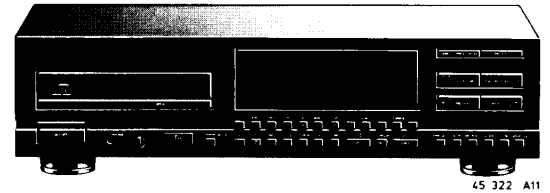


Service
Service
Service



45 322 A11

Service Manual

	TABLE OF CONTENTS	PAGE
1.	Technical specifications	1
2.	Controls and connections	2
3.	Warnings	3
4.	Servicing hints	4
5.	Dismantling instructions	6
6.	Blockdiagram	7
7.	Wiring diagram	8
8.	Circuit diagrams and printed boards	
8.1.	Power supply	8
8.2.	Variable headphone amplifier	8
8.3.	Servo circuit diagram	9
8.4.	Servo decoder panel component side	10
8.5.	Servo decoder panel solder side	11
8.6.	Decoding circuit diagram	12
8.7.	Variable headphone circuit	13
8.8.	Audio circuit diagram	13
8.9.	Audio panel component side	14
8.10.	Audio panel solder side	14
8.11.	Control and display circuit diagram	15
8.12.	Control and display panel	16
8.13.	Microprocessor and FTS circuit digram	17
8.14.	Microprocessor and FTS panel	18
9.	Start up procedure	19
10.	Faultfinding guide	20
11.	Service testprogram/Error code table	20
12.	Electrical adjustments	21
13.	Exploded view	22
14.	Mechanical partslist	22
15.	Electrical partslist	23



TECHNICAL SPECIFICATIONS

General

- | | | |
|----|---|--|
| 1. | Mains voltage /20B
/25B
/21B /33B | :220V ($\pm 10\%$)
:240V ($\pm 10\%$)
:110V-127V-220V-240V ($\pm 10\%$)
Selectable by voltage adapter |
| 2. | Mains frequency | : 50Hz |
| 3. | Mains voltage selection | : See Circuit Diagram Power Supply |
| 4. | Power consumption mains,operated | : 16W |

Line output (Fixed and Variable)

- | | | |
|-----|--|--|
| 1. | Number of channels | : 2 |
| 2. | Output voltage | : 2 Vrms $\pm 1,5$ dB |
| 3. | Unbalance left right | : max. $\pm 0,6$ dB |
| 4. | Output resistance | : 200 Ohm |
| 5. | Amplitude linearity | : max. $\pm 0,2$ db from 20 Hz to 20 kHz |
| 6. | Phase non-linearity | : max. from 20 Hz to 20 kHz |
| 7. | Signal to noise ratio | : min. 95dB from 20 Hz to 20 kHz |
| 8. | Dynamic range (-60dB) | : min. 92dB from 20 Hz to 20 kHz |
| 9. | Total harmonic distortion + noise | : min. 88dB from 20 Hz to 20 kHz |
| 10. | Intermodulation distortion | : min. 88db from 20 Hz to 20 kHz |
| 11. | Output attenuation | : min. 60dB |
| 12. | Channel separation | : min. 100dB from 20 Hz to 20 kHz |
| 13. | Automatic switched de-emphasis
with time constant | : 15/50 μ s |
| 14. | Non-linearity on -90dB | : ± 2 dB |

Variable headphone

- | | | |
|----|----------------------|---|
| 1. | Output voltage | : max. 7,5 Vrms ± 2 dB |
| 2. | Unbalance left-right | : max. $\pm 0,6$ dB |
| 3. | Output resistance | : 150 Ohm |
| 4. | Load impedance range | : 32 Ohm to 600 Ohm load |
| 5. | Output power | : max. 50 mW into 32 Ohm load
max. 90 mW into 150 Ohm load
max. 50 mW into 600 Ohm load |

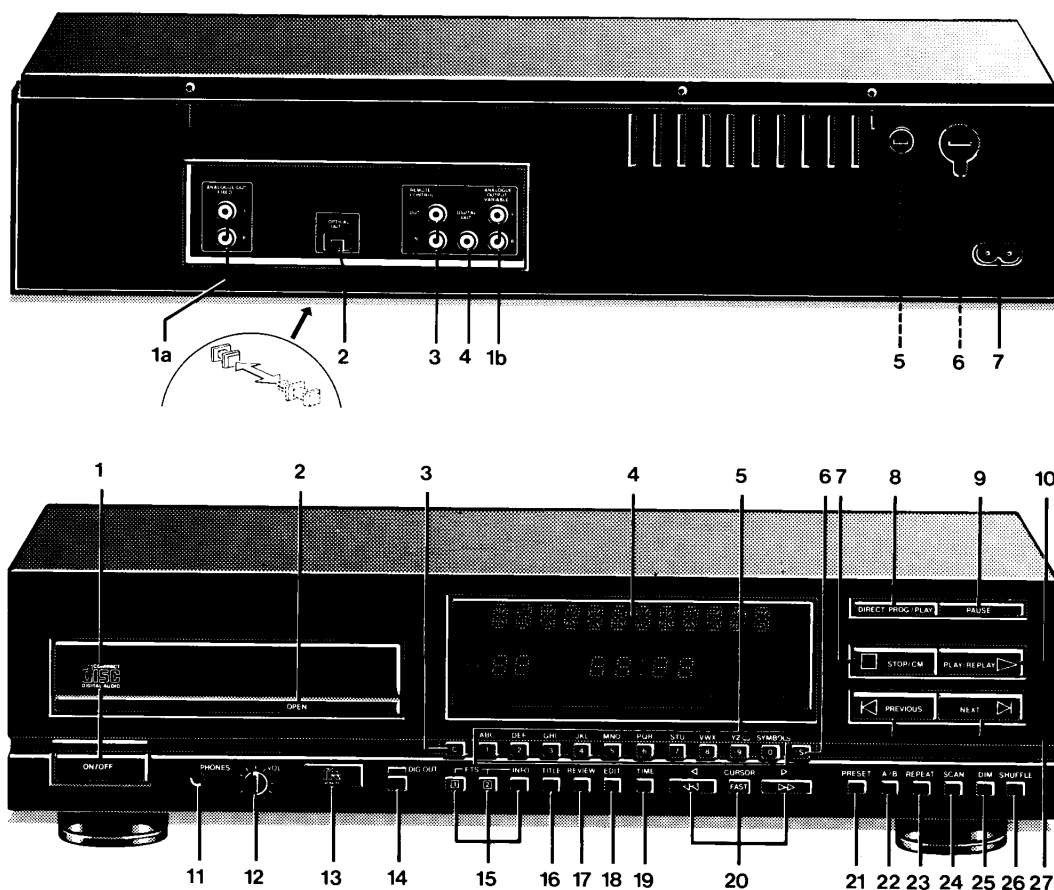
Dimensions and weight

- | | | |
|----|-----------------------|-------------------------------|
| 1. | Apparatus tray closed | : WxDxH 420 x 280 x 90/104 mm |
| 2. | Apparatus tray open | : WxDxH 420 x 423 x 90/104 mm |
| 3. | Weight | : 6,3 kg |

Optical read-out system

- | | | |
|----|---------------------|------------------------|
| 1. | Laser type | : Semiconductor AlGaAs |
| 2. | Wavelength | : 780 nm ± 20 nm |
| 3. | Light output (c.w.) | : 0,4 mW $\pm 0,04$ mW |

CONTROLS AND CONNECTIONS



OPERATION

KEYS

- 1 On/Off
- 2 Open
- 3 C(lear)
- 4 Display
- 5 Digit/alphabet keys
- 6 FTS
- 7 Stop/CM
- 8 Direct prog(ram) play
- 9 Pause
- 10 Play/replay
- 11 Phones
- 12 Vol(ume)
- 13 IR
- 14 Dig(ital) out
- 15 FTS
- 16 Title
- 17 Review
- 18 Edit
- 19 Time
- 20 << Cursor >>
- 21 Reset
- 22 A/B
- 23 Repeat
- 24 Scan
- 25 DIM
- 26 Shuffle
- 27 Previous/next

CONNECTIONS

- 1a Analogue out fixed
- b Analogue out variable
- 2 Optical out
- 3 Remote control out in
- 4 Digital out
- 5 Mains fuse holder
- 6 Voltage selector
- 7 Mains lead

WARNINGS

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 hetzelfde 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 gegen elektrostatische Entladungen (ESD).

Unvorsorgfältige Behandlung bei der Reparatur kann die Lebensdauer drastisch vermindern. 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.

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.

DISMANTLING INSTRUCTIONS

GB

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

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.

I

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambio identici a quelli specificati.

NL

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

D

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

S Varo!

Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

SF Varning!

Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

**CLASS 1
LASER PRODUCT**

3122 110 03420

SERVICING HINTS

When the tray mechanism and CDM-unit has been disassembled the player can be prepared for measurements by bridging the "tray detection" switch SK2 on the main panel.

Service disc hold-down

The disc should always rest properly on the turntable. To achieve this a disc hold-down has been mounted in a bracket of the tray mechanism.

If the tray mechanism has to be disassembled for servicing, a separate disc hold-down should be used.

For a service disc hold-down see the figure below.

Compose a service Disc hold-down in the following way.

-Cut in the most inner ring of a disc holddown (4822 462 50383) with small and sharp nippers
See fig. below.

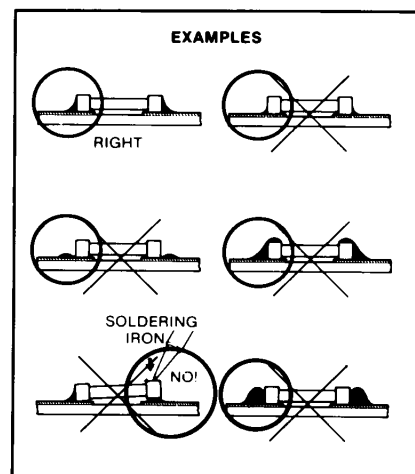
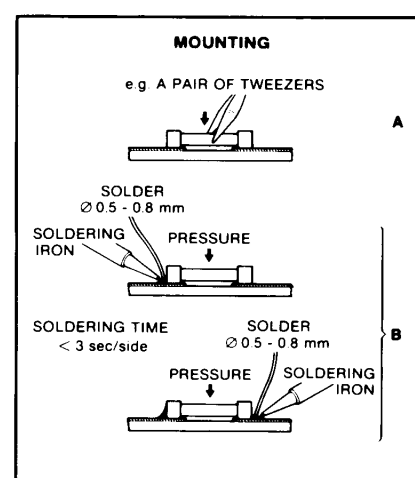
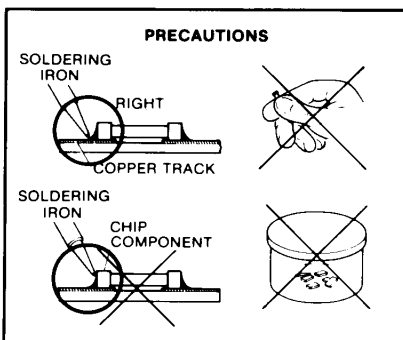
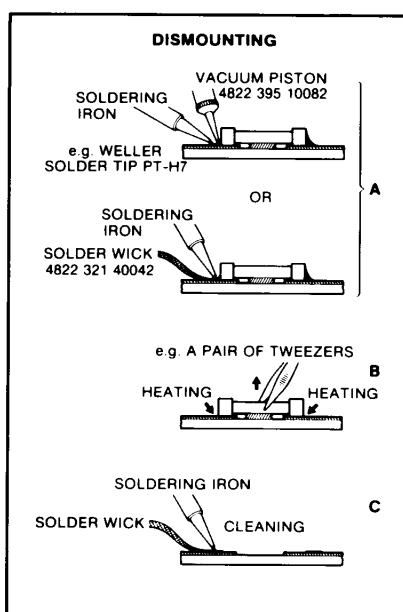
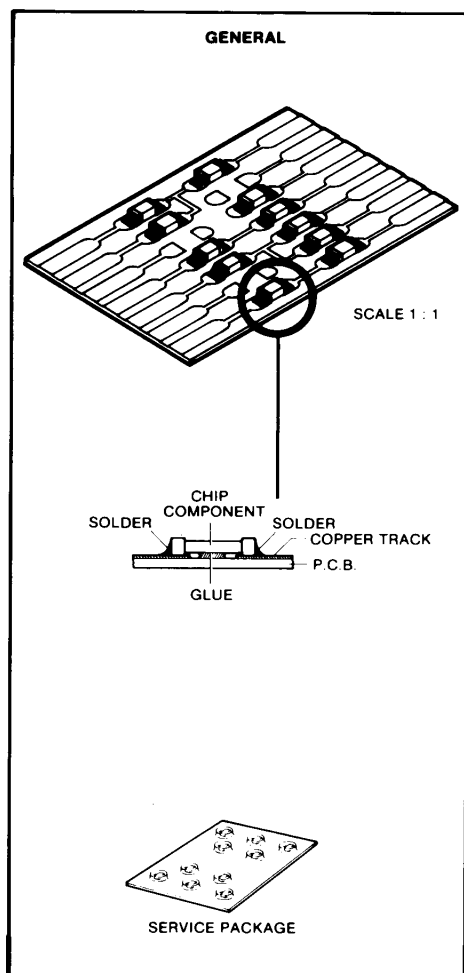
-Enlarge the diameter of the innermost ring slightly with the hind part of a pencil or ballpoint, so that it jams onto the turntable with sufficient force.

-If the jamming force decreases after certain time of use, the diameter has to be enlarged with a pencil or ballpoint again.

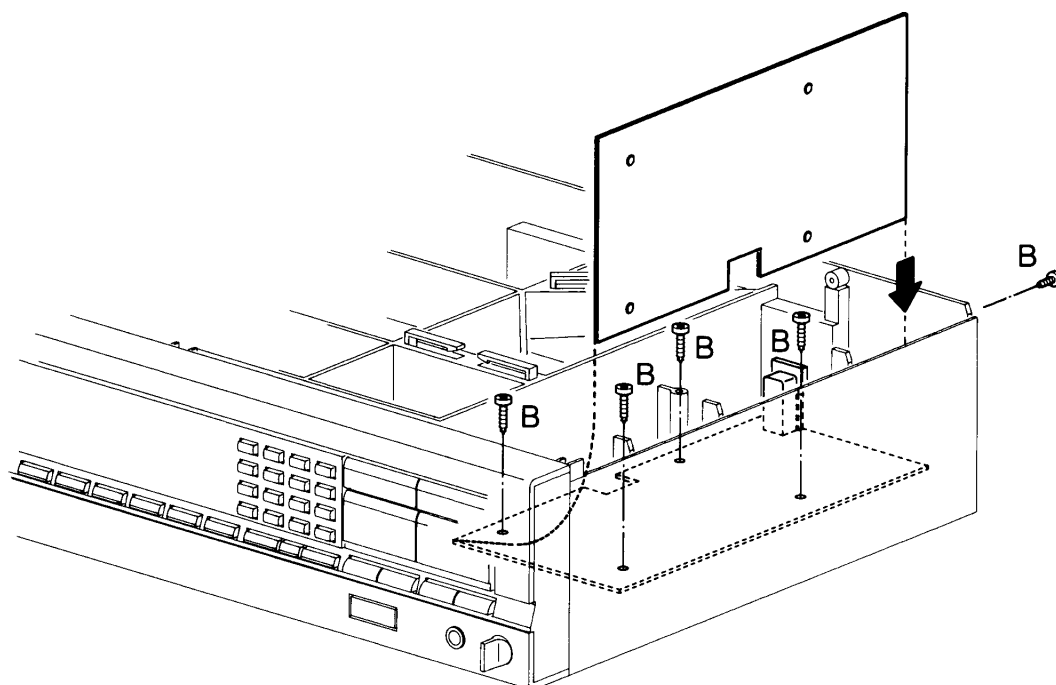
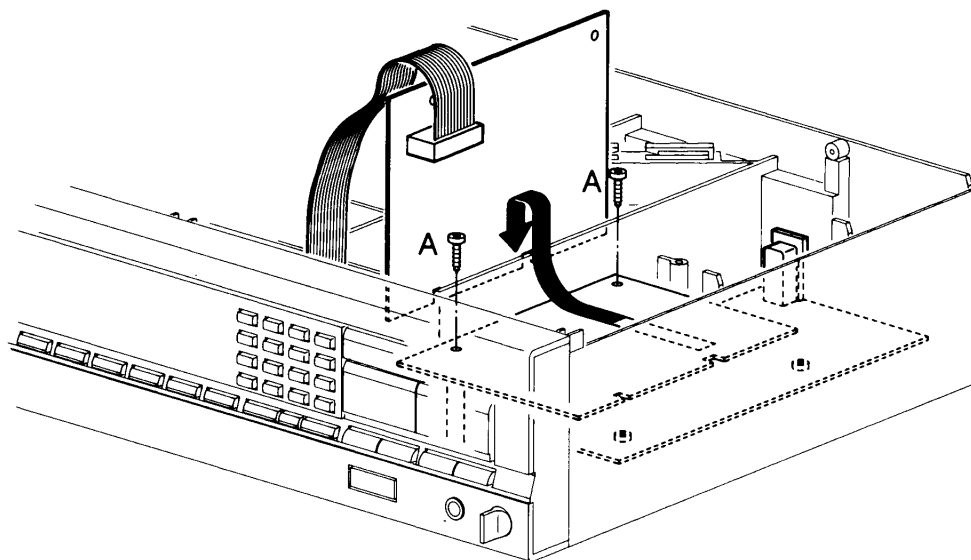
SERVICE TOOLS

Audio signal disc	4822 397 30184
Disc without errors (test disc 5) + disc with DO errors, black spots and fingerprints (test disc 5A)	4822 397 30096
Max. diameter disc (58.0 mm)	4822 397 60141
Torx screwdrivers	
Set (straight)	
Set (square)	4822 395 50132
13th order filter	4822 395 30204
Service cable (4p)	4822 321 21284
Service flexfoil (14p)	4822 322 40066
Service connector (14p)	4822 267 50676
Green LED CQY G11	5322 130 32182
Infra red remote control e.g.	4822 218 10354

