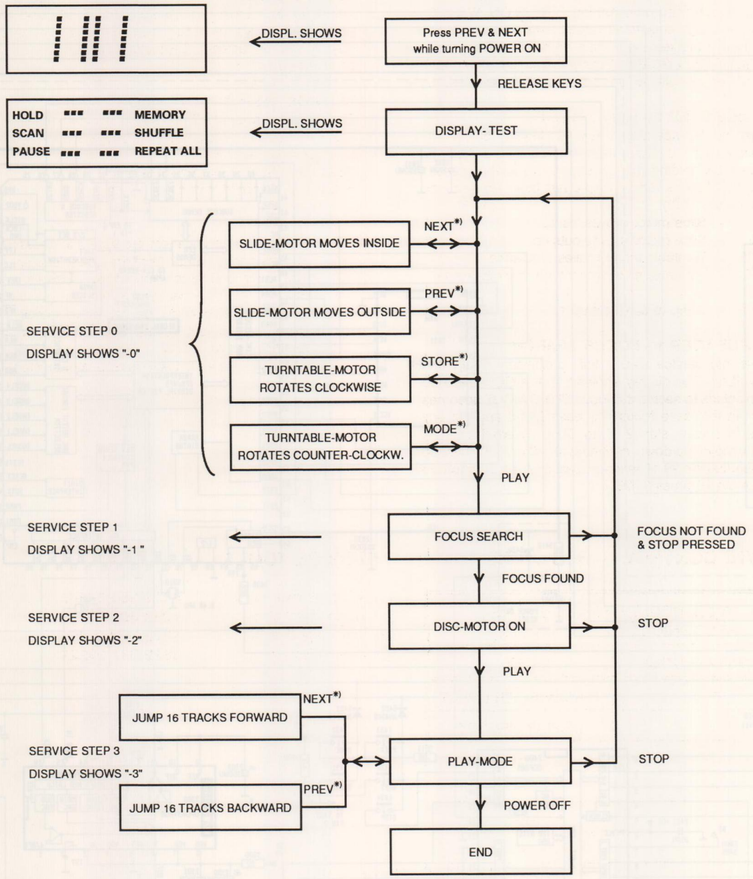
ABBREVIATIONS

A - F	:	Photodiode array outputs
ACLR*	:	µCOM interface register clear input
ACLR*	:	All clear input
ACRCY	:	Clock accuracy input
AOL	:	Analog output left channel
AOR	:	Analog output right channel
APTL	:	DAC sampling clock left channel
APTR	:	DAC sampling clock right channel
BCK	:	Bit clock input
BIAS	:	Outputs reference voltage (VCC/2 at single supply voltage)
C FSR	:	Connects the external capacitance for time constant of focus search
C16MI	:	1/2 divider input with internal feedback resistor
C423	:	Clock output 4,2336MHz
C846	:	Clock output 8,4672MHz
C8MO	:	1/2 divider output
CAS*	:	Column addr. strobe signal output to RAM
COM	:	Common
CRCF	:	Subcode Q CRC check flag output
DASEL1-4	:	Selection of DAC interface format
DATA OUT	:	Inner condition output changed by command modes
DLRCK	:	Left/right channel clock
DM1 / DM2	:	Turntable motor driving outputs
DO1	:	Dual DAC right channel serial data output
DO2	:	Dual DAC left channel serial data output
DOBSEL	:	Data bit select (18 bit = "H")
DOFK	:	Frame clock output 7,35kHz (duty = 50%)
DOTX	:	Output of digital interface
DRD	:	Disc rotation down signal output
DSCK	:	Data shift clock to DAC
EFFK	:	EFM frame clock output (duty = 50%)
EFM	:	Eight to fourteen modulation
EMP	:	Emphasis flag output (Emphasis = "H")
EST1	:	Error status1 (Error detected at C1-decoder)
EST2	:	Error status2 (Error to be interpolated detected at C2-decoder)
FG	:	Focus gain switch output
FS OUT	:	Focus servo amplifier output
FS+ / FS-	:	Focus servo amplifier positive / negative input
FSCK	:	Clock output 44,1kHz (f_s)
FSR IN	:	Focus search detector input
GND	:	Ground 0V
HF	:	High frequency signal input
HF OK	:	HF OK signal input
HFD*	:	High frequency signal detection
HFD*	:	Outputs "H", when MR = "H" and tracking servo loop cuts off
HOUT 2A/2B	:	Sledge motor driving PWM outputs
HOUT 3A/3B	:	Track servo driving PWM outputs
HOUT 4A/4B	:	Focus servo driving PWM outputs
IREF	:	Current reference
JMP	:	Outputs "H" under jump function
JP1*, JPI*	:	1 track jump control signal input (usually "H")
LOCK/DRD	:	Lock status / Disc rotation down signal output
LPF	:	PLL loop filter
LRCK	:	Left/right channel clock to DAC or APTR clock
MCK	:	µCOM interface shift clock input
MLA*	:	µCOM interface data latch clock input
MR	:	Mirror detected signal input
MSD	:	µCOM interface serial data input
NC	:	No conection
PWM1-2	:	Turntable motor driving PWM outputs
RAD0-7	:	Address output 0-7 to RAM
RAS*	:	Row address strobe signal output to RAM
RDB1-4	:	Data input/output 1-4 to RAM
SBCP	:	Subcode P channel output, P - W channel serial data output
SBCQ	:	Subcode Q channel output
SBCR	:	Subcode R channel output
SBCS	:	Subcode S channel output
SBCT	:	Subcode T channel output
SBCU	:	Subcode U channel output
SBCV	:	Subcode V channel output
SBCW	:	Subcode W channel output
SCCK	:	Shift clock input for serial subcode data output
SCINT	:	Interrupt output of subcode Q
SCOE1	:	Enable input of subcode T-W channel output
SCOE2	:	Enable input of subcode P-S channel output
SCOR	:	Subcode sync. output
SHOCK	:	Shock detector signal input
SQRCK	:	Subcode Q register
SQRO	:	Subcode Q register output
SS OUT	:	Sledge servo amplifier output
SS+ / SS-	:	Sledge servo amplifier positive / negative input
SYCLK	:	Frame lock status output (Lock = "H")
TB	:	Tracking balance input
TC IN	:	Track cross signal input
TE IN	:	Track error signal input
TE OUT	:	Track error amplifier output
TE-	:	Track error amplifier negative input
TEST1	:	Test control input
TG1 / TG2	:	Tracking gain switch 1/2 output
TLC	:	Output from slice level control
TRHLD	:	Direct control pin of TS1 switch
TS OUT	:	Track servo amplifier output
TS+ / TS-	:	Track servo amplifier positive / negative input
VCC	:	Positive supply voltage
VDD	:	positive power supply
VEE	:	Negative supply voltage
VREF	:	Reference voltage
VSS	:	Ground 0V
WDCK	:	Word clock to DAC or APTL clock
WE*	:	Write enable output to RAM
WS	:	Word select input
XI	:	Crystal oscillator input with internal feedback resistor
XO	:	Crystal oscillator output

*** LOG. "0" ACTIVE !**

SERVICE TEST PROGRAM



SERVICE TEST PROGRAM

1. PRELIMINARY SETUP

To get into the service test program hold the keys PREV & NEXT depressed while turning POWER ON. When the service mode is entered all vertical segments are shown till the keys are released. Then all horizontal segments and flags (HOLD, SCAN, ...) are activated (see flow chart). Also all supply voltages are on, NF-mute is switched off.

