CD930

A93-252

Service
Service
Service

Product Service Group CE Audio

Service Information

(GB)

To adapt the service manual the following sheets have been added/changed.

(NL)

Voor het aanpassen van de service manual zijn de onderstaande pagina's toegevoegd/gewijzigd.

(F)

Afin de pouvoir adapter le "manual service" les feuillets suivants ont été soit modifiés, soit ajoutés.

(D)

Zür anpassung des Service Manual sind die nachstehenden Seiten hinzugefügt/geändert.

(I)

Le seguenti pagine sono state cambiate/aggiunte allo scopo di adattare il Manuale di Servizio.

15-1, 16-1
17-1, 18-1
21-1, 22-1, 23-1
24-1, 25-1, 26-1
27-2, 28-2, 29-2
30-2, 31-2, 32-2
51b, 52b, 53b, 54a, 55a
56a

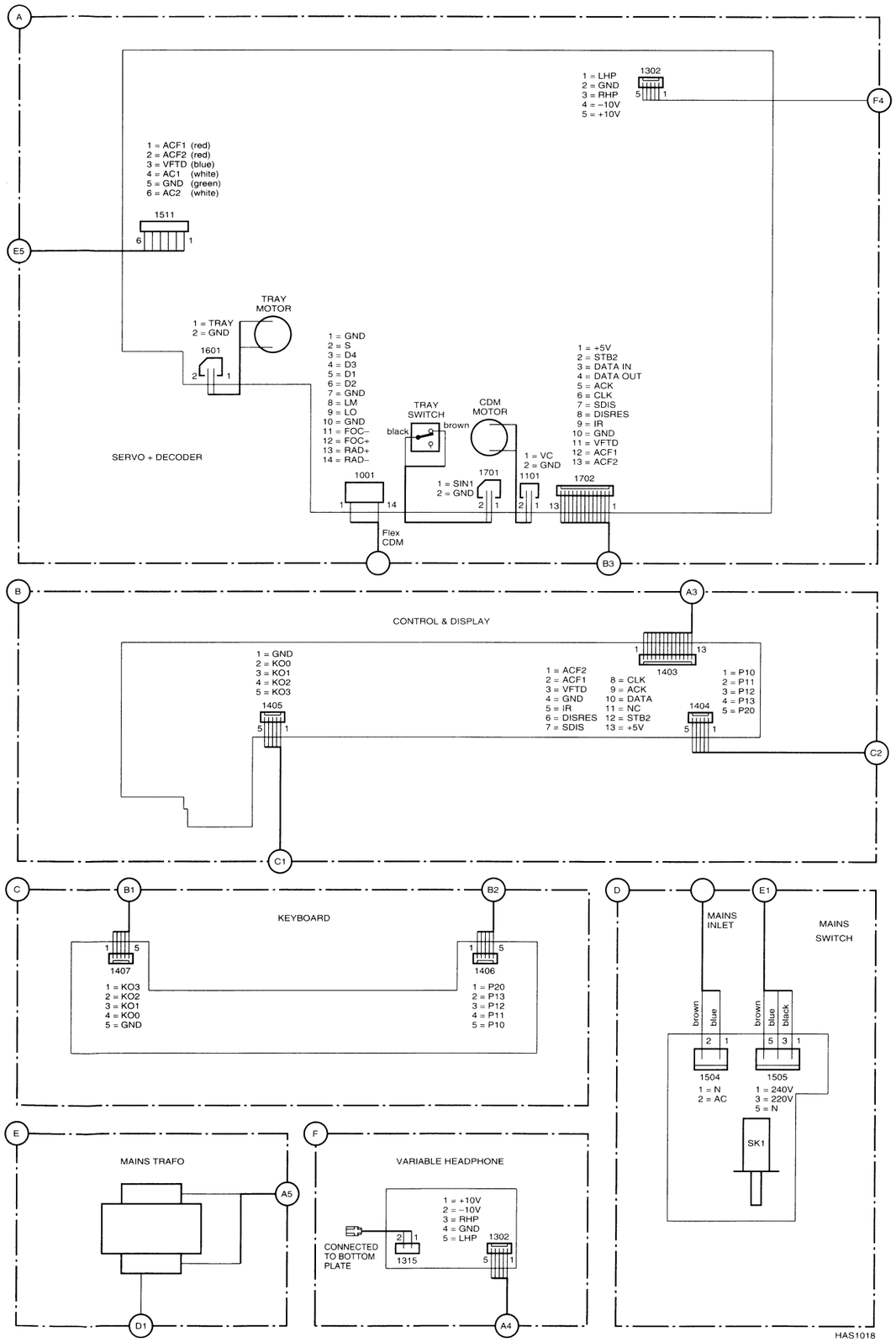
1993-06-02

4822 725 24036

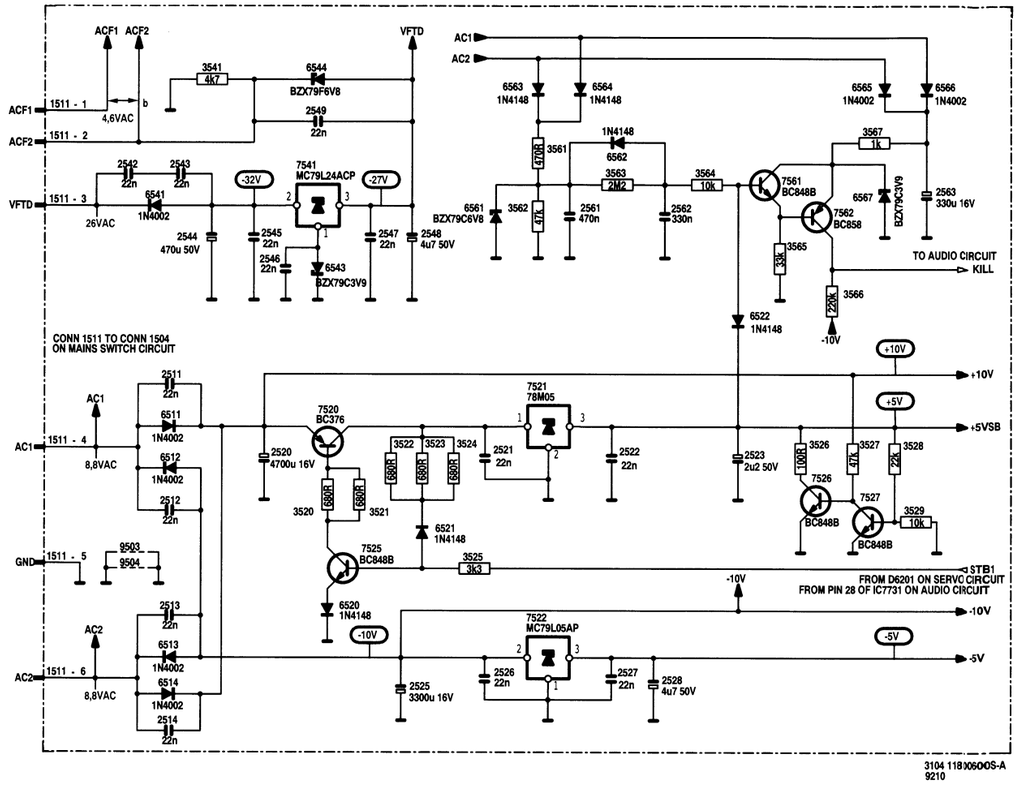
MC-Service

PCS 60 443

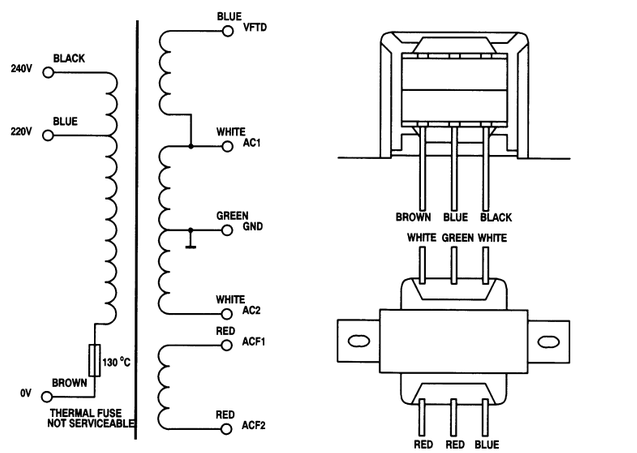
WIRING DIAGRAM II



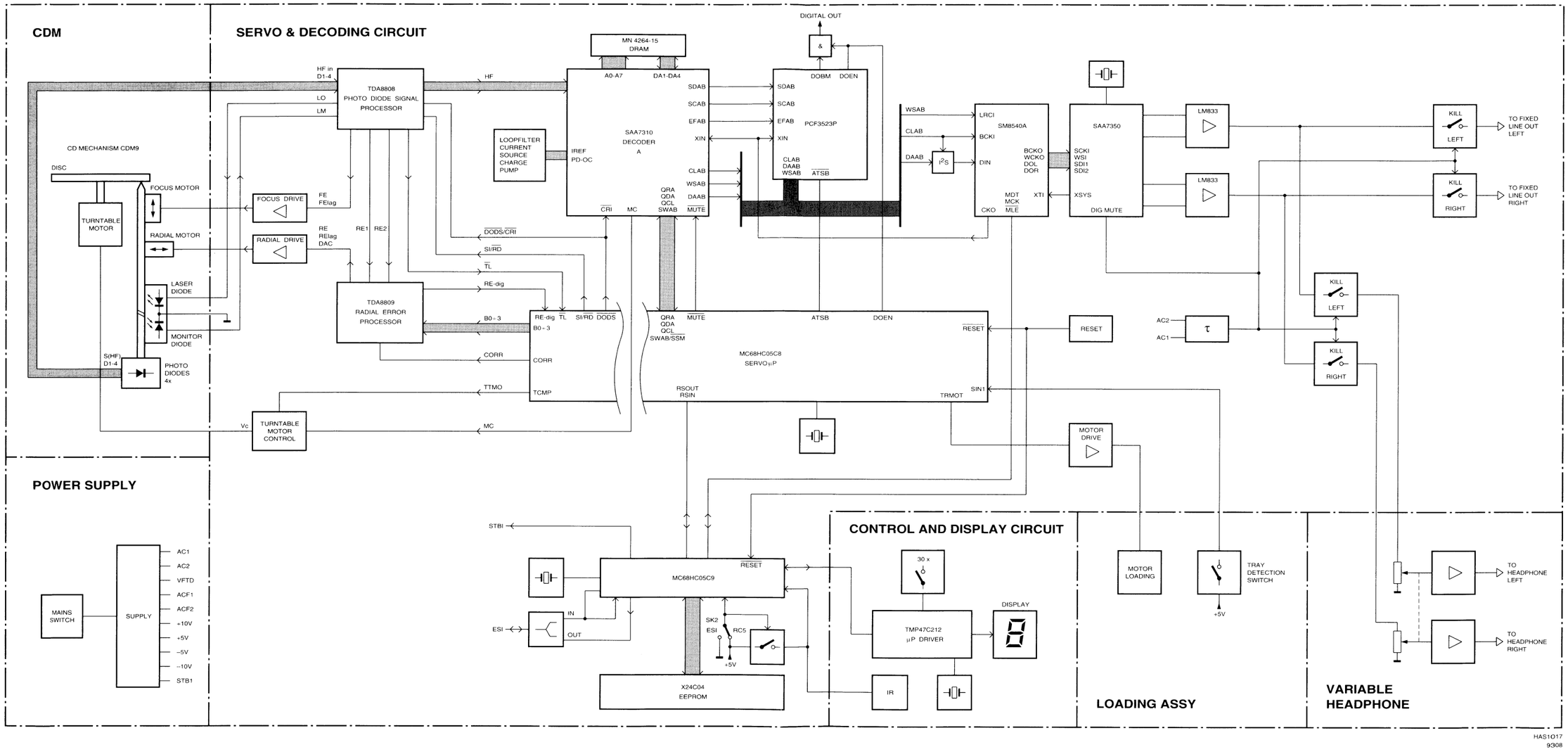
POWER SUPPLY



TRANSFORMER CONNECTIONS



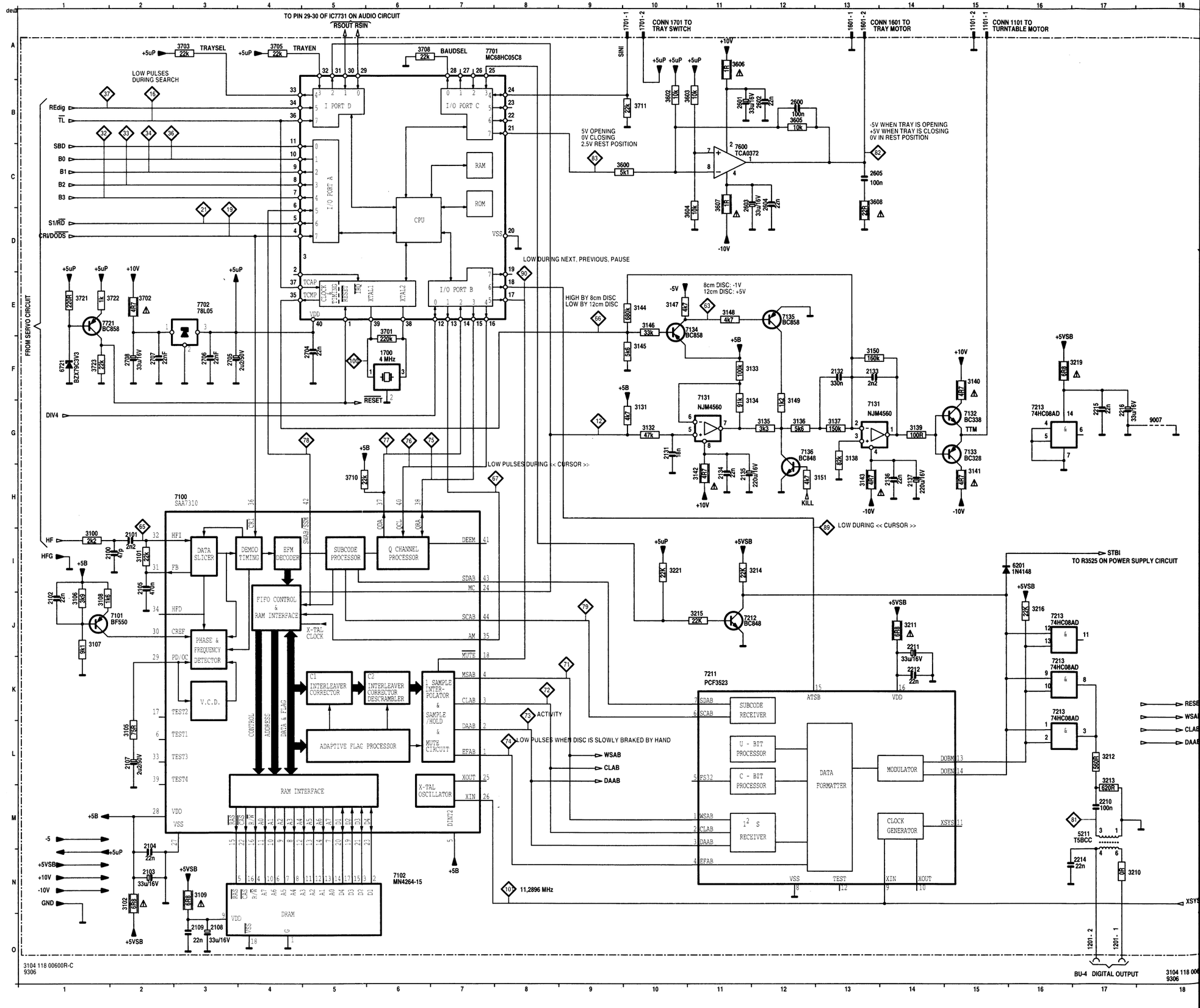
BLOCK DIAGRAM II

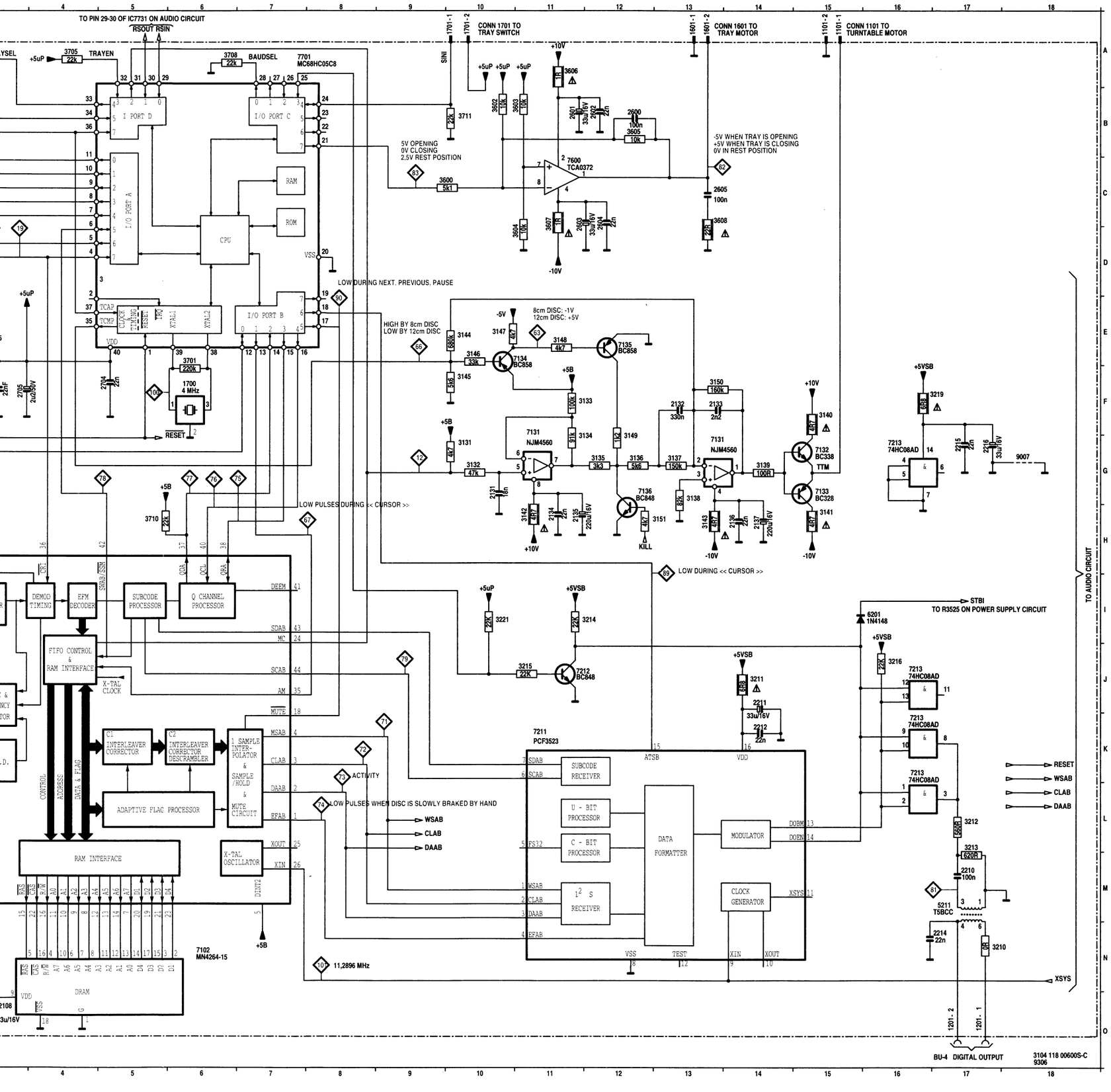


HAS1017
9308

DECODER CIRCUIT DIAGRAM II

MC-Service




TO PIN 29-30 OF IC7731 ON AUDIO CIRCUIT
RSOUT RSIN
CONN 1701 TO TRAY SWITCH
CONN 1601 TO TRAY MOTOR
CONN 1101 TO TURNTABLE MOTOR
TRAYEN
BAUDSEL
7701 MC68HC05C8
I PORT D
I/O PORT C
I/O PORT A
I/O PORT B
CPU
RAM
ROM
VSS
VDD
TCAP
TCMP
CLOCK TIMING
RESET
XTAL1
XTAL2
4 MHz
5V OPENING
0V CLOSING
2,5V REST POSITION
-5V WHEN TRAY IS OPENING
+5V WHEN TRAY IS CLOSING
0V IN REST POSITION
7600 TCA0372
LOW DURING NEXT, PREVIOUS, PAUSE
HIGH BY 8cm DISC
LOW BY 12cm DISC
8cm DISC: -1V
12cm DISC: +5V
7134 BC858
7135 BC858
7131 NJM4560
7132 BC338
7133 BC328
7136 BC848
KILL
TTM
LOW PULSES DURING << CURSOR >>
LOW DURING << CURSOR >>
DEMOD TIMING
EFM DECODER
SUBCODE PROCESSOR
Q CHANNEL PROCESSOR
FIFO CONTROL & RAM INTERFACE
X-TAL CLOCK
C1 INTERLEAVER CORRECTOR
C2 INTERLEAVER CORRECTOR DESCRAMBLER
1 SAMPLE INTER-POLATOR & SAMPLE /HOLD & MUTE CIRCUIT
ADAPTIVE FLAC PROCESSOR
RAM INTERFACE
X-TAL OSCILLATOR
7102 MN4264-15
DRAM
11,2896 MHz
7211 PCF3523
SUBCODE RECEIVER
U - BIT PROCESSOR
C - BIT PROCESSOR
I2 S RECEIVER
DATA FORMATTER
MODULATOR
CLOCK GENERATOR
ACTIVITY
LOW PULSES WHEN DISC IS SLOWLY BRAKED BY HAND
STBI
TO R3525 ON POWER SUPPLY CIRCUIT
7213 74HC08AD
7212 BC848
RESET
WSAB
CLAB
DAAB
XSYS
5211 T5BCC
BU-4 DIGITAL OUTPUT
3104 118 00600S-C
9306
TO AUDIO CIRCUIT

XC SIGNAL
bus/DIV
stand by
start up
play mode
1ms/DIV
number depends on search speed
STARTING up
start
1ms 10ms
play mode
1ms/DIV
1.8ms
eyepattern
2.5V
0,5us/DIV
WSAB
CLAB
5us/DIV
11.34us
play mode
QSA
10ms/DIV
asynchronous uP dependent
QCL
0.2ms/DIV
QDA
continue data
50us/DIV 136us
50us/DIV 136uS
5us/DIV

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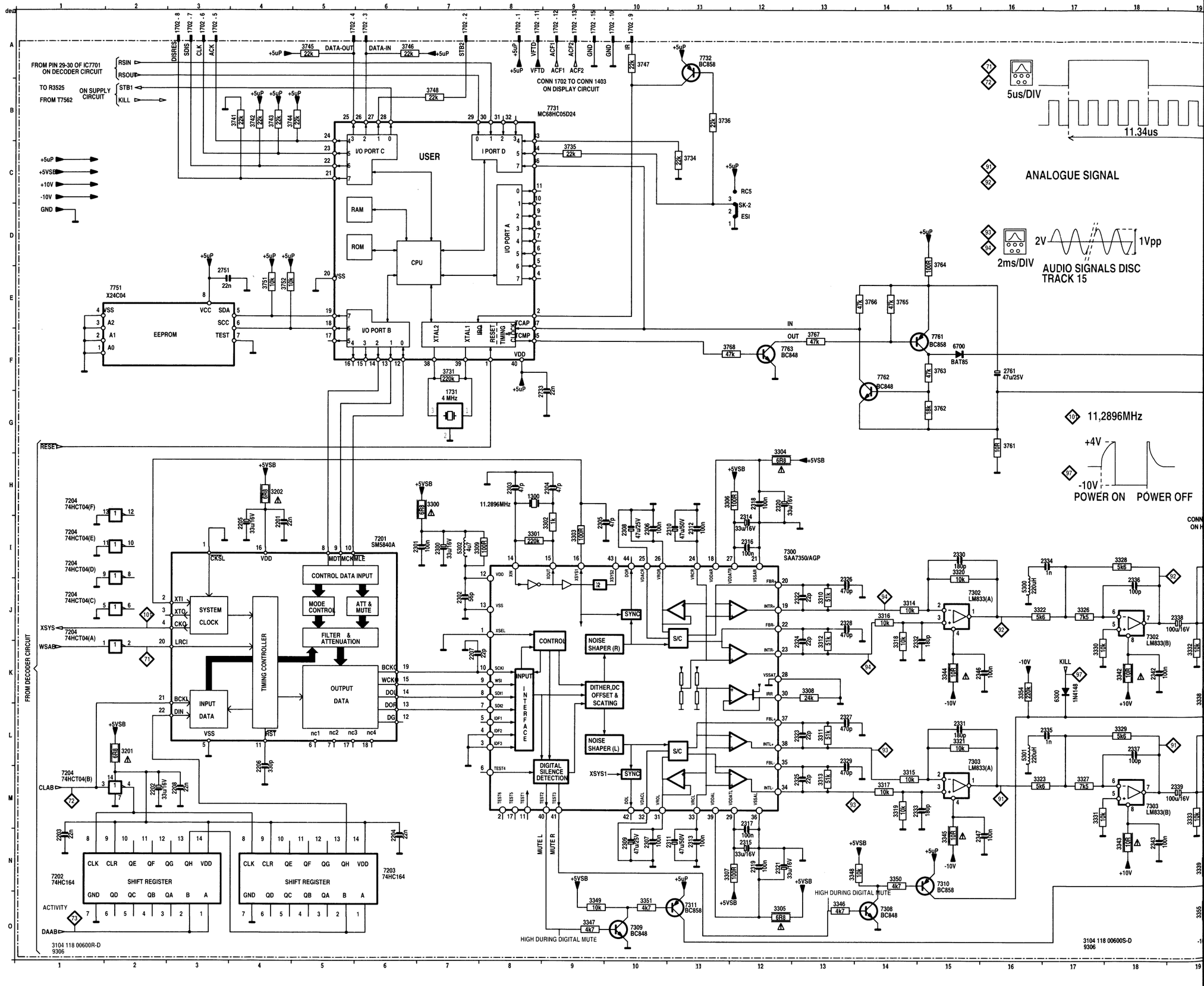
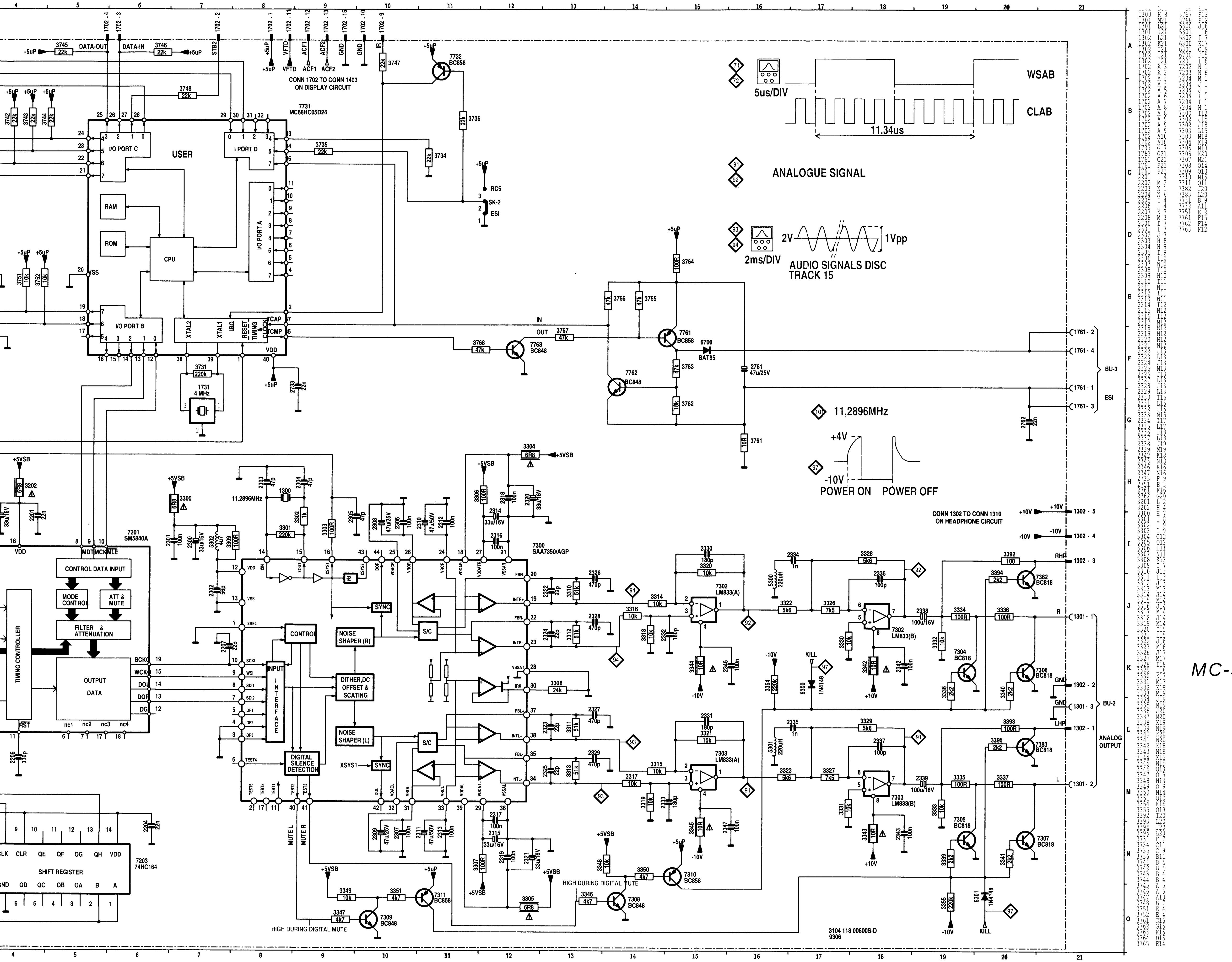
AUDIO CIRCUIT DIAGRAM II

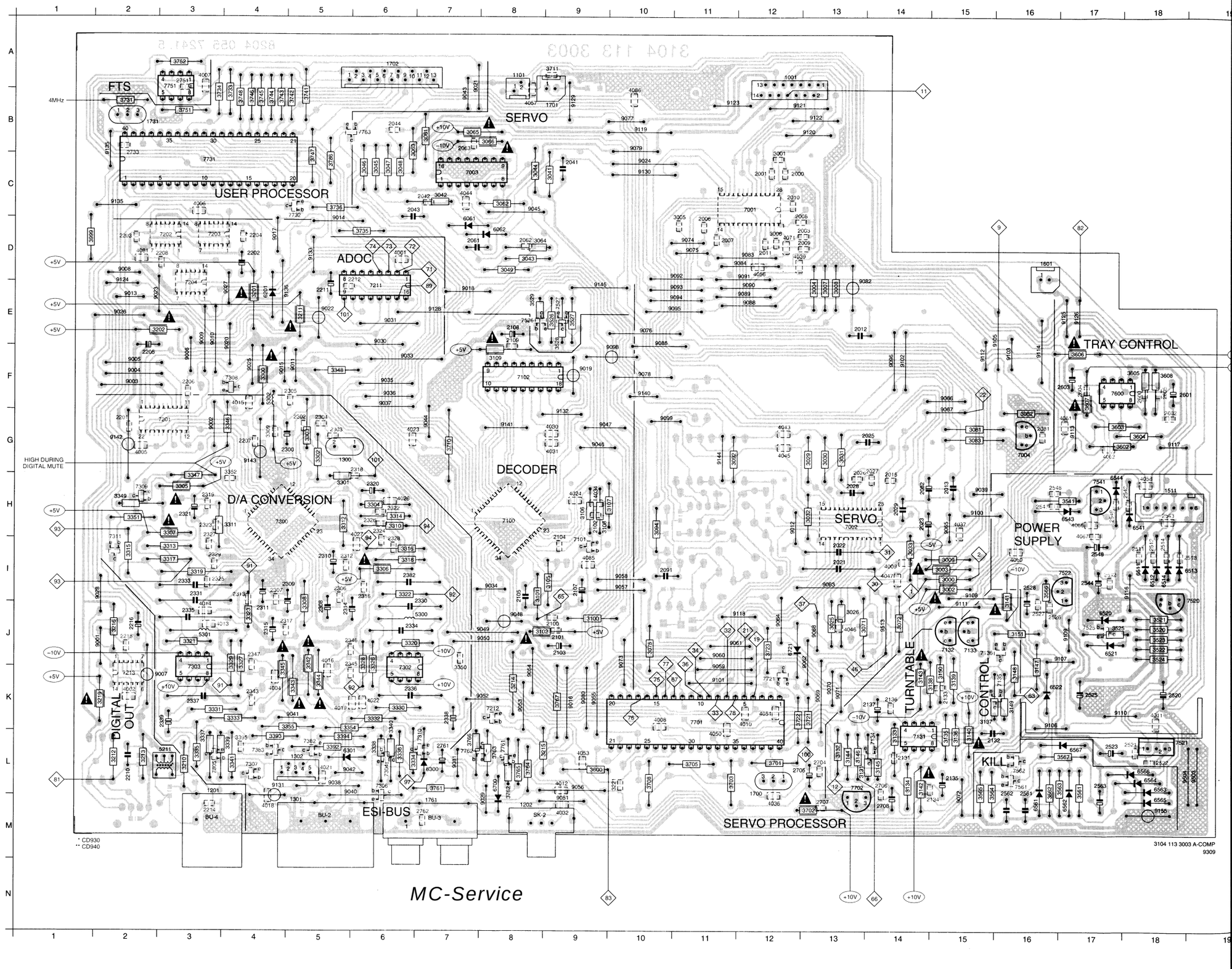


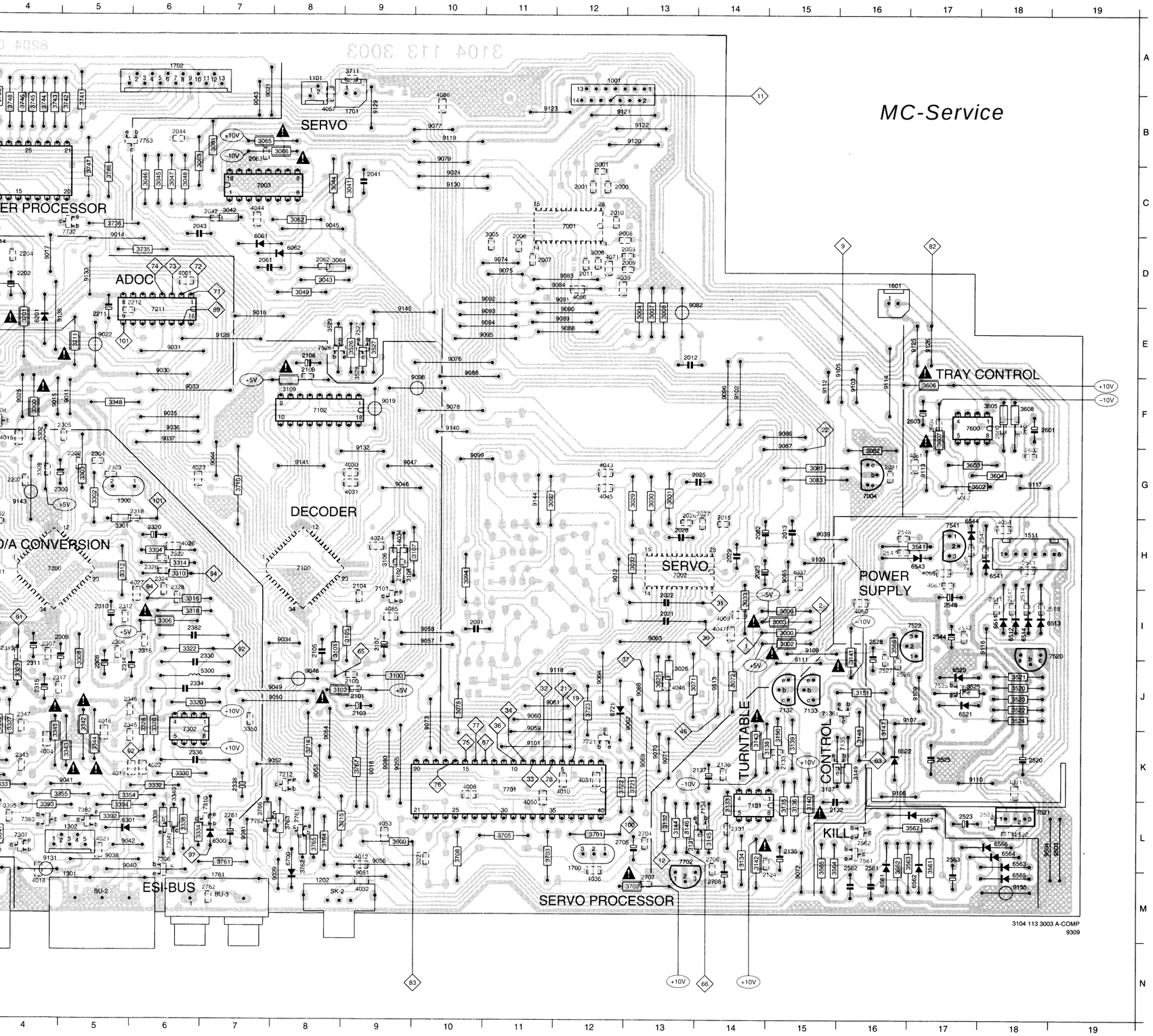
MC-Service


WSAB
CLAB
5us/DIV
11.34us
ANALOGUE SIGNAL
2V
1Vpp
2ms/DIV
AUDIO SIGNALS DISC
TRACK 15
11,2896MHz
+4V
-10V
POWER ON
POWER OFF
CONN 1702 TO CONN 1403
ON DISPLAY CIRCUIT
CONN 1302 TO CONN 1310
ON HEADPHONE CIRCUIT
7731
MC68HC05D24
USER
I/O PORT C
I PORT D
I/O PORT A
I/O PORT B
RAM
ROM
CPU
7201
SM5840A
CONTROL DATA INPUT
MODE CONTROL
ATT & MUTE
FILTER & ATTENUATION
OUTPUT DATA
TIMING CONTROLLER
SHIFT REGISTER
7203
74HC164
7300
SAA7350/AGP
CONTROL
NOISE SHAPER (R)
NOISE SHAPER (L)
DITHER,DC OFFSET & SCATING
DIGITAL SILENCE DETECTION
INPUT INTERFACE
SYNC
S/C
7302
LM833(A)
7303
LM833(B)
HIGH DURING DIGITAL MUTE
MUTE L
MUTE R
BU-3
ESI
BU-2
ANALOG OUTPUT
3104 118 00600S-D
9306