DEMOUNTING CDM



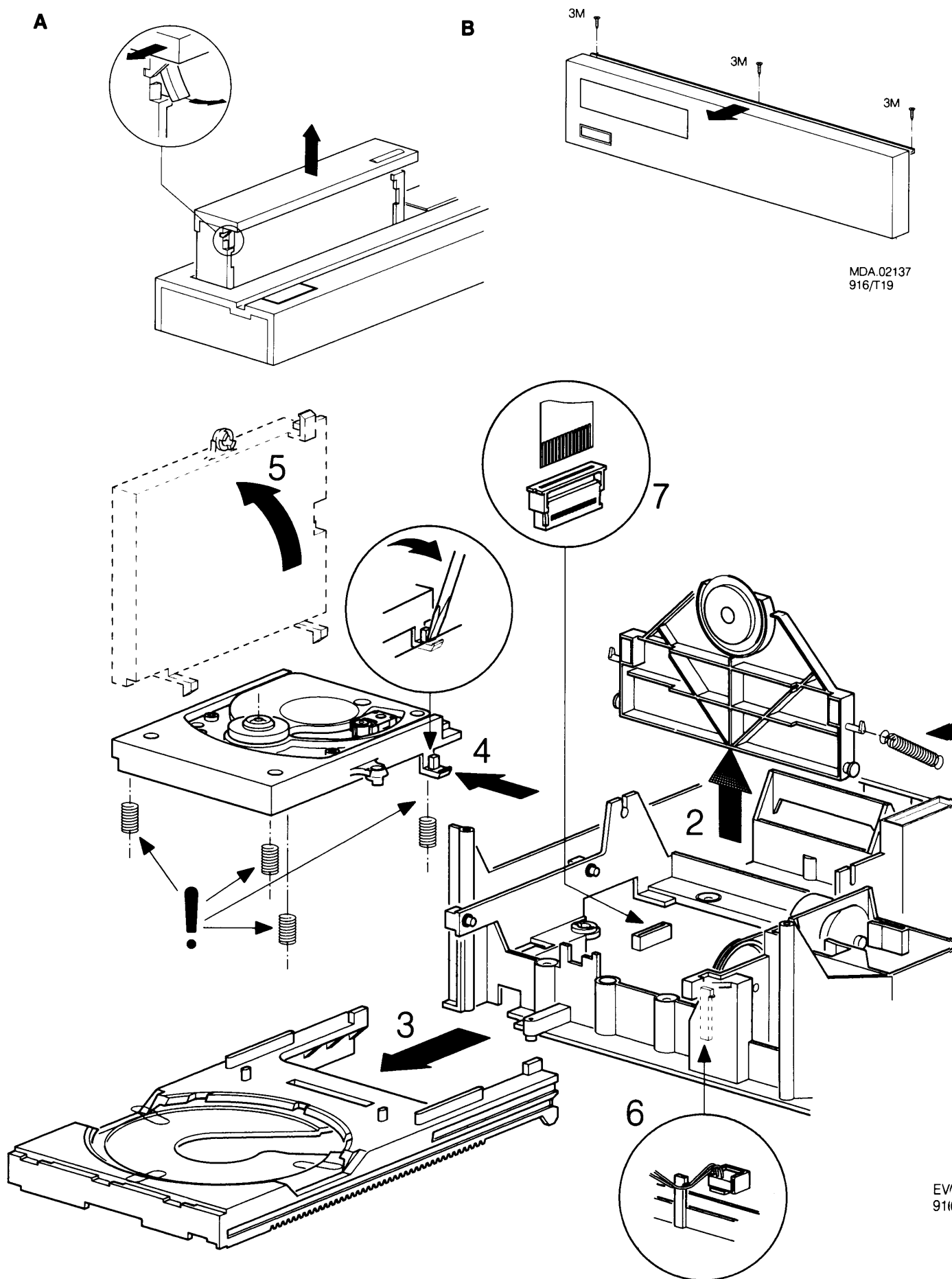
SERVICE HINTS



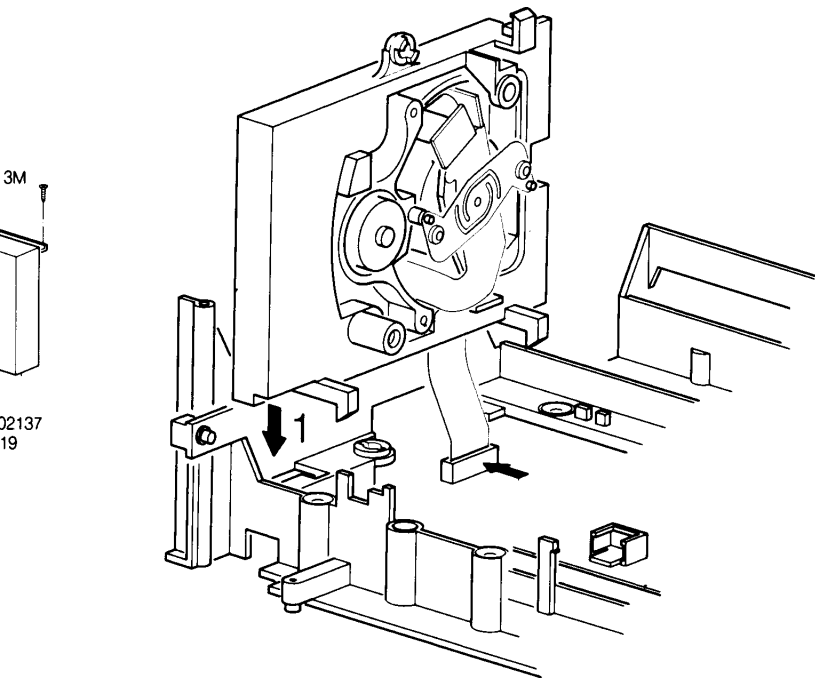
EVA.00941
19/938

DISASSEMBLY OF THE CABINET AND LOADING

CABINET DISASSEMBLY HINTS

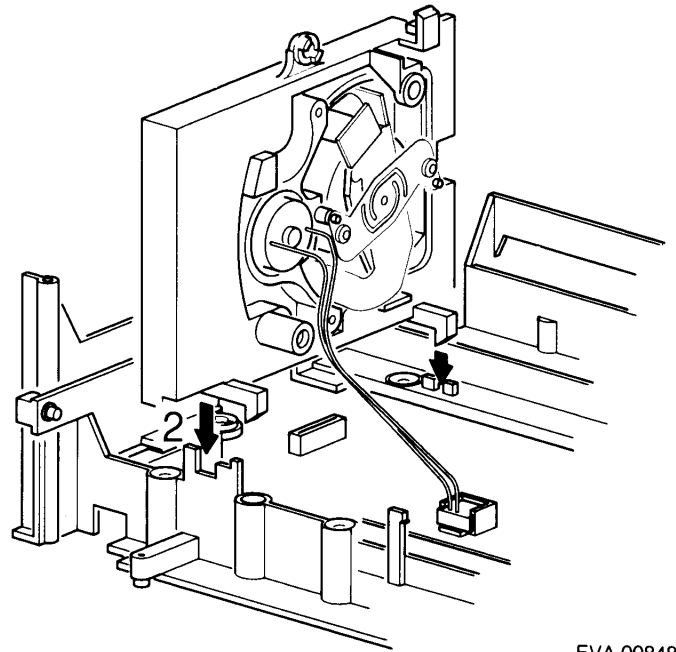


FOIL CONNECTION POSITION



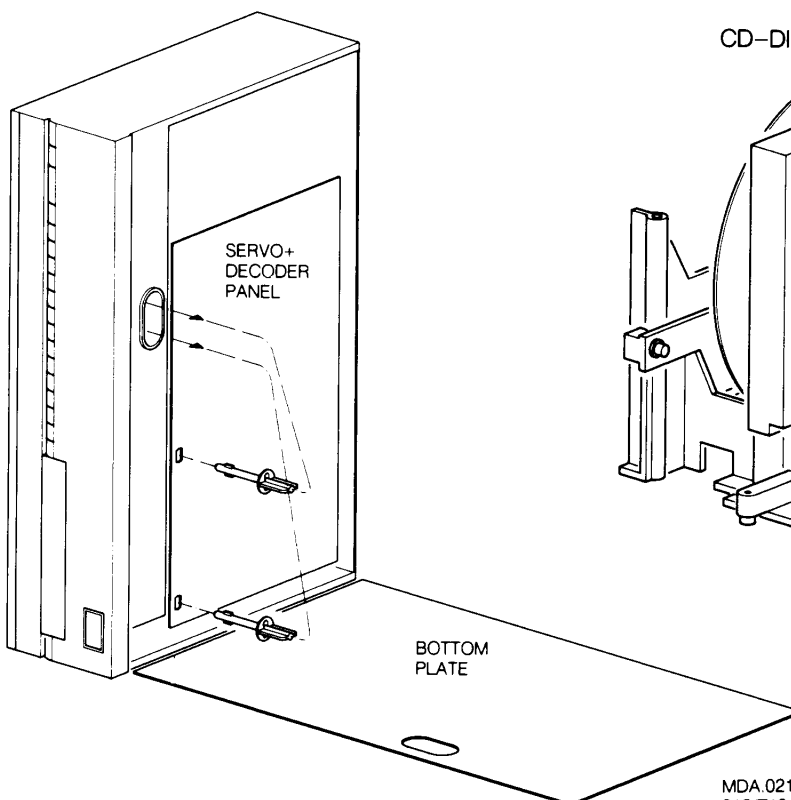
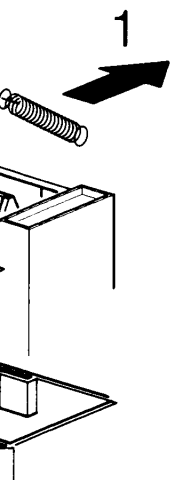
PLAY-SERVICE POSITION

CAUTION
INVISIBLE LASER RADIATION WHEN
OPEN DO NOT STARE INTO BEAM
3104 106 75942



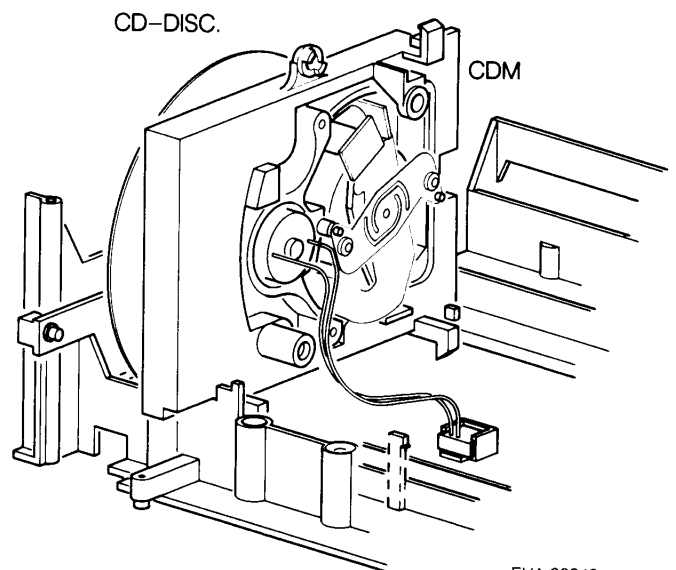
EVA.00848
916/T19

MEASURING AND ADJUSTMENT POSITION



EVA.00346
916/T19

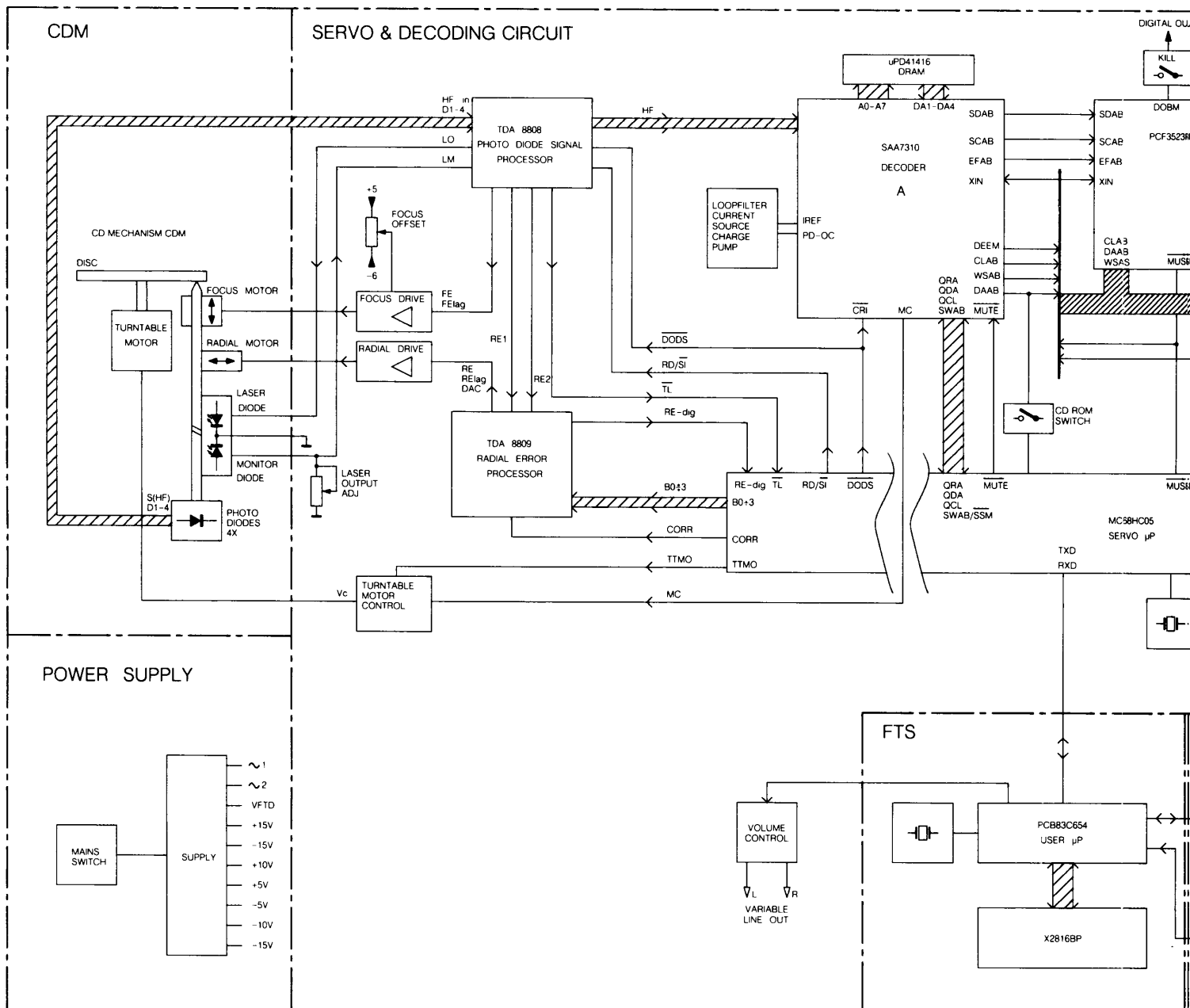
SERVICE POSITION PLAY



EVA.00849
916/T19

MDA.02138
916/T19

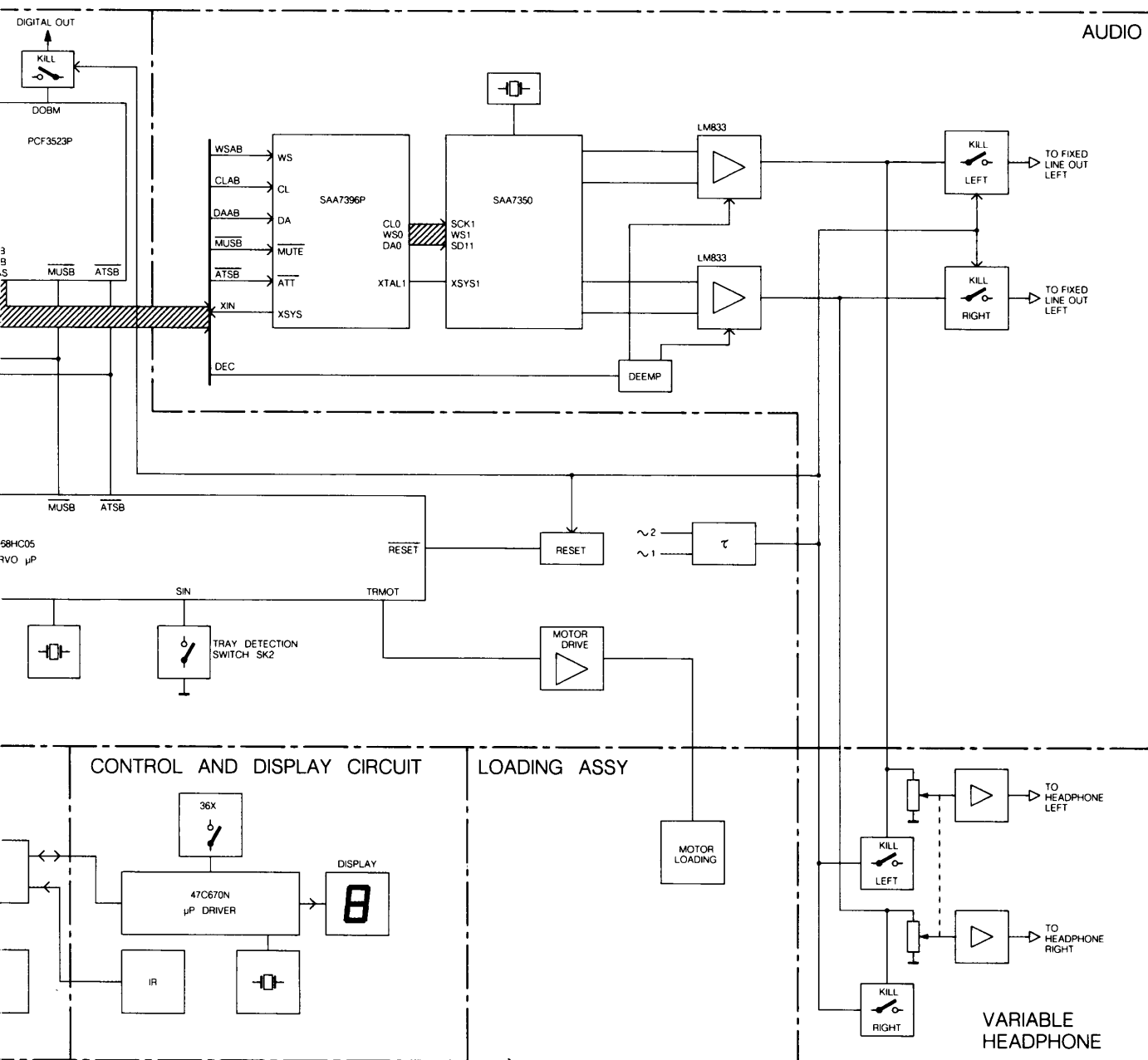
BLOCK DIAGRAM



AGC - Automatic Gain Control
 ATSB - Attenuation of Audio level in Search position
 ATT - Attenuation
 B0-B3 - Control bits for radial circuit
 BEQ - Equalizer reference current input
 BGC - DC and LF gain control reference input
 BSW - Bandwidth switch turntable motor circuit
 CD ROM - Digital Data information in disc signal switch
 CEFM - Clock Eight-to-Fourteen Modulator
 CLAB - Clock signal Detector-A to Filter-B
 CLBD - Clock signal Filter-B to DAC
 CLI - IS serial bit clock input
 CORR - 1/2 bit DAC
 Cosc1 - Capacitor wobble oscillator
 Cosc2 - Capacitor wobble oscillator
 CREF - Reference current
 CRI - Counter Reset Inhibit
 DAAB - Data signal Decoder-A to Filter-B
 DABD - Data signal Filter-B to DAC
 DAI - IS serial data input
 DAO - IS serial data output
 DEC - Decoupling input internal bypass
 DEEM - Deemphasis
 DET - HF detector voltage input

DIV4 - Divide by 4 input
 DMUTE - Digital mute
 DOBM - Digital out signal
 DODS - Drop out detector suppression
 D1-4 - Photodiode currents
 EFAB - Error flag Decoder-A to Filter-B
 FBL+ - Feedback for left positive (negative) switched- capacitor integrator
 FBR+ - Feedback for right positive (negative) switched- capacitor integrator
 FE - Focus error signal
 FE lag - Focus error signal for LAG network
 HF - HF output for DEMOD
 HFD - HF detector output for DEMOD
 HF-in - HF current input to HF amplifier
 HF-out - HF amplifier and equalizer voltage output
 IDF1-3 - Input data format
 INTL+ - Output from left positive (negative) switched- capacitor integrator
 INTR+ - Output from right positive (negative) switched- capacitor integrator
 LM - Laser monitor diode input
 LO - Laser amplifier current output
 MC - Motor control signal
 MCES - Motor speed control
 MUSB - Soft mute signal

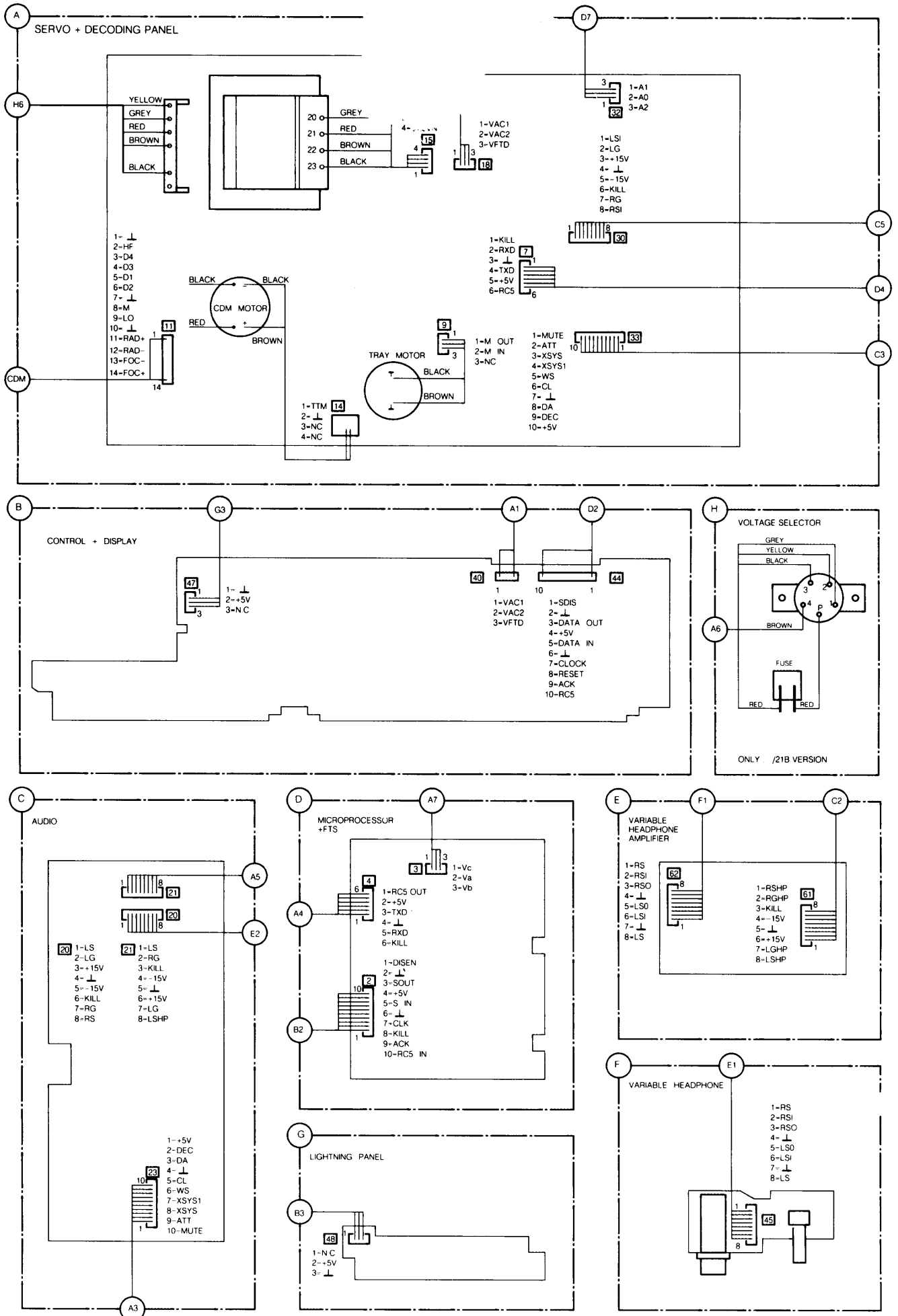
MUTE
 OALC
 OARC
 Offset
 Offset
 PD/O
 PLLH
 QCL
 QDA
 QRA
 RAD
 RE
 Rosc
 Rwo
 RE1
 RE2
 RE di
 RE la
 Sc
 SCAE
 SCKI
 SDAE
 SDI1-
 SIN


 PRS 06942
 T-08 111

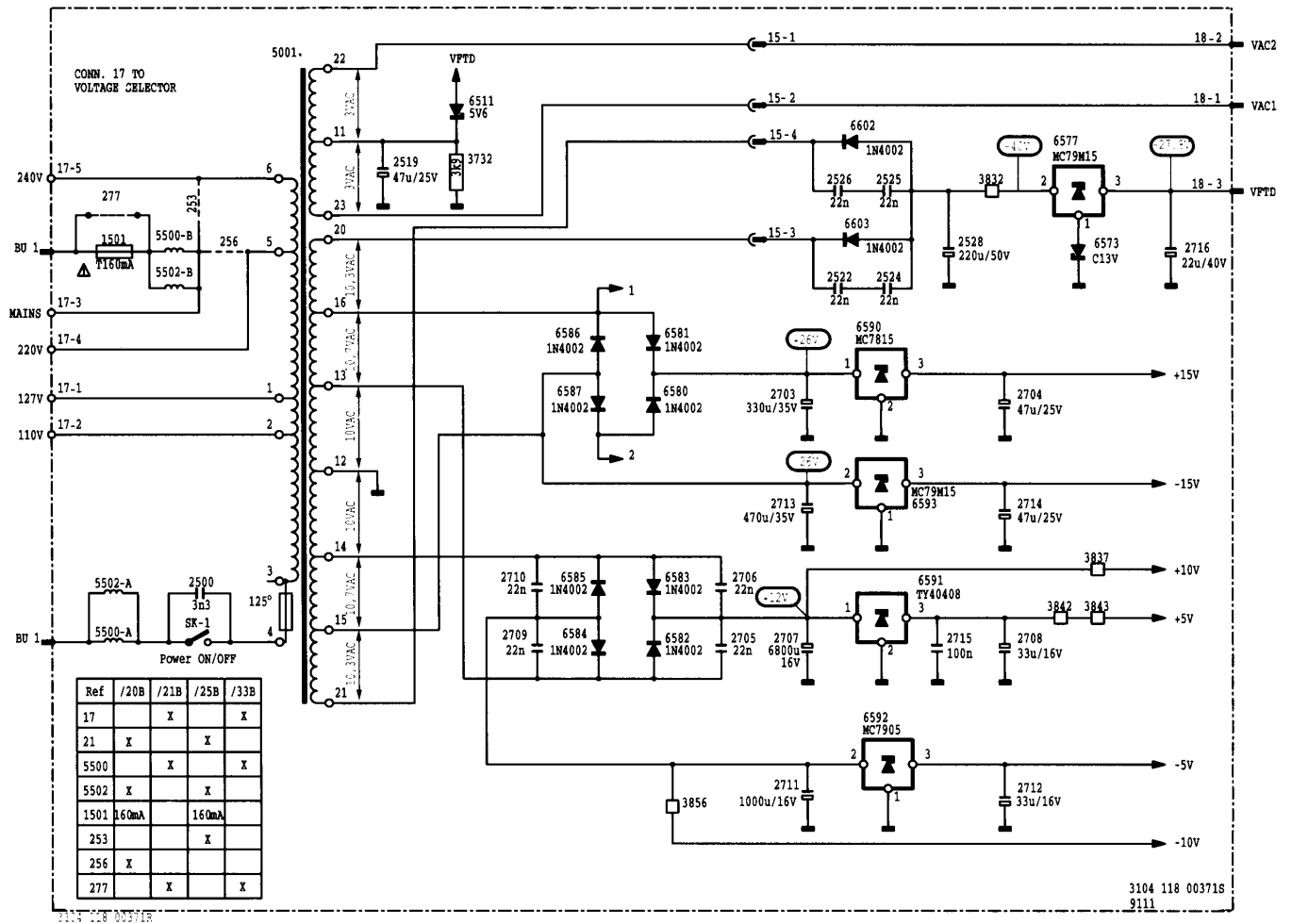
MUTE - Mute signal
 OALO - Operational ampl. left output
 OARO - Operational ampl. right output
 Offset IN - Offset control input
 Offset OUT - Offset control output
 PD/OC - Phase detector - oscillator control
 PLLH - PLL on hold reset
 QCL - Q-channel clock signal
 QDA - Q-channel data signal
 QRA - Q-channel request acknowledge
 RADout - Output of RE2-RE1 input
 RE - Radial error signal (Amplified RE2-RE1 currents)
 Rosc - Resistor wobble oscillator
 Rwob - Wobble generator input
 RE1 - Radial error signal 1
 RE2 - Radial error signal 2
 RE dig - Radial error digital
 RE lag - Radial error signal for LAG network
 Sc - Starting up capacitor input
 SCAB - Subcode clock Decoder-A to Filter-B
 SCKI - Bit clock input for serial input interface
 SDAB - Subcode data Decoder-A to Filter-B
 SDI1-2 - Serial data input
 SIN - Tray switch

