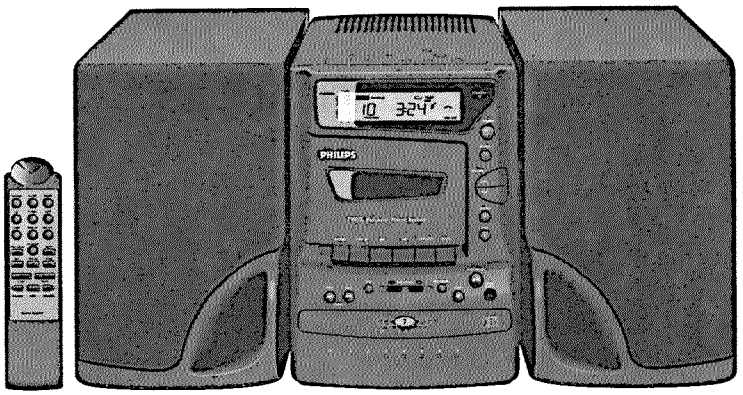
Service
Service
Service

Volta ao Menu



Service Manual

ÍNDICE PAG.

Impresso no Brasil Sujeito a Modificações 01/95 4806 725 27013

PHILIPS

ESPECIFICAÇÕES

GERAL

Tensão de rede		: 110 / 220 V
Frequência de rede		: 60 Hz
Consumo		: 90 W max.
Dimensões		: 180 x 251 x 283 mm

TUNER : FM

Faixa útil		: 87.5 MHz ~ 108 MHz
Frequência de FI		: 10.7 MHz
Impedância de entrada		: 75 Ω
Sensibilidade (S/N = 26 dB)		: < 7 μV
Seletividade (Bw = 600kHz)		: > 20 dB
Rejeição de FI		: > 50 dB
Rejeição de Imagem		: > 20 dB

TUNER : AM

Faixa útil		: 522 KHz ~ 1611 KHz
Frequência de FI		: 450 KHz
Sensibilidade (S/N = 26 dB)		: < 4.0mV/M
Seletividade (Bw = 18KHz)		: > 16 dB
Rejeição de FI		: > 24 dB
Rejeição de Imagem		: > 28 dB

AMPLIFICADOR

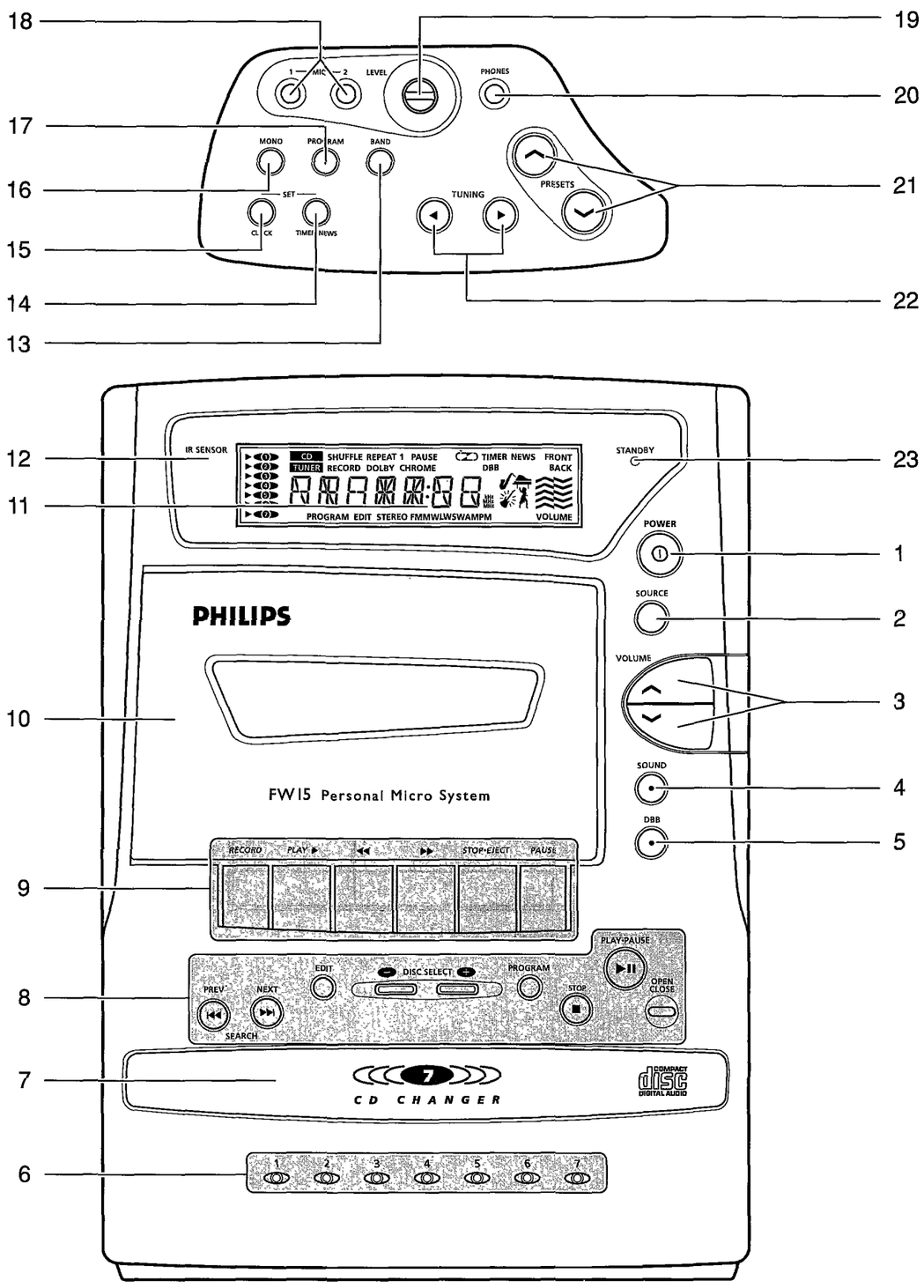
Potência de saída (D = 10%)		: 2 x 10W - 1dB
Impedância de saída		: 2 x 6 Ω L/R
Resposta em frequência (-3dB)		: 63 Hz ~ 15 KHz
Controle de DBB		: 10dB ± 2dB à 70Hz ~ 90 Hz
Saída p/ Headphone (32 Ω)		: 25 mW
Sensibilidade de entrada	AUX / TV	: 400 mV à 47Ω

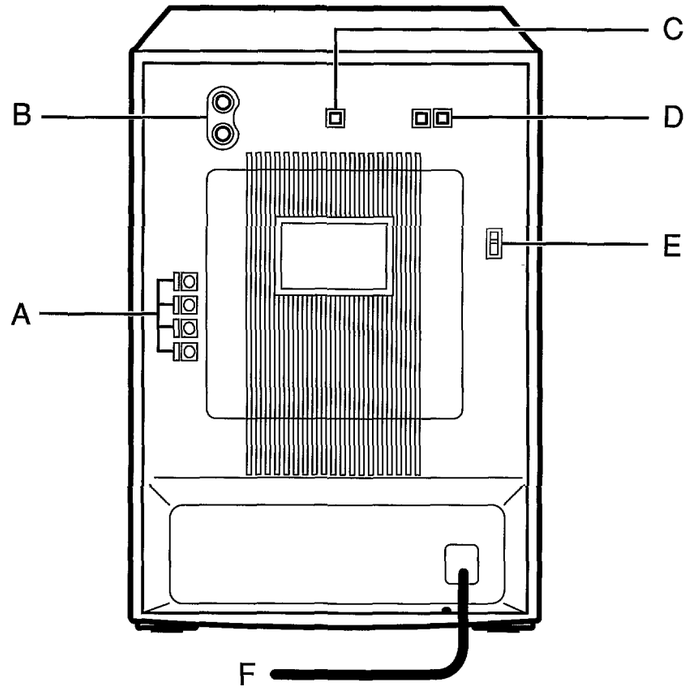
TAPE

Wow & fluter	: < 0.40%
Bias	: 65 KHz ± 5 KHz
Resposta em frequência na gravação (- 8 dB)	: 250 Hz ~ 6300 Hz
S / N	: > 42 dB

C D

Resposta em frequência (± 3dB)	: 20 Hz ~ 20 KHz
Signal / Hiss	: > 90 dB
Distorção à 1 KHz	: < 0.06 %
Diferença entre canais (1 KHz)	: ± 1.2 dB
Separação de canais (1 KHz)	: > 60 dB





CONNECTIONS AND CONTROLS

1	Power		1425
2	Source Select		1421
3	Volume up/down		1419, 1420
4	Digital Sound Control		1424
5	Dynamic bass boost		1423
6	Disc select		
7	CDC Tray		
8	CDC Controls	Previous	1426
		Next	1427
		Edit	1433
		Disc up/down	1422, 1430
		Program/Review	1429
		Stop	1440
		Play/Pause	1441
		Open/Close	1428
9	Rec/Pb Deck controls	Record	
		Play	
		Wind <<	
		Wind >>	
		Stop/Eject	
		Pause	

10	Cassette compartment	
11	LCD display	1400
12	IR sensor	6411
13	Band	1461
14	Timer/News	1467
15	Clock set	1468
16	Mono	1463
17	Program	1462
18 *	Mic inputs	1557, 1558
19 *	Mic level	3953
20	Headphone socket	1560
21	Preset Up/Down	1460, 1464
22	Tuning Up/Down	1465, 1466
23	Standby LED	6401
A	Loudspeaker sockets	1304
B	Aux/TV/DCC Input	1552
C	AM antenna socket	1104
D	FM antenna socket	1101 or 1110
E	Voltage selector	1281
F	Mains cord	

* For Karaoke version only

SERVICE TEST PROGRAM 1

Operating sequence	Display shows	Remarks	In case of problems check
Hold "Program" and "Preset Up" button down while Power on to enter Service test program.	*XX YY-S #* This is the main menu.	where XX - Type no. numeric YY - Master µP version S - Service mode	
Press "Program"	*PASS* Main menu reappears after 2 seconds.	Eeprom test	Check IC if Display shows *ERR*
Press "Band"	*NEW* Main menu reappears after 2 seconds.	Eeprom is now reset to default data.	
Press "Clock Set" Press "Clock Set" Press "Clock Set"	*32K* *8M* Main menu reappear.	The Alarm buzzer is turned on. An output signal of 4096Hz is available at pin 37 of the main µProcessor. The output signal at pin 37 is now 3906 25Hz.	Check X'tal Check 8MHz oscillator
Press "Set Timer/News"	*FAST* *NOM* Main menu reappears after 2 seconds.	Pressing "Set Timer/News" key will alternate between Fast and Normal speed. In the Fast mode the clock increases at 1 minute per second. Leaving the test program now will allow quick customer checks on the clock/timer/alarm function	Ensure the clock is in normal speed before returning to customer.
Press "Mono" and followed by any key on the set or Remote control. Press "Mono" to return to Main menu	See key test Table 1 and 2.		
Press "Tuning Up"	See Table 3 and Main menu	Pressing the "Tuning Up" key will scroll through the 4 different displays and the Main menu.	
Press "Tuning down"	*AUX* *TAPE* *CD* *TUNER* Main menu reappears after 2 seconds.	During source switching the set is not muted.	
Disrupt the mains supply to exit the Service test program.			Ending the Service test by pressing the "Power" key from the Main menu will render * CD error codes to be displayed. * Tuner "Program" and "Autoprogram" keys are deactivated

Note: XX - Model model (eg 15 for FW15, etc.)
YY - Software verstion, counting down from 99

TABLE 1. SERVICE KEY TEST TABLE

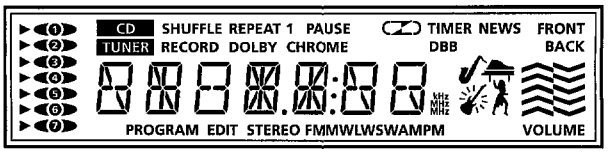
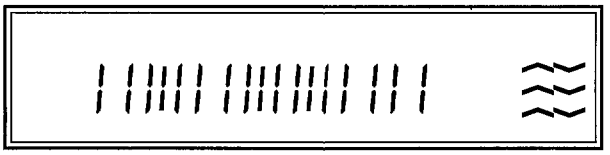
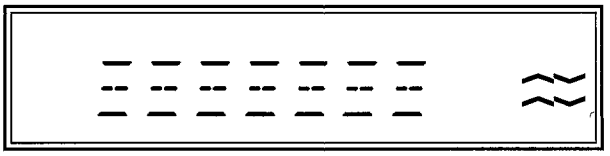
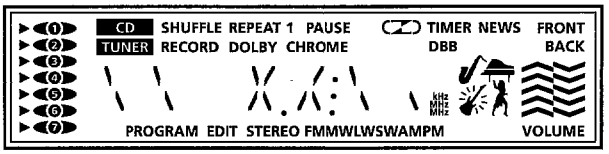
Timer/News/Tuner keys	Display	Function keys	Display	CD Keys	Display
Mono	01	Power	13	Next	19
Prog	02	Source	09	Prev	20
Band	03	Volume Up	11	Edit	21
Set Clock	12	Volume Down	10	Disc Up	16
Set Timer/News	05	Sound	14	Disc Down	24
Preset Up	04	DBB	15	Program	17
Preset Down	08			Stop	30
Tuning Up	07			Play/Pause	29
Tuning Down	06			Open/close	18

TABLE 2. SERVICE REMOTE CONTROL KEY TEST TABLE

Function/Tuner keys	Display	CD keys	Display
Standby	38 RC	CD	22 RC
Sleep	28 RC	Repeat	32 RC
Timer	26 RC	Previous	33 RC
Tuner	23 RC	Shuffle	34 RC
Tape	25 RC	Next	35 RC
News	27 RC	Disc Down	24 RC
Sound	14 RC	Pause	36 RC
Preset down	08 RC	Disc Up	16 RC
Preset up	04 RC	Stop	31 RC
Volume up (+)	11 RC	Play	37 RC
DBB	15 RC		
Volume down (-)	10 RC		

Note: "RC" disappears when the key is released.

Table 3. Display and Disc indicators.

Steps	LCD display	Disc indicator
1		Fully on
2		Odd numbers On
3		Even numbers On
4		Fully Off

SERVICE TEST PROGRAM 2

Operating sequence	Display shows	Remarks	In case of problems check
To perform CDC test press "CD Play/Pause" at the Main menu screen. Service level 1 is now achieved. Press "Next" Press "Prev" Press "Stop" will exit CDC test and return to Main menu.	*CDC AA* *SLED O* *SLED I*	The CDC servo version is display. AA = version number The sledge will move outward. The sledge will move inward.	Pressing "Power" key at the Main menu screen will to exit Service test and enter into Service Play mode. The set will perform as normal except in the CD mode error codes will be displayed. A list of error codes are found in Table 4.
Press "Play/Pause" - Service level 2 Press "Stop"	*FOC 1*	Laser is turned on and focus is achieved. Return to Service level 1	Check the laser and focus circuits if the display shows *FOC 0*
Press "Play/Pause" - Service level 3 Press "Stop"	*DISC*	Disc motor start to turn. Return to Service level 1.	
Press "Play/Pause" Press "Stop"	*RDL*	The Radial servo turns on and music can be heard at the Loudspeakers. Return to Service level 1.	
To perform Tuner test press "Preset Up" at the Main menu screen. Use the "Preset Up" and "Preset down" to display the loaded frequencies	*ZZZ* See Table 5.	Tuner version is display ZZZ = Tuner version Service frequencies are now loaded into the EEROM of the µProcessor.	
To end the Service test program disrupt the mains supply.			Ending the Service test by pressing the "Power" key from the Main menu will render: * CD error codes to be displayed. * Tuner "Program" and "Autoprogram" keys are deactivated.