MC-Service

MAIN PANEL COMPONENT SIDE L5





1001	A12	2346	J5	3212	L2	3752	A3	7307	L4	9092	D10
1101	A8	2347	J4	3213	L2	3761	L7	7308	F4	9093	E10
1201	L3	2382	I6	3214	K8	3762	M8	7309	H2	9094	E10
1202	M8	2511	I18	3215	L9	3763	L8	7310	L7	9095	E10
1300	G5	2512	I18	3216	J2	3764	L8	7311	I2	9096	F14
1301	M5	2513	I18	3219	K2	3765	L8	7382	L5	9098	F9
1302	L5	2514	I18	3221	L10	3766	L7	7383	L4	9099	G10
1511	H18	2520	K18	3300	F4	3767	K9	7520	I19	9100	H15
1601	D16	2521	L18	3301	H5	3786	C5	7521	L18	9101	K11
1700	L12	2522	L18	3302	G5	3999	D1	7522	I16	9102	F14
1701	B9	2523	L17	3303	G5	4001	D6	7525	J17	9103	F16
1702	A6	2525	K17	3304	H6	4002	K2	7526	E8	9105	E16
1731	B2	2526	J16	3305	H3	4004	K4	7527	E9	9106	K16
1761	M7	2527	J16	3306	I6	4005	G2	7541	H17	9107	J16
2000	C12	2528	I16	3307	H3	4006	C3	7561	L16	9108	I15
2001	C12	2542	I17	3308	J5	4007	A3	7562	L16	9109	J17
2003	D12	2542	H18	3309	G4	4008	K10	7600	F17	9110	K17
2006	D11	2543	H18	3310	H6	4009	I14	7701	K11	9111	J15
2007	D11	2544	I17	3311	H4	4010	K12	7702	L13	9112	F15
2008	C12	2546	H16	3312	H5	4011	K18	7721	K12	9113	G17
2009	D12	2547	H16	3313	I3	4012	L9	7731	C3	9114	F16
2010	C12	2548	I17	3314	H6	4013	J3	7732	D5	9116	I18
2011	D12	2549	H17	3315	I2	4014	J3	7751	B3	9117	G18
2012	E13	2561	L16	3316	I6	4015	F4	7761	L8	9118	J11
2013	H15	2562	L16	3317	I3	4016	J5	7762	L7	9119	B10
2015	H14	2563	L17	3318	I6	4018	M4	7763	B6	9120	B13
2021	I13	2600	F18	3319	I3	4019	K5	9001	J2	9121	B12
2022	I13	2601	F18	3320	J6	4021	L5	9002	G3	9122	B13
2023	H14	2602	G18	3321	J3	4022	K6	9003	F2	9123	B11
2025	G13	2603	F16	3322	I6	4023	G6	9004	F2	9124	E2
2026	G13	2604	F17	3323	J4	4024	H9	9005	F2	9125	E17
2027	G14	2605	F18	3326	K6	4026	H6	9006	F3	9126	E17
2028	H13	2704	L13	3327	K4	4027	H5	9007	K2	9128	E7
2029	H14	2705	L12	3328	K6	4030	G9	9008	D2	9129	B9
2041	C9	2706	L14	3329	K4	4031	G9	9009	F3	9130	C10
2042	C7	2707	M13	3330	K6	4032	M9	9010	F3	9131	L4
2043	C6	2708	M14	3331	K3	4034	H9	9011	F5	9132	G9
2044	B6	2733	C2	3332	K6	4036	M12	9012	H12	9133	D5
2061	D7	2751	A3	3333	K4	4037	H15	9013	E2	9135	C2
2062	D8	2761	L7	3334	L7	4039	D12	9014	D5	9135	C2
2063	B7	2762	M7	3335	L3	4043	G12	9015	F4	9136	E5
2081	G16	3000	I15	3336	L6	4044	C7	9016	K9	9140	F10
2082	H14	3001	C12	3337	L3	4045	G12	9017	D4	9141	G8
2091	I10	3002	I15	3338	L6	4046	J13	9018	E7	9142	G2
2100	J9	3003	I15	3339	L4	4047	I14	9019	F9	9143	G4
2101	J9	3004	E13	3340	L6	4050	L11	9020	F4	9144	G11
2102	H9	3005	D10	3341	L4	4051	K12	9021	B7	9145	E9
2103	J9	3006	D12	3342	K5	4053	L9	9022	E5	9155	M18
2104	I9	3007	E13	3343	K5	4056	D12	9023	E2	9503	L19
2105	J8	3008	E13	3344	K5	4057	B8	9024	C10	9504	L19
2107	I9	3009	I15	3345	K4	4058	H18	9025	F4	9513	J14
2108	E8	3025	J13	3346	G4	4060	I16	9026	E2		
2109	E8	3026	J13	3347	H3	4061	G17	9027	E4		
2131	L14	3029	G13	3348	F5	4062	G17	9028	I2		
2132	L15	3030	G13	3349	H2	4066	H17	9029	M8		
2133	K15	3031	G13	3350	K7	4067	H17	9030	E6		
2134	M14	3032	H13	3351	H2	4071	D12	9031	E6		
2135	L15	3033	I14	3352	H4	4081	D2	9033	F6		
2136	K14	3041	C9	3354	K5	4085	I9	9034	I8		
2137	K13	3042	C7	3355	K4	4086	B10	9035	F6		
2201	G2	3043	D8	3392	L5	5211	L3	9036	F6		
2202	D4	3044	C8	3393	L4	5300	J7	9037	F6		
2203	D2	3045	C6	3394	L5	5301	J3	9038	L5		
2204	D4	3046	C6	3395	L4	5302	F4	9039	H15		
2205	F2	3047	C6	3520	J18	6061	D7	9040	L5		
2206	F3	3048	C6	3521	J18	6062	D8	9041	K5		
2207	G4	3049	D8	3522	J18	6201	E4	9042	L5		
2208	D2	3061	B7	3523	J18	6300	L7	9043	B7		
2210	L2	3062	C8	3524	J18	6301	L5	9044	G7		
2211	E5	3063	C6	3525	J17	6511	I18	9045	C8		
2212	E5	3064	D8	3526	E9	6512	I18	9046	G9		
2214	M3	3065	B7	3527	E9	6513	I18	9047	G9		
2215	J2	3066	B8	3528	F9	6514	I18	9048	J8		
2216	J2	3071	J14	3529	E8	6520	J17	9049	J7		
2300	G4	3072	J14	3541	H17	6521	J17	9050	J7		
2302	G5	3075	J10	3561	M17	6522	K16	9051	M9		
2303	G5	3081	G15	3562	M16	6541	H18	9052	K7		
2304	G5	3082	G16	3563	L17	6543	H17	9053	K8		
2305	F4	3083	G15	3564	M16	6544	H17	9054	K6		
2306	I5	3092	G11	3565	M15	6561	M16	9055	K9		
2307	I4	3094	H10	3566	I16	6562	M17	9056	L9		
2308	J5	3100	J9	3567	L16	6563	L18	9057	I10		
2309	I4	3101	J8	3600	L9	6564	L18	9058	I10		
2310	I5	3102	J8	3602	G17	6565	M18	9059	K11		
2311	J4	3105	I9	3603	G17	6566	L18	9060	J11		
2312	I5	3106	H9	3604	G18	6567	L17	9061	J11		
2313	I4	3107	H10	3605	F18	6700	L8	9062	K13		
2314	J5	3108	H9	3606	F17	6721	J12	9063	I13		
2315	J4	3109	F8	3607	F17	7001	C12	9064	J12		
2316	I6	3131	L13	3608	F18	7002	H13	9065	H15		
2317	J4	3132	L13	3701	L12	7003	C7	9066	F15		
2318	G5	3133	L14	3702	M13	7004	G16	9067	G15		
2319	H3	3134	L14	3703	L11	7100	H8	9068	J13		
2320	H6	3135	L15	3705	L11	7101	I9	9069	K13		
2321	H3	3136	L15	3708	L10	7102	F8	9070	K13		
2322	H6	3137	K15	3710	G7	7131	L14	9071	K13		
2323	H3	3138	K15	3711	A9	7132	J15	9072	M15		
2324	H6	3139	K15	3721	K13	7133	J15	9073	K10		
2325	I3	3140	L15	3722	K12	7134	L14	9074	D11		
2326	H6	3141	J16	3723	J12	7135	K16	9075	D11		
2327	I3	3142	L14	3731	B2	7136	J15	9076	E10		
2328	I6	3143	K14	3733	B4	7201	G2	9077	B10		
2329	I3	3144	L13	3734	B3	7202	D2	9078	F10		
2330	J6	3145	L14	3735	D6	7203	D3	9079	B10		
2331	I3	3146	L13	3736	C5	7204	E3	9080	K9		
2333	I3	3147	K16	3741	B5	7211	E6	9081	L7		
2334	J6	3148	K16	3742	B5	7212	K8	9082	E13		
2335	J3	3149	K16	3743	B4	7213	K2	9083	D12		
2336	K6	3150	K15	3744	B4	7300	H4	9084	D11		
2337	K3	3151	J16	3745	B4	7302	K6	9086	E10		
2338	K7	3201	E4	3746	B4	7303	K3	9088	E12		
2339	K3	3202	E2	3747	C5	7304	L6	9089	E12		
2343	K4	3210	L3	3748	B4	7305	L3	9090	E12		
2345	K5	3211	E5	3751	B3	7306	L6	9091	D12		

MAIN PANEL SOLDER SIDE L5

MC-Service

3104 113 3003

8204 055 7241.5

1001 | CDM
1 = GND
2 = S
3 = D4
4 = D3
5 = D1
6 = D2
7 = GND
8 = LM
9 = LO
10 = GND
11 = FOC–
12 = FOC+
13 = RAD+
14 = RAD–

1601 | TRAY MOTOR
1 = TRAY
2 = GND

7541
1 = –12V
2 = –32V
3 = –27V

1511 | POWER SUPPLY
1 = ACF1
2 = ACF2
3 = VFTD
4 = AC1
5 = GND
6 = AC2

7522
1 = 0V
2 = –11V
3 = –5V

7521
1 = +10V
2 = 0V
3 = +5V

1701 | TRAY SWITCH
1 = SIN1
2 = GND

1101 | CDM MOTOR
1 = VC
2 = GND

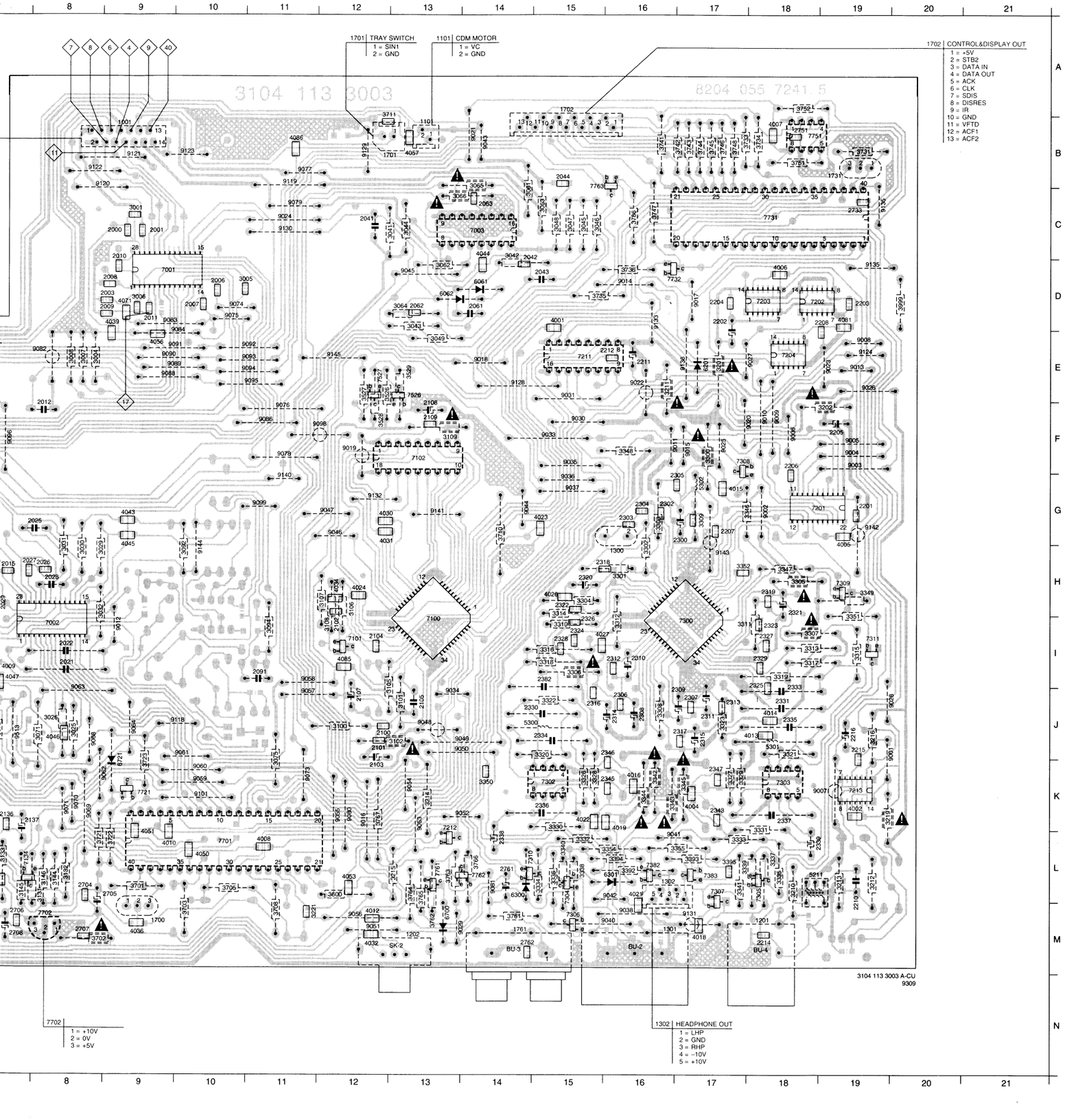
1702 | CONTROL&DISPLAY OUT
1 = +5V
2 = STB2
3 = DATA IN
4 = DATA OUT
5 = ACK
6 = CLK
7 = SDIS
8 = DISRES
9 = IR
10 = GND
11 = VFTD
12 = ACF1
13 = ACF2

7702
1 = +10V
2 = 0V
3 = +5V

1302 | HEADPHONE OUT
1 = LHP
2 = GND
3 = RHP
4 = –10V
5 = +10V

* CD930
** CD940

3104 113 3003 A-CU
9309



1001	B9	2513	I2	3303	G16	4007	B18	7731	C18	9120	B8
1101	B13	2514	I3	3304	H15	4008	L11	7732	D16	9121	B9
1201	M18	2520	K3	3305	H18	4009	I7	7751	B18	9122	B8
1202	M13	2521	L3	3306	I15	4010	L9	7761	L13	9123	B10
1300	H16	2522	L3	3307	I18	4011	L3	7762	L14	9124	E19
1301	M16	2523	L4	3308	J16	4012	M12	7763	C15	9125	E5
1302	L16	2525	K4	3309	G17	4013	J17	9001	K20	9126	E4
1511	H3	2526	J5	3310	I15	4014	J18	9002	G18	9128	E14
1601	E5	2527	J5	3311	I17	4015	G17	9003	F19	9129	B12
1700	M9	2528	J5	3312	I16	4016	K16	9004	F19	9130	C11
1701	B12	2542	H4	3313	I18	4018	M17	9005	F19	9131	M17
1702	A15	2542	I4	3314	H15	4019	K16	9006	F18	9132	G12
1731	B19	2543	H3	3315	I19	4021	L16	9007	K18	9133	D16
1761	M14	2544	I4	3316	I15	4022	K15	9008	E19	9135	D19
2000	C9	2546	H5	3317	I18	4023	G15	9009	F18	9135	C19
2001	C9	2547	H5	3318	I15	4024	H12	9010	F18	9136	E17
2003	D8	2548	I4	3319	I18	4026	H15	9011	F17	9140	G11
2006	D10	2549	I4	3320	J15	4027	I15	9012	I9	9141	G13
2007	D10	2561	M5	3321	J18	4030	G12	9013	E19	9142	G19
2008	D9	2562	M5	3322	J15	4031	G12	9014	D16	9143	H17
2009	D8	2563	M4	3323	J17	4032	M12	9015	F17	9144	H10
2010	C9	2600	G3	3326	K15	4034	H12	9016	K12	9145	E12
2011	D9	2601	G3	3327	K17	4036	M9	9017	D17	9155	M3
2012	F8	2602	G3	3328	K15	4037	I6	9018	E14	9503	M2
2013	H6	2603	F4	3329	K17	4039	D9	9019	F12	9504	M3
2015	H7	2604	G4	3330	K15	4043	G9	9020	F18	9513	J7
2021	I8	2605	G3	3331	L18	4044	C14	9021	B14		
2022	I8	2704	L8	3332	L15	4045	H9	9022	E16		
2023	I7	2705	L9	3333	L17	4046	J8	9023	E19		
2025	G7	2706	M7	3334	L15	4047	I7	9024	C11		
2026	H8	2707	M8	3335	L18	4050	L10	9025	F17		
2027	H7	2708	M7	3336	L15	4051	L9	9026	E19		
2028	H8	2733	C19	3337	L18	4053	L12	9027	E18		
2029	H7	2751	B18	3338	L15	4056	E9	9028	J20		
2041	C12	2761	L14	3339	L18	4057	B13	9029	M14		
2042	D14	2762	M14	3340	L15	4058	H3	9030	F15		
2043	D15	3000	I6	3341	L17	4060	I5	9031	E15		
2044	B15	3001	C9	3342	K16	4061	G4	9033	F15		
2061	D14	3002	J6	3343	K16	4062	H4	9034	J13		
2062	D13	3003	I6	3344	K16	4066	I4	9035	F15		
2063	C14	3004	E8	3345	K17	4067	I4	9036	G15		
2081	G5	3005	D10	3346	G18	4071	D9	9037	G15		
2082	H7	3006	D9	3347	H18	4081	D19	9038	M16		
2091	I11	3007	E8	3348	F16	4085	I12	9039	H6		
2100	J12	3008	E8	3349	H19	4086	B11	9040	M15		
2101	J12	3009	I6	3350	K14	5211	L18	9041	L16		
2102	I12	3025	J8	3351	I19	5300	J14	9042	L16		
2103	K12	3026	J8	3352	H17	5301	J18	9043	B14		
2104	I12	3029	H9	3354	L15	5302	G17	9044	G14		
2105	J13	3030	H8	3355	L16	6061	D14	9045	D13		
2107	J12	3031	H8	3392	L16	6062	D13	9046	G12		
2108	F13	3032	I9	3393	L17	6201	E17	9047	G12		
2109	F13	3033	I7	3394	L16	6300	L14	9048	J13		
2131	L7	3041	C13	3395	L17	6301	L16	9049	J13		
2132	L5	3042	C14	3520	J3	6511	I3	9050	J13		
2133	K6	3043	D13	3521	J3	6512	J3	9051	M12		
2134	M6	3044	C13	3522	K3	6513	I2	9052	K13		
2135	M6	3045	C15	3523	J3	6514	J3	9053	L13		
2136	K7	3046	C15	3524	K3	6520	J4	9054	K13		
2137	K7	3047	C15	3525	J4	6521	K4	9055	K12		
2201	G19	3048	C15	3526	E12	6522	K5	9056	M12		
2202	D17	3049	E13	3527	E12	6541	I3	9057	J11		
2203	I19	3061	C14	3528	F12	6543	I4	9058	I11		
2204	D17	3062	D13	3529	E13	6544	H4	9059	K10		
2205	F19	3063	C15	3541	H4	6561	M5	9060	K10		
2206	F18	3064	D13	3561	M4	6562	M5	9061	J10		
2207	G17	3065	C14	3562	M5	6563	M3	9062	K9		
2208	D18	3066	C13	3563	M5	6564	M3	9063	J8		
2210	M19	3071	J8	3564	M6	6565	M3	9064	J9		
2211	E16	3072	J7	3565	M6	6566	L3	9065	I6		
2212	E15	3075	K11	3566	J5	6567	L4	9066	G6		
2214	M18	3081	G6	3567	L4	6700	M13	9067	G6		
2215	J19	3082	G5	3600	L12	6721	K9	9068	J8		
2216	J19	3083	G6	3602	G3	7001	D9	9069	K8		
2300	G16	3092	H10	3603	G4	7002	I8	9070	K8		
2302	G16	3094	I11	3604	G3	7003	C14	9071	K8		
2303	G16	3100	J12	3605	F3	7004	H5	9072	M6		
2304	G16	3101	J13	3606	F4	7100	I13	9073	K11		
2305	G16	3102	J13	3607	G4	7101	I12	9074	D10		
2306	J16	3105	J13	3608	F3	7102	F13	9075	D10		
2307	J17	3106	I12	3701	L9	7131	L7	9076	F11		
2308	J16	3107	H12	3702	M8	7132	K6	9077	B11		
2309	J16	3108	I12	3703	M10	7133	K6	9078	F11		
2310	I16	3109	F13	3705	L10	7134	L7	9079	C11		
2311	J17	3131	M8	3708	M11	7135	K6	9080	K12		
2312	I16	3132	L8	3710	G14	7136	K6	9081	L14		
2313	J17	3133	L7	3711	B12	7201	G18	9082	E8		
2314	J16	3134	M7	3721	L8	7202	D18	9083	D9		
2315	J17	3135	L6	3722	L9	7203	D18	9084	E9		
2316	J15	3136	L6	3723	K9	7204	E18	9086	F11		
2317	J16	3137	L6	3731	B19	7211	E15	9088	E9		
2318	H15	3138	K7	3733	B18	7212	K13	9089	E9		
2319	H18	3139	K6	3734	B18	7213	K19	9090	E9		
2320	H15	3140	L6	3735	D15	7300	I17	9091	E9		
2321	H18	3141	J5	3736	D16	7302	K15	9092	E10		
2322	H15	3142	M7	3741	B16	7303	K18	9093	E10		
2323	I18	3143	K7	3742	B17	7304	M15	9094	E10		
2324	I15	3144	L8	3743	B17	7305	L18	9095	E10		
2325	I18	3145	L7	3744	B17	7306	M15	9096	F7		
2326	I15	3146	L8	3745	B17	7307	L17	9098	F11		
2327	I18	3147	K5	3746	B17	7308	F17	9099	G11		
2328	I15	3148	K5	3747	C16	7309	H19	9100	H6		
2329	I18	3149	K5	3748	B17	7310	L15	9101	K10		
2330	J14	3150	K6	3751	B18	7311	I19	9102	F7		
2331	J18	3151	J5	3752	A18	7382	L16	9103	F5		
2333	J18	3201	E17	3761	M14	7383	L17	9105	F6		
2334	J15	3202	F18	3762	M13	7520	J2	9106	L5		
2335	J18	3210	L18	3763	L13	7521	L3	9107	K4		
2336	K15	3211	E16	3764	L13	7522	I4	9108	J6		
2337	K18	3212	L19	3765	M13	7525	J4	9109	J4		
2338	L14	3213	L19	3766	L14	7526	E13	9110	L4		
2339	L19	3214	K13	3767	K12	7527	E12	9111	J6		
2343	K17	3215	L13	3786	C16	7541	H4	9112	F6		
2345	K15	3216	J19	3999	D20	7561	M5	9113	G4		
2346	J15	3219	K20	4001	D15	7562	L5	9114	F5		
2347	K17	3221	M12	4002	K19	7600	G4	9116	J4		
2382	I15	3300	F17	4004	K17	7701	L10	9117	G3		
2511	I3	3301	H16	4005	H19	7702	M8	9118	J9		
2512	I3	3302	H16	4006	D18	7721	K9	9119	B11		

MC-Service

3106	4822 050 23902	3k9 1% 0,6W
3107	4822 050 29102	9k1 1% 0,6W
3108	4822 050 21602	1k6 1% 0,6W
3109	4822 111 30846	6Ω8 5% 0,25W
3131	4822 050 24702	4k7 1% 0,6W
3132	4822 050 24703	47k 1% 0,6W
3133	4822 116 52234	100k 5% 0,5W
3134	4822 050 29103	91k 1% 0,6W
3135	4822 050 23302	3k3 1% 0,6W
3136	4822 050 15602	5k6 1% 0,4W
3137	4822 050 21504	150k 1% 0,6W
3138	4822 050 28203	82k 1% 0,6W
3139	4822 051 10101	100Ω 2% 0,25W
3140	4822 052 10478	4Ω7 5% 0,33W
3141	4822 052 10478	4Ω7 5% 0,33W
3142	4822 052 10478	4Ω7 5% 0,33W
3143	4822 052 10478	4Ω7 5% 0,33W
3144	4822 050 26804	680k 1% 0,6W
3145	4822 050 15602	5k6 1% 0,4W
3146	4822 050 13303	33k 1% 0,4W
3147	4822 050 24702	4k7 1% 0,6W
3148	4822 050 24702	4k7 1% 0,6W
3149	4822 051 10122	1k2 2% 0,25W
3150	4822 050 21604	160k 1% 0,6W
3151	4822 050 24702	4k7 1% 0,6W
3201	4822 111 30846	6Ω8 5% 0,25W
3202	4822 111 30846	6Ω8 5% 0,25W
3210	5322 116 51882	0Ω
3211	4822 111 30846	6Ω8 5% 0,25W
3212	4822 051 10561	560Ω 2% 0,25W
3213	4822 050 26201	620Ω 1% 0,6W
3214	4822 050 22203	22k 1% 0,6W
3215	4822 050 22203	22k 1% 0,6W
3216	4822 050 22203	22k 1% 0,6W
3219	4822 111 30846	6Ω8 5% 0,25W
3221	4822 050 22203	22k 5% 1/8W
3300	4822 111 30846	6Ω8 5% 0,25W
3301	4822 050 22204	220k 1% 0,6W
3302	4822 050 21002	1k 1% 0,6W
3303	4822 051 10101	100Ω 2% 0,25W
3304	4822 111 30846	6Ω8 5% 0,25W
3305	4822 111 30846	6Ω8 5% 0,25W
3306	4822 052 10101	100Ω 5% 0,33W
3307	4822 052 10101	100Ω 5% 0,33W
3308	4822 050 22403	24k 1% 0,6W
3309	4822 051 20101	100Ω 5% 0,1W
3310	4822 050 25103	51k 1% 0,6W
3311	4822 050 25103	51k 1% 0,6W
3312	4822 050 25103	51k 1% 0,6W
3313	4822 050 25103	51k 1% 0,6W
3314	4822 050 21003	10k 1% 0,6W
3315	4822 050 21003	10k 1% 0,6W
3316	4822 050 21003	10k 1% 0,6W
3317	4822 050 21003	10k 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 25602	5k6 1% 0,6W
3323	4822 050 25602	5k6 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 21003	10k 1% 0,6W
3331	4822 050 21003	10k 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 050 22202	2k2 1% 0,6W
3339	4822 050 22202	2k2 1% 0,6W
3340	4822 050 22202	2k2 1% 0,6W
3341	4822 050 22202	2k2 1% 0,6W
3342	4822 052 10109	10Ω 5% 0,33W
3343	4822 052 10109	10Ω 5% 0,33W
3344	4822 052 10109	10Ω 5% 0,33W
3345	4822 052 10109	10Ω 5% 0,33W
3346	4822 050 24702	4k7 1% 0,6W
3347	4822 050 24702	4k7 1% 0,6W
3348	4822 050 21003	10k 1% 0,6W
3349	4822 050 21003	10k 1% 0,6W
3350	4822 051 20472	4k7 5% 0,1W
3351	4822 050 24702	4k7 1% 0,6W
3354	4822 050 22204	220k 1% 0,6W
3355	4822 050 22204	220k 1% 0,6W
3392	4822 051 10101	100Ω 2% 0,25W
3393	4822 051 10101	100Ω 2% 0,25W
3394	4822 050 22202	2k2 1% 0,6W
3395	4822 051 20222	2k2 5% 0,1W
3520	4822 050 26801	680Ω 1% 0,6W
3521	4822 050 26801	680Ω 1% 0,6W
3522	4822 050 26801	680Ω 1% 0,6W
3523	4822 050 26801	680Ω 1% 0,6W
3524	4822 050 26801	680Ω 1% 0,6W
3525	4822 050 23302	3k3 1% 0,6W
3526	4822 051 10101	100Ω 2% 0,25W
3527	4822 050 24703	47k 1% 0,6W
3528	4822 050 22203	22k 1% 0,6W
3529	4822 050 21003	10k 1% 0,6W
3541	4822 050 24702	4k7 1% 0,6W
3561	4822 116 52224	470Ω 5% 0,5W
3562	4822 050 24703	47k 1% 0,6W
3563	4822 050 22205	2M2 1% 0,6W

3564	4822 050 21003	10k 1% 0,6W
3565	4822 050 13303	33k 1% 0,4W
3566	4822 050 22204	220k 1% 0,6W
3567	4822 050 21002	1k 1% 0,6W
3600	4822 050 25102	5k1 1% 0,6W
3602	4822 050 21003	10k 1% 0,6W
3603	4822 050 21003	10k 1% 0,6W
3604	4822 050 21003	10k 1% 0,6W
3605	4822 050 21003	10k 1% 0,6W
3606	4822 052 10108	1Ω 5% 0,33W
3607	4822 052 10108	1Ω 5% 0,33W
3608	4822 052 10229	22Ω 5% 0,33W
3701	4822 050 22204	220k 1% 0,6W
3702	4822 052 10478	4Ω7 5% 0,33W
3703	4822 050 22203	22k 1% 0,6W
3705	4822 050 22203	22k 1% 0,6W
3708	4822 050 22203	22k 1% 0,6W
3710	4822 050 22203	22k 1% 0,6W
3711	4822 051 20223	22k 5% 0,1W
3721	4822 050 22201	220Ω 1% 0,6W
3722	4822 050 21002	1k 1% 0,6W
3723	4822 050 22203	22k 1% 0,6W
3731	4822 050 22204	220k 1% 0,6W
3734	4822 050 22203	22k 1% 0,6W
3735	4822 050 22203	22k 1% 0,6W
3736	4822 050 22203	22k 1% 0,6W
3741	4822 050 22203	22k 1% 0,6W
3742	4822 050 22203	22k 1% 0,6W
3743	4822 050 22203	22k 1% 0,6W
3744	4822 050 22203	22k 1% 0,6W
3745	4822 050 22203	22k 1% 0,6W
3746	4822 050 22203	22k 1% 0,6W
3747	4822 050 22203	22k 1% 0,6W
3748	4822 050 22203	22k 1% 0,6W
3751	4822 050 21003	10k 1% 0,6W
3752	4822 050 21003	10k 1% 0,6W
3761	4822 052 10109	10k 5% 0,33W
3762	4822 050 21803	18k 1% 0,6W
3763	4822 050 24703	47k 1% 0,6W
3764	4822 051 10101	100Ω 2% 0,25W
3765	4822 050 24703	47k 1% 0,6W
3766	4822 050 24703	47k 1% 0,6W
3767	4822 050 24703	47k 1% 0,6W
3768	4822 050 24703	47k 1% 0,6W
4001	4822 051 10008	0Ω 5% 0,25W
4002	4822 051 10008	0Ω 5% 0,25W
4004	4822 051 10008	0Ω 5% 0,25W
4005	4822 051 10008	0Ω 5% 0,25W
4006	4822 051 10008	0Ω 5% 0,25W
4007	4822 051 10008	0Ω 5% 0,25W
4008	4822 051 10008	0Ω 5% 0,25W
4009	4822 051 10008	0Ω 5% 0,25W
4010	4822 051 10008	0Ω 5% 0,25W
4011	4822 051 10008	0Ω 5% 0,25W
4012	4822 051 10008	0Ω 5% 0,25W
4013	4822 051 10008	0Ω 5% 0,25W
4014	4822 051 10008	0Ω 5% 0,25W
4015	4822 051 10008	0Ω 5% 0,25W
4016	4822 051 10008	0Ω 5% 0,25W
4018	4822 051 10008	0Ω 5% 0,25W
4019	4822 051 10008	0Ω 5% 0,25W
4021	4822 051 10008	0Ω 5% 0,25W
4022	4822 051 10008	0Ω 5% 0,25W
4023	4822 051 10008	0Ω 5% 0,25W
4024	4822 051 10008	0Ω 5% 0,25W
4026	4822 051 10008	0Ω 5% 0,25W
4027	4822 051 10008	0Ω 5% 0,25W
4030	4822 051 10008	0Ω 5% 0,25W
4031	4822 051 10008	0Ω 5% 0,25W
4032	4822 051 10008	0Ω 5% 0,25W
4034	4822 051 10008	0Ω 5% 0,25W
4036	4822 051 10008	0Ω 5% 0,25W
4037	4822 051 10008	0Ω 5% 0,25W
4039	4822 051 10008	0Ω 5% 0,25W
4043	4822 051 10008	0Ω 5% 0,25W
4044	4822 051 10008	0Ω 5% 0,25W
4045	4822 051 10008	0Ω 5% 0,25W
4046	4822 051 10008	0Ω 5% 0,25W
4047	4822 051 10008	0Ω 5% 0,25W
4050	4822 051 10008	0Ω 5% 0,25W
4051	4822 051 10008	0Ω 5% 0,25W
4053	4822 051 10008	0Ω 5% 0,25W
4056	4822 051 10008	0Ω 5% 0,25W
4057	4822 051 10008	0Ω 5% 0,25W
4058	4822 051 10008	0Ω 5% 0,25W
4060	4822 051 10008	0Ω 5% 0,25W
4061	4822 051 10008	0Ω 5% 0,25W
4062	4822 051 10008	0Ω 5% 0,25W
4066	4822 051 10008	0Ω 5% 0,25W
4067	4822 051 10008	0Ω 5% 0,25W
4071	4822 051 10008	0Ω 5% 0,25W
4081	4822 051 10008	0Ω 5% 0,25W
4085	4822 051 10008	0Ω 5% 0,25W
4086	4822 051 10008	0Ω 5% 0,25W

MC-Service

COILS

5211	4822 148 80281	DIG.OUT TRANSFORMER
5300	4822 157 51192	220µH
5301	4822 157 51192	220µH
5302	4822 157 51235	4,7µH

DIODES

6061	4822 130 30861	BZX79-C7V5
6062	4822 130 30861	BZX79-C7V5
6201	4822 130 30621	1N4148
6300	4822 130 30621	1N4148
6301	4822 130 30621	1N4148
6511	5322 130 30684	1N4002
6512	5322 130 30684	1N4002
6513	5322 130 30684	1N4002
6514	5322 130 30684	1N4002
6520	4822 130 30621	1N4148
6521	4822 130 30621	1N4148
6522	4822 130 30621	1N4148
6541	5322 130 30684	1N4002
6543	4822 130 31981	BZX79-C3V9
6544	4822 130 34278	BZX79-F6V8
6561	4822 130 34278	BZX79-F6V8
6562	4822 130 30621	1N4148
6563	4822 130 30621	1N4148
6564	4822 130 30621	1N4148
6565	5322 130 30684	1N4002
6566	5322 130 30684	1N4002
6567	4822 130 31981	BZX79-C3V9
6700	4822 130 31983	BAT85
6721	4822 130 80235	BZX79-C3V3

