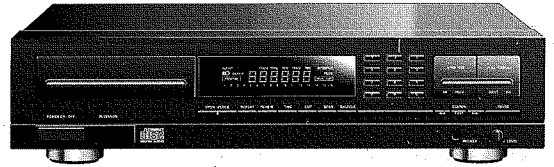


Service
Service
Service



Service Manual

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TECHNICAL SPECIFICATIONS

General

- 1.Mains voltage
- /00B
- : 230V (+6 -10%)
- /05B
- : 240V (±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(only CD730)

- 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 ± 3dB
- 3.Unbalance left-right
- : max. ± 1,2dB at 1 kHz
- 4.Output resistance
- : 1 kΩ
- 5.Signal to noise ratio
- : min. 84dB from 20 Hz to 20 kHz
- 6.Total harmonic distortion + noise
- : min. 70dB from 20 Hz to 20 kHz
- 7.Channel separation
- : min. 70dB from 20 Hz to 20 kHz
- 8.Frequency response
- : ± 1dB from 20 Hz to 20 kHz
- 9.Frequency response with de-emphasis
- : ± 2dB
- 10Automatic switched deemphasis with time constant
- : 15/50 μs
- 11.Dynamic range 20Hz-20kHz
- : min. 70dB from 20 Hz to 20 kHz
- 12.Non linearity at -90dB
- : min. ± 2dB
- : typ. ± 1dB

Variable headphone (low end)

- 1.Output voltage
- : max. 5 Vrms ± 3dB
- 2.Unbalance left-right
- : max. ± 1,2dB
- 3.Output resistance
- : 120 Ω
- 4.Load impedance range
- : 32 Ω to 600 Ω load
- 5.Output power
- : 0 to 30 mW into 30 Ω load
- : 0 to 50 mW into 150 Ω load
- : 0 to 30 mW into 600 Ω load

Audio specs in case of 600 Ω load at 4 Vrms voltage output

- 6.Signal to noise ratio
- : min. 80 dB
- 7.Dynamic range
- : min. 70 dB (20 Hz -20 kHz)
- 8.Total harmonic distortion
- : min. 60 dB (20 Hz - 20 kHz)
- 9.Channel separation
- : min. 70 dB (1 kHz)
- : min. 65 dB (31,5 Hz - 16 kHz)

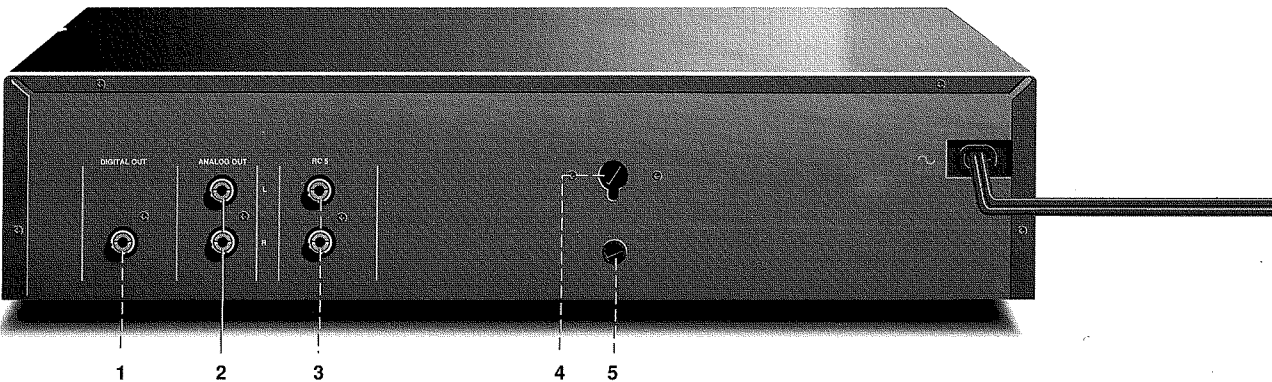
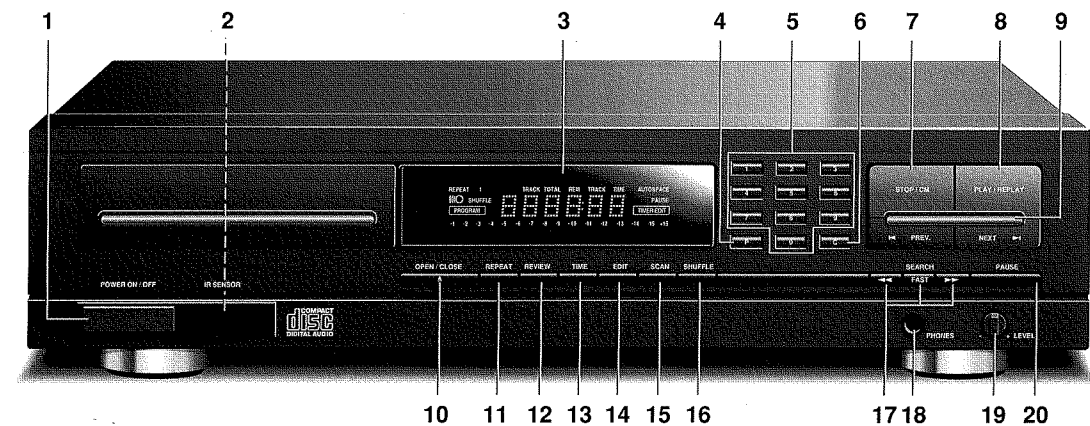
Dimensions and weight

- 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 AND CONNECTIONS



CONTROLS

Indication on Player	Indication in diagram
1. POWER ON/OFF	1500
2. IR SENSOR(CD732)	1461
3. Display	1450
4. PROG.	1429
5. 1-0 digit keys	1420,1421,1422,1427,1428,1434,1435,1441,1442,1443
6. CLEAR	1436
7. STOP/CM	1433
8. PLAY/REPLAY	1432
8. REPEAT	1430
9. <PREV(ious) NEXT>	1425 1440
10. OPEN/CLOSE	1426
11. REPEAT	1430
12. REVIEW	1431
13. TIME	1447
14. EDIT	1423
15. SCAN	1444
16. SHUFFLE	1446
17. << SEARCH >>	1438 1445
18. PHONES	BU-5
19. LEVEL	3370
20. PAUSE	1439

CONNECTIONS

Indication on Player	Indication in diagram
1. DIGITAL OUT(CD732 only)	BU-4
2. ANALOG OUT	BU-2
3. RC 5(CD730 only)	BU-3
4. Voltage selector(not all versions)	1010
5. Mains fuse holder(not all versions)	287

(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

ESD**(NL) WAARSCHUWING**

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

(F) ATTENTION

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

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegen elektrostatische Entladungen (ESD).
Unvorsichtige Behandlung bei der Reparatur kann die Lebensdauer drastisch vermindern. Sorgen sie dafür, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand mit dem Massepotential des Gerätes verbunden sind. halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(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 ricambio 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.



**CLASS 3B
LASER PRODUCT**

CAUTION**VARO!****VARNING****ADVERSEL****DANGER****VORSICHT**

INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM

AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASER SÄTTEILYLLE ÄLÄ KATSO SÄTEESSEN

OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD BETRakta EJ STRÅLEN

USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UNSÆTTELSE FOR STRÅLING

INVISIBLE LASER RADIATION WHEN OPEN AVOID DIRECT EXPOSURE TO BEAM

UNSIHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN

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

**CLASS 1
LASER PRODUCT**

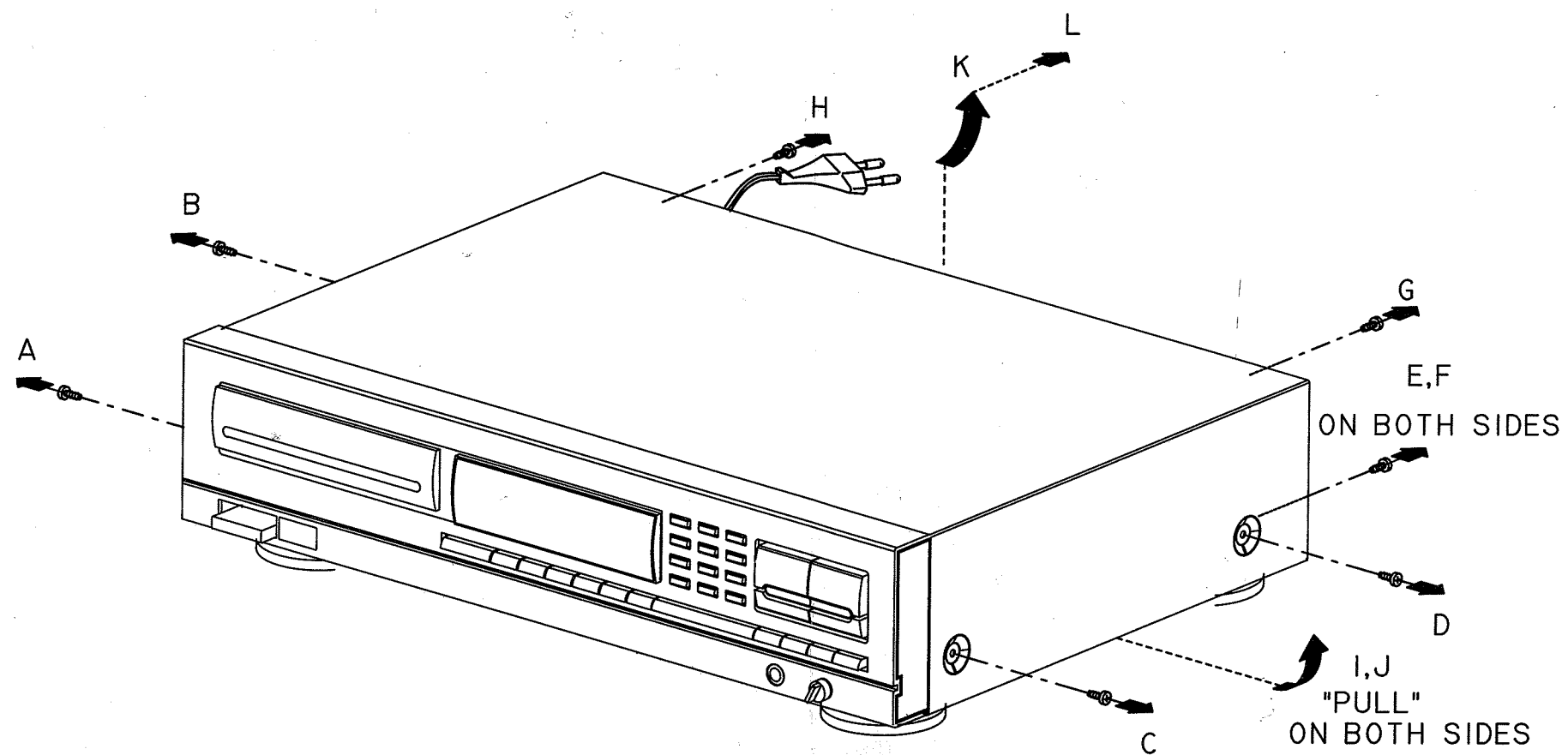
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DISMANTLING INSTRUCTIONS

DEMOUNTING OF COVER

5

6

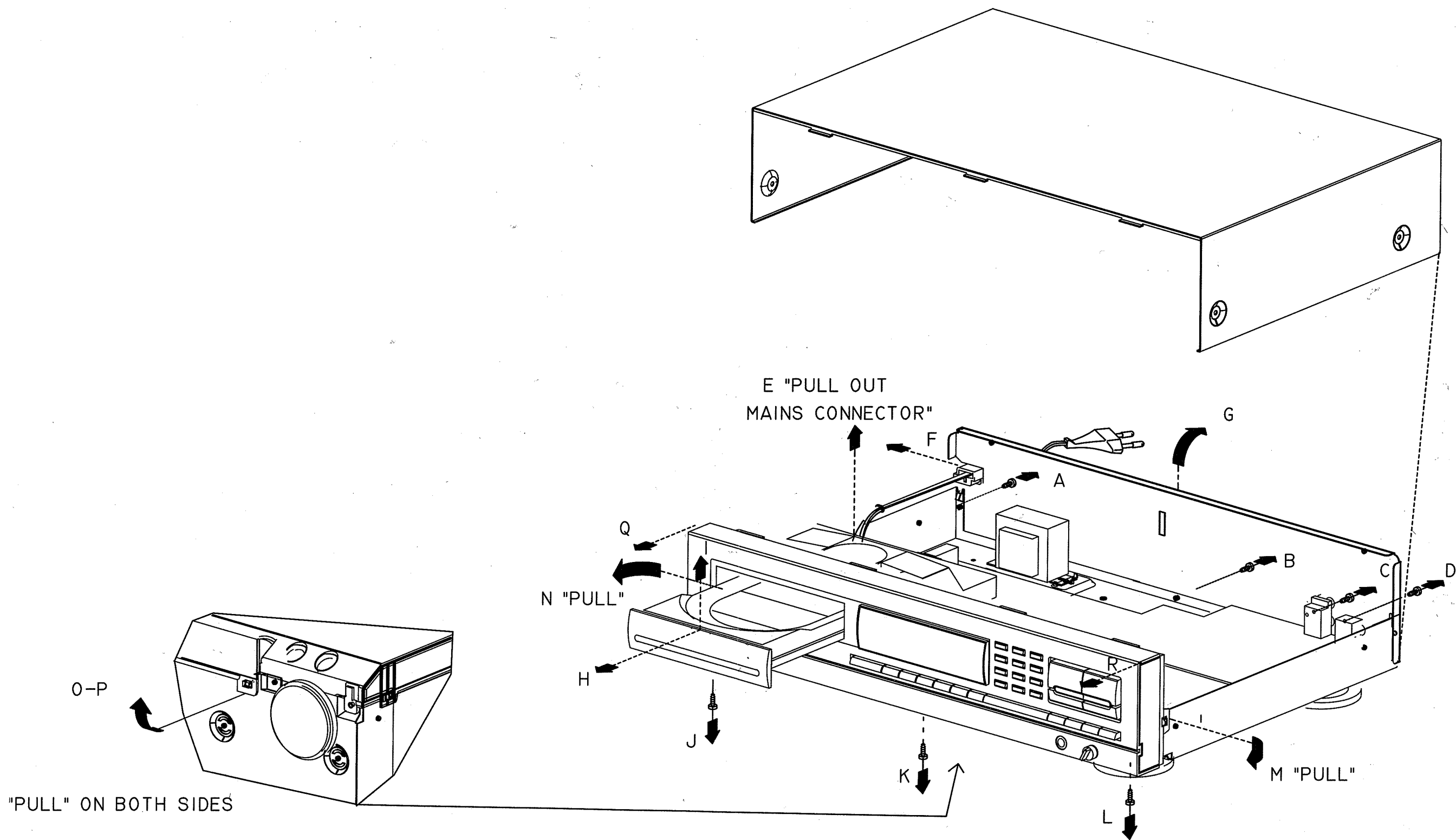


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DEMOUNTING BACKPLATE AND FRONT