TABLE 4. CD ERROR CODES TABLE

Error codes		Error description
E 1002	F	Focus error
E 1008	W	Out of lead-in during reading TOC
E 1010	F	Radial error
E 1011	W	Sledge error
E 1012	F	Fatal sledge error
E 1013	F	Turntable motor error
E 1042	F	Internal stack overflow
E 1050	W	Edit calculation error
E 1070	F	Centering of the tray not finished on time
E 1071	F	Tray closing not finished within time
E 1072	F	Tray has not opened within time
E 1076	W	Desired disc position could not have been reached within time
E 1077	F	Pickup Switch SW1 or SW2 did not open as expected within a certain time
E 1078	F	Pickup Switch SW1 or SW2 did not close as expected within a certain time
E 1079	W	Tray open position not reached within time
E 1080	F	Miscounting of the stocker position occured, position was correct at position 1

Note: F = Fatal error and set stops operation
W = Warning and set continues operation

TABLE 5. TUNER SERVICE TEST FREQUENCIES

PRESET	Europe "EUR"	East Eur. "EAS"	USA "USA"	Oversea "OSC"	Japan "JAP"	Oversea "OSS"	Eueope "EUS"
1	108 00 MHz	108 00 MHz	108 00 MHz	108 00 MHz	90 00 MHz	108 MHz	108 MHz
2	87 50 MHz	65 81 MHz	87 50 MHz	87 50 MHz	76 00 MHz	87 5 MHz	87 5 MHz
3	1611 kHz	1611 kHz	1710 kHz	1710 kHz	1629 kHz	1710 kHz	1611 kHz
4	522 kHz	522 kHz	530 kHz	530 kHz	522 kHz	530 kHz	522 kHz
5	279 kHz	279 kHz	98 MHz	98 MHz	80 MHz	12 1 MHz	279 kHz
6	153 kHz	153 kHz	560 kHz	560 kHz	558 kHz	3900 kHz	153 kHz
7	98 00 MHz	98 00 MHz	98 00 MHz	98 00 MHz	80 00 MHz	98 00 MHz	98 00 MHz
8	558 kHz	558 kHz	560 kHz	560 kHz	558 kHz	560 kHz	558 kHz
9	1494kHz	1494kHz	1500kHz	1500kHz	1494kHz	1500 kHz	1494 kHz
10	549kHz	549kHz	550kHz	550kHz	549kHz	550 kHz	549 kHz
11						4250 kHz	18 1 MHz
12						8000 kHz	5900 kHz
13						11 9 MHz	6200 kHz
14							17 MHz
15							12 MHz

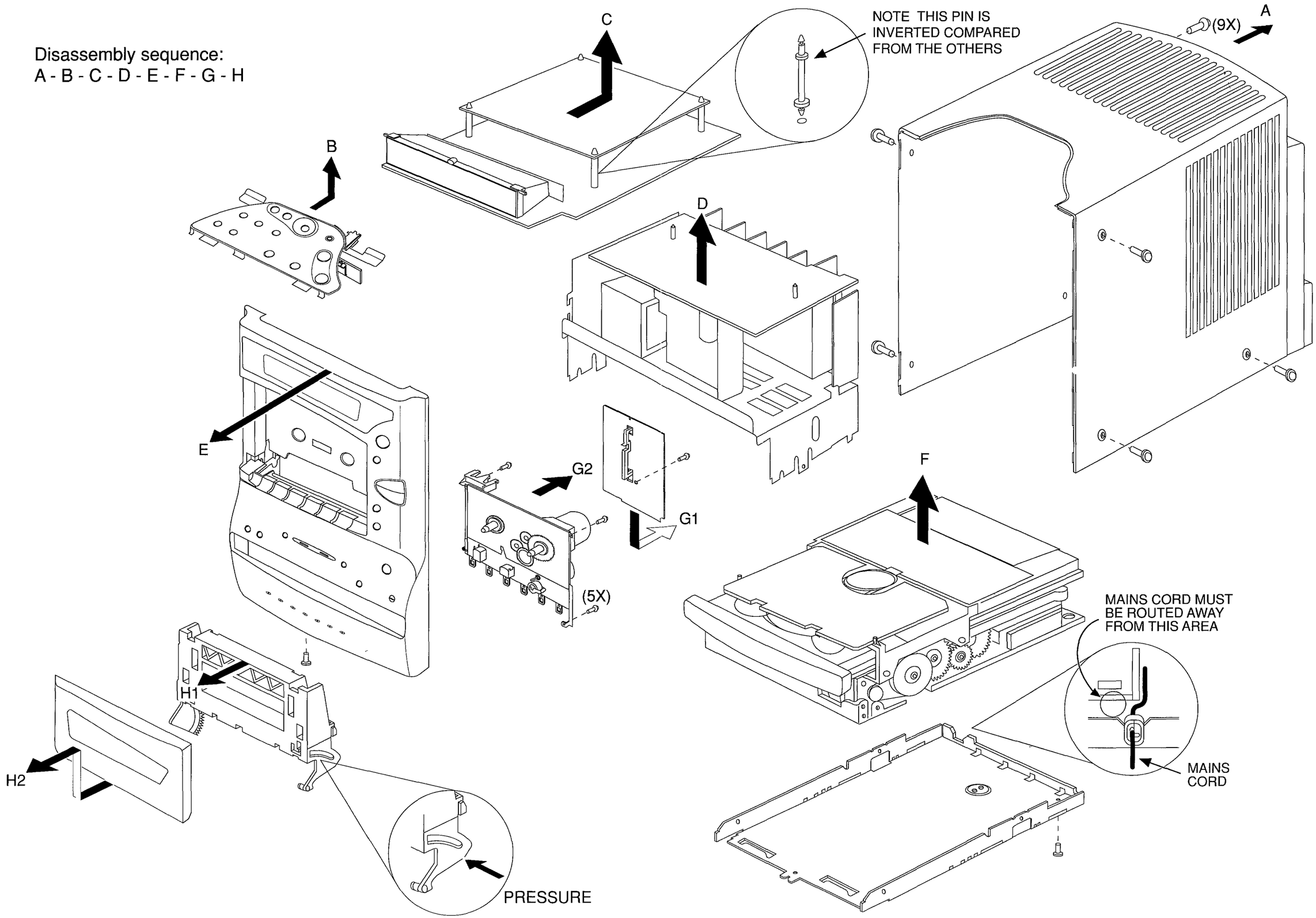
TAPE MECHANISM ADJUSTMENT

ADJUSTMENT	CASSETTE	SK	TAPEDECK POSITION	MEASURE ON	READ ON	ADJUST WITH	ADJUST TO
Azimuth	10kHz	Cass	Play	1560	mV-meter	Left hand screw R/P head	Maximum
Motor speed	3150Hz	Cass	Play	1560	Wow and Futter meter	Preset in motor	* * a

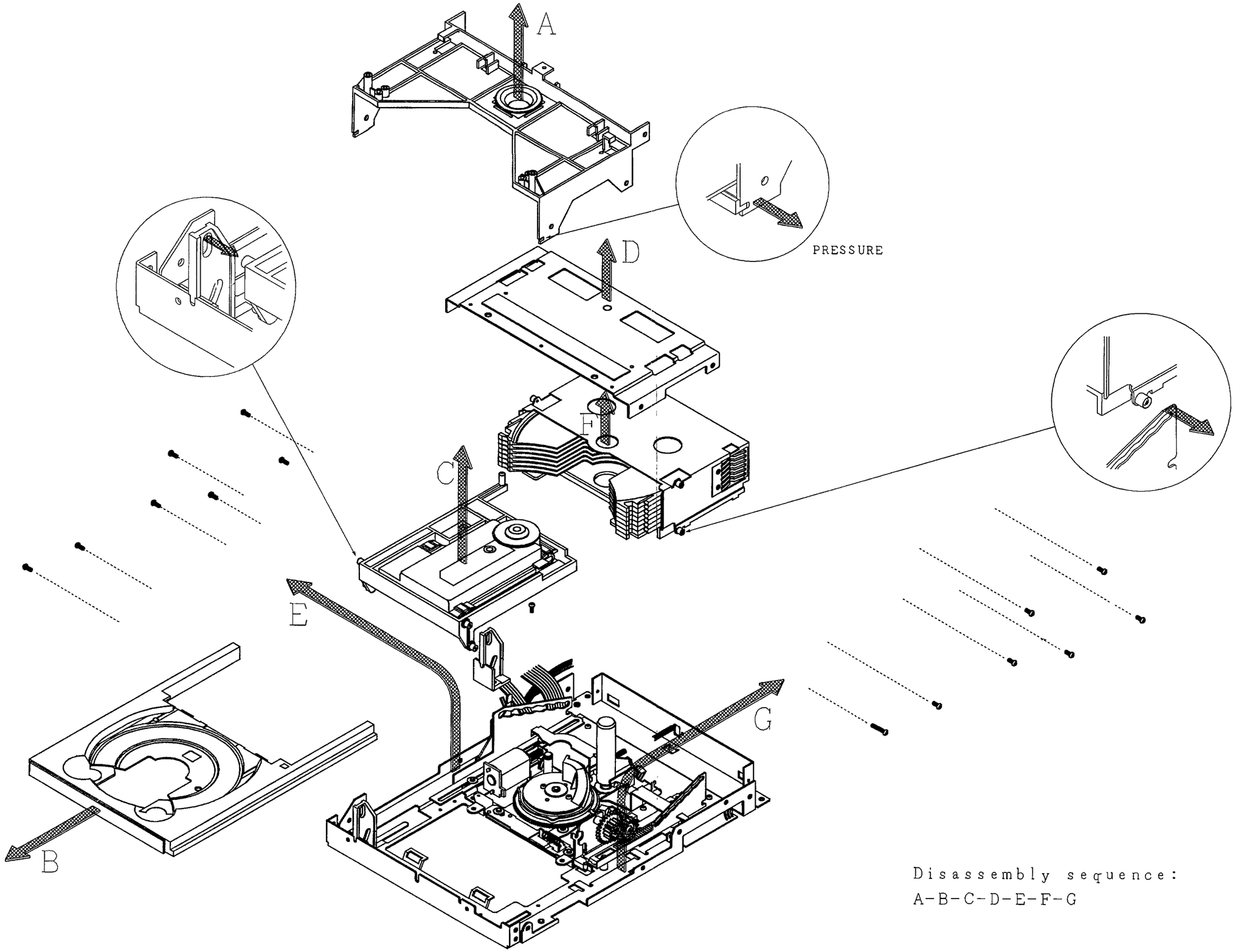
** a The maximum permissible speed deviation is 2%
Moreover, the wow and flutter value can be read
This value should not exceed 0 4%

DISASSEMBLY DRAWING

Disassembly sequence:
A - B - C - D - E - F - G - H

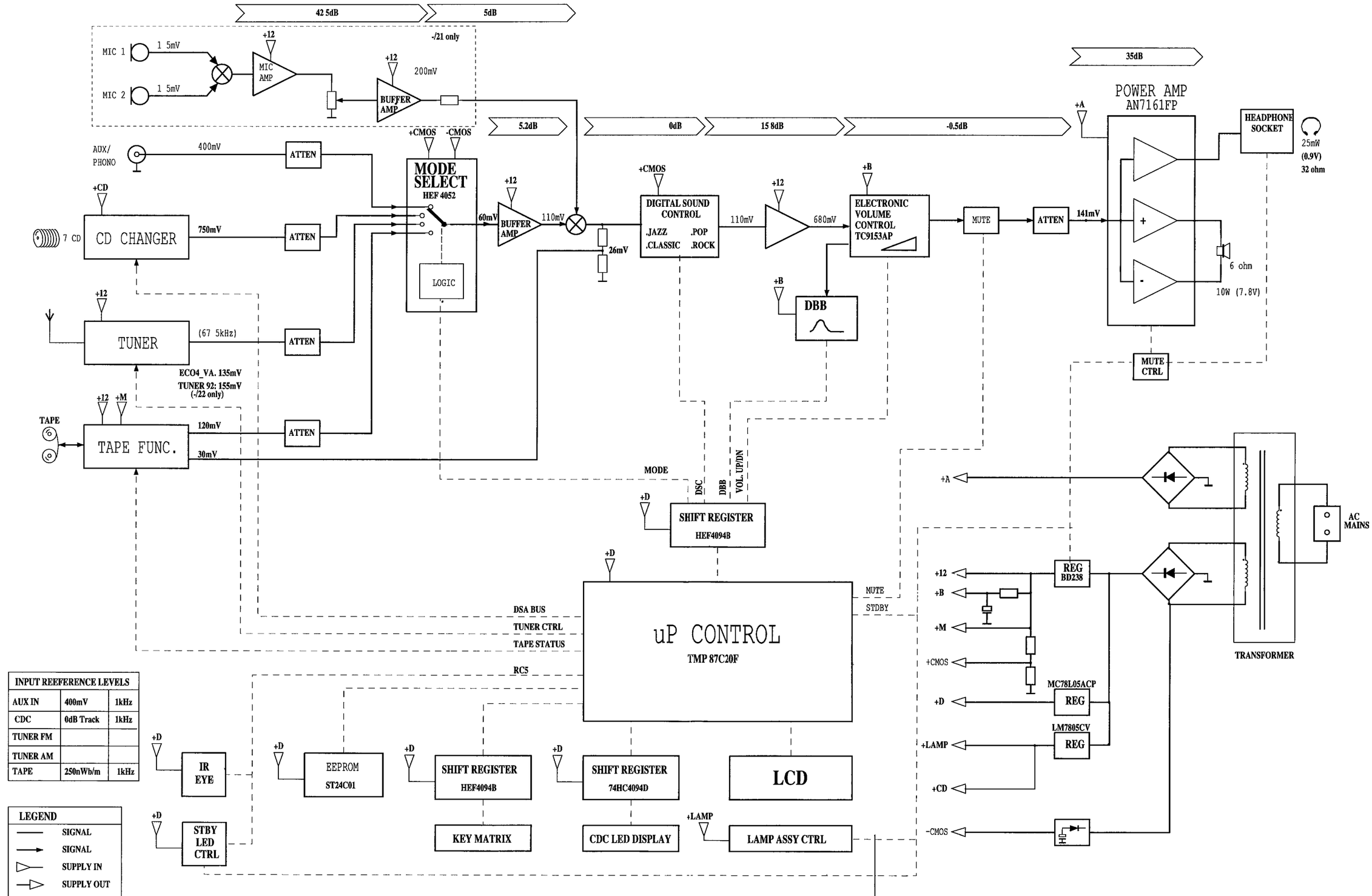


CDC DISASSEMBLY DRAWING



Disassembly sequence:
A-B-C-D-E-F-G

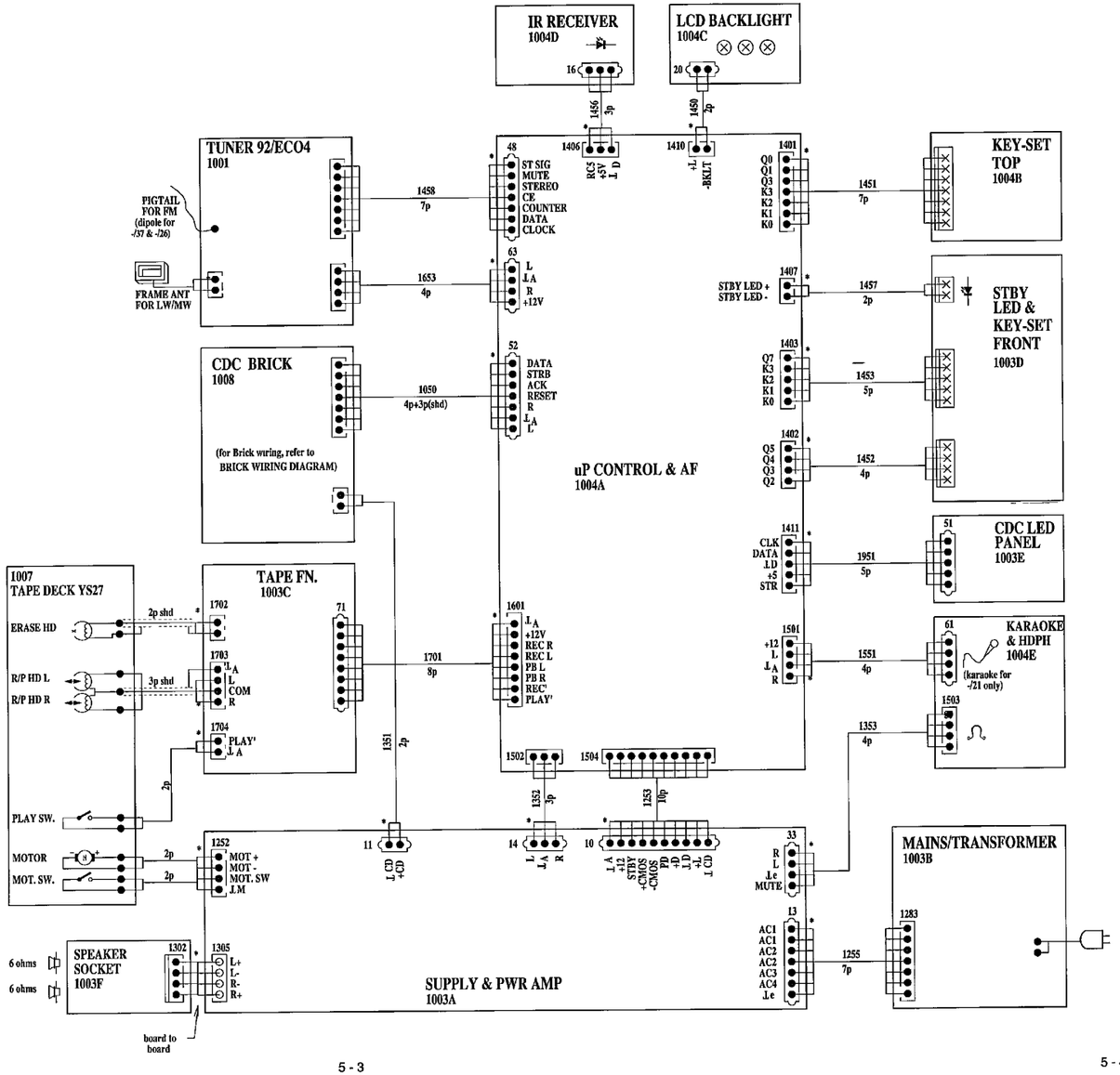
BLOCK DIAGRAM



INPUT REEFERENCE LEVELS		
AUX IN	400mV	1kHz
CDC	0dB Track	1kHz
TUNER FM		
TUNER AM		
TAPE	250nWb/m	1kHz

LEGEND	
	SIGNAL
	SIGNAL
	SUPPLY IN
	SUPPLY OUT
	CONTROL
	SUM PT
XXdB	GAIN INDICATION

WIRING DIAGRAM



ITEM	DESCRIPTION
1001	PCBAS TUNER
1003	PCBAS POWER
1004	PCBAS COMBI
1007	TAPE DECK MECHANISM
1008	CDC BRICK

* DENOTES PIN 1 OF CONNECTOR

DIPMATE

JST XH TOP (MALE)

JST JQ TOP (FEMALE)

JST XH SIDE (MALE)

BACK ENTRY FEMALE

BACK ENTRY MALE

SPACER

KOIDE XC25 BOARD-IN
(SIDE ENTRY)