TRANSISTORS & IC's

7001	4822 209 73234	TDA8808T/C3
7002	4822 209 73235	TDA8809T/C2
7003	4822 209 72587	TCA0372DP2-
7004	5322 130 44349	BC635
7100	4822 209 61759	SAA7310GP/H5
7101	4822 130 42131	BF550
7102	4822 209 70422	MN4264-15
7131	4822 209 83274	NJM4560D
7132	4822 130 44121	BC338
7133	4822 130 44104	BC328
7134	5322 130 42012	BC858A
7135	5322 130 42012	BC858A
7136	4822 130 61207	BC848
7201	4822 209 30939	SM5840AS
7202	5322 209 12099	MC74HC164D
7203	5322 209 12099	MC74HC164D
7204	4822 209 30739	MC74HC04AD
7211	4822 209 62588	PCF3523P
7212	4822 130 61207	BC848
7213	4822 209 31284	MC74HC08AD
7300	4822 209 31356	SAA7350/AGP
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	5322 130 42012	BC858
7382	4822 130 42696	BC818-25
7383	4822 130 42696	BC818-25
7520	4822 130 60492	BC376
7521	4822 209 80891	MC78M05CT
7522	4822 209 73233	MC79L05ACP
7525	5322 130 41982	BC848B
7526	5322 130 41982	BC848B
7527	5322 130 41982	BC848B
7541	4822 209 62115	MC79L15ACP
7561	5322 130 41982	BC848B
7562	5322 130 42012	BC858
7600	4822 209 62059	TCA0372DP1
7701	4822 900 10388	MC68HC05C8P/S05 PROM
7702	4822 209 72042	MC78L05ACP
7721	5322 130 42012	BC858
7731	4822 209 31249	MC68HC05D24P/ZC410915
7732	5322 130 42012	BC858
7751	4822 209 62524	X24C16P
7761	5322 130 42012	BC858
7762	4822 130 61207	BC848
7763	5322 130 41982	BC848B

DISPLAY PANEL

MISCELLANEOUS

	4822 256 91848	DISPLAY HOLDER
1401	4822 242 72527	RESONATOR 4MHz
1402	4822 130 91073	DISPLAY CD930
1403	4822 267 50723	CONNECTOR 13P
1404	4822 267 40624	RFK5 CONNECTOR
1405	4822 267 40624	RFK5 CONNECTOR
1406	4822 267 40624	RFK5 CONNECTOR
1407	4822 267 40624	RFK5 CONNECTOR
1410	4822 276 13114	TACT SWITCH
1411	4822 276 13114	TACT SWITCH
1412	4822 276 13114	TACT SWITCH
1413	4822 276 13114	TACT SWITCH
1414	4822 276 13114	TACT SWITCH
1415	4822 276 13114	TACT SWITCH
1416	4822 276 13114	TACT SWITCH
1417	4822 276 13114	TACT SWITCH
1418	4822 276 13114	TACT SWITCH
1419	4822 276 13114	TACT SWITCH
1420	4822 276 13114	TACT SWITCH
1421	4822 276 13114	TACT SWITCH
1451	4822 214 51772	IR RECEIVER GP1U521X

CAPACITORS

2401	4822 122 10166	22nF	30%	16V
2404	5322 124 21643	22µF	20%	40V
2405	4822 122 10166	22nF	30%	16V
2406	5322 124 21643	22µF	20%	40V
2407	4822 122 10166	22nF	30%	16V
2408	4822 122 10166	22nF	30%	16V
2409	4822 122 10177	10nF	20%	25V
2451	5322 124 21643	22µF	20%	40V
2452	4822 122 10166	22nF	30%	16V

RESISTORS

3401	4822 052 10478	4Ω7	5%	0,33W
3402	4822 050 22204	220k	1%	0,6W
3403	4822 050 22203	22k	1%	0,6W
3404	4822 050 22203	22k	1%	0,6W
3405	4822 050 21002	1k	1%	0,6W
3406	4822 050 22203	22k	1%	0,6W
3407	4822 050 22203	22k	1%	0,6W
3408	4822 050 22203	22k	1%	0,6W
3409	4822 050 22203	22k	1%	0,6W
3411	4822 052 10109	10Ω	5%	0,33W
3412	4822 116 52234	100k	5%	0,5W
3414	4822 051 10101	100Ω	2%	0,25W
3415	4822 116 52234	100k	5%	0,5W
3417	4822 051 10101	100Ω	2%	0,25W
3418	4822 116 52234	100k	5%	0,5W
3420	4822 051 10101	100Ω	2%	0,25W
3421	4822 116 52234	100k	5%	0,5W
3422	4822 051 10101	100Ω	2%	0,25W
3423	4822 116 52234	100k	5%	0,5W
3425	5322 111 90473	8x10k	2%	NETWORK
3426	4822 052 10478	4Ω7	5%	0,33W
3427	4822 052 10478	4Ω7	5%	0,33W
3428	4822 050 24702	4k7	1%	0,6W
3429	4822 050 24703	47k	1%	0,6W
3430	4822 050 23302	3k3	1%	0,6W
3431	4822 050 23302	3k3	1%	0,6W
3432	4822 050 23302	3k3	1%	0,6W
3451	4822 052 10478	4Ω7	5%	0,33W
3452	4822 050 24702	4k7	1%	0,6W

DIODES

6401	4822 130 30621	1N4148
6402	4822 130 30621	1N4148
6403	4822 130 30621	1N4148

TRANSISTORS & IC'S

7401	4822 209 30249	TMP47C212AN
7402	4822 209 30733	74HC164N
7403	4822 209 60886	UDN-2580A
7405	4822 130 40941	BC558
7406	4822 130 40938	BC548
7407	4822 130 40938	BC548
7408	4822 130 40938	BC548
7409	4822 130 40938	BC548

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KEYBOARD PANEL

MISCELLANEOUS

1422	4822 276 13114	TACT SWITCH
1423	4822 276 13114	TACT SWITCH
1424	4822 276 13114	TACT SWITCH
1425	4822 276 13114	TACT SWITCH
1426	4822 276 13114	TACT SWITCH
1427	4822 276 13213	SWITCH
1428	4822 276 13213	SWITCH
1429	4822 276 13213	SWITCH
1430	4822 276 13213	SWITCH
1431	4822 276 13213	SWITCH
1432	4822 276 13213	SWITCH
1433	4822 276 13114	TACT SWITCH
1434	4822 276 13114	TACT SWITCH
1435	4822 276 13213	SWITCH
1436	4822 276 13114	TACT SWITCH
1437	4822 276 13114	TACT SWITCH
1438	4822 276 13114	TACT SWITCH
1439	4822 276 13114	TACT SWITCH

DIODES

6404	4822 130 30621	1N4148
6405	4822 130 30621	1N4148
6406	4822 130 30621	1N4148
6407	4822 130 30621	1N4148
6408	4822 130 30621	1N4148

HEADPHONE PANEL

MISCELLANEOUS

BU-5	4822 267 31453	HEADPHONE SOCKET
1310	4822 267 40624	RFK5 CONNECTOR

CAPACITORS

2382	4822 122 10166	22nF	30%	16V
2383	4822 122 10166	22nF	30%	16V

RESISTORS

3381	4822 102 10398	10k LOG POTMETER		
3382	4822 116 52244	15k	5%	0,5W
3383	4822 116 52244	15k	5%	0,5W
3384	4822 050 21003	10k	1%	0,6W
3385	4822 050 21003	10k	1%	0,6W
3386	4822 050 21201	120Ω	1%	0,6W
3387	4822 050 21201	120Ω	1%	0,6W
3388	4822 051 10101	100Ω	2%	0,25W
3389	4822 051 10101	100Ω	2%	0,25W
3390	4822 052 10228	2Ω2	5%	0,33W
3391	4822 052 10228	2Ω2	5%	0,33W

IC

7380	4822 209 82362	NJM4556D

MISCELLANEOUS

SK-1	4822 276 13216	MAINS SWITCH
21	4822 256 30274	FUSE HOLDER
1010	4822 277 21366	VOLTAGE SELECTOR
1010	4822 462 41505	COVER
1010	5322 256 34058	FUSE HOLDER
1010	5322 462 44478	FUSE CAP
1501	4822 070 31251	FUSE 125mA
5001	4822 146 31045	MAINS TRANSFORMER
5001	4822 146 31153	MAINS TRAFO /01
5502	4822 214 51841	MAINS FILTER

Modifications with A92-255

Page	Reason
Frontpage	/01S added.
2a	/01S added.
4a	Warning Class 3B Laser product added.
19a	Voltage selector added.
20a	Oscillogram of eyepattern adapted.
21a,22a,23a	R3151, R3221, R3210 added; R3150 adapted.
	D6201 added; oscillograms of eyepattern, WSAB,CLAB adapted.
24a,25a,26a	R3309, C2301, L5302, D6700 added.
27-1,28-1,29-1	Main panel: lay-out L3 introduced in week 9226 with printlabel H for /00S and
30-1,31-1,32-1	with printlabel B for /05S and /01S.
44a,45a	Position 99 added.
46a	Clamping piece and CDM 9 changed.
49a	C2210, C2301 added; C2302, C2310, C2311 adapted.
50a	R3094 correction.
51a	R3151, R3210, R3221, R3309 added; R3150 adapted.
52a	L5302 added; D6201 added.
53a	D6700 added;T7136 added; T7213,T7763 adapted.
55a	Voltage selector,cover, fuse holder, fuse cap, mains transfo /01S added.
56	Modifications A92-255 added

Modifications with A93-252

1. Tray detection switch connected to +5V instead of ground, introduced with Lay-out .4 of main panel from production week 9304 onwards.
   The following components have been added with L4: R3151, R3711, D6700, T7136, wire bridge 9129
   The following component has been deleted: R3709

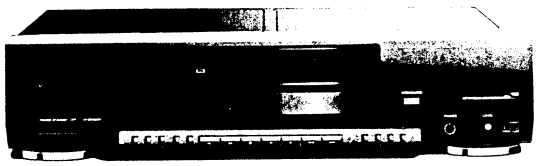
2. Introduction of digital silence detection circuit together with the modification of IC7300 from SAA7350 to SAA7350/AGP. The latter is the latest version of this IC and is compatible with all earlier versions. It can only be replaced by the same version to guarantee a good performance of the digital mute.
   The digital mute circuit consists of the following components: R3346, R3347, T7308, T7309.
   The following components have been deleted: R3352, wirebridges 9510 and 9511.

   This modification has been introduced from production week 9326 onwards.
   The label on the modified sets reads as follows: **AH02** for CD930/00S/05S/01S
   AH01 for CD930/06S/13S

Page	Reason
15-1, 16-1	Tray detection switch connected to +5V and digital mute added
17-1	Wiring of tray switch changed
18-1	D6544 changed to F6V8 to avoid flickering of the display.
21-1, 22-1, 23-1	R3711 added, R3709 deleted, connector 1701 pin 2 connected to +5V.
24-1, 25-1, 26-1	IC7300 changed; R3346, R3347, T7308, T7309 added; R3352, wire bridges 9510, 9511 deleted.
27-2, 28-2, 29-2	Main panel L5(is the same as L4 apart from extra cupper around the cinch sockets)
30-2, 31-2, 32-2	Main panel L5 solder side(= L4)
51b	R3346, R3347 added; R3352 deleted
52b	R3711 added; R3709 deleted.
53b	D6544, IC7300 changed; T7308, T7309 added.
56a	Modifications A93-252 added

MC-Service

Service



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The following mechanical parts are different:

ITEM 1	4822 444 40551	ALU FRONT /00S/01S/06S
	4822 444 40629	ALU FRONT /13S
ITEM 13	4822 444 40549	FRONT /00S/01S/06S
	4822 444 40739	FRONT /13S
ITEM 71	4822 444 30482	TRAY FRONT
ITEM 283	4822 532 60948	CORD BUSHING /00S
	4822 325 60329	CORD BUSHING /01S/06S/13S
ITEM 300	4822 321 10809	MAINS CORD /00S
	4822 321 10845	MAINS CORD /01S
ITEM 304	4822 321 10917	MAINS CORD /13S
ITEM 305	4822 321 10919	MAINS CORD /06S
ITEM 306	4822 263 50179	SOCKET ADAPTER MAINS /13S
ITEM 340	4822 736 21961	INSTRUCTIONS FOR USE /00S
	4822 736 22031	INSTRUCTIONS FOR USE /01S
	4822 736 22029	INSTRUCTIONS FOR USE /06S
	4822 736 21961	INSTRUCTIONS FOR USE /13S

For difference of electrical parts, see modified circuit diagrams, Main Panel drawing and electrical parts list.

Power supply: changed: D6543, D6544.
Servo: added: R3069,3070,3071; IC7005; T7088.(fast search)
Decoder: R3110,3111,3112,3113,3114,3115,3221,3222,3223,3224,3225 changed into wire bridge.
added: C2205,2216,2217; R3217,3226,3227.
changed: IC7202,7203,7204,7211.
Audio: deleted: SK-2.
added: C2256; R3253,3732; socket 1705(BU-3).
changed: sockets 1201(BU-4),1301(BU-2),1704(BU-3), IC 7302,7303.
General: All elcaps of 33µF 16V are changed into 47µF.

4822 725 24055

PHILIPS

MC-Service

PCS 60 652

POWER SUPPLY CD951

1511 K1
1511 E1
1511 D1
1511 B1
1511 A1
1511 A1
1511 I1

1511 G1
1530 F7
2511 E3
2512 F3
2513 H3
2514 J3
2515 C3

2516 D3
2517 J3
2518 K3
2520 E4
2523 F6
2525 I5
2526 I5

2527 I7
2528 I7
2530 F5
2531 F6
2532 D5
2533 D5
2534 D7

2535 D7
2536 K5
2537 K5
2538 K7
2539 K7
2540 G9
2542 B2

2543 B3
2544 B3
2545 B4
2546 C4
2547 B5
2548 B5
2549 A4

2561 B6
2562 B7
2563 B10
3520 G7
3521 F9
3522 G9
3523 G10

3524 G9
3525 G5
3526 G6
3527 G6
3528 G6
3529 F7
3530 E7

3531 E6
3541 A3
3561 B6
3562 B6
3563 B7
3564 B7
3565 C9

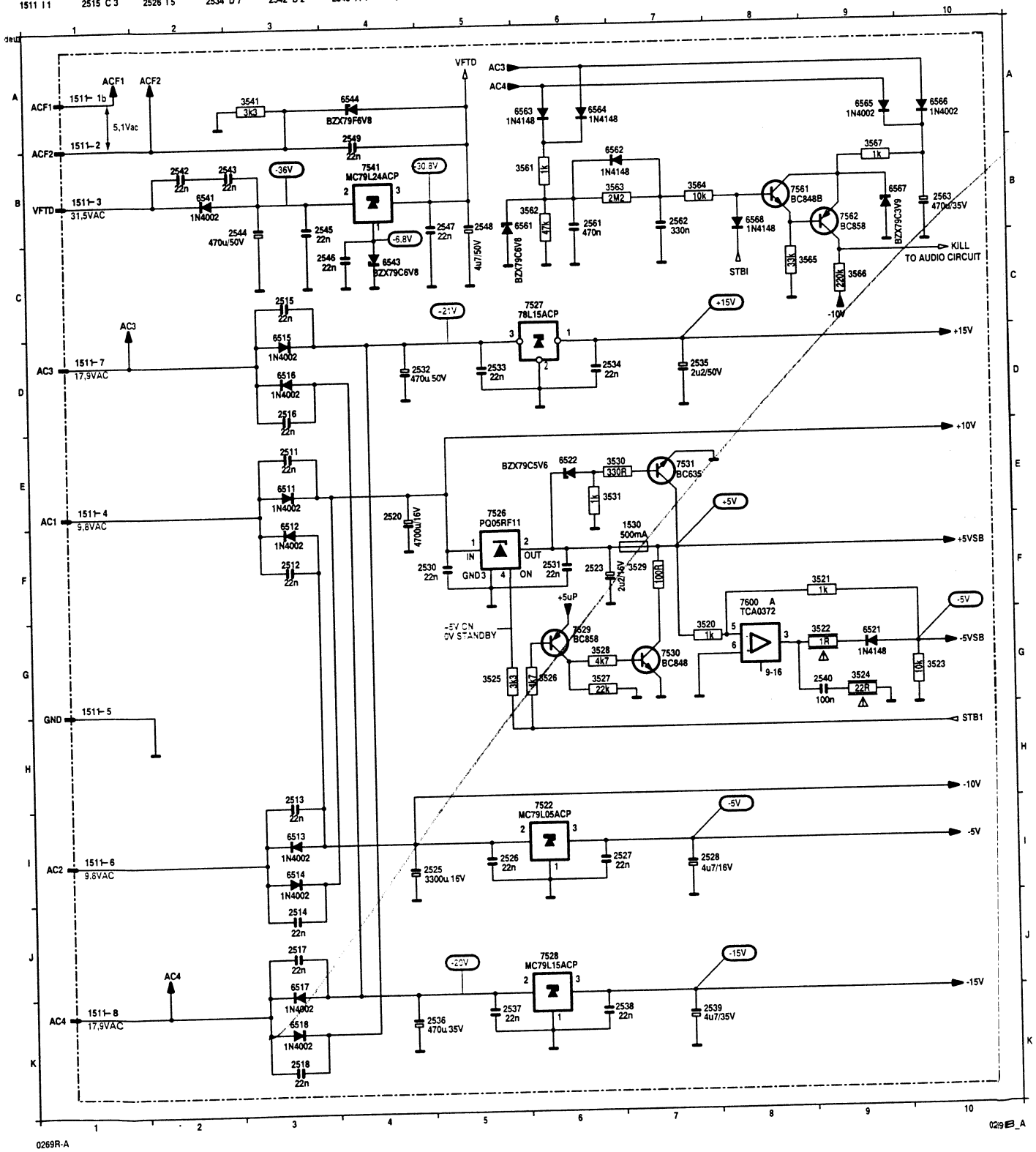
3566 C9
3567 B9
6511 E3
6512 F3
6513 I3
6514 I3
6515 D3

6516 D3
6517 J3
6518 K3
6521 G9
6522 E6
6541 B2
6543 C4

6544 A4
6561 B6
6562 B7
6563 A6
6564 A6
6565 A9
6566 A10

6567 B10
6568 B8
7522 I6
7526 E5
7527 C6
7528 J6
7529 G6

7530 G7
7531 E7
7541 B4
7561 B8
7562 B9
7600 F8



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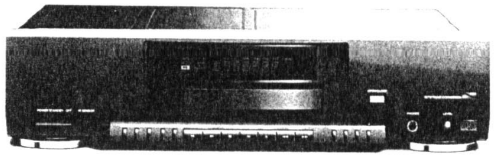

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PHILIPS

MC-Service

PCS 60 130

TECHNICAL SPECIFICATIONS

General

1.Mains voltage	/00S	:	230V (+6 -10%)
	/05S/10S	:	240V (±10%)
	/17S	:	117V (±10%)
2.Mains frequency		:	50-60 Hz
3.Mains voltage selection		:	See circuit diagram Power Supply
4.Power consumption mains,operated		:	10W

External RC-5 connection

Specification:	V-in Low	:	from -2,0V to +1,6V
	V-in High	:	from +3V to +7,5V
	R-in	:	from 47kΩ to 68kΩ

Line output

1. Number of channels	:	2
2. Output voltage	:	2 Vrms ± 1,5dB
3. Unbalance left-right	:	max. 0,2dB
4. Output resistance	:	200Ω
5. Amplitude linearity	:	max. ± 0,2dB from 20 Hz to 20 kHz
6. Phase non-linearity	:	max. ± 1,5° from 20 Hz to 20 kHz
7. Signal to noise ratio	:	min. 105dB from 20 Hz to 20 kHz
8. Dynamic range (-60dB)	:	min. 92dB from 20 Hz to 20 kHz
9. Total harmonic distortion + noise	:	min. 90dB from 20 Hz to 20 kHz
10. Intermodulation distortion	:	min. 90dB from 20 Hz to 20 kHz
11. Out-band attenuation	:	min. 55dB (above 24,2 kHz)
12. Channel separation	:	min. 105dB (1 kHz)
13. Automatic switched de-emphasis with time constants	:	15/50 µs
14. Non-linearity on -90dB	:	± 1dB

Variable headphone

1. Output voltage	:	max. 5 Vrms ± 2dB
2. Unbalance left-right	:	max. ± 0,6dB
3. Output resistance	:	120Ω
4. Load impedance range	:	32Ω to 600Ω load
5. Output power	:	0 to 50 mW into 30Ω load
	:	0 to 90 mW into 120Ω load
	:	0 to 50 mW into 600Ω load
Audio specs in case of 600Ω load at 4 Vrms voltage output		
6. Signal to noise ratio	:	min 95 dB
7. Dynamic range	:	min 90 dB (20 Hz -20 kHz)
8. Total harmonic distortion	:	min 88 dB (20 Hz - 20 kHz)
9. Intermodulation distortion	:	min 88 dB (20 Hz - 20 kHz)
10. Channel separation	:	min 70 dB (1 kHz)
	:	min 65 dB (31,5 Hz - 16 kHz)

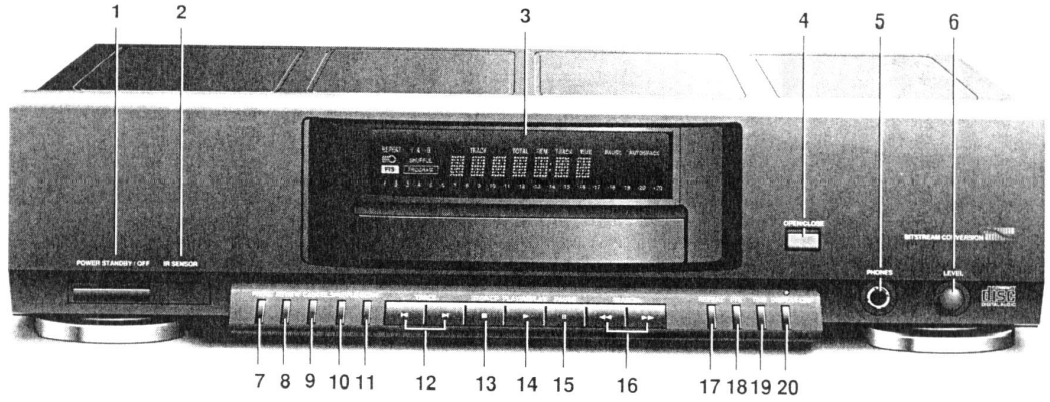
Dimensions and weight

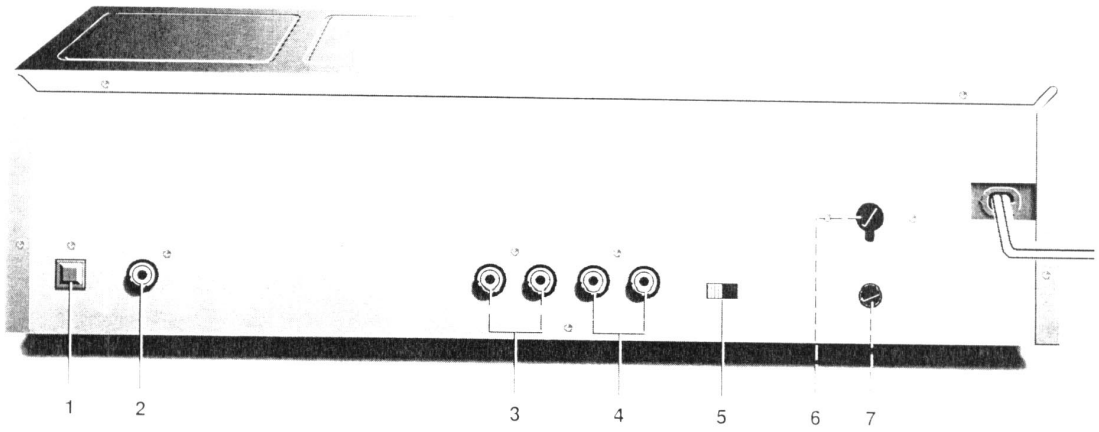
1. Apparatus tray closed	:	WxDxH 435 x 300 x 90/106 mm
2. Apparatus tray open	:	WxDxH 435 x 445 x 90/106 mm
3. Weight	:	4 kg

Optical read-out system

1.Laser type	:	Semiconductor AlGaAs
2.Wavelength	:	780 nm ± 20 nm
3.Light output (c.w.)	:	max. 0,5 mW

CONTROLS & CONNECTIONS





CONTROLS

Indication on App.	Indication in diagram
1. POWER STANDBY/OFF	SK-1
2. I(nfra)R(ed)SENSOR	1451
3. Display	1402
3. OPEN/CLOSE	1426
5. PHONES	BU-5
6. LEVEL	3381
7. PROG(ram)	1413
8. REVIEW	1411
9. CANCEL	1410
10. SHUFFLE	1412
11. SCAN	1416
12. < TRACK >	1414 1415
13. STOP/CP	1417
14. PLAY/REPLAY	1421
15. PAUSE	1420
16. << SEARCH >>	1419 1418
17. REPEAT	1422
18. FTS	1425
19. TIME	1424
20. DISPLAY OFF	1423

CONNECTIONS

Indication on App.	Indication in diagram
1. DIGITAL OUT OPTICAL	BU-6
2. DIGITAL OUT	BU-4
3. ANALOG OUT	BU-2
4. ESI BUS	BU-3
5. IR SENSOR OFF ON	SK-2
6. Voltage selector(not all versions)	
7. Mains fuse holder(not all versions)	

(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

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux decharges statiques (ESD).
Leur longevité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise a leur manipulation.
Lors de reparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de securite.
Veiller à ce que les composants ainsi que les outils que l'on utilise soient egalement a ce potentiel.

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegen elektrostatische Entladungen (ESD).
Unsorgfältige 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.

(NL) WAARSCHUWING

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

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente 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.

(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.

(I)

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

(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.

S Varning!

Osynlig laserstralning när apparaten är öppnad och spärrenär urkopplad.
Betrakta ej strålen.

SF Varo!

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

DK Advarsel!

Usynlig laserstraling ved abning. Undga unsaettelse for straling.

DANGER
Invisible laser radiation when open.
Avoid direct exposure to beam

CAUTION
Invisible laser radiation when open.
Avoid exposure to beam.

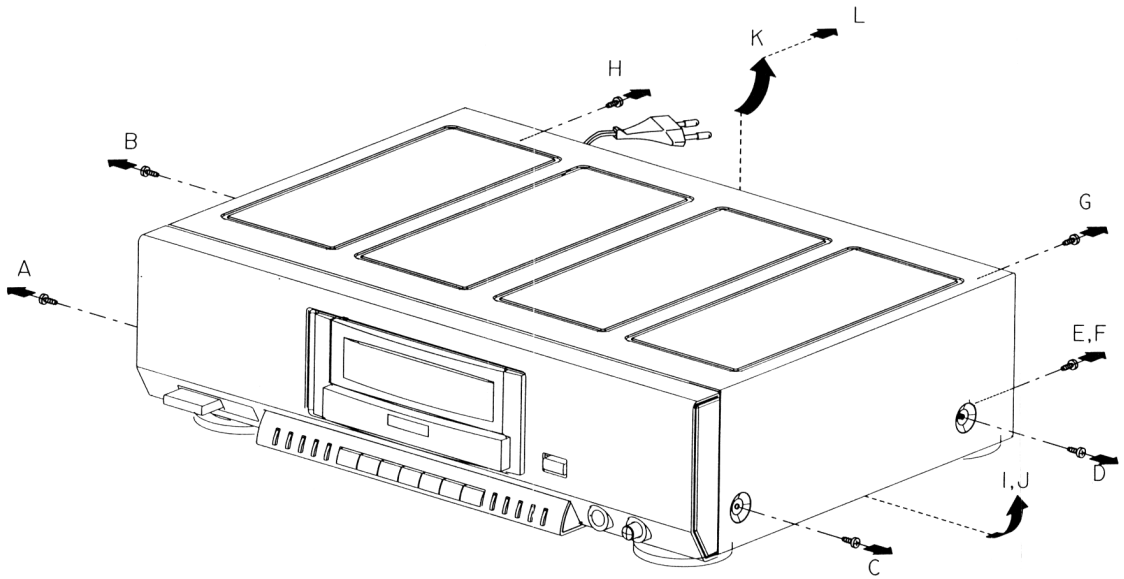
"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne"