7

8

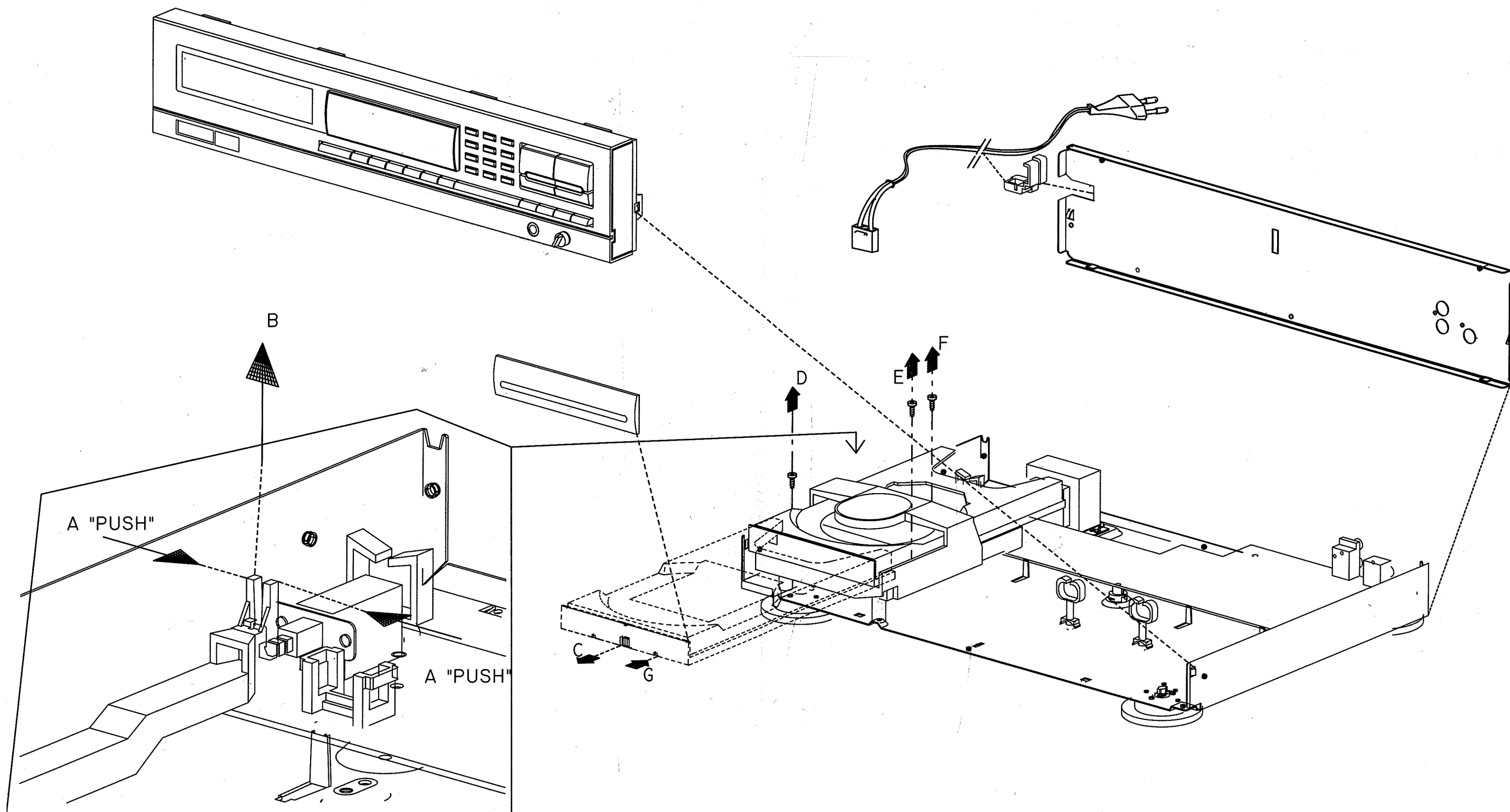


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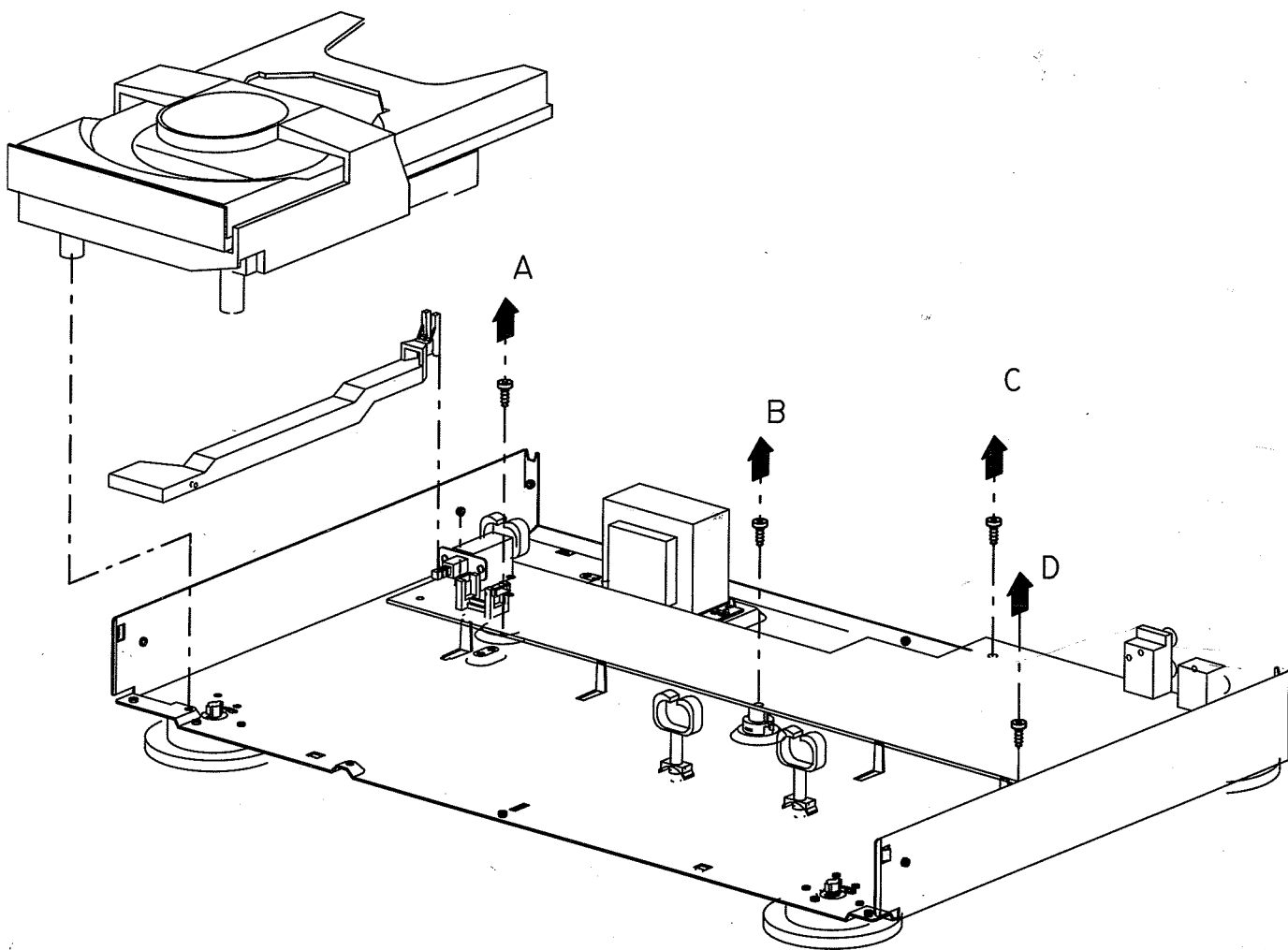
DEMOUNTING OF LOADER

9

10



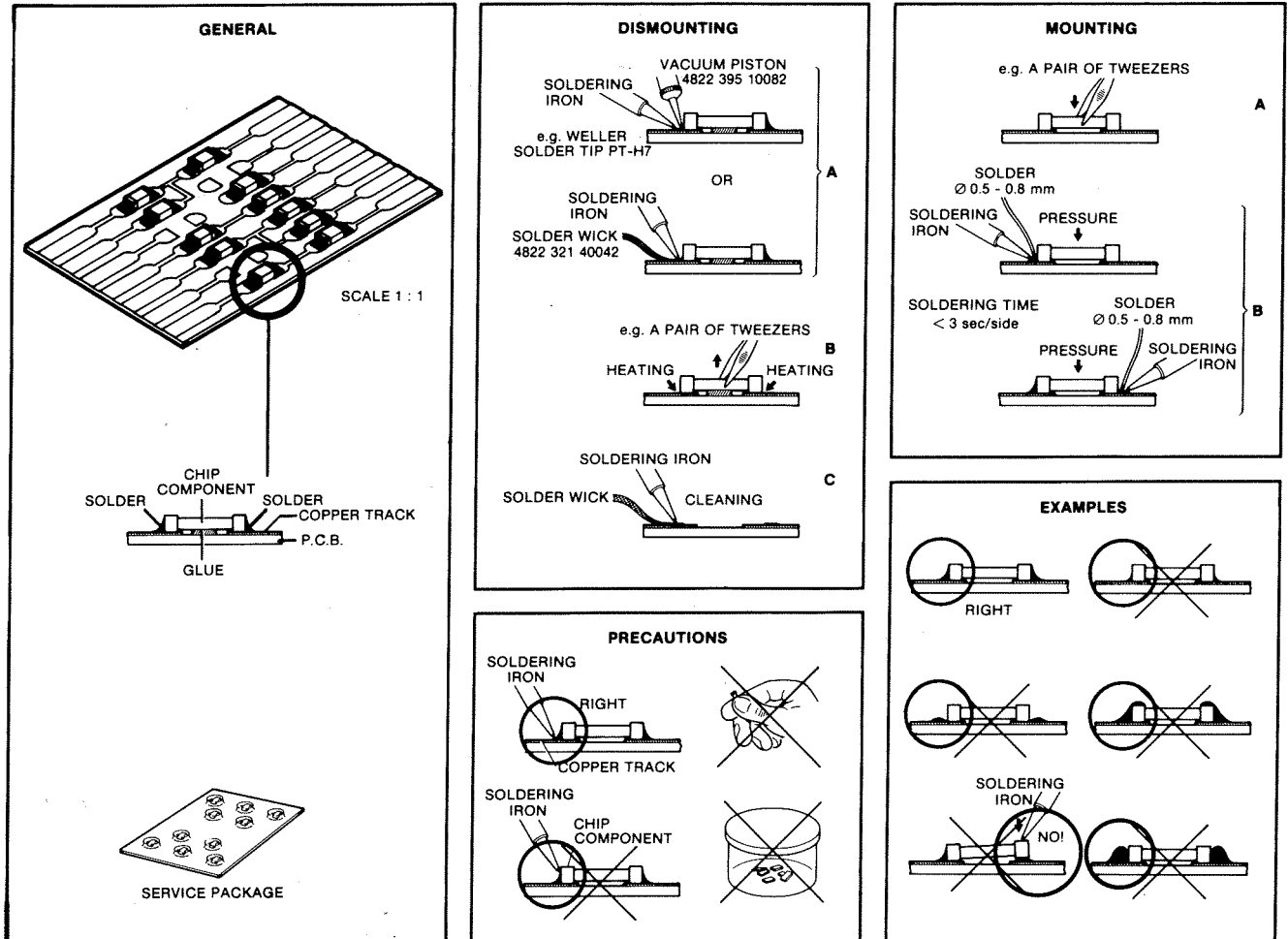
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HAS.1069

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
 Disc without errors (test disc 5) +
 disc with DO errors,
 black spots and fingerprints (test
 disc 5A)
 Disc (65 min 1kHz) without pause
 Max. diameter disc (58.0 mm)
 Torx screwdrivers
 Set (straight)
 Set (square)
 13th order filter

