



# Service Manual



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Annex : RCD 1.3D

**CLASS 1  
LASER PRODUCT**



HANDLING CHIP COMPONENTS

GENERAL

SOLDER  
CHIP COMPONENT  
SOLDER  
COPPER TRACK  
P.C.B.  
GLUE

SERVICE PACKAGE

DISMOUNTING

A  
SOLDERING IRON  
VACUUM PISTON 4822 395 10082  
e.g. WELDER solder tip PT-H7

B  
SOLDER WICK 4822 321 40042  
e.g. A PAIR OF TWEEZERS

C  
HEATING  
HEATING  
SOLDERING IRON  
CLEANING  
SOLDER WICK

MOUNTING

A  
e.g. A PAIR OF TWEEZERS

B  
SOLDER Ø 0.5-0.8mm  
PRESSURE  
SOLDERING IRON  
SOLDERING TIME < 3 sec./side  
PRESSURE  
SOLDER Ø 0.5-0.8mm  
SOLDERING IRON

EXAMPLES

CORRECT

INCORRECT

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

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

**(D) WARNUNG**  
Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD). Unvorsichtige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren.  
Sorgen Sie dafür, daß sie im Reparaturfall über ein Puls-armband 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 ridotta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparazioni occorre quindi essere collegati allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialeto a resistenza.  
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

**(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.

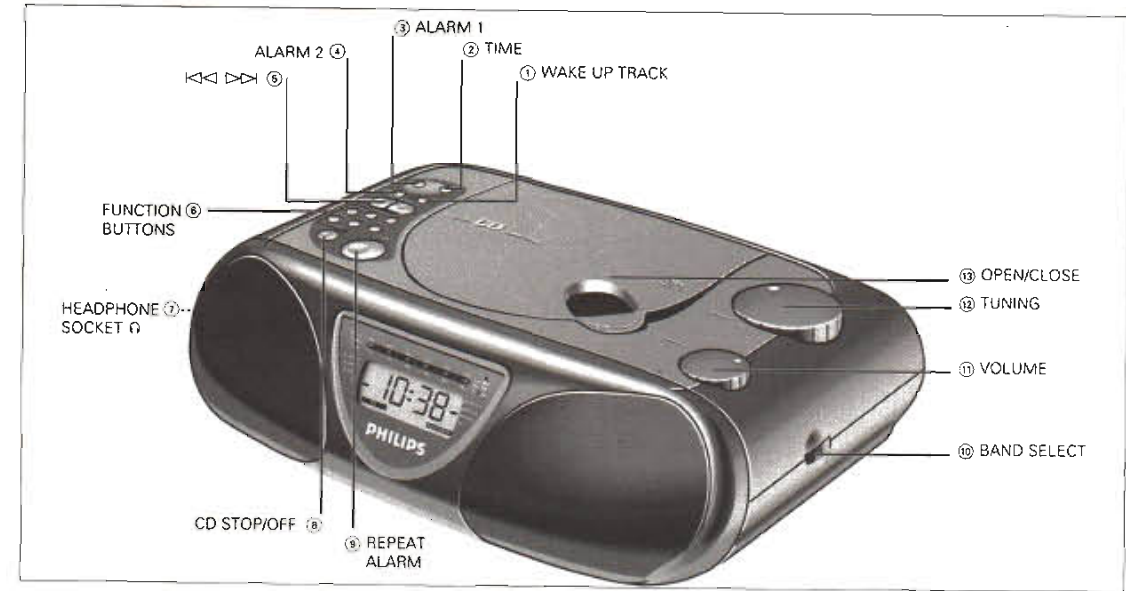
**(S) Varning !**  
Osynlig laserstrålning när apparaten är öppnad och spårar är urkopplad. Beträkta ej strålen

**(DK) Advarsel !**  
Usynlig laserstrålning ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling

**(SF) Varoitus !**  
Avatussa laitteessa ja suojauslaituksen ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen !

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

CONNECTIONS AND CONTROLS



**CONTROLS**

**① WAKE UP TRACK:**

- to display the CD wake-up track number for ALARM 1 or ALARM 2
- to change the CD wake-up track number for ALARM 1 or ALARM 2

**② TIME:**

- to adjust the time of the clock
- to resume to the clock display

**③ ALARM 1**

- to display the alarm time of ALARM 1
- to set alarm time 1.
- to enable/disable ALARM 1

**④ ALARM 2**

- to display the alarm time of ALARM 2
- to set alarm time 1.
- to enable/disable ALARM 2

**⑤ ⏮ ⏭**

- to select a next or previous track in CD play mode
- to search forward or backward in CDplay mode
- to adjust the TIME or the ALARM TIME setting
- to select a wake-up track
- to adjust the buzzer tone number

**⑥ FUNCTION BUTTONS BUZZER**

- to select the buzzer tone for ALARM 1 or ALARM 2
- to set ALARM 1 or ALARM 2 to buzzer alarm mode

**RADIO**

- to go to radio mode
- to set ALARM 1 or ALARM 2 to radio alarm mode

**CD**

- to go to CD mode
- to set ALARM 1 or ALARM 2 to CD alarm mode

**BRIGHTNESS**

- to change the brightness of the LCD display illumination

**SLUMBER**

- to switch slumber function on/off
- to set slumber time
- to display remaining slumber time

**ALARM RESET**

- To stop the active alarm for 24 hours

**⑦ HEADPHONE SOCKET**

**⑧ CD STOP/OFF**

- to switch off CD
- to switch off radio
- to disable ALARM 1 or ALARM 2
- to reset the wake-up track to track 1 for ALARM 1 or ALARM 2

**⑨ REPEAT ALARM**

- to switch off the alarm temporarily

**⑩ BAND SELECT** - to select the waveband

**⑪ VOLUME** - to adjust the sound level

**⑫ TUNING** - for station selection

**⑬ OPEN/CLOSE** - to open and close the CD-door

SPECIFICATIONS

<b>GENERAL</b>	
Mains voltage	-/00 : 230V -/01 : 120/230V -/06 : 100V -/17 : 120V
Mains frequency	-/00 : 50Hz -/01/06 : 50/60Hz -/17 : 60Hz
Power consumption	: 20W
Output power	: 2 x 0.5W
Dimension (W x H x D)	: 315x 229 x 87mm
Weight	: 1.7Kg

COMPACT DISC

Frequency response	±3dB	: 30 - 16KHz
Signal/hiss ratio		: > 80dB
Distortion	at 1KHz	: < 0.5%
Channel difference	at 1KHz	: > 2dB
Channel crosstalk	at 1KHz	: > 50dB
Laser wavelength		: 780 ± 20nm
Laser light power		: < 0.3mW

TUNER - FM section

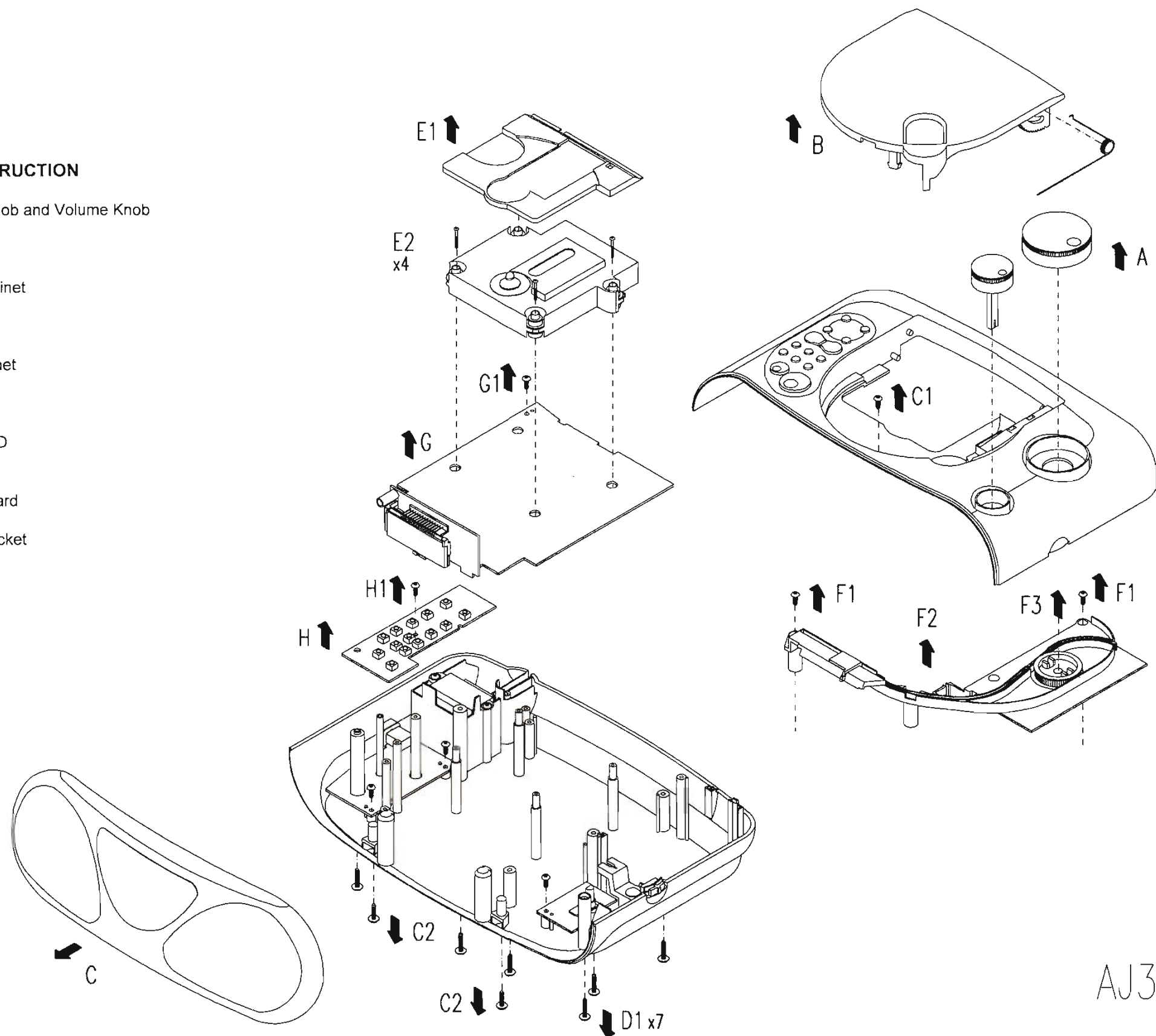
Tuning range	: 87.35 - 108.25MHz
	-/06 : 76.1 - 89.9MHz
IF frequency	: 10.7MHz
Sensitivity	: < 22dBf at 26dB S/N
Selectivity	: > 20dB at 600KHz B.W.
IF rejection	: > 50dB
Image rejection	: > 20dB
AM suppression	: > 25dB
Stereo seperation	1KHz : > 20dB

TUNER - AM section

Tuning range	MW : 512 - 1635KHz -/17 : 530 - 1710KHz LW : 147 - 291KHz
IF frequency	: 468 ± 5Hz
Sensitivity	MW : < 4000µV/m at 20dB S/N LW : < 6000µV/m at 20dB S/N
Selectivity	MW : > 16dB LW : > 20dB
IF rejection	MW : > 24dB LW : > 27dB
Image rejection	MW : > 28dB LW : > 30dB

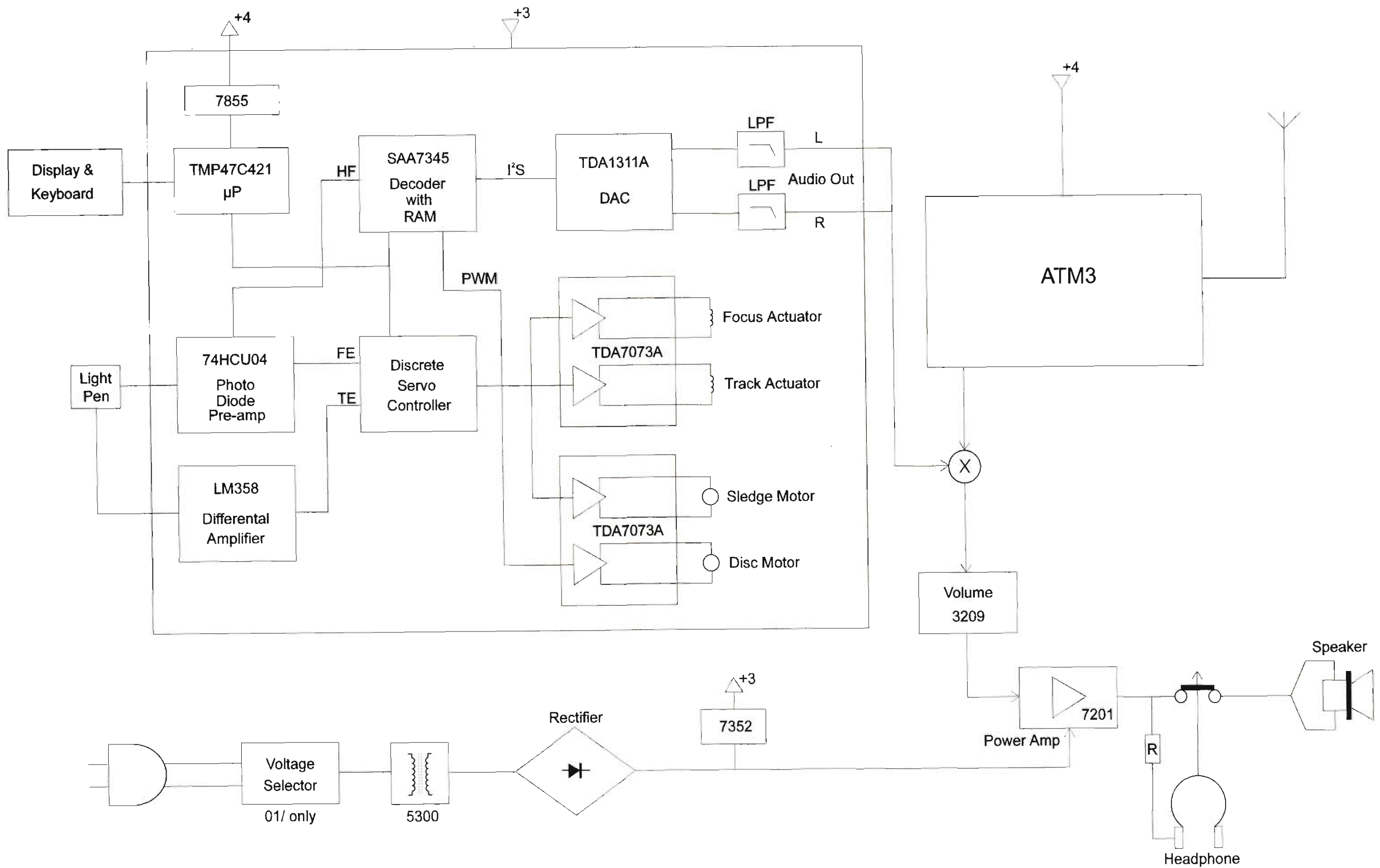
## DISASSEMBLY INSTRUCTION

- A. To remove Tuning Knob and Volume Knob
- B. To open CD Door
- C. To remove Front Cabinet
  - 1.Remove Screw x 1
  - 2.Remove Screw x 2
- D. To remove Top Cabinet
  - 1.Remove Screw x 7
- E. To remove RCD
  - 1.Remove Cover RCD
  - 2.Remove Screw x 4
- F. To remove Tuner Board
  - 1.Remove Screw x 2
  - 2.Remove Tuner Bracket
  - 3.Remove Gear
- G. To remove CD Borad
  - 1.Remove Screw x 1