CLASS 1
LASER PRODUCT

3122 110 03420

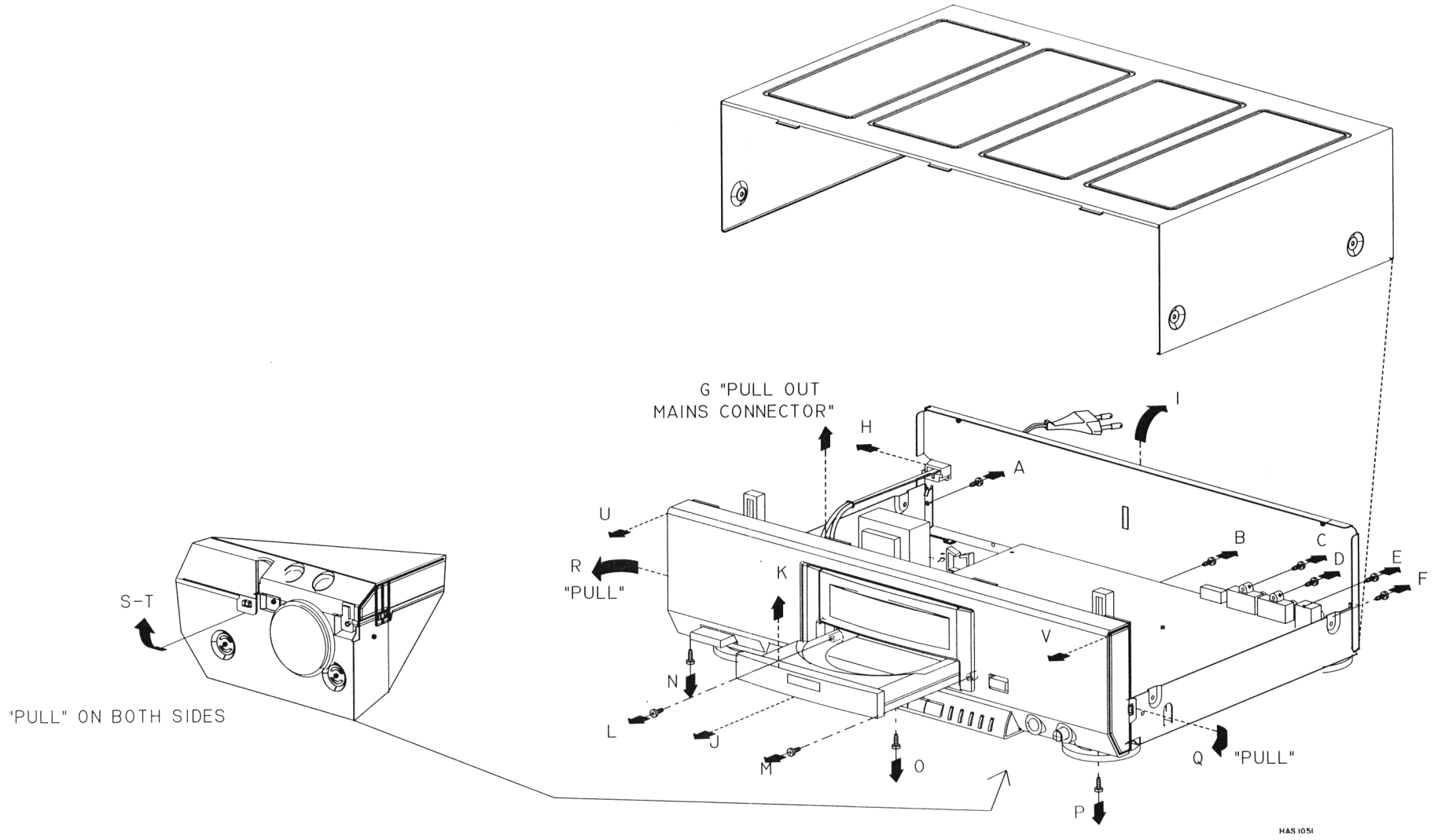
DISMANTLING INSTRUCTIONS

DEMOUNTING OF COVER



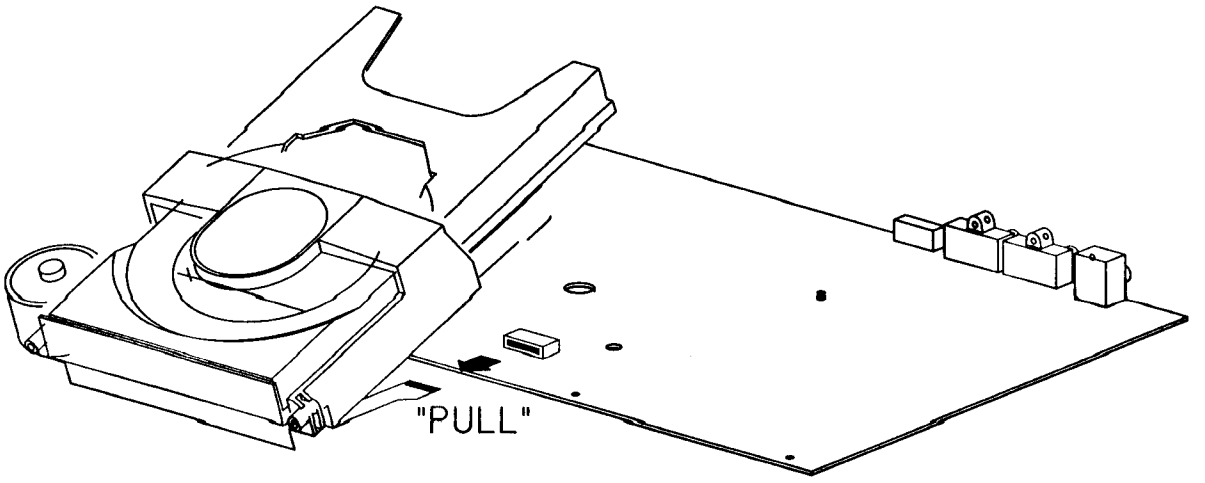
HAS1050

DEMOUNTING OF BACKPLATE AND FRONT



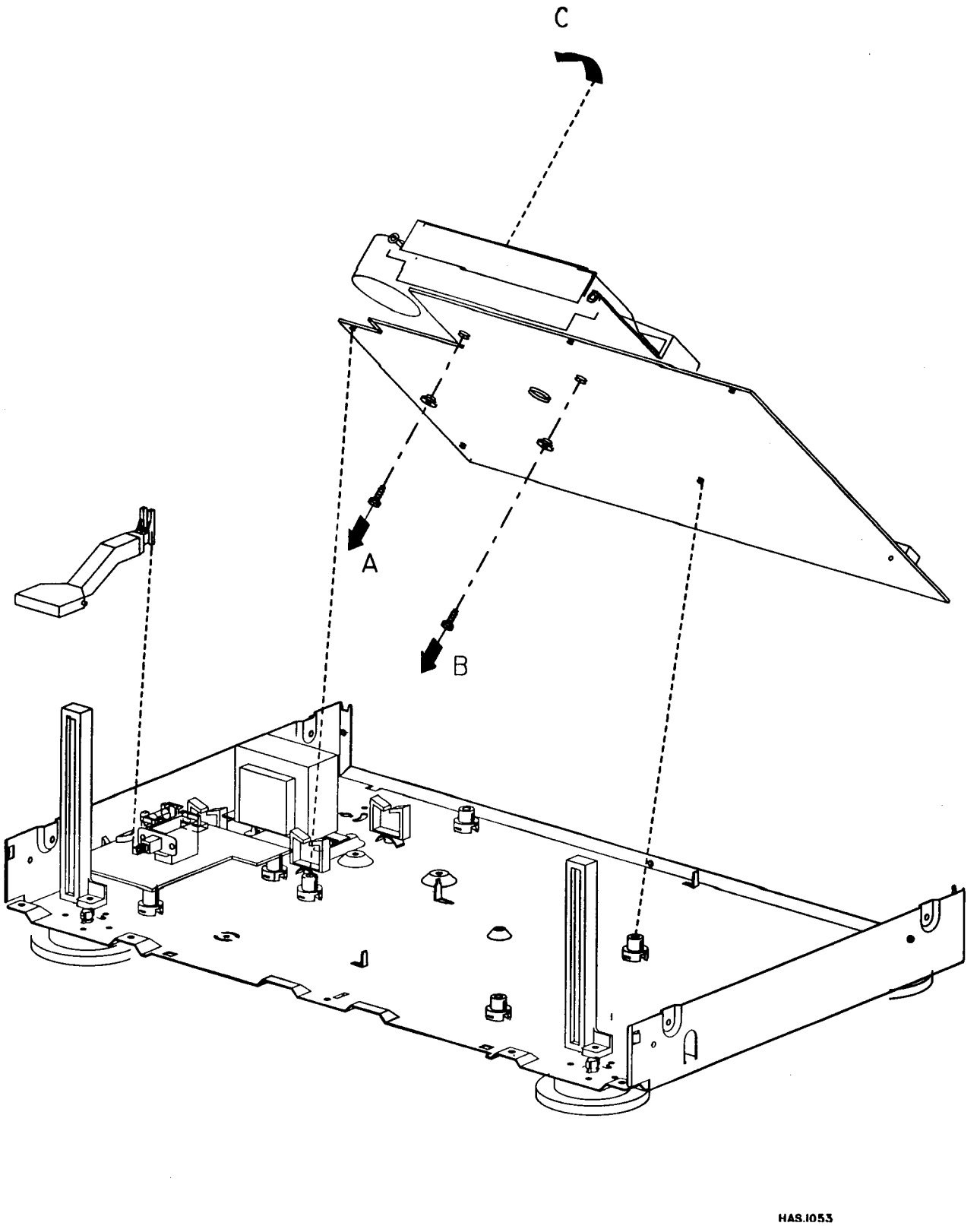
MC-Service

REMOVING FLEX FROM CONNECTOR



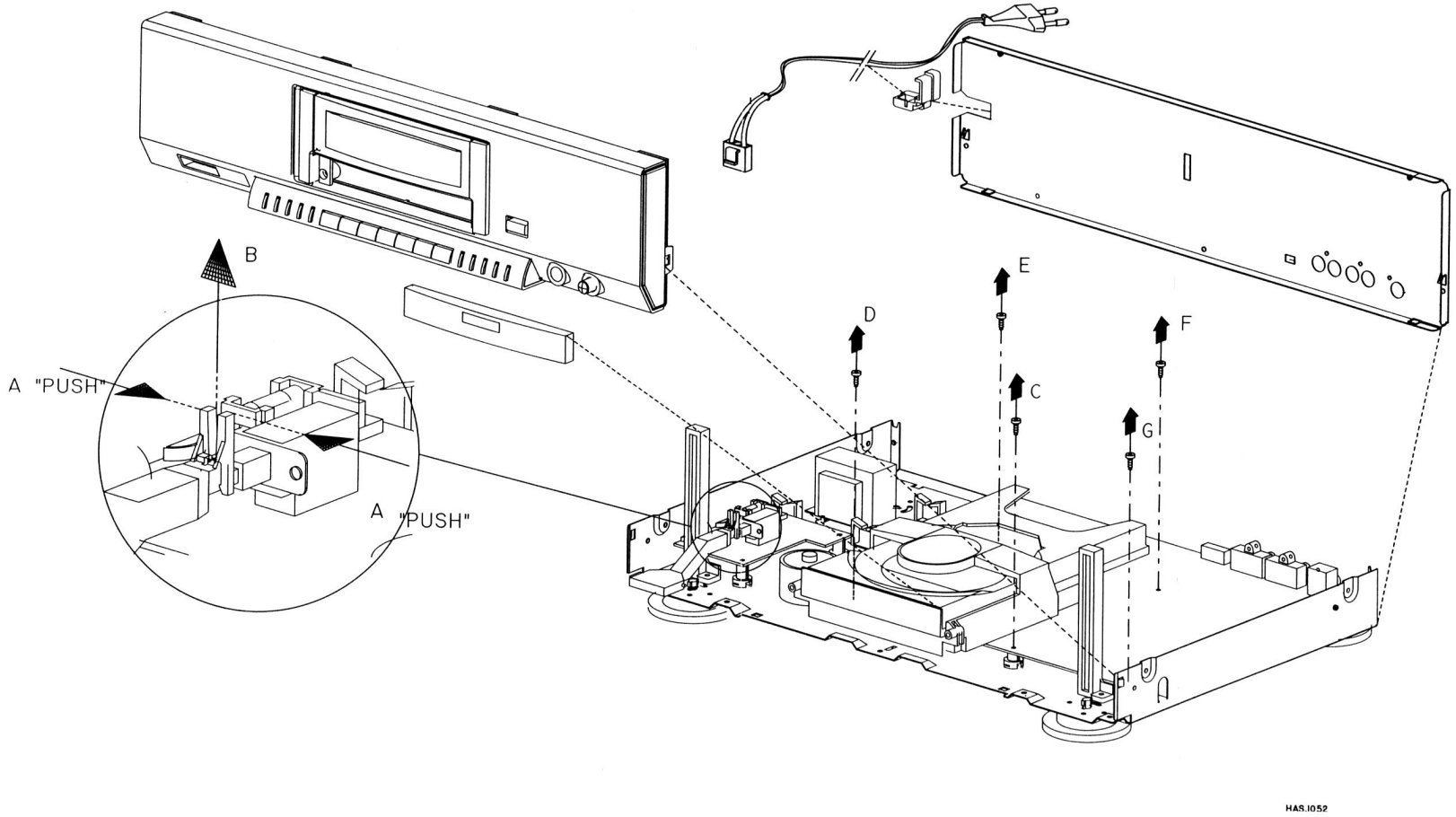
HAS.1054

DEMOUNTING OF LOADER



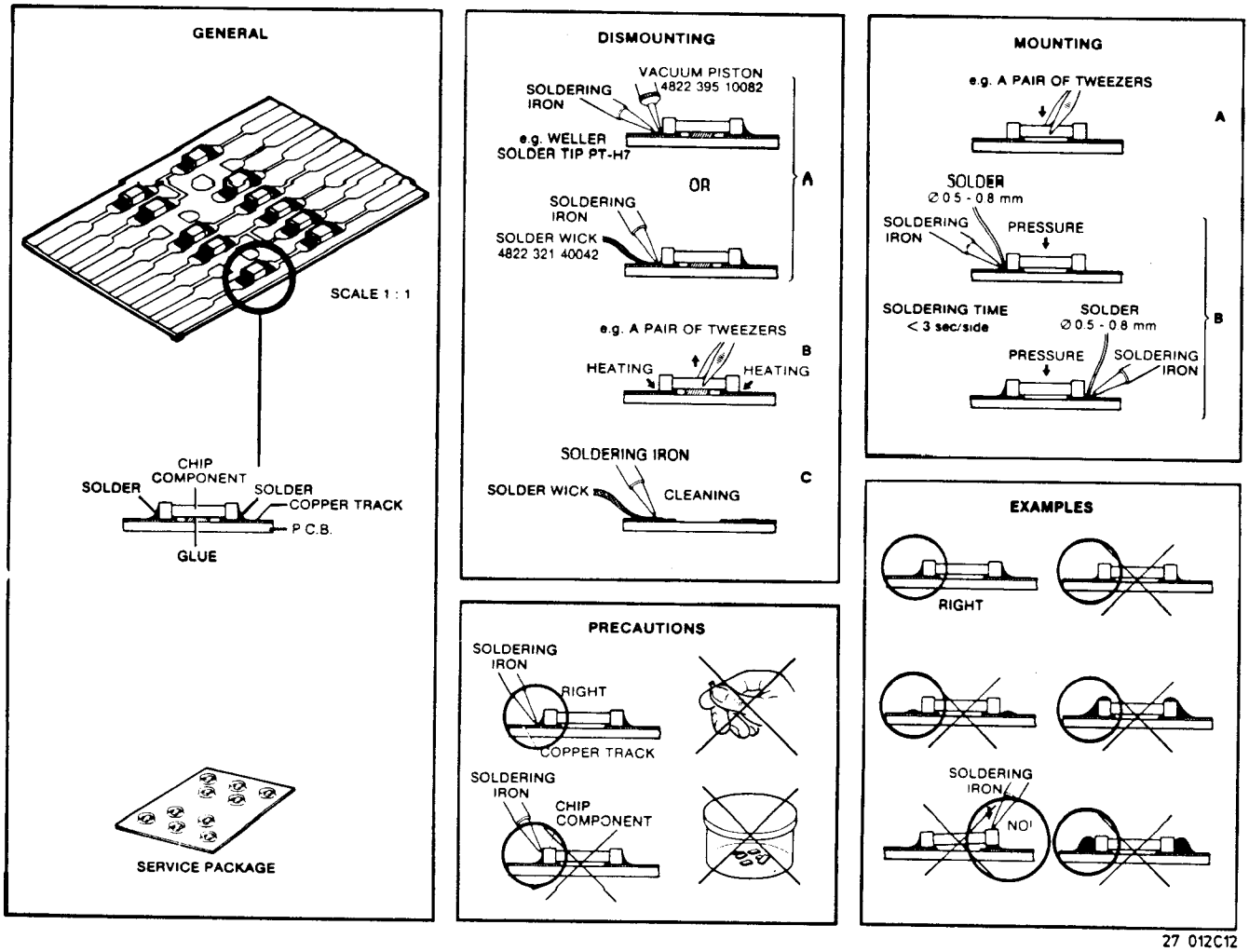
MC-Service

DEMOUNTING OF POWERROD AND MONOBOARD



SERVICING HINTS

In the set chip components have been applied. For disassembly and assembly of chip components see the figure below.



27 012C12

SERVICE TOOLS

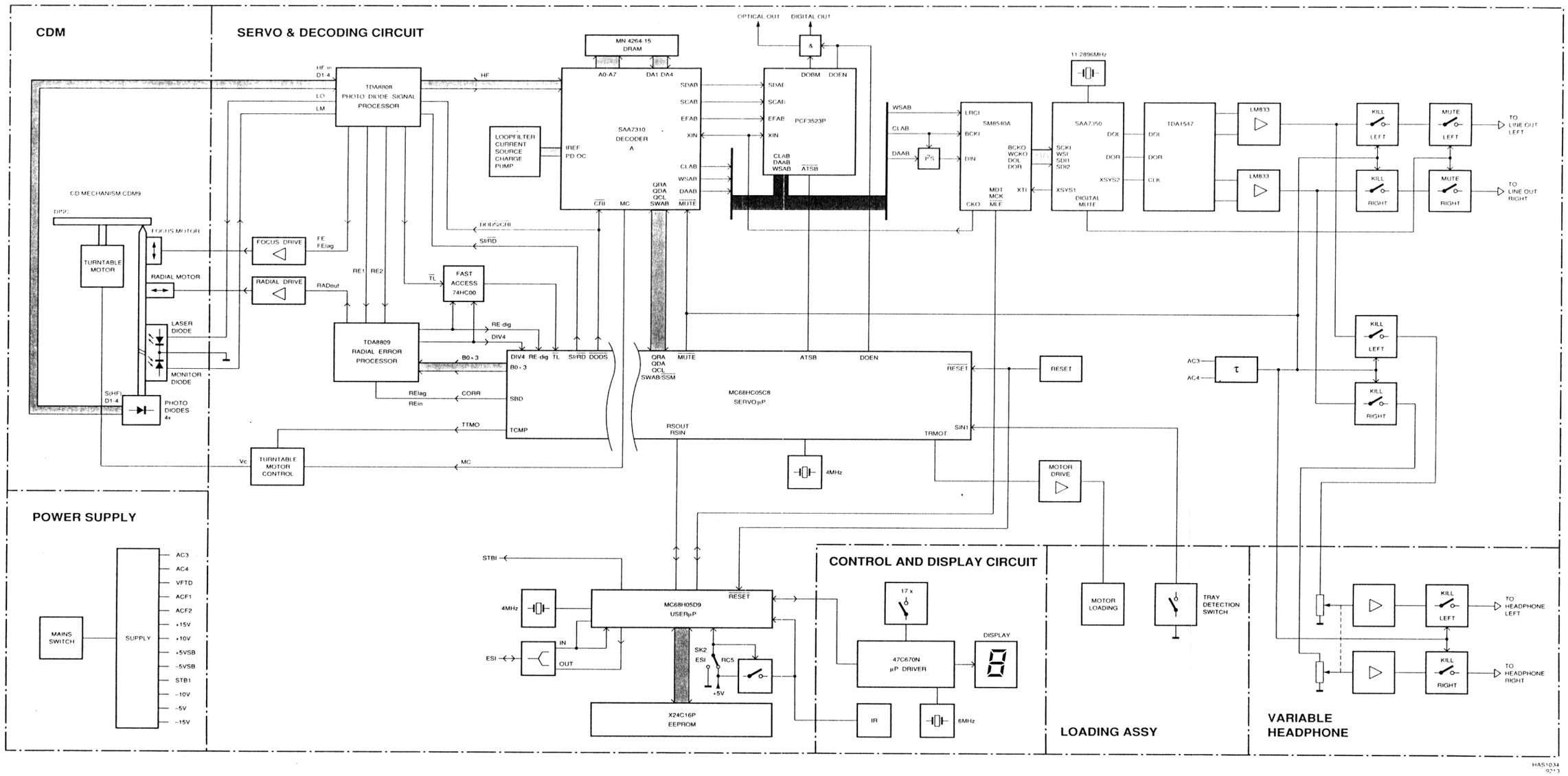
Audio signal disc	4822 397 30184
Disc without errors (test disc 5) + disc with DO errors, black spots and fingerprints (test disc 5A	4822 397 30096
Disc (65 min 1kHz)without pause	4822 397 30155
Max. diameter disc (58.0 mm)	4822 397 60141
Torx screwdrivers	
Set (straight)	4822 395 50145
Set (square)	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 10324

MC-Service

AGC - Automatic Gain Control
AM - Additional mute
ATSB - Attenuation of Audio level in Search position
ATT - Attenuation
B0-B3 - Control bits for radial circuit
BEQ - Equalizer reference current input
BCKI - Input data bit clock
BCKO - Output data bit clock
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
CKO - Oscillator output clock
CKSL - Clock frequency
CLAB - Clock signal Detector-A to Filter-B
CLBD - Clock signal Filter-B to DAC
CLI - I²S 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 - I²S serial data input
DAO - I²S serial data output
DEC - Decoupling input internal bypass
DEEM - Deemphasis
DET - HF detector voltage input
DIN - Input data
DIV4 - Divide by 4 input
DMUTE - Digital mute
DOBM - Digital out signal
DOEN - Digital out enable
DODS - Drop out detector suppression
D1-4 - Photodiode currents
DOL - Left channel data output
DOR - Right channel data output
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
ITL+ - - Output from left positive (negative) switched capacitor integrator
ITR+ - - Output from right positive (negative) switched capacitor integrator
LM - Laser monitor diode input
LO - Laser amplifier current output
LRCI - Input data word clock
MC - Motor control signal
MCES - Motor speed control
MCK - Mode set bit clock
MDT - Mode set serial data input
MLE - Mode set latch enable
MUSB - Soft mute signal
MUTE - Mute signal

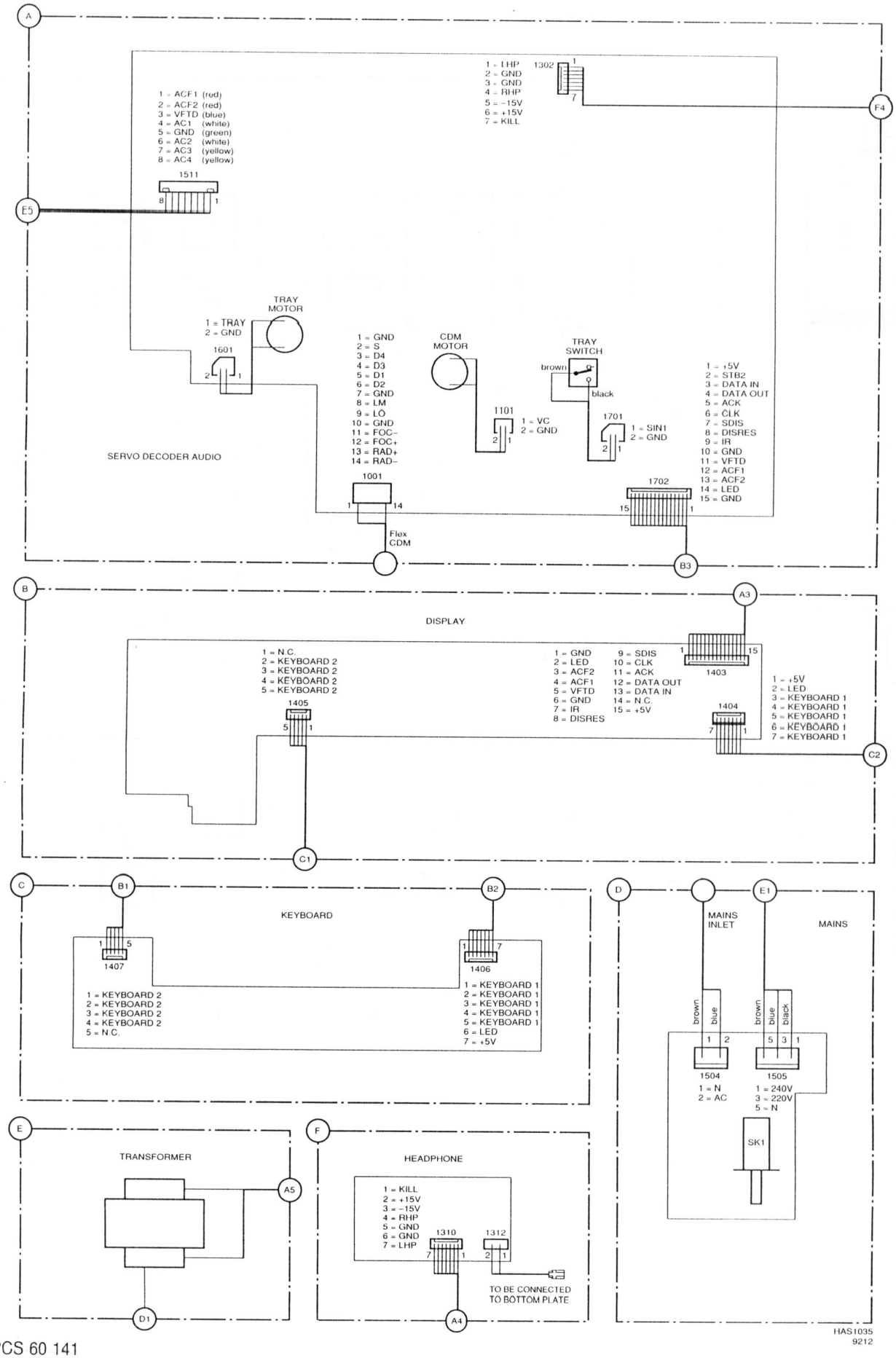
OUTDL - Output from the left positive switched capacitor DAC;feedback connection for the left positive OPAMP
OUTDNL - Output from the left negative switched capacitor DAC;feedback connection for the left negative OPAMP
OUTDR - Output from the right positive switched capacitor DAC;feedback connection for the right positive OPAMP
OUTDNR - Output from the right negative switched capacitor DAC;feedback connection for the right negative OPAMP
OUTOPAL - +Output of the switched capacitor OPAMP
OUTNOPAL - -Output of the switched capacitor OPAMP
OUTOPAR - +Output of the switched capacitor OPAMP
OUTNOPAR - -Output of the switched capacitor OPAMP
PD/OC - Phase detector - oscillator control
PLLH - PLL on hold reset
QCL - Q-channel clock signal
0QDA - Q-channel data signal
QRA - Q-channel request aknowledge
RADout - Output of RE2-RE1 input
RE - Radial errer 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
RST - Device reset
SBD - Single Bit Deviation correction
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 succesfull
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 refence for left (right) channel inputs
VROL-R - Left (right) channel voltage reference output
WCKO - Output word clock
WSAB - Word select Decoder-A to Filter-B
WSBD - Word select Filter-B to DAC
WSI - I²S word select input
WSO - I²S word select output
XIN - Oscillator signal input
XOUT - Oscillator output
XSEL - Crystal frequency select
XSYS - Oscillator signal
XTI - Crystal oscillator input
XTO - Crystal oscillator output

BLOCK DIAGRAM



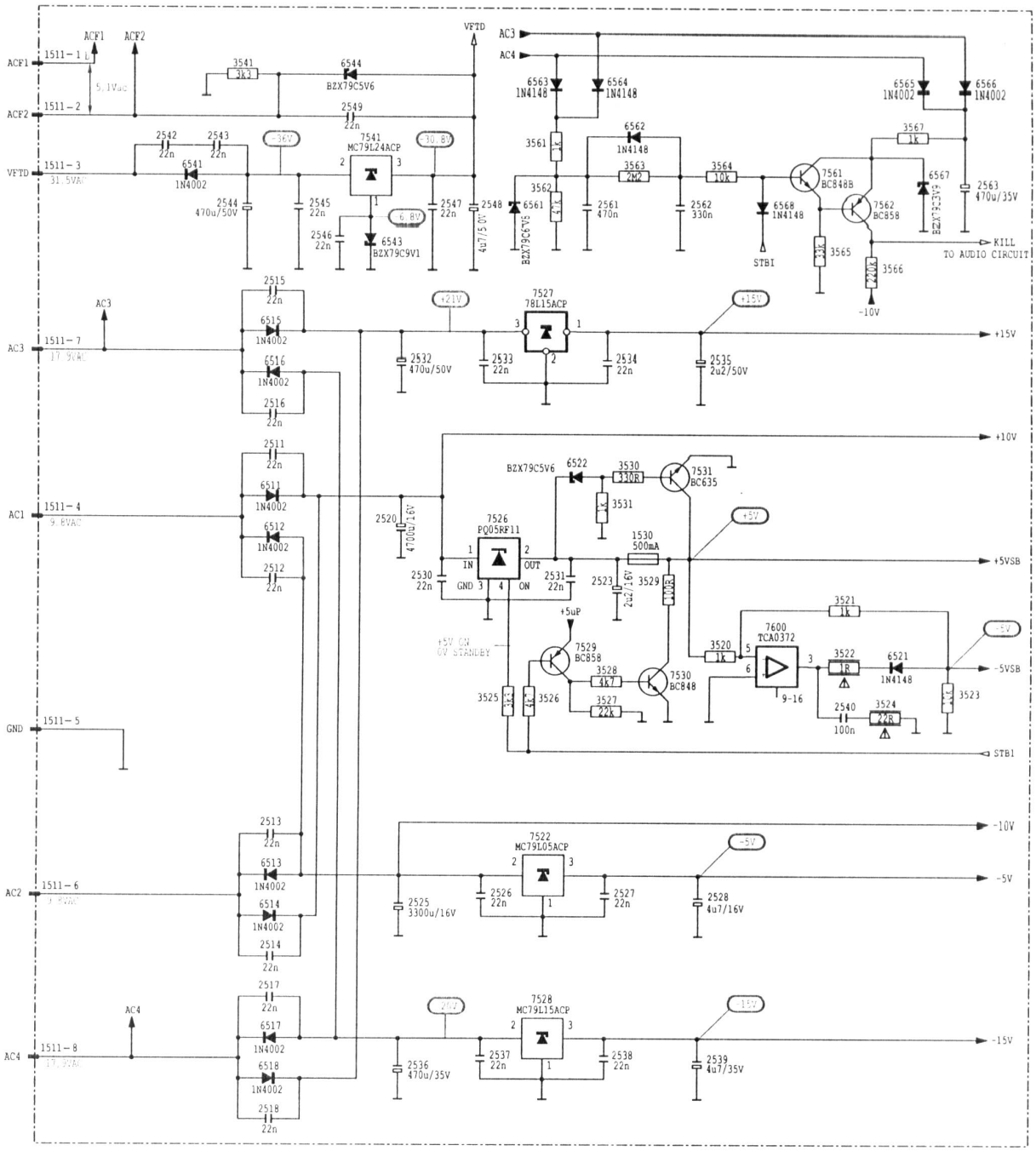
HAS1034
9213

WIRING DIAGRAM



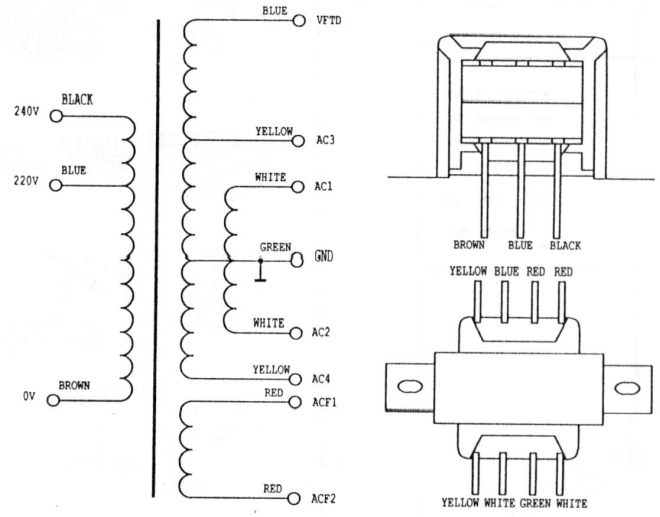
PCS 60 141

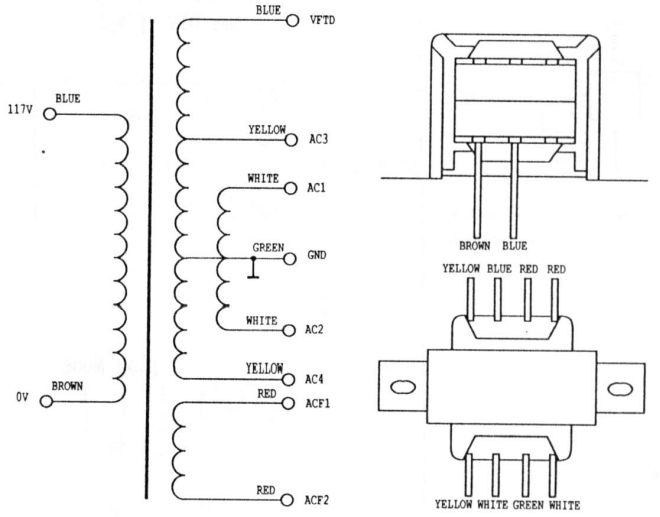
POWER SUPPLY



MC-Service

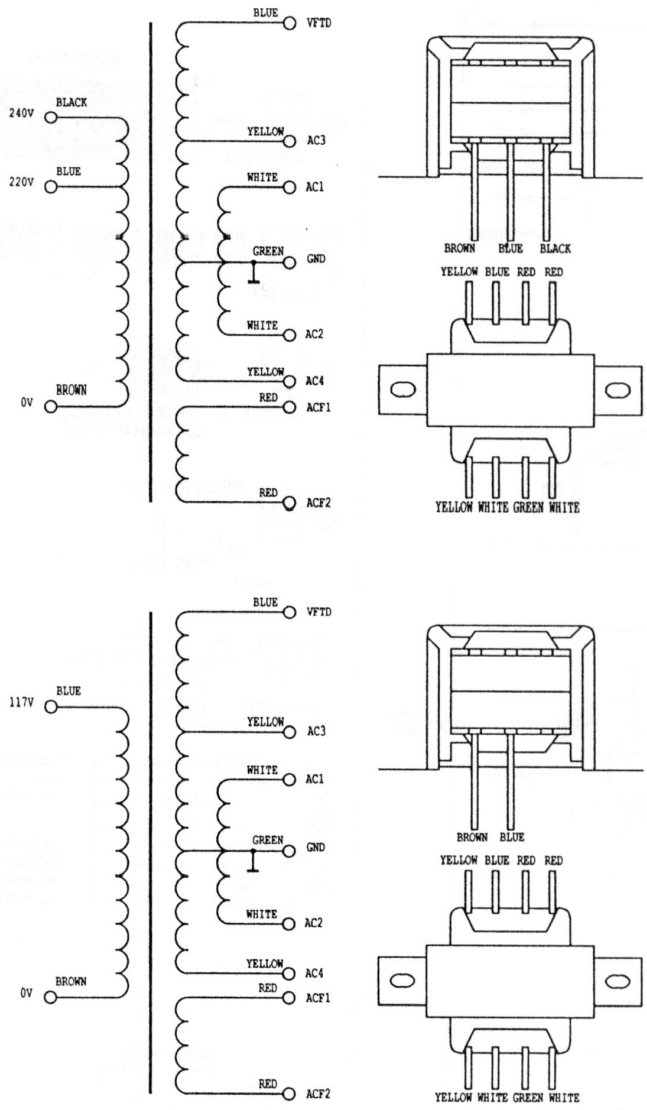
TRANSFORMER CONNECTIONS





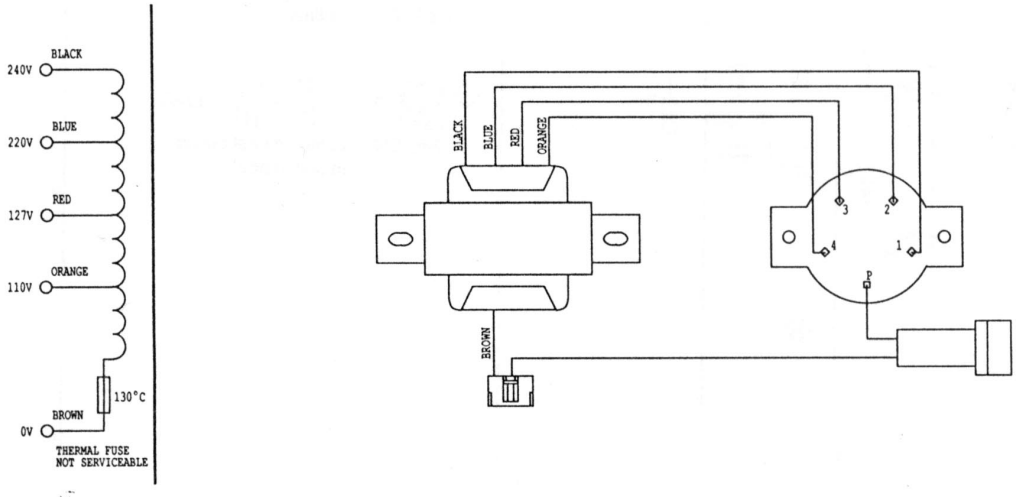
HAS1040
9212

TRANSFORMER CONNECTIONS



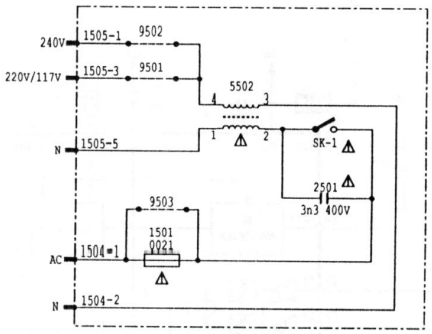
HAS1040
9212

VOLTAGE SELECTOR



HAS1055
9234

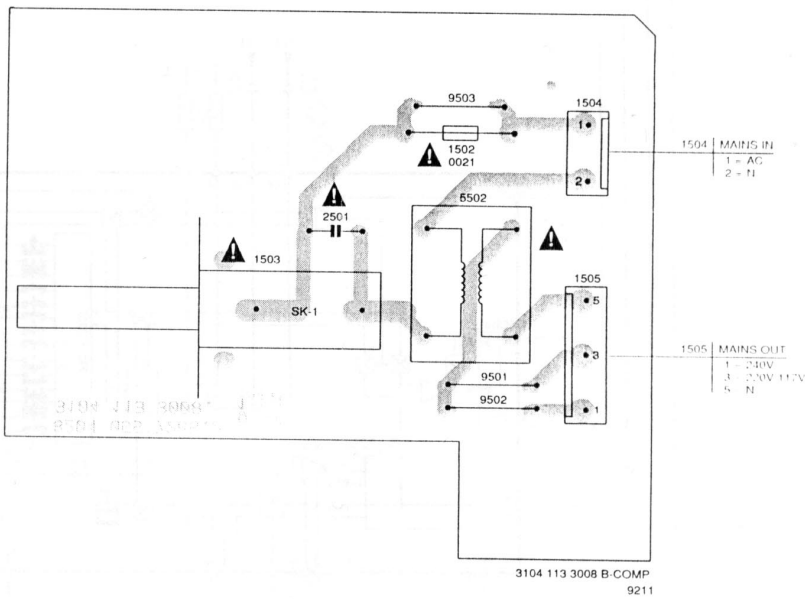
MAINS SWITCH DIAGRAM



CD950/	00S	01S	05S	10S	17S
0021	X		X	X	X
1501	125mA	var.	125mA	125mA	200mA
9501	X	X			X
9502			X	X	
9503		X			

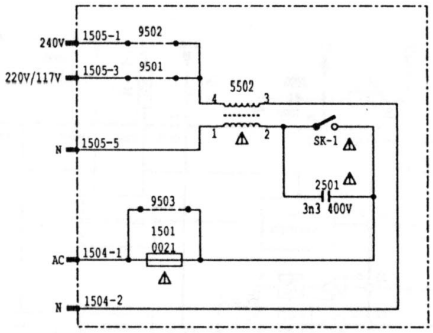
3104 118 00641S-E
9212

MAINS SWITCH PANEL



3104 113 3008 B-COMP
9211

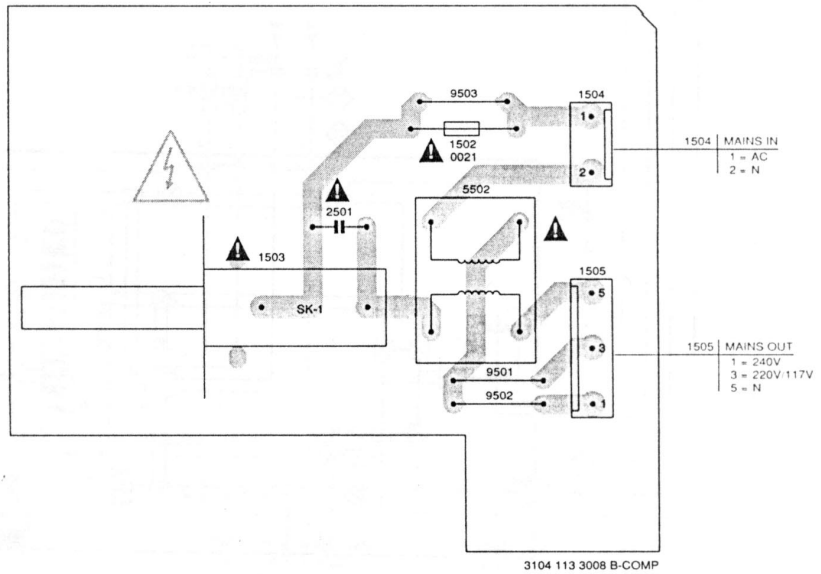
MAINS SWITCH DIAGRAM



CD950/	00S	01S	05S	10S	17S
0021	X		X	X	X
1501	125mA	var.	125mA	125mA	200mA
9501	X	X			X
9502			X	X	
9503		X			