2. SERVICE STEP 0 - MOTORTEST

To get into service step 0 fulfil preliminary setup. The movement of the slide- resp. turntable-motor can be checked by holding the corresponding key depressed (After the 1st press service step 0 has been entered - the display shows "-0"):

NEXT - Slide motor moves inside
PREV - Slide motor moves outside
STORE - Turntable motor rotates clockwise
MODE - Turntable motor rotates counter-clockwise

PLAY - Jump to service step 1

3. SERVICE STEP 1 - FOCUS SEARCH

To get into service step 1 fulfil preliminary setup and press PLAY. The display shows "-1". If a CD is inserted the unit starts to search the focus till DATA OUT becomes "high". In that case focus has been found and the unit jumps to service step 2. If no CD is inserted the lens should move up/down continuously. Signal 11 can be measured at pin 29 of servo-processor 7840. To return to service step 0 press STOP.

4. SERVICE STEP 2 - TURNTABLE MOTOR ON

Service step 2 can only be entered if a focus has been found. In that case the display shows "-2" and the turntable-motor starts rotation. With the PLAY key service step 3 can be entered, pressing STOP will return to service step 0.

5. SERVICE STEP 3 - PLAY MODE

The display shows "-3". The tracking is switched on and MUTE is released. Hold the following keys depressed and check their correct function:

NEXT - Jump 16 tracks forward
PREV - Jump 16 tracks backward

NOTE:
- To leave the service test program it is necessary to disconnect the unit from the power supply.
- The door switch is ignored by software and therefore the door can be opened during the test procedure. This might be helpful to check the correct movement of the track-servo and the turntable-motor.
  Attention: The laser beam is also kept emitting !!

REMOTE CONTROL - RC5 CODE

SYSTEMCODES 20 AND 21 ARE RECOGNICED (CD AND COMBI)	
COMMAND CODE	**KEY**
0...9	TRACKNUMBER DIRECT
11	DISPLAY MEMORY
28	SHUFFLE
29	REPEAT
32	NEXT
33	PREVIOUS
41	PROGRAM
48	PAUSE
50	REVIEW
52	CUE
53	PLAY
54	STOP
58	CLEAR PROGRAM

SERVICE TOOLS

- TORX screwdriver set	**4822 395 50145**
- Audio signal disc	**4822 397 30184**
- Test discs 5 & 5A	**4822 397 30096**
- 3" test disc	**4822 397 30229**

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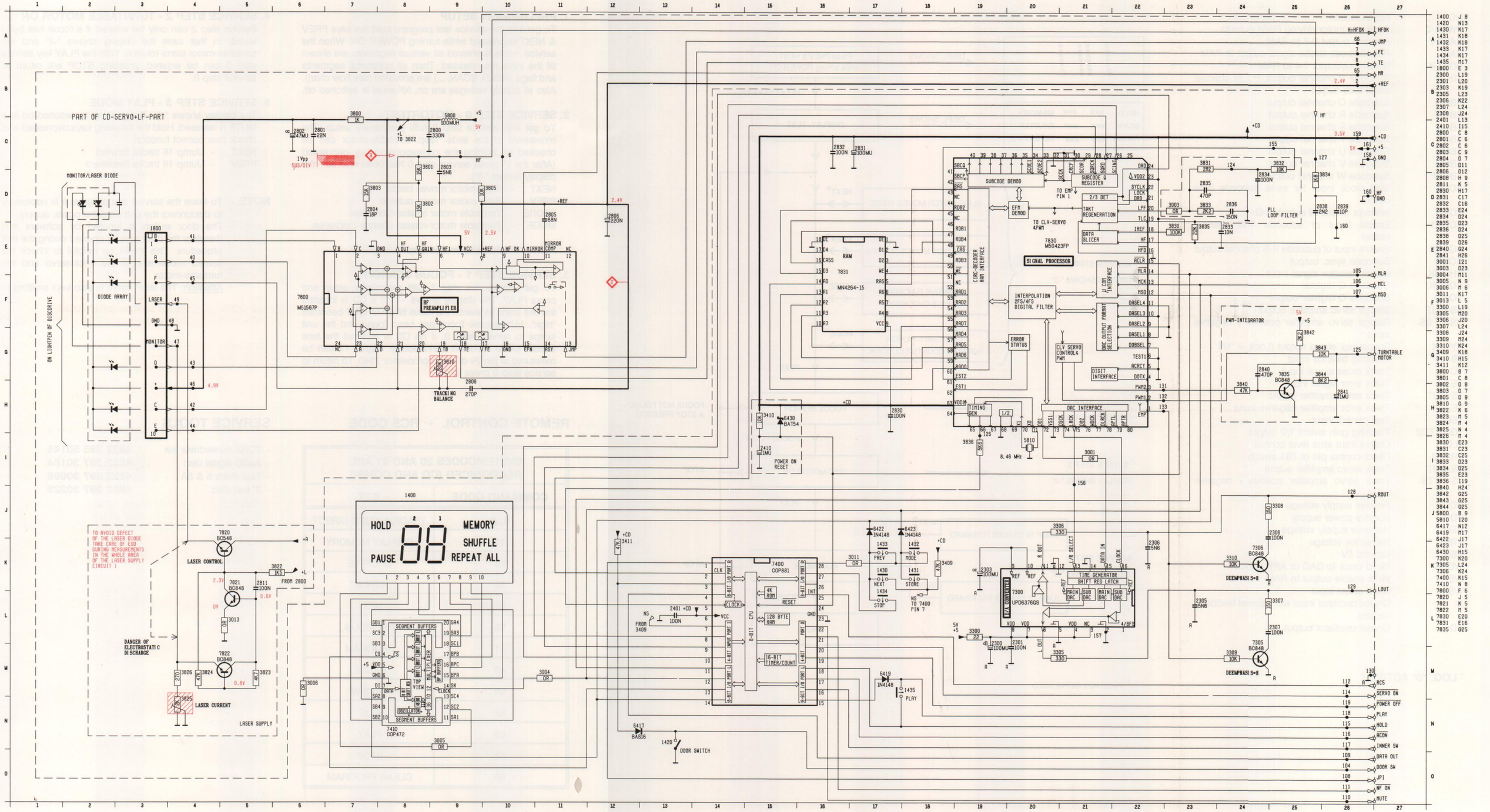
CD DIGITAL SIGNAL & CONTROL PART



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PRINTED CIRCUIT BOARD

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ADJUSTMENT TABLE

CD-PART					
LASER CURRENT					
Play with Test-Disc 5A		9 2	3825		Adjust to 850mVpp
TRACKING OFFSET					
STOP		5 2	Check only	±15mV DC	
TRACKING BALANCE					
Service step 1 Display shows "-1"		8 2	3810		Adjust to 0V DC
FOCUS GAIN					
Play with Test-Disc 5A	1300 Hz 2 Vrms	see Fig. 1	3880		CHX = 0,5 V/DIV CHY = 5 mV/DIV Adjust according to FIG.3
TRACKING GAIN					
Play with Test-Disc 5A	1250 Hz 2 Vrms	see Fig. 2	3860		CHX = 0,2 V/DIV CHY = 50 mV/DIV Adjust according to FIG.3