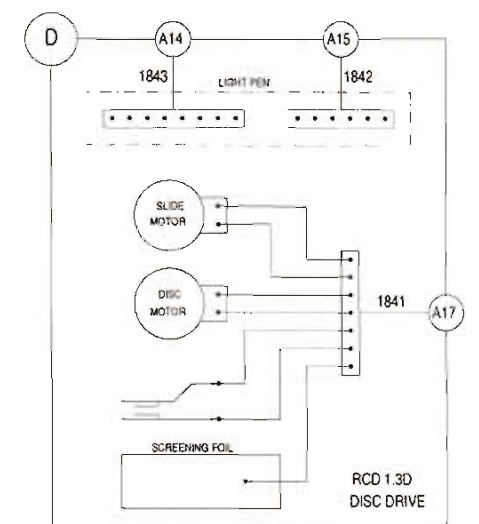
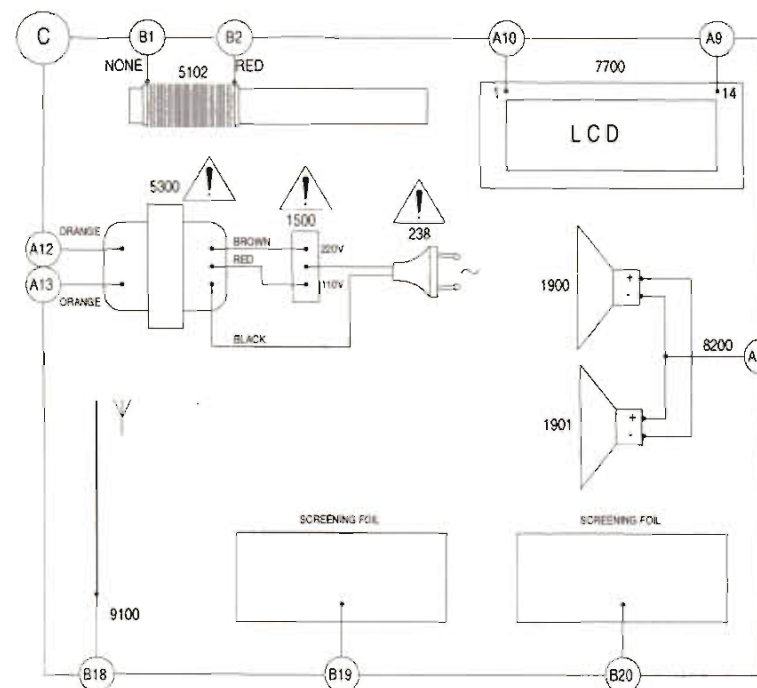
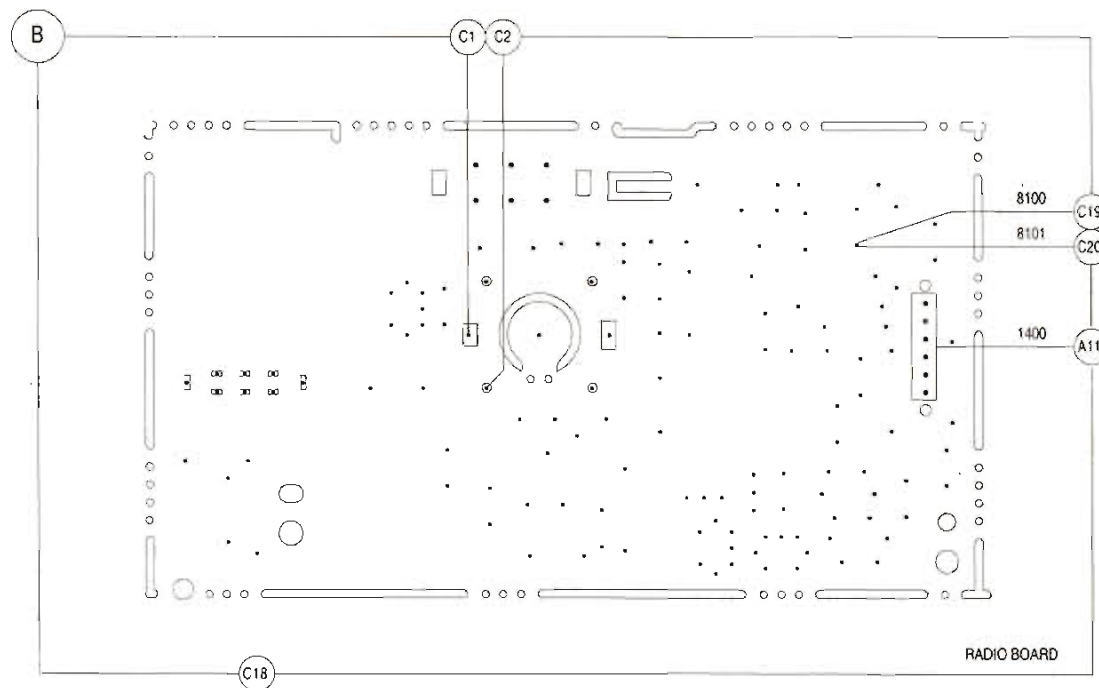
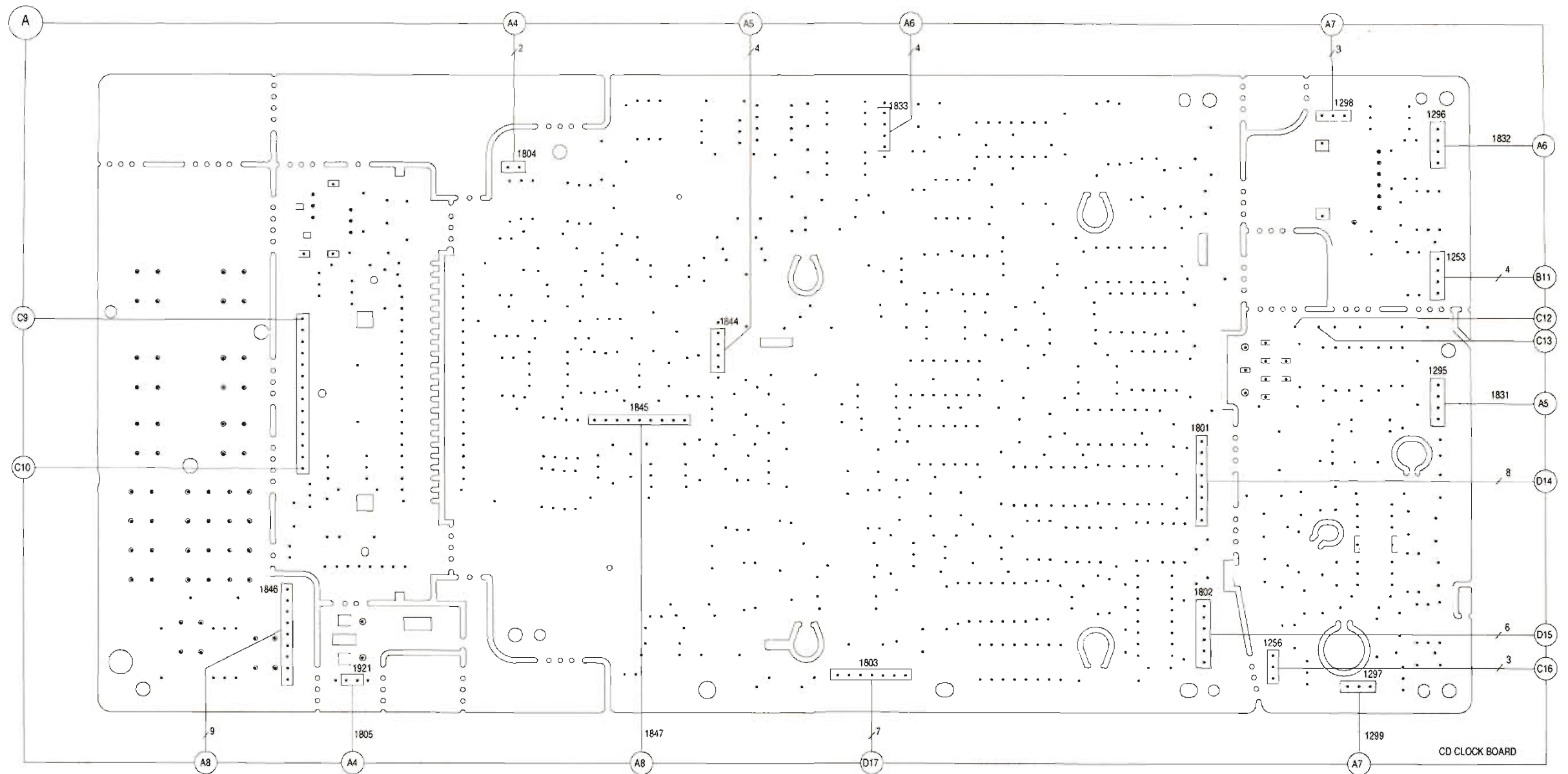
AJ3920

BLOCK DIAGRAM



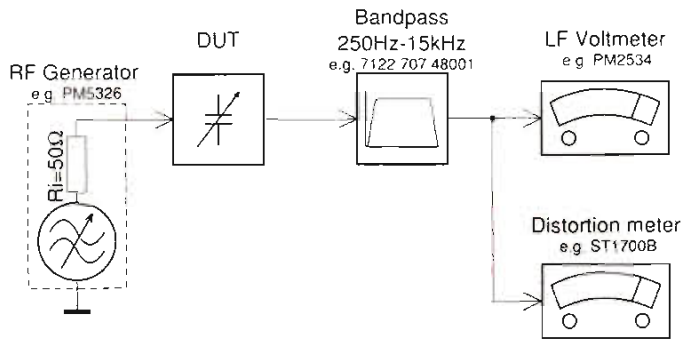


# WIRING DIAGRAM



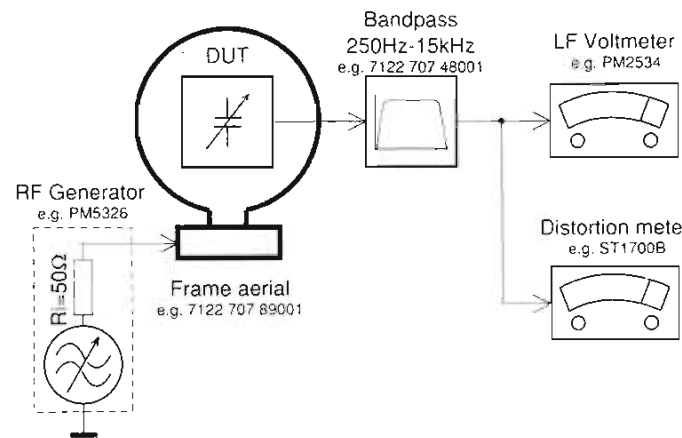
MEASURE SETUP

Tuner FM



Use a bandpass filter to eliminate hum (50Hz, 100Hz) and disturbance from the pilotone (19kHz, 38kHz).

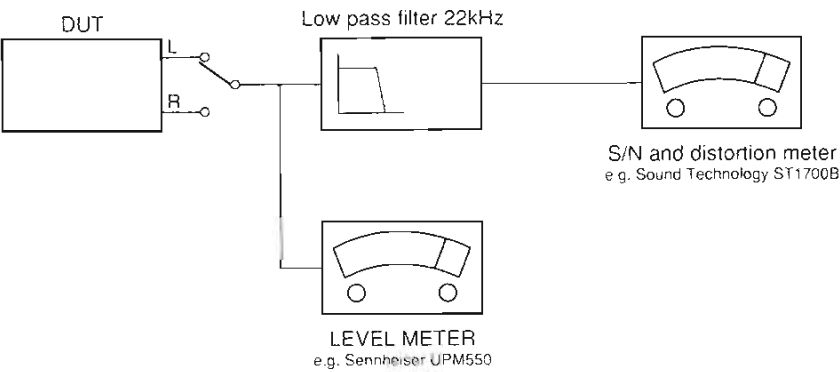
Tuner AM (MW,LW)



To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's cage.  
Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz, 100Hz).

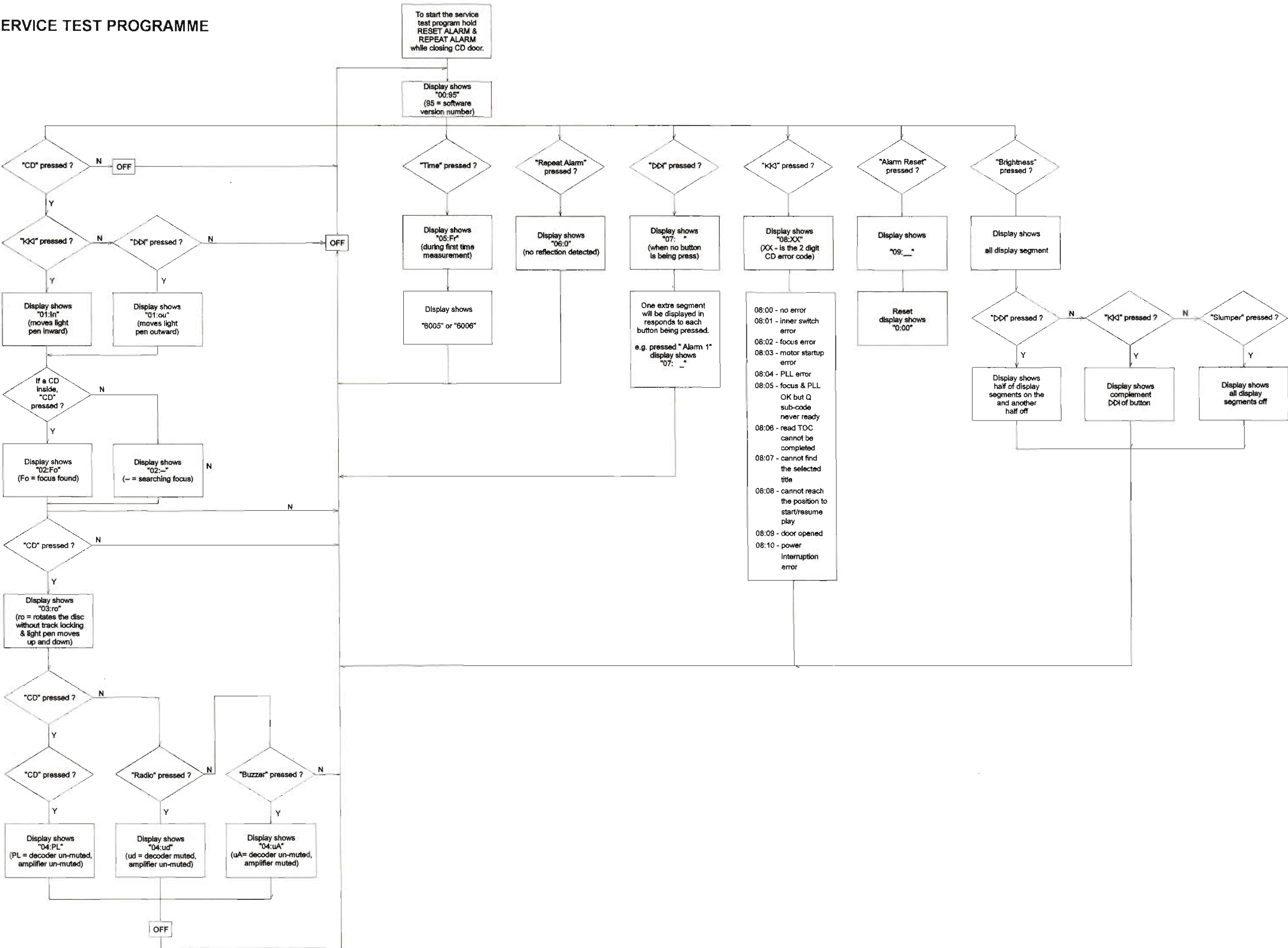
CD

Use Audio Signal Disc SBC429 4822 397 30184 (replaces test disc 3)  
L.P.F. = 13<sup>th</sup> order filter 4822 395 30204