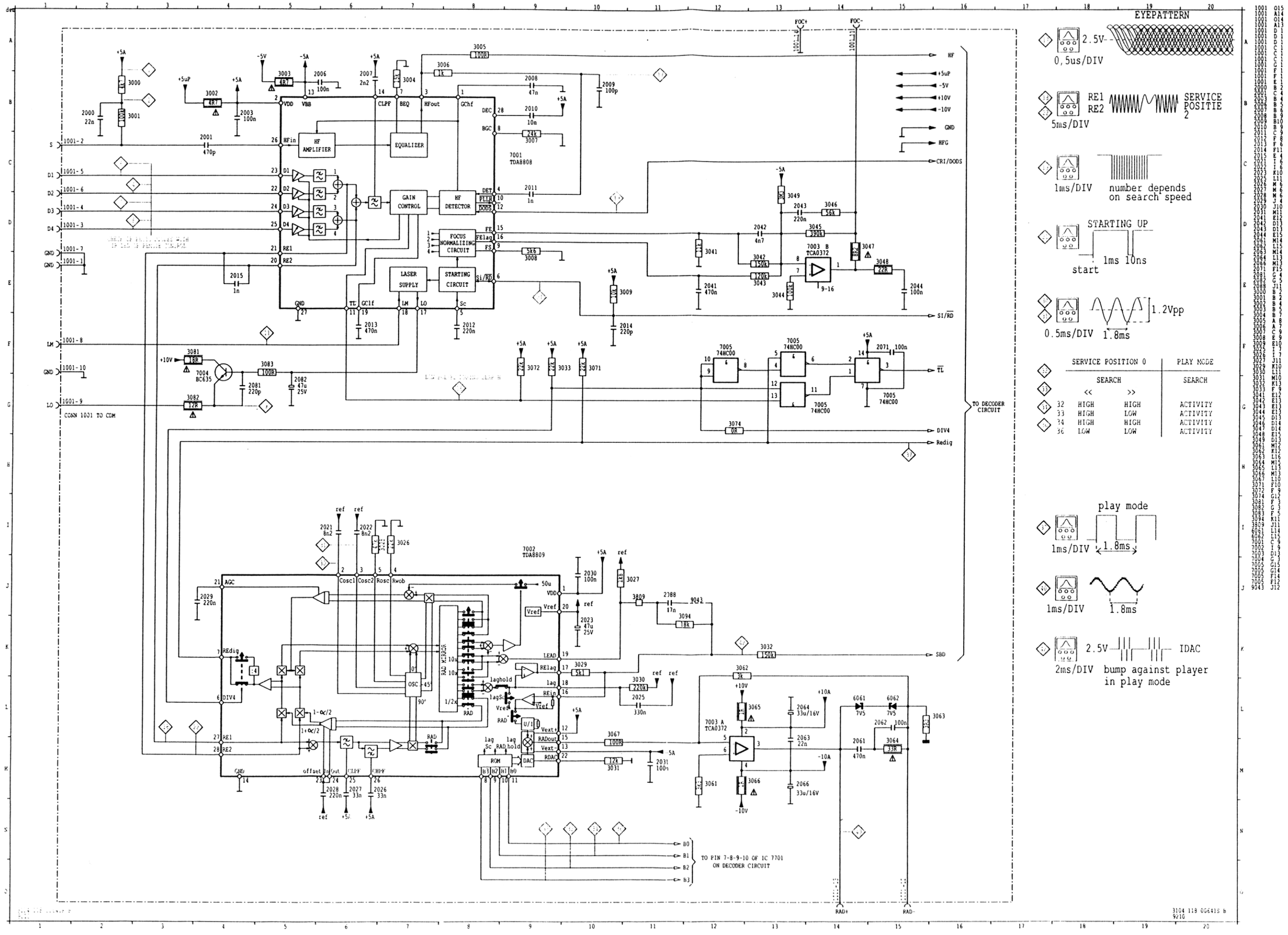
3104 118 00641S-E
9212

MAINS SWITCH PANEL



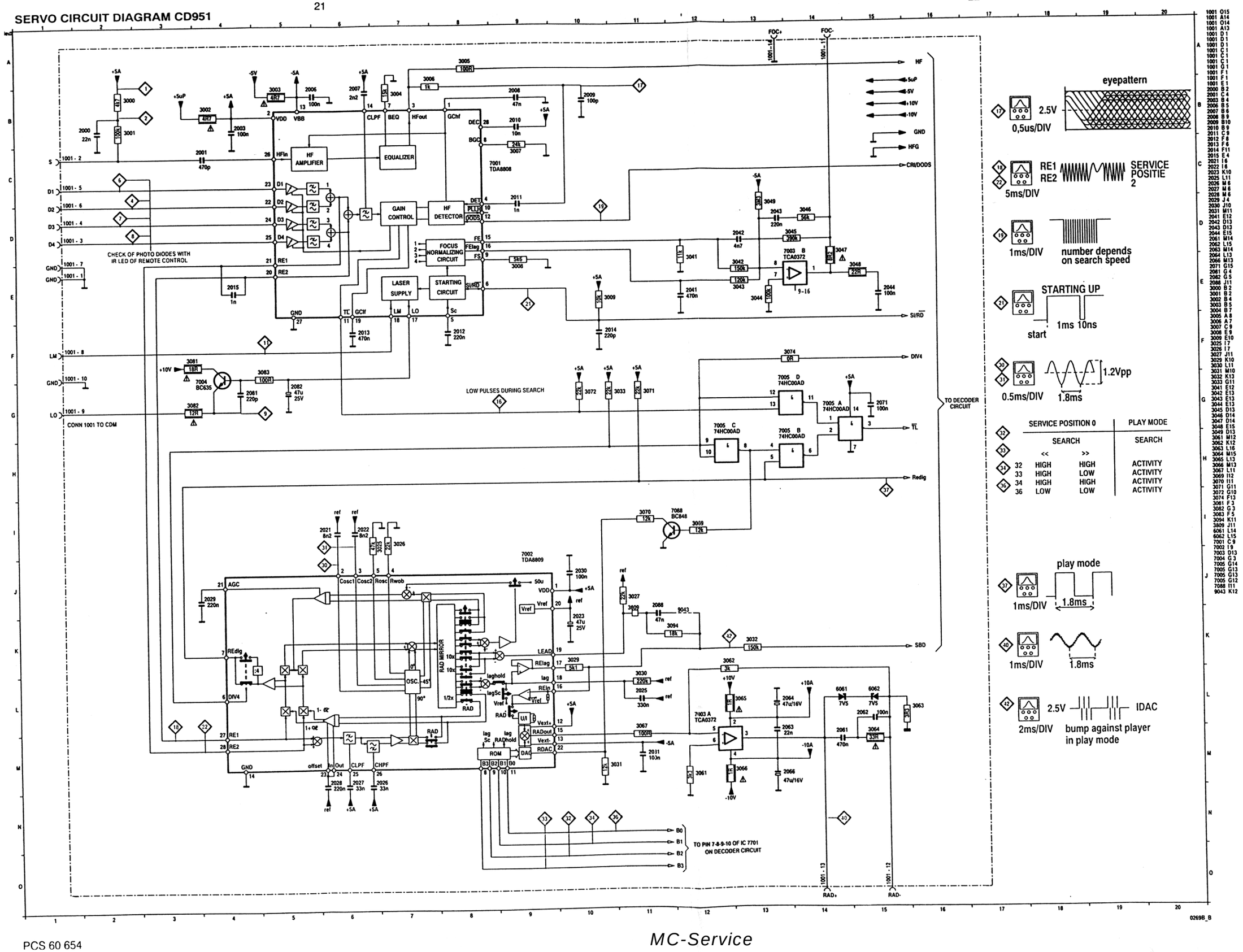
3104 113 3008 B-COMP
9219

SERVO CIRCUIT DIAGRAM



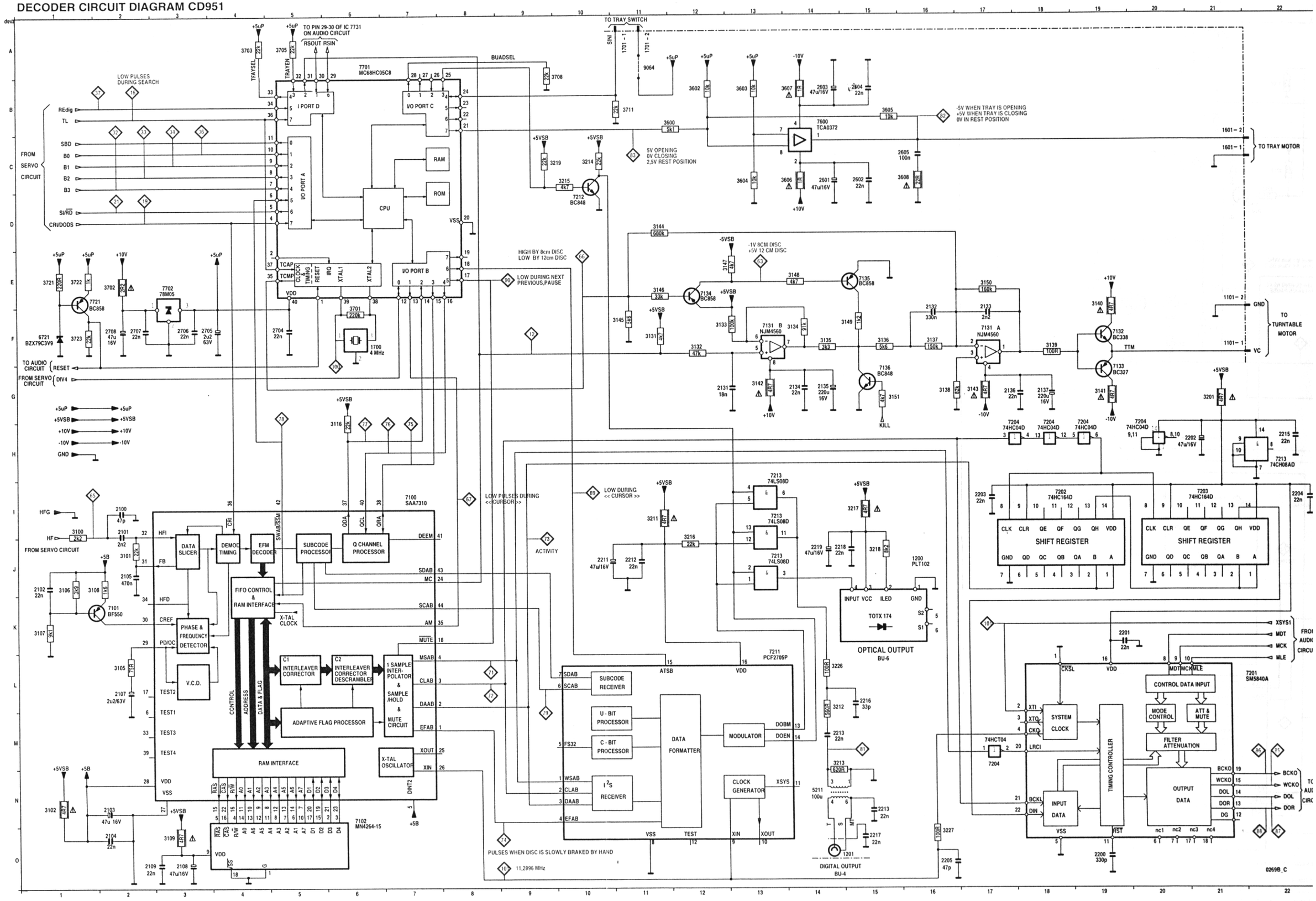
	SERVICE POSITION 0		PLAY MODE
	SEARCH		SEARCH
	<<	>>	
32	HIGH	HIGH	ACTIVITY
33	HIGH	LOW	ACTIVITY
34	HIGH	HIGH	ACTIVITY
36	LOW	LOW	ACTIVITY

SERVO CIRCUIT DIAGRAM CD951

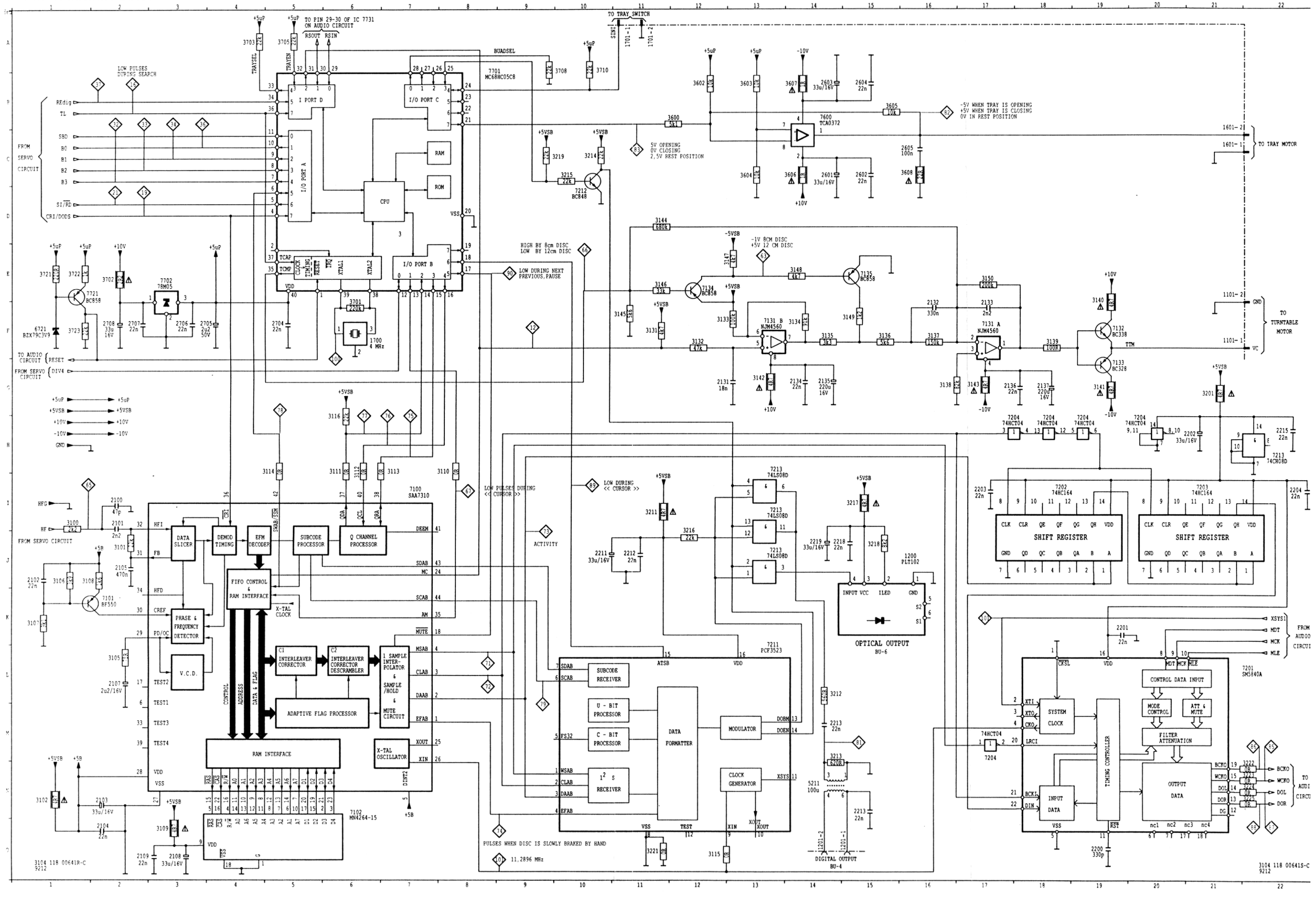


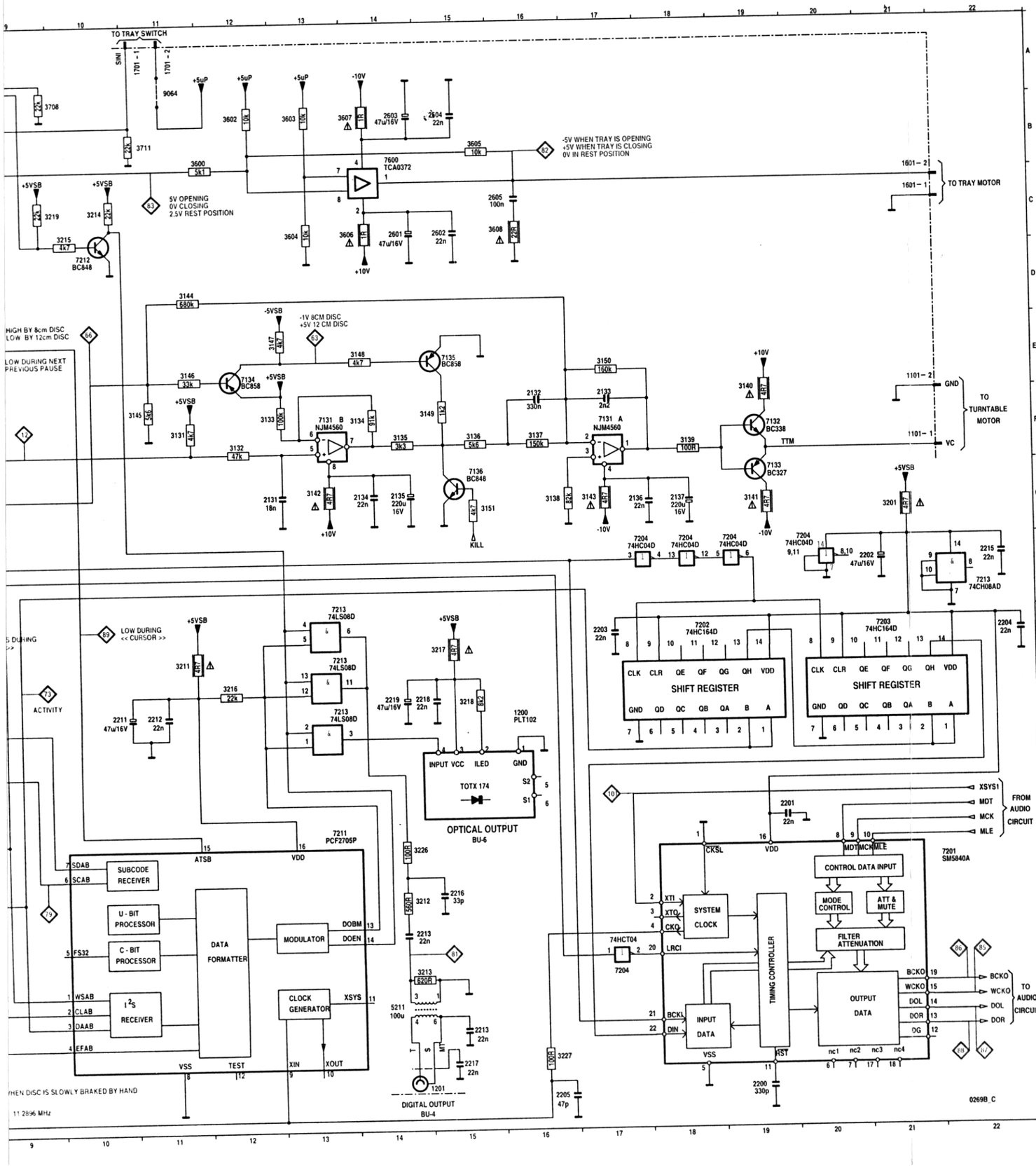
SERVICE POSITION 0			PLAY MODE
	SEARCH		SEARCH
	<<	>>	
32	HIGH	HIGH	ACTIVITY
33	HIGH	LOW	ACTIVITY
34	HIGH	HIGH	ACTIVITY
36	LOW	LOW	ACTIVITY

DECODER CIRCUIT DIAGRAM CD951



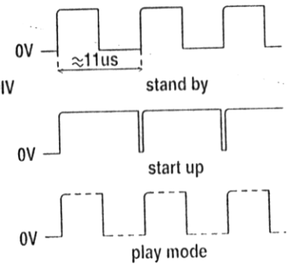
DECODER CIRCUIT DIAGRAM





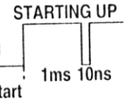
MC SIGNAL

12 — 5us/DIV



19 — 1ms/DIV — number depends on search speed

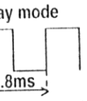
21 — STARTING UP



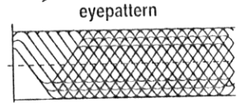
	SERVICE POSITION 0		PLAY MODE
	SEARCH		SEARCH
33	<<	>>	
32	HIGH	HIGH	ACTIVITY
33	HIGH	LOW	ACTIVITY
34	HIGH	HIGH	ACTIVITY
36	LOW	LOW	ACTIVITY

play mode

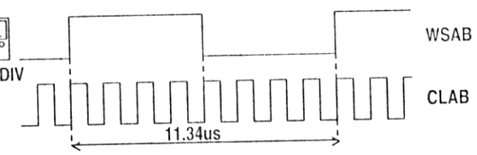
37 — 1ms/DIV — 1.8ms



17 / 65 — 0,5us/DIV — 2.5V



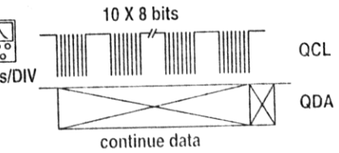
71 / 72 — 5us/DIV



75 — 10ms/DIV — play mode — asynchronous uP dependent — QRA

76 — 0.2ms/DIV — 10 X 8 bits — QCL

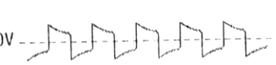
77 — QDA



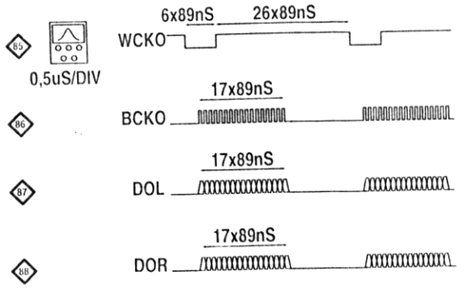
78 — 50us/DIV — 136us

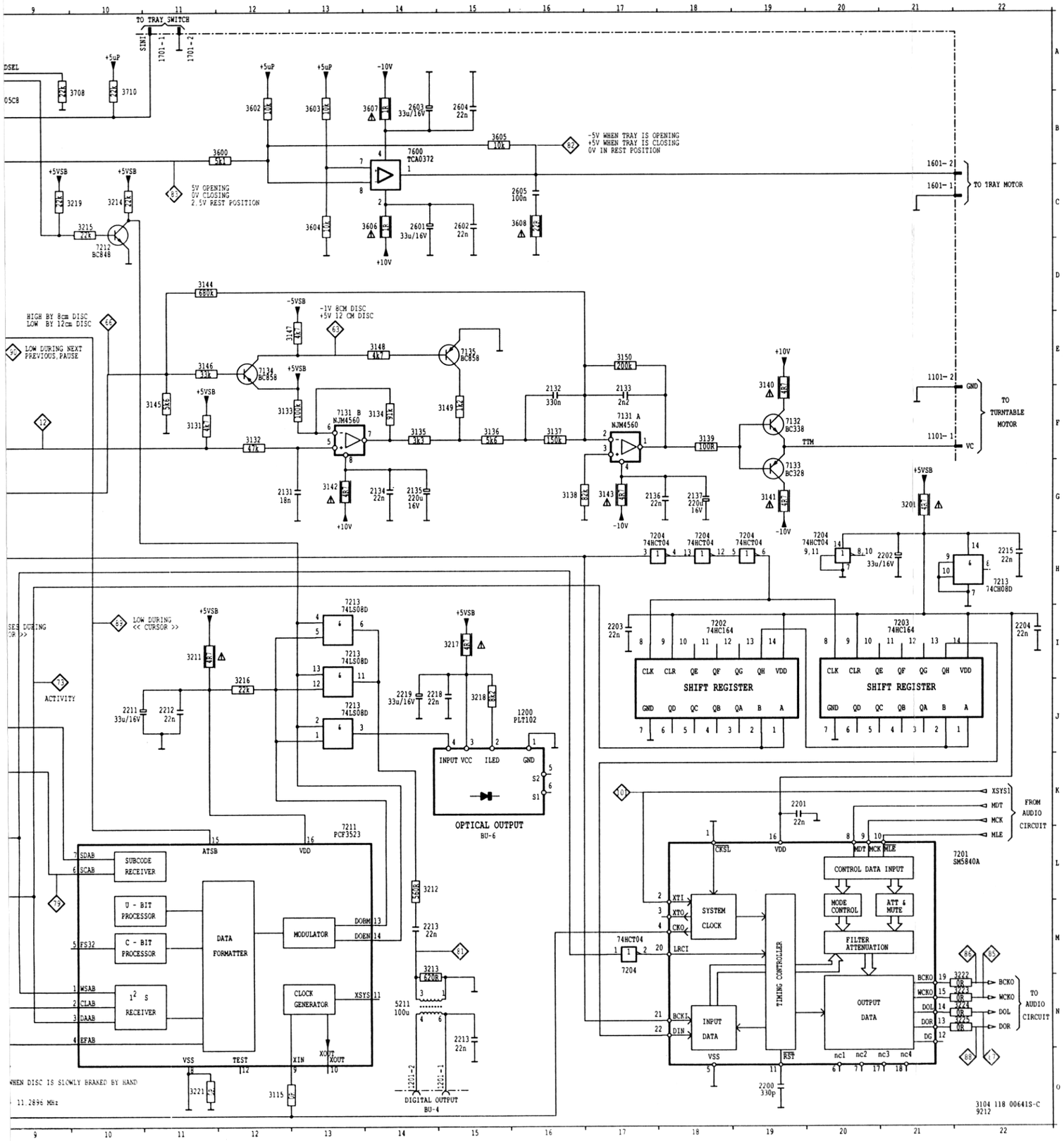
79 — 50us/DIV — 136us

87 — 5us/DIV — 0V

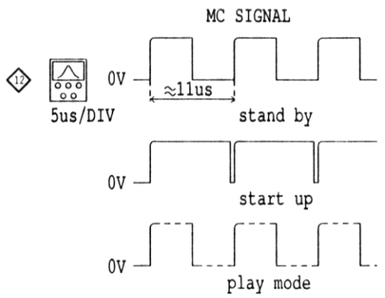


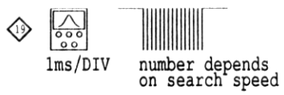
85 — 0,5uS/DIV

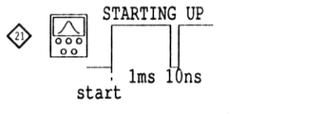




MC SIGNAL

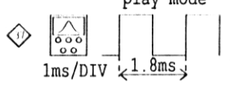


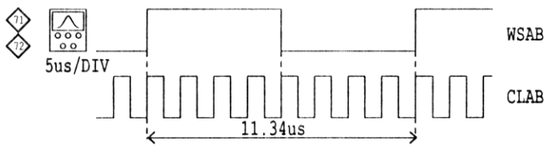


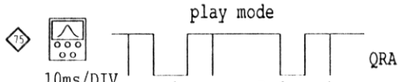


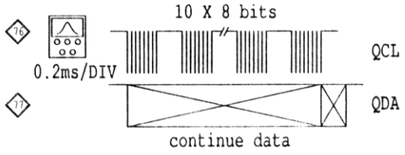
SERVICE POSITION 0			PLAY MODE
	SEARCH		SEARCH
	<<	>>	
32	HIGH	HIGH	ACTIVITY
33	HIGH	LOW	ACTIVITY
34	HIGH	HIGH	ACTIVITY
36	LOW	LOW	ACTIVITY

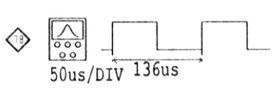
play mode

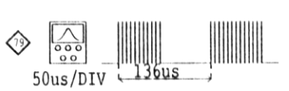


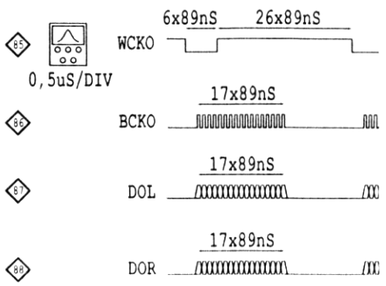


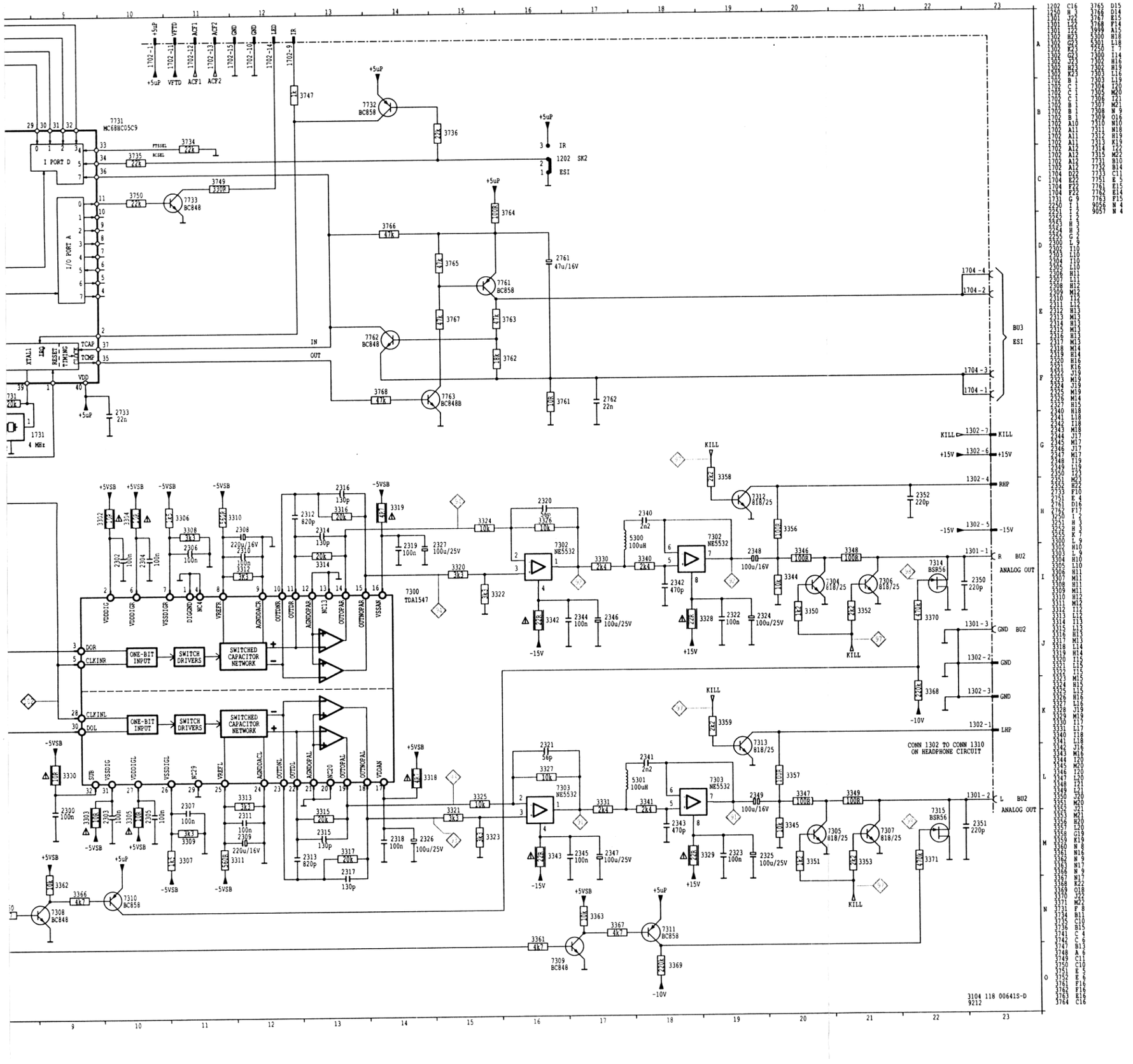











7731 MC68HC05C9
I PORT D
I/O PORT A
XTAL1
XTAL2
RESET
TIMING
CLOCK
7CAP
TCAP
VDD
4 MHz
+5uP
2733 22n
IN
OUT
7732 BC858
7733 BC848
7761 BC858
7762 BC848
7763 BC848B
3747 1k
3749 330P
3750 22k
3734 22k
3735 22k
3736 22k
3764 100R
3766 47k
3765 47k
3767 47k
3763 47k
3762 33k
3761 150k
2761 47u/16V
2762 22n
1202 SK2
IR
ESI
1704-4
1704-2
1704-3
1704-1
BU3
1302-7 KILL
1302-6 +15V
1302-4 RHP
1302-5 -15V
1301-1 R BU2 ANALOG OUT
1301-3 GND BU2
1302-2 GND
1302-3 GND
1302-1 LHP
1301-2 L BU2 ANALOG OUT
CONN 1302 TO CONN 1310 ON HEADPHONE CIRCUIT
7300 TDA1547
VDDD1G
VDDD1GR
VSSD1GR
DIGGND
NC43
VREFR
AGNDDACR
OUTPNR
OUTBR
AGNDOPBR
NC13
OUTOPBR
OUTMNOPBR
VSSAR
DOR
CLKINR
CLKINL
DOL
ONE-BIT INPUT
SWITCH DRIVERS
SWITCHED CAPACITOR NETWORK
VSSD1G
VDDD1GL
VSSD1GL
NC29
VREFL
AGNDDACL
OUTPNL
OUTPL
AGNDOPAL
NC20
OUTOPAL
OUTMNOPAL
VSSAL
VDDAL
7302 NE5532
7303 NE5532
7312 818/25
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7307 818/25
7314 BSR56
7315 BSR56
7308 BC848
7309 BC848
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KILL
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-15V
-10V
-5VSB
+5VSB
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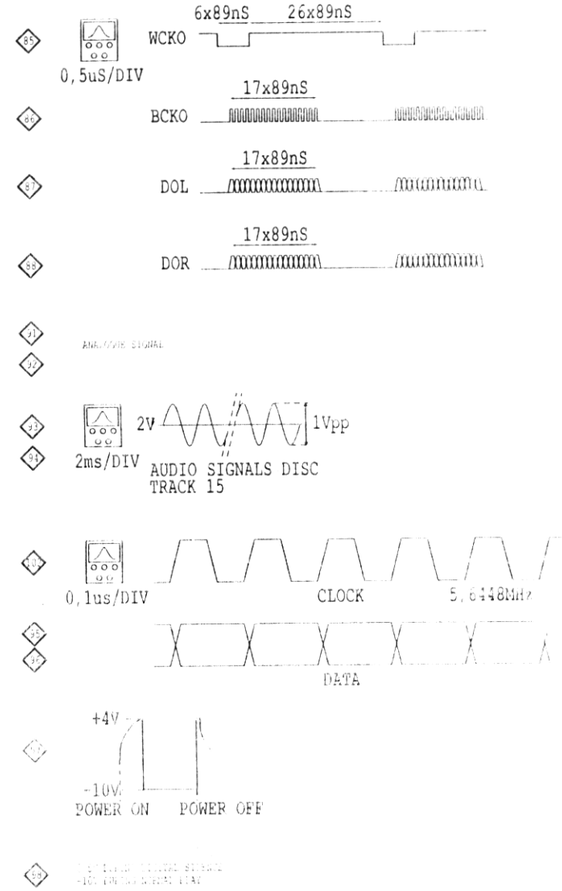
9212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26x89nS
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BCKO
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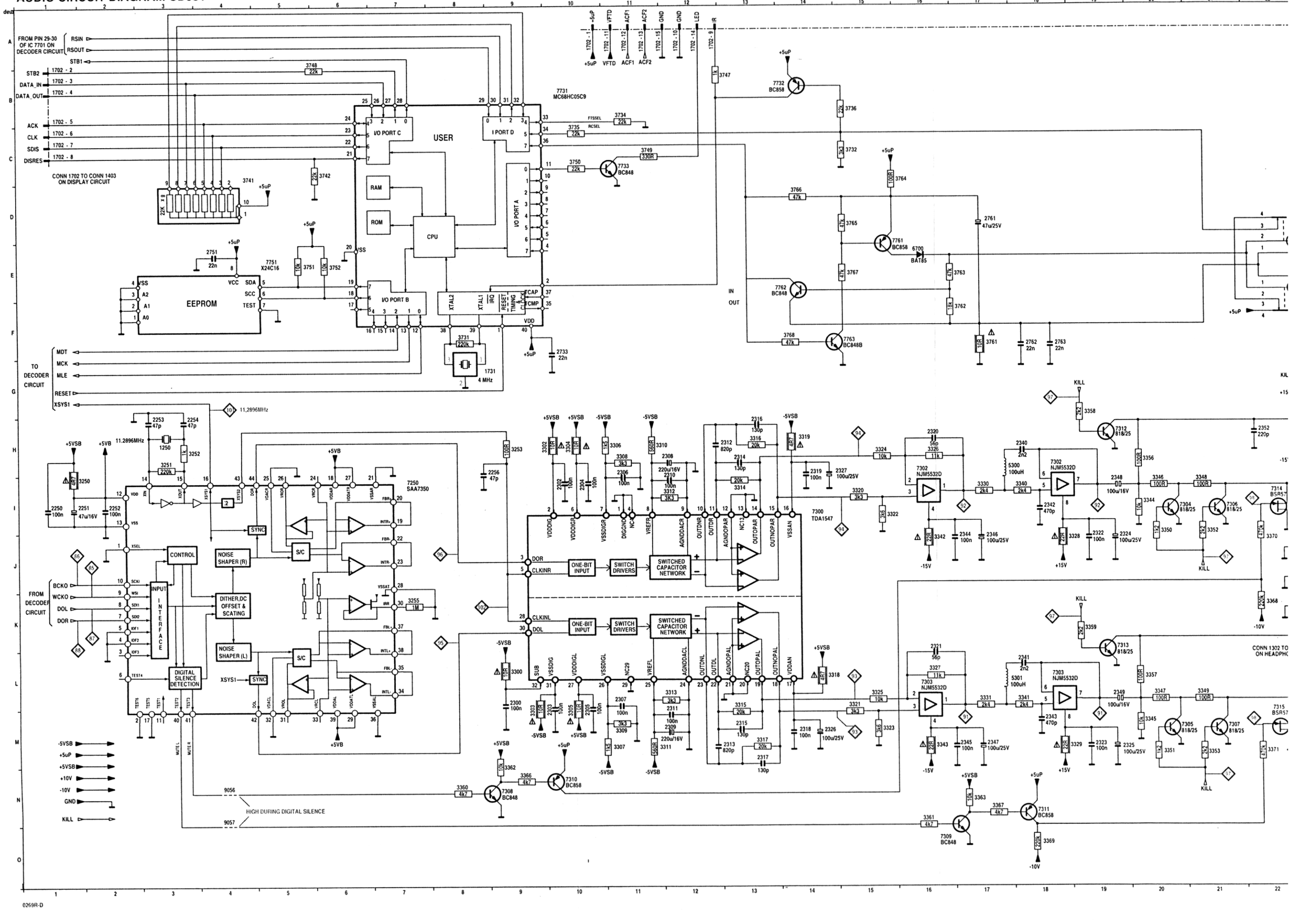
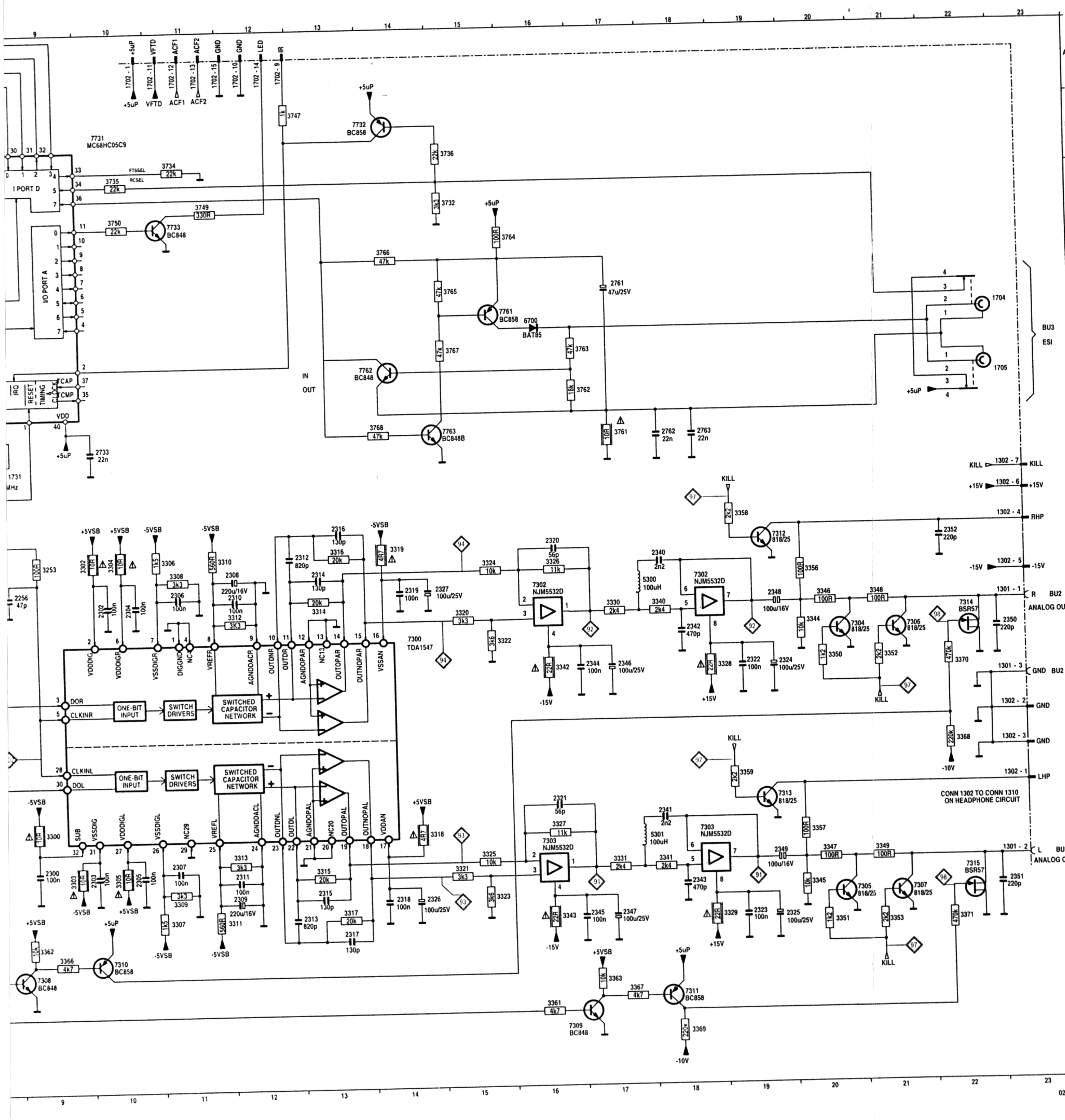
DOL
DOR
ANALOG AUDIO SIGNAL
2V
1Vpp
2ms/DIV
AUDIO SIGNALS DISC TRACK 15
0,1us/DIV
CLOCK
DATA
+4V
-10V
POWER ON
POWER OFF