ESD

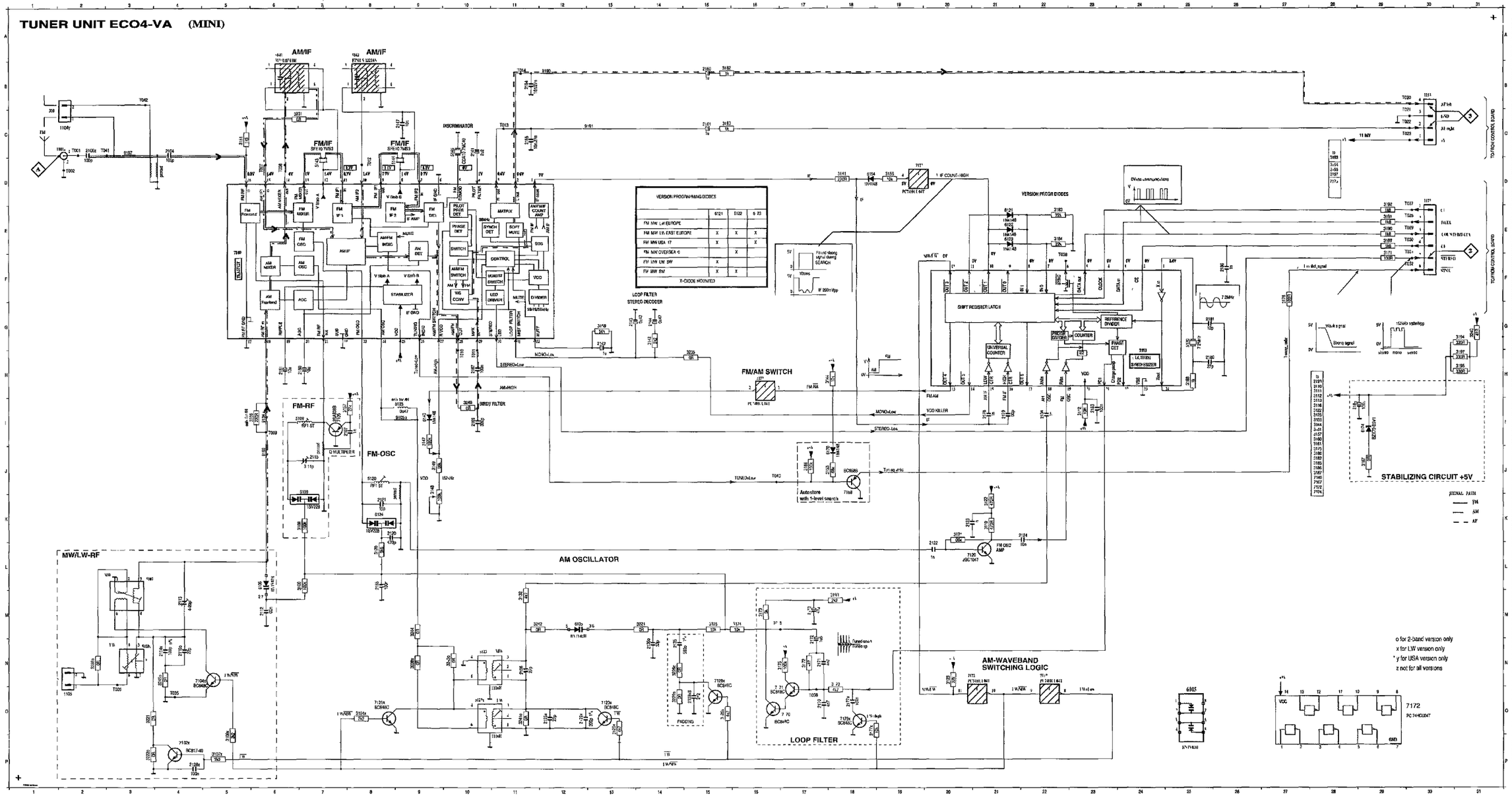
SUGESTÕES PARA REPARAÇÃO

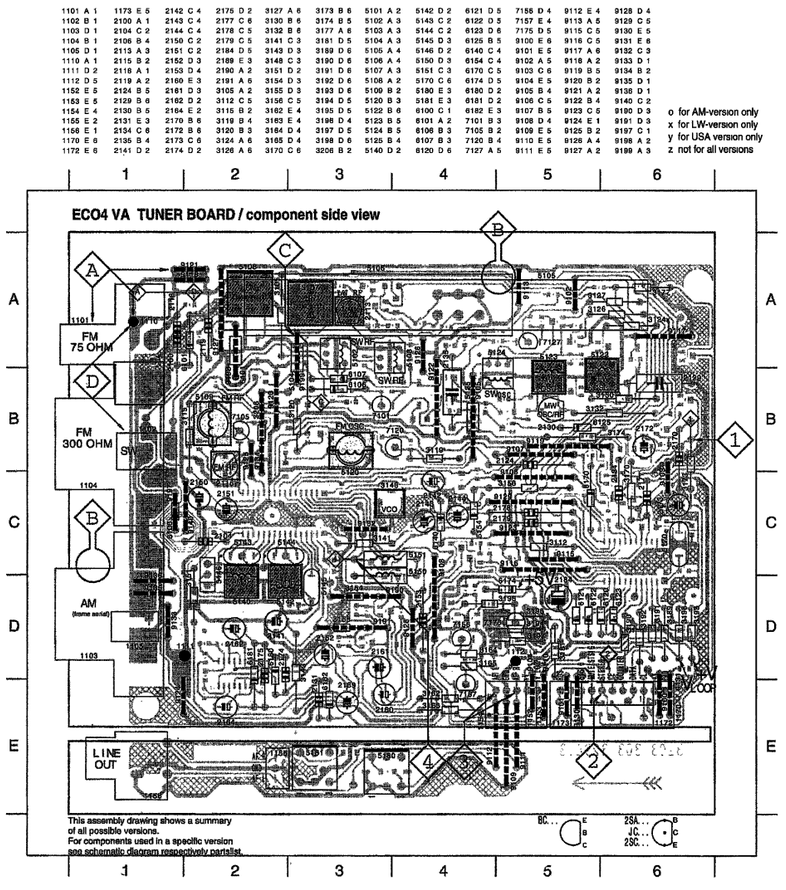
1. **E.S.D.** (Descargas Eletrostáticas)

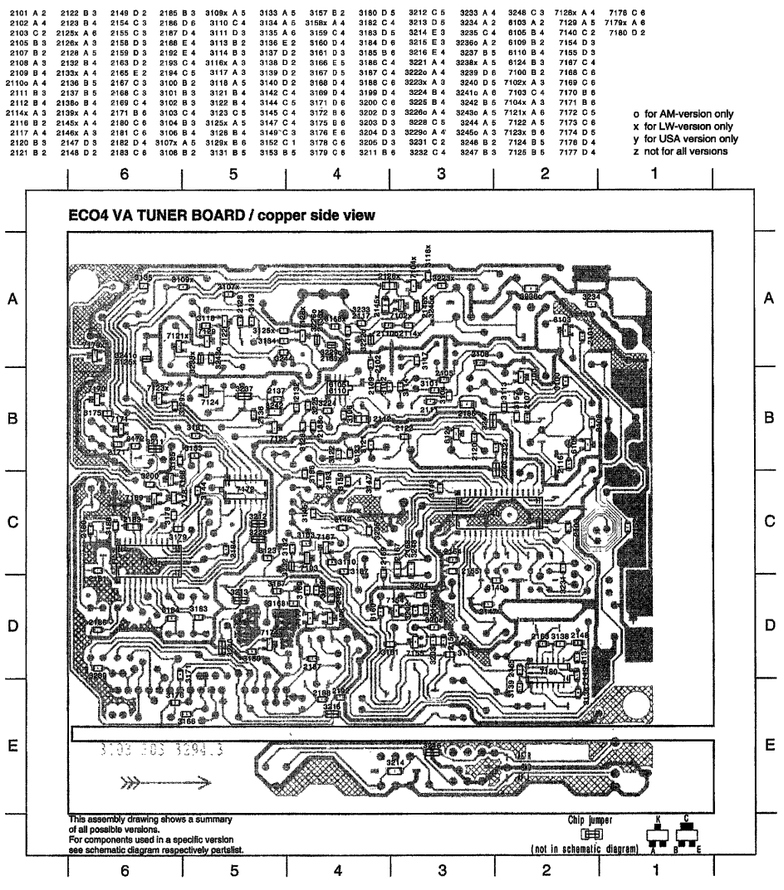
   Todos os C I 's e outros semicondutores são suscetíveis às descargas eletrostáticas **(ESD).** A falta de cuidado durante uma intervenção técnica, pode reduzir drasticamente a vida útil destes componentes
   Durante o conserto, assegure-se bem de todos os procedimentos necessários a se evitar as **E.S.D.'s.**

2. **Circuitos Integrados**

   Todos os **I.C.'s MOS**, geralmente são muito suscetíveis a sobrecargas e alta tensões , portanto, todas as medições devem ser efetuadas com o **maximo cuidado.**


TUNER UNIT ECO4-VA (MINI)
AM/IF
FM/IF
DISCRIMINATOR
VERSION PROGRAMMING DIODES
X-DIODE MOUNTED
FM/AM SWITCH
LOOP FILTER
STEREO DECODER
FM-RF
FM-OSC
AM OSCILLATOR
MW/LW-RF
AM-WAVEBAND SWITCHING LOGIC
LOOP FILTER
SHIFT REGISTER LATCH
UNIVERSAL COUNTER
REFERENCE DIVIDER
PHASE DET
COUNTER
STABILIZING CIRCUIT +5V
SIGNAL PATH
FM
AM
AF
TO/FROM CONTROL BOARD
o for 2-band version only
x for LW version only
* y for USA version only
z not for all versions





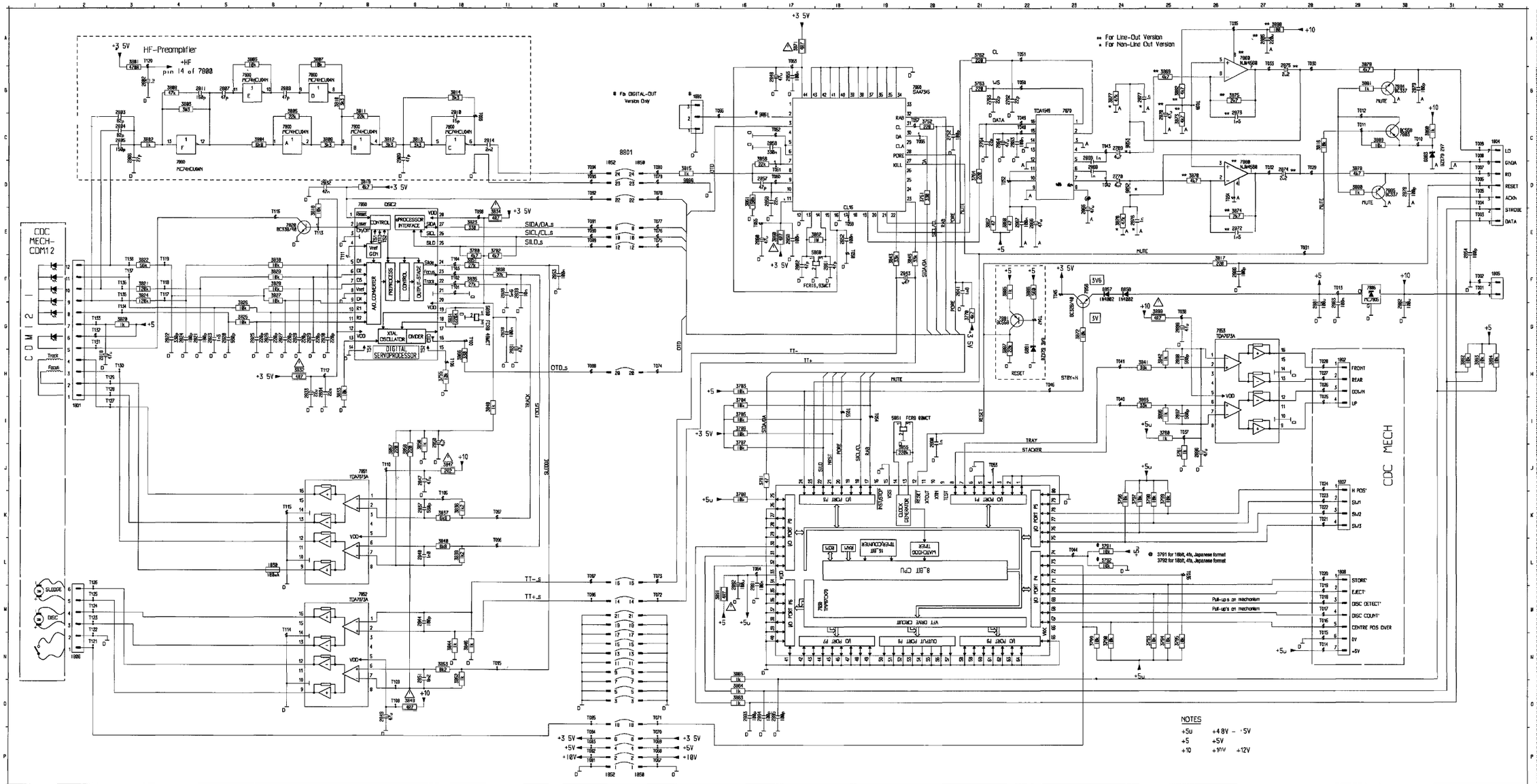
TUNER Adjustment table (ECO4 VA FM/MW- and FM/MW/LW - versions with AM-frame aerial)

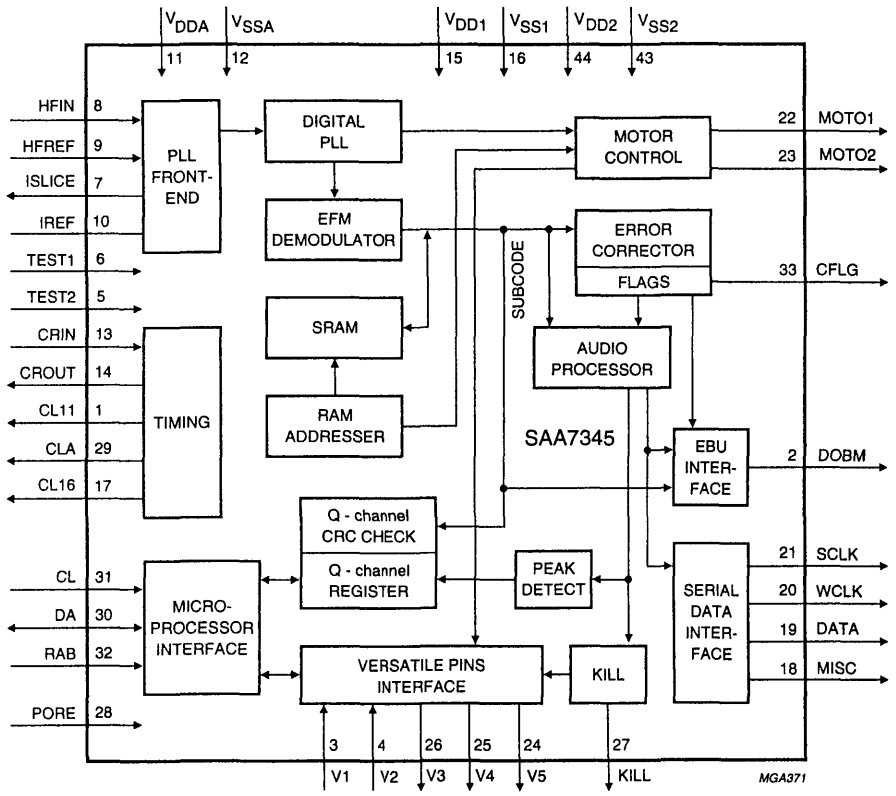
Waverange	Input frequency	Input	Set tuned to	Adjust	Output	Scope / Voltmeter
VARICAP ALIGNMENT						
FM /00/01/05/10/17			108 MHz	5120		8 ± 0.2V
87.5 - 108MHz			87.5MHz	check		4.1 ± 0.5V
FM /14 East Europe			108 MHz	5120		8V ± 0.2V
65.81 - 108MHz			65.81 MHz	check		0.8 ± 0.4V
MW /01/17			1710kHz	5123	◇1	9V ± 0.1V
2-band version 530 - 1710kHz			530kHz	check		1V ± 0.4V
LW /00/05/10/14			279kHz	5122		8V ± 0.2V
153 - 279kHz			153kHz	check		1V ± 0.4V
MW /00/05/10/14			1611kHz	5123		8V ± 0.1V
522 - 1611kHz			522kHz	check		1V ± 0.4V
FM - RF						
FM /00/01/05/10/17	108MHz	◇A	108MHz	2115		
	87.5MHz		87.5MHz	5109	◇3	MAX ↕
FM /14 East Europe	108MHz	mod=1kHz Δf=22.5kHz	108MHz	2115		
	65.81MHz		65.81MHz	5109		
VCO						
FM	98 MHz, 1mV continuous wave	◇A	98MHz	3148	◇2	152 ± 1 kHz
AM - IF						
MW	540kHz Δf = 10kHz as low as possible	100nF 50E ◇C	540kHz	5142 5140	◇4	symmetrical and max height
AM - RF [1]						
LW	198kHz	◇B mod=1kHz 30% AM	198kHz	5108	◇4	MAX
MW 3-band version	1494kHz		1494kHz	2113		
	549kHz		549kHz	5107		MAX ↕
MW 2-band version	1500kHz		1500kHz	2113		
	550kHz		550kHz	5107		

* Use Service Test Program. By selecting the TUNER TEST test frequencies will be stored as preset frequ. automatically.
[1] For AM RF-adjustments the original frame antenna 4822 158 60622 has to be used!

↕ repeat

CD CIRCUIT FOR DAC TDA1549 (IC7870)



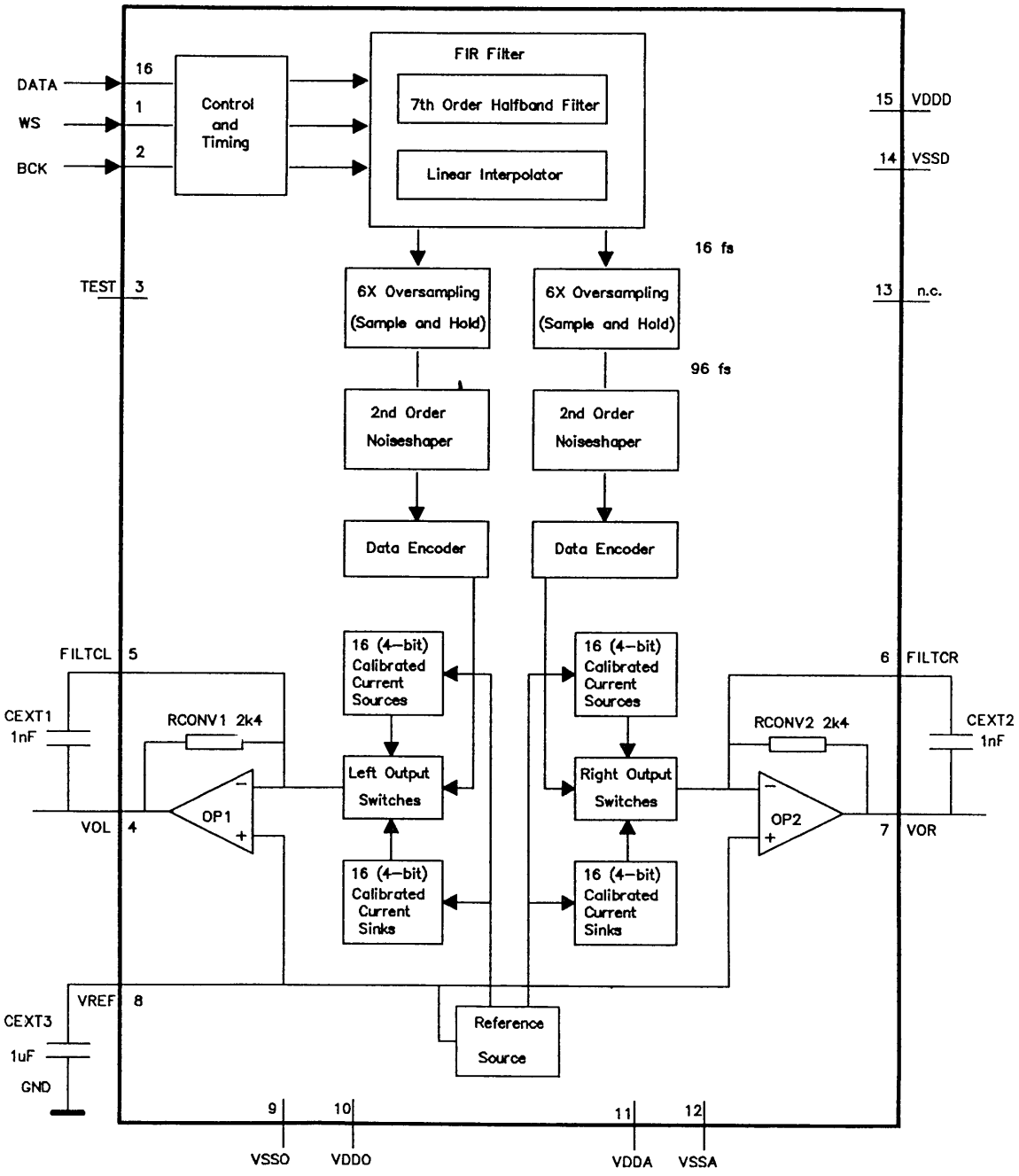


Block diagram.