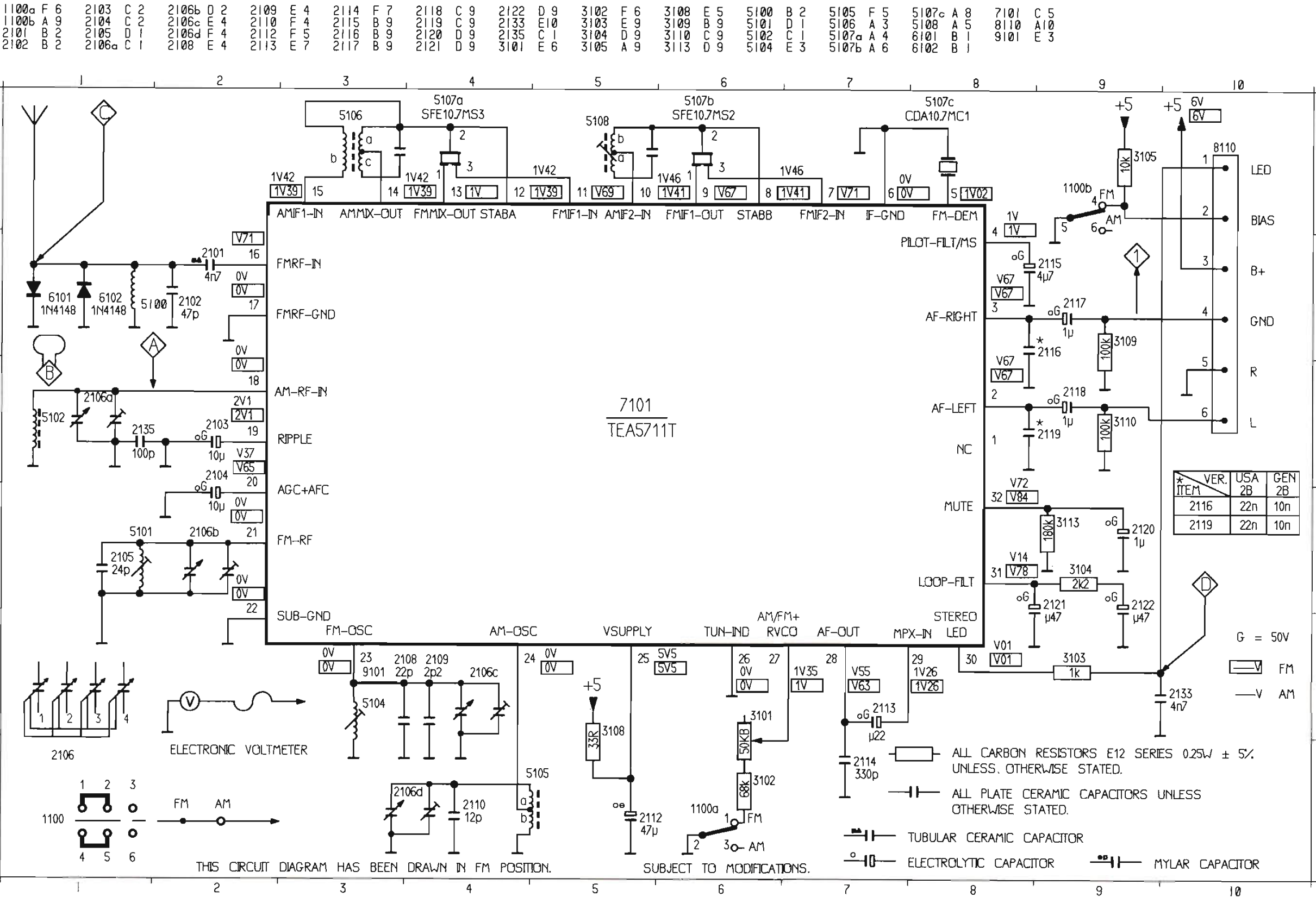
DUT..... Device Under Test

SERVICE TEST PROGRAMME

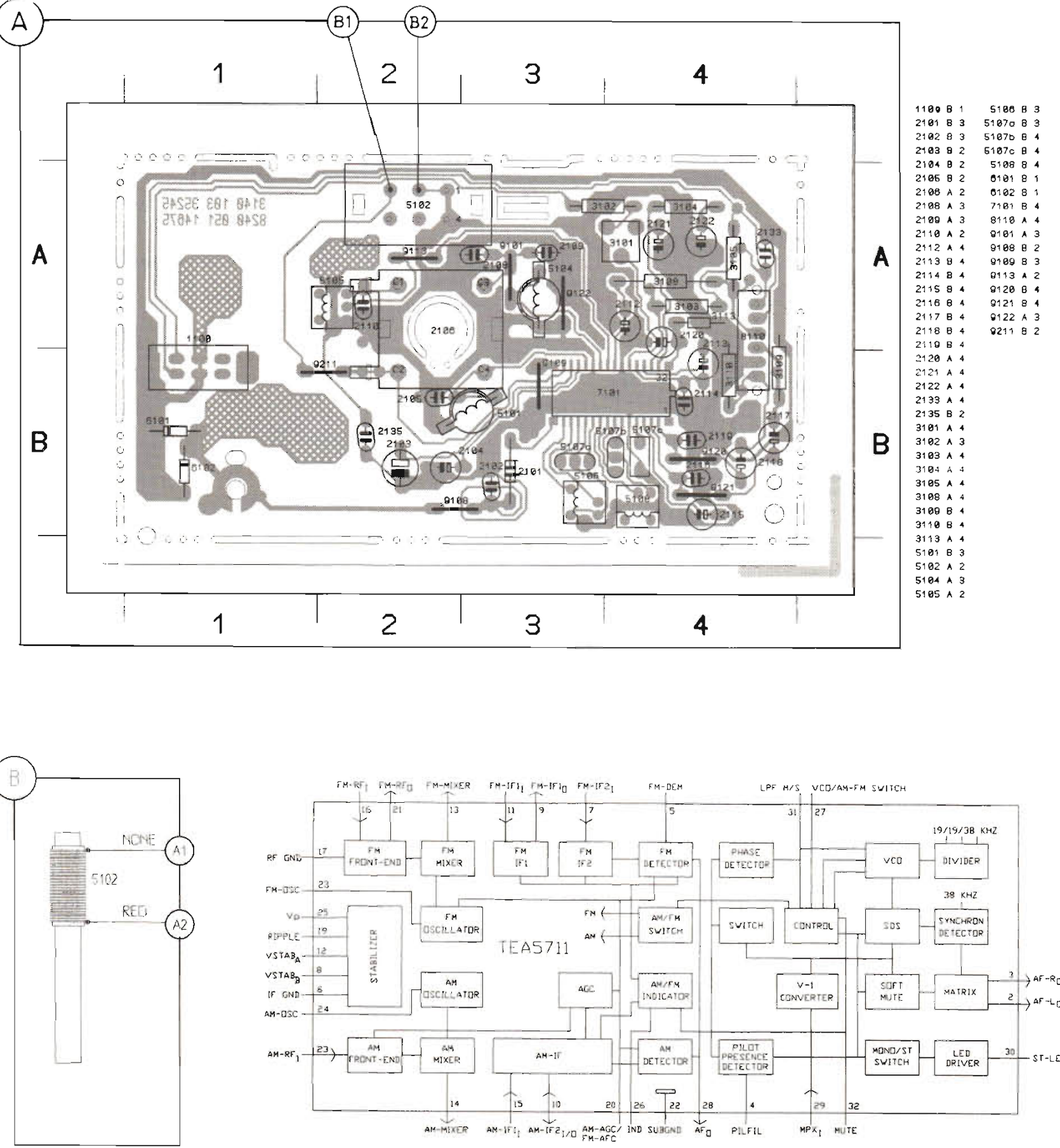




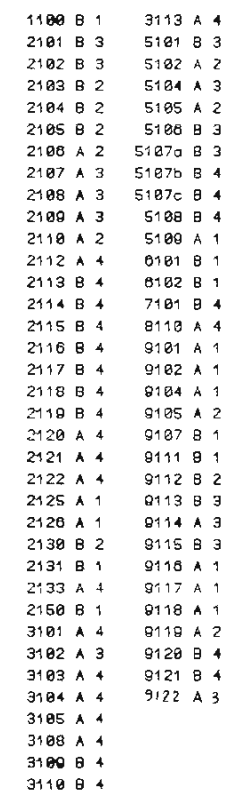
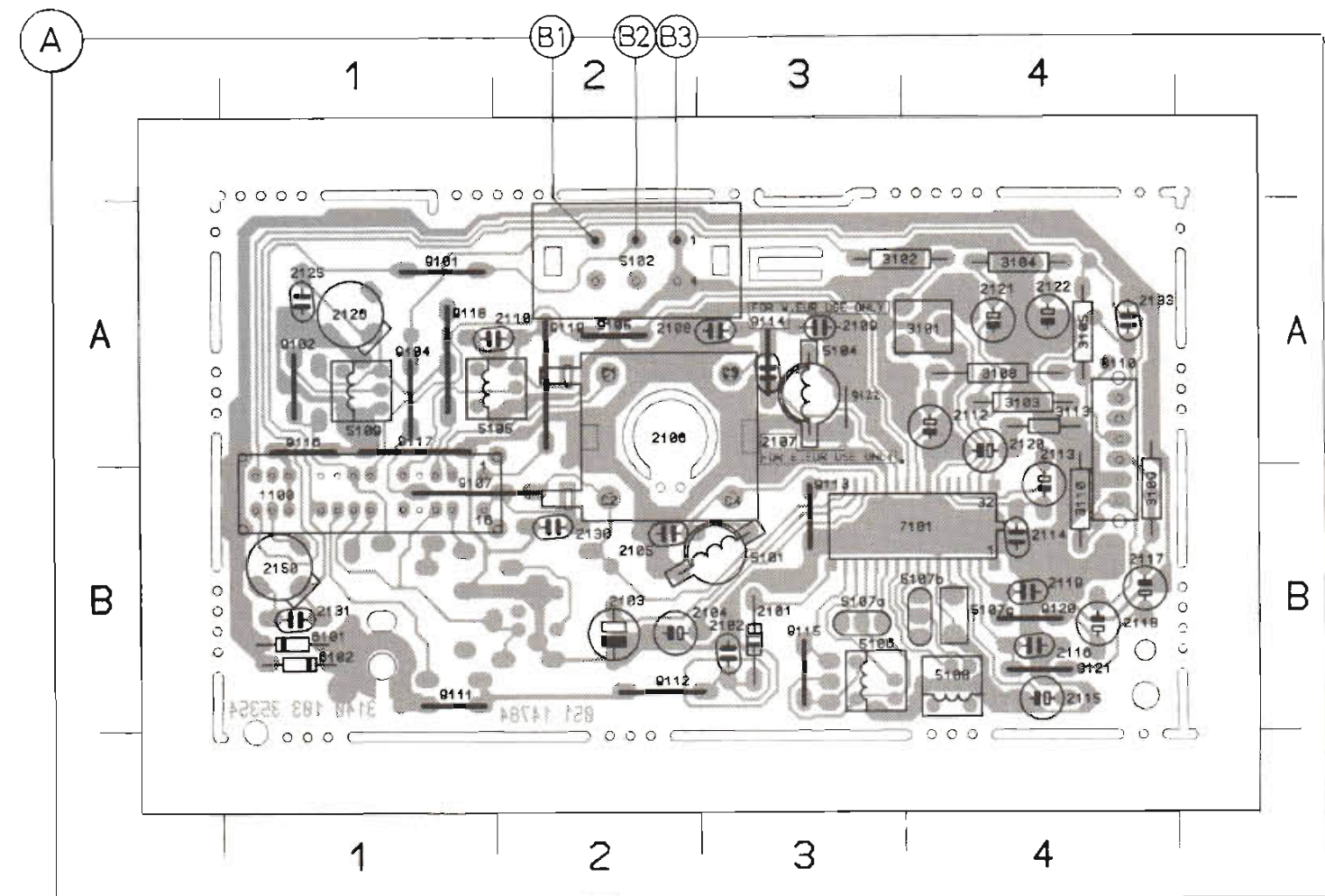
TUNER BOARD (FM/MW) - CIRCUIT DIAGRAM



TUNER BOARD (FM/MW) - LAYOUT DIAGRAM

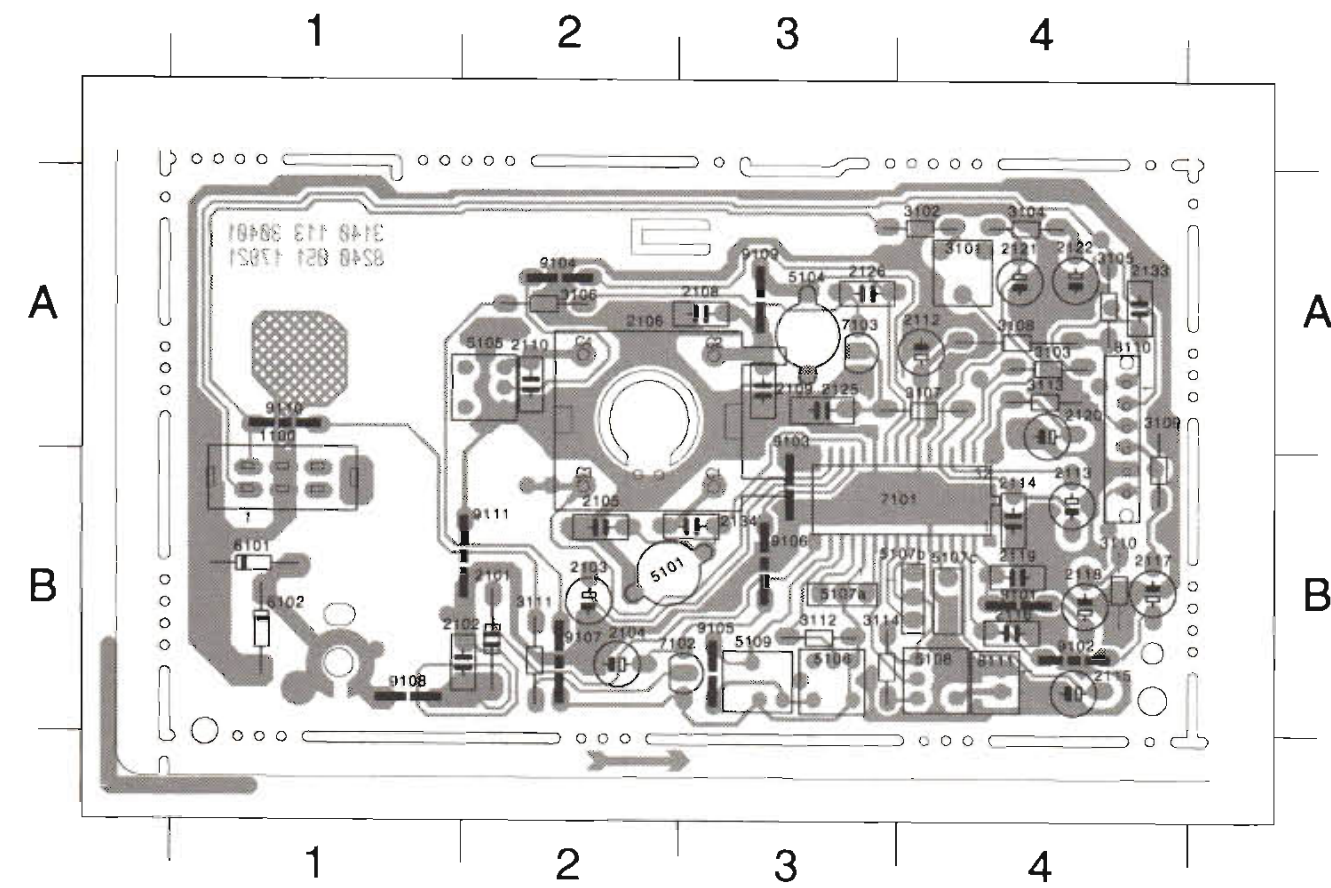


## TUNER BOARD (FM/MW/LW) - LAYOUT DIAGRAM


































### TUNER BOARD (FM/AM/JAP) - LAYOUT DIAGRAM



1100 B 1	3112 B 3
2101 B 2	3113 A 4
2102 B 2	3114 B 3
2103 B 2	5101 B 2
2104 B 2	5104 A 3
2105 B 2	5105 A 2
2106 A 2	5106 B 3
2108 A 3	5107a B 3
2109 A 3	5107b B 4
2110 A 2	5107c B 4
2112 A 4	5108 B 4
2113 B 4	5109 B 3
2114 B 4	6101 B 1
2115 B 4	6102 B 1
2116 B 4	7101 B 4
2117 B 4	7102 B 3
2118 B 4	7103 A 3
2119 B 4	8110 A 4
2120 A 4	8111 B 4
2121 A 4	9101 B 4
2122 A 4	9102 B 4
2125 A 3	9103 B 3
2126 A 3	9104 A 2
2133 A 4	9105 B 3
2134 B 3	9106 B 3
3101 A 4	9107 B 2
3102 A 4	9108 B 1
3103 A 4	9109 A 3
3104 A 4	9110 A 1
3105 A 4	9111 B 2
3106 A 2	
3107 A 4	
3108 A 4	
3109 B 4	
3110 B 4	
3111 B 2	

	ALL CARBON RESISTORS E12 SERIES 0.25W + 5%
	ALL PLATE CERAMIC CAPACITORS UNLESS OTHERWISE STATED.
	TUBULAR CERAMIC CAPACITOR
	FILM POLYESTER CAPACITOR
	ELECTROLYTIC CAPACITOR

RADIO ALIGNMENT

								
AM IF								
AM or MW	468KHz		min.	5106 5108		 max.		
AM RF								
MW *	512KHz		max.	5105		 max.		
	1635KHz		min.	C4		 max.		
	550KHz			5102				
	1500KHz			C3				
FM IF								
FM #	10.7MHz						symm. max. lin.	
FM RF								
FM #	75.7MHz		max.	5104		 max.		
	108.25MHz		min.	C2		 max.		
	77MHz			5101				
	106MHz			C1				
STEREO DECODER								
FM #	98MHz		92MHz			152 ± 1KHz		

\* Mod. 1KHz 30%  
# 10nF + 15E

Repeat

ADJUSTMENT TABLE

CD-PART					
LASER CURRENT					
The trimpot. for adjustment of the laser current is located on the disc drive and has been adjusted in the production line. Therefore for service purpose it is not intended to adjust the laser current. Check only if the HF-signal level is higher than 800mV <sub>pp</sub> .					
TRACK BALANCE					
Service pos. 3 Display shows "3"			3846	Adjust to 0±10mV DC offset	
TRACK GAIN					
Play with Test-Disc 5 track 1	1300 Hz 100 mV <sub>rms</sub>	see Fig. 1	3906		CHX = 50 mV/DIV CHY = 50 mV/DIV Adjust according to FIG.3
FOCUS GAIN					
Play with Test-Disc 5 track 1	1200 Hz 500 mV <sub>rms</sub>	see Fig. 2	3908		CHX = 200 mV/DIV CHY = 200 mV/DIV Adjust according to FIG.3

Test disc 5 4822 397 30096

**REMARK:** In case the discdrive or the optical pickup has been exchanged, always adjust  
*TRACK BALANCE, TRACK GAIN* and *FOCUS GAIN*.