4822 397 30184

4822 397 30096

4822 397 30155

4822 397 60141

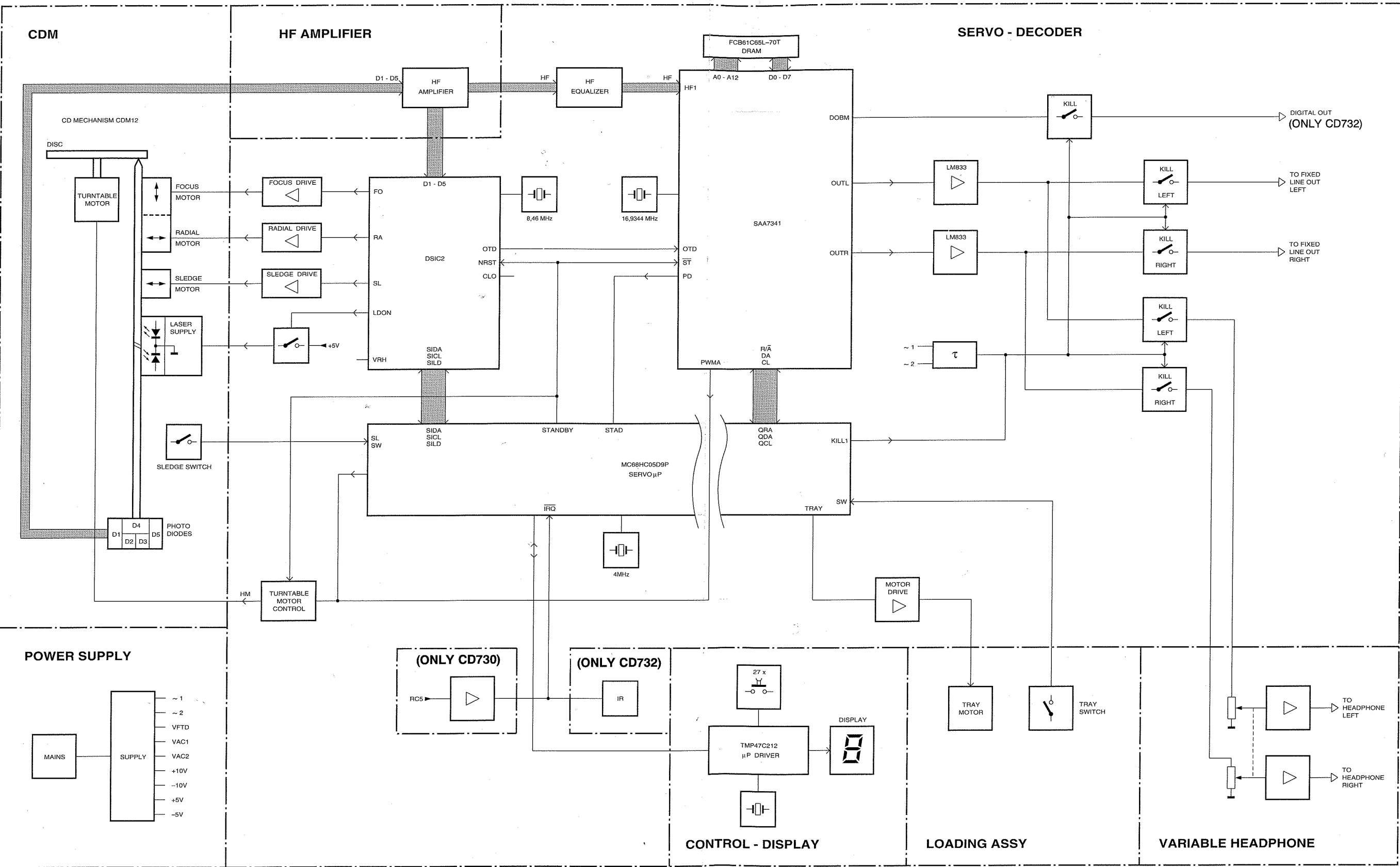
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4822 395 30204

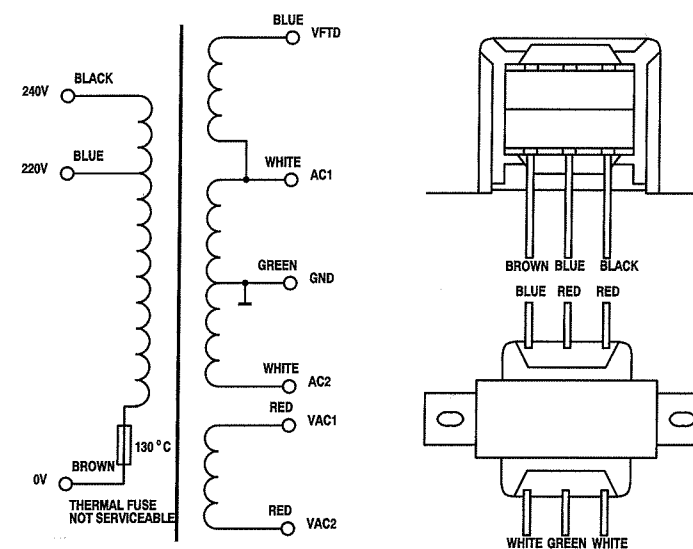
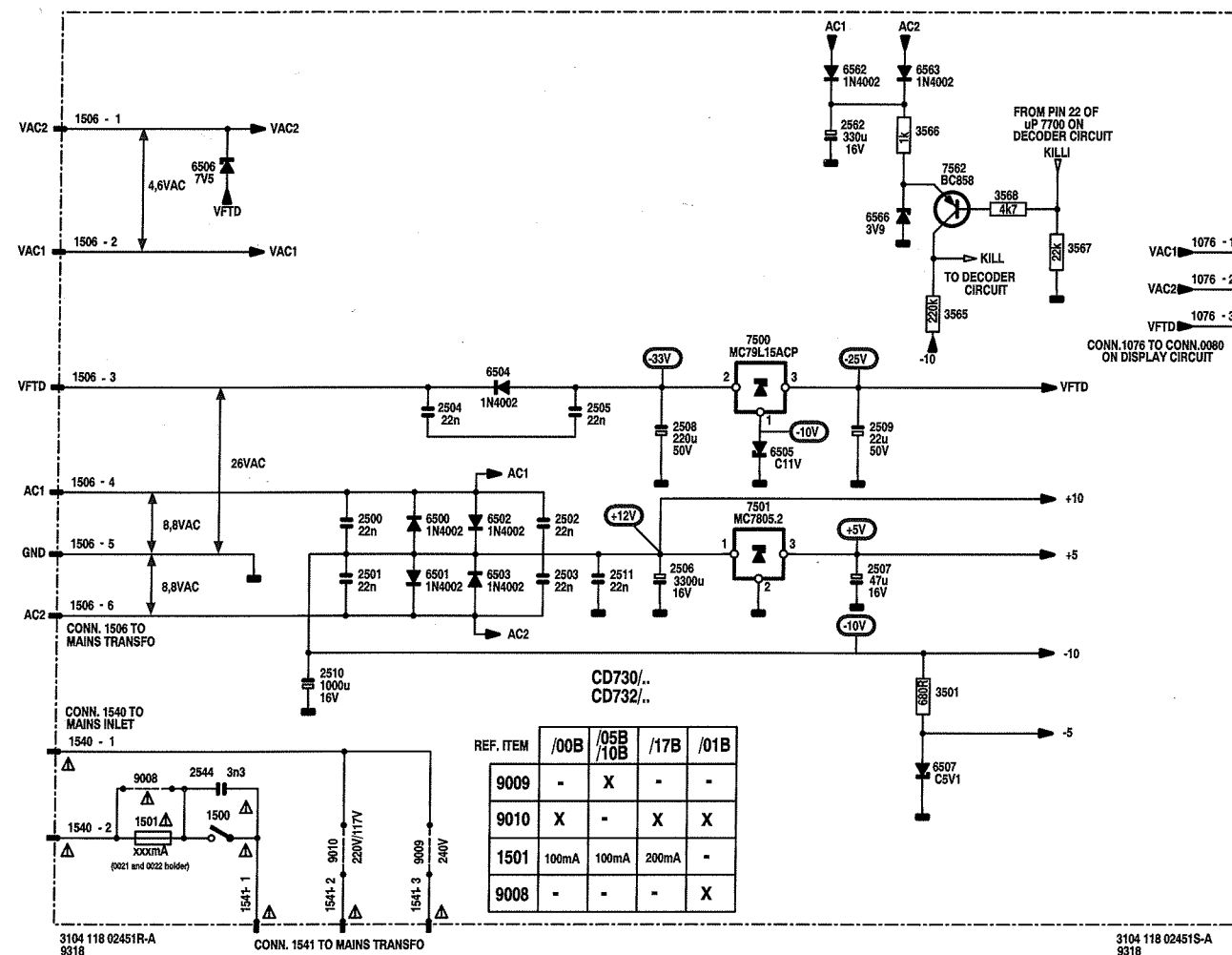
<u>A0-A12</u>	- Address outputs to external RAM
AM	- Additional mute
CFB	- Data slicer feedback output to capacitor
CL	- Microprocessor interface clock input
CLO	- Clock output
D0-D7	- Data inputs/outputs to external RAM
D1-D4	- Central diode signal input
DA	- Microprocessor interface data input/output line
DE1L	- Pin 1 for external de-emphasis capacitor and resistor
DE1R	- Pin 1 for external de-emphasis capacitor and resistor
DE2L	- Pin 2 for external de-emphasis capacitor and resistor
DE2R	- Pin 2 for external de-emphasis capacitor and resistor
DEEM	- Output for external de-emphasis switches
DOBM	- Digital audio output
FO	- Focus actuator output
<u>HFD</u>	- High-frequency detector
HFI	- Inverting data slicer input
HFI	- Non-inverting data slicer input
HM	- Motor control signal
<u>IREF</u>	- Current reference output
KO	- Kill out
KTC	- Kill time capacitor connection
LDON	- Laser drive on
MACC	- Motor accelerate signal
MBRA	- Motor brake signal
MHAL	- Hall effect detector for motor
NRST	- Reset input
OC	- VCO control
OTD	- Off track detector
OUTL	- Left channel output
OUTR	- Right channel output
PD	- Phase detector
PWMA	- Pulse width modulated motor control acceleration
PWMB	- Pulse width modulated motor control brake signal
R/A	- Request/acknowledge
R1-R2	- Satellite diode signal input
RA	- Radial actuator output
SD1-5	- Photodiode signals
SICL	- Serial interface clock
SIDA	- Serial interface data
SILD	- Serial interface load
<u>SL</u>	- Sledge output
ST	- Standby mode
TS1-TS2	- Test input
VddA	- Power supply analog part
VddD	- Power supply digital part
VddD	- Power supply digital part
VRH	- Reference input for A/D converter
VRL	- Reference input for A/D converter
VssA	- Ground analog part
VssD	- Ground digital part
WE	- Write enable
XIN	- Crystal oscillator input
XOUT	- Output to clock crystal
XTLI	- Oscillator input
XTLO	- Oscillator output
XTLR	- Oscillator reference

BLOCK DIAGRAM



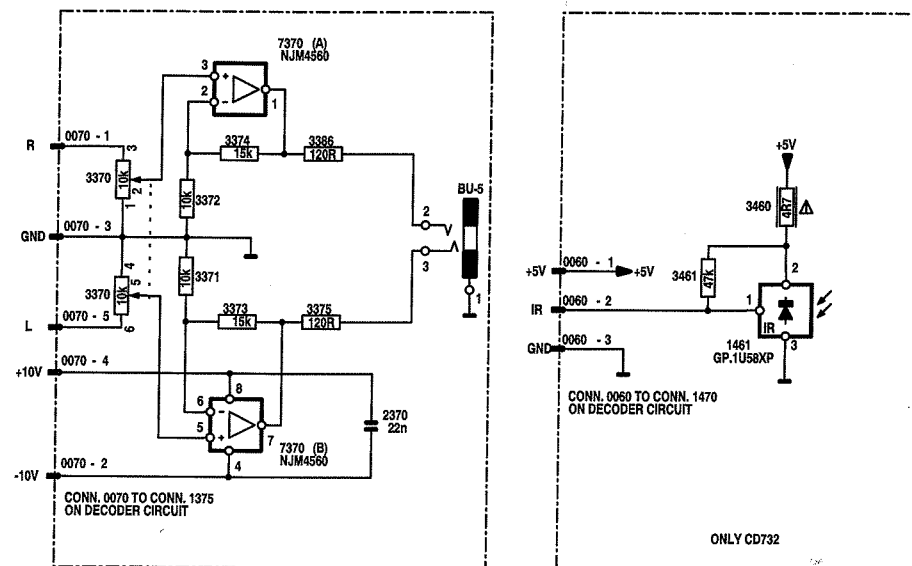
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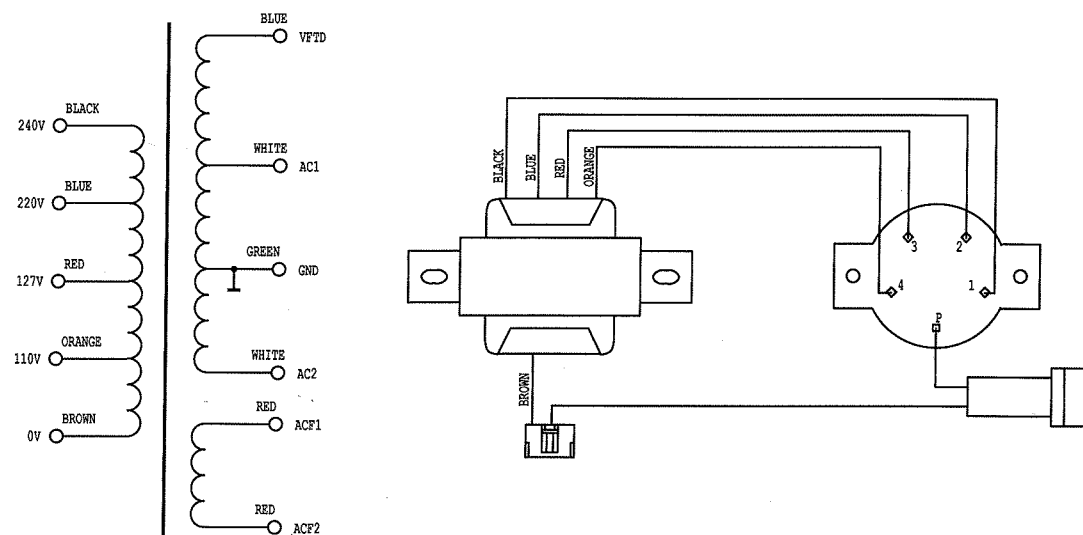
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HEADPHONE & IR CIRCUIT DIAGRAM



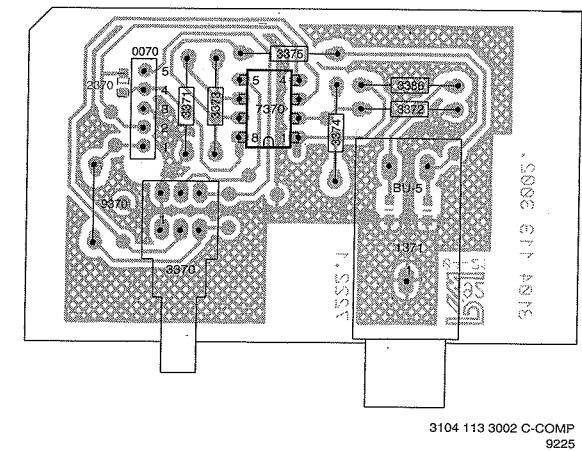
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9318