Si/RD - On/off control for laser supply and focus circuit. Ready signal. Starting up procedure successful
 SWAB/SSM - Subcode word/start-stop motor signal
 TL - Track loss output signal
 TRMOT - Tray motor drive
 TTM+ - Control voltage for turntable motor
 TTM- - Control voltage for turntable motor
 TTMO - Motor offset and bandwidth switch
 VDACL-R - Reference voltage supply left(right) channel DAC
 Vext+ - Supply connection
 Vext - Supply connection
 VRCL-R - High impedance voltage reference for left (right) channel inputs
 VROL-R - Left (right) channel voltage reference output
 WSAB - Word select Decoder-A to Filter-B
 WSD - Word select Filter-B to DAC
 WSI - IS word select input
 WSO - IS word select output
 XIN - Oscillator signal in Decoder-A
 XOUT - Oscillator output
 XSEL - Crystal frequency select
 XSYS - Oscillator signal

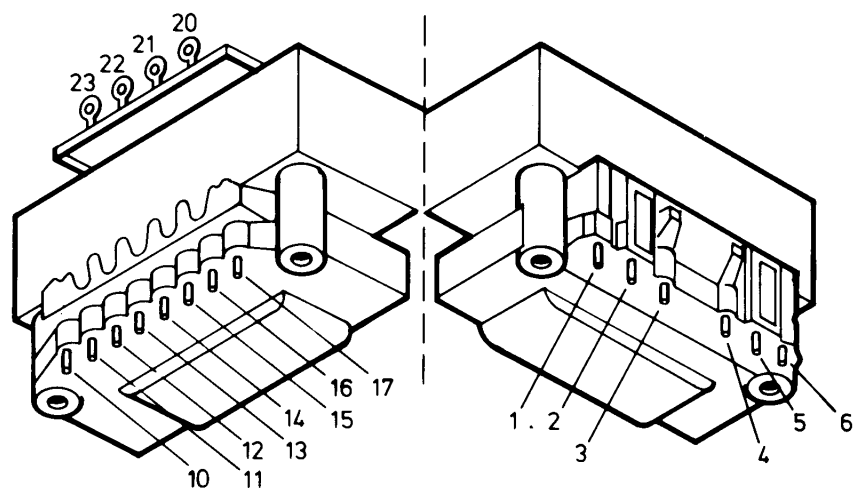
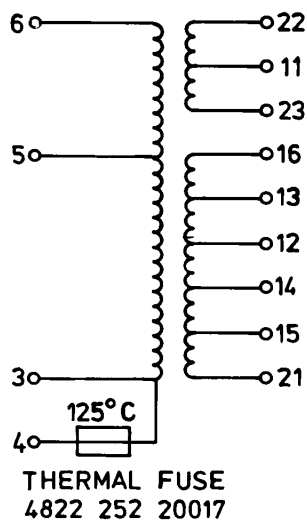
WIRING DIAGRAM



POWER SUPPLY

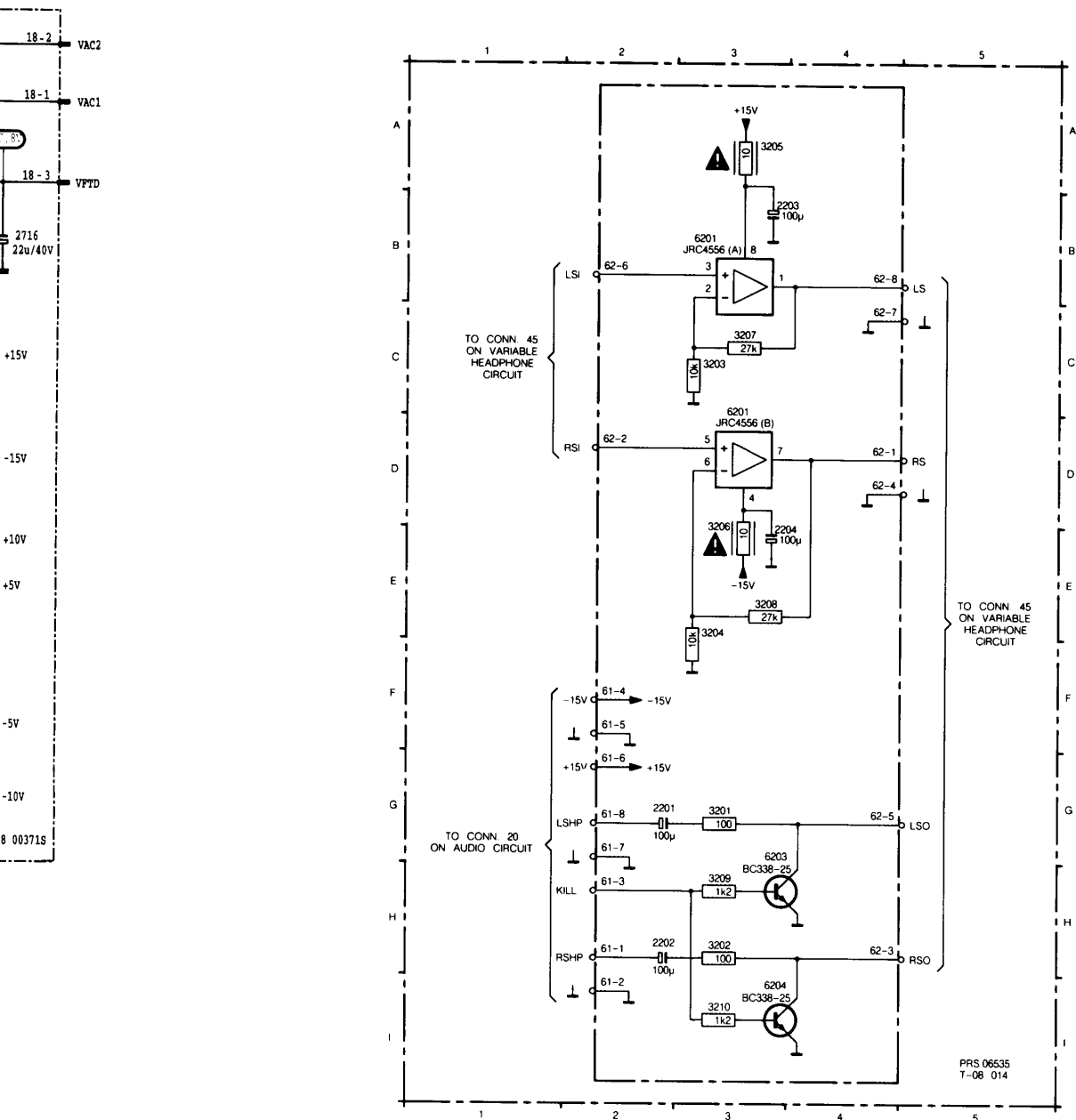


TRANSFORMER CONNECTIONS

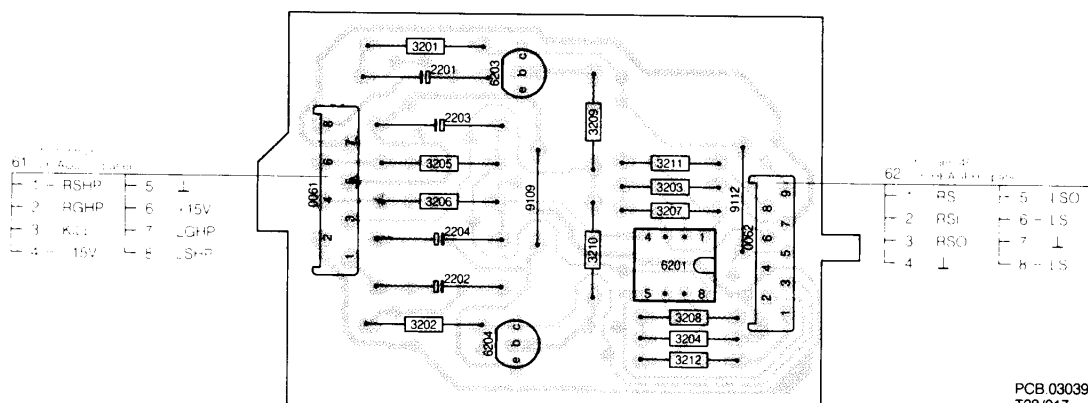


44 737 A11

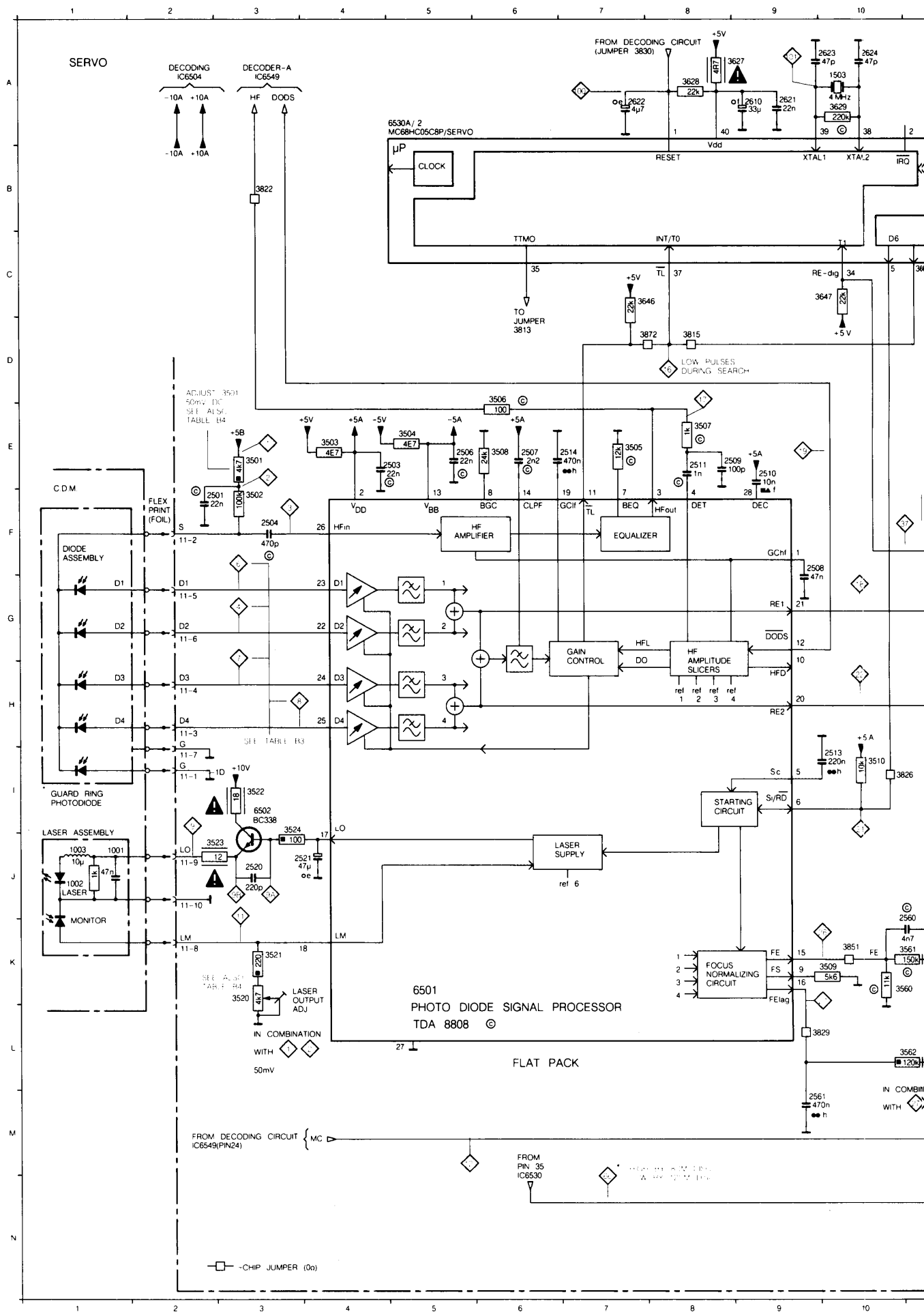
VARIABLE HEADPHONE AMPLIFIER

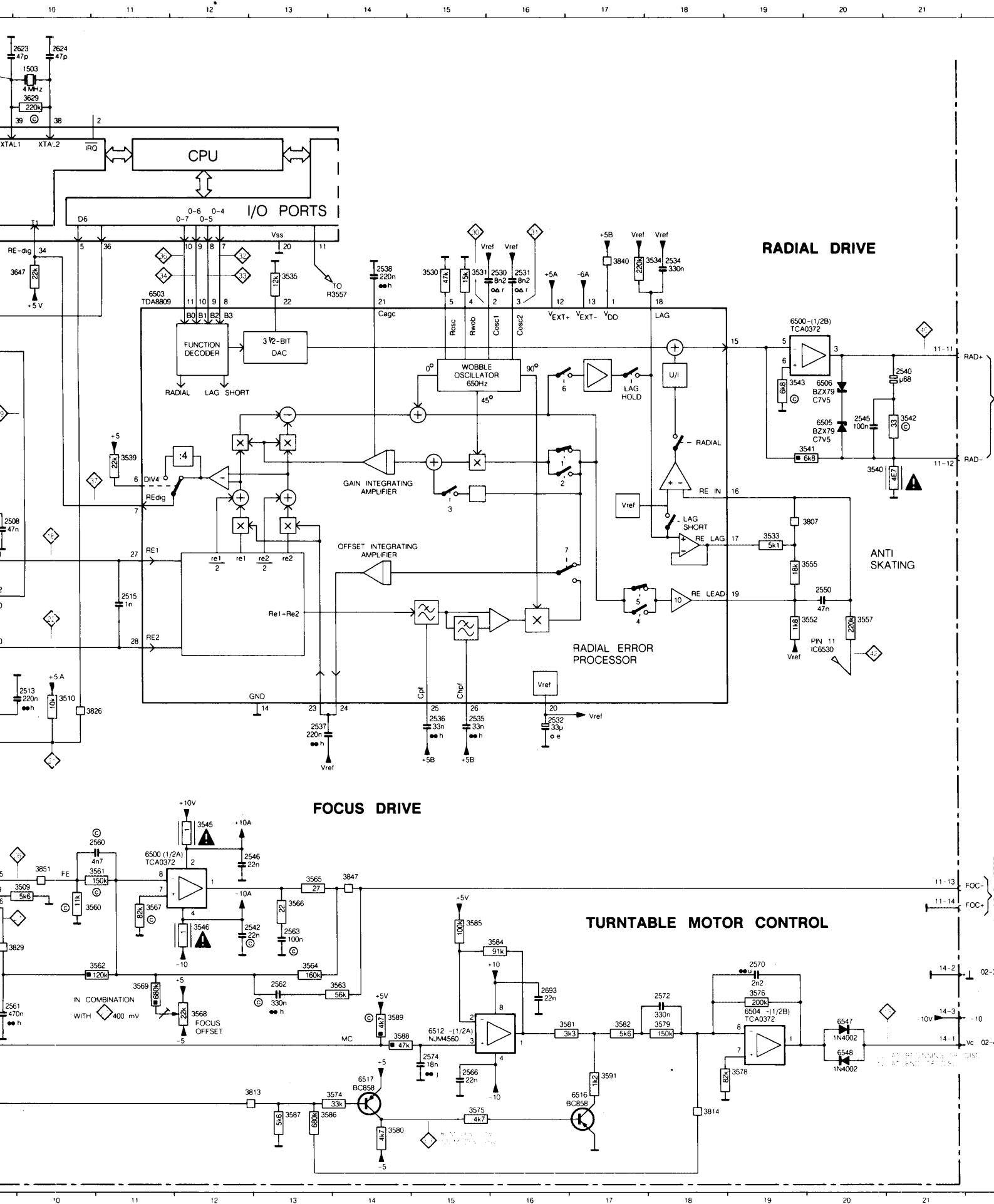


2201 G2
2202 H2
2203 B3
2204 E3
3201 G3
3202 H3
3203 C3
3204 E3
3205 A3
3206 E3
3207 C3
3208 E3
3209 H3
3210 I3
6201 B3
6203 G3
6204 I3



SERVO CIRCUIT DIAGRAM





22

23

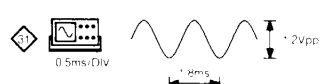
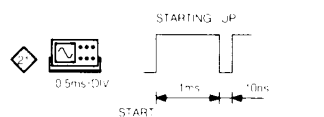
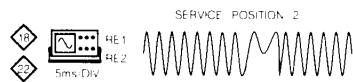
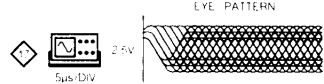
24

25

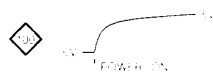
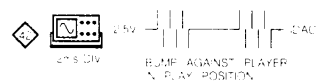
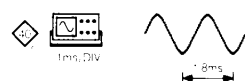
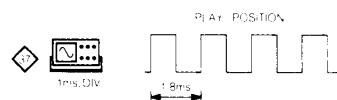
RAD+
TO RADIAL MOTOR
VIA FLEX PRINT
RAD-

FOC-
TO FOCUS MOTOR
VIA FLEX PRINT
FOC+

02-3
-10
Vc 02-4
TO TURNABLE MOTOR CIRCUIT



SERVICE POSITION 0		PLAY MODE
SEARCH		SEARCH
<<	>>	ACTIVITY
HIGH	HIGH	ACTIVITY
HIGH	LOW	ACTIVITY
HIGH	HIGH	ACTIVITY
LOW	LOW	ACTIVITY



A

B

C

D

E

F

G

H

I

J

K

L

M

N

100
2501 F2
2503 E4
2504 F3
2506 E5
2507 E6
2508 F9
2509 E8
2510 E9
2511 E8
2513 I10
2514 E7
2515 G11
2520 J3
2521 J3
2530 C16
2531 C16
2532 I16
2534 C18
2535 I15
2536 I15
2537 I13
2538 C14
2540 E21
2542 L12
2545 E20
2546 K12
2550 G20
2560 K11
2561 M9
2562 L13
2563 L13
2566 M15
2570 L19
2572 L18
2574 M15
2610 A9
2621 A9
2622 A7
2623 A10
2624 A10
2693 M16
3501 E3
3502 F3
3503 E4
3504 E5
3505 E7
3506 D6
3507 E8
3508 E6
3509 K10
3510 I10
3520 K3
3521 K3
3522 I3
3523 J2
3524 I3
3530 C15
3531 C15
3533 G19
3534 C18
3535 C13
3539 F11
3540 F20
3541 F20
3542 E21
3543 E19
3545 J12
3546 L12
3552 H19
3555 G19
3557 H20
3560 K10
3561 K11
3562 L11
3563 L14
3564 L13
3565 K13
3566 K13
3567 K11
3568 M12
3569 L11
3574 N14
3575 N15
3576 L19
3578 M19
3579 M18
3580 N14
3581 M16
3582 M17
3584 L16
3585 L15
3586 N13
3587 N13
3588 M14
3589 M14
3591 N17
3627 A8
3628 A8
3629 A10
3646 C7
3647 C9
3807 F20
3813 N13
3814 N18
3815 D8
3822 B3
3826 I11
3829 L10
3840 C17
3847 K14
3851 K10
3872 D8
6500 D19
6500 K11
6502 I3
6503 D11
6504 M19
6505 E20
6506 E20
6512 M15
6516 N17
6517 N14
6530 A5
6547 M20
6548 M20