FIG. 1

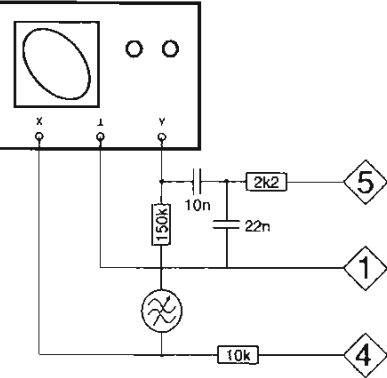


FIG. 2

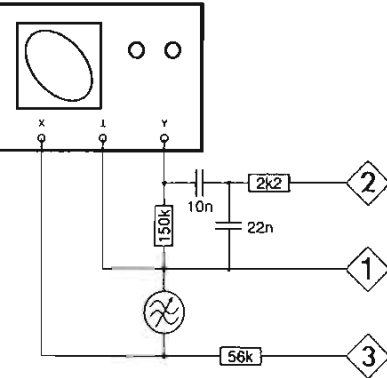
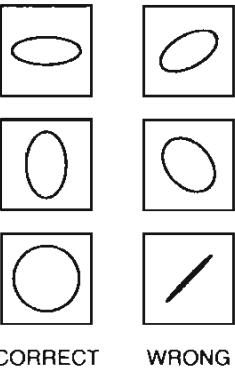
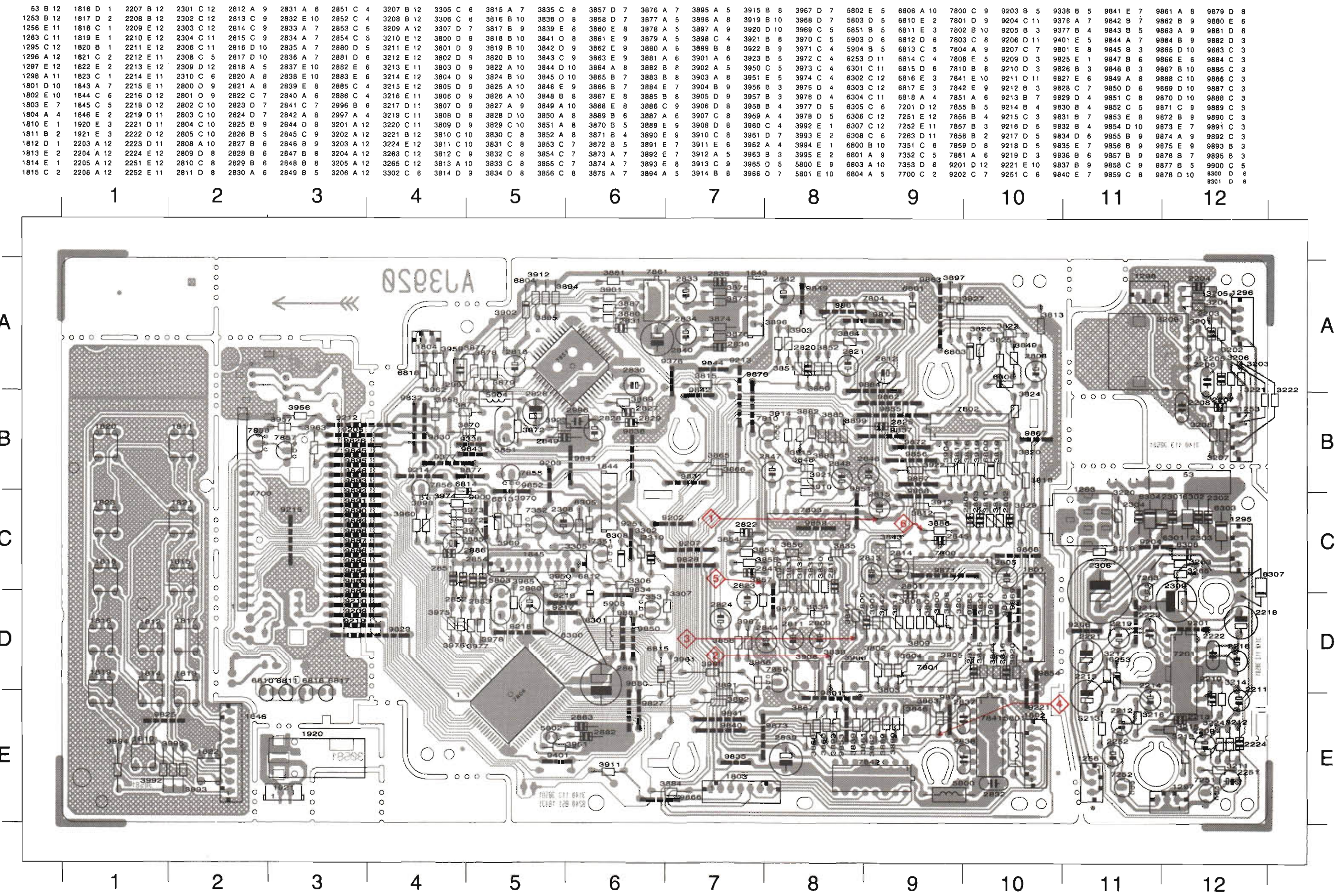


FIG. 3



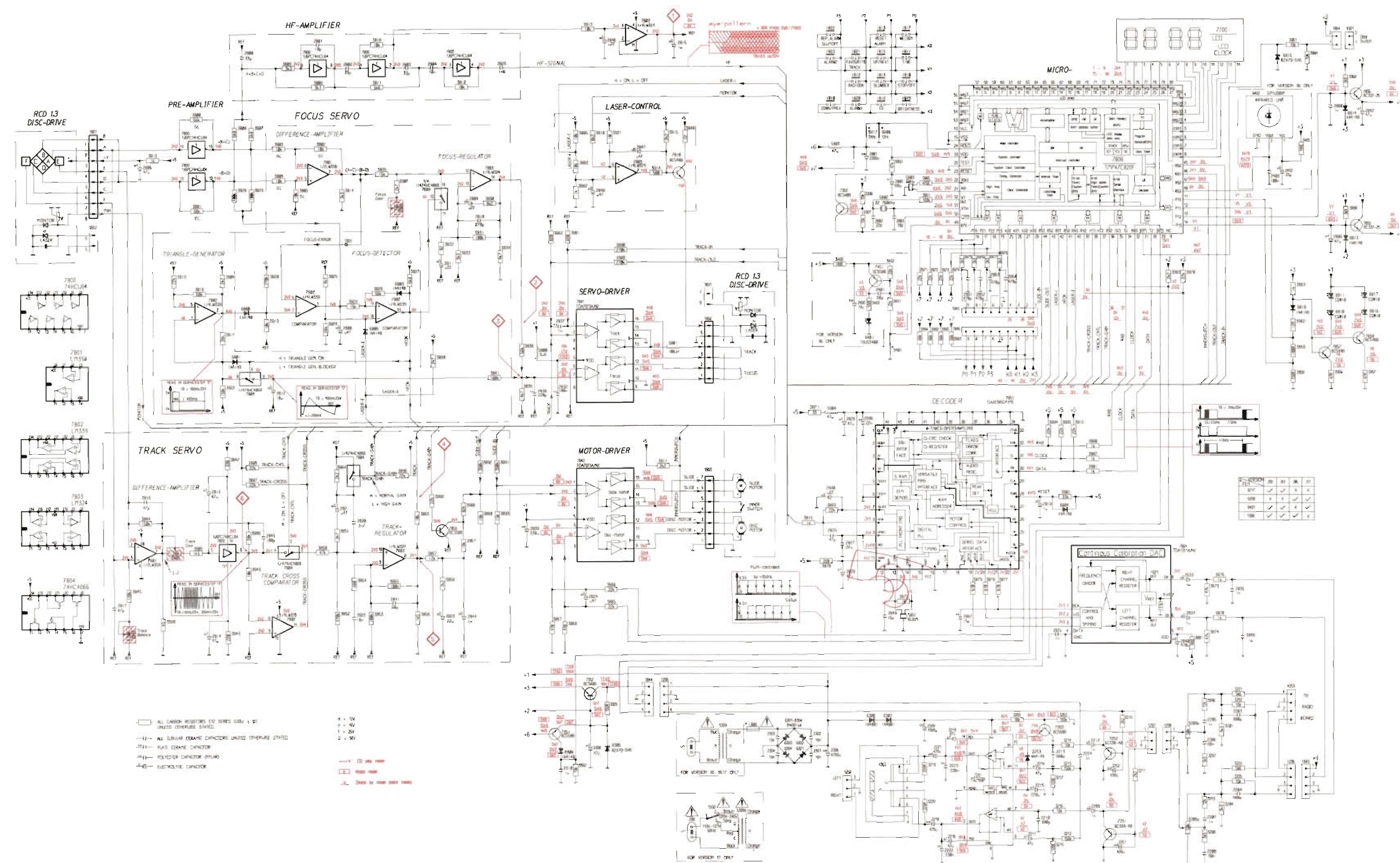


COMBI BLOCK - LAYOUT DIAGRAM





### COMBI BLOCK - CIRCUIT DIAGRAM



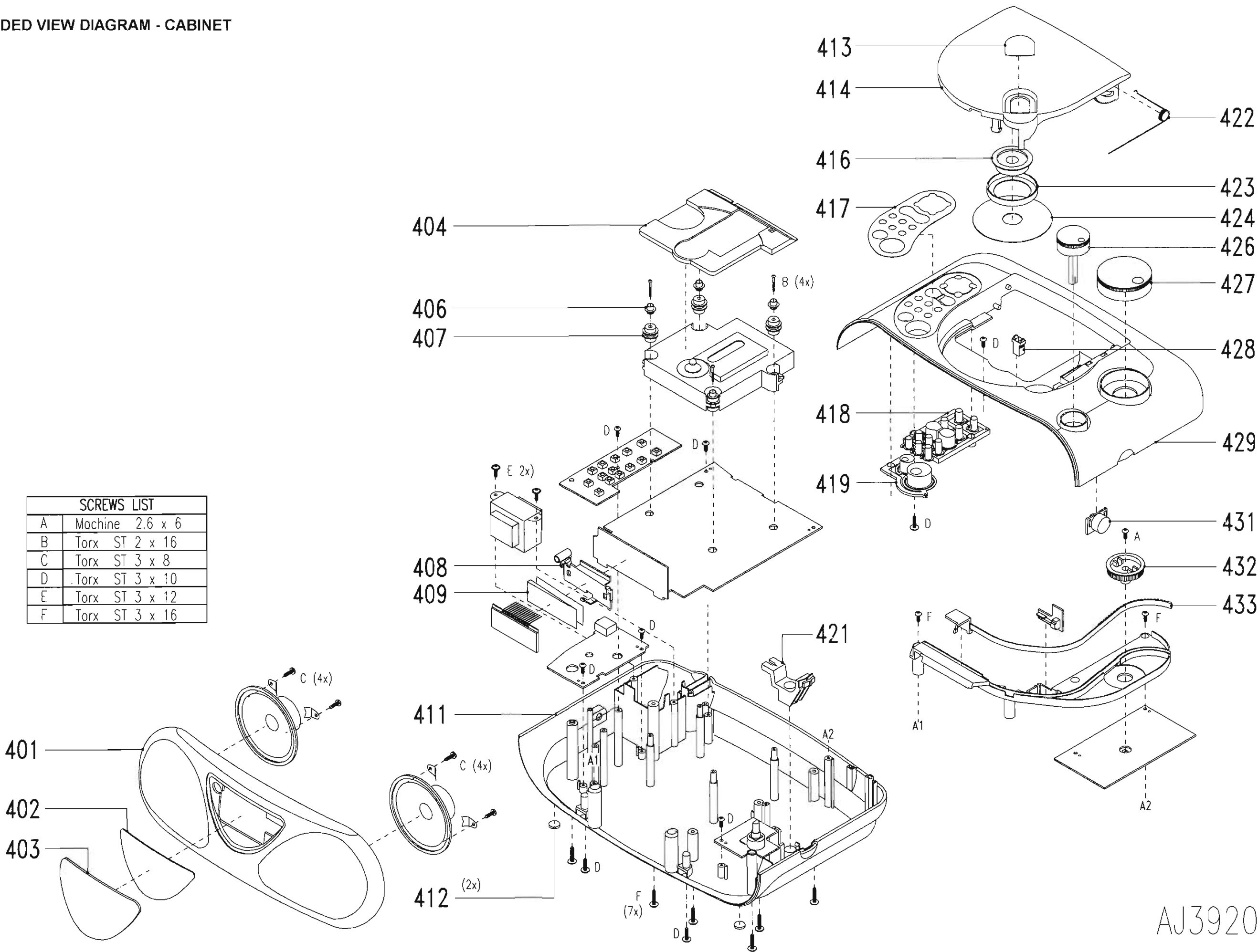
1253	P31	2303	Q18	2851	G23	3811	B9	3875	N29	3969	G28	7800	A7
1256	R20	2304	R18	2852	G23	3812	B11	3876	O29	3970	G28	7800	M5
1263	R21	2306	R20	2853	G24	3813	D4	3877	N24	3971	F22	7800	A11
1295	P16	2308	R14	2854	G24	3814	E8	3878	N24	3972	F22	7800	A9
1296	R31	2309	Q22	2880	D22	3815	L19	3879	N23	3973	F23	7801	D8
1297	Q27	2310	R14	2881	D21	3816	G5	3880	K26	3974	F23	7801	M4
1298	Q28	2400	G21	2882	E21	3817	H6	3881	O29	3975	F23	7802	G9
1306	Q18	2401	G21	2883	E22	3819	H7	3882	D14	3976	F23	7802	O7
1500	S17	2402	D31	2885	F32	3820	G7	3883	D14	3977	F24	7802	G7
1801	C2	2403	D30	2886	C32	3822	G9	3884	A31	3978	F24	7802	G5
1802	H17	2800	A6	2996	J21	3824	H8	3885	C14	3992	H22	7803	D12
1803	K17	2801	A8	2997	O23	3825	G8	3886	M6	3993	H23	7803	M10
1804	A32	2802	B8	3201	Q29	3826	G9	3887	K26	3994	H22	7803	D15
1810	B22	2803	B10	3202	Q30	3827	F10	3889	F15	3995	H23	7803	A15
1811	A22	2804	B10	3203	S29	3828	E6	3890	F15	5800	H13	7804	D10
1812	B21	2805	D4	3204	S29	3829	E6	3891	K12	5801	H16	7804	I6
1813	A21	2808	H8	3205	R30	3830	E12	3892	K12	5802	E21	7804	M7
1814	B21	2809	E11	3206	Q29	3831	F12	3893	L12	5803	D22	7804	K9
1815	A21	2810	E12	3207	R29	3832	F11	3894	J25	5851	O22	7808	D27
1816	B21	2811	F11	3208	T29	3833	F11	3895	J25	5903	D20	7810	D16
1817	A22	2812	I7	3210	Q27	3834	F12	3896	K9	5904	J20	7841	G14
1818	B20	2813	L5	3211	R27	3835	D9	3897	K7	6253	R25	7842	K14
1819	B22	2814	O5	3212	T25	3838	H13	3898	E32	6301	R19	7851	I24
1820	B21	2815	A16	3213	R25	3839	I13	3899	H11	6302	R19	7855	E33
1821	A21	2816	L4	3214	R25	3841	I12	3901	K26	6303	R19	7856	B33
1822	A20	2817	N3	3215	T25	3842	K6	3902	L25	6304	R19	7857	H32
1823	A20	2818	L25	3216	S25	3843	O6	3903	K7	6305	R15	7858	H33
1843	R31	2820	L9	3217	R25	3844	L4	3904	G6	6306	Q21	7859	M11
1844	P15	2821	L8	3219	R22	3845	N3	3905	M5	6307	Q21	7861	M28
1845	G23	2822	O9	3220	S22	3846	O3	3906	M4	6308	R14	9208	C21
1846	H23	2823	O11	3209a	S28	3848	C17	3907	D10	6401	H21	9217	C21
1921	A32	2824	N14	3209b	Q28	3849	M6	3908	E10	6402	B30	9401	H21
2203	Q30	2825	B12	3221	P30	3850	M8	3910	C14	6800	G6		
2204	S30	2826	J20	3222	R30	3851	M8	3911	K16	6801	H6		
2205	Q29	2827	M20	3263	Q25	3852	O8	3912	J26	6803	G10		
2206	Q29	2828	N20	3265	Q24	3853	O9	3913	A14	6804	L25		
2207	S29	2829	M20	3302	R14	3854	N9	3914	D16	6806	H9		
2208	T29	2830	L20	3305	Q15	3855	N10	3915	C16	6810	G32		
2209	S26	2831	Q25	3306	E21	3856	O10	3919	G4	6811	G32		
2210	S25	2832	I14	3307	E21	3857	M10	3920	O4	6813	F32		
2211	T25	2833	N28	3400	F20	3858	N11	3921	C15	6814	C32		
2212	R26	2834	O28	3401	G21	3860	L12	3922	I6	6815	A31		
2213	R25	2835	N30	3402	F21	3861	F14	3950	D22	6816	G33		
2214	R25	2836	O30	3403	G21	3862	F13	3951	E22	6817	G33		
2215	S25	2837	H13	3405	C31	3863	L10	3956	I32	6818	G31		
2216	T23	2838	I13	3800	C5	3864	K8	3957	I33	7201	R23		
2218	S22	2839	M13	3801	E5	3865	N15	3958	I31	7251	S27		
2219	Q23	2840	O28	3802	C8	3866	N15	3959	H31	7252	Q27		
2221	R22	2841	N10	3803	C7	3867	O13	3960	B32	7263	Q25		
2222	T23	2842	C33	3804	D7	3868	O14	3961	A31	7351	Q13		
2223	R23	2844	O11	3805	E7	3869	L20	3962	H31	7352	P14		
2224	R26	2845	M7	3806	C6	3870	M20	3963	G31	7353	E20		
2251	T27	2846	A15	3807	C6	3871	J20	3965	D22	7451	F21		
2252	R27	2847	D15	3808	B8	3872	N22	3966	L11	7700	A29		
2301	R20	2848	E14	3809	B7	3873	N29	3967	M11	7800	D4		
2302	Q20	2849	O21	3810	A9	3874	O29	3968	L11	7800	C4		