FIG. 1

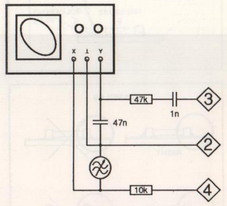


FIG. 2

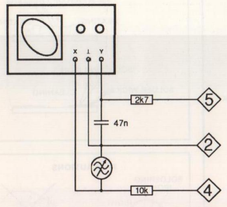
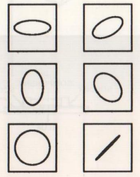


FIG. 3



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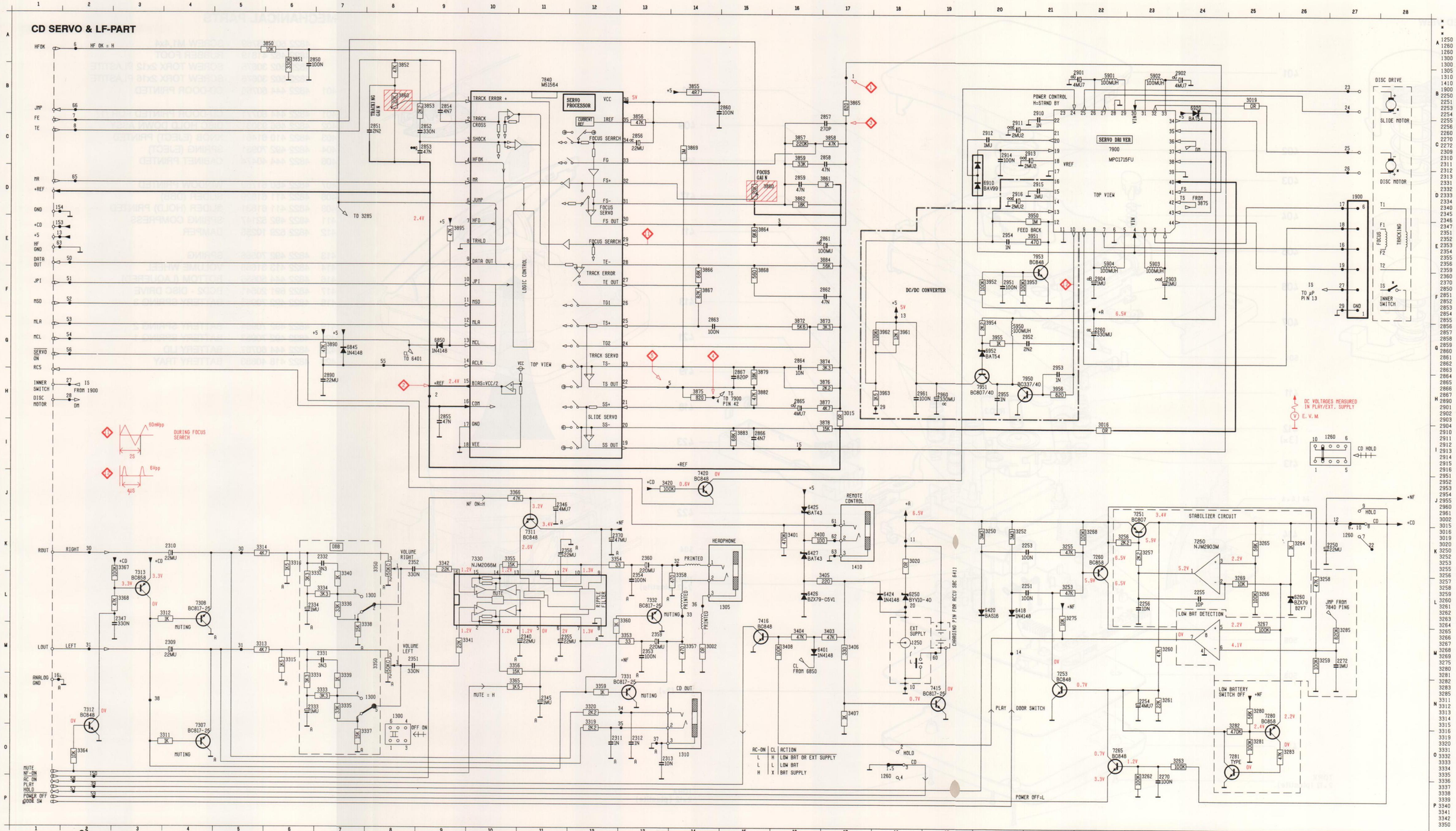
CD SERVO & LF-PART



*	C28	3350	K 8
*	F28	3353	M13
*	B28	3354	K12
1250	M18	3355	K10
1260	O18	3356	M10
1260	K27	3357	M14
1300	N 8	3358	L14
1300	L 8	3359	N12
1305	L15	3360	L12
1310	O14	3364	O 2
1410	M17	3365	N10
1900	D27	3366	J10
2250	K26	3367	K 3
2251	L21	3368	L 3
2253	M21	3400	K16
2254	N23	3401	K16
2255	L24	3403	M17
2256	L23	3404	M16
2260	O22	3405	L17
2270	O23	3406	M17
2272	M27	3407	N17
2309	M 4	3408	M16
2310	K 4	3420	J13
2311	O12	3850	A 6
2312	O13	3851	A 6
2313	O13	3852	B 8
2331	M 7	3853	B 9
2332	K 7	3855	B14
2333	N 6	3856	C13
2334	L 6	3857	C16
2340	M10	3858	C17
2345	N11	3859	C16
2346	J11	3860	B 8
2347	L 2	3861	D17
2351	M 8	3862	D16
2352	K 8	3864	E15
2353	M13	3865	B17
2354	L13	3866	F14
2355	M11	3867	F14
2356	K11	3868	F15
2359	M13	3869	C14
2360	K13	3872	G16
2370	K12	3873	G17
2850	R 6	3874	G17
2851	C 7	3875	H14
2852	C 8	3876	H17
2853	C 8	3877	H17
2854	B 9	3878	I17
2855	H 9	3879	H15
2856	C13	3880	D15
2857	C17	3882	H15
2858	C17	3883	I15
2859	D16	3884	E17
2860	B14	3890	G 7
2861	E17	3895	E 9
2862	F17	3950	D21
2863	O14	3951	E21
2864	G16	3952	F20
2865	H16	3953	F20
2866	I15	3954	O20
2867	H15	3955	O20
2890	H 7	3956	H21
2901	B22	3961	O18
2902	B24	3962	O18
2903	F23	3963	H18
2904	F22	5901	B22
2910	B21	5902	B23
2911	C20	5903	E23
2912	C20	5904	E22
2913	C21	5950	O20
2914	C20	6250	L18
2915	D21	6260	L26
2916	D20	6401	M16
2951	F20	6418	L20
2952	O21	6420	L20
2953	O21	6424	L18
2954	E20	6425	J16
2955	H20	6426	L16
2960	H19	6427	K16
2961	H18	6845	G 7
3002	M14	6850	G 9
3015	H17	6910	D20
3016	I22	6920	B24
3019	B25	6952	O20
3020	K18	7250	K24
3250	K20	7251	J23
3252	K20	7253	M21
3253	L21	7260	K22
3255	K21	7265	O22
3256	K22	7280	N25
3257	K23	7281	O25
3258	L26	7307	O 4
3259	M26	7308	L 4
3260	M23	7311	K11
3261	O23	7312	N 2
3262	O23	7313	L 3
3263	O24	7330	K 9
3264	K26	7331	N13
3265	K25	7332	L13
3266	L25	7415	N19
3267	L25	7416	L15
3268	K22	7420	J14
3269	L25	7840	B11
3275	L21	7900	C22
3280	N25	7950	H21
3281	O25	7951	H20
3282	N25	7953	E21
3283	O26		
3285	M27		
3311	O 4		
3312	L 4		
3313	M 5		
3314	K 5		
3315	M 6		
3316	K 6		
3319	N12		
3320	N12		
3331	N 6		
3332	L 6		
3333	N 7		
3334	L 7		
3335	N 7		
3336	L 7		
3337	O 7		
3338	M 7		
3339	N 7		
3340	L 7		
3341	M 9		
3342	K 9		
3350	M 8		