VOLTAGE SELECTOR

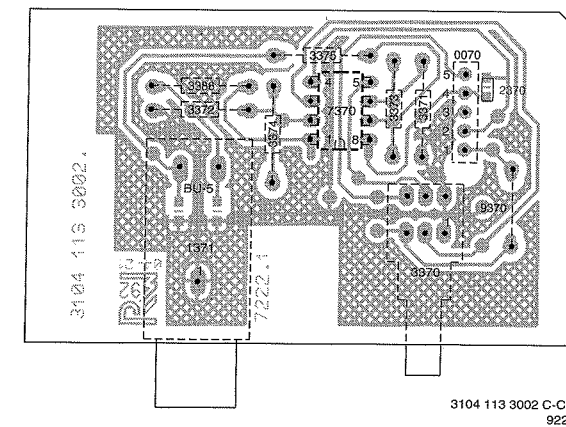


HAS1055
9213

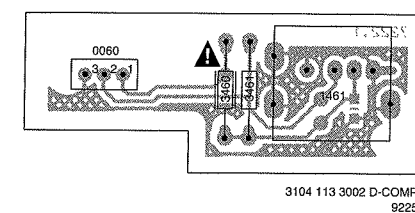
HEADPHONE PANEL COMPONENT SIDE

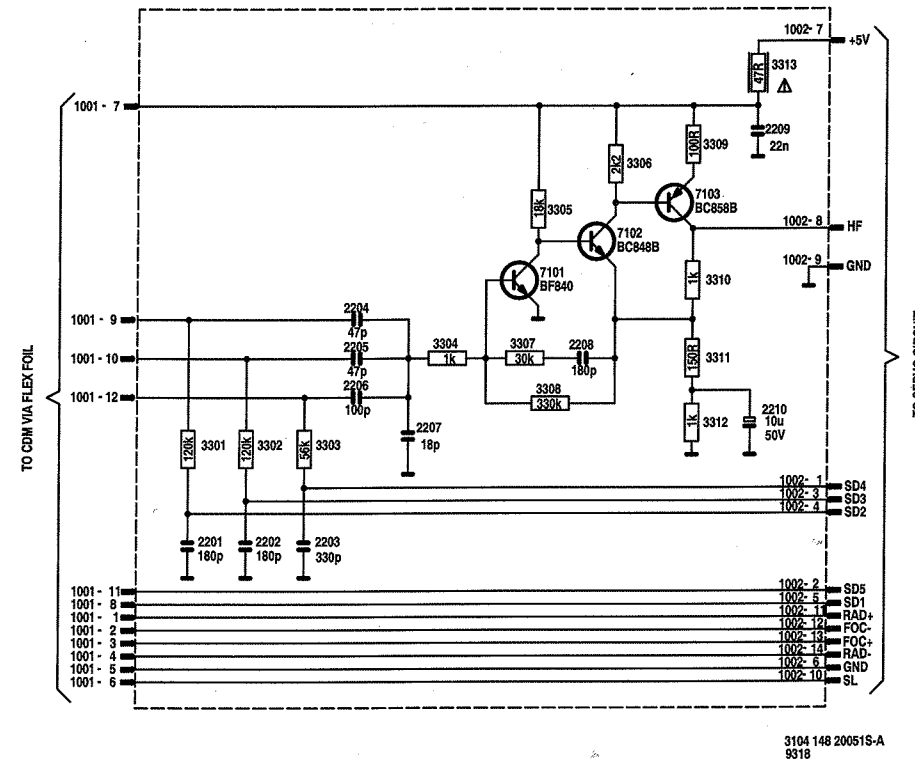


SOLDER SIDE.

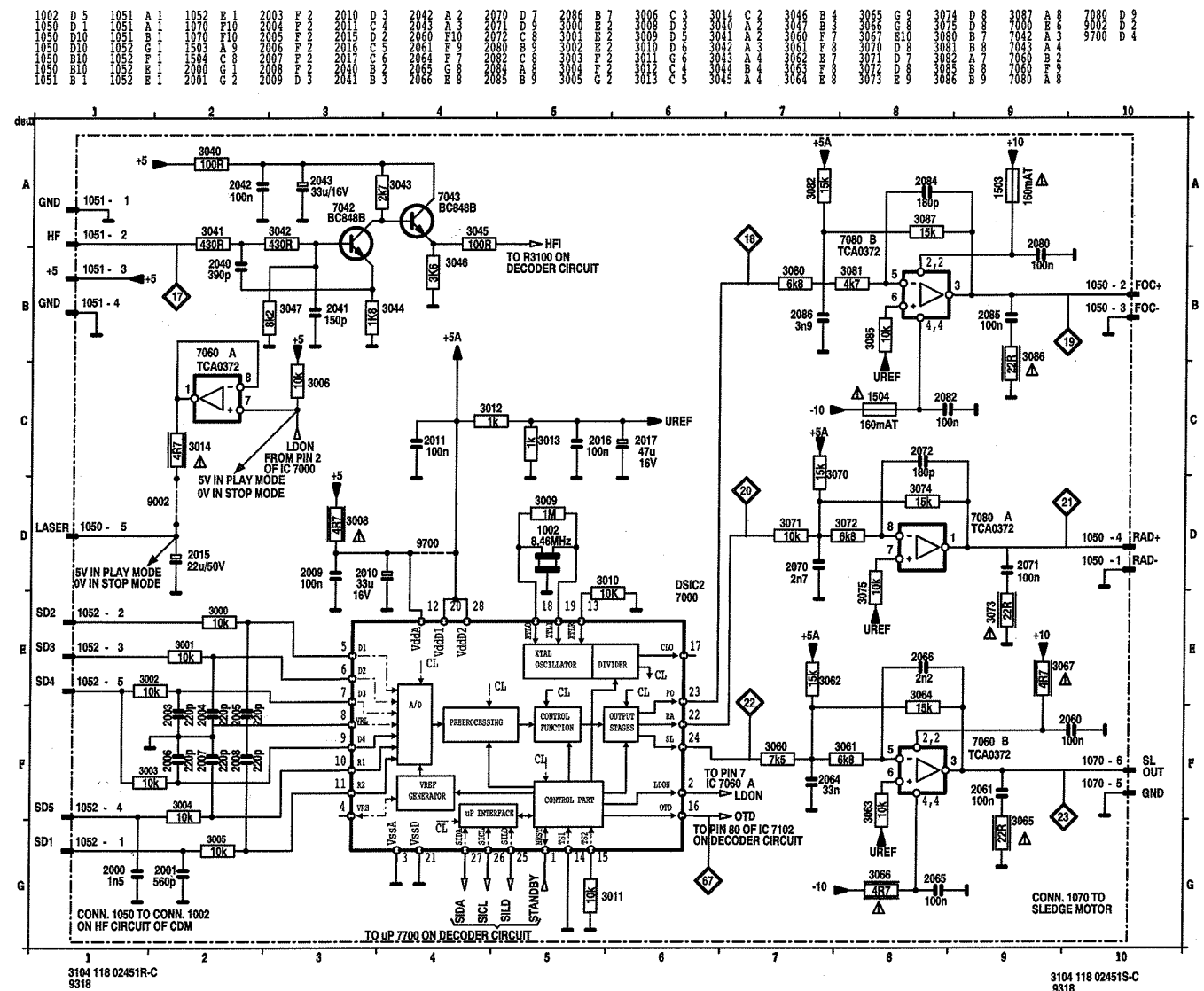
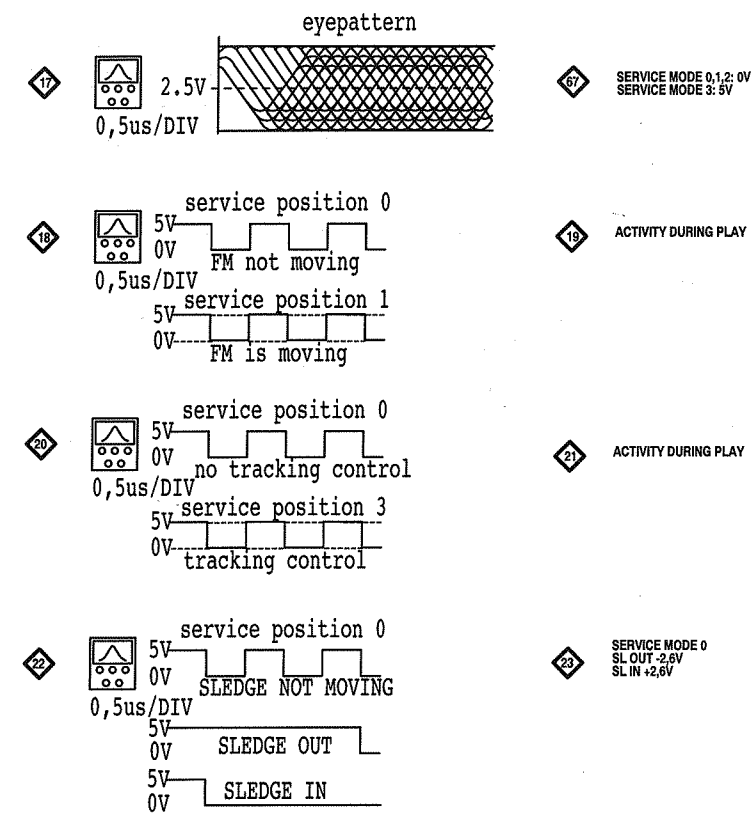