AUDIO CIRCUIT DIAGRAM CD951





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1702	C 1
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1702	B 1
1702	B 1
1702	A10
1702	A11
1702	A11
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1702	A12
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1702	A12
1702	A12
1704	D23
1705	E23
1731	G 9
2250	I 1
2251	I 2
2252	I 2
2253	H 3
2254	H 3
2256	H 9
2300	L 9
2302	I10
2303	L10
2304	I10
2305	L10
2306	H11
2307	L11
2308	H12
2309	M12
2310	I12
2311	L12
2312	H13
2313	M13
2314	H13
2315	M13
2316	H13
2317	M13
2318	M14
2319	H14
2320	H16
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2341	L18
2342	I18
2343	M18
2344	J17
2345	M17
2346	J17
2347	M17
2348	I19
2349	L19
2350	I23
2351	M23
2352	H22
2733	F10
2751	E 4
2761	D17
2762	F18
2763	F18
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3251	H 3
3252	H 3
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3323	M15
3324	H15
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3326	H16
3327	L16
3328	J19
3329	M19
3330	I17
3331	L17
3340	I18
3341	L18
3342	J16
3343	M16
3344	I20
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3347	L20
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3357	L20
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3362	N 9
3363	N17
3366	N 9
3367	N17
3368	K22
3369	O18
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3371	M22
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3735	C10
3736	B15
3741	C 4
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3747	B13
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3749	C11
3750	C10
3751	E 5
3752	E 6
3761	F17
3762	F17
3763	E17
3764	C16
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5301	L18
6700	E16
7250	I 7
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7304	I20
7305	M20
7306	I21
7307	M21
7308	N 9
7309	O16
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7311	N18
7312	H19
7313	K19
7314	I22
7315	M22
7731	B10
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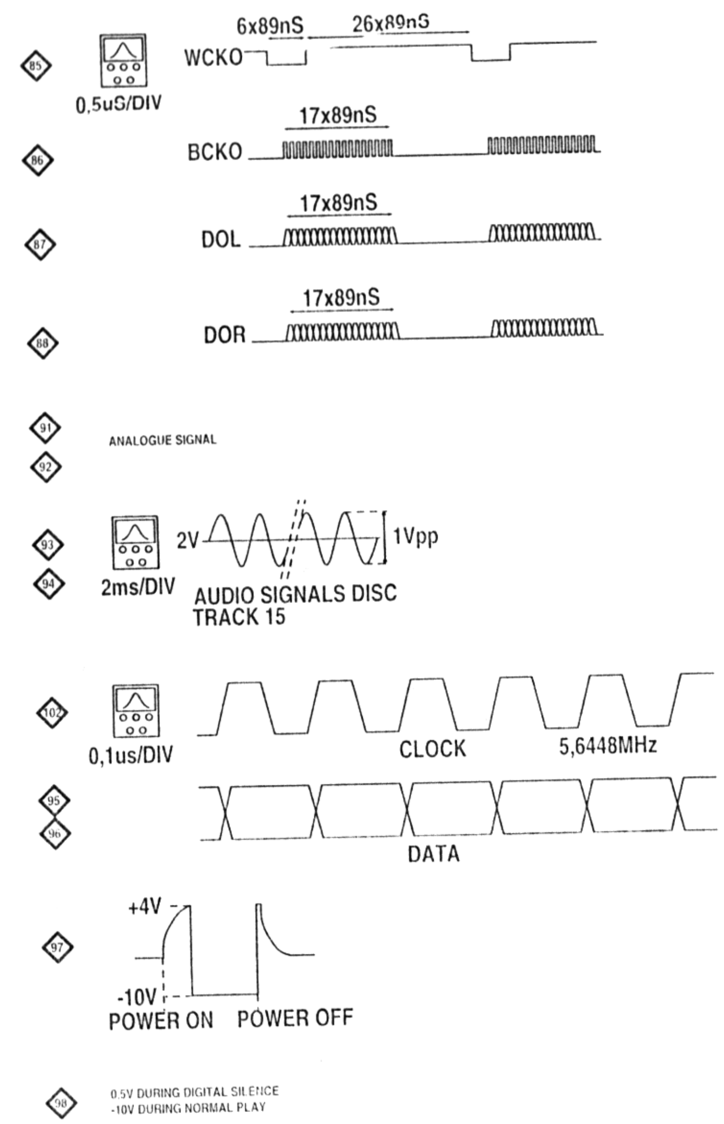
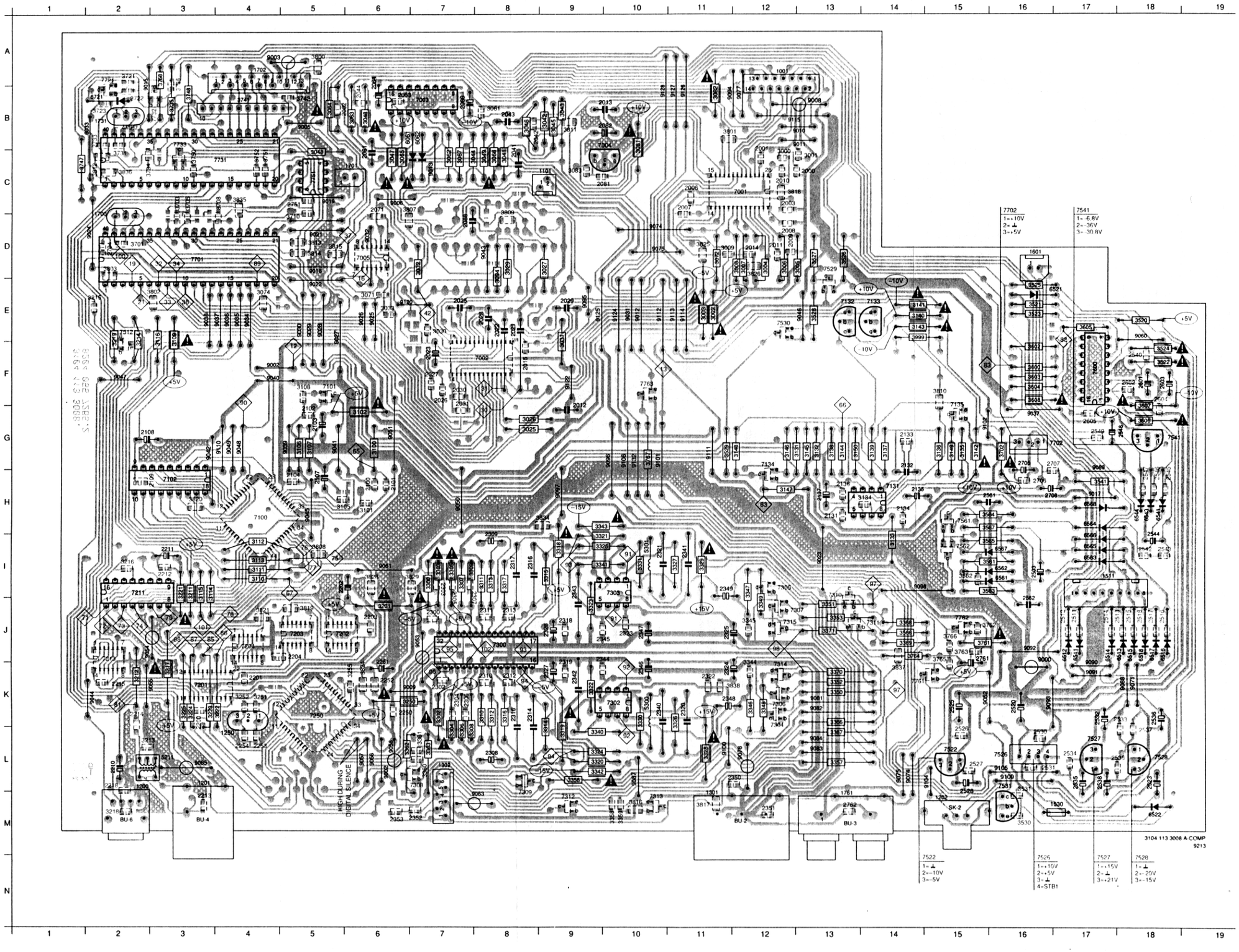
0269B_D



MAIN PANEL COMPONENT SIDE



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1200	L2	2343	J9	3110	I4	3529	G11	7133	E14	9082	K13
1201	L3	2344	J9	3111	I4	3530	M16	7134	G12	9083	L13
1202	M15	2345	J9	3112	I4	3531	L16	7135	G15	9084	L13
1250	L4	2346	K10	3113	I4	3541	H17	7201	K3	9087	L10
1301	M11	2347	J10	3114	J3	3561	I15	7202	J5	9088	K18
1302	L7	2348	K11	3115	J3	3562	I15	7203	J5	9089	G17
1511	I17	2349	I11	3116	F3	3563	I15	7204	J4	9090	K17
1530	M16	2350	L11	3131	G13	3564	H15	7211	I2	9091	K17
1601	D16	2351	M12	3132	G13	3565	I15	7213	J2	9092	J16
1700	C2	2352	M6	3133	I14	3566	J14	7250	K5	9093	K16
1702	A4	2353	M6	3134	H13	3567	H15	7300	J8	9094	B11
1731	B2	2503	I16	3135	G15	3600	F16	7302	K10	9095	E9
1761	M13	2511	J17	3136	G15	3602	F16	7303	I10	9096	G10
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2001	B12	2513	J18	3138	G13	3604	F16	7305	I12	9098	I14
2003	C12	2514	J17	3139	G14	3605	E17	7306	K12	9100	L11
2006	C11	2515	J18	3140	E14	3606	G18	7307	J12	9101	G10
2007	C11	2516	J18	3141	E14	3607	G18	7308	L7	9102	G15
2008	D12	2517	J18	3142	G15	3608	F16	7309	M8	9104	L15
2009	D12	2518	J18	3143	E14	3701	D2	7310	I13	9105	L16
2010	C12	2520	K16	3144	G13	3702	G16	7311	J14	9106	G10
2011	D12	2523	L18	3145	G13	3703	C3	7312	M9	9109	L16
2012	G9	2525	K15	3146	G12	3705	C3	7313	M10	9110	G4
2013	B9	2526	L15	3147	H12	3708	C4	7314	K12	9111	G11
2014	D12	2527	L15	3148	G12	3710	D5	7315	J12	9112	E10
2015	F8	2528	M15	3149	G15	3721	A2	7512	E2	9113	E11
2021	E8	2530	L16	3150	G13	3722	B2	7522	L15	9114	E11
2022	E8	2531	L16	3201	J6	3723	B2	7526	L16	9115	B12
2023	F7	2532	K17	3211	J3	3731	C2	7527	L17	9120	E6
2025	E7	2533	K17	3212	K2	3734	C2	7528	L18	9122	F9
2026	F7	2534	L17	3213	L2	3735	B3	7529	D13	9124	E10
2027	F7	2535	L17	3214	F2	3736	B3	7530	E12	9125	E9
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2030	F7	2538	L17	3217	K3	3747	C1	7561	H15	9128	B10
2031	F7	2538	L17	3218	M2	3748	B3	7562	I15	9132	G10
2041	C8	2540	F18	3219	F2	3750	C3	7600	F17		
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2062	B6	2546	H18	3225	K3	3763	J15	7732	B3		
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2081	C9	2562	J16	3300	I7	3768	A3	7763	F10		
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2088	D7	2602	F18	3304	L7	3802	E2	9002	F4		
2089	D7	2603	F18	3305	I7	3803	D2	9003	A4		
2090	C8	2604	F18	3306	L7	3807	C6	9005	B5		
2100	H6	2605	G17	3307	I7	3808	I5	9006	C6		
2101	H6	2704	D2	3308	L8	3809	C8	9008	B13		
2102	G5	2705	G16	3309	I8	3810	F15	9009	K6		
2103	G5	2706	H16	3310	K8	3811	B9	9010	B12		
2104	H5	2707	G16	3311	I8	3812	C2	9011	B12		
2107	H5	2708	H16	3312	K8	3813	D5	9012	E10		
2108	G2	2733	B2	3313	I8	3814	D5	9013	C7		
2109	H3	2751	C5	3314	L9	3815	D5	9015	B2		
2131	H13	2761	J15	3315	I9	3816	M10	9016	D5		
2132	G14	2762	M13	3316	K8	3817	M11	9017	H17		
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2135	H14	3002	E11	3319	L9	3820	H3	9022	E5		
2136	H13	3003	E11	3320	L9	3821	J4	9023	I13		
2137	H13	3004	D12	3321	I9	3824	K6	9024	D2		
2200	L3	3005	D13	3322	K9	3825	D11	9025	E6		
2201	K4	3006	D12	3323	J9	3826	D12	9026	E6		
2202	I5	3007	D12	3324	L9	3828	I6	9027	F5		
2203	J6	3008	D12	3325	I9	3829	I6	9028	E5		
2204	J5	3009	D11	3326	L11	3834	H8	9029	E5		
2210	L2	3025	G8	3327	I11	3835	C4	9030	E5		
2211	I3	3026	G8	3328	L11	3836	C2	9031	E10		
2212	I3	3027	D9	3329	I11	3837	K14	9032	D6		
2213	M3	3029	D8	3330	L10	3838	K11	9033	B2		
2214	K2	3030	E7	3331	I10	3999	E14	9034	E4		
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2218	L2	3032	D7	3341	I9	5300	K10	9036	E4		
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2254	L4	3044	C8	3346	K12	6512	J17	9040	F4		
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2307	I7	3061	B8	3353	J13	6521	E16	9047	F2		
2308	L8	3062	C7	3356	L9	6522	M18	9048	G4		
2309	I8	3063	B6	3357	L13	6541	H18	9049	G4		
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2311	J8	3065	C6	3359	M10	6544	H18	9051	G6		
2312	K8	3066	C8	3360	L7	6561	I16	9052	K15		
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2314	K8	3071	E6	3362	L6	6563	I17	9054	J3		
2316	K8	3072	D11	3363	L7	6564	H17	9055	K3		
2316	I8	3074	E4	3366	K13	6565	I17	9056	L6		
2317	I8	3081	C10	3367	L13	6566	I17	9057	L6		
2318	J9	3082	B11	3368	J14	6567	I16	9058	L6		
2319	K9	3083	C9	3369	J14	6568	H17	9060	E18		
2320	K11	3088	C8	3370	K13	6721	B2	9061	I6		
2321	I10	3089	C7	3371	J13	7001	C12	9063	M7		
2322	K11	3094	E8	3520	E18	7002	F8	9065	L3		
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2324	K11	3101	H6	3522	F18	7004	B9	9074	D10		
2325	J11	3102	G6	3523	E16	7005	D6	9074	L14		
2326	J9	3105	H5	3524	F18	7100	H4	9075	D10		
2327	K9	3106	G5	3525	E16	7101	F5	9075	L14		
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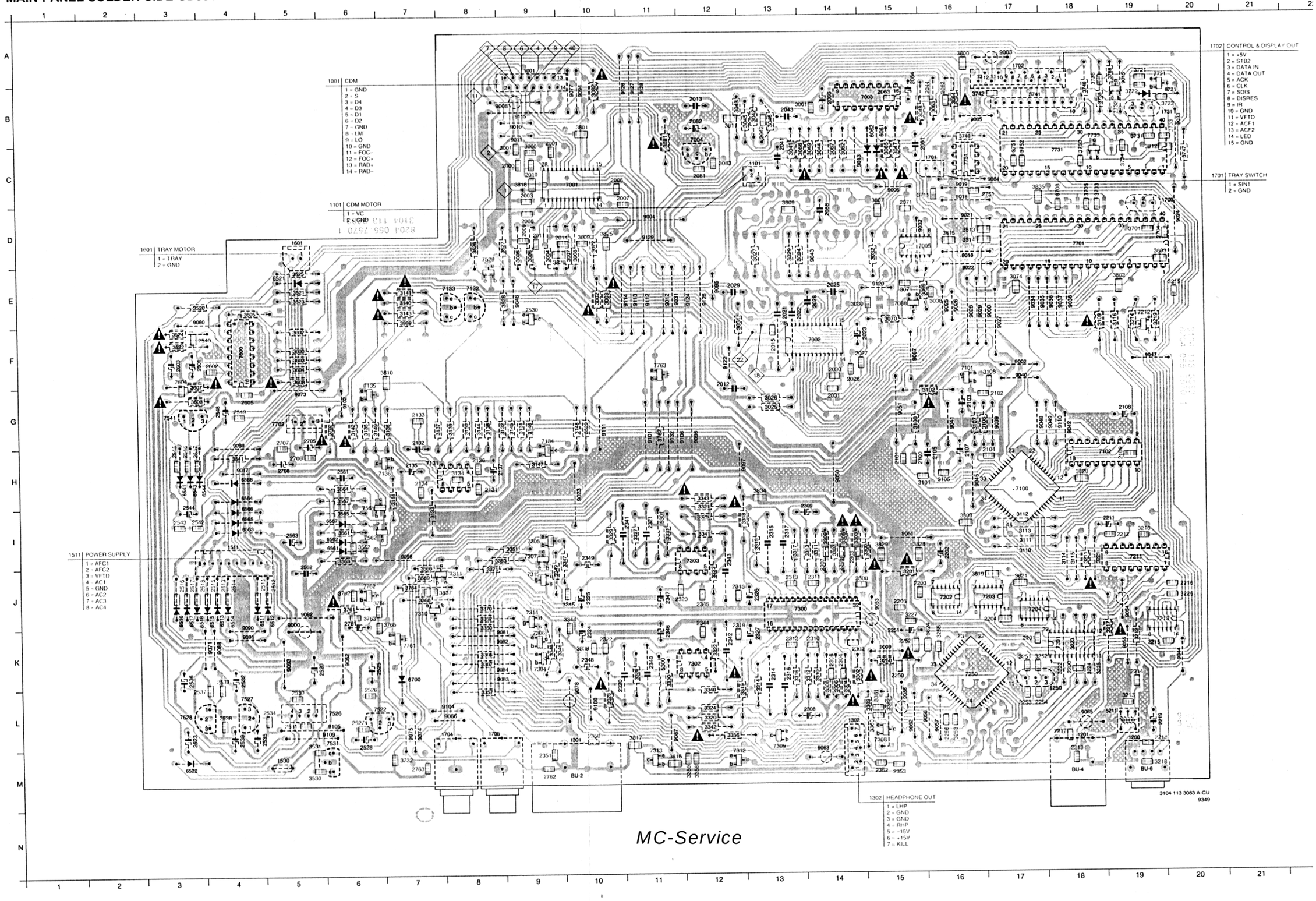
MAIN PANEL SOLDER SIDE CD951



MC-Service

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1201	L18	2341	I11	3108	F17	3524	F3	7003	B15	9062	L15
1250	L18	2342	K12	3109	F18	3525	E5	7004	B12	9063	M14
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1302	L14	2344	J12	3111	I17	3527	D9	7088	E15	9065	L18
1511	I4	2345	J12	3112	I17	3528	E9	7100	H17	9066	L7
1530	M5	2346	K11	3113	I17	3529	G10	7101	F16	9067	F15
1601	D5	2347	J11	3114	J18	3530	M5	7102	H18	9071	K4
1700	D20	2348	K10	3115	J18	3531	L5	7131	H7	9073	G5
1701	C16	2349	I10	3116	F19	3541	H4	7132	E8	9074	L7
1702	A17	2350	L10	3131	G9	3561	I6	7133	E8	9075	L7
1704	L7	2351	M9	3132	G9	3562	I6	7134	G9	9077	B10
1705	L8	2352	M15	3133	I7	3563	I6	7135	G6	9078	L10
1731	B20	2353	M15	3134	H8	3564	H6	7136	H6	9081	K8
2000	C9	2511	J5	3135	G6	3565	I6	7201	K18	9082	K8
2001	C9	2512	J5	3136	G7	3566	J7	7202	J16	9083	K8
2003	C9	2513	J4	3137	G7	3567	H6	7203	J16	9084	K8
2006	C10	2514	J4	3138	G8	3569	J7	7204	J17	9087	L11
2007	C10	2515	J4	3139	G8	3600	F5	7211	I19	9088	K4
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2009	D9	2517	J3	3141	E7	3603	F5	7213	J19	9090	J4
2010	C9	2518	J3	3142	G6	3604	F5	7250	K16	9091	K4
2011	D9	2520	K5	3143	E7	3605	E4	7300	J13	9092	J5
2012	G12	2523	L3	3144	G8	3606	G3	7302	K12	9093	K5
2013	B12	2525	K6	3145	G9	3607	G3	7303	I12	9094	B10
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2021	E13	2528	L6	3148	G10	3702	G6	7306	K9	9097	H13
2022	E14	2530	L5	3149	G6	3703	C18	7307	I9	9098	I7
2023	F15	2531	L5	3150	G8	3705	C18	7308	L15	9100	L10
2025	E14	2532	K4	3151	H7	3708	C18	7309	M13	9101	G11
2026	F14	2533	K4	3201	J15	3711	C15	7310	J7	9102	G6
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2061	C16	2544	H3	3221	J18	3742	B16	7529	D8	9115	B9
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2071	D15	2549	G4	3226	J20	3751	C17	7562	I6	9126	B11
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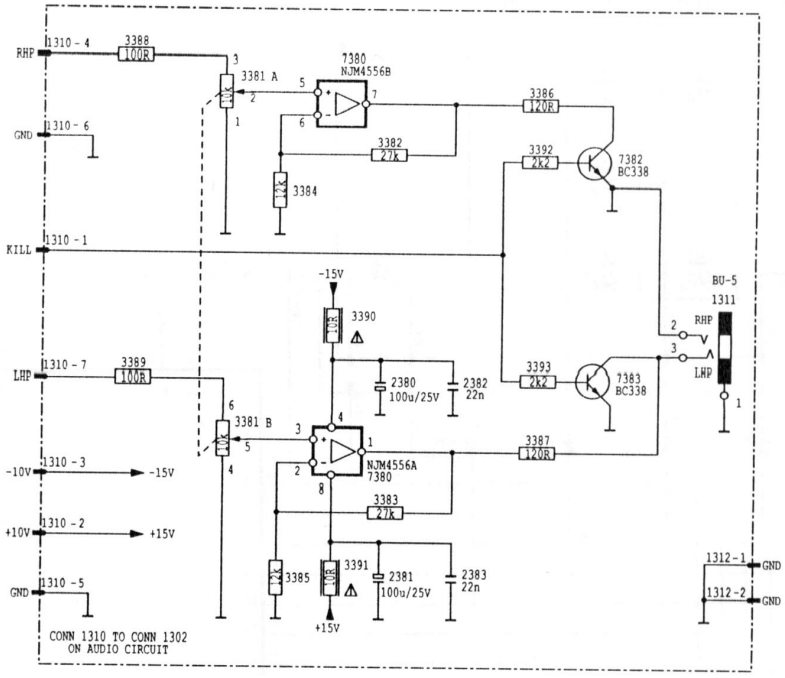
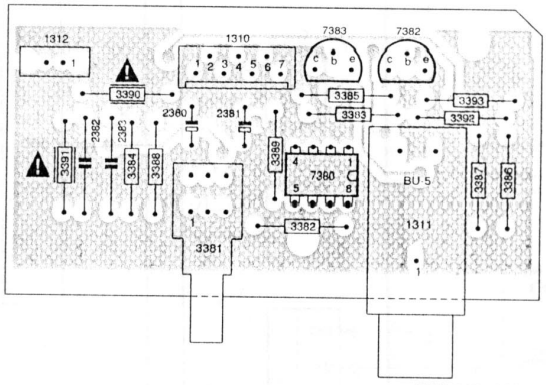
2082	B12	2562	I5	3250	K15	3761	J6	7701	D18	9128	B11
2088	D14	2563	I5	3251	K17	3762	J6	7702	G5	9129	D11
2100	H15	2601	F4	3252	K17	3763	J6	7721	A19	9132	G11
2101	H15	2602	F4	3253	L16	3764	J7	7731	C18		
2102	G17	2603	F3	3255	K16	3765	J6	7732	B19		
2103	G16	2604	F3	3300	I15	3766	J6	7733	B18		
2104	H16	2605	G4	3302	K14	3767	G11	7751	C16		
2105	H16	2704	D19	3303	I14	3768	B19	7761	K7		
2107	H16	2705	G5	3304	L14	3800	A16	7762	J6		
2108	G19	2706	H5	3305	I14	3801	B10	7763	F11		
2109	H19	2707	G5	3306	L14	3802	E19	9000	J5		
2131	H8	2708	H5	3307	I14	3803	D19	9002	F17		
2132	G7	2733	B20	3308	L14	3807	C15	9003	A17		
2133	G7	2751	C17	3309	I14	3808	I16	9004	D11		
2134	H7	2761	J6	3310	K14	3809	D13	9005	B16		
2135	H7	2762	M9	3311	I14	3810	F6	9006	C15		
2136	H8	2763	M7	3312	K14	3811	B12	9008	B8		
2137	H8	3000	C9	3313	I14	3812	C19	9009	K15		
2200	L18	3001	C9	3314	L13	3813	D16	9010	B9		
2201	K17	3002	E10	3315	I13	3814	D16	9011	B9		
2202	I16	3003	E10	3316	K13	3815	D16	9012	E11		
2203	J15	3004	D9	3317	I13	3816	M11	9013	C15		
2204	J16	3005	D9	3318	I13	3817	L11	9015	B19		
2205	J15	3006	D9	3319	L12	3818	C9	9016	D16		
2211	I18	3007	D10	3320	L12	3819	J16	9017	H4		
2212	I19	3008	D10	3321	I12	3820	H18	9018	C16		
2213	M18	3009	D10	3322	K12	3821	J17	9019	C16		
2214	K19	3025	G13	3323	J12	3824	K16	9021	D16		
2215	K19	3026	G13	3324	L12	3825	D10	9022	E16		
2216	J20	3027	D13	3325	I12	3826	D9	9023	H10		
2217	L18	3029	D13	3326	K11	3828	I15	9024	D20		
2218	L19	3030	E14	3327	I11	3829	I15	9025	E16		
2219	L19	3030	E16	3328	L10	3834	H13	9026	E16		
2250	K15	3031	F13	3329	I10	3835	C17	9027	F17		
2251	K15	3032	D15	3330	L11	3837	J7	9028	E16		
2252	K15	3033	E16	3331	I11	3838	K10	9029	E17		
2253	L17	3041	C13	3340	L12	3999	E7	9030	E17		
2254	L17	3042	B13	3341	I12	5211	L18	9031	E11		
2256	L16	3043	B13	3342	L12	5300	K11	9032	D16		
2300	J14	3044	C14	3343	H12	5301	I11	9033	B20		
2302	K14	3045	B13	3344	J9	6061	B15	9034	E17		
2303	I14	3046	B13	3345	J9	6062	B15	9035	E18		
2304	K14	3047	C15	3346	K9	6511	J4	9036	E18		
2305	J14	3048	B16	3347	J10	6512	J5	9037	E18		
2306	K14	3049	C14	3348	K9	6513	J4	9038	E18		
2307	J14	3061	B13	3349	J9	6514	J4	9039	G17		
2308	L13	3062	C14	3350	K8	6515	J4	9040	F17		
2309	I13	3063	B16	3351	I9	6516	J3	9041	G16		
2310	K14	3064	B16	3352	J8	6517	J3	9042	G18		
2311	J14	3065	C15	3353	I8	6518	J3	9043	D14		
2312	K13	3066	C14	3356	L12	6521	E5	9044	K20		
2313	J13	3067	C14	3357	L8	6522	M3	9045	H16		
2314	K13	3069	E16	3358	M12	6541	H3	9046	E9		
2315	I13	3070	E15	3359	M12	6543	H3	9047	F19		
2316	K13	3071	E15	3360	L15	6544	H4	9048	G17		
2317	I13	3072	D10	3361	L15	6561	I6	9049	G18		
2318	J12	3074	E17	3362	L15	6562	I6	9050	H14		
2319	K12	3081	C11	3363	L15	6563	I4	9051	G15		
2320	L10	3082	B10	3366	K8	6564	H4	9052	K6		
2321	I11	3083	C12	3367	K8	6565	I4	9053	J15		
2322	K10	3094	D14	3368	J7	6566	I4	9054	J19		
2323	J11	3100	G15	3370	J8	6567	I6	9055	K19		
2324	K10	3101	H15	3371	J8	6568	H4	9056	L16		
2325	J10	3102	G16	3520	E3	6700	K7	9057	L16		