PINNING OF SAA7345

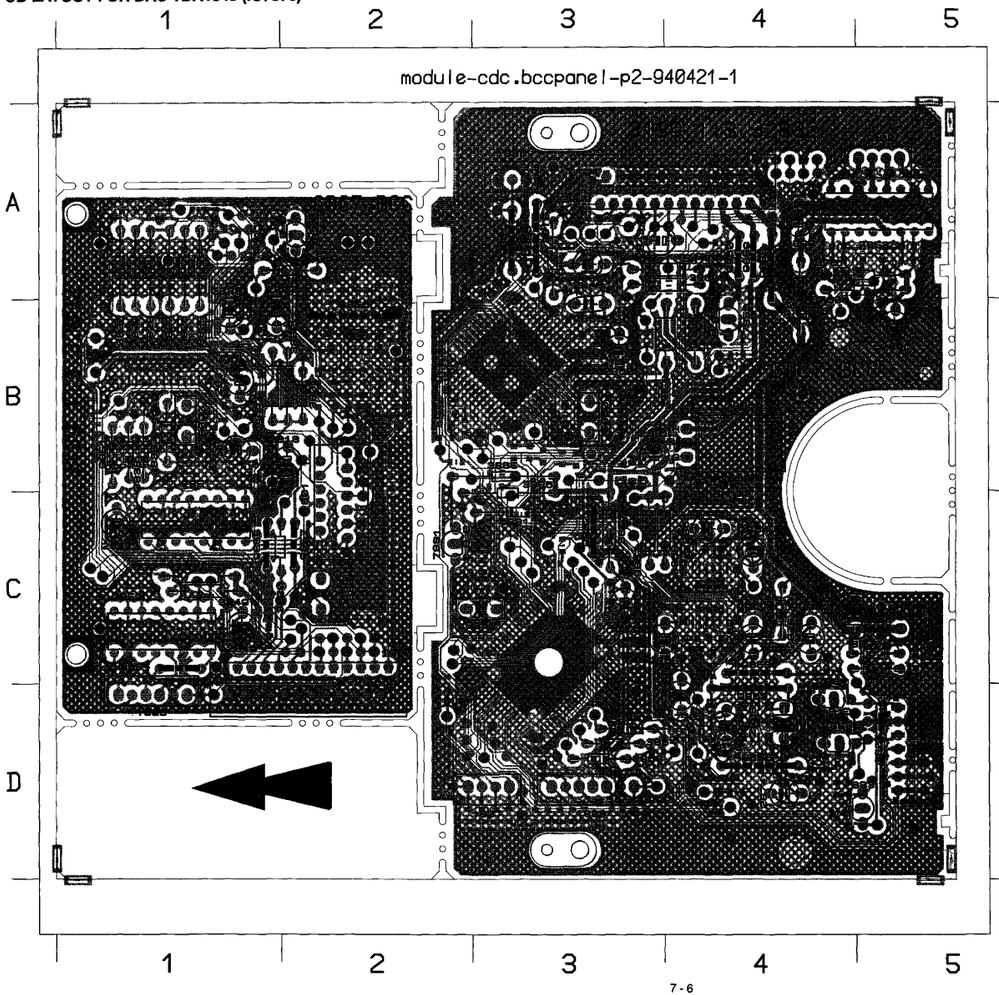
SYMBOL	PIN	DESCRIPTION
CL11	1	11 2896 MHz clock output (3-state)
DBOM	2	bi-phase mark output (externally buffered; 3-state)
V1	3	versatile input pin
V2	4	versatile input pin
TEST2	5	test input, this pin should be tied LOW
TEST1	6	test input, this pin should be tied LOW
ISLICE	7	current feedback from data slicer
HFIN	8	comparator signal input
HFREF	9	comparator common-mode input
IREF	10	reference current pin (nominally $V_{DD}/2$)
V_{DDA}	11	analog supply
V_{SSA}	12	analog supply
CRIN	13	crystal/resonator input
CROUT	14	crystal/resonator output
V_{DD1}	15	digital supply
V_{SS1}	16	digital supply
CL16	17	16.9344MHz system clock output
MISC	18	general purpose DAC output (3-state)

SYMBOL	PIN	DESCRIPTION
DATA	19	serial data output (3-state)
WCLK	20	word clock output (3-state)
SCLK	21	serial bit clock (3-state)
MOTO1	22	motor output 1; versatile (3-state)
MOTO2	23	motor output 2; versatile (3-state)
V5	24	versatile output pin
V4	25	versatile output pin
V3	26	versatile output pin (open-drain)
KILL	27	kill output; programmable (open-drain)
PORE	28	power-on reset enable input (active LOW)
CLA	29	4 2336MHz microprocessor clock output
RAB	32	interface R/$\overline{W}$ and acknowledge input
CFLG	33	correction flag output (open-drain)
	34-42	no internal connection
V_{SS2}	43	digital supply
V_{DD2}	44	digital supply

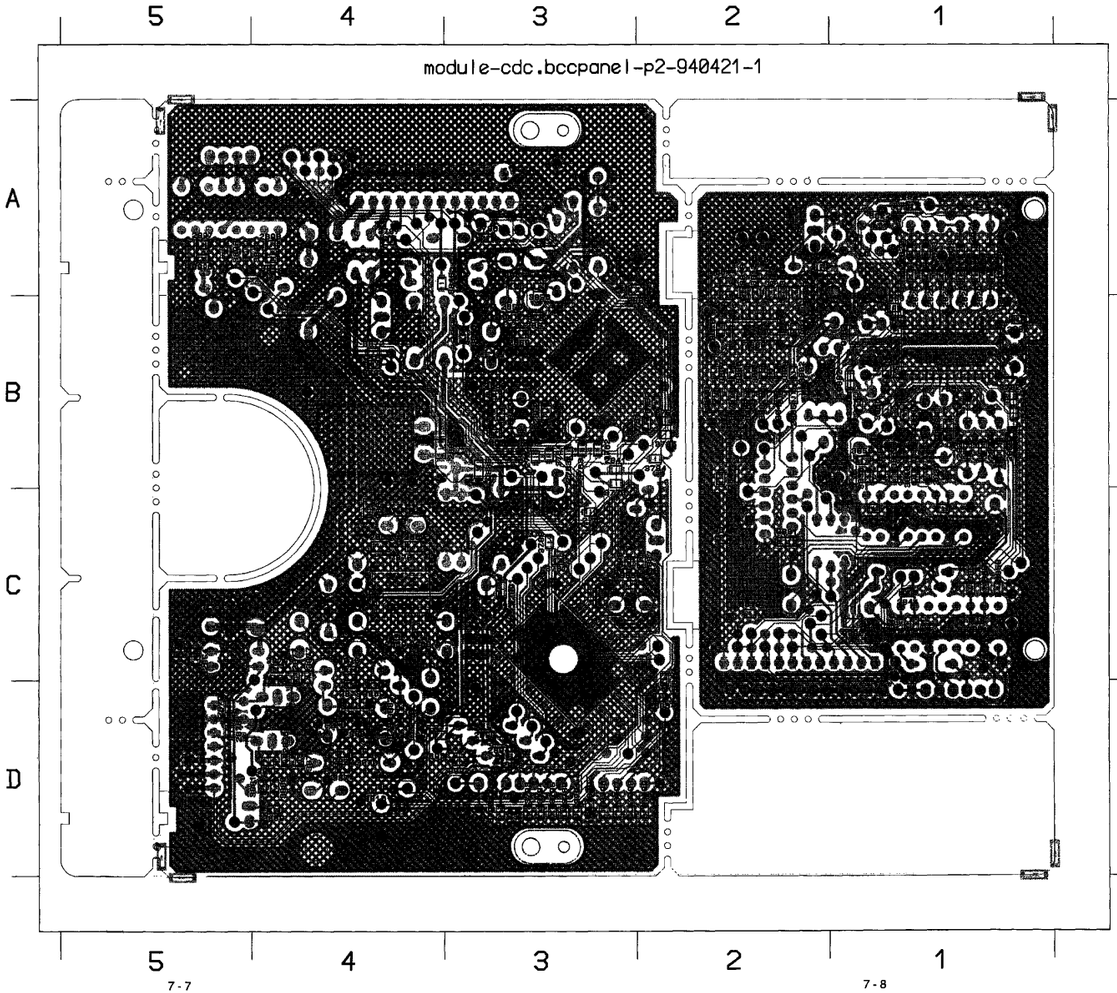


Block diagram

CD LAYOUT FOR DAC TDA1549 (IC7870)

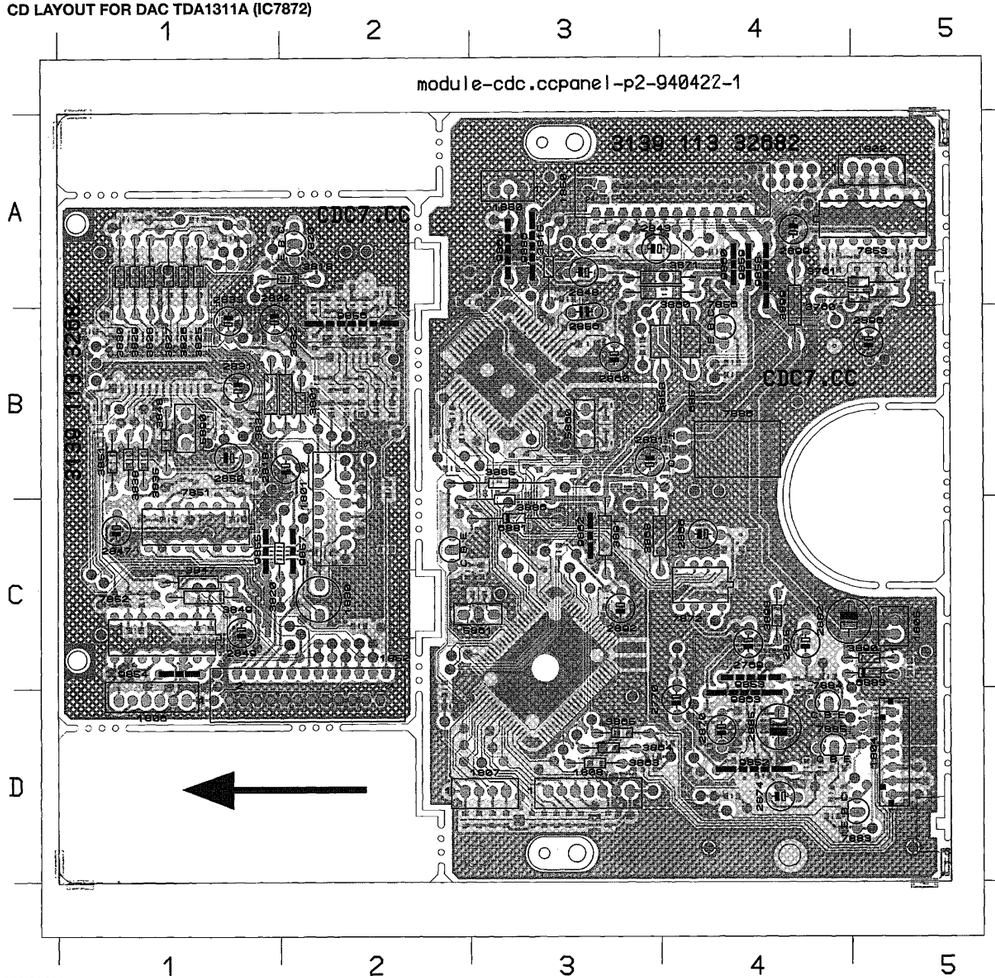


1801 C 2
1802 A 5
1804 D 5
1805 C 5
1806 D 1
1807 D 3
1808 D 3
1830 C 2
1850 A 4
1852 C 2
1880 A 3
2769 C 4
2770 D 4
2802 B 1
2818 B 2
2831 B 1
2833 B 1
2843 A 3
2847 C 1
2848 A 3
2849 C 1
2850 B 1
2856 B 3
2860 B 3
2864 C 4
2865 C 3
2866 C 4
2870 D 4
2874 D 4
2875 C 4
2881 B 3
2882 C 4
2885 D 4
2892 C 3
2896 B 5
2899 A 4
3760 A 5
3761 A 5
3801 B 2
3815 A 3
3818 A 2
3820 C 1
3825 A 1
3826 A 1
3827 A 1
3828 A 1
3829 A 1
3830 A 1
3832 B 2
3834 B 1
3835 B 1
3838 B 1
3847 C 1
3848 B 1
3849 C 1
3851 B 1
3860 A 4
3863 D 3
3864 D 3
3865 D 3
3867 C 3
3868 C 3
3871 A 4
3885 B 3
3886 C 3
3890 C 5
3891 C 3
3898 C 4
3899 A 4
5860 B 3
5861 C 3
5890 B 1
6857 B 4
6858 B 3
6881 C 3
6883 C 5
7820 A 2
7851 C 1
7852 C 1
7853 A 5
7856 B 4
7881 C 2
7883 D 5
7884 D 4
7885 D 4
7886 B 4
9852 D 4
9853 C 4
9854 C 1
9855 C 1
9856 B 2
9857 C 2
9858 A 4
9859 A 4
9860 A 4
9861 A 3
9862 C 3
9883 D 4
9886 A 3

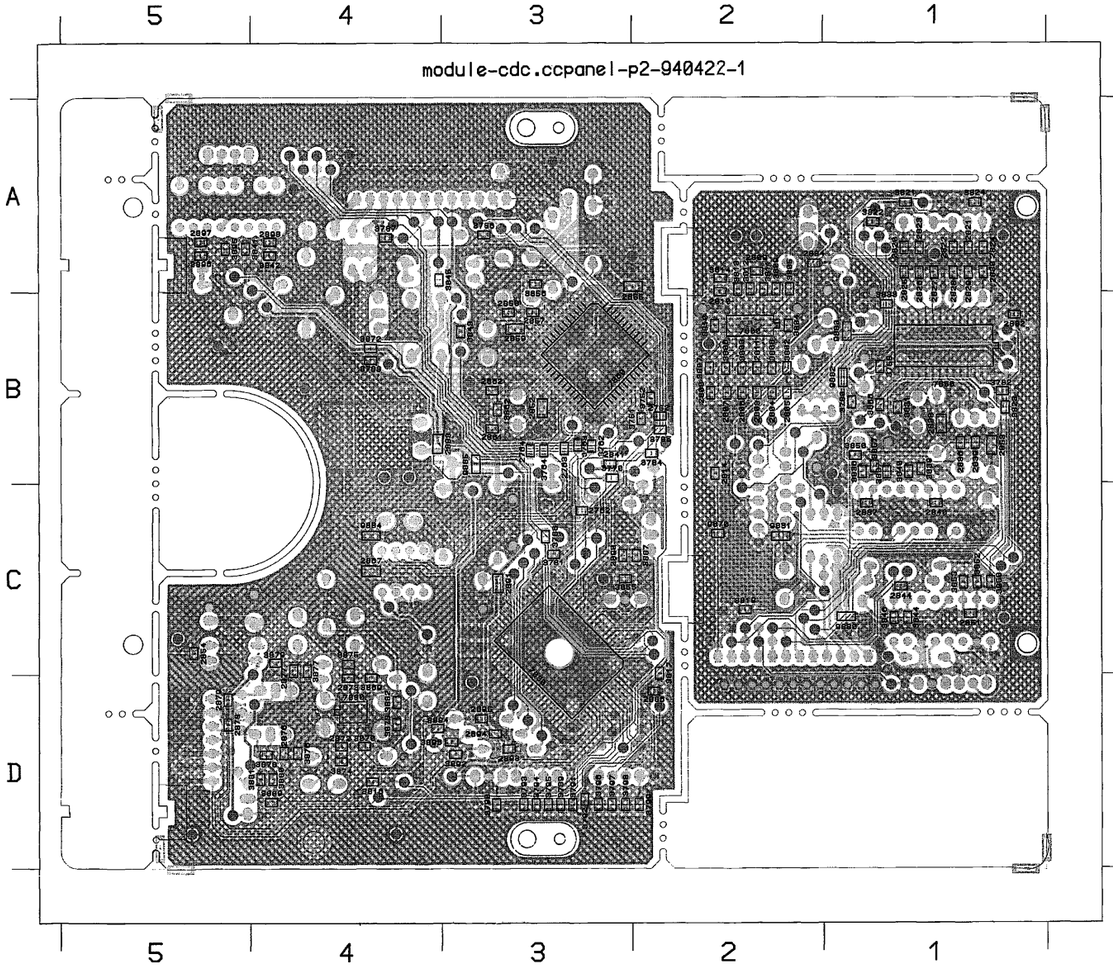


2752 P2
2762 C3
2763 B3
2764 B3
2803 B2
2804 B2
2805 B2
2806 B2
2807 B2
2808 B2
2809 A2
2810 B2
2811 B2
2814 B2
2820 A1
2821 A1
2822 A1
2823 A1
2824 A1
2825 A1
2826 A1
2827 A1
2828 A1
2829 A1
2830 A1
2832 B1
2834 A2
2836 B1
2837 C1
2838 B1
2839 B1
2840 C1
2841 B3
2844 C1
2851 C1
2852 B3
2853 B1
2854 C5
2855 A2
2857 B3
2858 B3
2859 B3
2861 B3
2862 B3
2863 C4
2867 C4
2868 C4
2869 C4
2872 D4
2876 D4
2877 C4
2878 D5
2879 D5
2883 B4
2886 D2
2890 C3
2891 C3
2893 D3
2894 D3
2895 D3
2897 A5
2898 A4
3751 B2
3752 B2
3755 B1
3762 B3
3763 B3
3764 B3
3770 B3
3780 B1
3781 C3
3782 B1
3783 B4
3784 B2
3785 B2
3786 A3
3787 A4
3788 C3
3789 D3
3790 D3
3791 D3
3793 D3
3794 D3
3795 D3
3796 D3
3797 D3
3798 D3
3799 D2
3802 B2
3803 B2
3804 B2
3805 A2
3806 B2
3807 B2
3808 B2
3809 A2
3810 B2
3811 A2
3812 A2
3813 A2
3814 A2
3816 D4
3817 C2
3819 C2
3821 A1
3822 A1
3823 B1
3824 A1
3831 B1
3833 B1
3836 B1
3837 B1
3839 B1
3840 B1
3841 A5
3842 A4
3843 B3
3844 C1
3845 A4
3846 C1
3850 B1
3852 C1
3853 C1
3855 C3
3856 A3
3857 B1
3858 C1
3861 A3
3862 B3
3866 B1
3872 B4
3876 D4
3877 C4
3878 D4
3879 C4
3880 D4
3881 D4
3887 C2
3889 D4
3892 D3
3893 D3
3894 D4
3895 A5
3896 A5
7830 C3
7850 B1
7860 B3
7870 C4
7880 D4
9870 C2
9880 C1
9881 C2
9882 B1
9883 B1
9884 C4
9885 B3