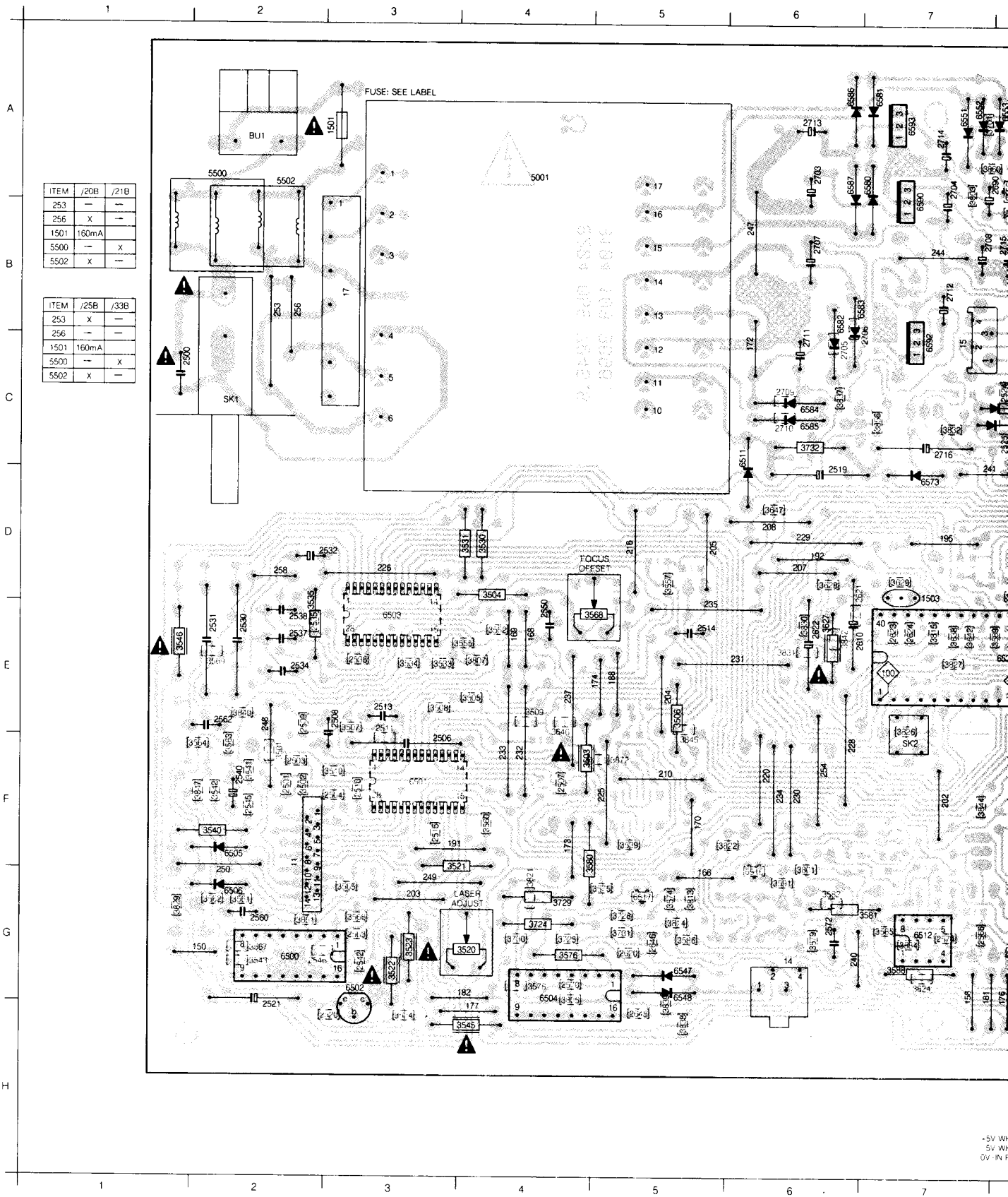
22

23

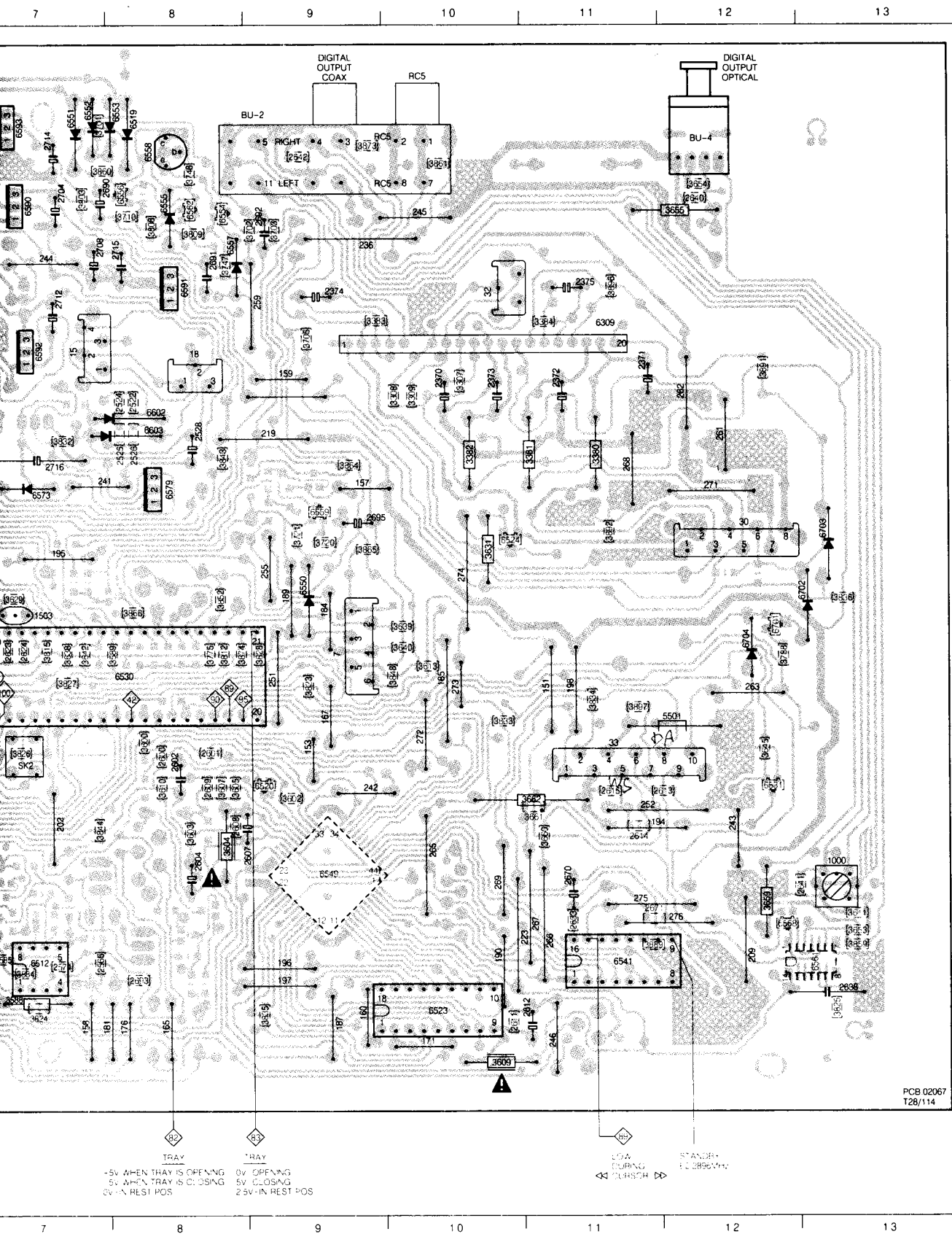
24

25

SERVO DECODER PANEL COMPONENT SIDE



-5V WH
5V WH
0V -IN F



A	7 E9	2511 E3
	17 F2	2512 E3
	14 G6	2514 E5
	15 C7	2515 F3
	17 B3	2519 D6
	18 C8	2520 H2
	30 D12	2521 H2
	32 B10	2522 C8
	33 E11	2524 C8
	150 G1	2525 C8
	151 E11	2526 C8
	153 F9	2528 C8
	157 D9	2530 E2
	158 H7	2531 E2
	159 C9	2532 D2
	160 G8	2534 E2
	165 H8	2535 E2
	166 G5	2536 E3
	167 E9	2537 E2
	168 E4	2538 E2
	169 E4	2540 F2
	170 F5	2542 G3
	171 H10	2545 F2
	172 C6	2546 G2
	173 F4	2550 E4
	174 E5	2560 G2
	176 H8	2562 E2
	177 H4	2563 G3
	181 H7	2566 G7
	182 G3	2570 G4
	184 E9	2572 G6
	185 E10	2574 G7
	187 H9	2600 F8
	188 E5	2601 E8
	189 D9	2602 G11
	190 G10	2604 F8
	191 F3	2607 F9
	192 D6	2608 F8
	194 F11	2609 F8
	195 D7	2610 E7
	196 G9	2611 G10
	197 G9	2612 G11
	198 E11	2613 F11
	202 F7	2614 F11
	203 G3	2615 F11
	204 E5	2620 G5
	205 D5	2621 E7
	207 D6	2622 E6
	208 D6	2623 E7
	209 G12	2624 E7
	210 F5	2633 G11
	216 D5	2638 G13
	219 C9	2640 A12
	220 F6	2641 F13
	223 F1	2642 A9
	225 F5	2645 H5
	226 D3	2646 G5
	228 F6	2670 F11
	229 D6	2671 G11
	230 F6	2690 A8
	231 E5	2691 B8
	232 F4	2692 B9
	233 F4	2693 C8
	234 F6	2695 D9
	235 E5	2703 A6
	236 B9	2704 A7
	237 E4	2705 C6
	240 C6	2706 C7
	241 C7	2707 B8
	242 F9	2708 B7
	243 F12	2709 C6
	244 B7	2710 C6
	245 B10	2711 C6
	246 H11	2712 B7
	247 E6	2713 A6
	248 F2	2714 A7
	249 G3	2715 B8
	250 G2	2716 C7
	251 E9	3307 C10
	252 F11	3308 C10
	253 B2	3309 C10
	254 F6	3360 C11
	255 D9	3381 C11
	256 B2	3382 C10
	258 D2	3383 B9
	259 B9	3384 B11
	261 C12	3501 F2
	262 C12	3502 F2
	263 E12	3503 F4
	265 F10	3504 D4
	266 G11	3505 E4
	267 G11	3506 E5
	268 C11	3507 E3
	269 F10	3508 G3
	271 D12	3509 E4
	272 E10	3510 F3
	273 E10	3520 G4
	274 D10	3521 G3
	275 G11	3522 G3
	276 G11	3523 G3
	BU1 A2	3524 H3
	SK1 C2	3530 D4
	SK2 F7	3531 D4
	1000 F13	3533 E3
	1501 A3	3534 E3
	1503 D7	3535 E2
	2370 C10	3539 F5
	2371 C11	3540 E2
	2372 C11	3541 F2
	2373 C10	3542 F2
	2374 B9	3543 G2
	2375 B11	3544 H4
	2500 C1	3546 E1
	2501 F2	3552 E4
	2503 E5	3553 E3
	2504 F3	3557 D5
	2506 F3	3560 F4
	2507 F4	3561 G2
	2508 E3	3562 G2
	2509 F2	3563 F2
	2510 F3	3564 F1

7	E9	2511	E3	3565	G3	5502	A2
11	F2	2513	E3	3566	G3	6309	B11
14	G6	2514	E5	3567	G2	6500	G2
15	C7	2515	F3	3568	E4	6501	F3
17	B3	2519	D6	3569	E2	6502	G3
18	C8	2520	H2	3574	G5	6503	E3
30	D12	2521	H2	3575	G5	6504	G4
32	B10	2522	C8	3576	G4	6505	F2
33	E11	2524	C8	3578	G4	6506	G2
150	G1	2525	C8	3579	G6	6511	C6
151	E11	2526	C8	3580	G5	6512	G7
153	F9	2528	C8	3581	G6	6516	G6
157	D9	2530	E2	3582	G6	6517	G5
158	H7	2531	E2	3584	G7	6519	A8
159	C9	2532	D2	3585	G7	6520	F9
160	G9	2534	E2	3586	G5	6523	G10
165	H8	2535	E2	3588	G7	6524	D10
166	G5	2536	E3	3589	E8	6530	E8
167	E9	2537	E2	3591	G6	6531	F12
168	E4	2538	E2	3600	E8	6541	G11
169	E4	2540	F2	3602	F9	6547	G5
170	F5	2542	G3	3603	F8	6548	G5
171	H10	2545	F2	3604	F8	6549	F9
172	C6	2546	G2	3605	F8	6550	D9
173	F4	2550	E4	3607	F8	6551	A7
174	E5	2560	G2	3609	H10	6552	A7
176	H8	2562	E2	3610	F8	6553	A8
177	H4	2563	G3	3611	G13	6554	B8
181	H7	2566	G7	3613	E10	6555	B8
182	G3	2570	G4	3627	E5	6556	A8
184	E9	2572	G6	3628	D6	6557	B8
185	E10	2574	G7	3629	D7	6558	A8
187	H9	2600	F8	3631	D10	6559	D9
188	E5	2601	E8	3638	E7	6561	G13
189	D9	2602	F8	3639	E10	6562	B8
190	G10	2604	F8	3640	E10	6568	G12
191	F3	2607	F9	3642	E7	6573	D7
192	D6	2608	F8	3645	F12	6579	D8
194	F11	2609	F8	3646	F4	6580	A7
195	D7	2610	E7	3647	D6	6581	A7
196	G9	2611	G10	3653	G13	6582	B6
197	G9	2612	G11	3654	A12	6583	B7
198	E11	2613	F11	3655	B12	6584	C6
202	F7	2614	F11	3659	G12	6585	C6
203	G3	2615	F11	3660	F11	6586	A6
204	E5	2620	G5	3661	F11	6587	A6
205	D5	2621	E7	3662	F10	6590	B7
207	D6	2622	E6	3701	A7	6591	B8
208	D6	2623	E7	3702	B9	6592	C7
209	G12	2624	E7	3703	B9	6593	A7
210	F5	2633	G11	3705	C9	6602	C8
216	D5	2638	G13	3710	B8	6603	C8
219	C9	2640	A12	3720	D9	6701	E12
220	F6	2641	F13	3721	D9	6702	D13
223	G11	2642	A9	3724	G4	6703	D13
225	F5	2645	H5	3725	G4	6704	E12
226	D3	2646	G5	3728	G5	BU-2	A8
228	F6	2670	F11	3729	G4	BU-4	A12
229	D6	2671	G11	3730	G4		
230	F6	2690	A8	3731	G5		
231	E5	2691	B8	3732	C6		
232	F4	2692	B9	3747	B8		
233	F4	2693	G8	3748	A8		
234	F6	2695	D9	3775	E8		
235	E5	2703	A6	3788	E12		
236	B9	2704	A7	3801	G6		
237	E4	2705	C6	3803	B7		
240	G6	2706	C7	3805	H4		
241	C7	2707	B6	3807	E4		
242	F9	2708	B7	3808	B8		
243	F12	2709	C6	3809	B8		
244	B7	2710	C6	3812	E8		
245	B10	2711	C6	3813	G5		
246	H11	2712	B7	3814	G5		
247	B6	2713	A6	3815	E7		
248	F2	2714	A7	3821	G4		
249	G3	2715	B8	3822	F5		
250	G2	2716	C7	3823	E9		
251	E9	3307	C10	3824	G7		
252	F11	3308	C10	3825	G13		
253	B2	3309	C10	3826	E7		
254	F6	3380	C11	3827	E7		
255	D9	3381	C11	3828	E9		
256	B2	3382	C10	3829	G1		
258	D2	3383	B9	3830	E6		
259	B9	3384	B11	3831	E6		
261	C12	3501	F2	3832	C7		
262	C12	3502	F2	3833	E10		
263	E12	3503	F4	3834	F11		
265	F10	3504	D4	3835	G9		
266	G11	3505	E4	3836	D13		
267	G11	3506	E5	3837	C6		
268	C11	3507	E3	3838	H5		
269	F10	3508	E3	3839	H5		
271	D12	3509	E4	3840	E2		
272	E10	3510	F3	3842	E6		
273	E10	3520	G4	3843	C8		
274	D10	3521	G3	3844	F7		
275	G11	3522	G3	3845	F5		
276	G11	3523	G3	3847	F2		
BU1	A2	3524	H3	3848	E10		
SK1	C2	3530	D4	3851	G2		
SK2	F7	3531	D4	3852	D8		
1000	F13	3533	E3	3856	C7		
1501	A3	3534	E3	3859	G13		
1503	D7	3535	E2	3860	A7		
2370	C10	3539	F5	3861	A10		
2371	C11	3540	F2	3864	C9		
2372	C11	3541	F2	3865	D9		
2373	C10	3542	F2	3866	D8		
2374	B9	3543	G2	3872	F5		
2375	B11	3545	H4	3873	A9		
2500	C1	3546	E1	3874	E8		
2501	F2	3552	E4	3889	G11		
2503	E2	3555	E3	3891	C12		
2504	F3	3557	D5	3892	D11		
2506	F3	3560	F4	3896	B11		
2507	F4	3561	G2	3897	E11		
2508	E3	3562	G2	5001	A4		
2509	F2	3563	F2	5500	A2		
2510	F3	3564	F1	5501	E12		