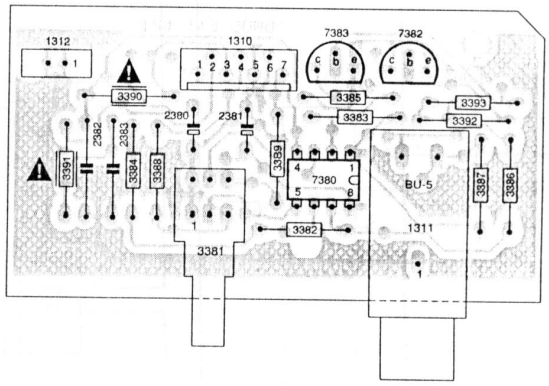
VARIABLE HEADPHONE CIRCUIT DIAGRAM



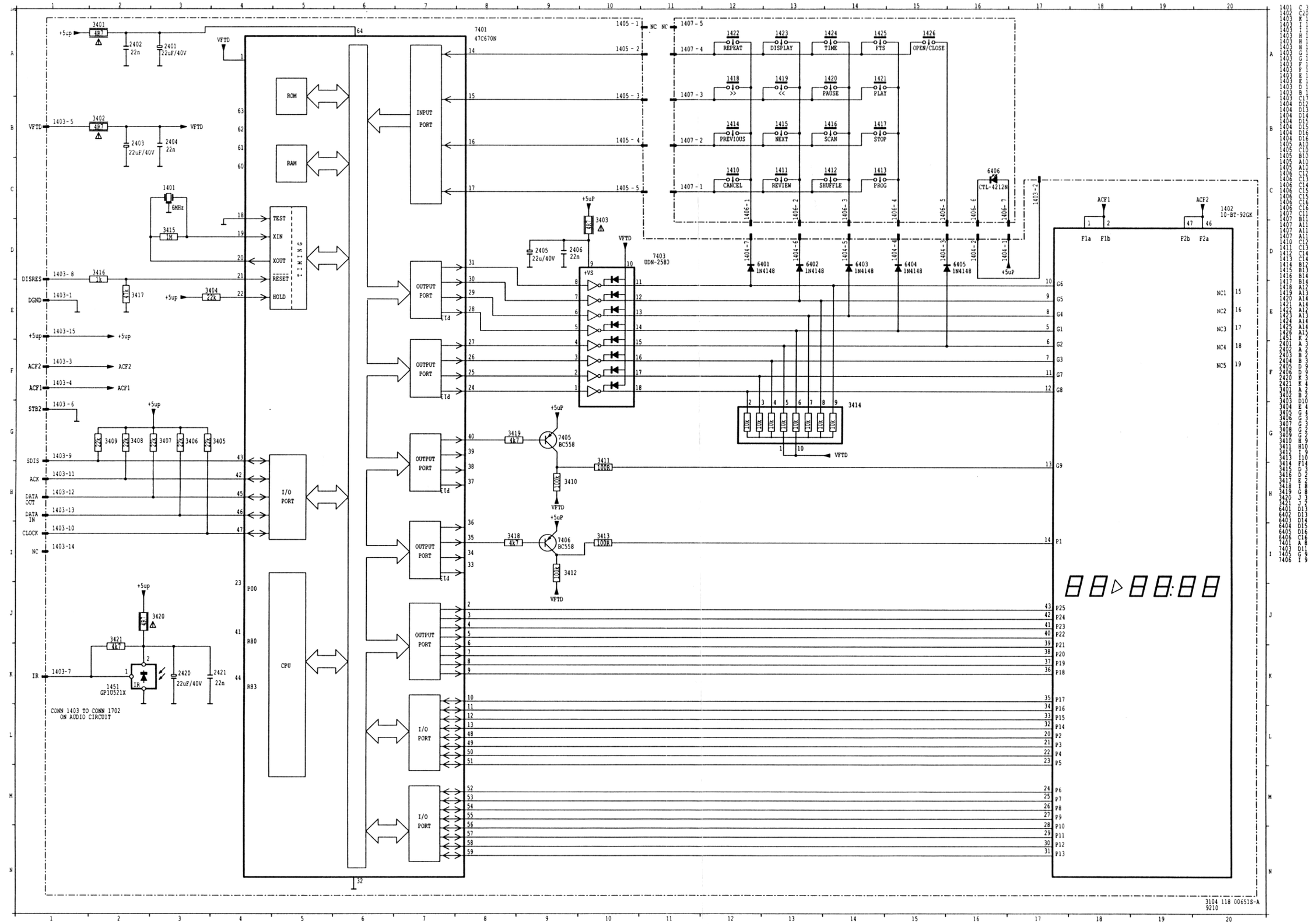
3104 118 00651S-B
9210

VARIABLE HEADPHONE PANEL

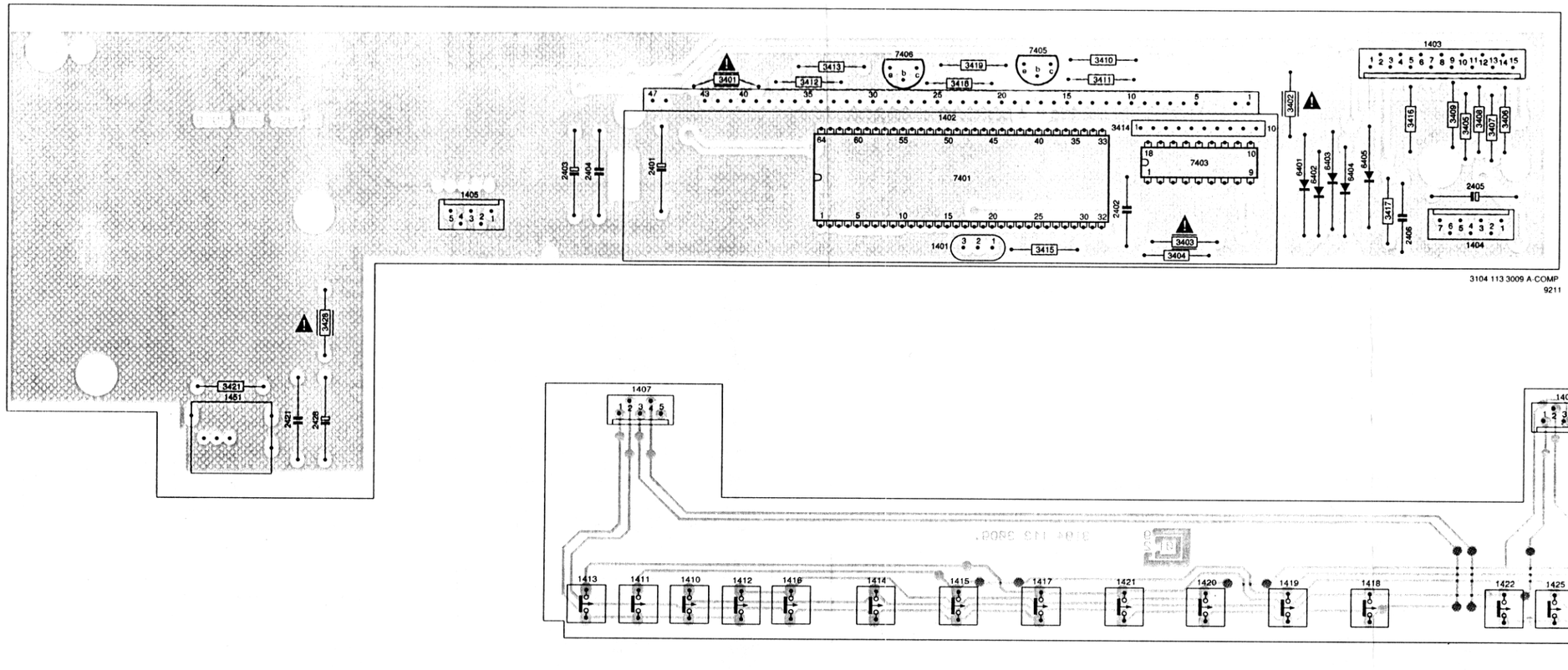


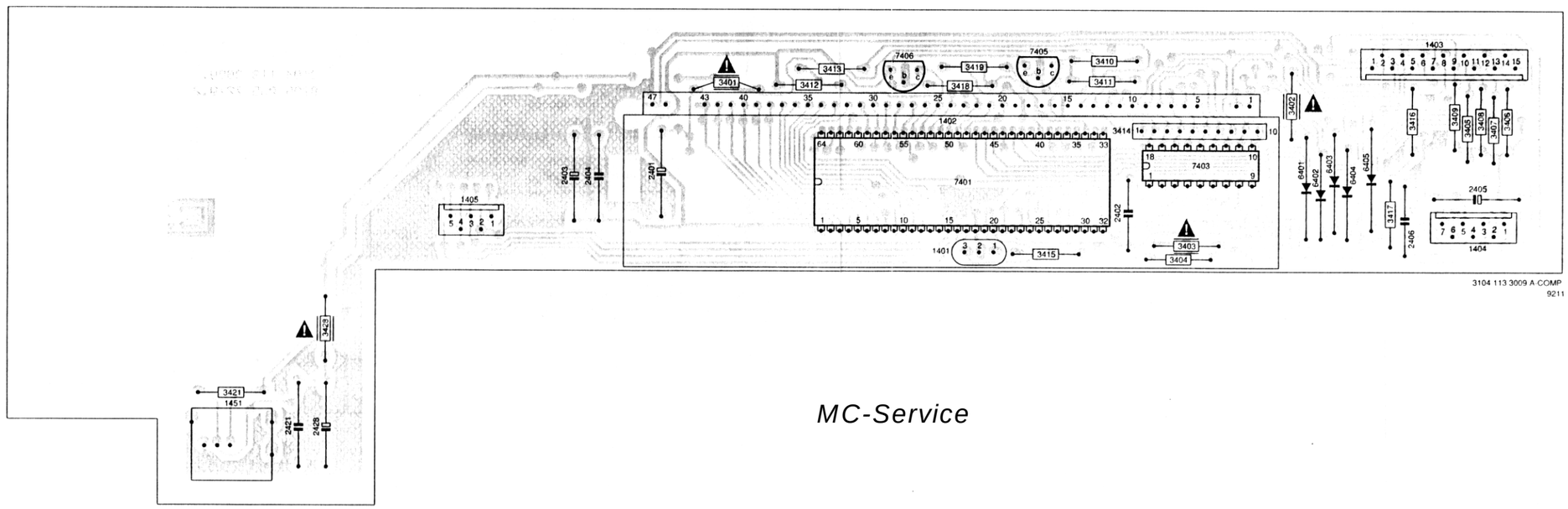


CONTROL & DISPLAY CIRCUIT DIAGRAM



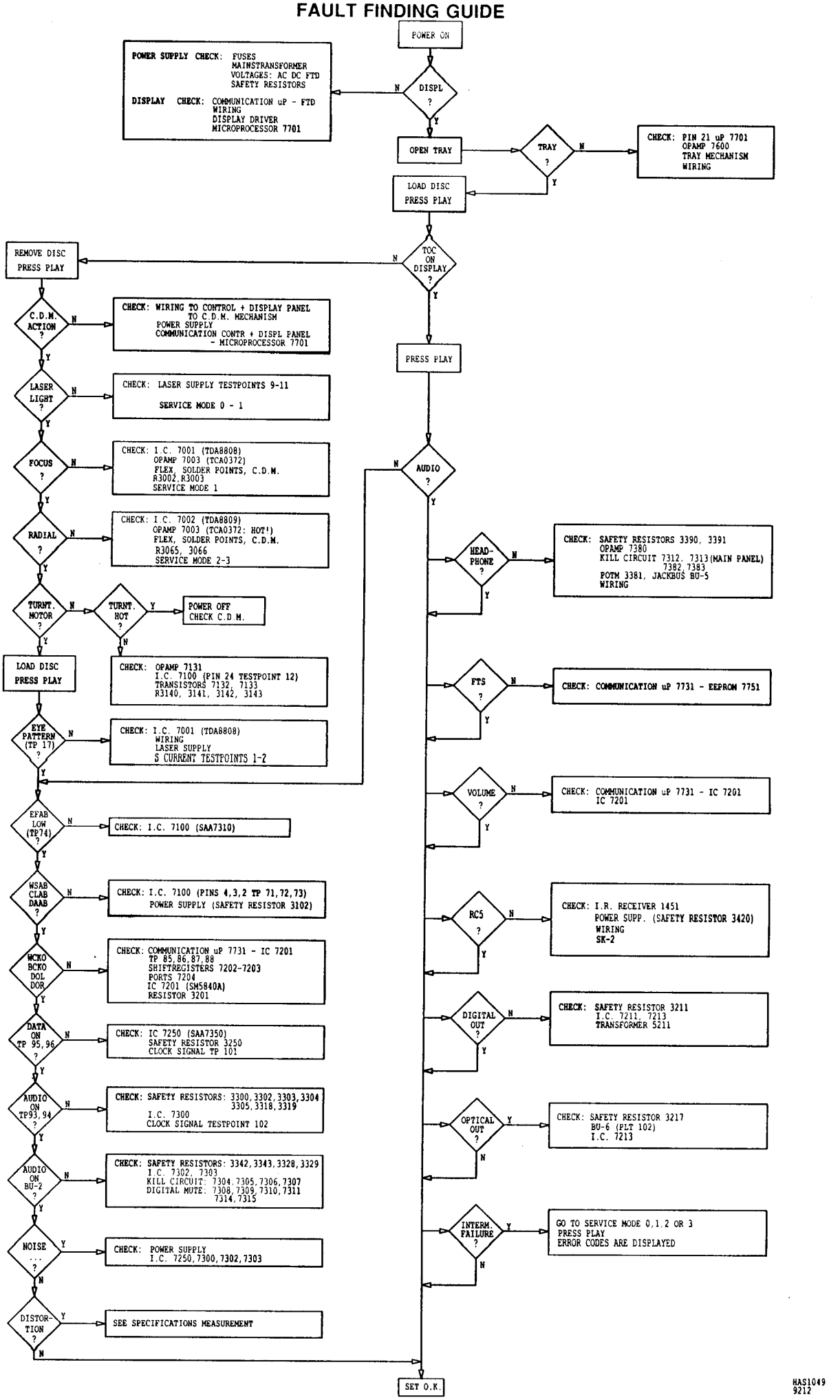
DISPLAY PANEL **KEYBOARD PANEL**



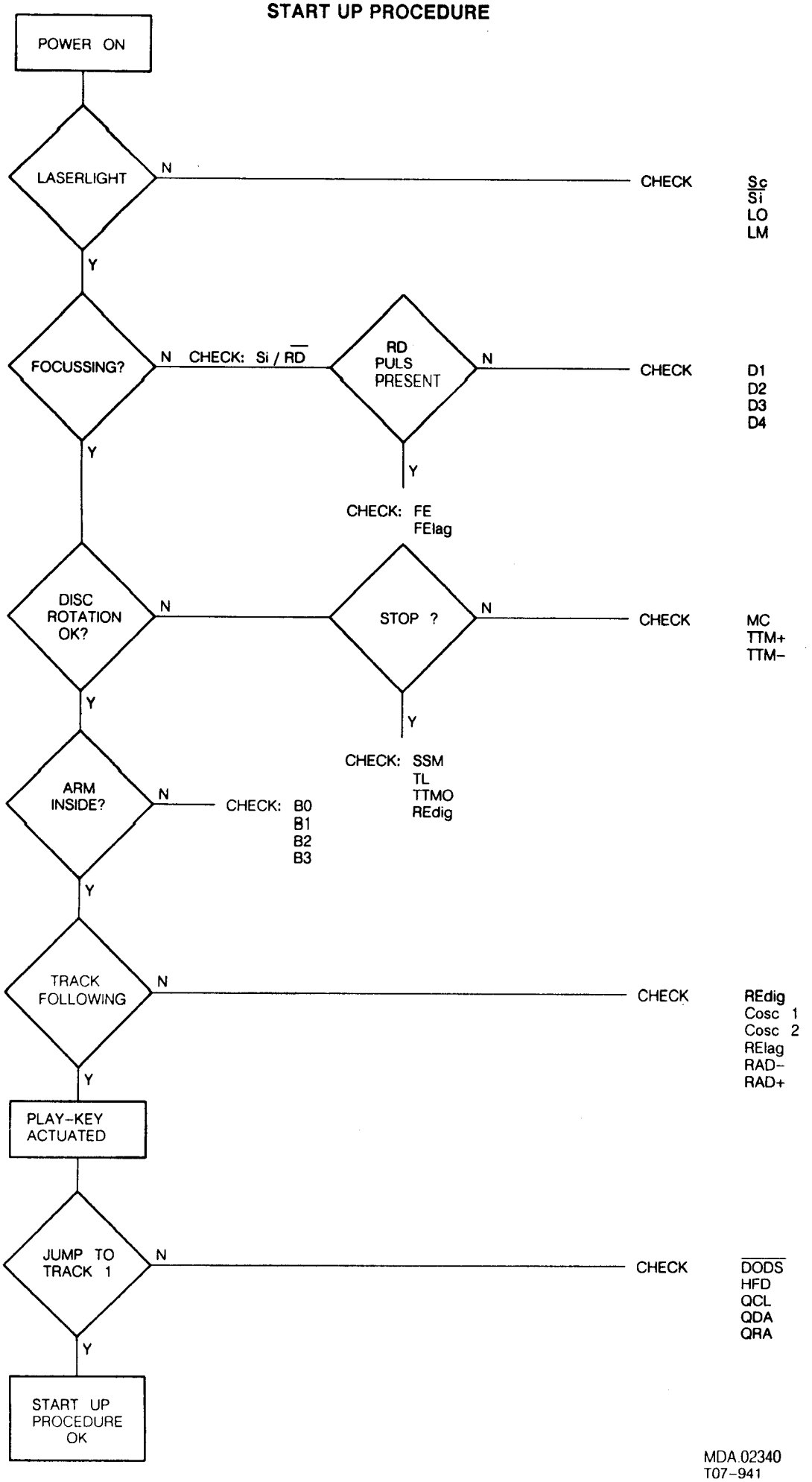


MC-Service

FAULT FINDING GUIDE

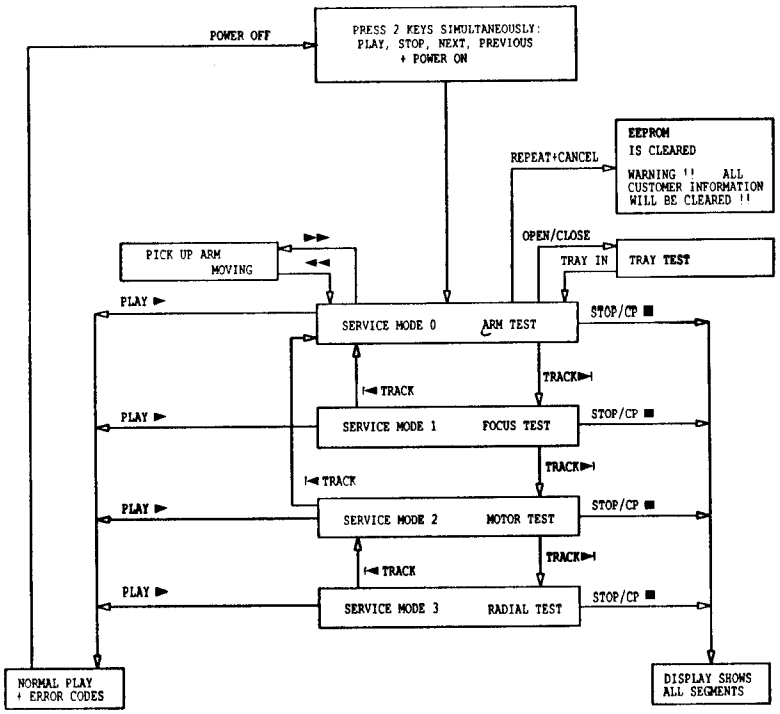


START UP PROCEDURE



MDA.02340
T07–941

SERVICE TEST PROGRAM



HAS1020
9143

ERROR CODE TABLE

SYSTEM ERRORS

ER02	Focus error
ER03	Radial error
ER04	Too many TL
ER05	TL low to long
ER06	Jump error
ER07	Subcode error
ER08	TOC error
ER60	EEPROM error during initialisation
ER61	EEPROM error during read or write
ER67	No or bad communication between SERVO and USER μP

CHECK OF THE PHOTODIODES

Step	Signal	Mode	◇	∅	▭	⊓	Remarks
1	D2 D1 D3 D4	power on	4 6 7 8	–	–	signal 4E6E7E8	Signal depends on Distance lens ↔ IR LED of remote control

T-23366A

CHECK OF LASER SUPPLY

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 C.D.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 teh replacement circuit for laser assembly.

Step	Signal	Mode	◇	▭	Remarks
1	LO	serv. pos. 2 SK	9 (V)	1.8<V <2.3	REPLACEMENT CIRCUIT FOR LASER ASSEMBLY to LO 33Ω GREEN LED to LM CONNECT DIRECTLY TO PANEL SK 180Ω to ⊥ PRS.06615 T02/9020 The feedback system sees to it that the same amount of current flows through the LED. When SK is open and when SK is closed the LED emits little light
	LM		11 (V)	170<mV <220	
2	LO	serv. pos. 2 SK	9 (V)	1.8<V <2.3	
	LM		11 (V)	170<mV <220	
3	LO	Power on	9 (V)	0V ± 0.2V	No light

After opening SK, the led will emit more light for a short moment.

T-23366B

CHECK OF CDM9

Step	Signal	Mode	◇	⊓
1	S current = voltage across R3000	Test disc 5A play	1 (V) 2 mV DC	56<mV<76

WARNINGS

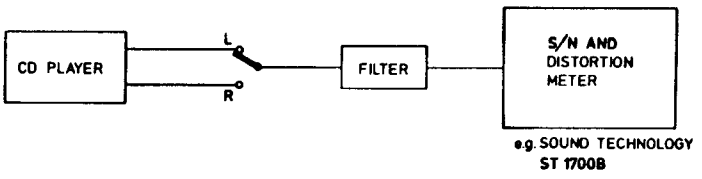
1. Never disconnect flex when power is on.
2. Laser power is adjusted during the production process and may not be readjusted.

SPECIFICATIONS MEASUREMENT

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

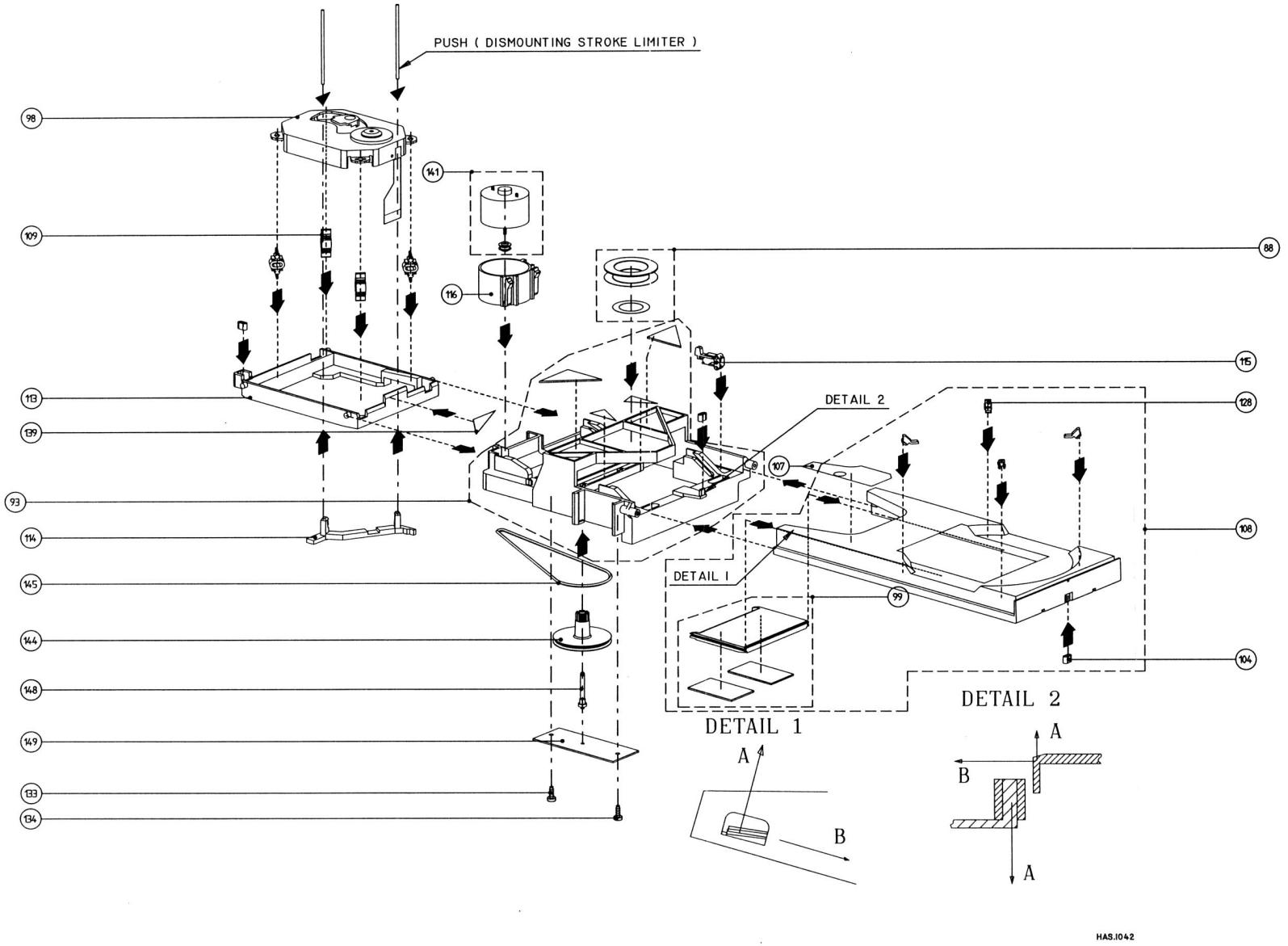
T-23366M

Filter = 13th order filter 4822 395 30204



30 459 A12

LOADER


PUSH (DISMOUNTING STROKE LIMITER)
98
141
109
116
88
115
113
128
139
DETAIL 2
107
93
108
114
145
DETAIL I
99
144
104
148
149
133
134
DETAIL 1
A
B
DETAIL 2
A
B
A
HAS.1042

MECHANICAL PARTSLIST

Cabinet

1⚠	4822 444 40551	ALU FRONT
13⚠	4822 444 40549	FRONT
15	4822 410 61885	KNOB UNIT(NOSE)
23	4822 450 61891	IR-WINDOW
24	4822 380 20425	REFLECTOR
52	4822 535 93283	POWER ROD
53	4822 410 61705	KNOB
54	4822 462 71808	CAP
57	4822 454 12828	BITSTREAM LOGO
60	4822 444 60815	COVER PLATE
71	4822 444 40552	ALU TRAY FRONT
151	4822 444 60837	COVER
251	4822 462 41888	FOOT
255	4822 462 41887	FELT
283⚠	4822 532 60948	BUSHING
300⚠	4822 321 10791	MAINS FLEX /00S
301⚠	4822 321 10823	MAINS FLEX /05S
302⚠	4822 321 10825	MAINS FLEX /17S
303⚠	4822 321 10828	MAINS FLEX /10S
308	4822 321 23116	CINCH CABLE
314	4822 321 61452	CABLE DIGITAL OUT
340	4822 736 21416	INSTRUCTION FOR USE CD950/17S
340	4822 736 21413	INSTRUCTION FOR USE CD950
365	4822 218 10459	REMOTE CONTROL RD6910/00

Loader

88	4822 402 61406	CLAMPING PIECE
93	4822 464 50886	FRAME
98	4822 691 30275	CDM-9
99	4822 444 60808	COVER PLATE
104	4822 325 60379	DAMPING GROMMET
108	4822 444 30441	TRAY
109	4822 466 93065	SUSPENSION
113	4822 464 50884	CHASSIS
114	4822 466 93066	STROKE LIMITER
115	4822 276 13222	SWITCH
116	4822 464 50885	MOTOR FRAME
128	4822 460 20801	ORNAMENTAL PROFILE
141	4822 361 21423	MOTOR
144	4822 522 33192	GEAR WHEEL
145	4822 358 10115	BELT

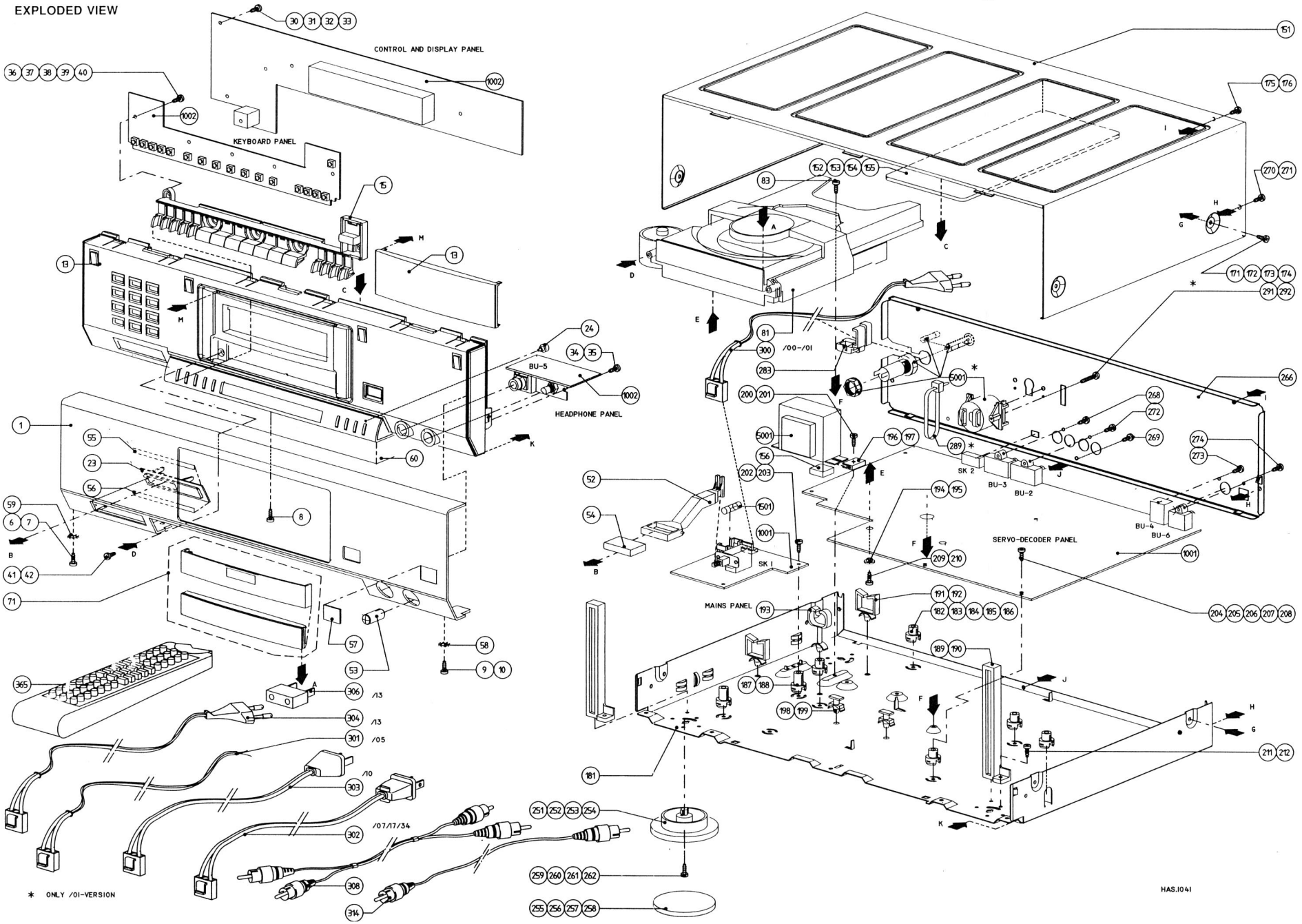
The following parts are only available during production period on special request.

181	Frame
189,190	Support bracket
266	Back plate

SCREWS

Taptite M3x6:	83
	211,212
Taptite M3x10:	6,7,8,9,10
	171,172,173,174
	175,176
	200,201
	204,205,206,207,208
	259,260,261,262
	269,270,271
Taptite M3x15:	202,203
Plastite M3x10:	30,31,32,33
	34,35
	36,37,38,39,40
	41,42
	209,210
	268
	272
	273
	274
Plastite M3x16:	30,31,32,33
	43

EXPLODED VIEW



MAIN PANEL

MISCELLANEOUS

⚠	4822 492 63076	CLAMPING SPRING
BU-2	4822 267 31485	ANALOG OUT SOCKET
BU-3	4822 267 31455	ESI IN/OUT SOCKET
BU-4	4822 267 31457	DIGITAL OUT SOCKET
BU-6	4822 218 21019	OPTICAL OUT
SK-2	4822 276 12339	SWITCH ESI ON/OFF
1101	4822 265 30525	RFK5 CONNECTOR
1302	4822 267 50621	CONNECTOR 7P
1702	4822 265 41115	CONNECTOR 15P
1530	4822 071 55001	FUSE 500MA

CRYSTAL

1250	4822 242 71349	CRYSTAL 11,2896 MHz
1700	4822 242 72527	RESONATOR 4 MHz
1731	4822 242 72527	RESONATOR 4 MHz

CAPACITORS

2000	4822 122 33809	22nF 20% 50V
2001	5322 122 32268	470pF 10% 50V
2003	4822 122 33496	100nF 10% 63V
2006	4822 122 33496	100nF 10% 63V
2007	4822 122 33175	2,2nF 20% 50V
2008	4822 122 32542	47nF 10% 63V
2009	5322 122 32531	100pF 5% 50V
2010	4822 122 33177	10nF 20% 50V
2011	5322 122 34123	1nF 10% 50V
2012	4822 121 42408	220nF 5% 63V
2013	4822 121 51252	470nF 5% 63V
2014	4822 122 32575	220pF 10% 500V
2015	5322 122 34123	1nF 10% 50V
2021	4822 121 51321	8,2µF 1% 63V
2022	4822 121 51321	8,2µF 1% 63V
2023	4822 124 40433	47µF 20% 25V
2025	5322 121 42661	330nF 5% 63V
2026	4822 122 33342	33nF 10% 63V
2027	4822 122 33342	33nF 10% 63V
2028	4822 121 42408	220nF 5% 63V
2029	4822 121 42408	220nF 5% 63V
2030	4822 122 33496	100nF 10% 63V
2031	4822 122 33496	100nF 10% 63V
2041	4822 121 51252	470nF 5% 63V
2042	5322 126 10223	4,7nF 10% 63V
2043	4822 121 42408	220nF 5% 63V
2044	4822 122 33496	100nF 10% 63V
2061	4822 121 51252	470nF 5% 63V
2062	4822 122 33496	100nF 10% 63V
2063	4822 122 33809	22nF 20% 50V
2064	4822 124 40272	33µF 20% 16V
2066	4822 124 40272	33µF 20% 16V
2071	4822 122 33496	100nF 10% 63V
2081	4822 122 32575	220pF 10% 500V
2082	4822 124 40433	47µF 20% 25V
2088	4822 121 43526	47nF 5% 100V
2100	5322 122 32452	47pF 5% 63V
2101	4822 122 33175	2,2nF 20% 50V
2102	4822 122 33809	22nF 20% 50V
2103	4822 124 40272	33µF 20% 16V
2104	4822 122 33809	22nF 20% 50V
2105	4822 121 51252	470nF 5% 63V
2107	4822 124 41576	2,2µF 20% 50V
2108	4822 124 40272	33µF 20% 16V
2109	4822 122 33809	22nF 20% 50V
2131	4822 122 33893	18nF 10% 63V
2132	5322 121 42661	330nF 5% 63V
2133	4822 122 33175	2,2nF 20% 50V
2134	4822 122 33809	22nF 20% 50V
2135	4822 124 40196	220µF 20% 16V
2136	4822 122 33809	22nF 20% 50V
2137	4822 124 40196	220µF 20% 16V
2200	5322 122 31863	330pF 5% 50V
2201	4822 122 33809	22nF 20% 50V
2202	4822 124 40272	33µF 20% 16V
2203	4822 122 33809	22nF 20% 50V
2204	4822 122 33809	22nF 20% 50V
2211	4822 124 40272	33µF 20% 16V
2212	4822 122 33809	22nF 20% 50V
2213	4822 122 33809	22nF 20% 50V
2214	4822 122 33496	100nF 10% 63V
2215	4822 122 33809	22nF 20% 50V
2218	4822 122 33809	22nF 20% 50V
2219	4822 124 40272	33µF 20% 16V
2250	4822 122 33496	100nF 10% 63V
2251	4822 124 40272	33µF 20% 16V
2252	4822 122 33496	100nF 10% 63V
2253	5322 122 32452	47pF 5% 63V
2254	5322 122 32452	47pF 5% 63V
2300	4822 122 33496	100nF 10% 63V
2302	4822 122 33496	100nF 10% 63V
2303	4822 122 33496	100nF 10% 63V
2304	4822 122 33496	100nF 10% 63V
2305	4822 122 33496	100nF 10% 63V
2306	4822 122 33496	100nF 10% 63V
2307	4822 122 33496	100nF 10% 63V
2308	4822 124 40196	220µF 20% 16V
2309	4822 124 40196	220µF 20% 16V
2310	4822 122 33496	100nF 10% 63V
2311	4822 122 33496	100nF 10% 63V
2312	4822 122 33806	820pF 10% 63V
2313	4822 122 33806	820pF 10% 63V
2314	5322 121 70125	130pF 630V

2315	5322 121 70125	130pF 630V
2316	5322 121 70125	130pF 630V
2317	5322 121 70125	130pF 630V
2318	4822 122 33496	100nF 10% 63V
2319	4822 122 33496	100nF 10% 63V
2320	4822 121 43861	56pF 1% 630V
2321	4822 121 43861	56pF 1% 630V
2322	4822 122 33496	100nF 10% 63V
2323	4822 122 33496	100nF 10% 63V
2324	4822 124 22473	100µF 25V
2325	4822 124 22473	100µF 25V
2326	4822 124 22473	100µF 25V
2327	4822 124 22473	100µF 25V
2340	4822 121 42783	2.2nF 1% 250V
2341	4822 121 42783	2.2nF 1% 250V
2342	5322 121 50999	470pF 1% 400V
2343	5322 121 50999	470pF 1% 400V
2344	4822 122 33496	100nF 10% 63V
2345	4822 122 33496	100nF 10% 63V
2346	4822 124 22473	100µF 25V
2347	4822 124 22473	100µF 25V
2348	4822 124 22339	100µF 16V
2349	4822 124 22339	100µF 16V
2350	4822 122 32575	220pF 10% 500V
2351	4822 122 32575	220pF 10% 500V
2352	4822 122 32575	220pF 10% 500V
2353	4822 122 32575	220pF 10% 500V
2501⚠	4822 126 10454	3,3nF 20% 400V
2511	4822 122 33809	22nF 20% 50V
2512	4822 122 33809	22nF 20% 50V
2513	4822 122 33809	22nF 20% 50V
2514	4822 122 33809	22nF 20% 50V
2515	4822 122 33809	22nF 20% 50V
2516	4822 122 33809	22nF 20% 50V
2517	4822 122 33809	22nF 20% 50V
2518	4822 122 33809	22nF 20% 50V
2520	4822 124 23183	4700µF 20% 16V
2523	4822 124 41576	2,2µF 20% 50V
2525	4822 124 23268	3300µF 20% 16V
2526	4822 122 33809	22nF 20% 50V
2527	4822 122 33809	22nF 20% 50V
2528	4822 124 41577	4,7µF 20% 50V
2530	4822 122 33809	22nF 20% 50V
2531	4822 122 33809	22nF 20% 50V
2532	4822 124 23172	470µF 20% 50V
2533	4822 122 33809	22nF 20% 50V
2534	4822 122 33809	22nF 20% 50V
2535	4822 124 41576	2,2µF 20% 50V
2536	4822 124 23172	470µF 20% 50V
2537	4822 122 33809	22nF 20% 50V
2538	4822 122 33809	22nF 20% 50V
2539	4822 124 41577	4,7µF 20% 50V
2540	4822 122 33496	100nF 10% 63V
2542	4822 122 33809	22nF 20% 50V
2543	4822 122 33809	22nF 20% 50V
2544	4822 124 23172	470µF 20% 50V
2545	4822 122 33809	22nF 20% 50V
2546	4822 122 33809	22nF 20% 50V
2547	4822 122 33809	22nF 20% 50V
2548	4822 124 41577	4,7µF 20% 50V
2549	4822 122 33809	22nF 20% 50V
2561	4822 121 51252	470nF 5% 63V
2562	5322 121 42661	330nF 5% 63V
2563	4822 124 23172	470µF 20% 50V
2601	4822 124 40272	33µF 20% 16V
2602	4822 122 33809	22nF 20% 50V
2603	4822 124 40272	33µF 20% 16V
2604	4822 122 33809	22nF 20% 50V
2605	4822 122 33496	100nF 10% 63V
2704	4822 122 33809	22nF 20% 50V
2705	4822 124 41576	2,2µF 20% 50V
2706	4822 122 33809	22nF 20% 50V
2707	4822 122 33809	22nF 20% 50V
2708	4822 124 40272	33µF 20% 16V
2733	4822 122 33809	22nF 20% 50V
2751	4822 122 33809	22nF 20% 50V
2761	4822 124 40433	47µF 20% 25V
2762	4822 122 33809	22nF 20% 50V