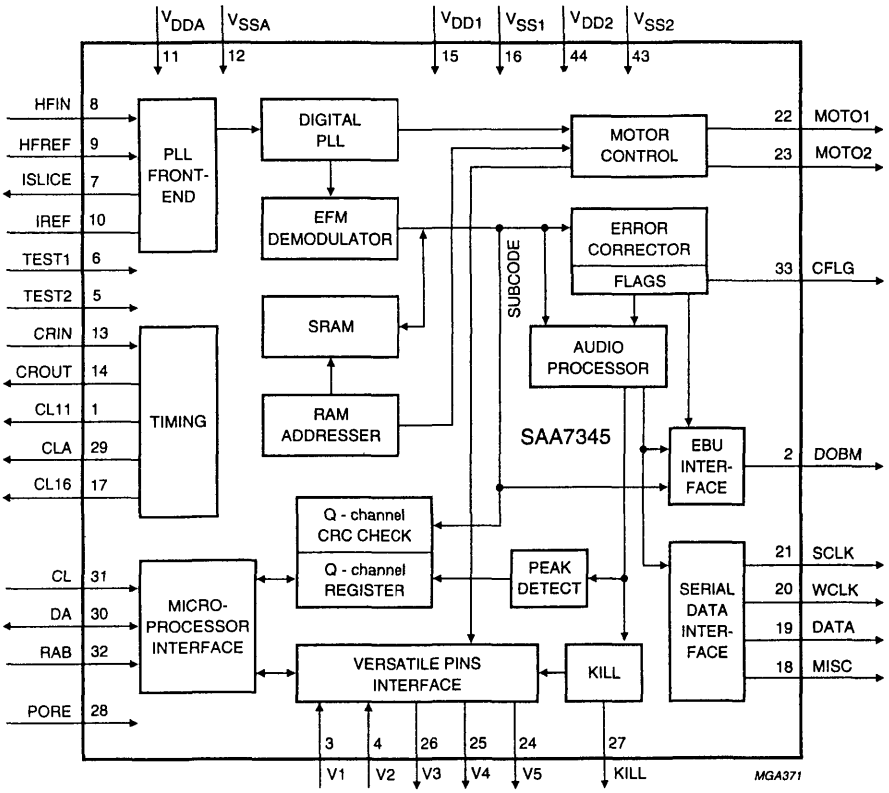
CD LAYOUT FOR DAC TDA1311A (IC7872)



1801	C 2	3868	C 3
1802	A 5	3871	A 4
1804	D 5	3885	B 3
1805	C 5	3886	C 3
1806	D 1	3890	C 5
1807	D 3	3891	C 3
1808	D 3	3898	C 4
1830	C 2	3899	A 4
1850	A 4	5860	B 3
1852	C 2	5861	C 3
1880	A 3	5890	B 1
2769	C 4	6857	B 4
2770	D 4	6858	B 3
2802	B 1	6881	C 3
2818	B 2	6883	C 5
2831	B 1	7820	A 2
2833	B 1	7851	C 1
2843	A 3	7852	C 1
2847	C 1	7853	A 5
2848	A 3	7856	B 4
2849	C 1	7872	C 4
2850	B 1	7881	C 2
2856	B 3	7883	D 5
2860	B 3	7884	D 4
2866	C 4	7885	D 4
2870	D 4	7886	B 4
2874	D 4	9852	D 4
2875	C 4	9853	C 4
2881	B 3	9854	C 1
2882	C 4	9855	C 1
2885	D 4	9856	B 2
2892	C 3	9857	C 2
2896	B 5	9858	A 4
2899	A 4	9859	A 4
3760	A 5	9860	A 4
3761	A 5	9861	A 3
3801	B 2	9862	C 3
3815	A 3	9863	D 4
3818	A 2	9886	A 3
3820	C 1		
3825	A 1		
3826	A 1		
3827	A 1		
3828	A 1		
3829	A 1		
3830	A 1		
3832	B 2		
3834	B 1		
3835	B 1		
3838	B 1		
3847	C 1		
3848	B 1		
3849	C 1		
3851	B 1		
3860	A 4		
3863	D 3		
3864	D 3		
3865	D 3		



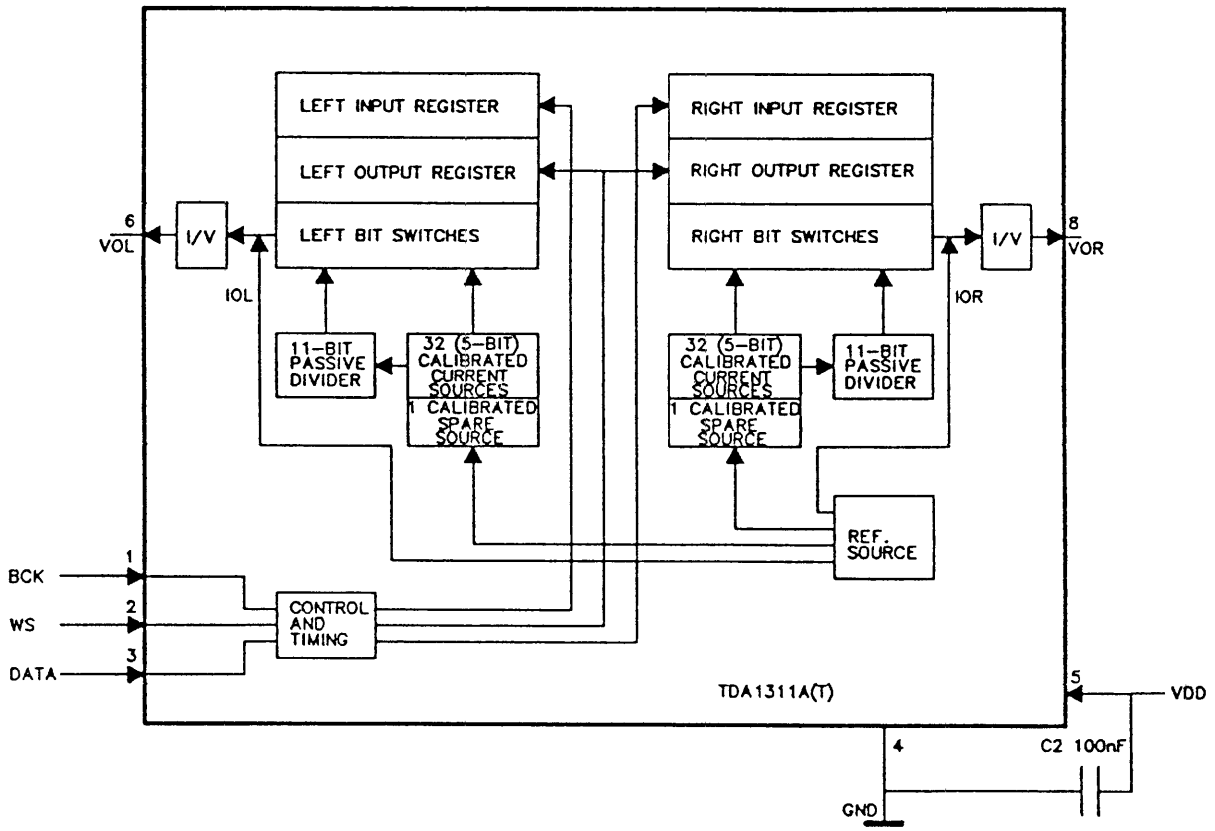
2752	B2	3792	D3
2762	C3	3793	D3
2763	B3	3794	D3
2764	B3	3795	D3
2803	B2	3798	D3
2804	B2	3797	D3
2805	B2	3798	D3
2806	B2	3799	D2
2807	B2	3802	B2
2808	B2	3803	B2
2809	A2	3804	B2
2810	B2	3805	A2
2811	B2	3806	B2
2814	B2	3807	B2
2820	A1	3808	B2
2821	A1	3809	A2
2822	A1	3810	B2
2823	A1	3811	A2
2824	A1	3812	A2
2825	A1	3813	A2
2826	A1	3814	A2
2827	A1	3816	D4
2828	A1	3817	C2
2829	A1	3819	C2
2830	A1	3821	A1
2832	B1	3822	A1
2834	A2	3823	B1
2836	B1	3824	A1
2837	C1	3831	B1
2838	B1	3833	B1
2839	B1	3836	B1
2840	C1	3837	B1
2841	B3	3839	B1
2844	C1	3840	B1
2851	C1	3841	A5
2852	B3	3842	A4
2853	B1	3843	B3
2854	C5	3844	C1
2855	A2	3845	A4
2857	B3	3846	C1
2858	B3	3850	B1
2859	B3	3852	C1
2861	B3	3853	C1
2862	B3	3855	C3
2867	C4	3856	A3
2876	D4	3857	B1
2877	C4	3858	C1
2878	D5	3862	B3
2879	D5	3866	B1
2883	B4	3872	B4
2886	D2	3876	D4
2890	C3	3877	C4
2891	C3	3878	D4
2893	D3	3879	C4
2894	D3	3880	D4
2895	D3	3881	D4
2897	A5	3887	C2
2898	A4	3889	D4
3751	B2	3892	D3
3752	B2	3893	D3
3755	B1	3894	D4
3762	B3	3895	A5
3763	B3	3896	A5
3764	B3	7800	B2
3770	B3	7830	C3
3781	C3	7850	B1
3782	B1	7860	B3
3783	B4	7880	D4
3784	B2	9870	C2
3785	B2	9880	C1
3786	A3	9881	C2
3787	A4	9882	B1
3788	C3	9883	B1
3789	D3	9884	C4
3790	D3	9885	B3



Block diagram.

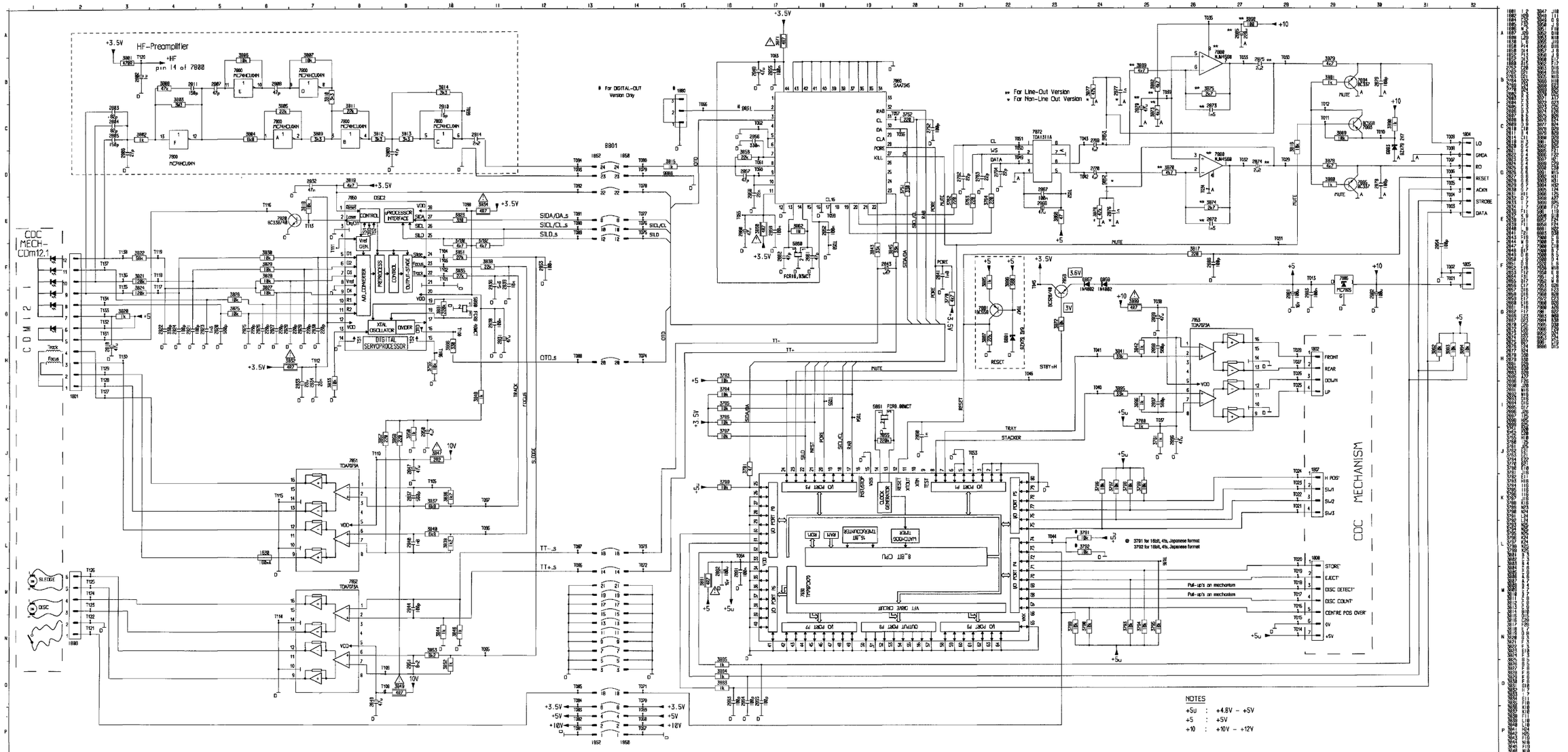
PINNING OF SAA7345

SYMBOL	PIN	DESCRIPTION
CL11	1	11.2896 MHz clock output (3-state)
DBOM	2	bi-phase mark output (externally buffered; 3-state)
V1	3	versatile input pin
V2	4	versatile input pin
TEST2	5	test input; this pin should be tied LOW
TEST1	6	test input; this pin should be tied LOW
ISLICE	7	current feedback from data slicer
HFIN	8	comparator signal input
HFREF	9	comparator common-mode input
IREF	10	reference current pin (nominally $V_{DD}/2$)
V_{DDA}	11	analog supply
V_{SSA}	12	analog supply
CRIN	13	crystal/resonator input
CROUT	14	crystal/resonator output
V_{DD1}	15	digital supply
V_{SS1}	16	digital supply
CL16	17	16.9344MHz system clock output
MISC	18	general purpose DAC output (3-state)
DATA	19	serial data output (3-state)
WCLK	20	word clock output (3-state)
SCLK	21	serial bit clock (3-state)
MOTO1	22	motor output 1; versatile (3-state)
MOTO2	23	motor output 2; versatile (3-state)
V5	24	versatile output pin
V4	25	versatile output pin
V3	26	versatile output pin (open-drain)
KILL	27	kill output; programmable (open-drain)
PORE	28	power-on reset enable input (active LOW)
CLA	29	4.2336MHz microprocessor clock output
RAB	32	interface R/$\overline{W}$ and acknowledge input
CFLG	33	correction flag output (open-drain)
	34-42	no internal connection
V_{SS2}	43	digital supply
V_{DD2}	44	digital supply