IR PANEL



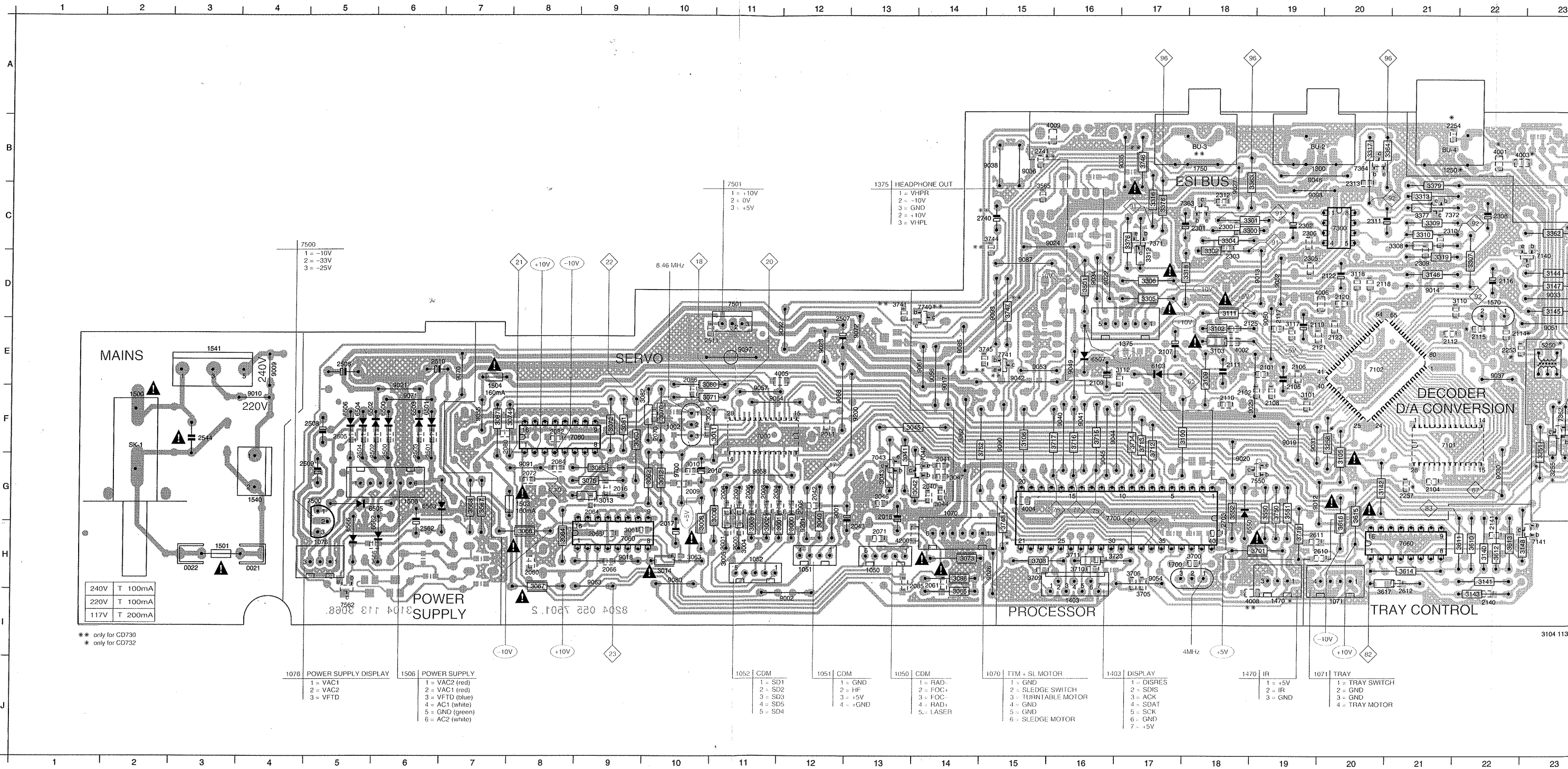


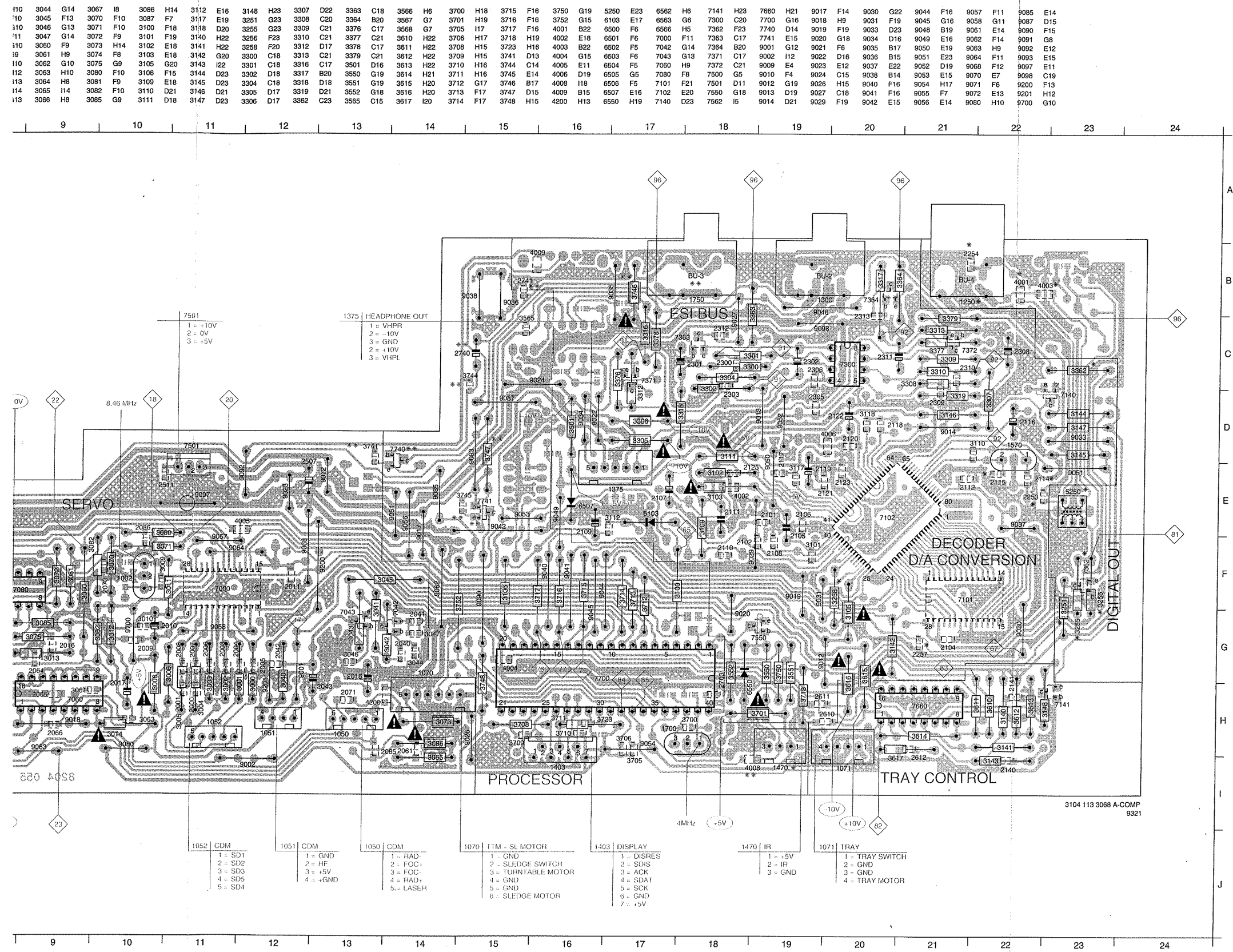
HF PANEL CAN BE ORDERED WITH SERVICE CODE 4822 214 51946



SERVO & DECODER PANEL SOLDER SIDE

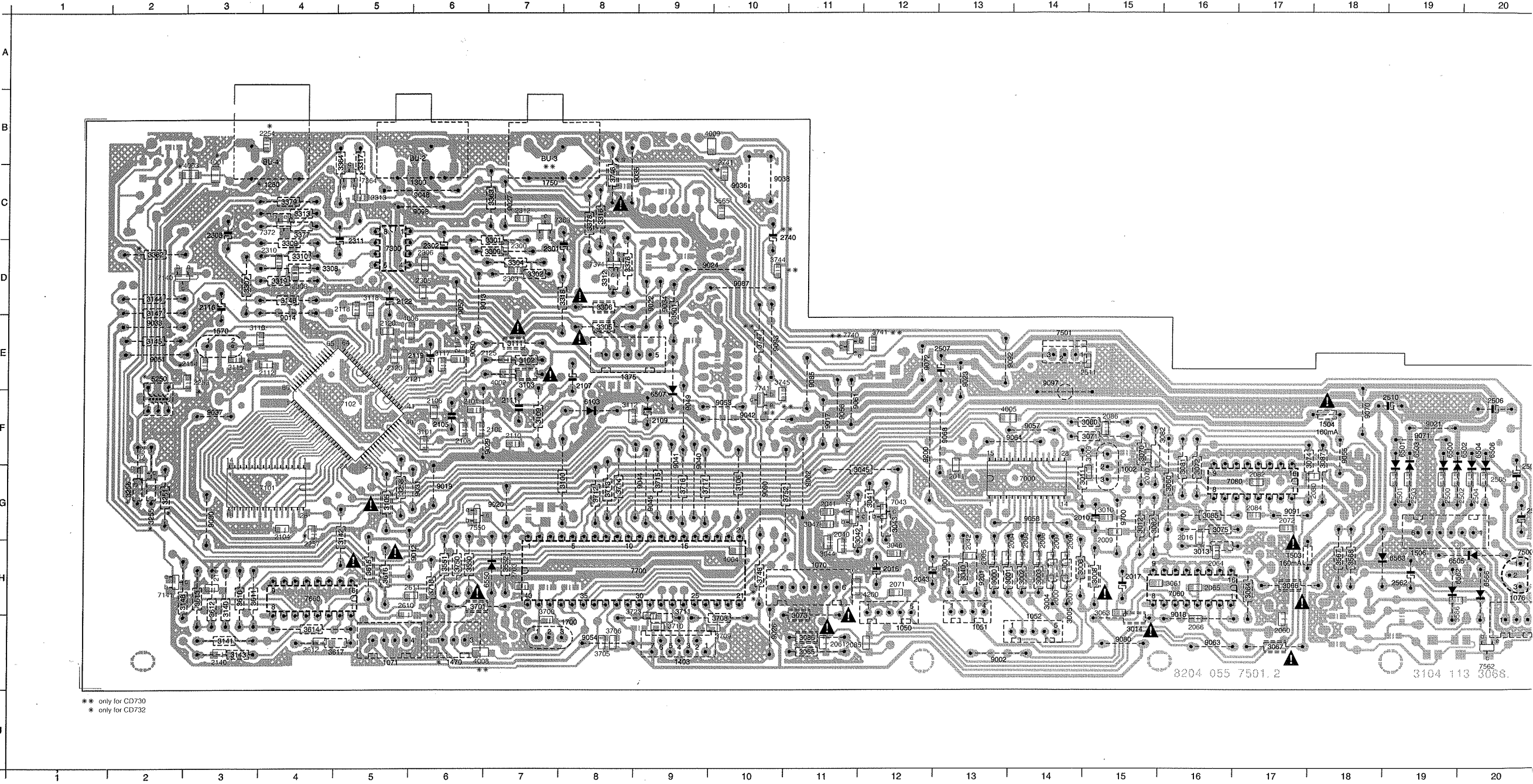
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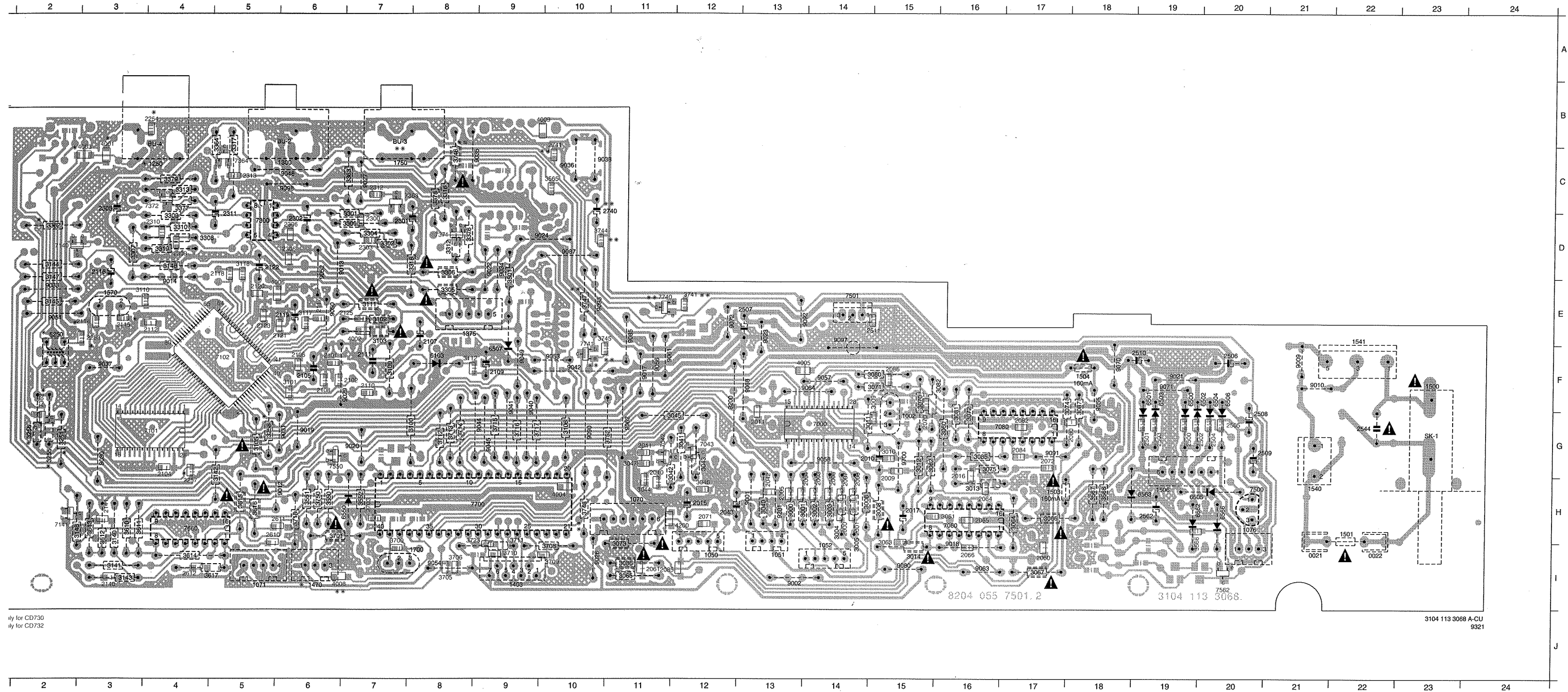
SERVO & DECODER PANEL COMPONENT SIDE

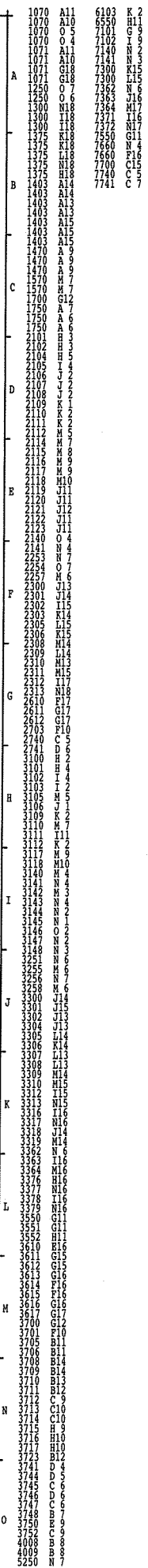
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0022	I22	1403	I9	1750	C7	2011	G13	2085	H16	2102	F7	2115	E3	2141	H3	2309	D4	2506	F20	2703	H7	3009	F15	3045	G11	3070	F15	3087	G18	3117	E6	3251	G2	3308	D4	3364	C5	3567	H18	3701	H6	3716	G9	3752	G11	6103	F8	6563	H19	7300	D5	7700	H8	9018	I16	9031	G6
1002	G15	1470	I6	2000	H14	2015	H12	2066	I16	2104	H4	2116	D3	2253	E3	2310	D4	2507	E12	2740	D10	3010	G15	3046	H12	3071	F14	3100	G8	3118	D5	3255	G2	3309	D4	3376	D8	3568	H18	3705	I8	3717	G9	4001	C3	6500	F19	6566	H20	7362	F2	7740	F10	9019	G6	9033	E2
1050	I12	1500	F23	2001	H14	2016	H16	2070	G15	2105	F8	2117	E8	2254	B3	2311	D5	2508	G20	2741	C10	3011	G15	3047	G11	3072	G16	3101	F6	3140	I3	3256	G2	3310	D4	3377	C4	3610	H3	3706	I8	3718	H6	4002	E7	6501	F19	7000	G14	7363	C7	7741	F10	9020	G7	9034	D9
1051	I13	1501	H22	2003	H14	2017	H15	2071	H12	2106	F8	2118	D5	2257	H4	2312	C7	2509	G20	2742	C11	3012	G15	3048	G16	3073	I11	3102	E7	3141	I3	3258	G5	3312	D8	3378	C8	3611	H3	3708	I10	3723	I8	4003	C2	6502	F20	7042	G11	7364	C5	9001	H13	9021	F19	9035	C9
1052	I14	1503	H17	2004	H14	2040	G11	2072	G17	2107	E8	2119	E5	2300	D7	2313	C5	2510	F18	2743	C12	3013	H16	3061	H16	3074	G18	3103	E7	3142	H5	3259	G6	3313	C4	3379	C4	3612	I3	3709	I10	3741	E12	4004	H10	6503	F19	7043	G12	7371	D8	9002	I13	9022	D9	9036	C1
1070	H11	1504	F18	2005	H13	2041	G11	2080	G18	2108	F8	2120	E5	2301	D7	2500	G19	2511	E14	2744	C13	3014	I15	3062	G15	3075	G16	3105	G5	3143	I3	3260	G7	3314	C5	3501	E9	3613	H3	3710	I9	3744	D10	4005	F13	6504	F20	7080	H16	7372	C4	9009	F21	9023	E13	9037	F3
1071	I5	1506	H19	2006	H14	2042	H13	2082	G17	2109	F9	2121	E5	2302	D8	2501	G19	2544	G22	2745	C14	3015	H17	3063	I15	3080	F14	3106	G10	3144	D2	3302	D7	3317	C5	3550	H6	3614	I4	3711	I9	3745	E10	4006	E5	6505	H19	7080	G16	7500	H20	9010	F21	9024	D9	9038	C1
1076	H20	1540	H21	2007	H14	2043	H12	2084	G17	2110	F7	2122	D5	2303	D7	2502	G20	2562	H19	2746	C15	3016	H18	3064	H17	3081	G16	3109	F7	3145	E2	3304	D7	3318	D8	3551	H6	3615	H5	3712	G8	3746	C8	4008	I6	6506	F20	7101	G4	7501	E14	9012	H6	9026	I10	9040	G9
1250	C4	1541	E22	2008	H14	2080	I17	2085	F15	2111	F7	2123	E5	2305	D8	2503	G19	2610	H5	2747	C16	3017	H19	3065	I17	3082	F16	3110	E3	3146	D4	3305	E8	3319	D4	3552	H7	3616	H5	3713	G8	3747	E10	4009	B9	6507	F9	7102	F5	7502	G6	9013	D6	9027	C7	9041	G9
1300	C5	1570	E3	2009	H15	2081	I17	2086	F15	2112	E4	2125	E5	2306	D8	2504	G20	2611	H5	2748	C17	3018	H20	3066	H17	3083	G16	3111	E7	3147	E2	3306	D8	3362	D2	3565	C10	3617	I4	3714	G8	3748	H10	4200	H12	6550	H7	7140	D2	7562	I20	9014	E4	9029	F7	9042	F1