RESISTORS

3000	4822 051 20472	4k7 5% 0,1W
3001	4822 051 20104	100k 5% 0,1W
3002⚠	4822 052 10478	4Ω7 5% 0,33W
3003⚠	4822 052 10478	4Ω7 5% 0,33W
3004	4822 050 21503	15k 1% 0,6W
3005	4822 051 10101	100Ω 2% 0,25W
3006	4822 050 21002	1k 1% 0,6W
3007	4822 050 22403	24k 1% 0,6W
3008	4822 050 25602	5k6 1% 0,6W
3009	4822 051 20103	10k 5% 0,1W
3025	4822 050 24703	47k 1% 0,6W
3026	4822 050 22203	22k 1% 0,6W
3027	4822 050 21802	1k8 1% 0,6W
3029	4822 050 25102	5k1 1% 0,6W
3030	4822 051 20224	220k 5% 0,1W
3031	4822 050 21203	12k 1% 0,6W
3032	4822 050 21504	150k 1% 0,6W
3033	4822 051 20223	22k 5% 0,1W
3041	4822 050 21103	11k 1% 0,6W
3042	4822 050 21504	150k 1% 0,6W
3043	4822 050 21204	120k 1% 0,6W
3044	4822 116 52234	100k 5% 0,5W
3045	4822 050 23904	390k 1% 0,6W
3046	4822 050 25603	56k 1% 0,6W
3047⚠	4822 052 10828	8Ω2 5% 0,33W

MAIN PANEL

MISCELLANEOUS

21	⚠	4822 256 30274	FUSE HOLDER
	⚠	4822 492 63076	CLAMPING SPRING
1101		4822 265 30525	CONNECTOR 2P
1200		4822 218 21019	OPTICAL OUT
1201		4822 267 31626	DIGITAL OUT SOCKET
1250		4822 242 71349	CRYSTAL 11.2896MHz
1301		4822 267 31755	ANALOG OUT SOCKET
1302		4822 267 50621	CONNECTOR 7P
1503	⚠	4822 276 13216	MAINS SWITCH
1530	⚠	4822 071 55001	FUSE 500mA
1700		4822 242 72527	RESONATOR 4MHz
1702		4822 265 41115	CONNECTOR 15P
1704		4822 267 31728	ESI BUS SOCKET
1705		4822 267 31728	ESI BUS SOCKET
1731		4822 242 72527	RESONATOR 4MHz

CAPACITORS

2000	4822 122 33809	22nF 20% 50V
2001	5322 122 32268	470pF 10% 50V
2003	4822 122 33496	100nF 10% 63V
2006	4822 122 33496	100nF 10% 63V
2007	4822 122 33175	2,2nF 20% 50V
2008	4822 122 32542	47nF 10% 63V
2009	5322 122 32531	100pF 5% 50V
2010	4822 122 33177	10nF 20% 50V
2011	5322 122 34123	1nF 10% 50V
2012	4822 121 42408	220nF 5% 63V
2013	4822 121 51252	470nF 5% 63V
2014	4822 122 33575	220pF 5%NPO 50V
2015	5322 122 34123	1nF 10% 50V
2021	4822 121 51321	8,2nF 1% 63V
2022	4822 121 51321	8,2nF 1% 63V
2023	4822 124 40433	47µF 20% 25V
2025	5322 121 42661	330nF 5% 63V
2026	4822 122 33342	33nF 10% 63V
2027	4822 122 33342	33nF 10% 63V
2028	4822 121 42408	220nF 5% 63V
2029	4822 121 42408	220nF 5% 63V
2030	4822 122 33496	100nF 10% 63V
2031	4822 122 33496	100nF 10% 63V
2041	4822 121 51252	470nF 5% 63V
2042	5322 126 10223	4,7nF 10% 63V
2043	4822 121 42408	220nF 5% 63V
2044	4822 122 33496	100nF 10% 63V
2061	4822 121 51252	470nF 5% 63V
2062	4822 122 33496	100nF 10% 63V
2063	4822 122 33809	22nF 20% 50V
2064	4822 124 40433	47µF 20% 25V
2066	4822 124 40433	47µF 20% 25V
2071	4822 122 33496	100nF 10% 63V
2081	4822 122 33575	220pF 5%NPO 50V
2082	4822 124 40433	47µF 20% 25V
2088	4822 121 43526	47nF 5% 250V
2100	5322 122 32452	47pF 5% 63V
2101	4822 122 33175	2,2nF 20% 50V
2102	4822 122 33809	22nF 20% 50V
2103	4822 124 40433	47µF 20% 25V
2104	4822 122 33809	22nF 20% 50V
2105	4822 121 51252	470nF 5% 63V
2107	4822 124 40244	2,2µF 20% 63V
2108	4822 124 40433	47µF 20% 25V
2109	4822 122 33809	22nF 20% 50V
2131	4822 122 33893	18nF 10% 63V
2132	5322 121 42661	330nF 5% 63V
2133	4822 122 33175	2,2nF 20% 50V
2134	4822 122 33809	22nF 20% 50V
2135	4822 124 40196	220µF 20% 16V
2136	4822 122 33809	22nF 20% 50V
2137	4822 124 40196	220µF 20% 16V
2200	5322 122 31863	330pF 5% 50V
2201	4822 122 33809	22nF 20% 50V
2202	4822 124 40433	47µF 20% 25V
2203	4822 122 33809	22nF 20% 50V
2204	4822 122 33809	22nF 20% 50V
2205	5322 122 32452	47pF 5% 63V
2211	4822 124 40433	47µF 20% 25V
2212	4822 122 33809	22nF 20% 50V
2213	4822 122 33809	22nF 20% 50V
2214	4822 122 33496	100nF 10% 63V
2215	4822 122 33809	22nF 20% 50V
2216	5322 122 32452	47pF 5% 63V
2217	4822 122 33809	22nF 20% 50V
2218	4822 122 33809	22nF 20% 50V
2219	4822 124 40433	47µF 20% 25V
2250	4822 122 33496	100nF 10% 63V
2251	4822 124 40433	47µF 20% 25V
2252	4822 122 33496	100nF 10% 63V
2253	5322 122 32452	47pF 5% 63V
2254	5322 122 32452	47pF 5% 63V
2256	5322 122 32452	47pF 5% 63V
2300	4822 122 33496	100nF 10% 63V
2302	4822 122 33496	100nF 10% 63V
2303	4822 122 33496	100nF 10% 63V
2304	4822 122 33496	100nF 10% 63V
2305	4822 122 33496	100nF 10% 63V
2306	4822 122 33496	100nF 10% 63V
2307	4822 122 33496	100nF 10% 63V
2308	4822 124 40196	220µF 20% 16V
2309	4822 124 40196	220µF 20% 16V
2310	4822 122 33496	100nF 10% 63V
2311	4822 122 33496	100nF 10% 63V

2312	4822 122 33806	820pF 10% 63V
2313	4822 122 33806	820pF 10% 63V
2314	5322 121 70125	130pF 630V
2315	5322 121 70125	130pF 630V
2316	5322 121 70125	130pF 630V
2317	5322 121 70125	130pF 630V
2318	4822 122 33496	100nF 10% 63V
2319	4822 122 33496	100nF 10% 63V
2320	4822 121 43861	56pF 1% 630V
2321	4822 121 43861	56pF 1% 630V
2322	4822 122 33496	100nF 10% 63V
2323	4822 122 33496	100nF 10% 63V
2324	4822 124 22473	100µF 25V
2325	4822 124 22473	100µF 25V
2326	4822 124 22473	100µF 25V
2327	4822 124 22473	100µF 25V
2340	4822 121 42783	2.2nF 1% 250V
2341	4822 121 42783	2.2nF 1% 250V
2342	5322 121 50999	470pF 1% 400V
2343	5322 121 50999	470pF 1% 400V
2344	4822 122 33496	100nF 10% 63V
2345	4822 122 33496	100nF 10% 63V
2346	4822 124 22473	100µF 25V
2347	4822 124 22473	100µF 25V
2348	4822 124 22339	100µF 16V
2349	4822 124 22339	100µF 16V
2350	4822 122 33575	220pF 5%NPO 50V
2351	4822 122 33575	220pF 5%NPO 50V
2352	4822 122 33575	220pF 5%NPO 50V
2353	4822 122 33575	220pF 5%NPO 50V
2501	4822 126 10454	3,3nF 20% 400V
2511	4822 122 33809	22nF 20% 50V
2512	4822 122 33809	22nF 20% 50V
2513	4822 122 33809	22nF 20% 50V
2514	4822 122 33809	22nF 20% 50V
2515	4822 122 33809	22nF 20% 50V
2516	4822 122 33809	22nF 20% 50V
2517	4822 122 33809	22nF 20% 50V
2518	4822 122 33809	22nF 20% 50V
2520	4822 124 41458	4700µF 20% 16V
2523	4822 124 40244	2,2µF 20% 63V
2525	4822 124 80294	3300µF 20% 16V
2526	4822 122 33809	22nF 20% 50V
2527	4822 122 33809	22nF 20% 50V
2528	4822 124 40246	4,7µF 20% 63V
2530	4822 122 33809	22nF 20% 50V
2531	4822 122 33809	22nF 20% 50V
2532	4822 124 41184	470µF 20% 63V
2533	4822 122 33809	22nF 20% 50V
2534	4822 122 33809	22nF 20% 50V
2535	4822 124 40244	2U2 20% 50V
2536	4822 124 41184	470U 20% 50V
2537	4822 122 33809	22nF 20% 50V
2538	4822 122 33809	22nF 20% 50V
2539	4822 124 40246	4,7µF 20% 63V
2540	4822 122 33496	100nF 10% 63V
2542	4822 122 33809	22nF 20% 50V
2543	4822 122 33809	22nF 20% 50V
2544	4822 124 42392	470µF 20% 50V
2545	4822 122 33809	22nF 20% 50V
2546	4822 122 33809	22nF 20% 50V
2547	4822 122 33809	22nF 20% 50V
2548	4822 124 40246	4,7µF 20% 63V
2549	4822 122 33809	22nF 20% 50V
2561	4822 121 51252	470nF 5% 63V
2562	5322 121 42661	330nF 5% 63V
2563	4822 124 42392	470µF 20% 50V
2601	4822 124 40433	47µF 20% 25V
2602	4822 122 33809	22nF 20% 50V
2603	4822 124 40433	47µF 20% 25V
2604	4822 122 33809	22nF 20% 50V
2605	4822 122 33496	100nF 10% 63V
2704	4822 122 33809	22nF 20% 50V
2705	4822 124 40244	2,2µF 20% 63V
2706	4822 122 33809	22nF 20% 50V
2707	4822 122 33809	22nF 20% 50V
2708	4822 124 40433	47µF 20% 25V
2733	4822 122 33809	22nF 20% 50V
2751	4822 122 33809	22nF 20% 50V
2761	4822 124 40433	47µF 20% 25V
2762	4822 122 33809	22nF 20% 50V
2763	4822 122 33809	22nF 20% 50V

RESISTORS

3000	4822 051 20472	4k7 5% 0,1W
3001	4822 051 20104	100k 5% 0,1W
3002 ⚠	4822 052 10478	4Ω7 5% 0,33W
3003 ⚠	4822 052 10478	4Ω7 5% 0,33W
3004	4822 050 21503	15k 1% 0,6W
3005	4822 116 52175	100Ω 5% 0,5W
3006	4822 050 11002	1k 1% 0,4W
3007	4822 050 22403	24k 1% 0,6W
3008	4822 050 25602	5k6 1% 0,6W
3009	4822 117 10833	10k 1% 0,1W
3025	4822 050 24703	47k 1% 0,6W
3026	4822 050 22203	22k 1% 0,6W
3027	4822 050 21802	1k8 1% 0,6W
3029	4822 050 25102	5k1 1% 0,6W
3030	4822 051 20224	220k 5% 0,1W
3031	4822 116 52238	12k 5% 0,5W
3032	4822 116 52245	150k 5% 0,5W
3033	4822 051 20223	22k 5% 0,1W
3041	4822 050 21103	11k 1% 0,6W
3042	4822 050 21504	150k 1% 0,6W

3043		4822 050 21204	120k 1% 0,6W
3044		4822 116 52234	100k 5% 0,5W
3045		4822 050 23904	390k 1% 0,6W
3046		4822 050 25603	56k 1% 0,6W
3047	▲	4822 052 10828	8Ω2 5% 0,33W
3048	▲	4822 052 10229	22Ω 5% 0,33W
3049		4822 050 23305	3M3 1% 0,6W
3061		4822 051 20332	3k3 5% 0,1W
3062		4822 050 23002	3k 1% 0,6W
3063		4822 050 23308	3Ω3 1% 0,6W
3064	▲	4822 052 10339	33Ω 5% 0,33W
3065	▲	4822 052 10108	1Ω 5% 0,33W
3066	▲	4822 052 10108	1Ω 5% 0,33W
3067		4822 116 52175	100Ω 5% 0,5W
3069		4822 116 52238	12k 5% 0,5W
3070		4822 116 52238	12k 5% 0,5W
3071		4822 051 20223	22k 5% 0,1W
3072		4822 116 52257	22k 5% 0,5W
3074		4822 051 10008	0Ω 5% 0,25W
3081	▲	4822 052 10189	18Ω 5% 0,33W
3082	▲	4822 052 10129	12Ω 5% 0,33W
3083		4822 051 20101	100Ω 5% 0,1W
3094		4822 116 52251	18k 5% 0,5W
3100		4822 116 52256	2k2 5% 0,5W
3101		4822 051 20223	22k 5% 0,1W
3102	▲	4822 052 10478	4Ω7 5% 0,33W
3105		4822 051 20759	75Ω 5% 0,1W
3106		4822 116 52276	3k9 5% 0,5W
3107		4822 116 52306	9k1 5% 0,5W
3108		4822 051 20162	1k6 5% 0,1W
3109	▲	4822 052 10478	4Ω7 5% 0,33W
3116		4822 116 52257	22k 5% 0,5W
3131		4822 116 52283	4k7 5% 0,5W
3132		4822 116 52284	47k 5% 0,5W
3133		4822 116 52234	100k 5% 0,5W
3134		4822 051 20913	91k 5% 0,1W
3135		4822 116 52269	3k3 5% 0,5W
3136		4822 116 52289	5k6 5% 0,5W
3137		4822 116 52245	150k 5% 0,5W
3138		4822 116 52304	82k 5% 0,5W
3139		4822 116 52175	100Ω 5% 0,5W
3140	▲	4822 052 10478	4Ω7 5% 0,33W
3141	▲	4822 052 10478	4Ω7 5% 0,33W
3142	▲	4822 052 10478	4Ω7 5% 0,33W
3143	▲	4822 052 10478	4Ω7 5% 0,33W
3144		4822 116 52298	680k 5% 0,5W
3145		4822 116 52289	5k6 5% 0,5W
3146		4822 116 52271	33k 5% 0,5W
3147		4822 116 52283	4k7 5% 0,5W
3148		4822 116 52283	4k7 5% 0,5W
3149		4822 116 52207	1k2 5% 0,5W
3150		4822 116 52248	160k 5% 0,5W
3151		4822 116 52283	4k7 5% 0,5W
3201	▲	4822 052 10478	4Ω7 5% 0,33W
3211	▲	4822 052 10478	4Ω7 5% 0,33W
3212		4822 116 52226	560Ω 5% 0,5W
3213		4822 051 20621	620Ω 5% 0,1W
3214		4822 116 52257	22k 5% 0,5W
3215		4822 051 20472	4k7 5% 0,1W
3216		4822 051 20223	22k 5% 0,1W
3217	▲	4822 052 10478	4Ω7 5% 0,33W
3218		4822 051 20822	8k2 5% 0,1W
3219		4822 116 52257	22k 5% 0,5W
3226		4822 051 20101	100Ω 5% 0,1W
3227		4822 051 20101	100Ω 5% 0,1W
3250	▲	4822 052 10478	4Ω7 5% 0,33W
3251		4822 051 20224	220k 5% 0,1W
3252		4822 051 10102	1k 2% 0,25W
3253		4822 051 20101	100Ω 5% 0,1W
3255		4822 051 20105	1M 5% 0,1W
3300	▲	4822 052 10109	10Ω 5% 0,33W
3302	▲	4822 052 10109	10Ω 5% 0,33W
3303	▲	4822 052 10109	10Ω 5% 0,33W
3304	▲	4822 052 10109	10Ω 5% 0,33W
3305	▲	4822 052 10109	10Ω 5% 0,33W
3306		4822 116 52243	1k5 5% 0,5W
3307		4822 116 52243	1k5 5% 0,5W
3308		4822 116 52269	3k3 5% 0,5W
3309		4822 116 52269	3k3 5% 0,5W
3310		4822 050 25601	560Ω 1% 0,6W
3311		4822 050 25601	560Ω 1% 0,6W
3312		4822 050 23302	3k3 1% 0,6W
3313		4822 050 23302	3k3 1% 0,6W
3314		4822 050 22003	20k 1% 0,6W
3315		4822 050 22003	20k 1% 0,6W
3316		4822 050 22003	20k 1% 0,6W
3317		4822 050 22003	20k 1% 0,6W
3318	▲	4822 052 10478	4Ω7 5% 0,33W
3319	▲	4822 052 10478	4Ω7 5% 0,33W
3320		4822 050 23302	3k3 1% 0,6W
3321		4822 050 23302	3k3 1% 0,6W
3322		4822 050 23602	3k6 1% 0,6W
3323		4822 050 23602	3k6 1% 0,6W
3324		4822 050 21003	10k 1% 0,6W
3325		4822 050 21003	10k 1% 0,6W
3326		4822 050 21103	11k 1% 0,6W
3327		4822 050 21103	11k 1% 0,6W
3328	▲	4822 052 10229	22Ω 5% 0,33W
3329	▲	4822 052 10229	22Ω 5% 0,33W
3330		4822 050 22402	2k4 1% 0,6W
3331		4822 050 22402	2k4 1% 0,6W
3340		4822 050 22402	2k4 1% 0,6W
3341		4822 050 22402	2k4 1% 0,6W
3342	▲	4822 052 10229	22Ω 5% 0,33W
3343	▲	4822 052 10229	22Ω 5% 0,33W
3344		4822 117 10833	10k 1% 0,1W
3345		4822 117 10833	10k 1% 0,1W

3346	4822 116 52175	100Ω 5% 0,5W
3347	4822 116 52175	100Ω 5% 0,5W
3348	4822 116 52175	100Ω 5% 0,5W
3349	4822 116 52175	100Ω 5% 0,5W
3350	4822 116 52207	1k2 5% 0,5W
3351	4822 116 52207	1k2 5% 0,5W
3352	4822 116 52256	2k2 5% 0,5W
3353	4822 116 52256	2k2 5% 0,5W
3356	4822 116 52175	100Ω 5% 0,5W
3357	4822 116 52175	100Ω 5% 0,5W
3358	4822 051 20222	2k2 5% 0,1W
3359	4822 051 20222	2k2 5% 0,1W
3360	4822 051 20472	4k7 5% 0,1W
3361	4822 051 20472	4k7 5% 0,1W
3362	4822 116 52233	10k 5% 0,5W
3363	4822 116 52233	10k 5% 0,5W
3366	4822 116 52283	4k7 5% 0,5W
3367	4822 116 52283	4k7 5% 0,5W
3368	4822 116 52258	220k 5% 0,5W
3369	4822 116 52258	220k 5% 0,5W
3370	4822 116 52285	470k 5% 0,5W
3371	4822 116 52285	470k 5% 0,5W
3520	4822 050 11002	1k 1% 0,4W
3521	4822 050 11002	1k 1% 0,4W
3522 ⚠	4822 052 10108	1Ω 5% 0,33W
3523	4822 116 52233	10k 5% 0,5W
3524 ⚠	4822 052 10229	22Ω 5% 0,33W
3525	4822 116 52269	3k3 5% 0,5W
3526	4822 116 52283	4k7 5% 0,5W
3527	4822 116 52257	22k 5% 0,5W
3528	4822 116 52283	4k7 5% 0,5W
3529	4822 116 52175	100Ω 5% 0,5W
3530	4822 051 20331	330Ω 5% 0,1W
3531	4822 051 10102	1k 2% 0,25W
3541	4822 116 52269	3k3 5% 0,5W
3561	4822 050 11002	1k 1% 0,4W
3562	4822 117 10834	47k 1% 0,1W
3563	4822 050 22205	2M2 1% 0,6W
3564	4822 116 52233	10k 5% 0,5W
3565	4822 116 52271	33k 5% 0,5W
3566	4822 116 52258	220k 5% 0,5W
3567	4822 050 11002	1k 1% 0,4W
3600	4822 050 25102	5k1 1% 0,6W
3602	4822 116 52233	10k 5% 0,5W
3603	4822 116 52233	10k 5% 0,5W
3604	4822 116 52233	10k 5% 0,5W
3605	4822 116 52233	10k 5% 0,5W
3606 ⚠	4822 052 10108	1Ω 5% 0,33W
3607 ⚠	4822 052 10108	1Ω 5% 0,33W
3608 ⚠	4822 052 10229	22Ω 5% 0,33W
3701	4822 051 20224	220k 5% 0,1W
3702 ⚠	4822 052 10228	2Ω2 5% 0,33W
3703	4822 051 20223	22k 5% 0,1W
3705	4822 051 20223	22k 5% 0,1W
3708	4822 051 20223	22k 5% 0,1W
3711	4822 051 20223	22k 5% 0,1W
3721	4822 051 20221	220Ω 5% 0,1W
3722	4822 051 10102	1k 2% 0,25W
3723	4822 051 20223	22k 5% 0,1W
3731	4822 051 20224	220k 5% 0,1W
3732	4822 051 20332	3k3 5% 0,1W
3734	4822 051 20223	22k 5% 0,1W
3735	4822 116 52257	22k 5% 0,5W
3736	4822 051 20223	22k 5% 0,1W
3741	5322 111 90473	RES.NETWORK
3742	4822 051 20223	22k 5% 0,1W
3747	4822 050 11002	1k 1% 0,4W
3748	4822 116 52257	22k 5% 0,5W
3749	4822 116 52219	330Ω 5% 0,5W
3750	4822 051 20223	22k 5% 0,1W
3751	4822 117 10833	10k 1% 0,1W
3752	4822 117 10833	10k 1% 0,1W
3761 ⚠	4822 052 10109	10Ω 5% 0,33W
3762	4822 051 20183	18k 5% 0,1W
3763	4822 117 10834	47k 1% 0,1W
3764	4822 116 52175	100Ω 5% 0,5W
3765	4822 117 10834	47k 1% 0,1W
3766	4822 117 10834	47k 1% 0,1W
3767	4822 116 52284	47k 5% 0,5W
3768	4822 116 52284	47k 5% 0,5W
3800	4822 051 10008	0Ω 5% 0,25W
....	....	.....
3838	4822 051 10008	0Ω 5% 0,25W

COILS

5211	4822 148 80281	DIG.OUT TRANSFORMER
5300	4822 157 50964	100µH
5301	4822 157 50964	100µH
5502 ⚠	4822 214 51841	MAINS FILTER

3048⚠	4822 052 10229	22Ω 5% 0,33W
3049	4822 050 23305	3M3 1% 0,6W
3061	4822 051 20332	3k3 5% 0,1W
3062	4822 050 23002	3k 1% 0,6W
3063	4822 050 23308	3Ω3 1% 0,6W
3064⚠	4822 052 10339	33Ω 5% 0,33W
3065⚠	4822 052 10108	1Ω 5% 0,33W
3066⚠	4822 052 10108	1Ω 5% 0,33W
3067	4822 051 10101	100Ω 2% 0,25W
3071	4822 051 20223	22k 5% 0,1W
3072	4822 050 22203	22k 1% 0,6W
3074	4822 051 10008	chip jumper 0Ω
3081⚠	4822 052 10189	18Ω 5% 0,33W
3082⚠	4822 052 10129	12Ω 5% 0,33W
3083	4822 051 20101	100Ω 5% 0,1W
3094	4822 050 21803	18k 1% 0,6W
3100	4822 050 22202	2k2 1% 0,6W
3101	4822 051 20223	22k 5% 0,1W
3102⚠	4822 052 10478	4Ω7 5% 0,33W
3105	4822 051 20759	75Ω 5% 0,1W
3106	4822 050 23902	3k9 1% 0,6W
3107	4822 050 29102	9k1 1% 0,6W
3108	4822 051 20162	1k6 5% 0,1W
3109⚠	4822 052 10478	4Ω7 5% 0,33W
3110	5322 116 51882	0Ω
3111	5322 116 51882	0Ω
3112	5322 116 51882	0Ω
3113	5322 116 51882	0Ω
3114	5322 116 51882	0Ω
3115	5322 116 51882	0Ω
3116	4822 050 22203	22k 1% 0,6W
3131	4822 050 24702	4k7 1% 0,6W
3132	4822 050 24703	47k 1% 0,6W
3133	4822 116 52234	100k 5% 0,5W
3134	4822 051 20913	91k 5% 0,1W
3135	4822 050 23302	3k3 1% 0,6W
3136	4822 050 15602	5k6 1% 0,4W
3137	4822 050 21504	150k 1% 0,6W
3138	4822 050 28203	82k 1% 0,6W
3139	4822 051 10101	100Ω 2% 0,25W
3140⚠	4822 052 10478	4Ω7 5% 0,33W
3141⚠	4822 052 10478	4Ω7 5% 0,33W
3142⚠	4822 052 10478	4Ω7 5% 0,33W
3143⚠	4822 052 10478	4Ω7 5% 0,33W
3144	4822 050 26804	680k 1% 0,6W
3145	4822 050 15602	5k6 1% 0,4W
3146	4822 050 13303	33k 1% 0,4W
3147	4822 050 24702	4k7 1% 0,6W
3148	4822 050 24702	4k7 1% 0,6W
3149	4822 051 10122	1k2 2% 0,25W
3150	4822 050 22004	200k 1% 0,6W
3201⚠	4822 052 10478	4Ω7 5% 0,33W
3211⚠	4822 052 10478	4Ω7 5% 0,33W
3212	4822 051 10561	560Ω 2% 0,25W
3213	4822 051 20621	620Ω 5% 0,1W
3214	4822 050 22203	22k 1% 0,6W
3215	4822 051 20223	22k 5% 0,1W
3216	4822 051 20223	22k 5% 0,1W
3217⚠	4822 052 10478	4Ω7 5% 0,33W
3218	4822 051 20822	8k2 5% 0,1W
3219	4822 050 22203	22k 1% 0,6W
3221	5322 116 51882	0Ω
3222	5322 116 51882	0Ω
3223	5322 116 51882	0Ω
3224	5322 116 51882	0Ω
3225	5322 116 51882	0Ω
3250⚠	4822 052 10478	4Ω7 5% 0,33W
3251	4822 051 20224	220k 5% 0,1W
3252	4822 051 10102	1k 2% 0,25W
3255	4822 051 20105	1M 5% 0,1W
3300⚠	4822 052 10109	10Ω 5% 0,33W
3302⚠	4822 052 10109	10Ω 5% 0,33W
3303⚠	4822 052 10109	10Ω 5% 0,33W
3304⚠	4822 052 10109	10Ω 5% 0,33W
3305⚠	4822 052 10109	10Ω 5% 0,33W
3306	4822 050 21502	1k5 1% 0,6W
3307	4822 050 21502	1k5 1% 0,6W
3308	4822 050 23302	3k3 1% 0,6W
3309	4822 050 23302	3k3 1% 0,6W
3310	4822 050 25601	560Ω 1% 0,6W
3311	4822 050 25601	560Ω 1% 0,6W
3312	4822 050 23302	3k3 1% 0,6W
3313	4822 050 23302	3k3 1% 0,6W
3314	4822 050 22003	20k 1% 0,6W
3315	4822 050 22003	20k 1% 0,6W
3316	4822 050 22003	20k 1% 0,6W
3317	4822 050 22003	20k 1% 0,6W
3318⚠	4822 052 10478	4Ω7 5% 0,33W
3319⚠	4822 052 10478	4Ω7 5% 0,33W
3320	4822 050 23302	3k3 1% 0,6W
3321	4822 050 23302	3k3 1% 0,6W
3322	4822 050 23302	3k3 1% 0,6W
3323	4822 050 23302	3k3 1% 0,6W
3324	4822 050 21003	10k 1% 0,6W
3325	4822 050 21003	10k 1% 0,6W
3326	4822 050 21003	10k 1% 0,6W
3327	4822 050 21003	10k 1% 0,6W
3328⚠	4822 052 10229	22Ω 5% 0,33W
3329⚠	4822 052 10229	22Ω 5% 0,33W
3330	4822 050 22402	2k4 1% 0,6W

COILS

5211	4822 148 80281	DIG.OUT TRANSFORMER
5300	4822 156 21452	100µH
5301	4822 156 21452	100µH

DIODES

6061	4822 130 30861	BZX79-C7V5
6062	4822 130 30861	BZX79-C7V5
6511	5322 130 30684	1N4002
6512	5322 130 30684	1N4002
6513	5322 130 30684	1N4002
6514	5322 130 30684	1N4002
6515	5322 130 30684	1N4002
6516	5322 130 30684	1N4002
6517	5322 130 30684	1N4002
6518	5322 130 30684	1N4002
6521	5322 130 30684	1N4002
6522	4822 130 34173	BZX79-C5V6
6541	5322 130 30684	1N4002
6543	4822 130 34278	BZX79-F6V8
6544	4822 130 34173	BZX79-C5V6
6561	4822 130 34278	BZX79-F6V8
6562	4822 130 30621	1N4148
6563	4822 130 30621	1N4148
6564	4822 130 30621	1N4148
6565	5322 130 30684	1N4002
6566	5322 130 30684	1N4002
6567	4822 130 31981	BZX79-C3V9
6568	4822 130 30621	1N4148
6721	4822 130 31981	BZX79-C3V9

TRANSISTORS & IC's

7001	4822 209 73234	TDA8808T/C3
7002	4822 209 73235	TDA8809T/C2
7003	4822 209 72587	TCA0372DP2-
7004	5322 130 44349	BC635
7005	4822 209 30719	MC74HC00AD
7100	4822 209 61759	SAA7310GP/H5
7101	4822 130 42131	BF550
7102⚠	4822 209 70422	MN4264-15
7131	4822 209 83274	NJM4560D
7132	4822 130 44121	BC338
7133	4822 130 44104	BC328
7134	5322 130 42012	BC858A
7135	5322 130 42012	BC858A
7201	4822 209 30939	SM5840AS
7202	5322 209 12099	MC74HC164D
7203	5322 209 12099	MC74HC164D
7204	4822 209 30739	MC74HC04AD
7211	4822 209 62588	PCF3523P
7212	4822 130 61207	BC848
7213	4822 209 31284	MC74HC08ADR2
7250	4822 209 31356	SAA7350
7300	4822 209 31355	TDA1547
7302	5322 209 86234	NE5532N
7303	5322 209 86234	NE5532N
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	5322 130 42012	BC858
7312	4822 130 42696	BC818-25
7313	4822 130 42696	BC818-25
7314	4822 130 42633	BSR56
7315	4822 130 42633	BSR56
7522⚠	4822 209 73233	MC79L05ACP
7526	4822 209 31354	PQ05ΩF11
7527	4822 209 80889	MC78L15ACP
7528	5322 209 62115	MC79L15AC
7529	5322 130 42012	BC858
7530	4822 130 61207	BC848
7531	5322 130 44349	BC635
7541	4822 209 31257	MC79L24ACP
7561⚠	5322 130 41982	BC848B
7562	5322 130 42012	BC858
7600	4822 209 72587	TCA0372DP2-
7701	4822 209 30938	MC68HC05C8P-ZC405027
7702	4822 209 80891	MC78M05CT
7721	5322 130 42012	BC858
7731	4822 209 31351	MC68HC05D9P-P138
7732	5322 130 42012	BC858
7733	4822 130 61207	BC848
7751	4822 209 62524	X24C16P
7761	5322 130 42012	BC858
7762	4822 130 61207	BC848
7763	4822 130 61207	BC848

DISPLAY & KEYBOARD PANEL

MISCELLANEOUS

	4822 256 91848	DISPLAY HOLDER
1310	4822 267 50621	CONNECTOR 7P
BU-5	4822 267 31453	HEADPHONE SOCKET
1401	4822 242 81002	RESONATOR 6MHz
1402	4822 130 91115	DISPLAY
1403	4822 265 41115	CONNECTOR 15P
1404	4822 267 50621	CONNECTOR 7P
1405	4822 267 40624	CONNECTOR 5P
1406	4822 267 50621	CONNECTOR 7P
1407	4822 267 40624	CONNECTOR 5P
1410	4822 276 13114	TACT SWITCH
1411	4822 276 13114	TACT SWITCH
1412	4822 276 13114	TACT SWITCH
1413	4822 276 13114	TACT SWITCH
1414	4822 276 13213	TACT SWITCH
1415	4822 276 13213	TACT SWITCH
1416	4822 276 13114	TACT SWITCH
1417	4822 276 13213	TACT SWITCH
1418	4822 276 13213	TACT SWITCH
1419	4822 276 13213	TACT SWITCH
1420	4822 276 13213	TACT SWITCH
1421	4822 276 13213	TACT SWITCH
1422	4822 276 13114	TACT SWITCH
1423	4822 276 13114	TACT SWITCH
1424	4822 276 13114	TACT SWITCH
1425	4822 276 13114	TACT SWITCH
1426	4822 276 13114	TACT SWITCH
1451	4822 214 51772	TACT SWITCH

CAPACITORS

2401	5322 124 21643	22µF 20% 40V
2402	4822 122 10166	22nF 30% 16V
2403	5322 124 21643	22µF 20% 40V
2404	4822 122 10166	22nF 30% 16V
2405	5322 124 21643	22µF 20% 40V
2406	4822 122 10166	22nF 30% 16V
2420	5322 124 21643	22µF 20% 40V
2421	4822 122 10166	22nF 30% 16V

RESISTORS

3401⚠	4822 052 10478	4Ω7 5% 0,33W
3402⚠	4822 052 10478	4Ω7 5% 0,33W
3403⚠	4822 052 10478	4Ω7 5% 0,33W
3404	4822 050 22203	22k 1% 0,6W
3405	4822 050 22203	22k 1% 0,6W
3406	4822 050 22203	22k 1% 0.6W
3407	4822 050 22203	22k 1% 0.6W
3408	4822 050 22203	22k 1% 0.6W
3409	4822 050 22203	22k 1% 0.6W
3410	4822 116 52234	100k 5% 0.5W
3411	4822 051 10101	100Ω 2% 0.25W
3412	4822 116 52234	100k 5% 0.5W
3413	4822 051 10101	100Ω 2% 0.25W
3414	5322 111 90473	8x10k 2% NETWORK
3415	4822 116 52235	1M 5% 0,5W
3416	4822 050 21002	1k 1% 0,6W
3417	4822 050 24703	47k 1% 0,6W
3418	4822 050 24702	4k7 1% 0,6W
3419	4822 050 24702	4k7 1% 0,6W
3420⚠	4822 052 10478	4Ω7 5% 0,33W
3421	4822 050 24702	4k7 1% 0,6W

DIODES

6401	4822 130 30621	1N4148
6402	4822 130 30621	1N4148
6403	4822 130 30621	1N4148
6404	4822 130 30621	1N4148
6405	4822 130 30621	1N4148
6406	4822 130 83029	LED CTL-4212N

TRANSISTORS & IC'S

7401	4822 209 31251	TMP47C670P-FTDD007
7403	4822 209 60886	UDN-2580A
7405	4822 130 40941	BC558
7406	4822 130 40941	BC558

HEADPHONE PANEL

MISCELLANEOUS

1310	4822 267 50621	CONNECTOR 7P
BU-5	4822 267 31453	HEADPHONE SOCKET

CAPACITORS

2380	4822 124 41525	100µF 20% 25V
2381	4822 124 41525	100µF 20% 25V
2382	4822 122 10166	22nF 30% 16V
2383	4822 122 10166	22nF 30% 16V

RESISTORS

3381	4822 101 21199	10k LOG POTMETER
3382	4822 116 52264	27k 5% 0,5W
3383	4822 116 52264	27k 5% 0,5W
3384	4822 050 21203	12k 1% 0,6W
3385	4822 050 21203	12k 1% 0,6W
3386	4822 050 21201	120Ω 1% 0,6W
3387	4822 050 21201	120Ω 1% 0,6W
3388	4822 051 10101	100Ω 2% 0,25W
3389	4822 051 10101	100Ω 2% 0.25W
3390⚠	4822 052 10109	10Ω 5% 0,33W
3391⚠	4822 052 10109	10Ω 5% 0,33W
3392	4822 050 22202	2k2 1% 0,6W
3393	4822 050 22202	2k2 1% 0,6W

TRANSISTORS & IC

7380	4822 209 82362	NJM4556D
7382	4822 130 44121	BC338
7383	4822 130 44121	BC338

MISCELLANEOUS

SK-1⚠	4822 276 13216	MAINS SWITCH
21⚠	4822 256 30274	FUSE HOLDER
1501⚠	4822 070 31251	FUSE 125mA
1501⚠	4822 253 30322	FUSE 200mA
5001⚠	4822 146 31101	MAINS TRANSFORMER
5001⚠	4822 146 31103	MAINS TRAFO /17S
5502⚠	4822 214 51841	MAINS FILTER