14

/21B	/20B	ITEM
—	—	253
—	X	256
160mA	1501	
X	—	5500
—	X	5502

/33B	/25B	ITEM
—	X	253
—	—	256
160mA	1501	
X	—	5500
—	X	5502

A

B

C

D

E

F

G

H

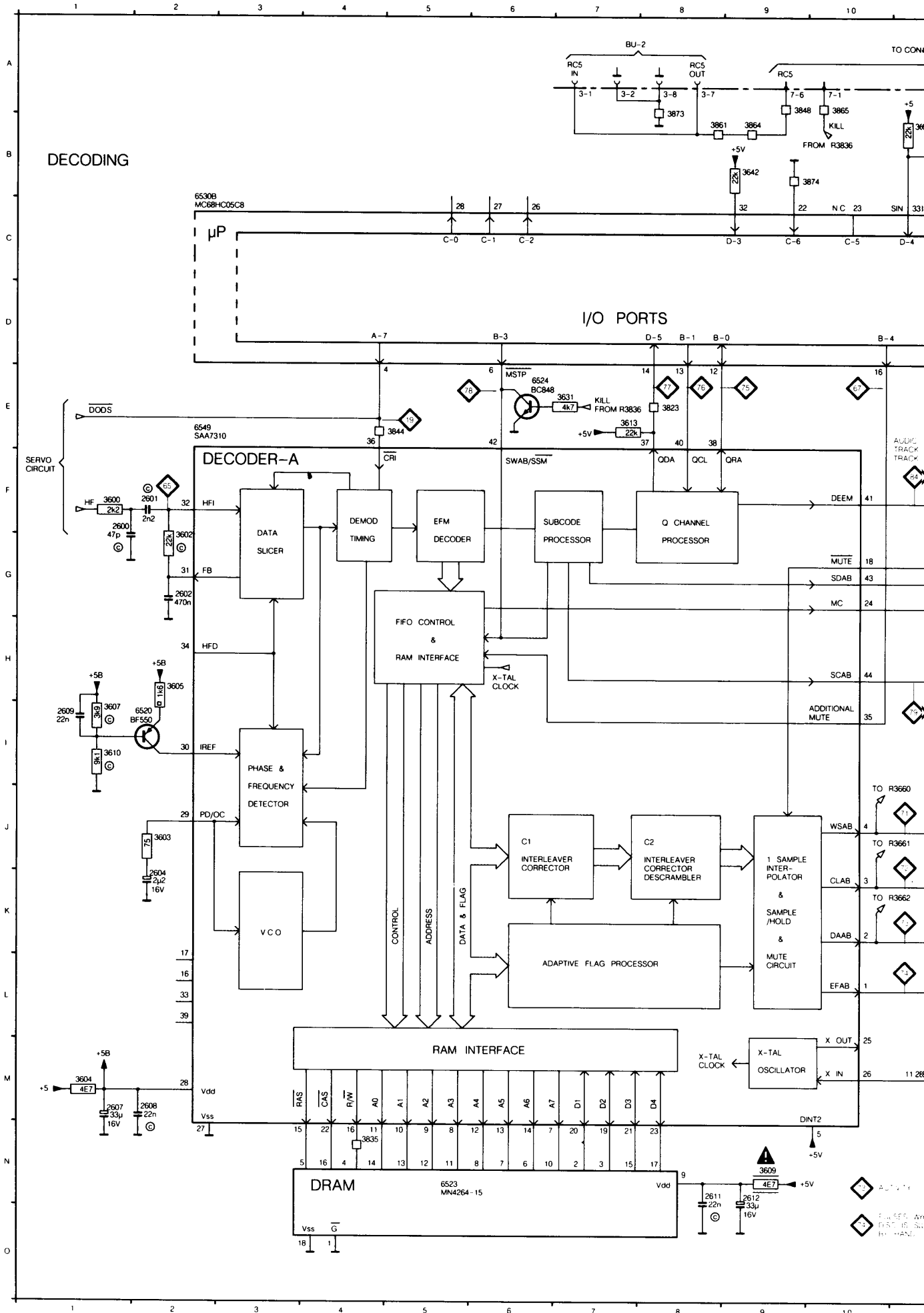
I

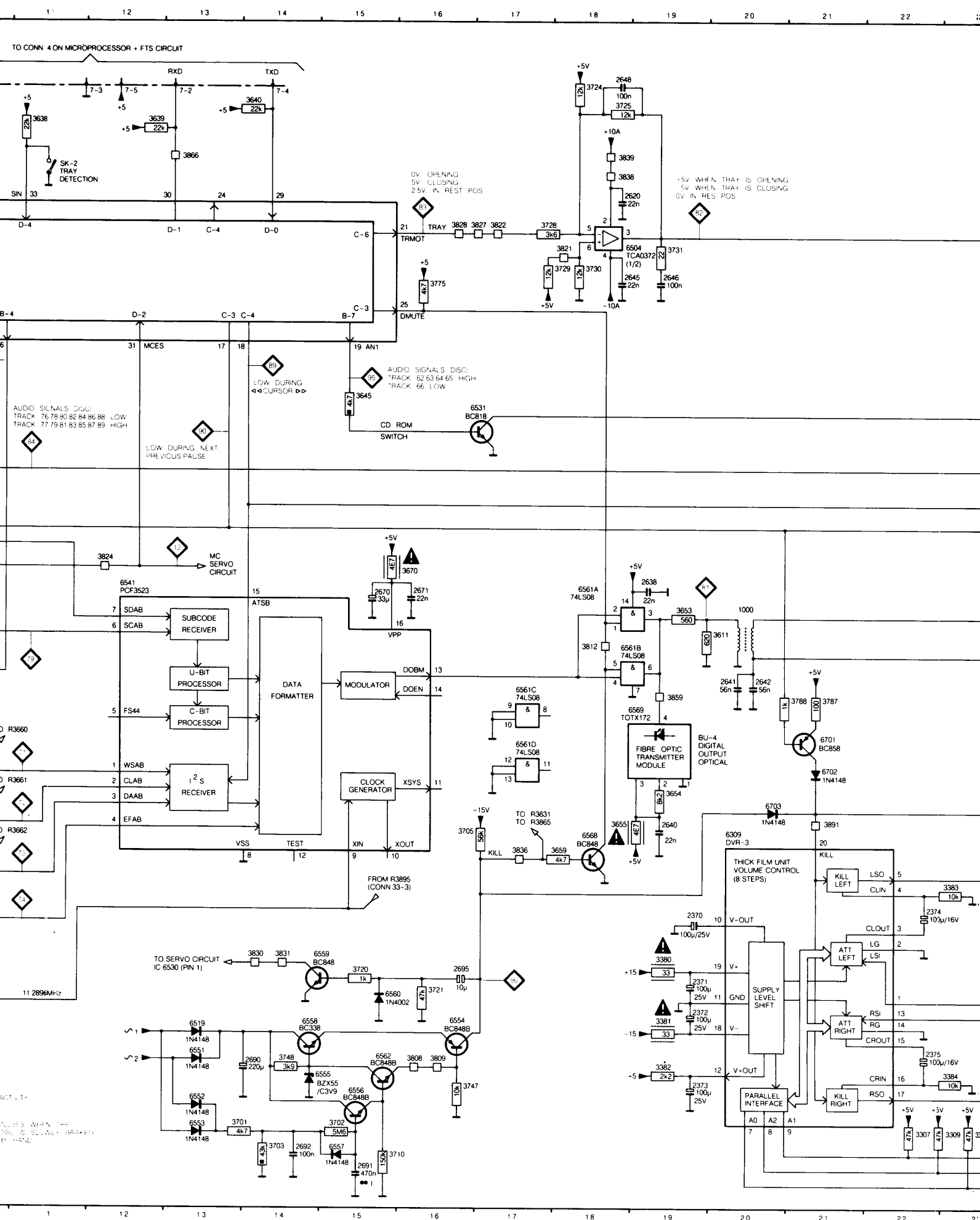
7 E6	2513 F12	3505 F11	3661 G4	3889 G3
11 G13	2514 E9	3505 F11	3661 G4	3891 C3
14 H6	2515 G12	3506 F10	3662 F4	3891 C3
15 C8	2515 G12	3507 F12	3701 B7	3892 E4
17 C12	2519 D8	3507 F12	3701 B7	3892 E4
18 C7	2520 H12	3508 F11	3702 B6	3896 C4
30 D3	2520 H12	3508 F11	3702 B6	3896 C4
32 C5	2521 H13	3509 F11	3703 B6	3897 F3
33 F4	2522 D7	3509 F11	3703 B6	3897 F3
150 H13	2522 D7	3510 F12	3705 C6	5001 B11
151 F4	2524 D7	3510 F12	3705 C6	5000 B13
153 F6	2524 D7	3520 H11	3710 B7	5501 F3
157 D5	2525 D7	3521 G11	3710 B7	5502 B13
158 H8	2526 D7	3522 H12	3720 E6	6309 C5
159 C6	2528 D7	3523 H12	3720 E6	6500 H13
160 H6	2530 E13	3524 H12	3721 E6	6501 G12
165 H7	2531 E13	3524 H12	3721 E6	6502 H12
166 G10	2532 E12	3530 E11	3724 H11	6503 E12
167 F6	2534 F13	3531 E11	3725 H10	6504 H11
168 E11	2535 E12	3533 F11	3725 H10	6505 G13
169 E11	2535 E12	3533 F11	3728 G10	6506 G13
170 G10	2536 F12	3534 F12	3728 G10	6511 D9
171 H5	2536 F12	3534 F12	3729 G11	6512 H8
172 C9	2537 E13	3535 E13	3730 H11	6516 G9
173 G11	2538 E13	3539 G10	3730 H11	6517 G10
174 F10	2540 F13	3539 G10	3731 H10	6519 B7
176 H7	2542 H12	3540 G13	3731 H10	6520 F6
177 H11	2542 H12	3541 F13	3732 D9	6523 H5
181 H7	2545 G13	3541 F13	3747 C7	6524 E4
182 H11	2545 G13	3542 G13	3747 C7	6530 F7
184 E6	2546 H12	3542 G13	3748 B7	6531 F2
185 F5	2546 H12	3543 H13	3748 B7	6541 H4
187 H6	2550 E11	3543 H13	3775 E7	6547 H10
188 F10	2560 H13	3545 H11	3775 E7	6548 H10
189 E5	2562 F13	3548 E13	3788 E3	6549 G6
190 H5	2563 H12	3552 E11	3788 E3	6550 E6
191 G11	2563 H12	3552 E11	3801 G9	6551 B8
192 E9	2566 H7	3555 E11	3801 G9	6552 B8
193 C6	2566 H7	3555 E11	3803 B8	6553 A7
194 G3	2570 H10	3557 E10	3803 B8	6554 B7
195 E8	2570 H10	3557 E10	3805 H10	6555 B7
196 H6	2572 H9	3560 G11	3805 H10	6556 B7
197 H6	2574 H8	3560 G11	3807 F11	6557 B7
198 F4	2574 H8	3561 G13	3807 F11	6558 B7
202 G8	2600 F7	3561 G13	3808 B7	6559 D6
203 G12	2600 F7	3562 G13	3808 B7	6561 H2
204 F10	2601 F7	3562 G13	3809 B7	6562 B7
205 E10	2605 F7	3563 F13	3809 B7	6568 G2
207 E9	2602 F7	3563 F13	3812 E7	6573 D8
208 D9	2604 G7	3564 F13	3812 E7	6579 D7
209 H3	2607 G6	3564 F13	3813 G10	6580 B8
210 F10	2608 G6	3565 G12	3813 G10	6581 A8
216 E10	2608 G6	3565 G12	3814 H10	6582 C9
219 C6	2609 F7	3566 H12	3814 H10	6583 C9
220 C9	2609 F7	3566 H12	3815 E8	6584 D9
223 H4	2610 E8	3567 H13	3815 E8	6585 D9
225 G10	2611 H4	3567 H13	3821 G11	6586 A9
226 E12	2611 H4	3568 E10	3821 G11	6587 B8
228 F8	2612 H4	3569 F13	3822 G9	6590 B8
229 E9	2613 F3	3569 F13	3822 G9	6591 C7
230 G9	2613 F3	3574 G10	3823 F6	6592 C8
231 F9	2614 G3	3574 G10	3823 F6	6593 B8
232 F11	2614 G3	3575 G10	3824 H8	6593 B8
233 F11	2615 F4	3575 G10	3824 H8	6597 C8
234 G9	2615 F4	3576 H10	3825 H2	6602 D7
235 E9	2620 H10	3578 H11	3825 H2	6603 D7
236 B5	2620 H10	3578 H11	3826 F8	6701 E3
237 F11	2621 E8	3579 H9	3826 F8	6702 E2
240 H8	2621 E8	3579 H9	3827 F8	6703 E2
241 D7	2622 E9	3580 G10	3827 F8	6704 E3
242 F5	2623 E8	3581 G8	3828 E6	BU-2 A6
243 G3	2623 E8	3582 G9	3828 E6	BU-4 B3
244 C8	2624 E8	3582 G9	3829 G13	
245 B5	2624 E8	3584 H8	3829 G13	
246 H4	2633 G4	3584 H8	3830 E9	
247 B9	2633 G4	3585 H8	3831 F9	
248 F13	2638 H2	3585 H8	3831 F9	
249 G12	2640 B3	3586 H10	3832 D8	
250 G13	2640 B3	3586 H10	3832 D8	
251 F6	2641 G2	3588 H8	3833 F4	
252 F3	2641 G2	3589 E7	3833 F4	
253 C13	2642 B6	3589 E7	3834 F4	
254 F9	2642 B6	3591 G9	3834 F4	
255 E6	2645 H10	3591 G9	3835 H6	
256 C13	2645 H10	3600 F7	3835 H6	
258 E13	2646 H10	3600 F7	3836 E2	
259 C6	2646 H10	3602 F6	3836 E2	
261 D3	2670 G4	3602 F6	3838 H10	
262 D3	2671 G4	3603 G7	3838 H10	
263 F3	2671 G4	3603 G7	3839 H10	
265 G5	2690 B7	3604 G7	3839 H10	
266 H4	2691 C7	3605 F6	3840 F13	
267 G4	2692 B6	3605 F6	3840 F13	
268 D4	2693 H7	3607 F7	3842 E9	
269 G5	2693 H7	3607 F7	3842 E9	
271 D3	2695 D5	3609 H4	3843 D7	
272 F5	2703 B9	3610 F7	3843 D7	
273 F5	2704 B8	3610 F7	3844 G7	
274 E5	2705 C9	3611 G2	3844 G7	
275 G4	2705 C9	3611 G2	3845 F10	
276 G3	2706 C8	3613 E5	3845 F10	
BU1 B13	2706 C8	3613 E5	3847 G13	
SK1 D13	2707 B9	3627 F9	3847 G13	
SK2 F8	2708 B7	3628 E9	3848 F5	
1000 G2	2709 D9	3628 E9	3848 F5	
1501 B12	2710 D9	3629 E8	3851 H12	
1503 B8	2711 C9	3629 E8	3851 H12	
2370 C5	2712 C8	3631 E5	3852 E7	
2371 C4	2713 B9	3638 E8	3852 E7	
2372 C4	2714 B8	3638 E8	3856 D8	
2373 C5	2715 B7	3639 E5	3856 D8	
2374 C6	2716 D8	3639 E5	3859 G2	
2375 C4	3307 C5	3640 E5	3859 G2	
2500 C13	3307 C5	3640 E5	3860 B7	
2501 G13	3308 D5	3642 E8	3860 B7	
2501 G13	3308 D5	3642 E8	3861 B5	
2503 F13	3309 D5	3645 F3	3861 B5	
2503 F13	3309 D5	3645 F3	3864 D6	
2504 G12	3380 D4	3646 F11	3864 D6	
2504 G12	3381 D4	3646 F11	3865 E5	
2506 F12	3382 D5	3647 D9	3865 E5	
2507 G11	3383 C5	3647 D9	3866 E7	
2507 G11	3383 C5	3653 G2	3866 E7	
2508 F12	3384 C4	3653 G2	3872 F10	
2509 F13	3384 C4	3654 B3	3872 F10	
2509 F13	3501 F13	3654 B3	3873 B5	
2510 G12	3501 F13	3655 B3	3873 B5	
2510 G12	3502 G13	3659 G3	3874 E6	
2511 F12	3503 F10	3660 G4	3874 E6	
2511 F12	3504 E11	3660 G4	3889 G3	

PCB 02068
128/116

14

DECODING CIRCUIT DIAGRAM

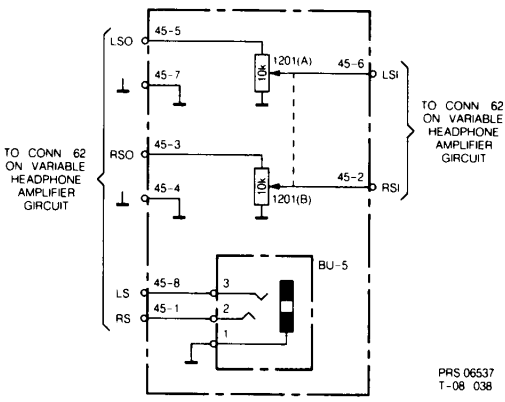
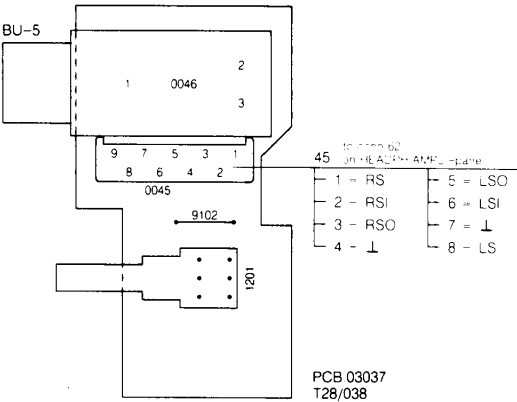




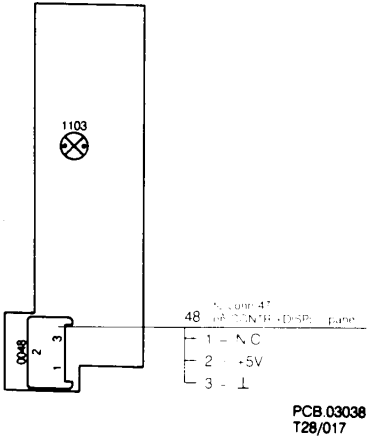


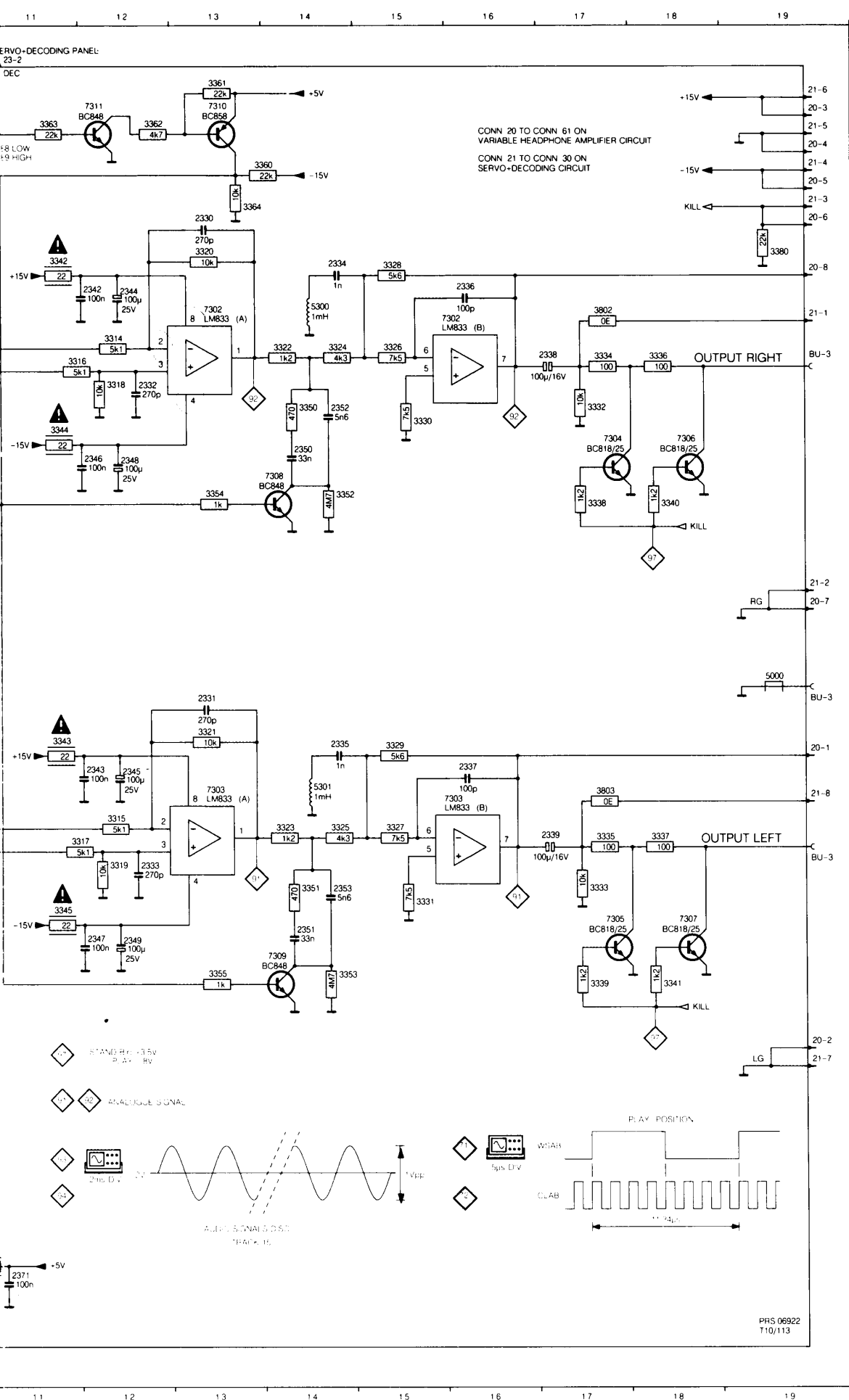
6561D J17

VARIABLE HEADPHONE



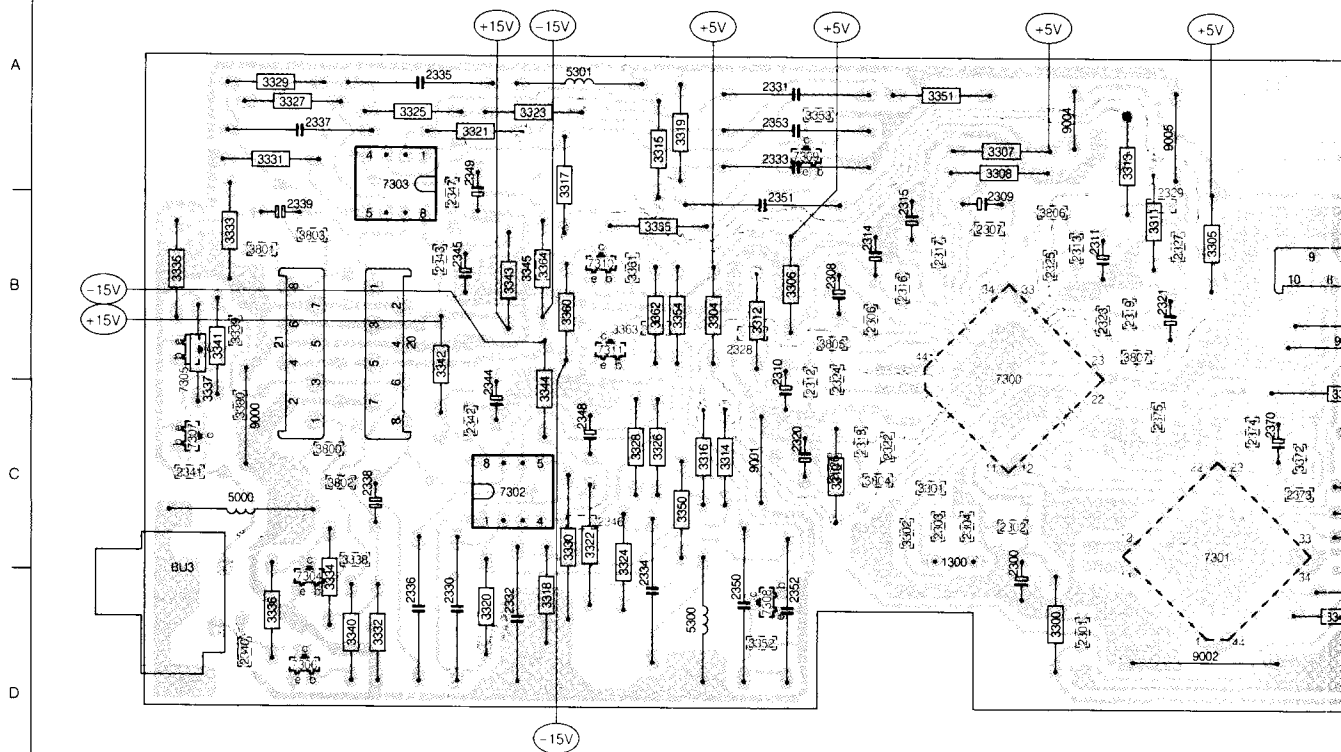
LIGHTING





- 1300 A3
- 2300 C2
- 2301 C1
- 2302 C3
- 2303 A3
- 2304 A4
- 2306 A5
- 2307 H5
- 2308 A6
- 2309 H6
- 2310 A7
- 2311 H7
- 2312 A7
- 2313 H7
- 2314 B8
- 2315 H8
- 2316 B8
- 2317 G8
- 2318 A8
- 2319 H8
- 2320 A9
- 2321 H9
- 2322 C9
- 2323 E9
- 2324 D9
- 2325 F9
- 2326 C9
- 2327 E9
- 2328 D9
- 2329 F9
- 2330 B13
- 2331 G13
- 2332 D12
- 2333 I12
- 2334 C14
- 2335 H14
- 2336 C16
- 2337 H16
- 2338 D17
- 2339 I17
- 2342 C12
- 2343 H12
- 2344 C12
- 2345 H12
- 2346 E12
- 2347 J12
- 2348 E12
- 2349 J12
- 2350 E14
- 2351 J14
- 2352 D14
- 2353 J14
- 2370 N10
- 2371 N1
- 2373 J3
- 2374 N10
- 2375 A4
- 3300 C2
- 3301 G3
- 3302 B4
- 3304 A9
- 3305 H9
- 3306 A8
- 3307 H8
- 3308 E9
- 3311 E9
- 3312 D9
- 3313 F9
- 3314 C12
- 3315 I12
- 3316 D11
- 3317 I11
- 3318 D12
- 3319 I12
- 3320 C13
- 3321 H13
- 3322 D14
- 3323 I14
- 3324 D14
- 3325 I14
- 3326 D15
- 3327 I15
- 3328 C15
- 3329 H15
- 3330 D15
- 3331 J15
- 3332 D17
- 3333 J17
- 3334 D17
- 3335 I17
- 3336 D18
- 3337 I18
- 3338 E17
- 3339 K17
- 3340 E18
- 3341 K18
- 3342 C11
- 3343 H11
- 3344 D11
- 3345 J11
- 3346 K3
- 3347 K3
- 3348 K3
- 3349 K2
- 3350 D14
- 3351 J14
- 3352 E14
- 3353 J14
- 3354 E13
- 3355 J13
- 3356 M3
- 3360 B14
- 3361 A13
- 3362 A12
- 3363 A11
- 3364 B13
- 3371 M10
- 3372 J3
- 3380 C19
- 3802 C17
- 3803 H17
- 3804 A7
- 3805 B7
- 3806 G7
- 3807 H7
- 5000 G19
- 5300 C14
- 5301 H14
- 7300 B9
- 7301 I9
- 7302 C13
- 7302 C15
- 7303 H13
- 7303 I15
- 7304 E17
- 7305 J17
- 7306 E18
- 7307 J18
- 7308 E14
- 7309 J14
- 7310 A13
- 7311 A12

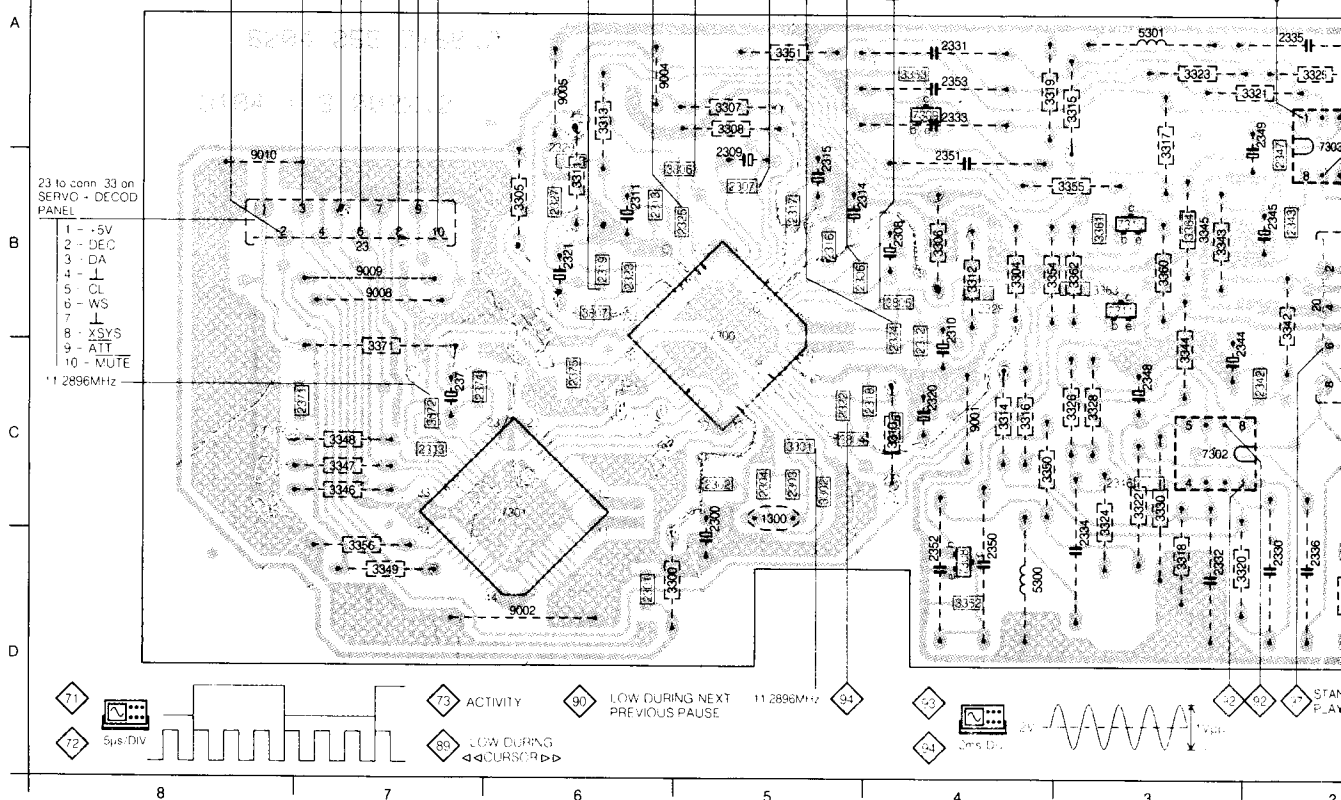
AUDIO PANEL COMPONENT SIDE

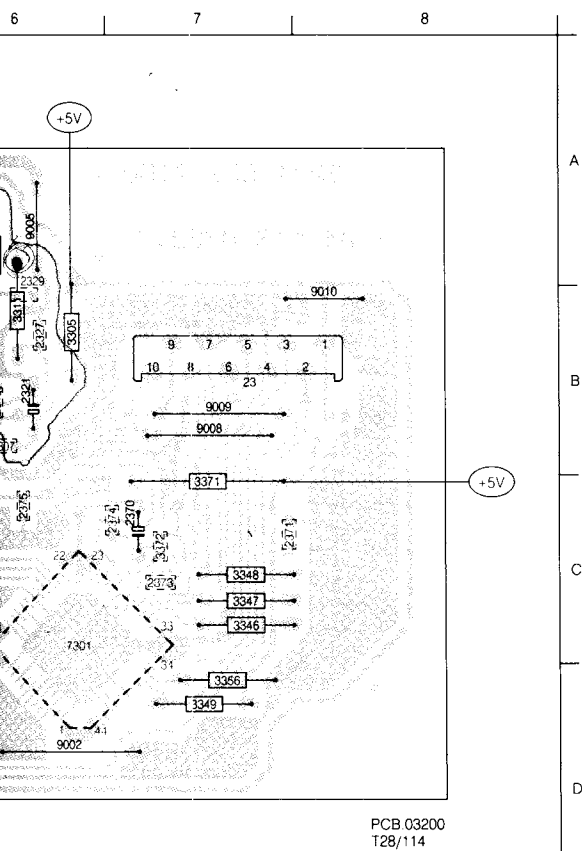


20 B2	2307 B5	2318 C4	2329 B6	2340 D1	2351 B4	3304 B4	3316 C4	3327 A1	3338 C2	3349 D7	3363 B3
21 B1	2308 B4	2319 B6	2330 D2	2341 C1	2352 D4	3305 B6	3317 B3	3328 C3	3339 B1	3350 C4	3364 B3
23 B7	2309 B5	2320 C4	2331 A4	2342 C2	2353 A4	3306 B4	3318 D3	3329 A1	3340 D2	3351 A5	3371 C7
BU3 D1	2310 C4	2321 B6	2332 D3	2343 C3	2370 A5	3307 A5	3319 A4	3330 C3	3341 B1	3352 D4	3372 C7
1300 C5	2311 B6	2322 C5	2333 A4	2344 C3	2371 C7	3308 A5	3320 C3	3331 A1	3342 B2	3353 A4	3380 C1
2300 D5	2312 C4	2323 B6	2334 D3	2345 B2	2373 C7	3310 C4	3321 A2	3332 D2	3343 B3	3354 B4	3380 C2
2301 D6	2313 B6	2324 C4	2335 A2	2346 C3	2374 C7	3311 B6	3322 C3	3333 B1	3344 C3	3355 B3	3381 B1
2302 C5	2314 B5	2325 B5	2336 D2	2347 B2	2375 D6	3312 B4	3323 A3	3334 D2	3345 C3	3356 D7	3382 C2
2303 C5	2315 B5	2326 C4	2337 A2	2348 C3	3300 C6	3313 A6	3324 A3	3335 B1	3346 C7	3357 B3	3383 B2
2304 C5	2316 B5	2327 B6	2338 C2	2349 A2	3301 C5	3314 C4	3325 A2	3336 D1	3347 C7	3358 B3	3384 C4
2306 B5	2317 B5	2328 B4	2339 B1	2350 D4	3302 C5	3315 A3	3326 C3	3337 C1	3348 C7	3359 B3	3385 B4
	8		7		6		5		4		3