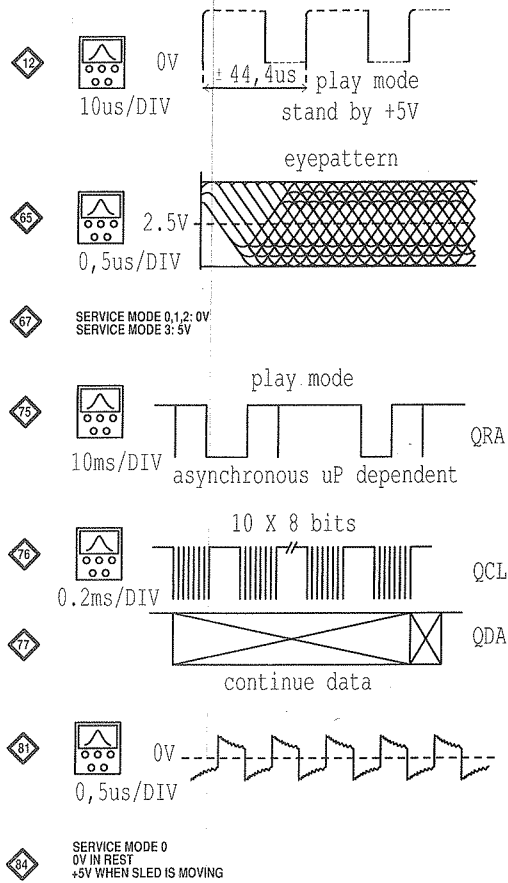


MPONENT SIDE

1700	I8	2010	G14	2084	H16	2101	F6	2114	E2	2140	I3	2308	C3	2505	G20	2612	I4	3008	H15	3044	H11	3067	I17	3086	I11	3112	F8	3148	H3	3307	D3	3363	C7	3566	I20	3700	I7	3715	G9	3750	H6	5250	E2	5562	H20	7141	H2	7660	H4	9017	F11	9030	G3	9044	G9	9057	F14	9085	E11
1750	C7	2011	G13	2085	H16	2102	F7	2115	E3	2141	H3	2309	D4	2506	F20	2703	H7	3009	F15	3045	G11	3070	F15	3087	G18	3117	E6	3251	G2	3308	D4	3364	C5	3567	H18	3701	H6	3716	G9	3752	G11	5103	F8	5563	H19	7300	D5	7700	H8	9018	H16	9031	G6	9045	G9	9058	G14	9087	D10
2000	H14	2015	H12	2086	I16	2104	H4	2116	D3	2253	E3	2310	D4	2507	E12	2740	D10	3010	G15	3046	H12	3071	F14	3100	G8	3118	D5	3255	G2	3310	D4	3377	C4	3610	H3	3706	I8	3717	G9	4001	C3	6500	F19	6566	H20	7362	F2	7740	E11	9019	G6	9033	E2	9048	C6	9061	F11	9080	G10
2001	H14	2016	H16	2070	G15	2105	F6	2117	E9	2254	E3	2311	D5	2508	G20	2741	C10	3011	G15	3047	G11	3072	G16	3101	F6	3140	I3	3256	G2	3310	D4	3377	C4	3610	H3	3706	I8	3718	H6	4002	E7	6501	F19	7000	G14	7363	C7	7741	F10	9020	G7	9034	D9	9049	F9	9062	G11	9091	G17
2003	H14	2017	H15	2071	H12	2106	F6	2118	D5	2257	H4	2312	C7	2509	G20	2742	C10	3012	G15	3048	H12	3073	I11	3102	E7	3141	I3	3258	G5	3312	D8	3378	C8	3611	H3	3708	I10	3723	I8	4003	C2	6502	F20	7042	G11	7364	C5	9001	H13	9021	F19	9035	C9	9050	E6	9063	I16	9092	E14
2004	H14	2040	G11	2072	G17	2107	E8	2119	E5	2300	D7	2313	C5	2510	F18	2743	C10	3013	H16	3061	H16	3074	G18	3103	E7	3142	H5	3300	D6	3313	C4	3379	C4	3612	I3	3709	I10	3741	E12	4004	H10	6503	F19	7043	G12	7371	D8	9002	I13	9022	D9	9036	C10	9051	E2	9064	F13	9093	E10
2005	H13	2041	G11	2080	G18	2108	F6	2120	E5	2301	D7	2500	G19	2511	E14	2744	C10	3014	I15	3062	G15	3075	G16	3105	G5	3143	I3	3301	D6	3316	C8	3501	E9	3613	H3	3710	I9	3744	D10	4005	F13	6504	F20	7060	H16	7372	C4	9009	F21	9023	E13	9037	F3	9052	E6	9068	F13	9097	E14
2006	H14	2042	H13	2082	G17	2109	F9	2121	E5	2302	D6	2501	G19	2544	G22	2745	C10	3015	H13	3063	I15	3080	F14	3106	G10	3144	D2	3302	D7	3317	C5	3550	H6	3614	I4	3711	I9	3745	E10	4006	E5	6505	H19	7080	G16	7500	H20	9010	F21	9024	D9	9038	C10	9053	F10	9070	F18	9098	C6
2007	H14	2043	H12	2084	G17	2110	F7	2122	D5	2303	D7	2502	G20	2562	H19	2746	C10	3016	H12	3064	H17	3081	G16	3109	F7	3145	E2	3304	D7	3318	D8	3551	H6	3615	H5	3712	G8	3746	C8	4008	I6	6506	F20	7101	G4	7501	E14	9012	H6	9026	I10	9040	G9	9054	I8	9071	F19	9200	F12
2008	H14	2080	I17	2085	I11	2111	F7	2123	E5	2305	D8	2503	G19	2610	H5	3005	I14	3042	H12	3065	I11	3082	F16	3110	E3	3146	D4	3305	E8	3319	D4	3552	H7	3616	H5	3713	G8	3747	E10	4009	B9	6507	F9	7102	F5	7550	G6	9013	D6	9027	C7	9041	G9	9055	G18	9072	E12	9201	H13
2009	H15	2081	I11	2086	F15	2112	E4	2125	E6	2306	D6	2504	G20	2611	H5	3006	H14	3043	G12	3066	H17	3085	G16	3111	E7	3147	E2	3306	D8	3362	D2	3555	C10	3617	I4	3714	G8	3748	H10	4200	H12	6550	H7	7140	D2	7562	I20	9014	E4	9029	F7	9042	F10	9056	F11	9080	I15	9700	G15







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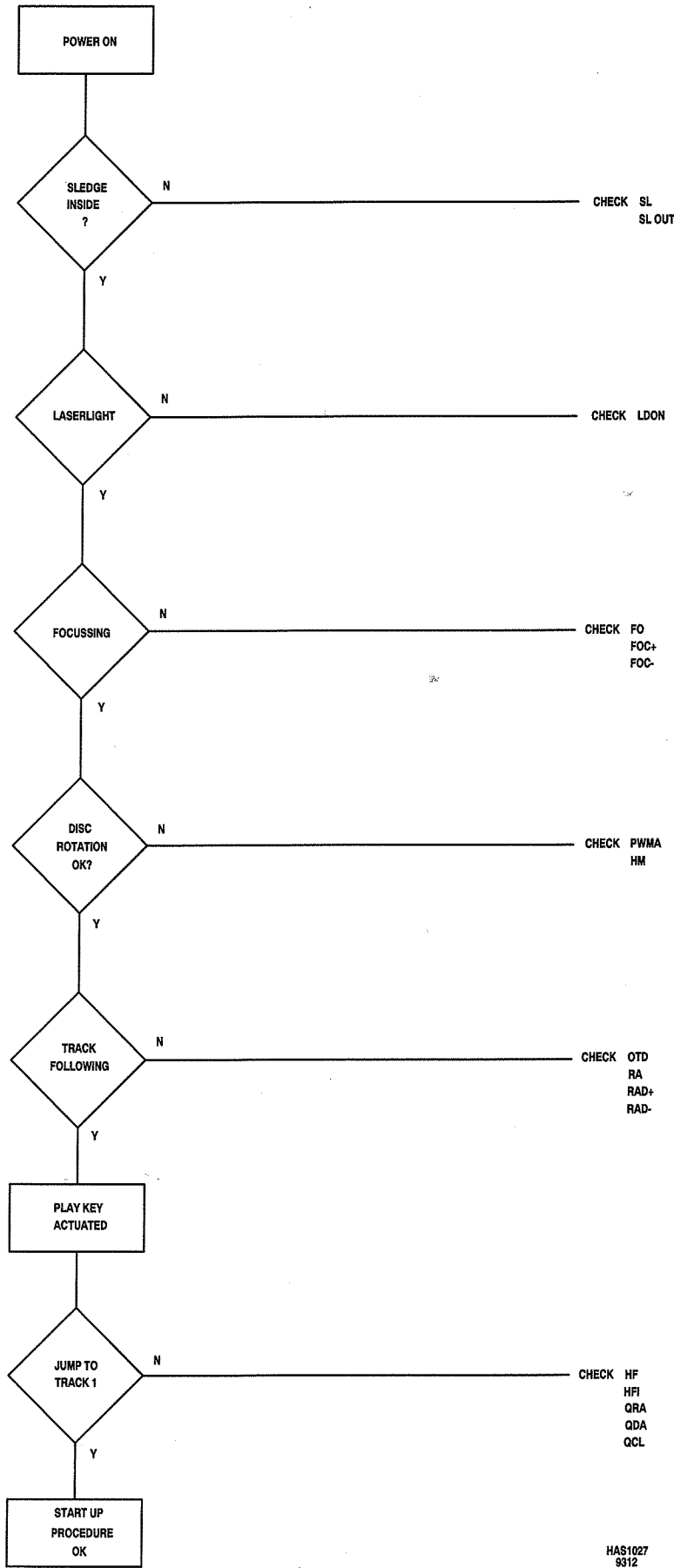


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START UP PROCEDURE

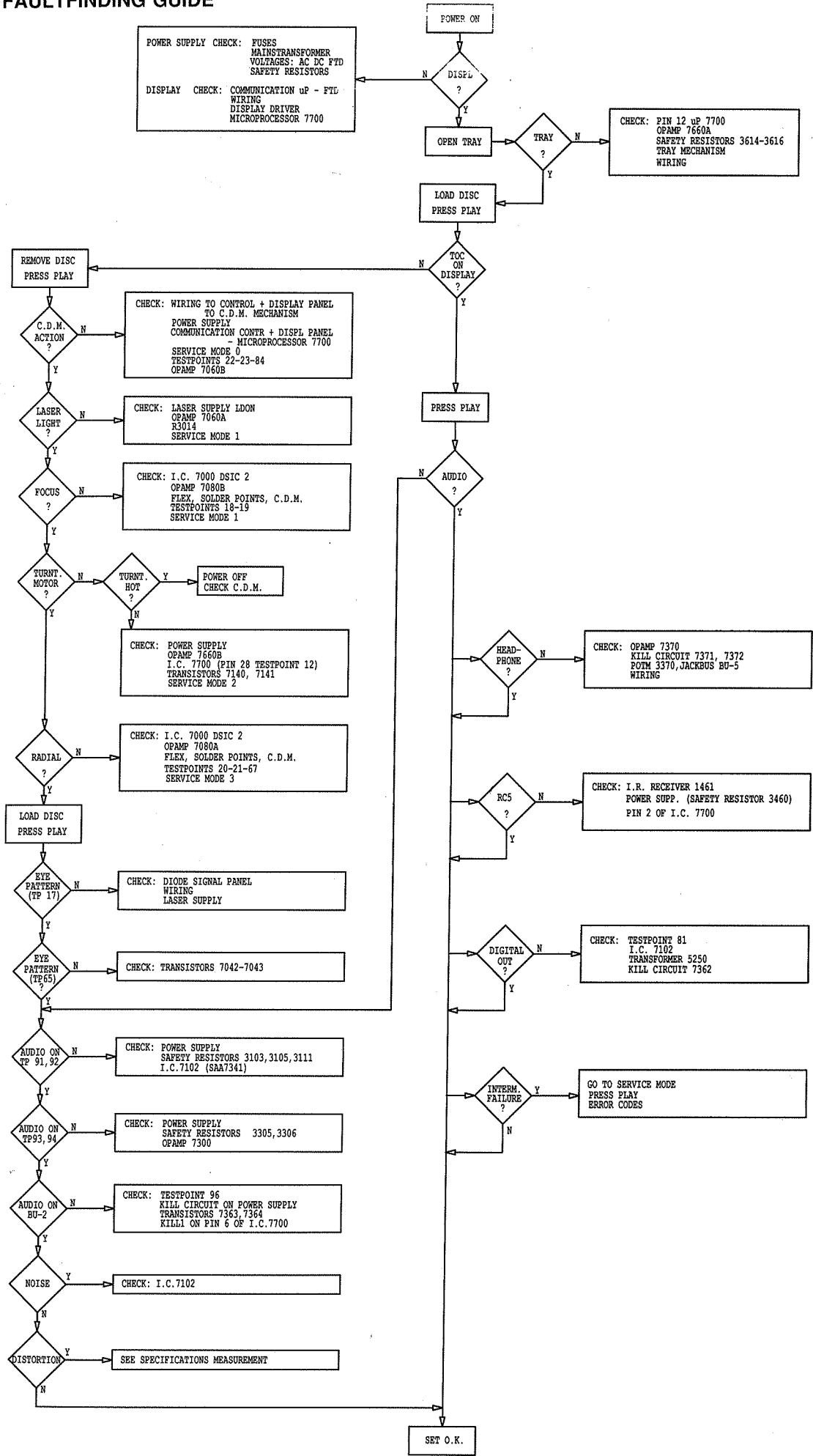
34



HAS1027
9312

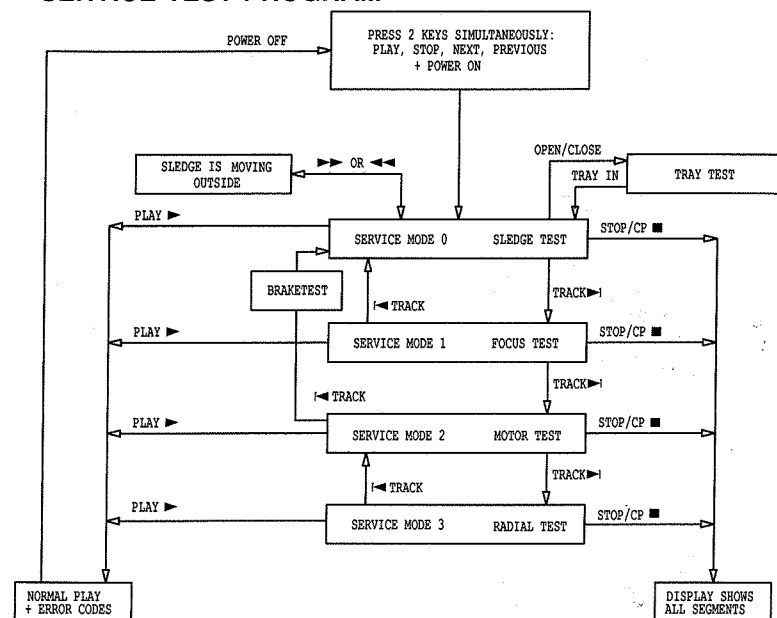
FAULTFINDING GUIDE

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HAS1089
9226

SERVICE TEST PROGRAM

HAS1025
9202

ERROR CODE TABLE

SYSTEM ERRORS

Er 02	Focus error
Er 07	Subcode error
Er 08	TOC error
Er 09	Decoder CD4+ error
Er 10	Radial error
Er 11	Non fatal sledge error
Er 12	Fatal sledge error
Er 13	Turntable motor error
Er 31	Search time out error
Er 32	Binary search time out error
Er 33	Index not found
Er 34	Relative time not found