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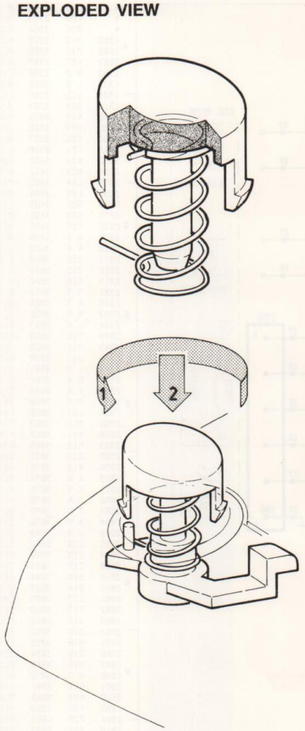
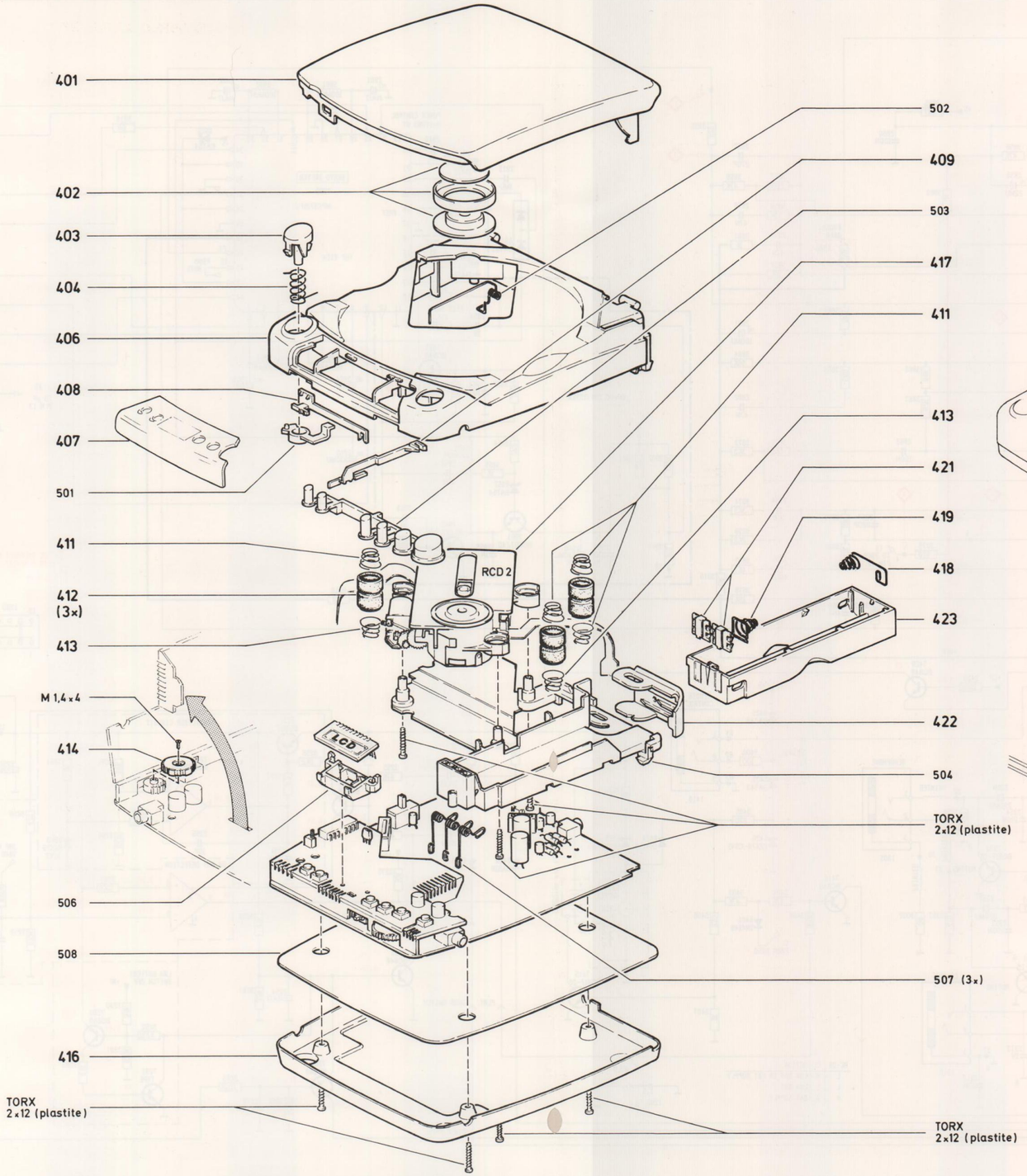
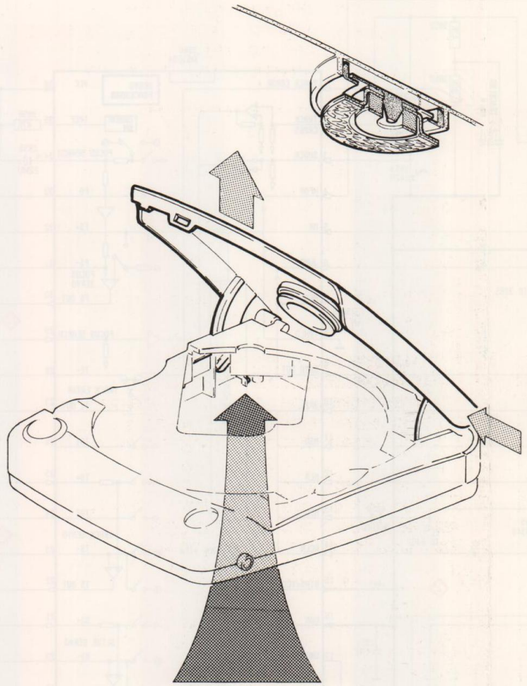
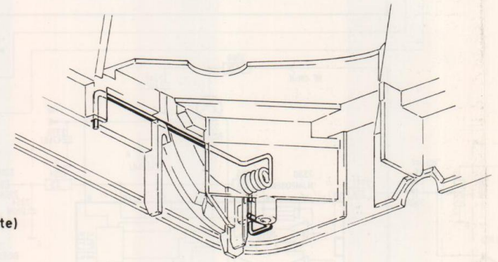
EXPLODED VIEW