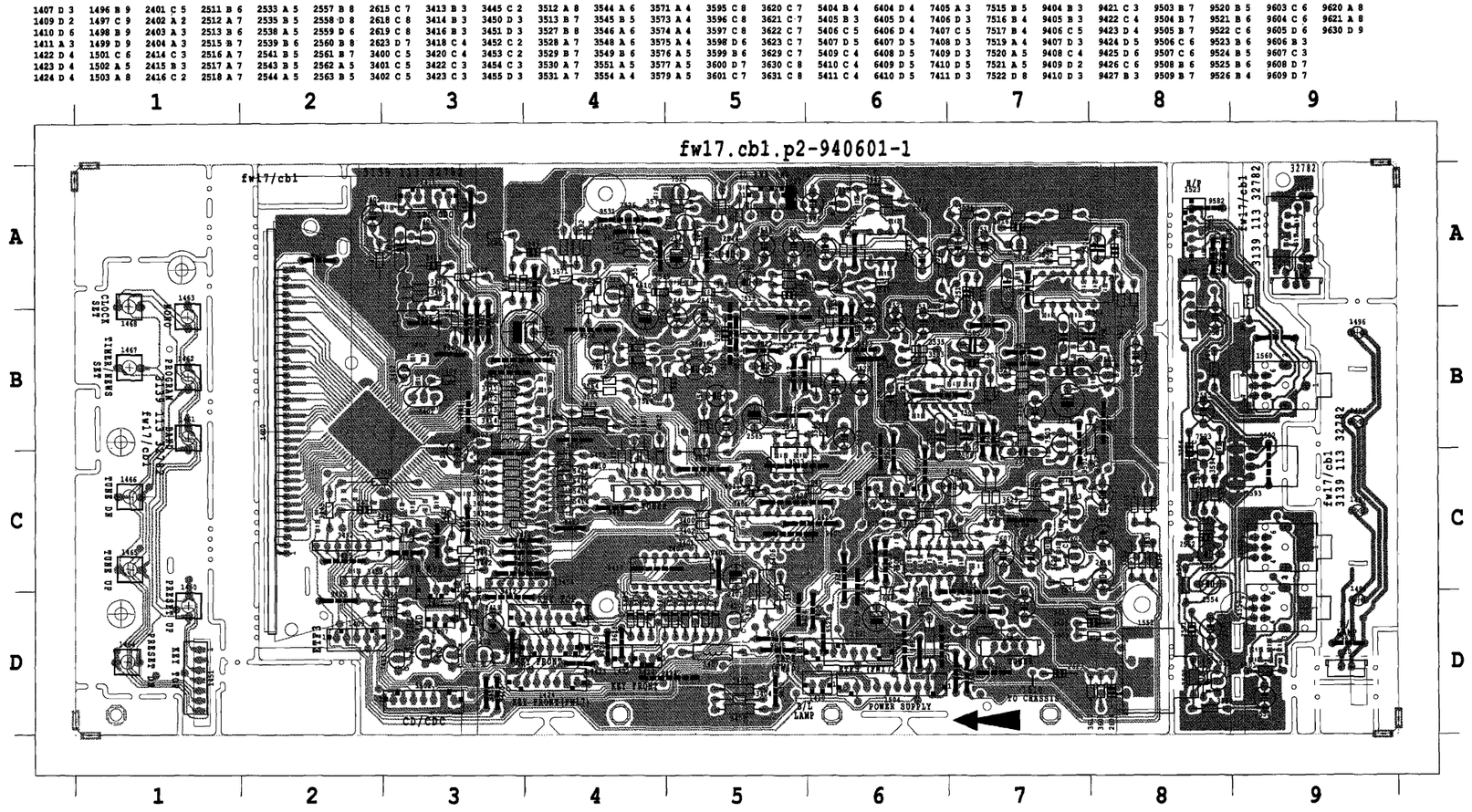


Block diagram

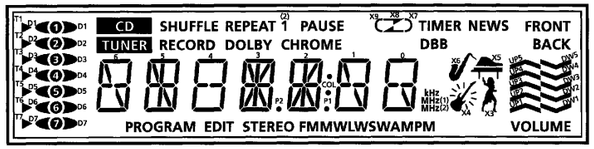
CD CIRCUIT FOR DAC TDA1311A (IC7872)

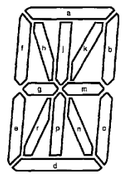


COMBI COMPONENT LAYOUT



LCD PIN CONNECTION



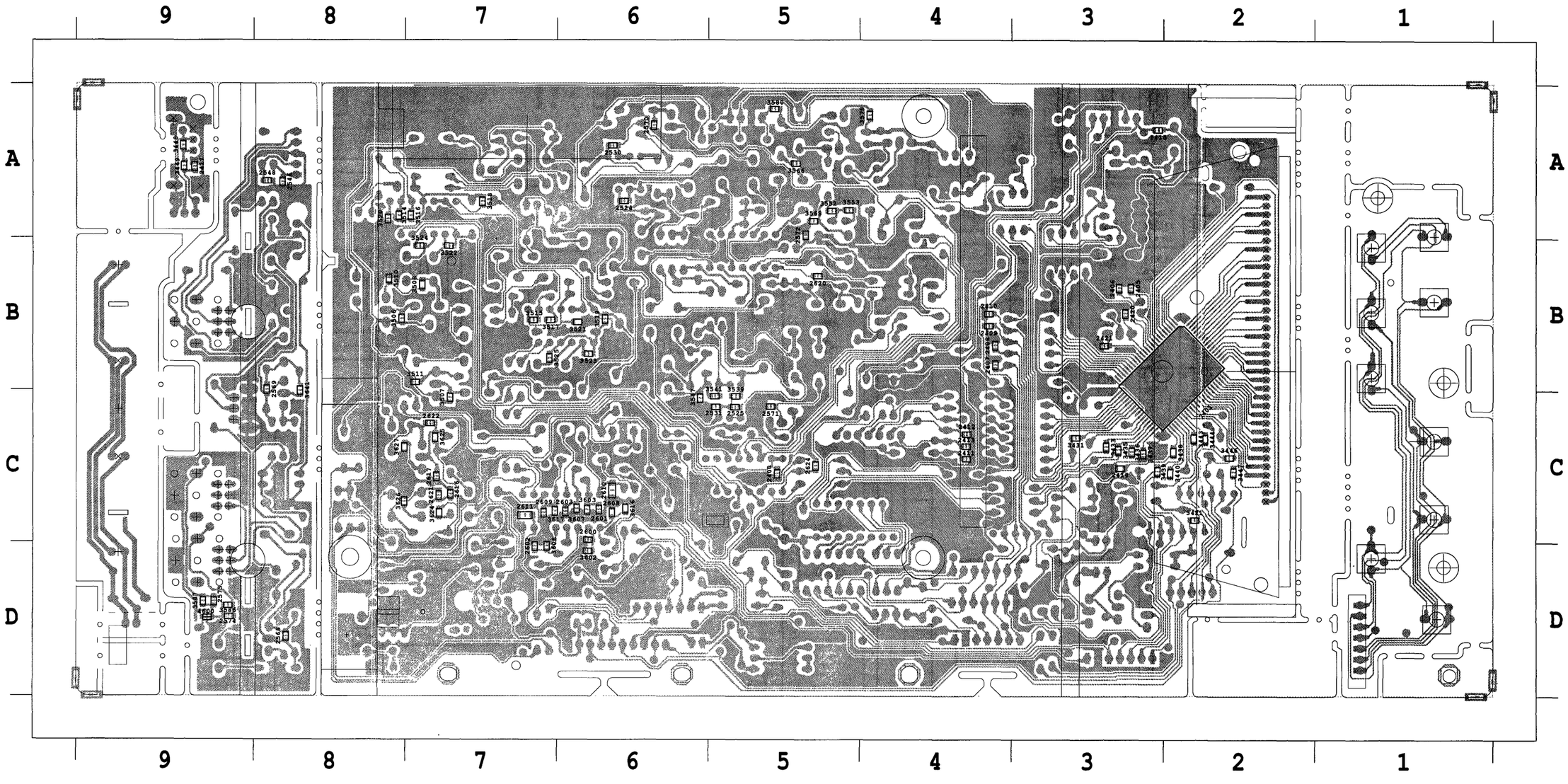


LCD DISPLAY PINS CONNECTIONS

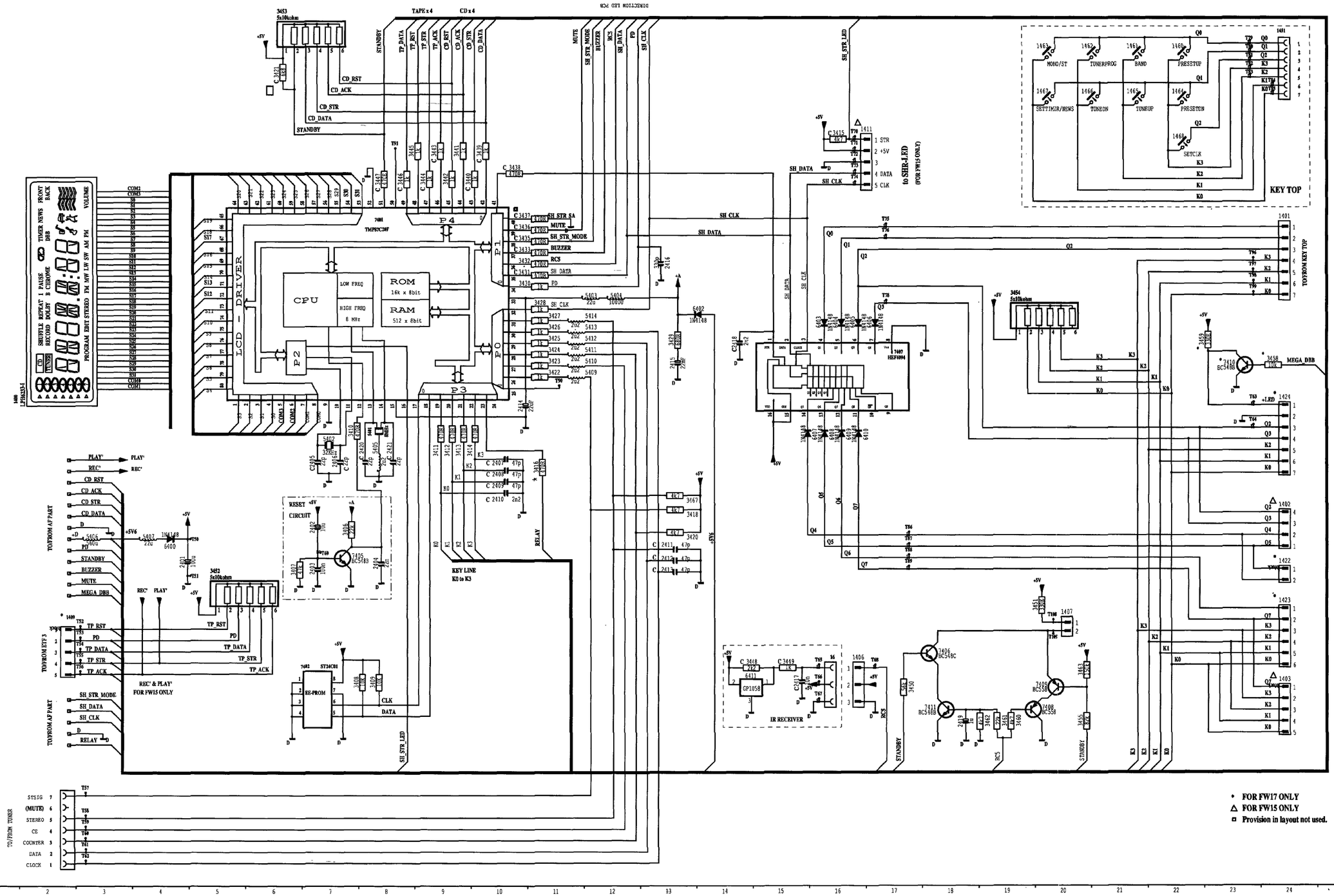
PIN NO.	COM 0	COM 1	COM 2	COM 3
1	-	-	COM 2	-
2	-	-	-	COM 3
3	6gm	6f	6e	6n
4	6b	6a	6c	6d
5	D1	6h	D3	D4
6	SHUFFLE	CD	1,2,3,4,5,6,7	T2
7	5g	5f	5e	PROGRAM
8	5b	5a	5c	5d
9	TUNER	5hn	5m	5jp
10	D5	TIMER	RECORD	REPEAT
11	4gm	4f	4e	EDIT
12	4b	4a	4c	4d
13	X7	X9	X8	1 (2)
14	FRONT	X6	BACK	D6
15	3g	3f	3e	3n
16	3b	3a	3c	3d
17	3k	3h	3m	3jp
18	3r	DBB	PAUSE	STEREO
19	2gm	2f	2e	2n
20	2b	2a	2c	2d
21	2kr	CHROME	DOLBY B	2jp
22	LW	D7	MW	T7
23	1gm	1f	1e	1n
24	1b	1a	1c	1d
25	COL	1h	FM,P1,MHz (1)	SW,P2,MHz (2)
26	X4	kHz	PM	AM
27	0gm	0f	0e	0n
28	0b	0a	0c	0d
29	X3	X5	D2	NEWS
30	UP1	DN1	T1	VOLUME
31	T3	T4	T5	T6
32	-	-	-	-
33	DN2	DN3	DN4	DN5
34	UP1	UP3	UP4	UP5
35	COM 0	-	-	-
36		COM 1	-	-

COMBI CHIP LAYOUT

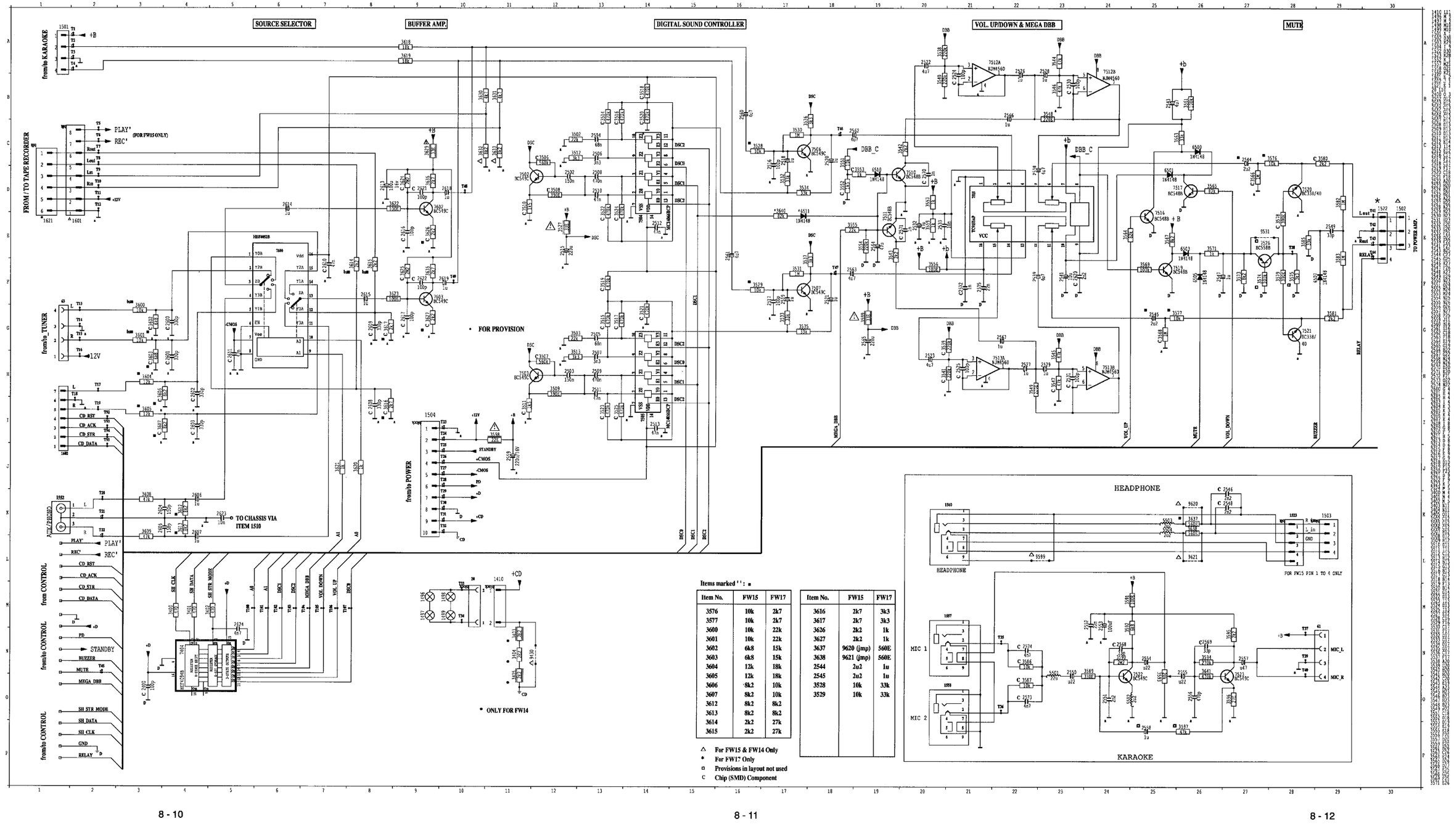
2400 C 5	2408 B 4	2412 C 4	2420 B 3	2530 A 6	2568 D 8	2572 A 5	2601 C 6	2609 C 7	2617 C 7	2624 C 5	3433 C 3	3438 C 2	3444 C 2	3449 A 9	3510 B 8	3516 A 7	3520 A 8	3524 B 7	3547 C 6	3568 A 5	3587 D 9	3607 C 6	3625 C 7	4600 D 9
2405 B 3	2409 B 4	2413 C 4	2421 B 3	2531 C 5	2569 C 8	2573 D 9	2602 D 7	2610 C 6	2620 B 5	3415 A 3	3435 C 3	3439 C 3	3446 C 2	3506 B 8	3511 B 7	3517 B 7	3521 B 6	3525 B 7	3552 A 5	3578 A 4	3602 D 6	3616 C 6	3626 C 8	7401 B 2
2406 B 3	2410 B 4	2417 A 9	2524 A 6	2546 A 8	2570 A 6	2574 D 9	2603 C 6	2611 C 7	2621 C 7	3421 C 2	3436 C 3	3440 C 2	3447 C 2	3507 C 7	3514 A 8	3518 A 7	3522 B 7	3539 C 5	3553 A 5	3580 A 5	3603 C 6	3617 C 7	3627 C 8	
2407 B 4	2411 C 4	2418 C 3	2525 C 5	2548 A 8	2571 C 5	2600 C 6	2608 C 6	2616 C 7	2622 C 7	3431 C 3	3437 C 3	3443 C 2	3448 A 9	3508 B 7	3515 B 7	3519 B 6	3523 B 6	3541 C 5	3566 A 5	3586 D 9	3606 D 7	3624 C 7	3641 C 8	