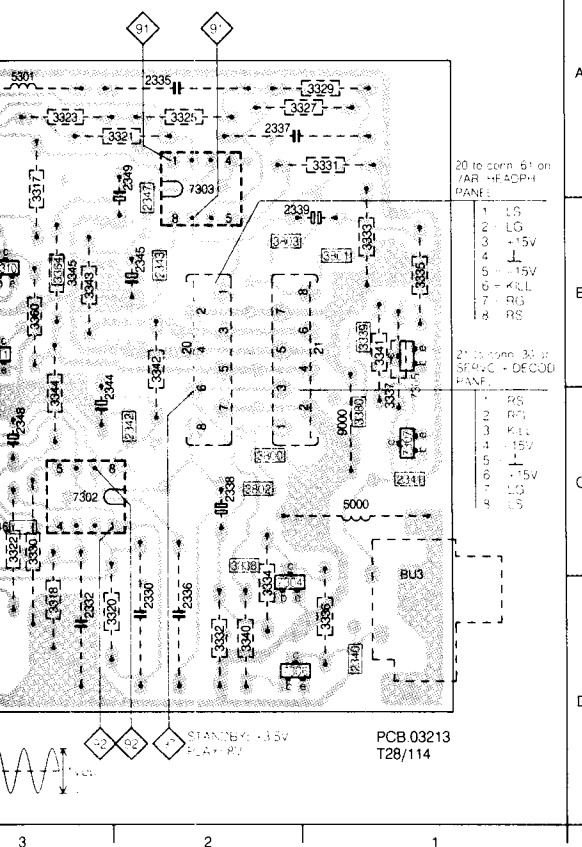
SOLDER SIDE

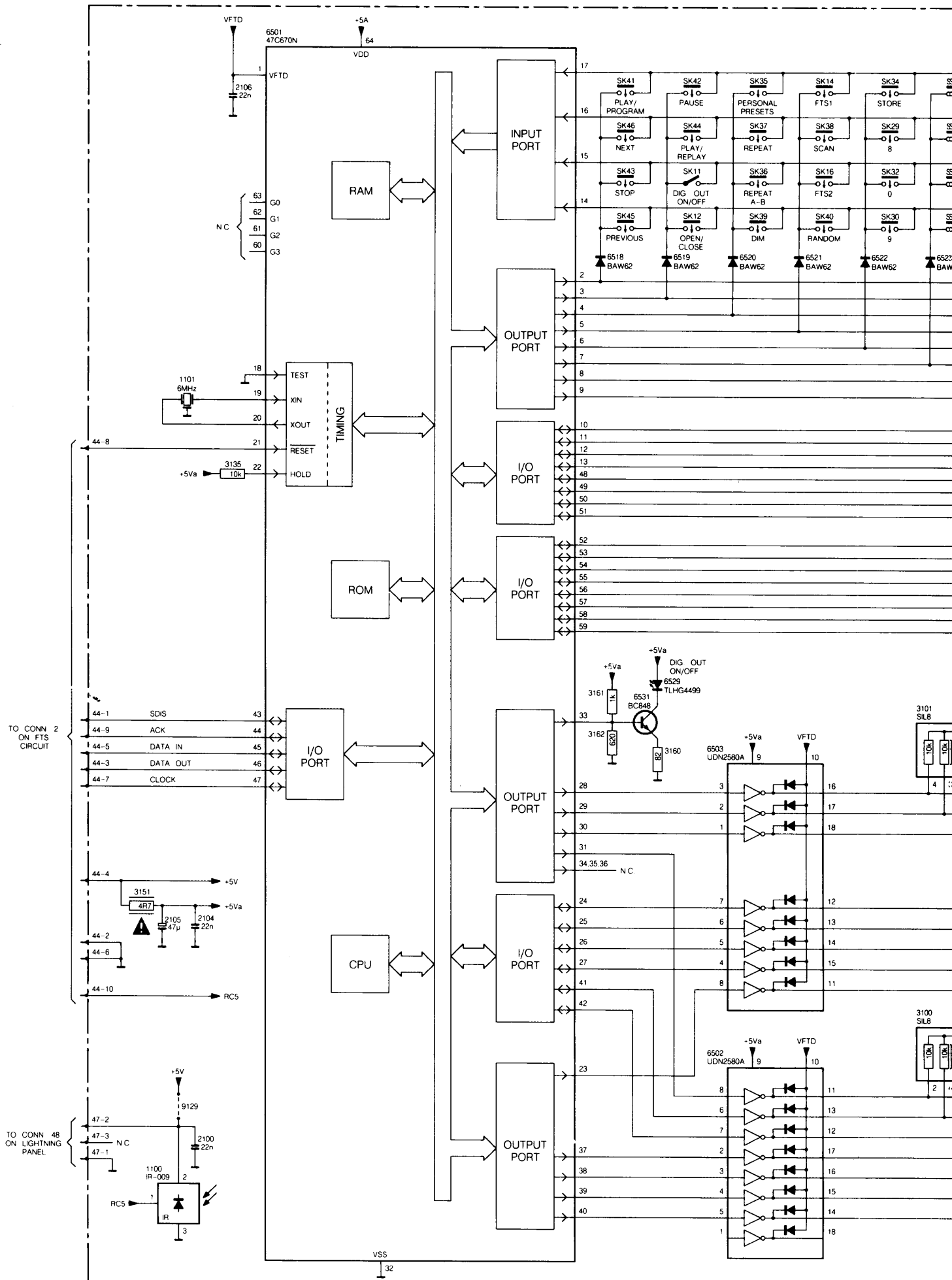
AUDIO SIGNALS DISC
 TRACK 76 78 80 82 84 86 88 LOW
 TRACK 77 79 81 83 85 87 89 HIGH

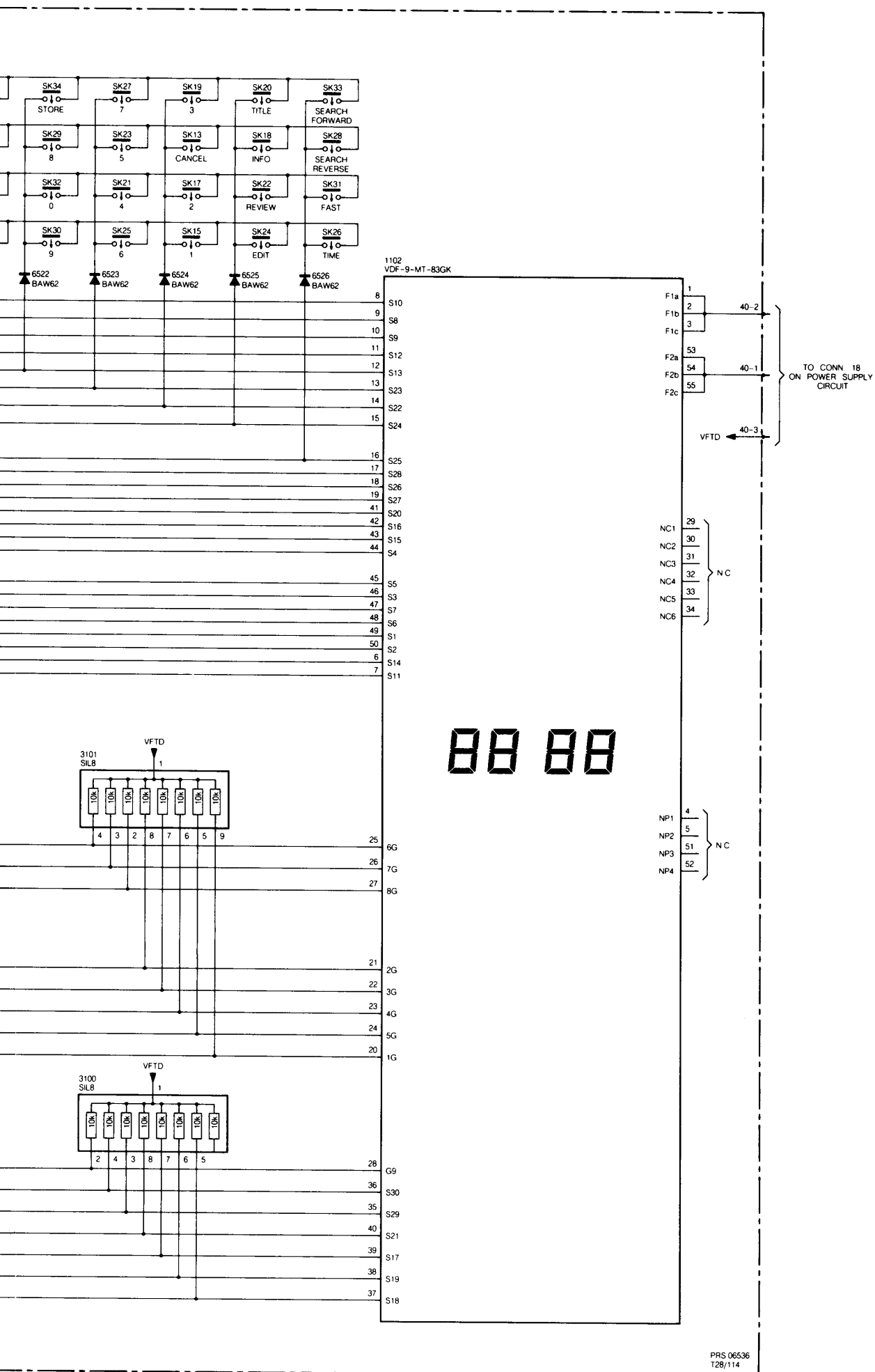




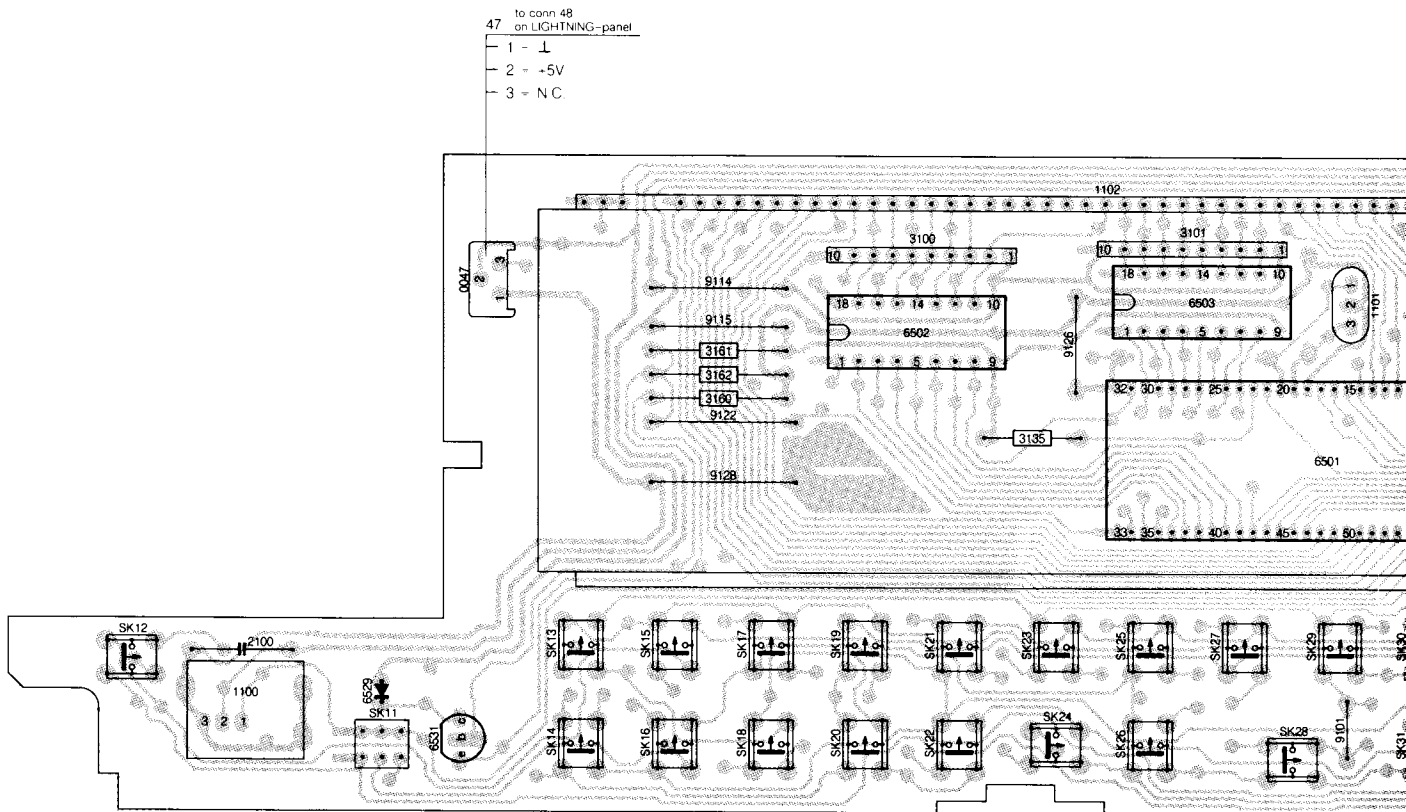
6		7		8
3349 D7	3363 B3	3806 B5	7306 D1	9008 B7
3350 C4	3364 B3	3807 B6	7307 C1	9009 B7
3351 A5	3371 C7	5000 C1	7308 D4	9010 B8
3352 D4	3372 C7	5300 D4	7309 A4	
3353 A4	3380 C1	5301 A3	7310 B3	
3354 B4	3800 C2	7300 B5	7311 B3	
3355 B3	3801 B1	7301 C6	9000 C1	
3356 D7	3802 C2	7302 C3	9001 C4	
3357 B3	3803 B2	7303 A2	9002 D6	
3361 B3	3804 C4	7304 D1	9004 A6	
3362 B3	3805 B4	7305 C1	9005 A6	
3		2		1

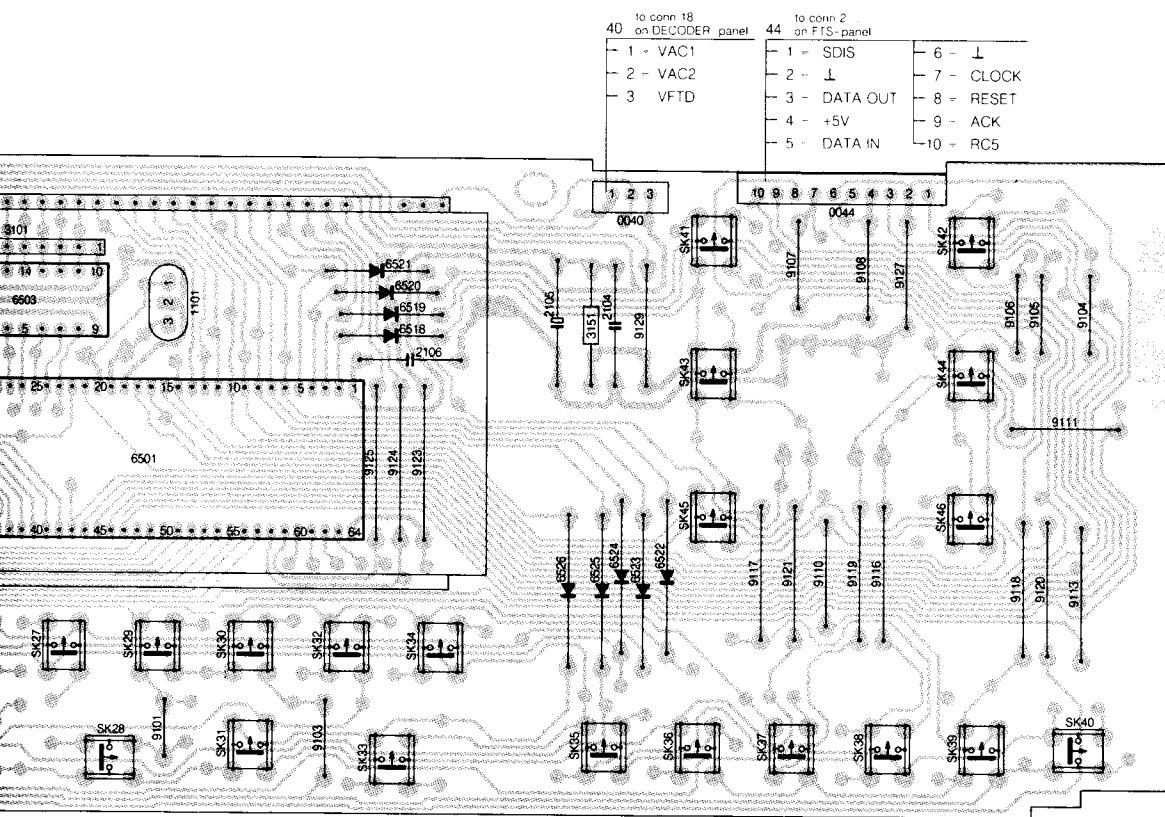






CONTROL AND DISPLAY PANEL



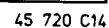




	2	K19
	2	M19
	2	A19
	2	M19
	2	M19
	2	L19
	2	L19
	2	L19
	2	K19
	2	G 1
A	2	J 1
	3	J19
	3	J19
	3	B19
	4	K19
	4	J 1
	4	I 1
	4	G 1
	4	G 6
B	1401	J 8
	2401	K 6
	2402	K 6
	2403	K 7
	2404	J 7
	2405	J 7
	2406	D 5
	2408	B16
	2409	J 3
	3402	I 3
	3403	I 4
	3405	J 4
	3406	I 4
	3407	K 4
C	3408	A16
	3409	A18
	3410	B17
	3411	B18
	3412	F 2
	3413	J16
	3414	J15
	3415	J14
	3416	J14
	3417	J 1
D	5401	L 6
	5403	J 4
	6404	I 3
	6405	D 4
	6407	E14
	6408	B17
	6409	B18
	6410	K 9
E		
F		
G		
H		
I		
J		
K		
L		
M		

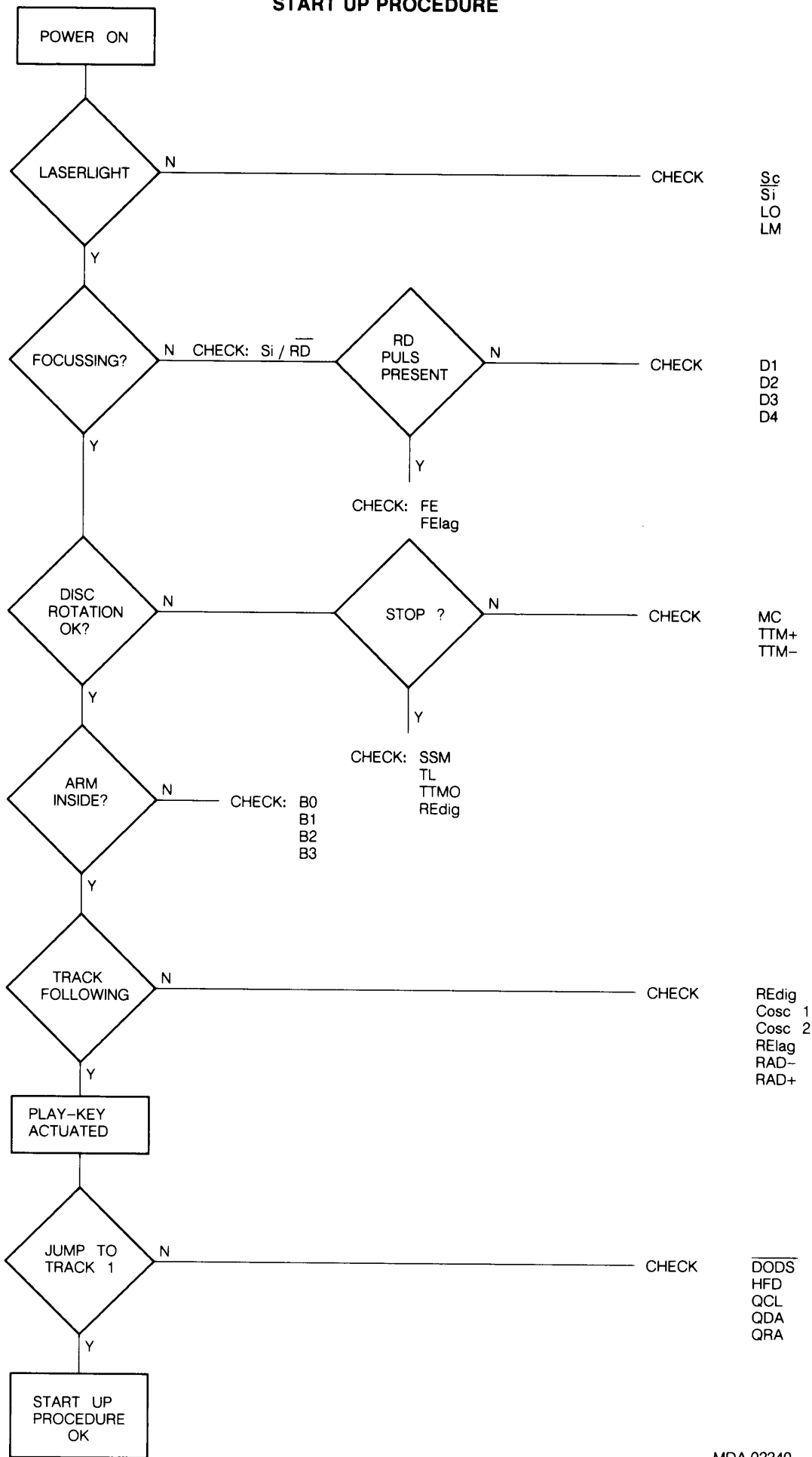
CONN. 2 TO CONN. 44 ON CONTROL AND DISPLAY CIRCUIT
CONN. 3 TO CONN. 33 ON SERVO+DECODER CIRCUIT