MECHANICAL PARTS

	4822 502 13769	SCREW M1,4x4
	4822 462 41819	RUBBER FOOT
	4822 502 30675	SCREW TORX 2x12 PLASTITE
	4822 502 30676	SCREW TORX 2x16 PLASTITE
401	4822 444 60768	CD-DOOR PRINTED
401	4822 444 60771	CD-DOOR PRINTED FOR /17
402	4822 466 93031	DISC HOLD DOWN ASSY
403	4822 410 61461	KNOB (EJECT) PRINTED
404	4822 492 70951	SPRING (EJECT)
406	4822 444 40474	CABINET PRINTED
407	4822 450 61769	WINDOW PRINTED
408	4822 411 61829	SLIDER (DBB)
409	4822 411 61831	SLIDER (HOLD) PRINTED
411	4822 492 52147	SPRING COMPRESS
412	4822 529 10256	DAMPER
413	4822 492 70566	SPRING
414	4822 413 31668	VOLUME WHEEL
416	4822 444 50655	BOTTOM (LAQUERED)
417	4822 691 20541	RCD2 - DISC DRIVE
418	4822 492 70955	BATTERY SPRING 3
419	4822 492 70954	BATTERY SPRING 2
421	4822 492 70953	BATTERY SPRING 1
422	4822 444 60767	BATTERY LID
423	4822 418 40883	BATTERY TRAY

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MISCELLANEOUS

	4822 600 70642	POUCH		1400	12NC FOLLOWS !	LCD LP0894-A	
	4822 498 20125	CARRYING BELT		1410	4822 267 31148	SOCKET, REMOTE CONT.	
	4822 015 20384	SBC3124/PH-HEADPHONE		1420	4822 276 12889	DOOR SWITCH	
	4822 242 40108	SBC3124/MVX-HEADPH.		1430	4822 276 12465	SWITCH TACT	
1250	4822 267 31354	SOCKET, EXT. SUPPLY		1431	4822 276 12465	SWITCH TACT	
1260	4822 277 21235	SWITCH, HOLD SELECT		1432	4822 276 12465	SWITCH TACT	
1300	4822 276 12892	SWITCH, DBB SELECT		1433	4822 276 12465	SWITCH TACT	
1305	4822 267 40788	SOCKET, HEADPHONES		1434	4822 276 12465	SWITCH TACT	
1310	4822 267 31147	SOCKET, CD OUT		1435	4822 276 12465	SWITCH TACT	

DIODES

	4822 130 32245	BYV10-40		4822 130 31353	BAT43
	4822 130 82714	BZX79-B2V7		4822 130 34233	BZX79-B5V1
	4822 130 30621	1N4148		4822 130 80622	BAT54
	5322 130 31928	BAS16		5322 130 34337	BAV99

TRANSISTORS

	4822 130 42132	BC807 (CHIP)		4822 130 40938	BC548
	4822 130 61207	BC848 (CHIP)		4822 130 41344	BC337-40
	5322 130 42012	BC858 (CHIP)		5322 130 60123	BC807-40 (CHIP)
	4822 130 42804	BC817-25 (CHIP)			

INTEGRATED CIRCUITS

	4822 209 71448	NJM2903M		4822 209 72814	M51567P
	4822 209 62259	UPD6376GS		4822 209 62112	M50423FP
	4822 209 30401	NJM2066M		4822 209 70422	MN4264-15
	4822 209 30311	uP COP881/RUE		4822 209 72815	M51564P
	4822 209 62111	COP472-3		4822 209 62261	MPC1715FU

COILS

5800	4822 157 53123	100uH	5903	4822 157 53123	100uH
5810	4822 242 72565	RESONATOR 8,46MHz	5904	4822 157 53123	100uH
5901	4822 157 53123	100uH	5950	4822 157 53123	100uH
5902	4822 157 53123	100uH			

RESISTORS

3280	4822 050 25603	56k	1%	0,6W	3366	4822 050 24703	47k	1%	0,6W
3282	4822 050 24704	470k	1%	0,6W	3401	4822 050 24704	470k	1%	0,6W
3313	4822 050 24702	4k7	1%	0,6W	3403	4822 050 24703	47k	1%	0,6W
3350	4822 100 30071	50k POTMETER			3831	4822 050 22205	2M2	1%	0,6W
3355	4822 116 52244	15k	5%	0,5W	3842	4822 050 22202	2k2	1%	0,6W

CHIP RESISTORS

3001	4822 051 20008	CHIP JUMPER			3257	4822 051 20222	2k2	5%	0,1W
3002	4822 051 20008	CHIP JUMPER			3258	4822 051 20473	47k	5%	0,1W
3003	4822 051 20008	CHIP JUMPER			3259	4822 051 20104	100k	5%	0,1W
3004	4822 051 20008	CHIP JUMPER			3260	4822 051 20473	47k	5%	0,1W
3005	4822 051 20008	CHIP JUMPER			3261	4822 051 20223	22k	5%	0,1W
3006	4822 051 20008	CHIP JUMPER			3262	4822 051 20104	100k	5%	0,1W
3011	4822 051 20008	CHIP JUMPER			3263	4822 051 20104	100k	5%	0,1W
3013	4822 051 20008	CHIP JUMPER			3264	4822 051 10102	1k	2%	0,25W
3015	4822 051 20008	CHIP JUMPER			3265	4822 051 20563	56k	5%	0,1W
3016	4822 051 20008	CHIP JUMPER			3266	4822 051 20104	100k	5%	0,1W
3019	4822 051 20008	CHIP JUMPER			3267	4822 051 20104	100k	5%	0,1W
3020	4822 051 20008	CHIP JUMPER			3268	4822 051 20104	100k	5%	0,1W
3250	4822 051 20335	3M3	5%	0,1W	3269	4822 051 20103	10k	5%	0,1W
3252	4822 051 20335	3M3	5%	0,1W	3275	4822 051 20103	10k	5%	0,1W
3253	4822 051 20473	47k	5%	0,1W	3281	4822 051 20104	100k	5%	0,1W
3255	4822 051 20473	47k	5%	0,1W	3283	4822 051 20473	47k	5%	0,1W
3256	4822 051 20222	2k2	5%	0,1W	3285	4822 051 20824	820k	5%	0,1W