FRONT / CONTROL PART



COMBI CIRCUIT II



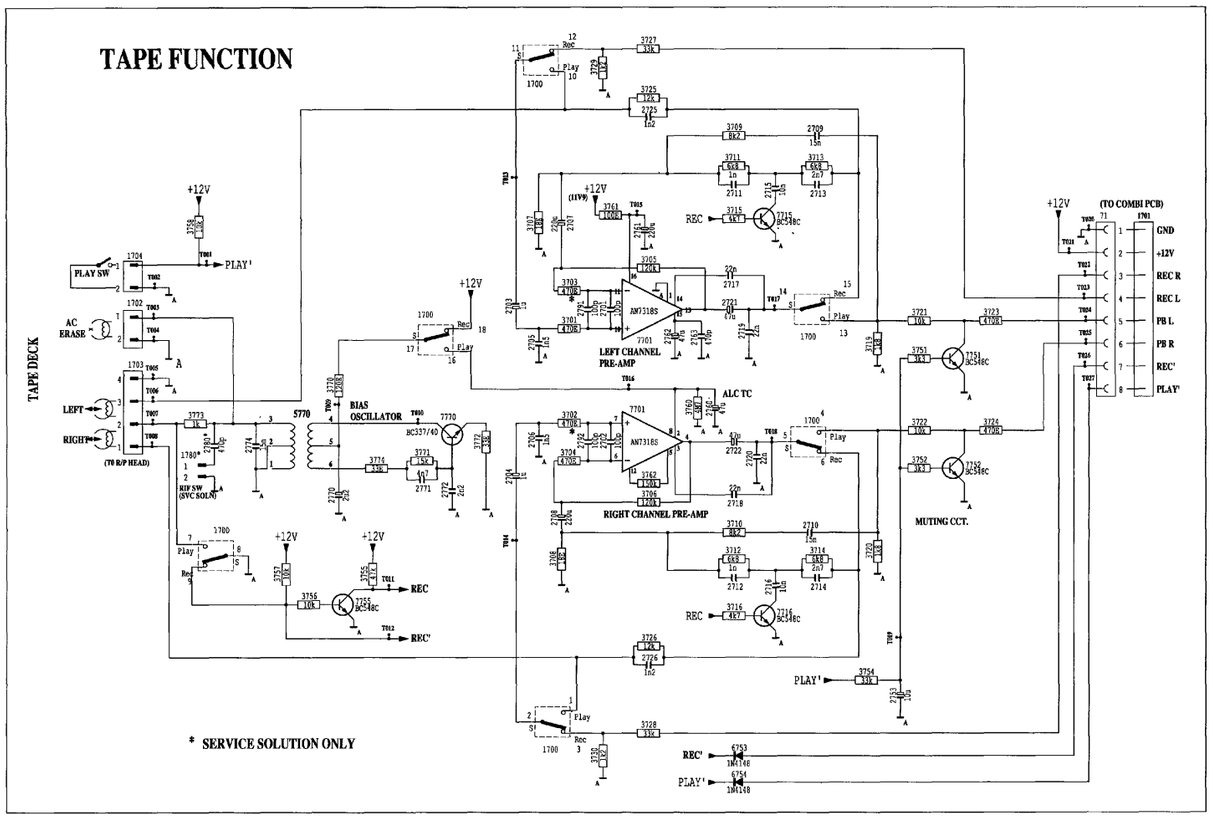
Items marked '' : ■

Item No.	FW15	FW17
3576	10k	2k7
3577	10k	2k7
3600	10k	22k
3601	10k	22k
3602	6k8	15k
3603	6k8	15k
3604	12k	18k
3605	12k	18k
3606	8k2	10k
3607	8k2	10k
3612	8k2	8k2
3613	8k2	8k2
3614	2k2	27k
3615	2k2	27k

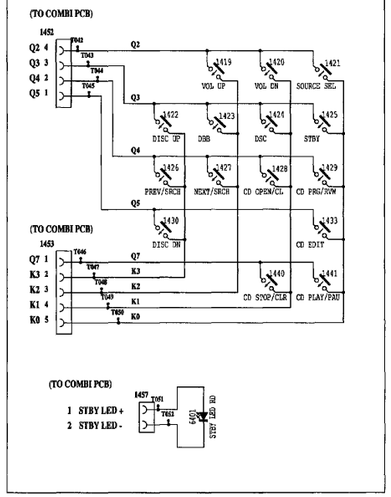
Item No.	FW15	FW17
3616	2k7	3k3
3617	2k7	3k3
3626	2k2	1k
3627	2k2	1k
3637	9620 (jmp)	560E
3638	9621 (jmp)	560E
2544	2u2	1u
2545	2u2	1u
3528	10k	33k
3529	10k	33k

△ For FW15 & FW14 Only
* For FW17 Only
□ Provisions in layout not used
C Chip (SMD) Component

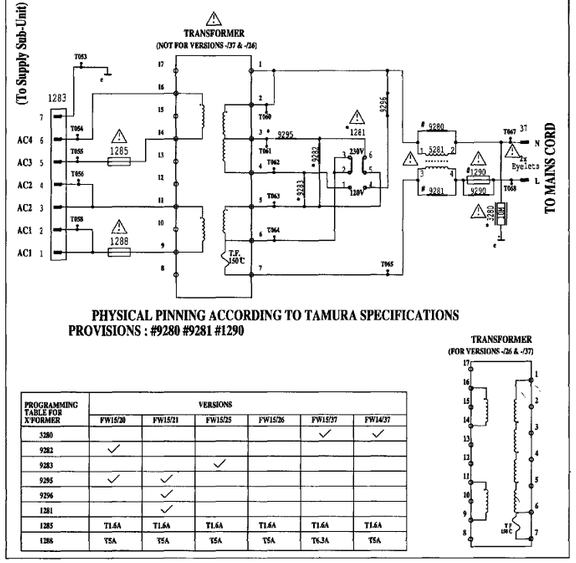
TAPE FUNCTION



KEY-SET FRONT



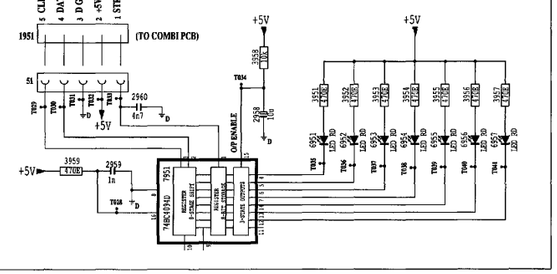
TRANSFORMER - MAINS



PHYSICAL PINNING ACCORDING TO TAMURA SPECIFICATIONS
PROVISIONS : #9280 #9281 #1290

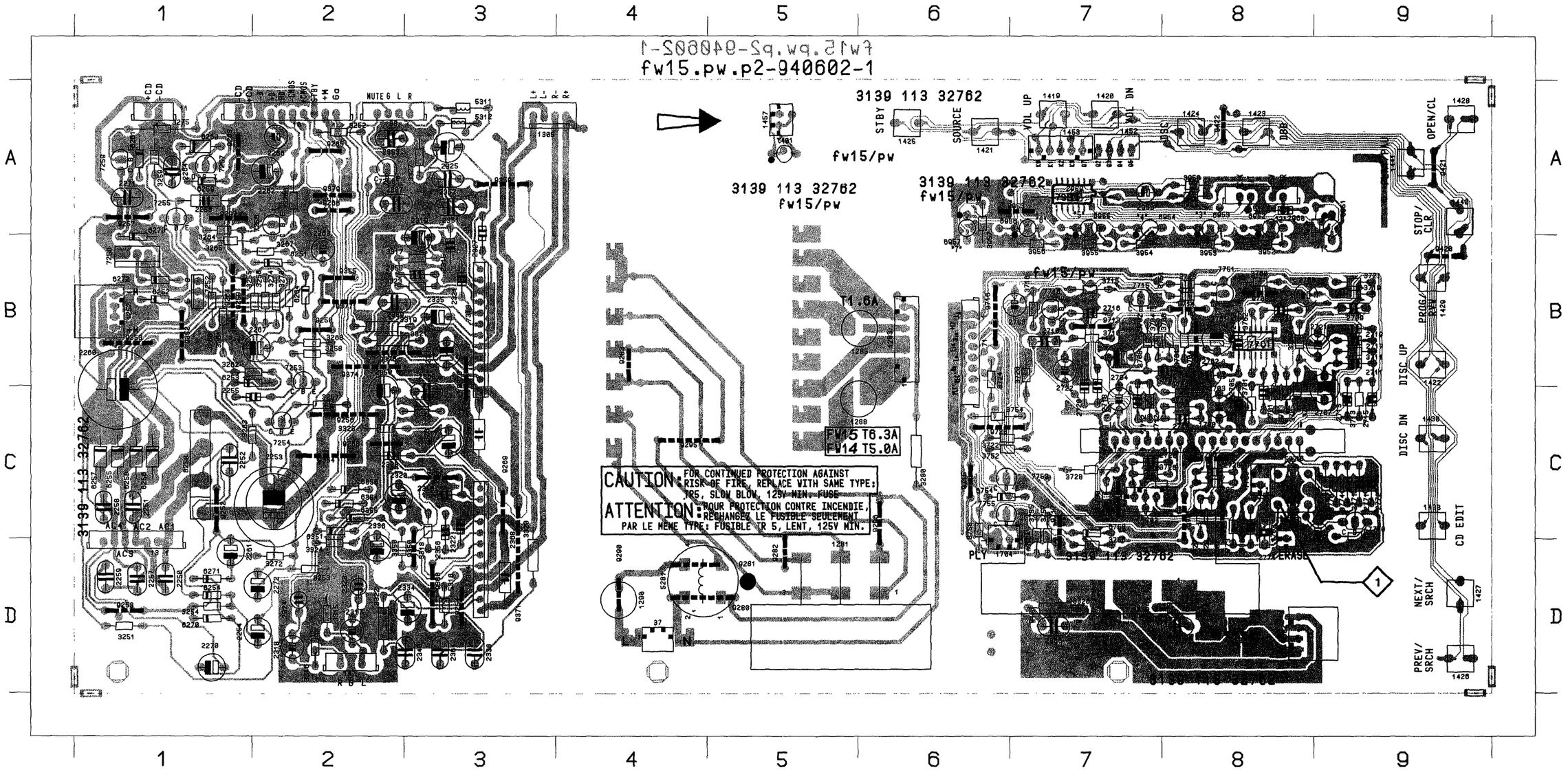
PROGRAMMING TABLE FOR X'FORMER	VERSIONS					
	FW15/20	FW15/21	FW15/25	FW15/26	FW15/27	FW14/37
3280					✓	✓
9282	✓					
9283			✓			
9285	✓	✓				
9296		✓				
1281		✓				
1285	T1.6A	T1.6A	T1.6A	T1.6A	T1.6A	T1.6A
1286	T5A	T5A	T5A	T5A	T6.3A	T5A

CDC LED PANEL



POWER LAYOUT

10 A 2	1302 D 8	1430 C 9	2252 C 1	2267 B 2	2324 D 2	2351 A 3	2704 C 7	2718 C 7	2772 C 9	3259 A 1	3280 C 6	3328 C 2	3713 C 9	3729 C 8	3772 C 9	5312 A 3	6260 A 1	6951 A 9	7258 B 1	9254 D 3	9290 D 4	9376 B 2	9714 B 8
11 A 1	1304 D 7	1433 C 9	2253 C 2	2270 D 1	2325 A 3	2352 A 3	2705 C 8	2719 B 9	2774 C 8	3260 B 1	3315 D 2	3350 D 2	3714 C 8	3730 C 7	3773 C 8	5315 C 3	6261 A 1	6952 A 8	7259 A 1	9256 C 2	9295 C 4	9377 B 2	9715 C 6
13 D 1	1305 A 3	1440 A 9	2254 D 2	2271 A 1	2326 C 3	2353 A 2	2706 B 8	2720 C 7	2780 C 8	3261 B 1	3316 D 2	3701 C 8	3715 B 7	3751 B 8	3774 C 9	5316 D 3	6264 B 2	6953 A 8	7313 B 3	9257 A 1	9296 C 6	9379 A 2	9716 B 6
14 D 2	1419 A 7	1441 A 9	2255 C 2	2272 D 2	2327 A 3	2355 B 3	2707 C 9	2721 B 9	2958 A 7	3262 B 2	3317 B 3	3702 B 7	3716 B 7	3752 C 6	3951 A 9	5770 C 8	6270 D 1	6954 A 7	7314 D 3	9259 B 1	9297 A 1	9420 B 9	9717 C 7
33 A 2	1420 A 7	1452 A 7	2256 A 1	2273 C 2	2328 C 2	2356 C 3	2708 B 7	2722 B 7	2959 A 7	3263 C 1	3318 C 3	3703 C 8	3719 B 9	3754 C 6	3952 B 8	6250 C 1	6271 D 1	6955 A 7	7715 B 7	9263 A 1	9350 D 3	9421 A 9	9720 C 6
37 D 4	1421 A 6	1453 A 7	2257 D 1	2315 B 3	2333 B 3	2363 C 3	2709 B 9	2725 C 8	2960 A 8	3264 A 1	3319 B 2	3704 B 7	3720 B 7	3755 C 7	3953 B 8	6251 B 2	6272 B 1	6956 A 7	7716 B 7	9264 B 1	9352 B 1	9422 A 8	9953 A 7
51 A 8	1422 B 9	1457 A 5	2258 C 1	2316 C 3	2334 D 3	2364 D 3	2710 B 7	2726 C 7	3251 D 1	3265 B 1	3320 D 3	3705 C 8	3721 B 9	3756 D 7	3954 B 7	6252 B 1	6273 B 1	6957 A 6	7751 B 8	9265 A 2	9353 B 1	9500 D 8	7701 B 8
71 B 6	1423 A 8	1700 C 8	2259 D 1	2317 D 2	2335 B 3	2365 D 8	2711 B 9	2753 B 7	3252 A 2	3266 A 2	3321 B 2	3706 B 8	3722 C 6	3757 C 7	3955 B 7	6253 B 2	6350 C 2	7250 A 2	7752 C 6	9266 A 2	9354 C 2	9701 C 8	7951 A 7
1252 B 1	1424 A 8	1702 C 8	2260 C 1	2318 D 2	2336 D 2	2366 D 7	2712 C 7	2760 B 8	3253 D 2	3267 B 2	3322 D 2	3707 C 8	3723 B 8	3758 C 6	3956 B 7	6254 D 1	6351 C 2	7252 B 1	7755 C 6	9268 C 2	9355 B 2	9702 C 8	
1281 D 5	1425 A 6	1703 C 7	2261 D 1	2319 B 3	2337 A 2	2367 C 3	2713 C 9	2761 B 8	3254 D 1	3268 B 2	3323 B 3	3708 C 8	3724 B 6	3760 B 8	3957 A 6	6255 C 1	6354 C 2	7253 B 2	7770 C 9	9269 C 3	9359 A 3	9703 C 7	
1283 B 6	1426 D 9	1704 D 6	2262 A 2	2320 C 2	2338 D 3	2368 D 3	2714 C 8	2762 B 8	3255 B 2	3270 B 2	3324 D 2	3709 B 8	3725 C 8	3761 B 8	3958 A 8	6256 C 1	6355 C 2	7254 C 2	9250 B 2	9280 D 4	9360 D 3	9704 B 8	
1285 B 6	1427 D 9	1780 C 8	2263 B 2	2321 B 3	2339 B 2	2701 C 8	2715 C 9	2763 B 8	3256 B 2	3272 D 2	3325 D 8	3710 B 7	3726 C 7	3762 B 8	3959 A 8	6257 C 1	6401 A 5	7255 A 1	9251 C 3	9281 D 4	9370 B 3	9706 C 8	
1288 C 6	1428 A 9	2250 D 1	2264 A 1	2322 C 3	2340 D 3	2702 B 8	2716 B 7	2770 C 9	3257 C 2	3274 B 2	3326 D 7	3711 B 9	3727 C 8	3770 C 9	5281 D 4	6258 C 1	6753 C 7	7256 A 2	9252 C 1	9282 D 5	9371 D 3	9708 B 8	
1290 D 4	1429 B 9	2251 C 1	2266 A 2	2323 D 2	2350 C 2	2703 C 8	2717 B 9	2771 C 9	3258 B 2	3275 A 1	3327 A 3	3712 C 7	3728 C 7	3771 C 9	5311 A 3	6259 A 1	6754 C 6	7257 A 1	9253 D 1	9283 B 4	9374 B 2	9713 B 7	



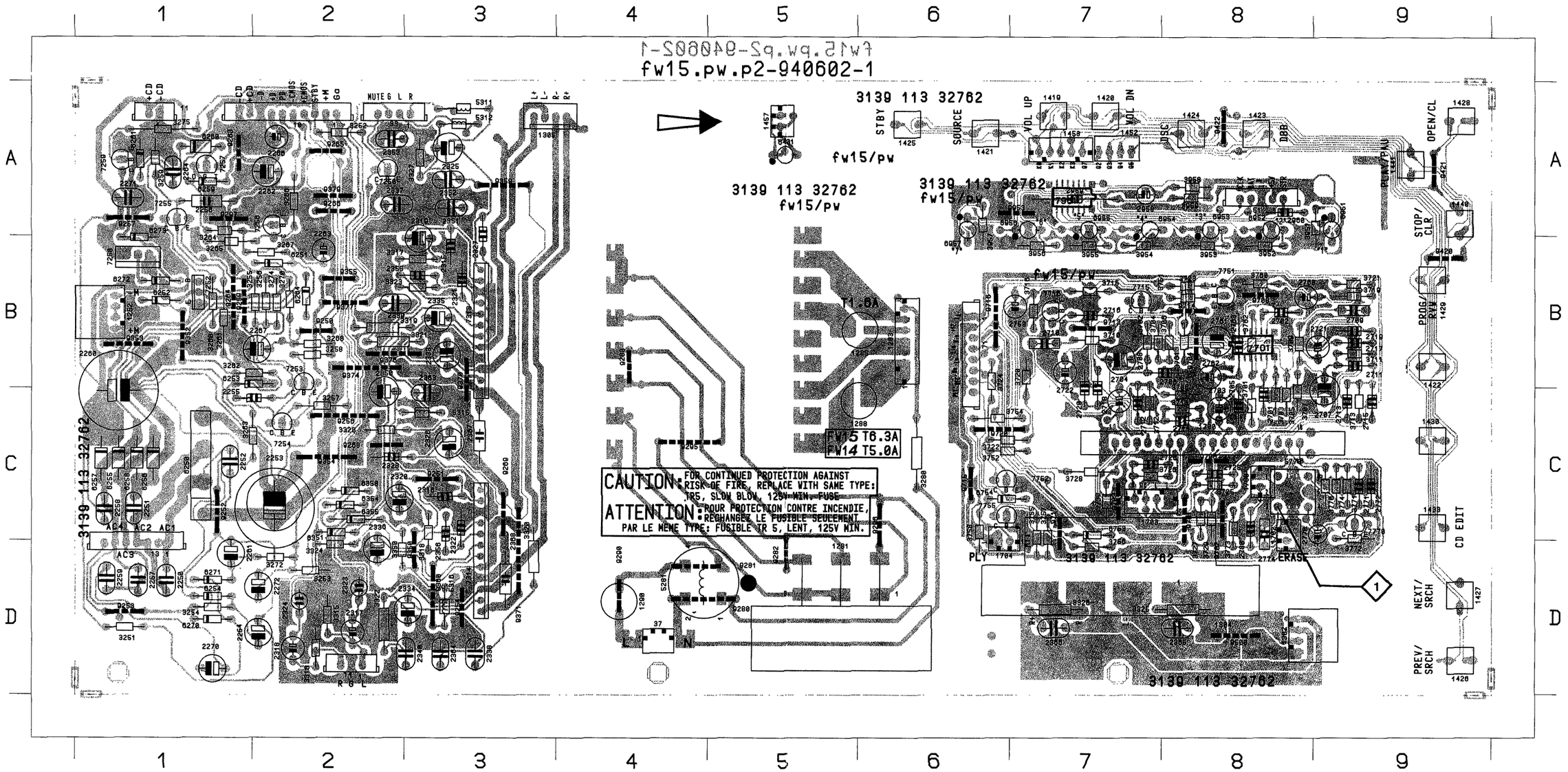
BIAS OSCILLATOR ADJUSTMENT

TAPE DECK POSITION	MEASURE ON	READ ON	ADJUST WITH	ADJUST TO
Record	1	Frequency counter	5770	77kHz ± 5kHz