EXPLODED VIEW DIAGRAM - CABINET

MECHANICAL PARTSLIST



SCREWS LIST			
A	Machine	2.6 x 6	
B	Torx	ST 2 x 16	
C	Torx	ST 3 x 8	
D	Torx	ST 3 x 10	
E	Torx	ST 3 x 12	
F	Torx	ST 3 x 16	

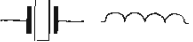




401	4822 423 51208	Cabinet Front
402	4822 454 12976	Sheet Lens (for -/00)
402	4822 454 12979	Sheet Lens (for -/01)
402	4822 454 12978	Sheet Lens (for -/06)
402	4822 454 12975	Sheet Lens (for -/17)
403	4822 450 62497	Lens Display (not for-/17)
403	4822 450 62491	Lens Display (for -/17 only)
406	4822 532 61104	Spacer
407	4822 532 61103	Damper
408	4822 256 80076	Bracket
409	4822 380 20507	Guide
411	4822 423 90223	Cabinet Bottom
412	4822 462 40692	Plug
413	4822 454 30504	Sheet CD Door
414	4822 444 61076	CD Door (not for -/17)
414	4822 444 61074	CD Door (for -/17 only)
416	4822 532 51871	Ring Pressure
417	4822 454 12977	Sheet Function Knob
418	4822 410 63853	Knob Funtion
419	4822 410 63854	Knob Repeat Alarm
421	4822 410 63852	Knob Band
422	4822 492 52332	Spring Compression
424	4822 535 60096	Disc
426	4822 413 51518	Knob Volume
426	4822 532 12241	Ring
427	4822 413 51517	Knob Tuning
428	4822 276 13079	Locking Mechanism
429	4822 423 90222	Cabinet Top (for -/00)
429	4822 423 90224	Cabinet Top (for -/01)
429	4822 423 90224	Cabinet Top (for -/06)
429	4822 423 90221	Cabinet Top (for -/17)
431	4822 529 10257	Damper
432	4822 522 33579	Gear
433	4822 450 81232	Pointer
433	4822 321 10853	Mains (for -/01)
435	4822 736 22491	IFU (for -/00/01)
436	4822 736 22488	IFU (for -/17)

AJ3920



TUNER BOARD (FM/MW)

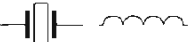


		
2101	4822 122 32764	4,7nF 20% 50V
2102	4822 126 12812	47pF 5% 50V
2103	4822 124 40248	10µF 20% 63V
2104	4822 124 40248	10µF 20% 63V
2105	4822 126 12814	24pF 5% N220 50V
2106	4822 125 50681	Polyvaricon
2108	4822 122 32147	22pF 2% N470 100V
2109	4822 126 12809	2,2pF 5% N470 50V
2110	4822 126 13592	5,6pF±0.5pF N1500
2112	4822 124 41397	47µF 20% 25V
2113	4822 126 13581	0,22µF 20% 50V
2114	4822 126 12671	330pF 10% YB 50V
2115	4822 124 40246	4,7µF 20% 63V
2116	4822 124 80141	10nF 10% 50V
2117	4822 124 40242	1µF 20% 63V
2118	4822 124 40242	1µF 20% 63V
2119	4822 124 80141	10nF 10% 50V
2120	4822 124 40242	1µF 20% 63V
2121	4822 124 40239	0,47µF 20% 63V
2122	4822 124 40239	0,47µF 20% 63V
2133	4822 126 12672	4,7nF 10% 50V
2135	4822 126 10777	100pF 50V
		
3101	4822 100 20167	50K 30%LIN 0,1W
3102	4822 116 52297	68K 5% 0,5W
3103	4822 116 83863	1K 5% 0,5W
3104	4822 116 52256	2K2 5% 0,5W
3105	4822 116 83864	10K 5% 0,5W
3108	4822 116 52191	33R 5% 0,5W
3109	4822 116 52234	100K 5% 0,5W
3110	4822 116 52234	100K 5% 0,5W
3113	4822 116 52252	180K 5% 0,5W

		
5101	4822 157 70513	Coil - FM ant
5102	4822 157 70731	Coil - MW/LW ant. assy
5104	4822 156 30947	Coil - FM osc
5105	4822 157 71145	Coil - MW osc
5106	4822 157 70499	IFT - AM
5107	4822 242 81154	FM cer. Filter Kits
5108	4822 156 11146	IFT - AM
		
6101	4822 130 30621	1N4148
6102	4822 130 30621	1N4148
		
7101	4822 209 32746	TEA5711T/N2
<b>- MISCELLANEOUS -</b>		
1100	4822 277 21698	Switch - slide
1201	4822 526 10176	Rod
	4822 256 90463	Holder Ferrite Bar

Note : Only the parts mentioned in this list are normal service parts.

TUNER BOARD (FM/MWLW)



		
2101	4822 122 32764	4,7nF 20% 50V
2102	4822 126 12812	47pF 5% 50V
2103	4822 124 40248	10µF 20% 63V
2104	4822 124 40248	10µF 20% 63V
2105	# 4822 126 12828	24pF 5% 50V
2105	* 4822 126 12283	8,2pF 5% N220
2106	# 4822 125 50681	Polyvaricon
2106	* 4822 125 50648	Polyvaricon
2107	* 4822 126 12827	390pF 5% N1500
2108	# 4822 122 32147	22pF 2% N470 100V
2108	* 4822 126 12284	5,6pF±0.5pF N1500
2109	4822 126 12809	2,2pF 5% N470 50V
2110	4822 126 12284	5,6pF 0,5% N1500 50V
2112	4822 124 41397	47µF 20% 25V
2113	4822 126 13581	0.22µF 20% 50V
2114	4822 126 12671	330pF 10% 50V
2115	4822 124 40246	4,7µF 20% 63V
2116	4822 124 80141	10nF 10% 50V
2117	4822 124 40242	1µF 20% 63V
2118	4822 124 40242	1µF 20% 63V
2119	4822 124 80141	10nF 10% 50V
2120	4822 124 40242	1µF 20% 63V
2121	4822 124 40239	0,47µF 20% 63V
2122	4822 124 40239	0,47µF 20% 63V
2125	4822 126 12826	120pF 50% N750 50V
2126	4822 125 50045	1,8pF-22pF 250V
2131	4822 126 12824	18pF 50% NP0 50V
2150	4822 125 50045	1,8pF-22pF 250V
		
3101	4822 100 20167	50K 30%LIN 0,1W
3102	4822 116 52297	68K 5% 0,5W
3103	4822 116 83863	1K 5% 0,5W
3104	4822 116 52256	2K2 5% 0,5W
3105	4822 116 83864	10K 5% 0,5W
3108	4822 116 52191	33R 5% 0,5W
3109	4822 116 52234	100K 5% 0,5W
3110	4822 116 52234	100K 5% 0,5W
3113	4822 116 52252	180K 5% 0,5W

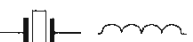


		
5101	# 4822 157 70513	Coil - FM ant
5101	* 4822 157 70762	Coil - Chole 4.5T D5
5102	4822 158 60627	Coil MW/LW ant. assy
5104	# 4822 156 30947	Coil - FM osc
5104	* 4822 157 70033	Coil - FM osc
5105	4822 157 71145	Coil - MW osc
5106	4822 157 70499	IFT - AM
5107	4822 242 81154	KMFC5058-Z
5108	4822 156 11146	IFT - AM
5109	4822 157 71144	Coil-LW osc
		
6101	4822 130 30621	1N4148
6102	4822 130 30621	1N4148
		
7101	4822 209 32746	TEA5711T/N2
<b>- MISCELLANEOUS -</b>		
1100	4822 277 30933	Switch - slide

\* For -/14 only  
# Not for -/14

Note : Only the parts mentioned in this list are normal service parts.

TUNER BOARD ( FM/AM/JAP)


		
2101	4822 122 33848	47pF 5% 50V
2102	4822 126 13686	47pF 5% 50V
2103	4822 124 40248	10µF 20% 63V
2104	4822 124 40248	10µF 20% 63V
2105	4822 126 12078	20pF 5% N200 50V
2106	4822 125 50648	PVC 160P/82P+40PX2
2108	4822 126 13685	10pF 5% 50V
2109	4822 126 12809	2,2pF 5% N470 50V
2110	4822 126 12361	12pF 5% N750 50V
2112	4822 124 41397	47µF 20% 25V
2113	4822 126 13581	0,22µF 20% 50V
2114	4822 126 12671	330pF 10% YB 50V
2115	4822 124 40246	4,7µF 20% 63V
2116	4822 124 80141	10nF 10% 50V
2117	4822 124 40242	1µF 20% 63V
2118	4822 124 40242	1µF 20% 63V
2119	4822 124 80141	10NF10% 50V
2120	4822 124 40242	1µF 20% 63V
2121	4822 124 40239	0,47µF 20% 63V
2122	4822 124 40239	0,47µF 20% 63V
2125	4822 126 11167	22nF 80% 50V
2126	4822 126 13685	10pF 10% N1500 50V
2133	4822 126 12672	4,7nF 10% 50V
2134	5322 122 32311	470pF 5% 50V
		
3101	4822 100 20167	50K 30% LIN 0,1W
3102	4822 116 52297	68K 5% 0,5W
3103	4822 116 83863	1K 5% 0,5W
3104	4822 116 52256	2K2 5% 0,5W
3105	4822 116 83864	10K 5% 0,5W
3106	4822 116 83864	10K 5% 0,5W
3107	4822 111 30893	4M7 5% 0,5W
3108	4822 116 52191	33R 5% 0,5W
3109	4822 116 52234	100K 5% 0,5W
3110	4822 116 52234	100K 5% 0,5W
3111	4822 116 52284	47K 5% 0,5W
3113	4822 116 52252	180K 5% 0,5W

		
5101	4822 156 21671	Coil - Aerial FM
5102	4822 157 70731	Coil - MW/LW ant. assy
5104	4822 157 70033	Coil - Osc FM
5105	4822 157 71145	Coil - M/O
5106	4822 157 70499	IFT - AM
5107	4822 242 81154	FM cer. Filter Kits
5108	4822 156 11146	IFT - AM
		
6101	4822 130 30621	1N4148
6102	4822 130 30621	1N4148
		
7101	4822 209 32746	TEA5711T/N2
7102	4822 130 44197	BC558B
7103	4822 130 44196	BC548C
<b>- MISCELLANEOUS -</b>		
1100	4822 277 21698	Switch - slide
1201	4822 526 10176	Rod
	4822 256 90463	Holder Ferrite Bar


Note : Only the parts mentioned in this list are normal service parts.