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CHIP RESISTORS

3300	4822 051 20229	22R	5%	0,1W
3305	4822 051 20331	330R	5%	0,1W
3306	4822 051 20331	330R	5%	0,1W
3307	4822 051 20151	150R	5%	0,1W
3308	4822 051 20151	150R	5%	0,1W
3309	4822 051 20103	10k	5%	0,1W
3310	4822 051 20103	10k	5%	0,1W
3311	4822 051 10102	1k	2%	0,25W
3312	4822 051 10102	1k	2%	0,25W
3314	4822 051 20472	4k7	5%	0,1W
3315	4822 051 20152	1k5	5%	0,1W
3316	4822 051 20152	1k5	5%	0,1W
3319	4822 051 20222	2k2	5%	0,1W
3320	4822 051 20222	2k2	5%	0,1W
3331	4822 051 20332	3k3	5%	0,1W
3332	4822 051 20332	3k3	5%	0,1W
3333	4822 051 20332	3k3	5%	0,1W
3334	4822 051 20332	3k3	5%	0,1W
3335	4822 051 20333	33k	5%	0,1W
3336	4822 051 20333	33k	5%	0,1W
3337	4822 051 20153	15k	5%	0,1W
3338	4822 051 20153	15k	5%	0,1W
3339	4822 051 10102	1k	2%	0,25W
3340	4822 051 10102	1k	2%	0,25W
3341	4822 051 20223	22k	5%	0,1W
3342	4822 051 20223	22k	5%	0,1W
3353	4822 051 20339	33R	5%	0,1W
3353	4822 051 20339	33R	5%	0,1W
3356	4822 051 20153	15k	5%	0,1W
3357	4822 051 20471	470R	5%	0,1W
3358	4822 051 20471	470R	5%	0,1W
3359	4822 051 10102	1k	2%	0,25W
3360	4822 051 10102	1k	2%	0,25W
3364	4822 051 20103	10k	5%	0,1W
3365	4822 051 20152	1k5	5%	0,1W
3367	4822 051 20104	100k	5%	0,1W
3368	4822 051 20473	47k	5%	0,1W
3400	4822 051 10101	100R	2%	0,25W
3404	4822 051 20473	47k	5%	0,1W
3405	4822 051 20221	220R	5%	0,1W
3406	4822 051 20331	330R	5%	0,1W
3407	4822 051 10102	1k	2%	0,25W
3408	4822 051 20104	100k	5%	0,1W
3409	4822 051 20473	47k	5%	0,1W
3410	4822 051 20223	22k	5%	0,1W
3411	4822 051 20473	47k	5%	0,1W
3420	4822 051 20104	100k	5%	0,1W
3800	4822 051 10102	1k	2%	0,25W
3801	4822 051 20153	15k	5%	0,1W
3802	4822 051 20153	15k	5%	0,1W
3803	4822 051 20153	15k	5%	0,1W
3805	4822 051 20103	10k	5%	0,1W
3810	4822 100 11733	20k	TRIM	POT SMD
3822	4822 051 20152	1k5	5%	0,1W
3823	4822 051 20472	4k7	5%	0,1W
3824	4822 051 20473	47k	5%	0,1W
3825	4822 100 11803	2k2	TRIM	POT SMD
3826	4822 051 20271	270R	5%	0,1W
3830	4822 051 20104	100k	5%	0,1W
3832	4822 051 20103	10k	5%	0,1W
3833	4822 051 20222	2k2	5%	0,1W
3834	4822 051 20182	1k8	5%	0,1W
3835	4822 051 20223	22k	5%	0,1W
3836	4822 051 20562	5k6	5%	0,1W
3840	4822 051 20473	47k	5%	0,1W
3843	4822 051 20103	10k	5%	0,1W
3844	4822 051 20822	8k2	5%	0,1W
3850	4822 051 20103	10k	5%	0,1W
3851	4822 051 20334	330k	5%	0,1W
3852	4822 051 20473	47k	5%	0,1W
3853	4822 051 20222	2k2	5%	0,1W
3855	4822 051 20478	4R7	5%	0,1W
3856	4822 051 20473	47k	5%	0,1W
3857	4822 051 20224	220k	5%	0,1W
3858	4822 051 20473	47k	5%	0,1W
3859	4822 051 20333	33k	5%	0,1W
3860	4822 100 11733	20k	TRIM	POT SMD
3861	4822 051 10102	1k	2%	0,25W
3862	4822 051 20183	18k	5%	0,1W
3864	4822 051 20682	6k8	5%	0,1W
3865	4822 051 20821	820R	5%	0,1W
3866	4822 051 20683	68k	5%	0,1W
3867	4822 051 20823	82k	5%	0,1W
3868	4822 051 20561	560R	5%	0,1W
3869	4822 051 20135	1M3	5%	0,1W
3872	4822 051 20562	5k6	5%	0,1W
3873	4822 051 20332	3k3	5%	0,1W
3874	4822 051 20332	3k3	5%	0,1W
3875	4822 051 20821	820R	5%	0,1W
3876	4822 051 20222	2k2	5%	0,1W
3877	4822 051 20472	4k7	5%	0,1W
3878	4822 051 20153	15k	5%	0,1W
3879	4822 051 20183	18k	5%	0,1W
3880	4822 100 11733	20k	TRIM	POT SMD
3882	4822 051 20473	47k	5%	0,1W
3883	4822 051 20683	68k	5%	0,1W
3884	4822 051 20563	56k	5%	0,1W
3890	4822 051 20473	47k	5%	0,1W
3895	4822 051 20473	47k	5%	0,1W
3950	4822 051 20135	1M3	5%	0,1W
3951	4822 051 20471	470R	5%	0,1W
3952	4822 051 20104	100k	5%	0,1W
3953	4822 051 20104	100k	5%	0,1W
3954	4822 051 20222	2k2	5%	0,1W
3955	4822 051 10102	1k	2%	0,25W
3956	4822 051 20821	820R	5%	0,1W
3961	4822 116 83226	12k	2%	0,1W
3962	4822 051 20104	100k	5%	0,1W
3963	4822 116 83225	1k5	2%	0,1W

CAPACITORS

2250	4822 124 42236	22uF	20%	6,3V
2254	4822 124 42238	4,7uF	20%	25V
2260	4822 124 42242	330uF	20%	6,3V
2272	4822 126 11692	1uF		
2300	4822 124 42241	100uF	20%	6,3V
2303	4822 124 42241	100uF	20%	6,3V

CAPACITORS

2309	4822 124 42236	22uF	20%	6,3V
2310	4822 124 42236	22uF	20%	6,3V
2313	4822 122 10177	10nF	20%	25V
2331	5322 122 33446	3,3nF	10%	63V
2332	5322 122 33446	3,3nF	10%	63V
2333	4822 126 11692	1uF		
2334	4822 126 11692	1uF		
2340	4822 124 42236	22uF	20%	6,3V
2345	4822 124 42239	1uF	20%	50V
2346	4822 124 42238	4,7uF	20%	25V
2347	4822 122 33064	330nF	20%	25V
2351	4822 122 33064	330nF	20%	25V
2352	4822 122 33064	330nF	20%	25V
2355	4822 124 42236	22uF	20%	6,3V
2356	4822 124 42236	22uF	20%	6,3V
2359	4822 124 42235	220uF	20%	4V
2360	4822 124 42235	220uF	20%	4V
2370	4822 124 42237	47uF	20%	6,3V
2410	4822 126 11692	1uF		
2800	4822 122 33064	330nF	20%	25V
2802	4822 124 42237	47uF	20%	6,3V
2806	4822 121 42408	220nF	5%	63V
2831	4822 124 42234	100uF	20%	6,3V
2836	4822 126 11691	150nF	10%	
2841	4822 126 11725	1uF	20%	5V
2852	4822 122 33064	330nF	20%	25V
2856	4822 124 42236	22uF	20%	6,3V
2861	4822 124 42234	100uF	20%	6,3V
2865	4822 124 42238	4,7uF	20%	25V
2890	4822 124 42236	22uF	20%	6,3V
2901	4822 124 42238	4,7uF	20%	25V
2902	4822 124 42238	4,7uF	20%	25V
2903	4822 124 42239	1uF	20%	50V
2904	4822 124 42239	1uF	20%	50V
2912	4822 126 11692	1uF		
2915	4822 126 11692	1uF		
2960	4822 124 42242	330uF	20%	6,3V