OPERATING ERROR MESSAGES

40 Err	" GO INTO STOP "
41 Err	" GO INTO PLAY "
42 Err	" NO PROGRAM "
43 Err	" PRESS REVIEW "
44 Err	" EDIT ACTIVE "
45 Err	" CD DUBBING ACTIVE "
46 Err	" PROGRAM CANCELLED "
47 Err	" USE 0-9 "
48 Err	" WRONG TRACK "
49 Err	" WRONG TIME "
50 Err	" NO EDIT POSSIBLE "

CLASS 3B
LASER PRODUCTCAUTION
VARO!
VARNING
ADVERSEL
DANGER
VORSICHT

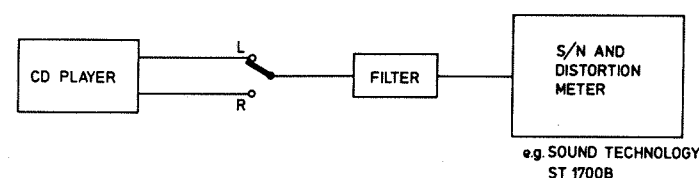
INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM
 AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASER SÄTEILYLLE ÄLÄ KATSO SÄTEESEN
 OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD BETRakta EJ STRÅLEN
 USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UNSAETTELSE FOR STRÅLING
 INVISIBLE LASER RADIATION WHEN OPEN AVOID DIRECT EXPOSURE TO BEAM
 UNSICHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETSEN

SPECIFICATIONS MEASUREMENT

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

T-23366M

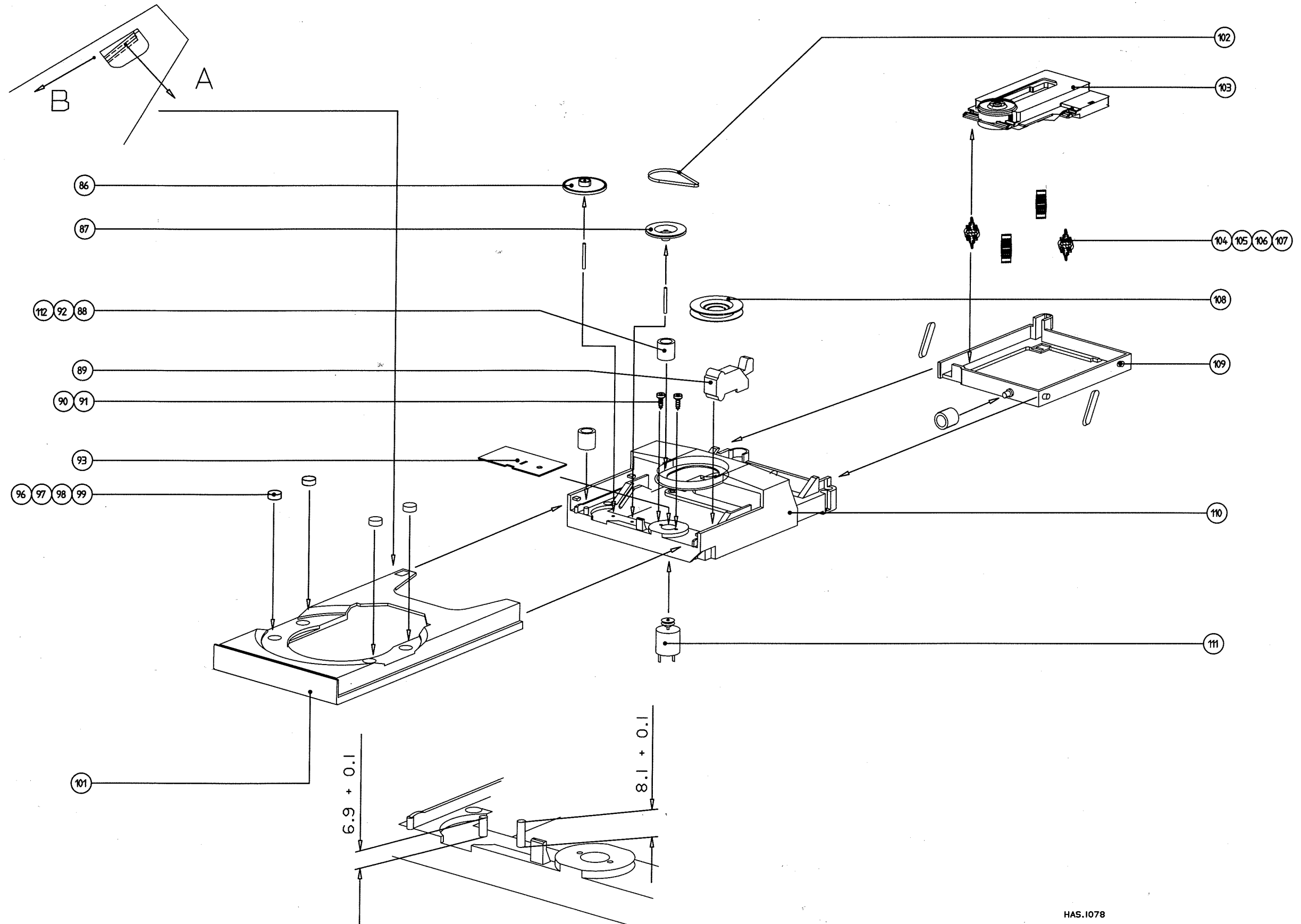
Filter = 13th order filter 4822 395 30204



30 459 A12

LOADER

DETAIL I



HAS.1078

MECHANICAL PARTSLIST**Partslist cabinet**

1	4822 444 40677	FRONT CD730
1	4822 444 40678	FRONT CD732
15	4822 410 61966	KNOBUNIT(NOSE)
16	4822 410 62736	KNOBUNIT(10-KEY)
17	4822 410 62737	KNOBUNIT
21	4822 459 10887	WORDMARK
22	4822 450 61895	WINDOW
23	4822 450 61894	IR WINDOW(only CD732)
51	4822 410 61965	KNOB
52	4822 535 93317	POWERROD
53	4822 413 41722	VOLUME KNOB
54	4822 462 71808	CAP
71	4822 444 40679	TRAY FRONT
151	4822 444 60843	COVER
251	4822 462 41715	FOOT
255	4822 462 41479	FELT
283	▲ 4822 532 60948	BUSHING
300	▲ 4822 321 10809	MAINS CORD /00B
301	▲ 4822 321 10811	MAINS CORD /05B
308	4822 321 22832	CINCH CABLE SBC1072
340	4822 736 21501	INSTRUCTION FOR USE
365	4822 218 10411	REM CONTR RD6830(only CD732)

Partslist loader

86	4822 528 81464	DRIVE PINION
87	4822 528 81465	PULLEY
88	4822 325 60379	DAMPING GROMMET
89	4822 276 13222	SWITCH
93	4822 444 60816	COVER PLATE
96	4822 325 80511	ORNAMENTAL TULE
101	4822 444 50679	SLIDE
102	4822 358 31168	BELT
103	4822 691 30278	CDM12 MECHANISM
104	4822 325 50215	SUSPENSION
108	4822 402 61412	CLAMPER ASSY
109	4822 464 50895	SUBCHASSIS
110	4822 464 50896	CHASSIS
111	4822 361 21492	MOTOR

Not mentioned parts are only available during production period on special request.

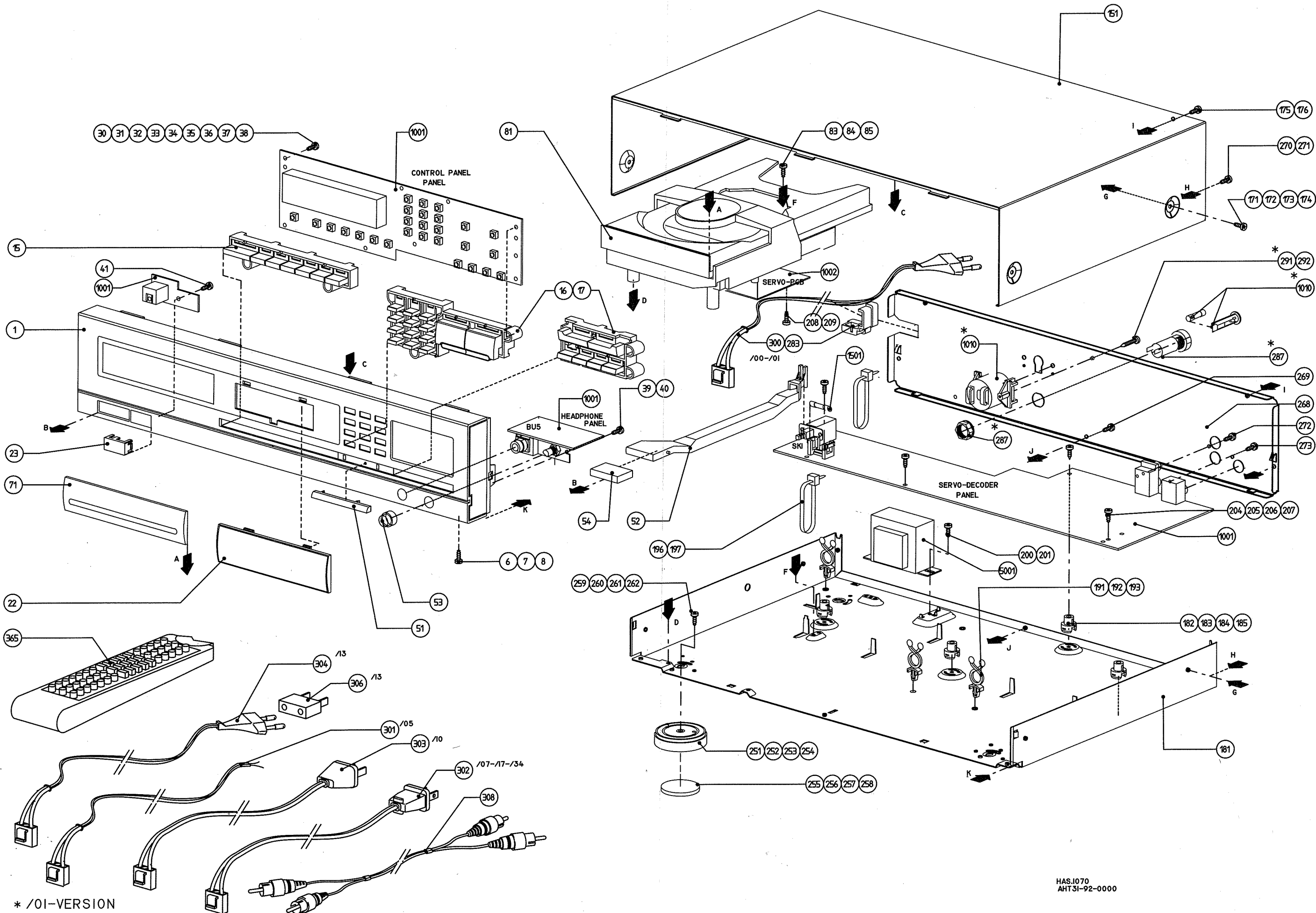
Screws

Taptite	M3x6:	6,7,8	Plastite	M3x10:	39,40
		83,84,85			41
		171,172,173,174			268
		175,176			273
		200,201			Plastite M3x12: 30,31,32,33,34,35,36,37,38
Taptite	M3x16:	269,270,271,272	Plastite	M3,5x8:	259,260,261,261
		204,205,206,207			