ELECTRICL PARTSLIST


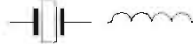

		
2204	4822 122 33169	680pF
2205	4822 122 33197	1nF 10% 50V
2206	5322 121 42465	68nF 5% 63V
2207	4822 122 33197	1nF 10% 50V
2208	5322 121 42465	68nF 5% 63V
2209	4822 124 40242	1µF 20% 63V
2210	4822 122 33169	680pF 10% 50V
2211	4822 124 41397	47µF 20% 25V
2212	4822 124 40242	1µF 20% 63V
2213	4822 122 33169	680pF 10% 50V
2214	4822 124 41397	47µF 20% 25V
2215	4822 124 80144	220µF 20% 25V
2216	4822 124 41397	47µF 20% 25V
2218	4822 126 13678	470µF 10V
2219	4822 124 41397	47µF 20% 25V
2221	4822 126 13678	470µF 10V
2222	5322 121 42661	330nF 5% 63V
2223	5322 121 42661	330nF 5% 63V
2224	4822 122 33197	1nF
2225	4822 116 83864	10K 5% 0,5W
2226	4822 116 83864	10K 5% 0,5W
2251	4822 124 41973	100µF 16V
2252	4822 124 41973	100µF 16V
2301	4822 121 51387	10nF 20% 16V
2302	4822 121 51387	10nF 20% 16V
2303	4822 121 51387	10nF 20% 16V
2304	4822 121 51387	10nF 20% 16V
2306	4822 124 41458	4700µF 20% 16V
2308	4822 124 41397	47µF 20% 25V
2309	4822 124 40184	1000µF 20% 10V
2310	4822 122 33197	1nF 10% 50V
2400	4822 124 23179	10µF 20% 16V
2401	4822 126 10329	68pF 5%
2402	4822 124 41596	22µF 20% 50V
2403	4822 126 12882	100nF +80-20% 50V
2800	4822 122 33069	33pF 5% 5L 50V
2801	4822 122 33847	10pF 5% NP0 50V
2802	4822 122 33069	33pF 5% 5L 50V
2803	4822 122 33069	33pF 5% 5L 50V
2804	4822 121 51387	10nF 20% 16V
2805	4822 124 41397	47µF 20% 25V
2808	4822 124 40239	0,47µF 20% 63V
2809	4822 126 13581	0,22µF 20% 50V
2810	4822 126 12702	270pF 10% Y5P 50V
2811	4822 126 13581	0,22µF 20% 50V
2812	4822 124 40248	10µF 20% 63V
2813	4822 124 41397	47µF 20% 25V
2814	4822 124 41397	47µF 20% 25V
2815	4822 124 40242	1µF 20% 63V
2816	4822 122 33848	47pF 5% SL 50V

ELECTRICL PARTSLIST

		
3201	4822 116 52269	3K3 5% 0,5W
3202	4822 116 83864	10K
3203	4822 116 52238	12K 5% 0,5W
3204	4822 116 52269	3K3 5% 0,5W
3205	4822 116 83864	10K
3206	4822 116 52238	12K 5% 0,5W
3207	4822 116 52269	3K3 5% 0,5W
3208	4822 116 52269	3K3 5% 0,5W
3209	4822 102 10447	50KBX2
3210	4822 116 52256	2K2 5% 0,5W
3211	4822 116 52256	2K2 5% 0,5W
3212	4822 116 52245	150K 5% 0,5W
3213	4822 116 52245	150K 5% 0,5W
3214	4822 116 83864	10K 5% 0,5W
3215	4822 116 52206	120R
3216	4822 116 83864	10K 5% 0,5W
3217	4822 116 52206	120R
3219	4822 116 52215	220R 5% 0,5W
3220	4822 116 52215	220R 5% 0,5W
3221	4822 116 52289	5K6
3222	4822 116 52289	5K6
3263	4822 116 52234	100K 5% 0,5W
3265	4822 116 52251	18K 5% 0,5W
3302	4822 116 83864	10K 5% 0,5W
3305	4822 116 52211	150R
3306	4822 116 83864	10K 5% 0,5W
3307	4822 116 83864	10K 5% 0,5W
3400	4822 116 52175	100K 5% 0,5W
3401	4822 116 52257	22K 5% 0,5W
3402	4822 116 52257	22K 5% 0,5W
3403	4822 116 52175	100K 5% 0,5W
3405	4822 116 52175	100K 5% 0,5W
3800	4822 050 15603	56K 1% 0,4W
3801	4822 050 15603	56K 1% 0,4W
3802	4822 050 11003	10K 1% 0,4W
3803	4822 050 11003	10K 1% 0,4W
3804	4822 050 11003	10K 1% 0,4W
3805	4822 050 11003	10K 1% 0,4W
3806	4822 116 52296	6K8 5% 0,5W
3807	4822 116 52296	6K8 5% 0,5W
3808	4822 116 52269	3K3 5% 0,5W
3809	4822 116 52269	3K3 5% 0,5W
3810	4822 116 83864	10K 5% 0,5W
3811	4822 116 52289	5K6 5% 0,5W
3812	4822 116 52251	18K 5% 0,5W
3813	4822 116 83863	1K 5% 0,5W
3814	4822 116 52269	3K3 5% 0,5W
3815	4822 116 83863	1K 5% 0,5W
3816	4822 116 52297	68K
3817	4822 116 83882	39K 5% 0,5W

ELECTRICL PARTSLIST

		
3819	4822 116 83864	10K 5% 0,5W
3820	4822 116 83878	270K
3822	4822 116 52244	15K 5% 0,5W
3824	4822 116 52297	68K 5% 0,5W
3825	4822 116 52283	4K7 5% 0,5W
3826	4822 116 52291	56K 5% 0,5W
3827	4822 116 52296	6K8 5% 0,5W
3828	4822 116 52234	100K 5% 0,5W
3829	4822 116 52234	100K 5% 0,5W
3830	4822 116 52303	8K2 5% 0,5W
3831	4822 116 52234	100K 5% 0,5W
3832	4822 116 52202	8K2 5% 0,5W
3833	4822 116 52269	3K3 5% 0,5W
3834	4822 116 52283	4K7 5% 0,5W
3835	4822 116 52244	15K 5% 0,5W
3838	4822 116 52291	56K 5% 0,5W
3839	4822 116 52283	4K7 5% 0,5W
3841	4822 116 52234	100K 5% 0,5W
3842	4822 116 52219	330R 5% 0,5W
3843	4822 116 52215	220R 5% 0,5W
3844	4822 116 52245	150K 5% 0,5W
3845	4822 116 52239	120K 5% 0,5W
3846	4822 100 20167	50K 30% LIN 0,1W
3848	4822 116 52186	22R 5% 0,5W
3849	4822 116 83864	10K 5% 0,5W
3850	4822 116 52284	47K 5% 0,5W
3851	4822 116 52263	2K7 5% 0,5W
3852	4822 116 52285	470K 5% 0,5W
3853	4822 116 52234	100K 5% 0,5W
3854	4822 116 52228	680R 5% 0,5W
3855	4822 116 52234	100K 5% 0,5W
3856	4822 116 52243	1K5 5% 0,5W
3857	4822 116 52238	12K 5% 0,5W
3858	4822 116 52256	2K2 5% 0,5W
3860	4822 116 52251	18K 5% 0,5W
3861	4822 116 52231	820R 5% 0,5W
3862	4822 116 52231	820R 5% 0,5W
3863	4822 116 83864	10K 5% 0,5W
3864	4822 116 52256	2K2 5% 0,5W
3865	4822 116 52257	22K 5% 0,5W
3866	4822 116 52257	22K 5% 0,5W
3867	4822 116 52224	470R 5% 0,5W
3868	4822 116 52224	470R 5% 0,5W
3869	4822 116 52257	22K 5% 0,5W
3870	4822 116 52215	220R 5% 0,5W
3871	4822 116 52191	33R 5% 0,5W
3872	4822 116 52235	1M 5% 0,5W
3873	4822 116 52284	47K 5% 0,5W
3874	4822 116 52284	47K 5% 0,5W
3875	4822 116 83863	1K 5% 0,5W

		
3963	4822 116 83863	1K 5% 0,5W
3965	4822 116 52224	470R 5% 0,5W
3966	4822 116 52304	82K 5% 0,5W
3967	4822 116 52251	18K 5% 0,5W
3968	4822 116 52257	22K 5% 0,5W
3969	4822 116 52256	2K2 5% 0,5W
3970	4822 116 52257	22K 5% 0,5W
3971	4822 116 52257	22K 5% 0,5W
3972	4822 116 52257	22K 5% 0,5W
3973	4822 116 52257	22K 5% 0,5W
3974	4822 116 52257	22K 5% 0,5W
3975	4822 116 52269	3K3 5% 0,5W
3976	4822 116 52269	3K3 5% 0,5W
3977	4822 116 52269	3K3 5% 0,5W
3978	4822 116 52269	3K3 5% 0,5W
3992	4822 116 52297	68K 5% 0,5W
3993	4822 116 52297	68K 5% 0,5W
3994	4822 116 52297	68K 5% 0,5W
3995	4822 116 52297	68K 5% 0,5W
		
5800	4822 156 21125	Ind Fxd 3,9µH 10%
5801	4822 157 53941	Ind Fxd 100µH 10%
5802	4822 242 81598	Crystal DT-26 32,768KHz
5803	4822 242 81002	CST6,00MGW-TF01
5851	4822 242 81865	CST16,93MXW0C3-TF01
5903	4822 157 53906	Ind Fxd 47µH 10%
5904	4822 157 53906	Ind Fxd 47µH 10%
		
6253	4822 130 30621	1N4148
6301	4822 130 31438	1N4001
6302	4822 130 31438	1N4001
6303	4822 130 31438	1N4001
6304	4822 130 31438	1N4001
6305	4822 130 34173	BZX79-C5V6
6306	4822 130 31438	1N4001
6307	4822 130 31438	1N4001
6308	4822 130 30621	1N4148
6401	4822 130 83513	LED TSUS3400
6402	4822 214 52009	GP1U58XP
6800	4822 130 30621	1N4148
6801	4822 130 30621	1N4148
6803	4822 130 30621	1N4148
6804	4822 130 30621	1N4148
6806	4822 130 30621	1N4148
6810	4822 130 83363	LED LTL-16KGE
6811	4822 130 83363	LED LTL-16KGE
6813	4822 130 30621	1N4148
6814	4822 130 30621	1N4148

**ELECTRICL PARTSLIST**



6815	4822 130 34173	BZX79-C5V6
6816	4822 130 83363	LTL-16KGE
6817	4822 130 83363	LTL-16KGE
6818	4822 130 30621	1N4148



7201	4822 209 70372	IC TA7769P
7251	5322 130 44779	Trans. BC338-40
7252	5322 130 44779	Trans. BC338-40
7263	4822 130 44197	Trans. BC558B
7351	4822 130 44197	Trans. BC558B
7352	4822 130 40937	Trans. BC548B
7353	4822 130 40937	Trans. BC548B
7451	4822 130 44197	Trans. BC558B
7700	4822 130 91496	LCD Panel LPH6329-1
7800	5322 209 11323	IC 74HCU04N
7801	5322 209 61487	IC LM358N
7802	4822 209 80631	IC LM339N
7803	4822 209 80587	IC LM324N
7804	4822 209 11529	IC 74HC4066N
7808	4822 209 90498	TMP47C820DF
7810	4822 130 40937	Trans. BC548B
7841	4822 209 32852	IC TDA7073A/N2
7842	4822 209 32852	IC TDA7073A/N2
7851	4822 209 33339	IC SAA7345GP/M5
7855	4822 130 40981	Trans. BC337-25
7856	4822 130 40981	Trans. BC337-25
7857	4822 130 40937	Trans. BC548B
7858	4822 130 40937	Trans. BC548B
7859	4822 130 44197	Trans. BC558B
7861	4822 209 32421	IC TDA1311A/N2

**- MISCELLANEOUS -**

1263		4822 267 31468	Socket-headphone
1306		4822 070 31252	Fuse 1.25A
1306		5322 253 30203	Fuse 1.6A
1500		4822 277 30974	Voltage Selector
1810		4822 276 12465	Switch Tact
1811		4822 276 12465	Switch Tact
1812		4822 276 12465	Switch Tact
1813		4822 276 12465	Switch Tact
1814		4822 276 12465	Switch Tact
1815		4822 276 12465	Switch Tact
1816		4822 276 12465	Switch Tact
1817		4822 276 12465	Switch Tact
1818		4822 276 12465	Switch Tact
1819		4822 276 12465	Switch Tact
1820		4822 276 12465	Switch Tact

**- MISCELLANEOUS -**

1821	4822 276 12465	Switch Tact
1822	4822 276 12465	Switch Tact
1823	4822 276 12465	Switch Tact
1900	4822 240 10041	Loudspeaker
1901	4822 240 10041	Loudspeaker
1920	4822 276 13625	Door Switch
5300	4822 146 31484	Transf. Mains 230V
5300	4822 146 31485	Transf. Mains 230V
5300	4822 146 31486	Transf. Mains 100V
5300	4822 146 31483	Transf. Mains 120V

Note : Only the parts mentioned in this list are normal service parts.

Service  
Service  
**Service**

# Service Manual



## TABLE OF CONTENTS

Exchange instruction for optical pickup unit  
Partslist  
Service hints  
Cleaning the lens

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

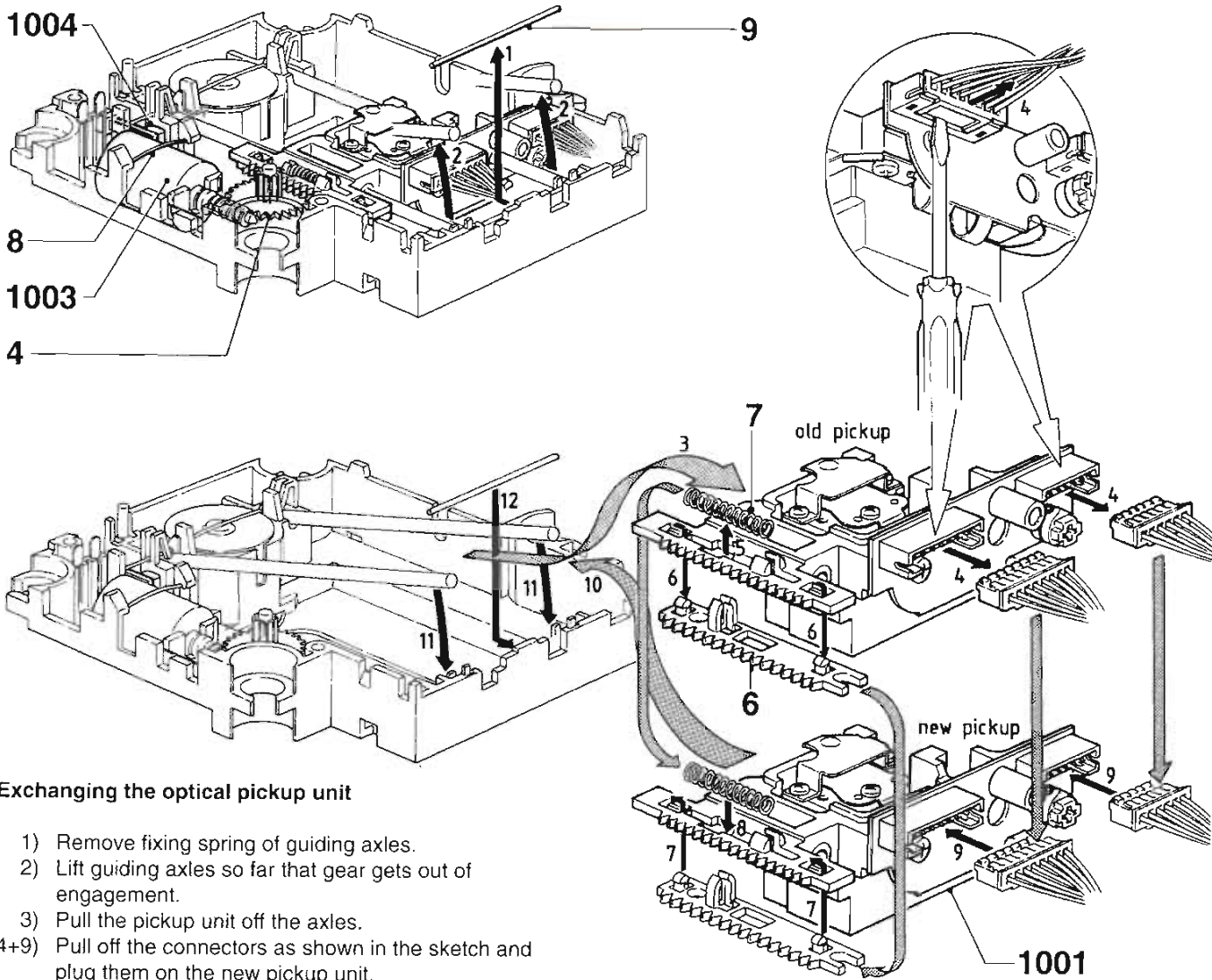
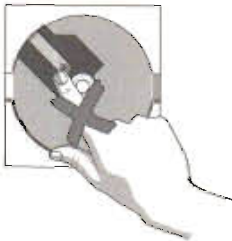
**CLASS 1  
LASER PRODUCT**



Exchange instruction for the OPTICAL PICKUP unit

**WARNINGS: Danger of electrostatic discharge!**  
The laser diode is more sensitive to ESD than MOS ICs.  
Therefore take care of ESD-protection whenever working on the disc drive.

Never touch the lens!