CHIP CAPACITORS

2251	4822 122 33496	100nF	10%	63V
2253	4822 122 33496	100nF	10%	63V
2255	4822 122 31971	10pF	10%	50V
2256	4822 122 32442	10nF	10%	50V
2270	4822 122 33496	100nF	10%	63V
2301	4822 122 33496	100nF	10%	63V
2305	4822 122 31916	5,6nF	10%	63V
2306	4822 122 31916	5,6nF	10%	63V
2307	4822 122 33496	100nF	10%	63V
2308	4822 122 33496	100nF	10%	63V
2311	5322 122 31647	1nF	10%	63V
2312	5322 122 31647	1nF	10%	63V
2353	4822 122 33496	100nF	10%	63V
2354	4822 122 33496	100nF	10%	63V
2401	4822 122 33496	100nF	10%	63V
2801	4822 122 31797	22nF	10%	63V
2803	4822 122 31916	5,6nF	10%	63V
2804	4822 122 31769	18pF	5%	50V
2805	4822 122 32891	68nF	10%	63V
2808	4822 122 32142	270pF	5%	63V
2811	4822 122 33496	100nF	10%	63V
2830	4822 122 33496	100nF	10%	63V
2832	4822 122 33496	100nF	10%	63V
2833	4822 122 32442	10nF	10%	50V
2834	4822 122 33496	100nF	10%	63V
2835	4822 122 31727	470pF	5%	63V
2838	4822 122 31644	2,2nF	10%	63V
2839	4822 122 31971	10pF	10%	50V
2840	4822 122 31727	470pF	5%	63V
2850	4822 122 33496	100nF	10%	63V
2851	4822 122 31644	2,2nF	10%	63V
2853	4822 122 32542	47nF	10%	63V
2854	4822 122 31784	4,7nF	10%	50V
2855	4822 122 32542	47nF	10%	63V
2857	4822 122 32142	270pF	5%	63V
2858	4822 122 32542	47nF	10%	63V
2859	4822 122 32542	47nF	10%	63V
2860	4822 122 33496	100nF	10%	63V
2862	4822 122 32542	47nF	10%	63V
2863	4822 122 33496	100nF	10%	63V
2864	4822 122 32442	10nF	10%	50V
2866	4822 122 31784	4,7nF	10%	50V
2867	4822 122 32765	820pF	10%	63V
2910	5322 122 31647	1nF	10%	63V
2911	4822 124 10965	2,2uF	20%	6,3V
2913	4822 124 10965	2,2uF	20%	6,3V
2914	4822 122 33496	100nF	10%	63V
2916	4822 124 10965	2,2uF	20%	6,3V
2951	4822 122 33496	100nF	10%	63V
2952	4822 122 31644	2,2nF	10%	63V
2953	5322 122 31647	1nF	10%	63V
2954	5322 122 31647	1nF	10%	63V
2955	5322 122 31647	1nF	10%	63V
2961	4822 122 33496	100nF	10%	63V

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Service Information

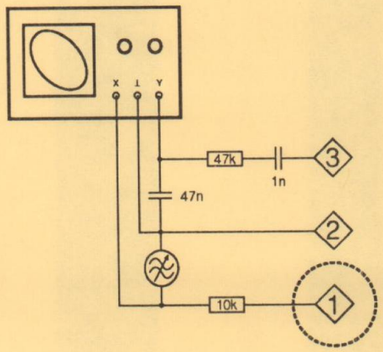
	1991–07–30
AZ6811	
	A91–116

Product Service Group CE Audio

Correction to the Service Manual

*) Adjustment table: The measurement circuit for the FOCUS GAIN has been published incorrectly. For exact alignments it is absolutely necessary to exchange MP 4 by MP 1. Fig. 1 shows the corrected circuit.

FIG. 1



Service
Service
Service

4822 725 23803

CS 55 929

Service
Service
Service

Product Service Group CE Audio

Service Information

A new version has been introduced: AZ6813/10

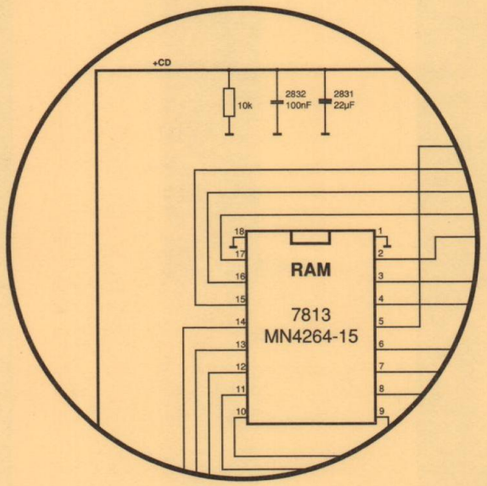
Except for the following change we refer to the service manual AZ6810, AZ6811, AZ6812, AZ6813, AZ6814 (4822 725 23734):

⚠ 4822 272 10295 AC/DC adaptor SBC6608/10

Changes in course of production

If the CD-lid is opened and closed in short intervalls the µP may "hang up".
To avoid this phenomenon the discharge time of the reset circuit has been decreased:

Capacitor 2831 changed from 100µF to 22µF (4822 124 42236), resistor 10k (4822 051 20103) added (see sketch below).



1992-05-10

GB 4822 725 23753

CS 45 460

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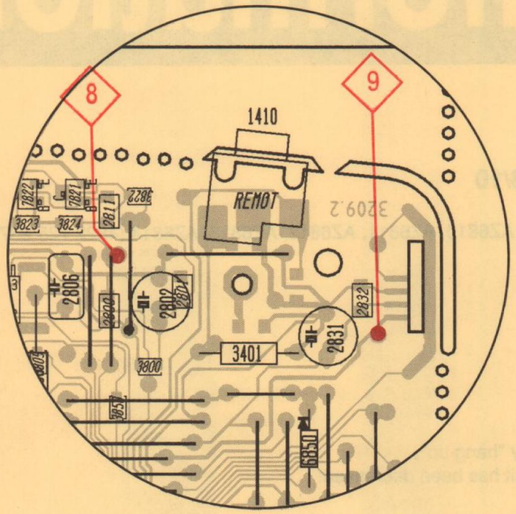
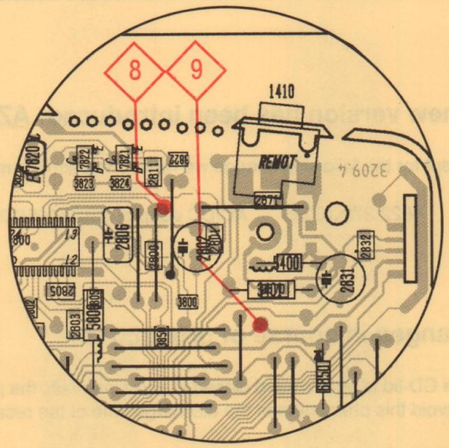
Corrections to the service manuals

4822 725 23383 (AZ6811, AZ6812, AZ6813)
4822 725 23734 (AZ6810, AZ6811, AZ6812, AZ6813, AZ6814)

In above mentioned service manuals test point 8 is missing, test point 9 has been published incorrect.
For correct test points see sketch below.



Service manual 4822 725 23383



Service manual 4822 725 23734

Service Information

1991-08-27

AZ6811
AZ6812
AZ6813

A91–117

Product Service Group CE Audio

A fault had been discovered during AZ6811 production. IC M50423FP failed to read the subcode-emphasis and generated a wrong signal. The problem was solved by adding a delay circuit between M50423FP and the CPU COP881 and also increasing the Vdd supplied to M50423FP as shown in Fig. 1.

Modification was made in 2 stages.

Stage 1: Production code = KT01

A Subprint PCB Ass'y for the addition circuit was temporarily added as Fig. 2.

Subprint PCB Ass'y is available with service code 4822 214 51922.

Stage 2: Production code = KT02

New Printed wiring Board (issue 4) and CPU COP881 mask 4 (4822 209 30624) will be introduced and Subprint PCB Ass'y will be omitted.