3104 108 64171S
9111



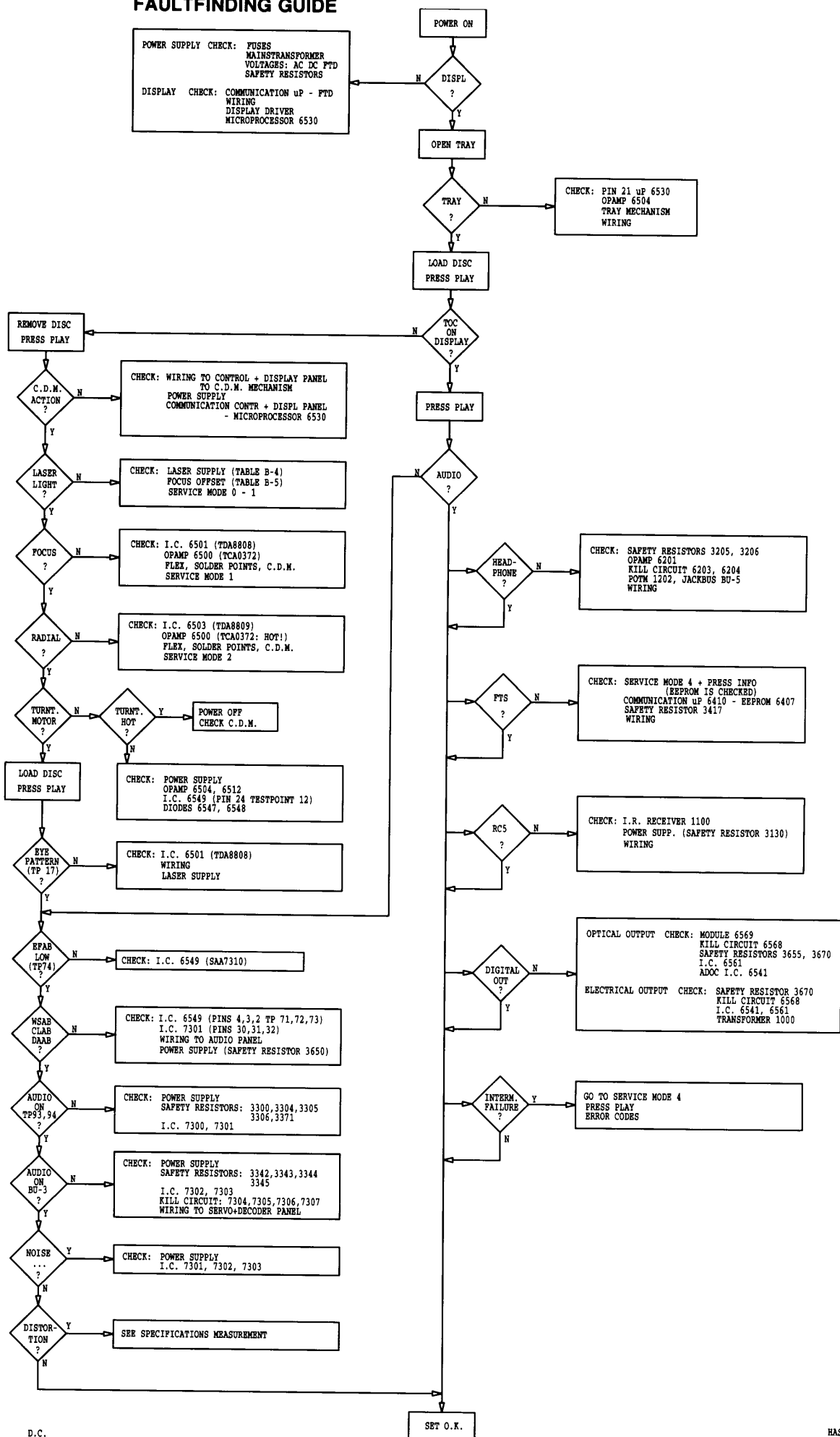
Conn. 2 to conn. 44 on Control and Display panel
Conn. 3 to conn. 32 on Servo and Decoding panel
Conn. 4 to conn. 7 on Servo and Decoding panel

START UP PROCEDURE

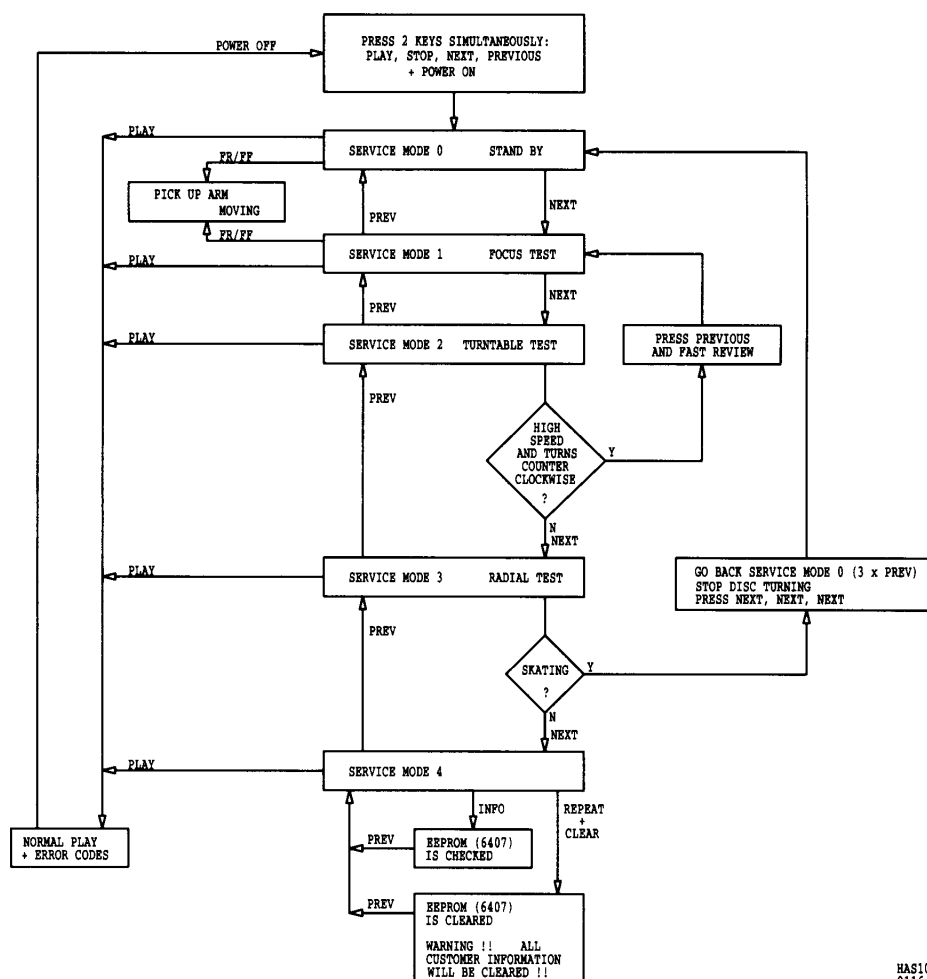


MDA.02340
T07-941

FAULTFINDING GUIDE



SERVICE TESTPROGRAM

HAS1002
9116

ERROR CODE TABLE

SYSTEM ERRORS

ERROR 01	Tray error
ERROR 02	Focus error
ERROR 03	Radial error
ERROR 04	Too many TL
ERROR 05	TL low to long
ERROR 06	Jump error
ERROR 07	Subcode error
ERROR 08	TOC error

OPERATING ERRORS

ERROR 10	Selected track not accessible
ERROR 11	Relative time not accessible
ERROR 12	Absolute time not accessible
ERROR 30	Next operated during last track without repeat
ERROR 31	Previous operated during last track without repeat
ERROR 42	Selected track does not exist

B-3 CHECK OF THE PHOTODIODES

Step	Signal	Mode					Remarks
1	D2 D1 D3 D4	power on	 	-	-	signal 4=6=7=8	Signal depends on Distance lens ↔ IR LED of remote control

B-4 CHECK OF LASER SUPPLY

T-22407A

The laser, the lasersupply plus the monitor diode form a feedback system.

A defect in the lasersupply may result in the destruction of the laser. If, in that case, the laser is replaced, (= complete D.C.M.-unit) the new laser will also become defective. However, it is impossible to check and repair a feedback system if a link is missing. For this reason the laser supply can be checked with the replacement circuit for laser assembly.

Step	Signal	Mode			Remarks
1	LO	serv. pos. 2		1.8 < V < 2.3	PRS05539
	LM	SK		170 < mV < 220	
2	LO	serv. pos. 2		1.8 < V < 2.3	PRS05540
	LM	SK		170 < mV < 220	
3	LO	Power on		0V ± 0.2V	No light

B-4 LASER CURRENT ADJUSTMENT

T-22407B

STEP	SIGNAL	MODE					REMARKS
1	--	POWER OFF	--	--	--	--	CHECK IF FLEX-FOIL IS PROPERLY CONNECTED
2	--	POWER OFF		R3520	1kΩ +10% -0	--	PRE ADJUSTMENT OHMIC VALUE
3	--	POWER OFF	--	R3568	--	--	SET TO MID-POSITION
4	LASER CURRENT ≡ VOLTAGE ACROSS R3501	TEST DISC 5A PLAY		--	≥ 15mV	--	IF < 15mV THEN GO TO STEP 3 AND SET R3568 TO 1/4 OR 3/4. TRY AGAIN
5	LASER CURRENT ≡ VOLTAGE ACROSS R3501	TEST DISC 5A PLAY		R3520	50mV	--	--
6	FE-LAG	TEST DISC 5A TRACK 1 PLAY		R3568	400mV	--	FINE ADJUSTMENT

B-5 ADJUSTMENT OF FOCUS-OFFSET

MDA 02640
T 05 016

Step	Signal	Mode					Remarks
1	-	Power on no disc	-	R3568	-	-	adjust for optical mid-position of the focus motor
2	FE LAG	Play Test disc 5 Track 1	27	R3568	400mV ± 40 mV DC	-	fine adjustment

T-22407D

D-6 SPI
Signal
BU2-L
BU2-R
BU2-L
BU2-R

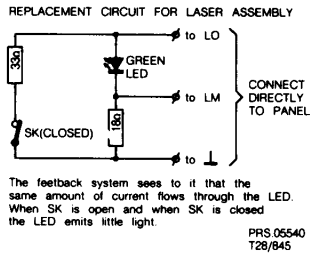
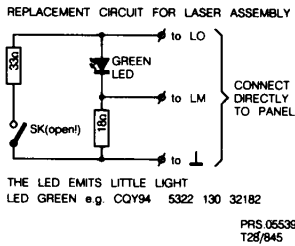
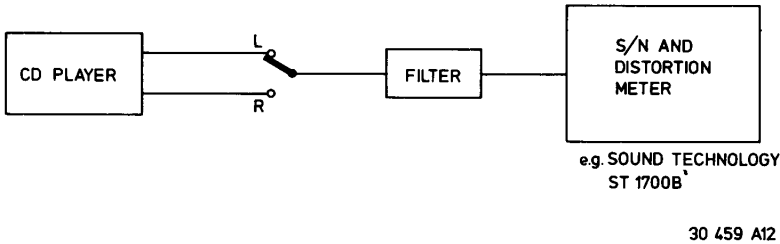
Filter = 13th

D-6 SPECIFICATIONS MEASUREMENT

Signal	Mode				Remarks
BU2-L	Test disc 3, play, total harmonic distortion	filter output	See technical data		See drawing 30459A12
BU2-R	Test disc 3, play, total harmonic distortion	filter output	See technical data		See drawing 30459A12
BU2-L	Test disc 3, play signal-to-noise ratio	filter output	See technical data		See drawing 30459A12
BU2-R	Test disc 3, play signal-to-noise ratio	filter output	See technical data		See drawing 30459A12

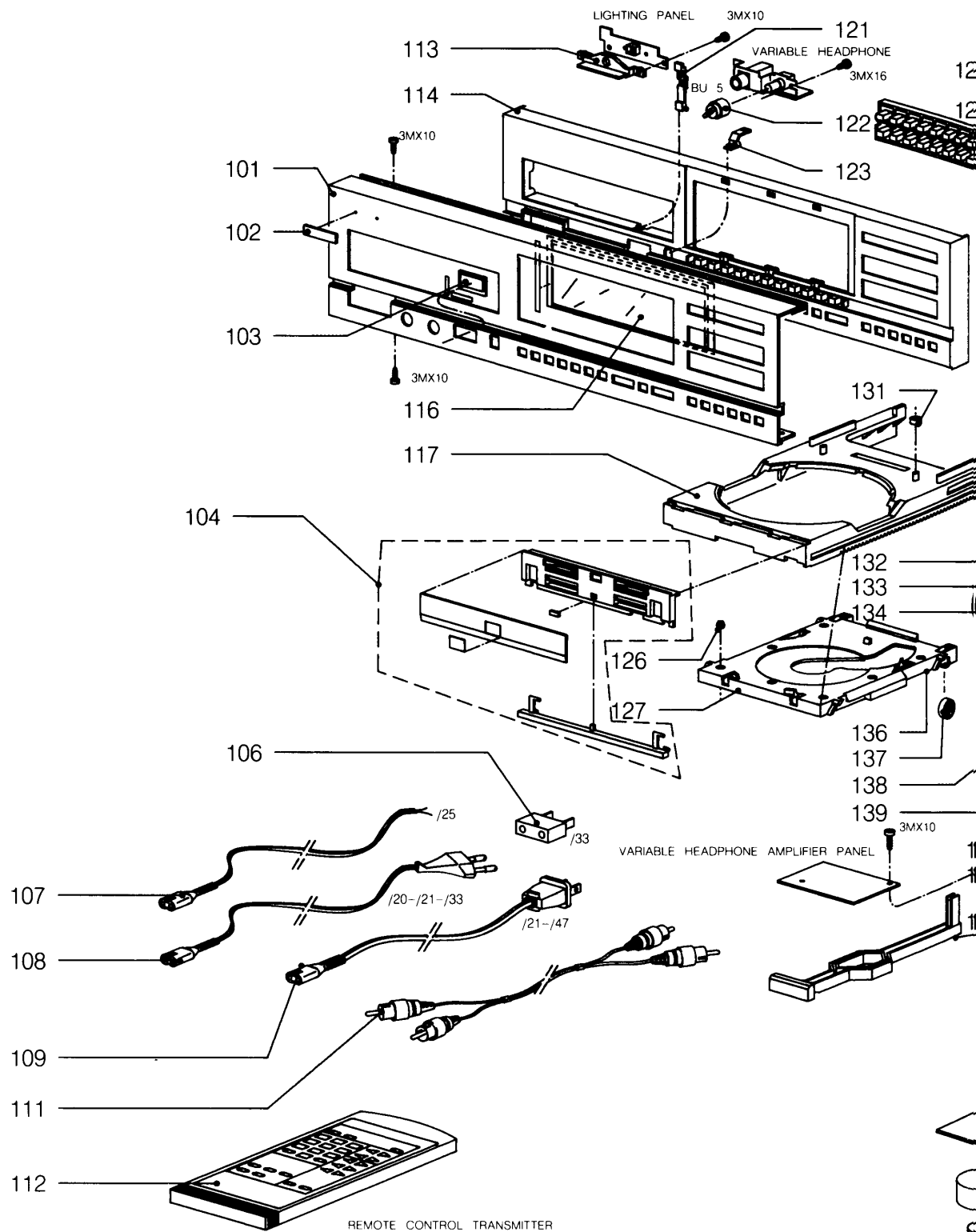
T-22387M

Filter = 13th order filter 4822 395 30204

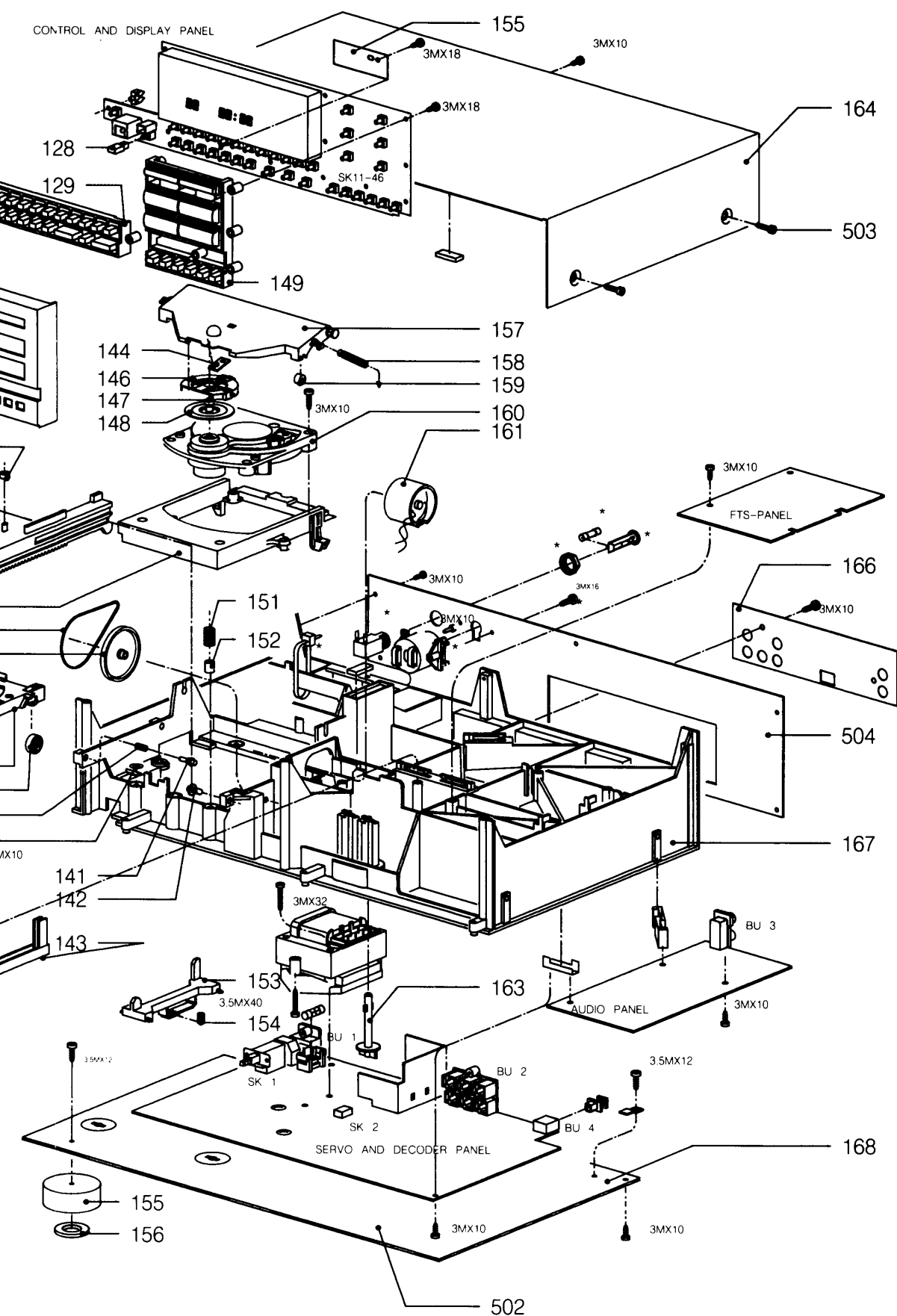


EXPLODED VIEW

CONT



* ONLY /21 /33 VERSION



EVA.01260
T28/113

HAS.CD850.20B

MECHANICAL PARTSLIST

101	4822 444 40458
102	4822 459 10887
103	4822 450 61311
104	4822 444 40459
106	4822 263 50179
107	4822 321 10719
108	4822 321 10249
109	4822 321 10677
111	4822 321 23116
112	4822 218 10404 RD5886/00
114	4822 444 40379
113	4822 466 61922
116	4822 450 61728
117	4822 444 50603
121	4822 402 61332
122	4822 411 61674
123	4822 381 11126
126	4822 325 60317
127	4822 466 92888
128	4822 410 60714
129	4822 410 60712
131	4822 532 51756
132	4822 402 61196
133	4822 358 10115
134	4822 528 81329
136	4822 466 92888
137	4822 528 90638
138	4822 492 52094
139	4822 466 92903
141	4822 402 61252
142	4822 402 61132
143	4822 535 93107
144	4822 466 92257
146	4822 402 61207
147	4822 520 40177
148	4822 532 52234
149	4822 410 60713
151	4822 492 51902
152	4822 466 61587
153	4822 402 50276
154	4822 492 52123
155	4822 462 41397
157	4822 444 60568
158	4822 492 32883
159	4822 528 90639
160	4822 691 30209
161	4822 361 21258
163	4822 535 92907
164	4822 444 60706
166	4822 444 60752
167	4822 444 50632
168	4822 444 50634