EXPLODED VIEW

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* /01-VERSION

HAS.1070
AHT31-92-0000

SERVO & DECODER PANEL				2106	4822 122 33496	100nF 10% 63V
				2107	4822 124 41584	100µF 20% 10V
				2108	5322 122 32654	22nF 10% 63V
				2109	4822 124 40242	1µF 20% 63V
				2110	5322 122 32659	33pF 5% 50V
MISCELLANEOUS				2111	5322 121 42386	100nF 5% 63V
				2112	4822 122 33496	100nF 10% 63V
				2114	5322 122 32452	47pF 5% 63V
				2115	5322 122 32452	47pF 5% 63V
				2116	4822 124 40242	1µF 20% 63V
				2117	5322 126 10223	4,7nF 10% 63V
				2118	5322 126 10223	4,7nF 10% 63V
				2119	4822 124 40433	47µF 20% 10V
				2120	4822 122 33496	100nF 10% 63V
				2121	4822 122 33496	100nF 10% 63V
				2122	4822 124 40849	330µF 20% 16V
				2123	4822 122 33496	100nF 10% 63V
				2140	4822 122 33496	100nF 10% 63V
				2141	4822 122 32542	47nF 10% 63V
				2253	4822 122 32646	5,6nF 10% 50V
				2254	4822 122 32646	5,6nF 10% 50V
				2257	5322 122 32661	56pF 5% 50V
				2300	5322 122 31863	330pF 5% 50V
				2301	4822 124 40272	33µF 20% 16V
				2302	4822 124 40246	4,7µF 20% 63V
				2303	4822 122 33216	270pF 5% 50V
				2305	4822 122 33496	100nF 10% 63V
				2306	4822 122 33496	100nF 10% 63V
				2308	4822 124 40272	33µF 20% 16V
				2309	4822 122 33216	270pF 5% 50V
				2310	5322 122 31863	330pF 5% 50V
				2311	4822 124 40246	4,7µF 20% 63V
				2312	4822 122 33219	1,8nF 10% 50V
				2313	4822 122 33219	1,8nF 10% 50V
				2500	5322 122 32654	22nF 10% 63V
				2501	5322 122 32654	22nF 10% 63V
				2502	5322 122 32654	22nF 10% 63V
				2503	5322 122 32654	22nF 10% 63V
				2504	5322 122 32654	22nF 10% 63V
				2505	5322 122 32654	22nF 10% 63V
				2506	4822 124 40784	3300µF 20% 16V
				2507	4822 124 40272	33µF 20% 16V
				2508	5322 124 22094	220µF 20% 50V
				2509	4822 124 41596	22µF 20% 50V
				2510	4822 124 40201	1000µF 20% 16V
				2511	5322 122 32654	22nF 10% 63V
				2544 ▲	4822 126 10454	3,3nF 20% 400V
				2562	4822 124 40849	330µF 20% 16V
				2610	4822 122 33496	100nF 10% 63V
				2611	4822 122 33496	100nF 10% 63V
				2612	4822 122 33496	100nF 10% 63V
				2703	5322 122 32654	22nF 10% 63V
				2740	4822 124 40433	47µF 20% 25V
				2741	5322 122 32654	22nF 10% 63V
CAPACITORS				2000	5322 122 31865	1,5nF 10% 63V
				2001	5322 116 80853	560pF 5% 63V
				2003	4822 122 33575	220pF 10% 500V
				2004	4822 122 33575	220pF 10% 500V
				2005	4822 122 33575	220pF 10% 500V
				2006	4822 122 33575	220pF 10% 500V
				2007	4822 122 33575	220pF 10% 500V
				2008	4822 122 33575	220pF 10% 500V
				2009	4822 122 33496	100nF 10% 63V
				2010	4822 124 40272	33µF 20% 16V
				2011	4822 122 33496	100nF 10% 63V
				2015	4822 124 41596	22µF 20% 50V
				2016	4822 122 33496	100nF 10% 63V
				2017	4822 124 40272	33µF 20% 16V
				2040	4822 122 33172	390pF 5% 50V
				2041	5322 122 33538	150pF 5% 63V
				2042	4822 122 33496	100nF 10% 63V
				2043	4822 124 40272	33µF 20% 16V
				2060	4822 122 33496	100nF 10% 63V
				2061	4822 122 33496	100nF 10% 63V
				2064	4822 122 33342	33nF 10% 63V
				2065	4822 122 33496	100nF 10% 63V
				2066	4822 122 33175	2,2nF 20% 50V
				2070	4822 122 32627	2,7nF 10% 50V
				2071	4822 122 33496	100nF 10% 63V
				2072	4822 126 10326	180pF 5% 63
				2080	4822 122 33496	100nF 10% 63V
				2082	4822 122 33496	100nF 10% 63V
				2084	4822 126 10326	180pF 5% 63V
				2085	4822 122 33496	100nF 10% 63V
				2086	5322 126 10465	3,9nF 10% 63V
				2101	5322 122 32452	47pF 5% 63V
				2102	4822 122 33175	2,2nF 20% 50V
				2104	4822 122 33496	100nF 10% 63V
				2105	5322 121 42661	330nF 5% 63V

RESISTORS				3112	4822 051 20225	2M2 5% 0,1W
				3117	4822 051 20182	1k8 5% 0,1W
				3118	4822 051 20182	1k8 5% 0,1W
				3140	4822 116 52234	100k 5% 0,5W
				3141	4822 116 52234	100k 5% 0,5W
				3142	4822 116 52284	47k 5% 0,5W
				3143 ▲	4822 052 10229	22Ω 5% 0,33W
				3144	4822 116 52257	22k 5% 0,5W
				3145	4822 116 52269	3k3 5% 0,5W
				3146	4822 116 52233	10k 5% 0,5W
				3147	4822 116 52276	3k9 5% 0,5W
				3148	4822 116 52284	47k 5% 0,5W
				3251	4822 116 52284	47k 5% 0,5W
				3255	4822 116 52226	560Ω 5% 0,5W
				3256	4822 116 52288	510Ω 5% 0,5W
				3258	4822 116 52175	100Ω 5% 0,5W
				3300	4822 116 52257	22k 5% 0,5W
				3301	4822 116 52244	15k 5% 0,5W
				3302	4822 116 52251	18k 5% 0,5W
				3304	4822 116 52238	12k 5% 0,5W
				3305 ▲	4822 052 10478	4Ω7 5% 0,33W
				3306 ▲	4822 052 10478	4Ω7 5% 0,33W
				3307	4822 116 52251	18k 5% 0,5W
				3308	4822 116 52238	12k 5% 0,5W
				3309	4822 116 52257	22k 5% 0,5W
				3310	4822 116 52244	15k 5% 0,5W
				3312	4822 116 52257	22k 5% 0,5W
				3313	4822 116 52257	22k 5% 0,5W
				3316	4822 050 11002	1k 1% 0,4W
				3317	4822 050 11002	1k 1% 0,4W
				3318	4822 116 52269	3k3 5% 0,5W
				3319	4822 116 52269	3k3 5% 0,5W
				3362	4822 116 52283	4k7 5% 0,5W
				3363	4822 116 52256	2k2 5% 0,5W
				3364	4822 116 52256	2k2 5% 0,5W
				3376	4822 116 52224	470Ω 5% 0,5W
				3377	4822 116 52224	470Ω 5% 0,5W
				3378	4822 116 52256	2k2 5% 0,5W
				3379	4822 116 52256	2k2 5% 0,5W
				3501	4822 116 52228	680Ω 5% 0,5W
				3550	4822 116 52226	560Ω 5% 0,5W
				3551	4822 050 11002	1k 1% 0,4W
				3552	4822 116 52257	22k 5% 0,5W
				3565	4822 051 20224	220k 5% 0,1W
				3566	4822 051 10102	1k 2% 0,25W
				3567	4822 116 52257	22k 5% 0,5W
				3568	4822 116 52283	4k7 5% 0,5W
				3610	4822 116 52238	12k 5% 0,5W
				3611	4822 116 52303	8k2 5% 0,5W
				3612	4822 116 52238	12k 5% 0,5W
				3613	4822 116 52238	12k 5% 0,5W

3617 ▲ 4822 052 10229 22Ω 5% 0,33W			DIODES		
3700 4822 051 20224 220k 5% 0,1W			6103 4822 130 30621 1N4148		
3701 ▲ 4822 052 10478 4Ω7 5% 0,33W			6500 5322 130 30684 1N4002		
3705 4822 051 20103 10k 5% 0,1W			6501 5322 130 30684 1N4002		
3706 4822 051 20103 10k 5% 0,1W			6502 5322 130 30684 1N4002		
			6503 5322 130 30684 1N4002		
3708 4822 116 52233 10k 5% 0,5W			6504 5322 130 30684 1N4002		
3709 4822 051 20103 10k 5% 0,1W			6505 4822 130 34488 BZX79-C11		
3710 4822 051 20103 10k 5% 0,1W			6506 4822 130 30861 BZX79-C7V5		
3711 4822 116 52233 10k 5% 0,5W			6507 4822 130 34233 BZX79-C5V1		
3712 4822 116 52233 10k 5% 0,5W			6550 4822 130 31981 BZX79-C3V9		
			6562 5322 130 30684 1N4002		
3713 4822 116 52233 10k 5% 0,5W			6563 5322 130 30684 1N4002		
3714 4822 116 52233 10k 5% 0,5W			6566 4822 130 31981 BZX79-C3V9		
3715 4822 116 52233 10k 5% 0,5W					
3716 4822 116 52233 10k 5% 0,5W			TRANSISTORS & IC's		
3717 4822 116 52233 10k 5% 0,5W					
			7000 4822 209 31064 TDA1301T/N1		
3723 4822 051 20223 22k 5% 0,1W			7042 ▲ 5322 130 41982 BC848B		
3741 4822 051 20473 47k 5% 0,1W			7043 ▲ 5322 130 41982 BC848B		
3742 4822 116 52284 47k 5% 0,5W			7060 4822 209 72587 TCA0372		
3743 4822 116 52284 47k 5% 0,5W			7080 4822 209 72587 TCA0372		
3744 4822 051 20101 100Ω 5% 0,1W			7101 4822 209 32036 UM6264BM-10L		
			7102 4822 209 30388 SAA7341GP		
3745 4822 051 20183 18k 5% 0,1W			7140 5322 130 42012 BC858		
3746 ▲ 4822 052 10109 10Ω 5% 0,33W			7141 4822 130 61207 BC848		
3747 4822 116 52284 47k 5% 0,5W			7300 4822 209 83163 LM833N		
3748 4822 116 52283 4k7 5% 0,5W			7362 4822 130 61207 BC848		
3750 4822 050 11002 1k 1% 0,4W			7363 4822 130 42696 BC818-25		
			7364 4822 130 42696 BC818-25		
3752 4822 116 52257 22k 5% 0,5W			7371 4822 130 42696 BC818-25		
4001 4822 051 10008 0Ω 5% 0,25W			7372 4822 130 42696 BC818-25		
4002 4822 051 10008 0Ω 5% 0,25W			7500 5322 209 62115 MC79L15AC		
4003 4822 051 10008 0Ω 5% 0,25W			7501 ▲ 4822 209 71579 MC 7805.2		
4004 4822 051 10008 0Ω 5% 0,25W			7550 5322 130 42012 BC858		
			7562 5322 130 42012 BC858		
4005 4822 051 10008 0Ω 5% 0,25W			7660 4822 209 72587 TCA0372		
4006 4822 051 10008 0Ω 5% 0,25W			7700 4822 900 10353 MC 68HC05D9/P146		
4008 4822 051 10008 0Ω 5% 0,25W			7740 5322 130 42012 BC858		
4009 4822 051 10008 0Ω 5% 0,25W			7741 4822 130 61207 BC848		
4200 4822 051 10008 0Ω 5% 0,25W					
COILS					
5250 4822 148 80281 DIG.OUT TRANSF.					

CONTROL & DISPLAY PANEL**MISCELLANEOUS**

	4822 256 91876	FTD HOLDER
1402	4822 242 72527	RESONATOR 4 MHz
1420	4822 276 13114	TACT SWITCH
1421	4822 276 13114	TACT SWITCH
1422	4822 276 13114	TACT SWITCH
1423	4822 276 13114	TACT SWITCH
1425	4822 276 13114	TACT SWITCH
1426	4822 276 13114	TACT SWITCH
1427	4822 276 13114	TACT SWITCH
1428	4822 276 13114	TACT SWITCH
1429	4822 276 13114	TACT SWITCH
1430	4822 276 13114	TACT SWITCH
1431	4822 276 13114	TACT SWITCH
1432	4822 276 13114	TACT SWITCH
1433	4822 276 13114	TACT SWITCH
1434	4822 276 13114	TACT SWITCH
1435	4822 276 13114	TACT 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
1440	4822 276 13114	TACT SWITCH
1441	4822 276 13114	TACT SWITCH
1442	4822 276 13114	TACT SWITCH
1443	4822 276 13114	TACT SWITCH
1444	4822 276 13114	TACT SWITCH
1445	4822 276 13114	TACT SWITCH
1446	4822 276 13114	TACT SWITCH
1447	4822 276 13114	TACT SWITCH
1450	4822 130 91085	DISPLAY 8-BT-120GK

CAPACITORS

2402	5322 124 21643	22μF 20% 40V
2404	5322 124 21643	22μF 20% 40V

RESISTORS

3400	4822 116 52258	220k 5% 0,5W
3401	4822 116 52257	22k 5% 0,5W
3402	4822 116 52257	22k 5% 0,5W
3403	4822 116 52257	22k 5% 0,5W
3404	4822 116 52257	22k 5% 0,5W
3405 ▲	4822 052 10478	4Ω 5% 0,33W
3406	4822 116 52257	22k 5% 0,5W
3407 ▲	4822 052 10108	1Ω 5% 0,33W
3408	4822 116 52269	3k3 5% 0,5W

3409	4822 116 52257	22k 5% 0,5W
3410 ▲	4822 052 10688	6Ω 5% 0,33W
4401	4822 051 10008	0Ω 5% 0,25W

DIODES

6400	4822 130 30613	BAW62
6401	4822 130 30613	BAW62
6402	4822 130 30613	BAW62
6403	4822 130 30613	BAW62
6404	4822 130 30613	BAW62
6405	4822 130 30613	BAW62
6406	4822 130 30613	BAW62

IC

7400	4822 209 30249	TMP47C212AN
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HEADPHONE PANEL

BU-5	4822 267 31453	HEADPHONE SOCKET
2370	5322 122 32654	22nF 10% 63V
3370	4822 101 21199	10kX2 20% 0,025W
3371	4822 116 52233	10k 5% 0,5W
3372	4822 116 52233	10k 5% 0,5W
3373	4822 116 52244	15k 5% 0,5W
3374	4822 116 52244	15k 5% 0,5W
3375	4822 116 52206	120Ω 5% 0,5W
3386	4822 116 52206	120Ω 5% 0,5W
7370	4822 209 82274	NJM4560D

IR PANEL

1461	4822 214 51772	IR RECEIVER
3460 ▲	4822 052 10478	4Ω 5% 0,33W
3461	4822 116 52284	47k 5% 0,5W

MISCELLANEOUS

1501 ▲	4822 070 31001	FUSE 100MA
5500 ▲	4822 146 31045	MAINS TRAFO