Service
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Service

4822 725 23804

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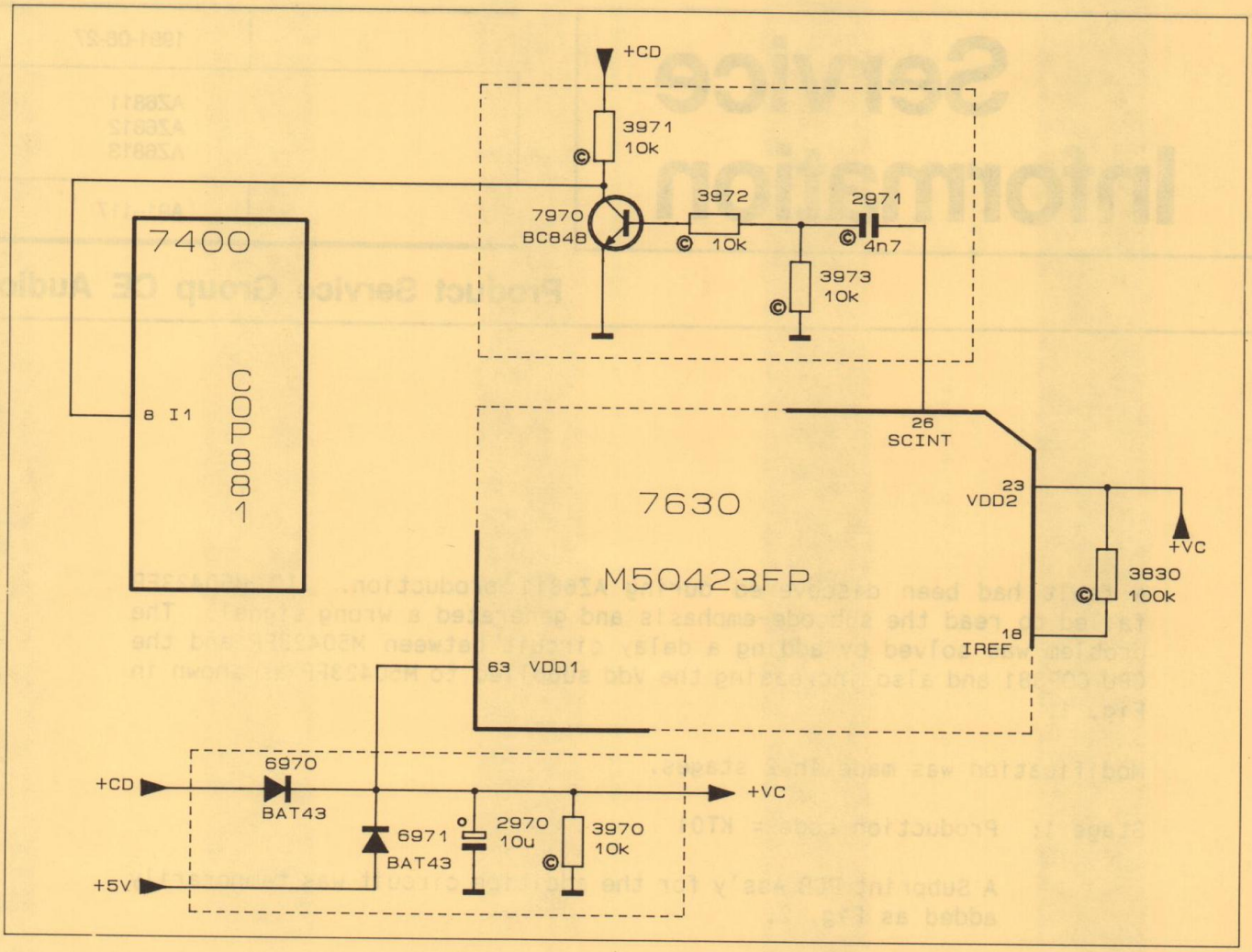

FIG. 1

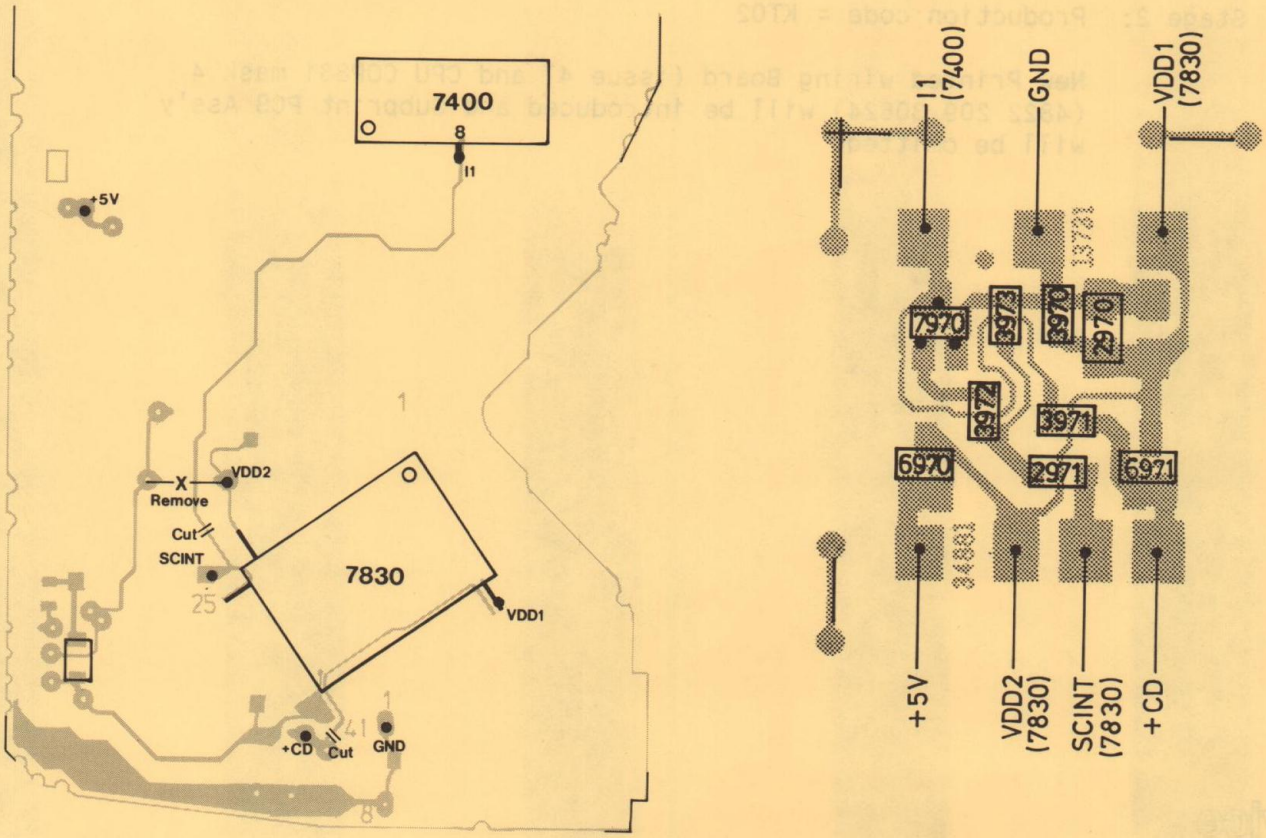

FIG. 2