60

DB

HF-Transformer								
1000	4822 148 80281		2614	4822 122 31772	47pF 5% 50V	3540		
Crystal			2615	4822 122 31772	47pF 5% 50V	3541		
1503	4822 242 72579	4,00 MHz	2620	4822 122 32863	22nF 80% 50V	3542		
			2621	4822 122 32863	22nF 80% 50V	3543		
2370	4822 124 41525	100µF 20% 25V	2622	4822 124 22031	4,7µF 20% 63V	3545		
2371	4822 124 41525	100µF 20% 25V	2623	4822 122 31772	47pF 5% 50V	3546		
2372	4822 124 41525	100µF 20% 25V	2624	4822 122 31772	47pF 5% 50V	3552		
2373	4822 124 41525	100µF 20% 25V	2638	4822 122 10166	22nF 30% 16V	3555		
2374	4822 124 22339	100µF 20% 16V	2640	4822 122 32863	22nF 80% 50V	3557		
2375	4822 124 22339	100µF 20% 16V	2641	4822 122 33105	56nF 10% 63V	3560		
2500	4822 126 10454	3,3nF 20% 400V	2642	4822 122 33105	56nF 10% 63V	3561		
2501	4822 122 32863	22nF 80% 50V	2645	4822 122 32863	22nF 80% 50V	3562		
2503	4822 122 32863	22nF 80% 50V	2646	4822 122 33496	100nF 10% 63V	3563		
2504	4822 122 31727	470pF 5% 63V	2648	4822 122 33496	100nF 10% 63V	3564		
2506	4822 122 10166	22nF 30% 16V	2670	4822 124 40272	33µF 20% 16V	3565		
2507	4822 122 31644	2,2nF 10% 63V	2671	4822 122 32863	22nF 80% 50V	3566		
2508	4822 121 43526	47nF 5% 100V	2690	4822 124 41334	470µF 20% 35V	3567		
2509	4822 122 31765	100pF 5% 50V	2691	4822 121 51252	470nF 5% 63V	3568		
2510	4822 122 32442	10nF 10% 50V	2692	5322 121 42386	100nF 5% 63V	3569		
2511	4822 122 31746	1000pF 5% 50V	2693	4822 122 32863	22nF 80% 50V	3574		
2513	4822 121 42408	220nF 5% 63V	2695	4822 124 41558	10µF 20% 25V Bipolar	3575		
2514	4822 121 51252	470nF 5% 63V	2703	4822 124 41859	330µF 20% 35V	3576		
2515	4822 122 31746	1000pF 5% 50V	2704	4822 124 40433	47µF 20% 25V	3578		
2519	4822 124 22027	47µF 20% 25V	2705	4822 122 32863	22nF 80% 50V	3579		
2520	4822 122 31965	220pF 5% 63V	2706	4822 122 32863	22nF 80% 50V	3580		
2521	4822 124 22027	47µF 20% 25V	2707	4822 124 41591	6800µF 20% 16V	3581		
2522	4822 122 32863	22nF 80% 50V	2708	4822 124 40272	33µF 20% 16V	3582		
2524	4822 122 32863	22nF 80% 50V	2709	4822 122 32863	22nF 80% 50V	3584		
2525	4822 122 32863	22nF 80% 50V	2710	4822 122 32863	22nF 80% 50V	3585		
2526	4822 122 32863	22nF 80% 50V	2711	4822 124 41853	1000µF 20% 16V	3586		
2528	5322 124 22094	220µF 20% 50V	2712	4822 124 40272	33µF 20% 16V	3588		
2530	4822 121 51321	8,2µF 1% 63V	2713	4822 124 41334	470µF 20% 35V	3589		
2531	4822 121 51321	8,2µF 1% 63V	2714	4822 124 40433	47µF 20% 25V	3591		
2532	4822 124 40272	33µF 20% 16V	2715	5322 121 42386	100nF 5% 63V	3600		
2534	5322 121 42661	330nF 5% 63V	2716	5322 124 21643	22µF 20% 40V	3602		
2535	4822 122 31981	33nF 10% 50V				3603		
2536	4822 122 31981	33nF 10% 50V	3307	4822 051 10473	47k 2% 0,25W	3604		
2537	4822 121 42408	220nF 5% 63V	3308	4822 051 10473	47k 2% 0,25W	3605		
2538	4822 121 42408	220nF 5% 63V	3309	4822 051 10473	47k 2% 0,25W	3607		
2540	4822 124 41583	0,68µF 2% 50V Bipolar	3380	4822 052 10339	33Ω 5% 0,33W	3609		
2542	4822 122 32863	22nF 80% 50V	3381	4822 052 10339	33Ω 5% 0,33W	3610		
2545	4822 122 33496	100nF 10% 63V	3382	4822 050 22202	2k2 1% 0,6W	3611		
2546	4822 122 32863	22nF 80% 50V	3383	4822 051 10103	10k 2% 0,25W	3613		
2550	4822 121 43526	47nF 5% 100V	3384	4822 051 10103	10k 2% 0,25W	3627		
2560	4822 121 43901	4,7nF 5% 50V	3501	4822 051 10472	4k7 2% 0,25W	3628		
2561	4822 121 51252	470nF 5% 63V	3502	4822 051 10104	100k 2% 0,25W	3629		
2562	5322 121 42661	330nF 5% 63V	3503	4822 052 10478	4Ω7 5% 0,33W	3631		
2563	4822 122 33496	100nF 10% 63V	3504	4822 052 10478	4Ω7 5% 0,33W	3633		
2566	4822 122 32863	22nF 80% 50V	3505	4822 051 10123	12k 2% 0,25W	3636		
2570	4822 122 31644	2,2nF 10% 63V	3506	4822 051 10101	100Ω 2% 0,25W	3638		
2572	5322 121 42661	330nF 5% 63V	3507	4822 051 10102	1k 2% 0,25W	3639		
2574	4822 122 31759	18nF 10% 63V	3508	4822 051 10243	24k 2% 0,25W	3640		
2600	4822 122 31772	47pF 5% 50V	3509	4822 051 10562	5k6 2% 0,25W	3642		
2601	4822 122 31644	2,2nF 10% 63V	3510	4822 051 10103	10k 2% 0,25W	3645		
2602	4822 121 51252	470nF 5% 63V	3520	4822 101 10685	4k7 20%LIN 0.05W	3646		
2604	4822 124 41576	2,2µF 20% 50V	3521	4822 050 22201	220Ω 1% 0,6W	3647		
2607	4822 124 40272	33µF 20% 16V	3530	4822 050 24703	47k 1% 0,6W	3653		
2608	4822 122 32863	22nF 80% 50V	3531	4822 050 21503	15k 1% 0,6W	3654		
2609	4822 122 32863	22nF 80% 50V	3533	4822 051 10512	5k1 2% 0,25W	3655		
2610	4822 124 20688	33µF 50% 16V	3534	4822 051 10224	220k 2% 0,25W	3659		
2611	4822 122 32863	22nF 80% 50V	3522	4822 052 10189	18Ω 5% 0,33W	3660		
2612	4822 124 40272	33µF 20% 16V	3523	4822 052 10129	12Ω 5% 0,33W	3661		
2613	4822 122 31772	47pF 5% 50V	3524	4822 051 10101	100Ω 2% 0,25W	3662		
			3535	4822 050 21203	12k 1% 0,6W	3670		
			3539	4822 051 10223	22k 2% 0,25W	3701		
						3702		
						3703		
						3705		



3540	4822 052 10478	4Ω7 5% 0,33W
3541	4822 051 10682	6k8 2% 0,25W
3542	4822 051 10339	33Ω 2% 0,25W
3543	4822 051 10682	6k8 2% 0,25W
3545	4822 052 10108	1Ω 5% 0,33W
3546	4822 052 10108	1Ω 5% 0,33W
3552	4822 051 10182	1k8 2% 0,25W
3555	4822 051 20183	18k 5% 0,1W
3557	4822 051 10224	220k 2% 0,25W
3560	4822 111 91494	11k 2% 0,25W
3561	4822 051 10154	150k 2% 0,25W
3562	4822 051 10124	120k 2% 0,25W
3563	4822 051 10563	56k 2% 0,25W
3564	4822 111 91495	160k 2% 0,25W
3565	4822 051 10279	27Ω 2% 0,25W
3566	4822 051 10229	22Ω 2% 0,25W
3567	4822 051 10823	82k 2% 0,25W
3568	4822 100 11193	22k 20%LIN 0.05W
3569	4822 111 90368	680k 2% 0,125W
3574	4822 051 10333	33k 2% 0,25W
3575	4822 051 10472	4k7 2% 0,25W
3576	4822 050 22004	200k 1% 0,6W
3578	4822 051 10823	82k 2% 0,25W
3579	4822 051 10154	150k 2% 0,25W
3580	4822 050 24702	4k7 1% 0,6W
3581	4822 050 23302	3k3 1% 0,6W
3582	4822 051 10562	5k6 2% 0,25W
3584	4822 051 10913	91k 2% 0,25W
3585	4822 051 10104	100k 2% 0,25W
3586	4822 111 90368	680k 2% 0,125W
3588	4822 050 24703	47k 1% 0,6W
3589	4822 051 10472	4k7 2% 0,25W
3591	4822 051 10122	1k2 2% 0,25W
3600	4822 051 20222	2k2 5% 0,1W
3602	4822 051 10223	22k 2% 0,25W
3603	4822 051 10759	75Ω 2% 0,25W
3604	4822 052 10478	4Ω7 5% 0,33W
3605	4822 051 10162	1k6 2% 0,25W
3607	4822 051 10392	3k9 2% 0,25W
3609	4822 052 10478	4Ω7 5% 0,33W
3610	4822 051 10912	9k1 2% 0,25W
3611	4822 051 10621	620Ω 2% 0,25W
3613	4822 051 10223	22k 2% 0,25W
3627	4822 052 10478	4Ω7 5% 0,33W
3628	4822 051 10223	22k 2% 0,25W
3629	4822 051 10224	220k 2% 0,25W
3631	4822 050 24702	4k7 1% 0,6W
3638	4822 051 10223	22k 2% 0,25W
3639	4822 051 10223	22k 2% 0,25W
3640	4822 051 10223	22k 2% 0,25W
3642	4822 051 10223	22k 2% 0,25W
3645	4822 051 10472	4k7 2% 0,25W
3646	4822 051 10223	22k 2% 0,25W
3647	4822 051 10223	22k 2% 0,25W
3653	4822 051 10561	560Ω 2% 0,25W
3654	4822 051 10822	8k2 2% 0,25W
3655	4822 052 10478	4Ω7 5% 0,33W
3659	4822 050 24702	4k7 1% 0,6W
3660	4822 051 10101	100Ω 2% 0,25W
3661	4822 051 10101	100Ω 2% 0,25W
3662	4822 051 10101	100Ω 2% 0,25W
3670	4822 052 10478	4Ω7 5% 0,33W
3701	4822 051 10472	4k7 2% 0,25W
3702	4822 051 10565	5M6 5% 0,25W
3703	4822 051 10433	43k 2% 0,25W
3705	4822 051 10563	56k 2% 0,25W



3710	4822 051 10154	150k 2% 0,25W
3720	4822 051 10102	1k 2% 0,25W
3721	4822 051 10473	47k 2% 0,25W
3724	4822 050 21203	12k 1% 0,6W
3725	4822 051 10123	12k 2% 0,25W
3728	4822 051 10362	3k6 2% 0,25W
3729	4822 050 21203	12k 1% 0,6W
3730	4822 051 10123	12k 2% 0,25W
3731	4822 051 10229	22Ω 2% 0,25W
3732	4822 050 23902	3k9 1% 0,6W
3747	4822 051 10103	10k 2% 0,25W
3748	4822 051 10392	3k9 2% 0,25W
3775	4822 051 10472	4k7 2% 0,25W
3782	4822 051 10563	56k 2% 0,25W
3787	4822 051 10101	100Ω 2% 0,25W
3788	4822 051 10102	1k 2% 0,25W
3801	4822 051 10008	jumper
3803	4822 051 10008	jumper
3805	4822 051 10008	jumper
3807	4822 051 10008	jumper
3808	4822 051 10008	jumper
3809	4822 051 10008	jumper
3812	4822 051 10008	jumper
3813	4822 051 10008	jumper
3814	4822 051 10008	jumper
3815	4822 051 10008	jumper
3821	4822 051 10008	jumper
3822	4822 051 10008	jumper
3823	4822 051 10008	jumper
3824	4822 051 10008	jumper
3826	4822 051 10008	jumper
3827	4822 051 10008	jumper
3828	4822 051 10008	jumper
3829	4822 051 10008	jumper
3830	4822 051 10008	jumper
3831	4822 051 10008	jumper
3832	4822 051 10008	jumper
3833	4822 051 10008	jumper
3834	4822 051 10008	jumper
3835	4822 051 10008	jumper
3836	4822 051 10008	jumper
3837	4822 051 10008	jumper
3838	4822 051 10008	jumper
3839	4822 051 10008	jumper
3840	4822 051 10008	jumper
3842	4822 051 10008	jumper
3843	4822 051 10008	jumper
3844	4822 051 10008	jumper
3845	4822 051 10008	jumper
3847	4822 051 10008	jumper
3848	4822 051 10008	jumper
3851	4822 051 10008	jumper
3852	4822 051 10008	jumper
3856	4822 051 10008	jumper
3859	4822 051 10008	jumper
3860	4822 051 10008	jumper
3861	4822 051 10008	jumper
3864	4822 051 10008	jumper
3865	4822 051 10008	jumper
3866	4822 051 10008	jumper
3872	4822 051 10008	jumper
3873	4822 051 10008	jumper
3874	4822 051 10008	jumper
3891	4822 051 10008	jumper
3892	4822 051 10008	jumper
3896	4822 051 10008	jumper
3897	4822 051 10008	jumper

			Miscellaneous		
5500	4822 157 60309	ANTI INTERFERENCE COIL /21B /33B	BU-1	4822 265 20291	MAINS INLET
5502	4822 214 51841	MAINSFILTER /20B /25B	BU-2	4822 267 20368	CINCH 5P
			BU-4	4822 218 20752	TOTX172
6309	4822 214 51724	DVR-3	SK-1	4822 276 11309	MAINS SWITCH
6500	4822 209 72587	TCA0372DP2	SK-2	4822 276 12523	
6501	4822 209 73234	TDA8808T/C3		4822 492 63076	CLAMPING SPRING
6502	4822 130 44121	BC338			
6503	4822 209 73235	TDA8809T/C2			
6504	4822 209 72587	TCA0372DP2			
6505	4822 130 30861	BZX79-C7V5			
6506	4822 130 30861	BZX79-C7V5			
6511	4822 130 34173	BZX79-C5V6			
6512	4822 209 83274	NJM4560D			
6516	5322 130 42012	BC858A			
6517	5322 130 42012	BC858A			
6519	5322 130 30684	1N4002			
6520	4822 130 42131	BF550			
6523	4822 209 70422	MN4264-15			
6524	4822 130 61207	BC848			
6530	4822 209 63362	MC68HC05C8P/ZC99827			
6531	4822 130 42675	BC818			
6541	4822 209 62588	PCF3523P			
6547	5322 130 30684	1N4002			
6548	5322 130 30684	1N4002			
6549	4822 209 61759	SAA7310GP/H5			
6550	5322 130 30684	1N4002			
6551	5322 130 30684	1N4002			
6552	4822 130 30621	1N4148			
6553	4822 130 30621	1N4148			
6554	4822 130 42513	BC858C			
6555	4822 130 31981	BZX79-C3V9			
6556	4822 130 61207	BC848			
6557	4822 130 30621	1N4148			
6558	4822 130 44121	BC338			
6559	4822 130 61207	BC848			
6561	4822 209 60803	SN74LS08D			
6562	4822 130 61207	BC848			
6568	4822 130 61207	BC848			
6573	4822 130 34195	BZX79-C13			
6577	5322 130 41899	MC7915CT			
6580	5322 130 30684	1N4002			
6581	5322 130 30684	1N4002			
6582	5322 130 30684	1N4002			
6583	5322 130 30684	1N4002			
6584	5322 130 30684	1N4002			
6585	5322 130 30684	1N4002			
6586	5322 130 30684	1N4002			
6587	5322 130 30684	1N4002			
6590	4822 209 80808	MC78M15CT			
6591	4822 209 71579	TY40408			
6592	5322 209 11222	MC7905CT			
6593	5322 130 41899	MC7915CT			
6602	5322 130 30684	1N4002			
6603	5322 130 30684	1N4002			
6701	5322 130 42012	BC858A			
6702	4822 130 30621	1N4148			
6703	4822 130 30621	1N4148			

CONTROL AND DISPLAY PANEL

Switch			Miscellaneous		
SK11	4822 276 20463	DIGITAL OUT ON/OFF		4822 255 30203	LAMP HOLDER
SK..	4822 276 12276	CONTROL SWITCHES		4822 256 91644	LED HOLDER
				4822 256 91643	FTD HOLDER
			BU-5	4822 267 31065	
2100	4822 122 10166	22nF 30% 16V	1100	4822 214 51772	IR RECEIVER GP1U521X
2104	4822 122 10166	22nF 30% 16V	1101	4822 242 73654	CST6.00MGW
2105	4822 124 22027	47µF 20% 25V	1102	4822 130 90858	DISPLAY 9-MT-83GK
2106	4822 122 10166	22nF 30% 16V	1103	4822 134 40909	LAMP 5V 60mA
2201	5322 124 21711	100µF 20% 25V	1201	4822 102 10398	10K LOG POTMETER
2202	5322 124 21711	100µF 20% 25V			
2203	5322 124 21711	100µF 20% 25V			
2204	5322 124 21711	100µF 20% 25V			
					
3100	5322 111 90473	8x10k 2% NETWORK			
3101	5322 111 90473	8x10k 2% NETWORK			
3135	4822 050 21003	10k 1% 0,6W			
3151	4822 052 10478	4Ω 5% 0,33W			
3160	4822 050 28209	82Ω 1% 0,6W			
3161	4822 050 21002	1k 1% 0,6W			
3162	4822 050 26201	620Ω 1% 0,6W			
3201	4822 051 10101	100Ω 2% 0,25W			
3202	4822 051 10101	100Ω 2% 0,25W			
3203	4822 050 21003	10k 1% 0,6W			
3204	4822 050 21003	10k 1% 0,6W			
3205	4822 052 10109	10Ω 5% 0,33W			
3206	4822 052 10109	10Ω 5% 0,33W			
3207	4822 116 52264	27k 5% 0,5W			
3208	4822 116 52264	27k 5% 0,5W			
3209	4822 051 10122	1k2 2% 0,25W			
3210	4822 051 10122	1k2 2% 0,25W			
3211	4822 050 21501	150Ω 1% 0,6W			
3212	4822 050 21501	150Ω 1% 0,6W			
					
6201	4822 209 82362	NJM4556D			
6203	4822 130 44121	BC338			
6204	4822 130 44121	BC338			
6501	4822 209 61191	TMP47C670N-1364			
6502	4822 209 60886	UDN-2580A			
6503	4822 209 60886	UDN-2580A			
6518	4822 130 30613	BAW62			
6519	4822 130 30613	BAW62			
6520	4822 130 30613	BAW62			
6521	4822 130 30613	BAW62			
6522	4822 130 30613	BAW62			
6523	4822 130 30613	BAW62			
6524	4822 130 30613	BAW62			
6525	4822 130 30613	BAW62			
6526	4822 130 30613	BAW62			
6529	4822 130 80849	TLHR4499			
6531	4822 130 40938	BC548			

AUDIO PANEL

Crystal					
1300	4822 242 71349	11,2896 MHz	3305	4822 052 10478	4Ω7 5% 0,33W
			3306	4822 052 10101	100Ω 5% 0,33W
			3307	4822 052 10101	100Ω 5% 0,33W
			3308	4822 050 22403	24k 1% 0,6W
			3310	4822 050 23003	30k 1% 0,6W
			3311	4822 050 23003	30k 1% 0,6W
			3312	4822 050 23003	30k 1% 0,6W
			3313	4822 050 23003	30k 1% 0,6W
			3314	4822 050 25102	5k1 1% 0,6W
			3315	4822 050 25102	5k1 1% 0,6W
			3316	4822 050 25102	5k1 1% 0,6W
			3317	4822 050 25102	5k1 1% 0,6W
			3318	4822 050 21003	10k 1% 0,6W
			3319	4822 050 21003	10k 1% 0,6W
			3320	4822 050 21003	10k 1% 0,6W
			3321	4822 050 21003	10k 1% 0,6W
			3322	4822 050 21202	1k2 1% 0,6W
			3323	4822 050 21202	1k2 1% 0,6W
			3324	4822 050 24302	4k3 1% 0,6W
			3325	4822 050 24302	4k3 1% 0,6W
			3326	4822 050 27502	7k5 1% 0,6W
			3327	4822 050 27502	7k5 1% 0,6W
			3328	4822 050 25602	5k6 1% 0,6W
			3329	4822 050 25602	5k6 1% 0,6W
			3330	4822 050 27502	7k5 1% 0,6W
			3331	4822 050 27502	7k5 1% 0,6W
			3332	4822 050 21003	10k 1% 0,6W
			3333	4822 050 21003	10k 1% 0,6W
			3334	4822 051 10101	100Ω 2% 0,25W
			3335	4822 051 10101	100Ω 2% 0,25W
			3336	4822 051 10101	100Ω 2% 0,25W
			3337	4822 051 10101	100Ω 2% 0,25W
			3338	4822 051 20122	1k2 5% 0,1W
			3339	4822 051 20122	1k2 5% 0,1W
			3340	4822 051 10122	1k2 2% 0,25W
			3341	4822 051 10122	1k2 2% 0,25W
			3342	4822 052 10229	22Ω 5% 0,33W
			3343	4822 052 10229	22Ω 5% 0,33W
			3344	4822 052 10229	22Ω 5% 0,33W
			3345	4822 052 10229	22Ω 5% 0,33W
			3346	4822 050 24703	47k 1% 0,6W
			3347	4822 050 24703	47k 1% 0,6W
			3348	4822 050 24703	47k 1% 0,6W
			3349	4822 050 24703	47k 1% 0,6W
			3350	4822 116 52224	470Ω 5% 0,5W
			3351	4822 116 52224	470Ω 5% 0,5W
			3352	4822 051 20135	1M 5% 0,1W
			3353	4822 051 20135	1M 5% 0,1W
			3354	4822 050 21002	1k 1% 0,6W
			3355	4822 050 21002	1k 1% 0,6W
			3356	4822 050 24703	47k 1% 0,6W
			3360	4822 050 22203	22k 1% 0,6W
			3361	4822 051 20223	22k 5% 0,1W
			3362	4822 050 24702	4k7 1% 0,6W
			3363	4822 051 20223	22k 5% 0,1W
			3364	4822 051 20103	10k 5% 0,1W
			3371	4822 052 10478	4Ω7 5% 0,33W
			3372	4822 051 20101	100Ω 5% 0,1W
			3380	4822 051 20223	22k 5% 0,1W
			3802	4822 051 10008	jumper
			3803	4822 051 10008	jumper
			3804	4822 051 10008	jumper
			3805	4822 051 10008	jumper
			3806	4822 051 10008	jumper
			3807	4822 051 10008	jumper
			3300	4822 052 10478	4Ω7 5% 0,33W
			3301	4822 051 20224	220k 5% 0,1W
			3302	4822 051 10102	1k 2% 0,25W
			3304	4822 052 10478	4Ω7 5% 0,33W

		
5000	4822 157 60363	Anti interference coil
5300	4822 157 50975	1 mH 10%
5301	4822 157 50975	1 mH 10%
		
7300	4822 701 11933	SAA7350
7301	4822 209 30008	SAA7322GP
7302	4822 209 83163	LM833N
7303	4822 209 83163	LM833N
7304	4822 130 42696	BC818-25
7305	4822 130 42696	BC818-25
7306	4822 130 42696	BC818-25
7307	4822 130 42696	BC818-25
7308	4822 130 61207	BC848
7309	4822 130 61207	BC848
7310	5322 130 42012	BC858
7311	4822 130 61207	BC848
Miscellaneous		
BU-3	4822 267 30878	

MICROPROCESSOR AND FTS PANEL

Crystal		
1401	4822 242 73759	12 MHZ
		
2401	4822 124 40272	33μF 20% 16V
2402	4822 122 10166	22nF 30% 16V
2404	4822 122 10179	33pF 5% 50V
2405	4822 122 10179	33pF 5% 50V
2406	4822 122 10166	22nF 30% 16V
2408	4822 122 10166	22nF 30% 16V
2409	4822 122 10166	22nF 30% 16V
		
3402	4822 050 21003	10k 1% 0,6W
3403	4822 050 21003	10k 1% 0,6W
3405	4822 050 24703	47k 1% 0,6W
3406	4822 050 21803	18k 1% 0,6W
3407	4822 050 21803	18k 1% 0,6W
3408	4822 050 22203	22k 1% 0,6W
3409	4822 050 22203	22k 1% 0,6W
3410	4822 050 24704	470k 1% 0,6W
3411	4822 050 24704	470k 1% 0,6W
3412	4822 050 22203	22k 1% 0,6W
3413	4822 050 22203	22k 1% 0,6W
3414	4822 050 22203	22k 1% 0,6W
3415	4822 050 22203	22k 1% 0,6W
3416	4822 050 22203	22k 1% 0,6W
3417	4822 052 10108	1Ω 5% 0,33W
		
5401	4822 157 51235	4,7μH 10%
		
6403	4822 130 40938	BC548
6404	4822 130 40941	BC558
6405	5322 209 11118	PC74HCT373P
6407	4822 209 72102	X2816BP
6408	4822 130 40938	BC548
6409	4822 130 40938	BC548
6410	4822 209 30004	PCB83C654P/AC026
MISCELLANEOUS		
	4822 256 30274	FUSE HOLDER
1010	4822 263 40054	VOLTAGE SELECTOR
1501	4822 070 31601	FUSE 160mA
5001	4822 146 30988	MAINSTRANSFORMER /20B /25B
5001	4822 146 30948	MAINSTRANSFORMER /21B /33B