Exchanging the optical pickup unit

- 1) Remove fixing spring of guiding axes.
- 2) Lift guiding axes so far that gear gets out of engagement.
- 3) Pull the pickup unit off the axes.
- 4+9) Pull off the connectors as shown in the sketch and plug them on the new pickup unit.
- 5+6) Remove the toothed bar plus compression spring.
- 7+8) Mount toothed bar and compression spring on new pickup unit.
- 10) Put the new pickup unit on the guiding axes.
- 11) Put guiding axes down to the chassis while positioning the pickup unit so that gear is forced easily into engagement.
- 12) Mount fixing spring of guiding axes.

**IMPORTANT NOTE:**  
All electrical adjustments have to be carried out new.  
Follow the adjustment table of the service manual for the relevant set the disc drive is used.  
The laser current has already been adjusted by the factory.

	4822 691 30345	RCD1.3D disc drive assy
4	4822 522 32451	gear wheel
6	4822 522 32453	toothed bar
7	4822 492 51979	spring, compression
8	4822 492 63941	spring, wire (motor)
9	4822 492 63942	spring, wire (axles)
1001	4822 218 30768	optical pickup unit RCD1.3
1003	4822 361 21113	servomotor assy
1004	4822 276 12163	switch, leaf

Only those parts of which a service code number is stated are service parts.

SERVICE HINTS

Service DISC - HOLDDOWN

The disc must always be fixed well on the turntable.  
If the mechanism has to be dismounted for repair, a separate disc-holddown has to be used ( e.g. service disc-holddown 4822 532 51871 ).  
The CD mechanism then can function normally as in the set.

REDUCTION of REPAIR PRICE

If the disc drive does not function, in most cases the optical pickup unit will be defect.  
To reduce the actual repair price it is recommended to replace the optical pickup unit only.  
Follow the exchange instruction on the previous page.

CLEANING the LENS

Principle: Avoid cleaning of the lens !

**DUST particles** are normally no major problem. They can be blown away with oilfree compressed air.

Finger - prints

If the lens is obviously polluted with finger - prints, it can be cleaned with alcohol or spirit.  
Take a padstick and tip it into alcohol until it is soaked.  
Then clean the surface of the lens by rotating the soaked padstick smoothly.  
The alcohol will dissolve the finger - prints, rotation helps mechanically. Finally the lens will be filled with the dirty cleaning solvent.



Now incline the lens ( disc drive ) and soak the solvent up with absorbent paper.  
The remnants of the solvent will evaporate.



Service  
Service  
Service

Product Service Group CE Audio

# Service Information

GB

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

F

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

NL

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

D

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

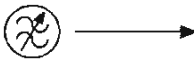

















I

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

**Many changes implemented at the start of production and new release of PCB will be used from week 9538 onwards.**

Page	Contents	PCS No.
11-a	Combi Board - Layout diagram	PCS 84 856
12-a	Combi Board - Circuit diagram	PCS 84 857

RADIO ALIGNMENT

							
AM IF							
AM or MW	468KHz		min.	5106 5108		max.	
AM RF							
MW *	512KHz		max.	5105		max.	
	1635KHz		min.	C4		max.	
	550KHz			5102			
	1500KHz			C3			
FM IF							
FM #	10.7MHz						symm. max. lin.
FM RF							
FM #	75.7MHz		max.	5104		max.	
	108.25MHz		min.	C2		max.	
	77MHz			5101			
	106MHz			C1			
STEREO DECODER							
FM #	98MHz		92MHz			152 ± 1KHz	

\* Mod. 1KHz 30%  
# 10nF + 15E

Repeat

ADJUSTMENT TABLE

CD-PART					
LASER CURRENT					
The trimpot. for adjustment of the laser current is located on the disc drive and has been adjusted in the production line. Therefore for service purpose it is not intended to adjust the laser current. Check only if the HF-signal level is higher than 800mV <sub>pp</sub> .					
TRACK BALANCE					
Service pos. 3 Display shows "3"			3846	Adjust to 0±10mV DC offset	
TRACK GAIN					
Play with Test-Disc 5 track 1	1300 Hz 100 mV <sub>rms</sub>	see Fig. 1	3906		CHX = 50 mV/DIV CHY = 50 mV/DIV Adjust according to FIG.3
FOCUS GAIN					
Play with Test-Disc 5 track 1	1200 Hz 500 mV <sub>rms</sub>	see Fig. 2	3908		CHX = 200 mV/DIV CHY = 200 mV/DIV Adjust according to FIG.3

Test disc 5 4822 397 30096

**REMARK:** In case the discdrive or the optical pickup has been exchanged, always adjust *TRACK BALANCE*, *TRACK GAIN* and *FOCUS GAIN*.

FIG. 1

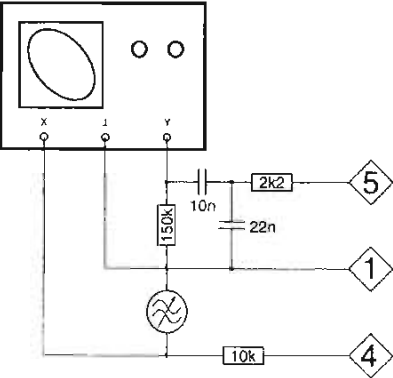


FIG. 2

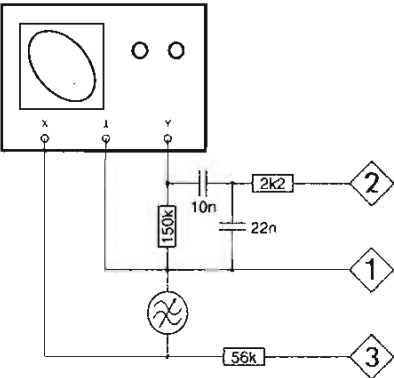
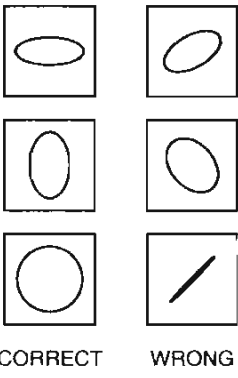


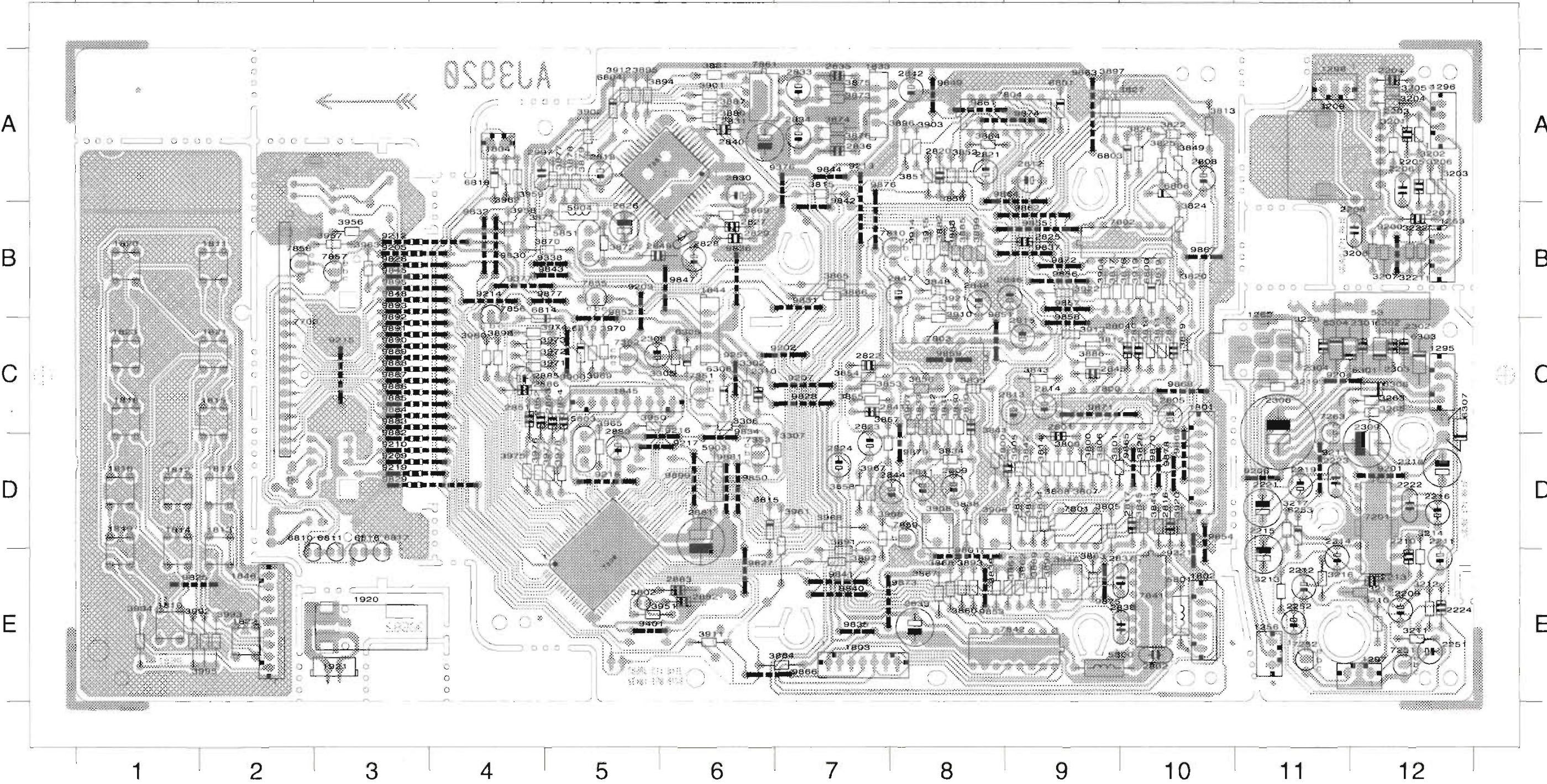
FIG. 3





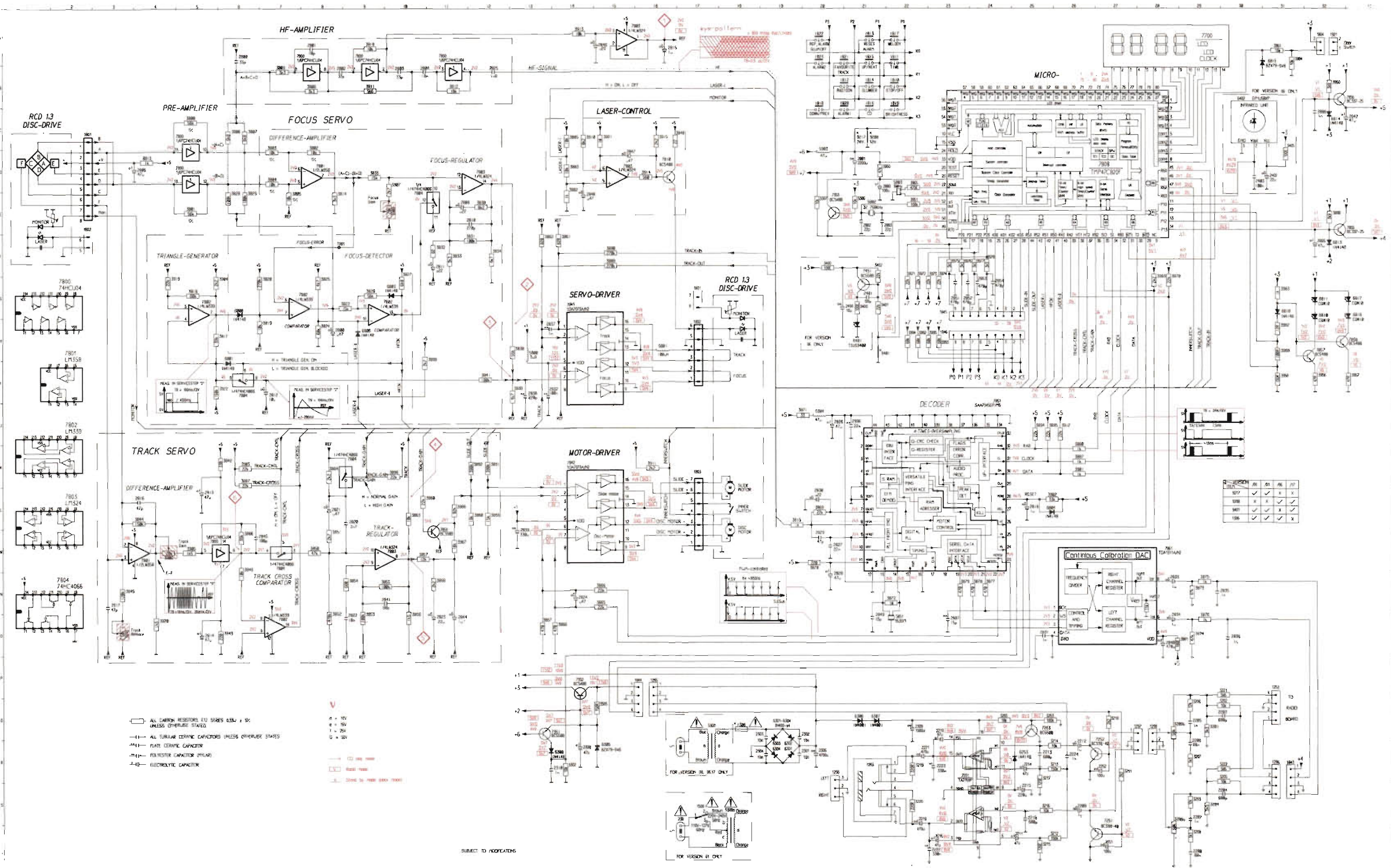
COMBI BOARD - LAYOUT DIAGRAM

53 B 12	1816 D 1	2207 B 12	2301 C 12	2812 A 9	2831 A 6	2851 C 4	3207 B 12	3305 C 6	3815 A 7	3838 D 8	3858 D 7	3877 A 5	3896 A 8	3919 B 10	3969 C 5	5851 B 5	6811 E 3	7803 C 8	9205 B 3	9377 B 4	9843 B 5	9863 A 9	9882 D 3
1253 B 12	1817 D 2	2208 B 12	2302 C 12	2813 C 9	2832 E 10	2852 C 4	3208 B 12	3306 C 6	3816 B 10	3839 E 8	3860 E 8	3878 A 5	3897 A 9	3920 D 10	3970 C 5	5903 D 6	6813 C 5	7804 A 9	9206 D 11	9401 E 5	9844 A 7	9864 B 9	9883 C 3
1256 E 11	1818 C 1	2209 E 12	2303 C 12	2814 C 9	2833 A 7	2853 C 5	3209 A 12	3307 D 7	3817 B 9	3841 D 8	3861 E 9	3879 A 5	3898 C 4	3921 B 8	3971 C 4	5904 B 5	6814 C 4	7808 E 5	9207 C 7	9801 E 8	9845 B 3	9865 D 10	9884 C 3
1263 C 11	1819 E 1	2210 E 12	2304 C 11	2815 C 9	2834 A 7	2854 C 5	3210 E 12	3800 D 9	3819 B 10	3842 D 9	3862 E 9	3880 A 6	3899 B 8	3922 B 9	3972 C 4	6253 D 11	6815 D 6	7810 B 8	9209 D 3	9825 E 1	9847 B 6	9866 E 6	9885 C 3
1295 C 12	1820 B 1	2211 E 12	2306 C 11	2816 D 10	2835 A 7	2880 D 5	3211 E 12	3801 D 9	3820 B 10	3843 C 9	3863 E 9	3881 A 6	3901 A 6	3950 C 5	3973 C 4	6301 C 11	6816 E 3	7841 E 10	9210 D 3	9826 B 3	9848 B 3	9867 B 10	9886 C 3
1296 A 12	1821 C 2	2212 E 11	2308 C 5	2817 D 10	2836 A 7	2881 D 6	3212 E 12	3802 D 9	3822 A 10	3844 D 10	3864 A 8	3882 B 8	3902 A 5	3951 E 5	3974 C 4	6302 C 12	6817 E 3	7842 E 9	9211 D 11	9827 E 6	9849 A 8	9868 C 10	9887 C 3
1297 E 12	1822 E 2	2213 E 12	2309 D 12	2818 A 5	2837 E 10	2882 E 6	3213 E 11	3803 D 9	3824 B 10	3845 D 10	3865 B 7	3883 B 8	3903 A 8	3956 B 3	3975 D 4	6303 C 12	6818 A 4	7851 A 6	9212 B 3	9828 C 7	9850 D 6	9869 D 10	9888 C 3
1298 A 11	1823 C 1	2214 E 11	2310 C 6	2820 A 8	2838 E 10	2883 E 6	3214 E 12	3804 D 9	3825 A 10	3846 E 9	3866 B 7	3884 E 7	3904 B 9	3957 B 3	3976 D 4	6304 C 11	7201 D 12	7855 B 5	9213 B 7	9829 D 4	9851 C 8	9870 D 10	9889 C 3
1801 D 10	1833 A 7	2215 E 11	2800 D 9	2821 A 8	2839 E 8	2885 C 4	3215 E 12	3805 D 9	3826 A 10	3848 B 8	3867 E 8	3885 B 8	3905 D 9	3958 B 4	3977 D 5	6305 C 6	7251 E 12	7856 B 4	9214 B 4	9830 B 4	9852 C 5	9871 C 9	9890 C 3
1802 E 10	1844 C 6	2216 D 12	2801 D 9	2822 C 7	2840 A 6	2886 C 4	3216 E 11	3806 D 9	3827 A 9	3849 A 10	3868 E 8	3886 C 9	3906 D 8	3959 A 4	3978 D 5	6306 C 12	7252 E 11	7857 B 3	9215 C 3	9831 B 7	9853 E 8	9872 B 9	9891 C 3
1803 E 7	1845 C 5	2218 D 12	2802 C 10	2823 D 7	2841 C 7	2996 B 6	3217 D 11	3807 D 9	3828 D 10	3850 A 8	3869 B 6	3887 A 6	3907 C 8	3960 C 4	3992 E 1	6307 C 12	7263 D 11	7858 B 2	9216 D 6	9832 B 4	9854 D 10	9873 E 7	9892 C 3
1804 A 4	1846 E 2	2219 D 11	2803 C 10	2824 D 7	2842 A 8	2997 A 4	3219 C 11	3808 D 9	3829 C 10	3851 A 8	3870 B 5	3889 E 9	3908 D 8	3961 D 7	3993 E 2	6308 C 6	7351 C 6	7859 D 8	9217 D 5	9834 D 6	9855 B 9	9874 A 9	9893 B 3
1810 E 1	1920 E 3	2221 D 11	2804 C 10	2825 B 9	2844 D 8	3201 A 12	3220 C 11	3809 D 9	3830 C 8	3852 A 8	3871 B 4	3890 E 9	3910 C 8	3962 A 4	3994 E 1	6800 B 10	7352 C 5	7861 A 6	921 D 5	9835 E 7	9856 B 9	9875 E 9	9895 B 3
1811 B 2	1921 E 3	2222 D 12	2805 C 10	2826 B 5	2845 C 9	3202 A 12	3221 B 12	3810 C 10	3831 C 8	3853 C 7	3872 B 5	3891 E 7	3911 E 6	3963 B 3	3995 E 2	6801 A 9	7353 D 6	9200 B 12	9219 D 3	9836 B 6	9857 B 9	9876 B 7	9899 D 6
1812 D 1	2203 A 12	2223 D 11	2808 A 10	2827 B 6	2846 B 9	3203 A 12	3222 B 12	3811 C 10	3832 C 8	3854 C 7	3873 A 7	3892 E 7	3912 A 5	3965 D 5	5800 E 9	6803 A 10	7700 C 2	9201 D 12	9221 E 10	9837 B 9	9858 C 9	9877 B 5	9900 C 5
1813 E 2	2204 A 12	2224 E 12	2809 D 8	2828 B 6	2847 B 8	3204 A 12	3263 C 12	3812 C 9	3833 C 8	3855 C 7	3874 A 7	3893 E 8	3913 C 9	3966 D 7	5801 E 10	6804 A 5	7800 C 9	9202 C 7	9251 C 6	9840 E 7	9859 C 8	9878 D 10	
1814 E 1	2205 A 12	2251 E 12	2810 C 8	2829 B 6	2848 B 8	3205 A 12	3265 C 12	3813 A 10	3834 D 8	3856 C 8	3875 A 7	3894 A 5	3914 B 8	3967 D 7	5802 E 5	6806 A 10	7801 D 9	9203 B 5	9338 B 7	9841 E 7	9861 A 8	9879 D 8	
1815 C 2	2206 A 12	2252 E 11	2811 D 8	2830 A 6	2849 B 5	3206 A 12	3302 C 6	3814 D 9	3835 C 8	3857 D 7	3876 A 7	3895 A 5	3915 B 8	3968 D 7	5803 D 5	6810 E 2	7802 B 10	9204 C 11	9376 A 7	9842 B 7	9862 B 9	9881 D 6	





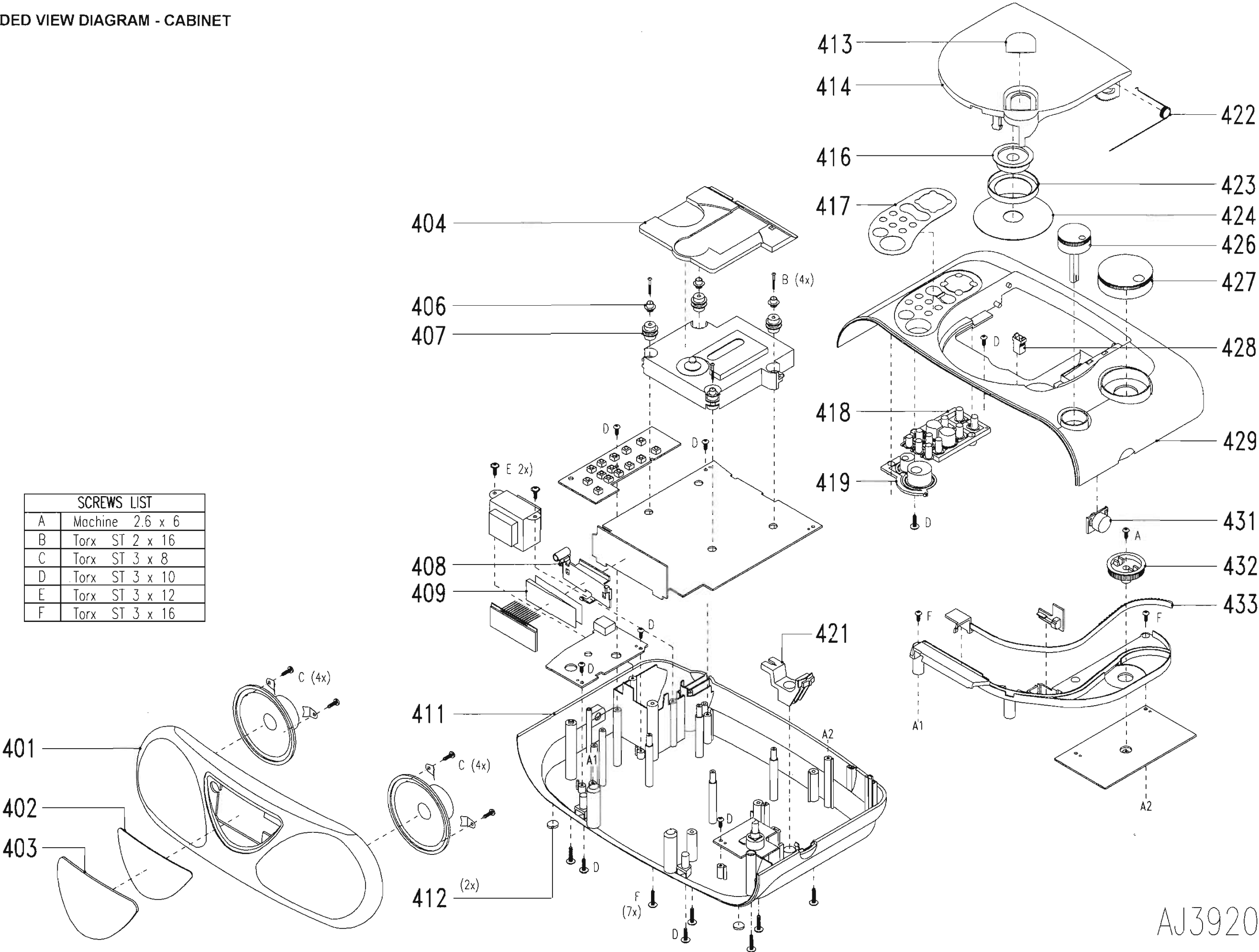
COMBI BOARD - CIRCUIT DIAGRAM



238	S17	2302	Q20	2849	O21	3810	A9	3874	O29	3968	L11	7451	F21
1253	P31	2303	Q18	2851	G23	3811	B9	3875	N29	3969	G28	7700	A29
1256	R20	2304	R18	2852	G23	3812	B11	3876	O29	3970	G28	7800	D4
1263	R21	2306	R20	2853	G24	3813	D4	3877	N24	3971	F22	7800	C4
1295	P16	2308	R14	2854	G24	3814	E8	3878	N24	3972	F22	7800	A7
1296	R31	2309	Q22	2880	D22	3815	L19	3879	N23	3973	F23	7800	M5
1297	Q27	2310	R14	2881	E21	3816	G5	3880	K26	3974	F23	7800	A11
1298	Q28	2400	G21	2882	E21	3817	H6	3881	O29	3975	F23	7800	A9
1306	Q18	2401	G21	2883	E22	3819	H7	3882	D14	3976	F23	7801	D8
1500	S17	2402	D31	2885	F32	3820	G7	3883	D14	3977	F24	7801	M4
1801	C2	2403	D30	2886	C32	3822	G9	3884	A31	3978	F24	7802	G9
1802	H17	2800	A6	2996	J21	3824	H8	3885	C14	3992	H22	7802	O7
1803	K17	2801	A8	2997	Q23	3825	G8	3886	M6	3993	H23	7802	G7
1804	A32	2802	B8	3201	Q29	3826	G9	3887	K26	3994	H22	7802	G5
1810	B22	2803	B10	3202	Q30	3827	F10	3889	F15	3995	H23	7803	D12
1811	A22	2804	B10	3203	S29	3828	E6	3890	F15	5300	Q17	7803	M10
1812	B21	2805	D4	3204	S29	3829	E6	3891	K12	5300a	S18	7803	D15
1813	A21	2808	H8	3205	R30	3830	E12	3892	K12	5300b	Q17	7803	A15
1814	B21	2809	E11	3206	Q29	3831	F12	3893	L12	5800	H13	7804	D10
1815	A21	2810	E12	3207	R29	3832	F11	3894	J25	5801	H16	7804	I6
1816	B21	2811	F11	3208	T29	3833	F11	3895	J25	5802	E21	7804	M7
1817	A22	2812	I7	3209a	S28	3834	F12	3896	K10	5803	D22	7804	K9
1818	B20	2813	L5	3209b	Q28	3835	D9	3897	K6	5851	O22	7808	D27
1819	B22	2814	O5	3210	Q27	3838	H13	3898	E32	5903	D20	7810	D16
1820	B21	2815	A16	3211	R27	3839	I13	3899	H11	5904	J20	7841	G14
1821	A21	2816	L4	3212	T25	3841	I12	3901	K26	6253	R25	7842	K14
1822	A20	2817	N3	3213	R25	3842	K6	3902	L25	6301	R19	7851	I24
1823	A20	2818	L25	3214	R25	3843	O6	3903	K6	6302	R19	7855	E33
1843	R31	2820	L9	3215	T25	3844	L4	3904	G6	6303	R19	7856	B33
1844	P15	2821	L8	3216	S25	3845	N3	3905	M5	6304	R19	7857	H32
1845	G23	2822	O9	3217	R25	3846	O3	3906	M4	6305	R15	7858	H33
1846	H23	2823	O11	3219	R22	3848	C17	3907	D10	6306	Q21	7859	M11
1921	A32	2824	N14	3220	S22	3849	M6	3908	E10	6307	Q21	7861	M28
2203	Q30	2825	B12	3221	P30	3850	M8	3910	C14	6308	R14	9208	C21
2204	S30	2826	J20	3222	R30	3851	M8	3911	K16	6401	H21	9217	C21
2205	Q29	2827	M20	3263	Q25	3852	O8	3912	J26	6402	B30	9401	H21
2206	Q29	2828	N20	3265	Q24	3853	O9	3913	A14	6800	G6		
2207	S29	2829	M20	3302	R14	3854	N9	3914	D16	6801	H6		
2208	T29	2830	L20	3305	Q15	3855	N10	3915	C16	6803	G10		
2209	S26	2831	O25	3306	E21	3856	O10	3919	G4	6804	L25		
2210	S25	2832	I14	3307	E20	3857	M10	3920	O4	6806	H9		
2211	T25	2833	N28	3400	F20	3858	N11	3921	C15	6810	G32		
2212	R26	2834	O28	3401	G21	3860	L12	3922	I6	6811	G32		
2213	R25	2835	N30	3402	F21	3861	F14	3950	D22	6813	F32		
2214	R25	2836	O30	3403	G21	3862	F13	3951	E22	6814	C32		
2215	S25	2837	H13	3405	C31	3863	L10	3956	I32	6815	A31		
2216	T23	2838	I13	3800	C5	3864	K8	3957	I33	6816	G33		
2218	S22	2839	M13	3801	E5	3865	N15	3958	I31	6817	G33		
2219	Q23	2840	O28	3802	C8	3866	N15	3959	H31	6818	G31		
2221	R22	2841	N10	3803	C7	3867	O13	3960	B32	7201	R23		
2222	T23	2842	C33	3804	D7	3868	O14	3961	A31	7251	S27		
2223	R23	2844	O11	3805	E7	3869	L20	3962	H31	7252	Q27		
2224	R26	2845	M7	3806	C6	3870	M20	3963	G31	7263	Q25		
2251	T27	2846	A15	3807	C6	3871	J20	3965	D22	7351	Q13		
2252	R27	2847	D15	3808	B8	3872	N22	3966	L11	7352	P14		
2301	R20	2848	E14	3809	B7	3873	N29	3967	M11	7353	E20		



EXPLODED VIEW DIAGRAM - CABINET



SCREWS LIST		
A	Machine	2.6 x 6
B	Torx	ST 2 x 16
C	Torx	ST 3 x 8
D	Torx	ST 3 x 10
E	Torx	ST 3 x 12
F	Torx	ST 3 x 16

MECHANICAL PARTSLIST

401	4822 423 51208	Cabinet Front
402	4822 454 12976	Sheet Lens (for -/00)
402	4822 454 12979	Sheet Lens (for -/01)
402	4822 454 12978	Sheet Lens (for -/06)
402	4822 454 12975	Sheet Lens (for -/17)
403	4822 450 62497	Lens Display (not for -/17)
403	4822 450 62491	Lens Display (for -/17 only)
406	4822 532 61104	Spacer
407	4822 532 61103	Damper
408	4822 256 80076	Bracket
409	4822 380 20507	Guide
411	4822 423 90223	Cabinet Bottom
412	4822 462 40692	Plug
413	4822 454 30504	Sheet CD Door
414	4822 444 61076	CD Door (not for -/17)
414	4822 444 61074	CD Door (for -/17 only)
416	4822 532 51871	Ring Pressure
417	4822 454 12977	Sheet Function Knob
418	4822 410 63853	Knob Funtion
419	4822 410 63854	Knob Repeat Alarm
421	4822 410 63852	Knob Band
422	4822 492 52332	Spring Compression
424	4822 535 60096	Disc
426	4822 413 51518	Knob Volume
426	4822 532 12241	Ring
427	4822 413 51517	Knob Tuning
428	4822 276 13079	Locking Mechanism
429	4822 423 90222	Cabinet Top (for -/00)
429	4822 423 90224	Cabinet Top (for -/01)
429	4822 423 90224	Cabinet Top (for -/06)
429	4822 423 90221	Cabinet Top (for -/17)
431	4822 529 10257	Damper
432	4822 522 33579	Gear
433	4822 450 81232	Pointer
	4822 321 10853	Mains (for -/01)
	4822 736 22491	IFU (for -/00/01)
	4822 736 22488	IFU (for -/17)