Solução de serviço RIF :
Acrescentar capacitor 2780 (470pF 10% 50V)
e curto-circuitar pin. 1 & 2 do item 1780

POWER LAYOUT

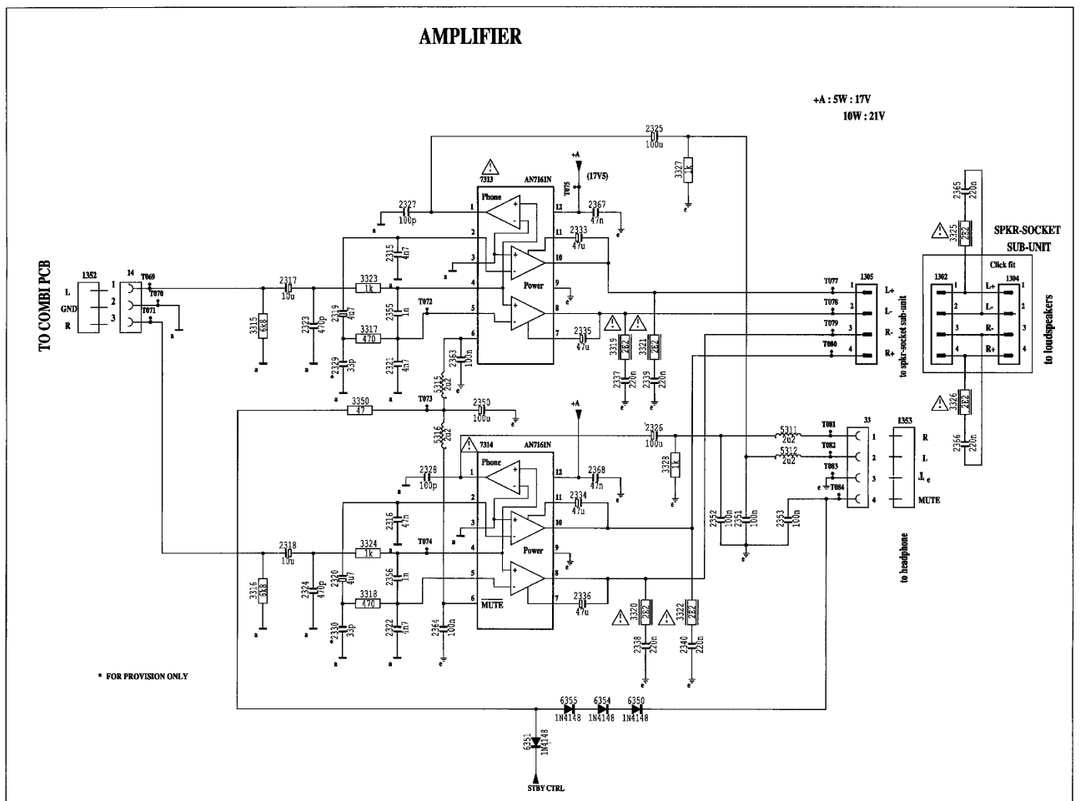
10 A 2	1302 D 8	1430 C 9	2252 C 1	2267 B 2	2324 D 2	2351 A 3	2704 C 7	2718 C 7	2772 C 9	3259 A 1	3280 C 6	3328 C 2	3713 C 9	3729 C 8	3772 C 9	5312 A 3	6260 A 1	6951 A 9	7258 B 1	9254 D 3	9290 D 4	9376 B 2	9714 B 8
11 A 1	1304 D 7	1433 C 9	2253 C 2	2270 D 1	2325 A 3	2352 A 3	2705 C 8	2719 B 9	2774 C 8	3260 B 1	3315 D 2	3350 D 2	3714 C 8	3730 C 7	3773 C 8	5315 C 3	6261 A 1	6952 A 8	7259 A 1	9256 C 2	9295 C 4	9377 B 2	9715 C 6
13 D 1	1305 A 3	1440 A 9	2254 D 2	2271 A 1	2326 C 3	2353 A 2	2706 B 8	2720 C 7	2780 C 8	3261 B 1	3316 D 2	3701 C 8	3715 B 7	3751 B 8	3774 C 9	5316 D 3	6264 B 2	6953 A 8	7313 B 3	9257 A 1	9296 C 6	9379 A 2	9716 B 6
14 D 2	1419 A 7	1441 A 9	2255 C 2	2272 D 2	2327 A 3	2355 B 3	2707 C 9	2721 B 9	2958 A 7	3262 B 2	3317 B 3	3702 B 7	3716 B 7	3752 C 6	3951 A 9	5770 C 8	6270 D 1	6954 A 7	7314 D 3	9259 B 1	9297 A 1	9420 B 9	9717 C 7
33 A 2	1420 A 7	1452 A 7	2256 A 1	2273 C 2	2328 C 2	2356 C 3	2708 B 7	2722 B 7	2959 A 7	3263 C 1	3318 C 3	3703 C 8	3719 B 9	3754 C 6	3952 B 8	6250 C 1	6271 D 1	6955 A 7	7715 B 7	9263 A 1	9350 D 3	9421 A 9	9720 C 6
37 D 4	1421 A 6	1453 A 7	2257 D 1	2315 B 3	2333 B 3	2363 C 3	2709 B 9	2725 C 8	2960 A 8	3264 A 1	3319 B 2	3704 B 7	3720 B 7	3755 C 7	3953 B 8	6251 B 2	6272 B 1	6956 A 7	7716 B 7	9264 B 1	9352 B 1	9422 A 8	9953 A 7
51 A 8	1422 B 9	1457 A 5	2258 C 1	2316 C 3	2334 D 3	2364 D 3	2710 B 7	2726 C 7	3251 D 1	3265 B 1	3320 D 3	3705 C 8	3721 B 9	3756 D 7	3954 B 7	6252 B 1	6273 B 1	6957 A 6	7751 B 8	9265 A 2	9353 B 1	9500 D 8	7701 B 8
71 B 6	1423 A 8	1700 C 8	2259 D 1	2317 D 2	2335 B 3	2365 D 8	2711 B 9	2753 B 7	3252 A 2	3266 A 2	3321 B 2	3706 B 8	3722 C 6	3757 C 7	3955 B 7	6253 B 2	6350 C 2	7250 A 2	7752 C 6	9266 A 2	9354 C 2	9701 C 8	7951 A 7
1252 B 1	1424 A 8	1702 C 8	2260 C 1	2318 D 2	2336 D 2	2366 D 7	2712 C 7	2760 B 8	3253 D 2	3267 B 2	3322 D 2	3707 C 8.	3723 B 8	3758 C 6	3956 B 7	6254 D 1	6351 C 2	7252 B 1	7755 C 6	9268 C 2	9355 B 2	9702 C 8	
1281 D 5	1425 A 6	1703 C 7	2261 D 1	2319 B 3	2337 A 2	2367 C 3	2713 C 9	2761 B 8	3254 D 1	3268 B 2	3323 B 3	3708 C 8	3724 B 6	3760 B 8	3957 A 6	6255 C 1	6354 C 2	7253 B 2	7770 C 9	9269 C 3	9359 A 3	9703 C 7	
1283 B 6	1426 D 9	1704 D 6	2262 A 2	2320 C 2	2338 D 3	2368 D 3	2714 C 8	2762 B 8	3255 B 2	3270 B 2	3324 D 2	3709 B 8	3725 C 8	3761 B 8	3958 A 8	6256 C 1	6355 C 2	7254 C 2	9250 B 2	9280 D 4	9360 D 3	9704 B 8	
1285 B 6	1427 D 9	1780 C 8	2263 B 2	2321 B 3	2339 B 2	2701 C 8	2715 C 9	2763 B 8	3256 B 2	3272 D 2	3325 D 8	3710 B 7	3726 C 7	3762 B 8	3959 A 8	6257 C 1	6401 A 5	7255 A 1	9251 C 3	9281 D 4	9370 B 3	9706 C 8	
1288 C 6	1428 A 9	2250 D 1	2264 A 1	2322 C 3	2340 D 3	2702 B 8	2716 B 7	2770 C 9	3257 C 2	3274 B 2	3326 D 7	3711 B 9	3727 C 8	3770 C 9	5281 D 4	6258 C 1	6753 C 7	7256 A 2	9252 C 1	9282 D 5	9371 D 3	9708 B 8	
1290 D 4	1429 B 9	2251 C 1	2266 A 2	2323 D 2	2350 C 2	2703 C 8	2717 B 9	2771 C 9	3258 B 2	3275 A 1	3327 A 3	3712 C 7	3728 C 7	3771 C 9	5311 A 3	6259 A 1	6754 C 6	7257 A 1	9253 D 1	9283 B 4	9374 B 2	9713 B 7	

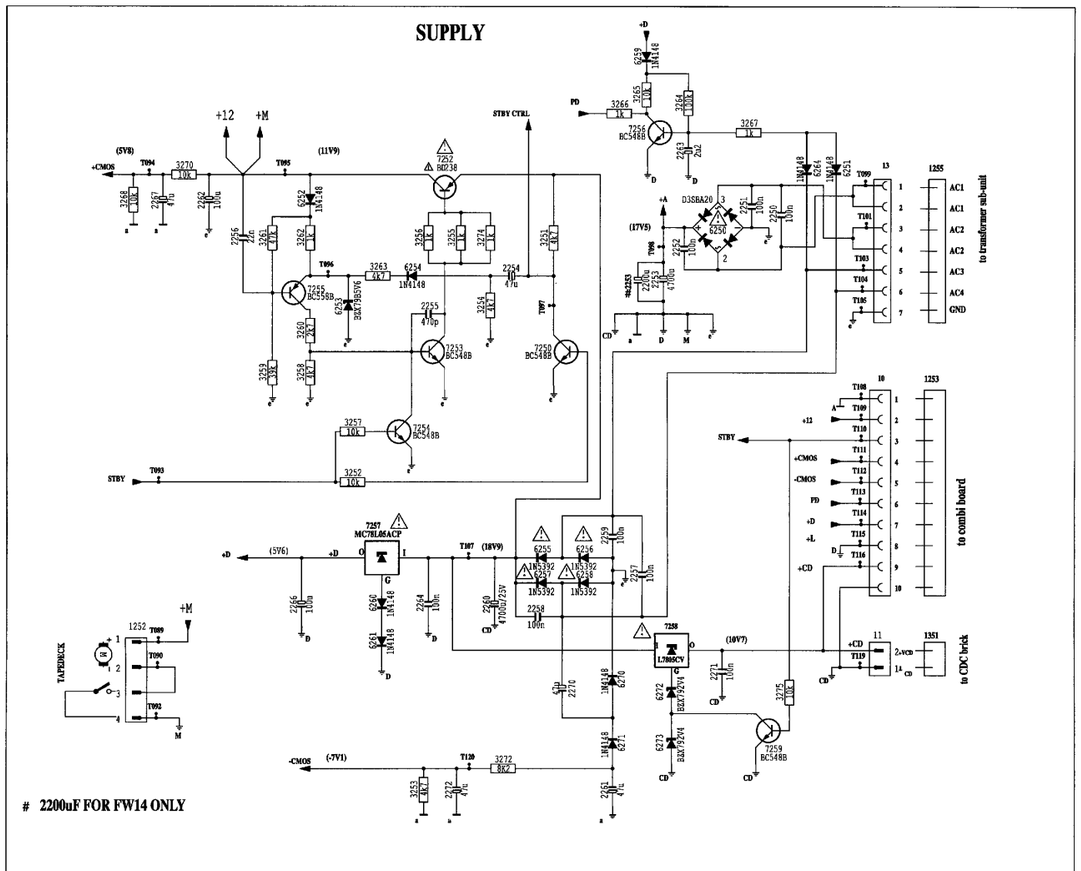


BIAS OSCILLATOR ADJUSTMENT

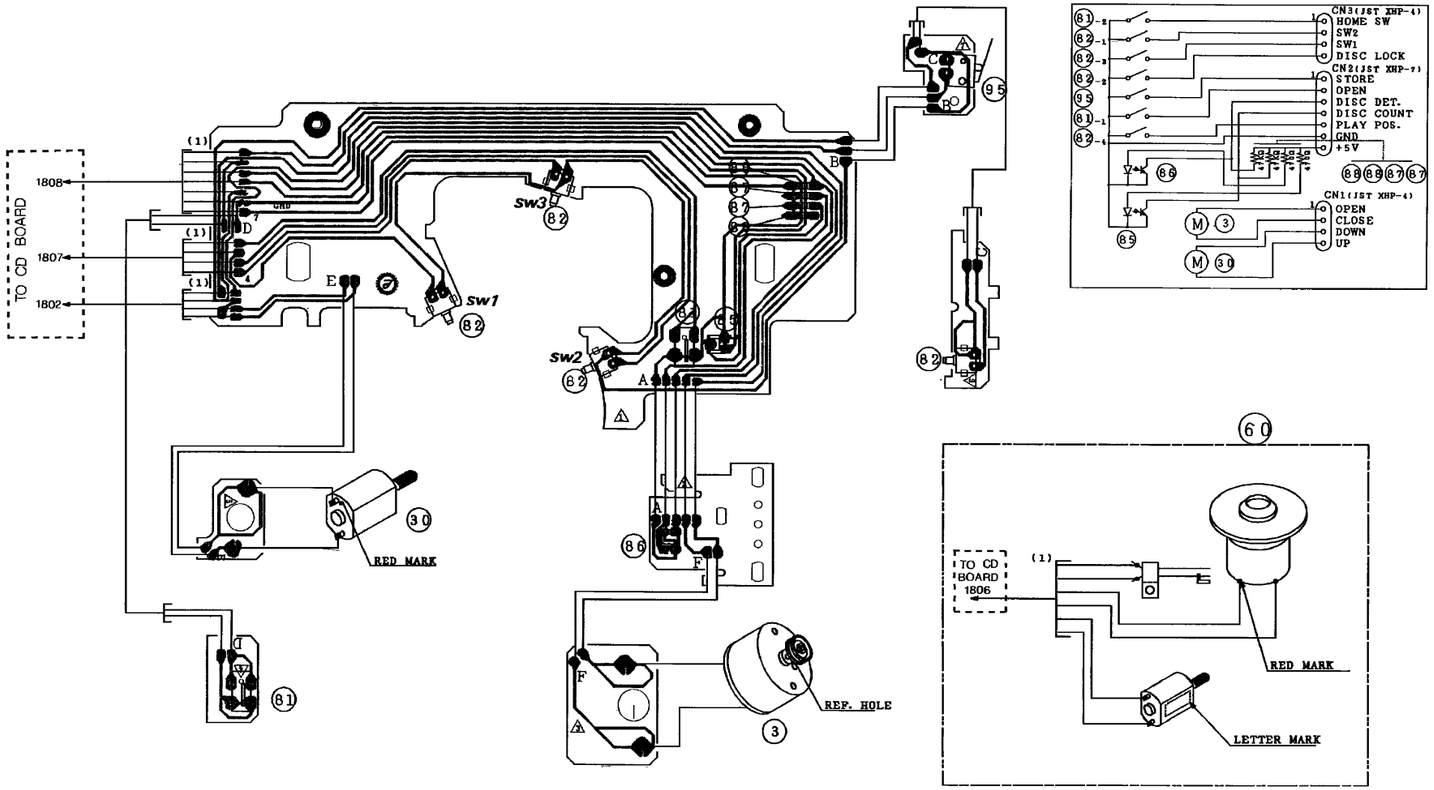
TAPE DECK POSITION	MEASURE ON	READ ON	ADJUST WITH	ADJUST TO
Record	1	Frequency counter	5770	77kHz ± 5kHz

Solução de serviço RIF :
Acrescentar capacitor 2780 (470pF 10% 50V)
e curto-circuitar pin. 1 & 2 do item 1780


AMPLIFIER
+A : 5W : 17V
10W : 21V
TO COMBI PCB
L
GND
R
Phone
Power
MUTE
AN7416IN
(17V5)
SPKR-SOCKET
SUB-UNIT
Click fit
to spkr-socket sub-unit
to loudspeakers
to headphone
STBY CTRL
* FOR PROVISION ONLY


SUPPLY
+12
+M
STBY CTRL
PD
(5V8)
(11V9)
(17V5)
(576)
(18V9)
(10V7)
(-7V1)
STBY
MC78L65ACP
L7805CV
D3SBA20
BD238
BC548B
BC558B
1N4148
1N5392
TAPEDECK
to transformer sub-unit
to combi board
to CDC brick
2200uF FOR FW14 ONLY

CDC MECHANISM ELECTRONICS



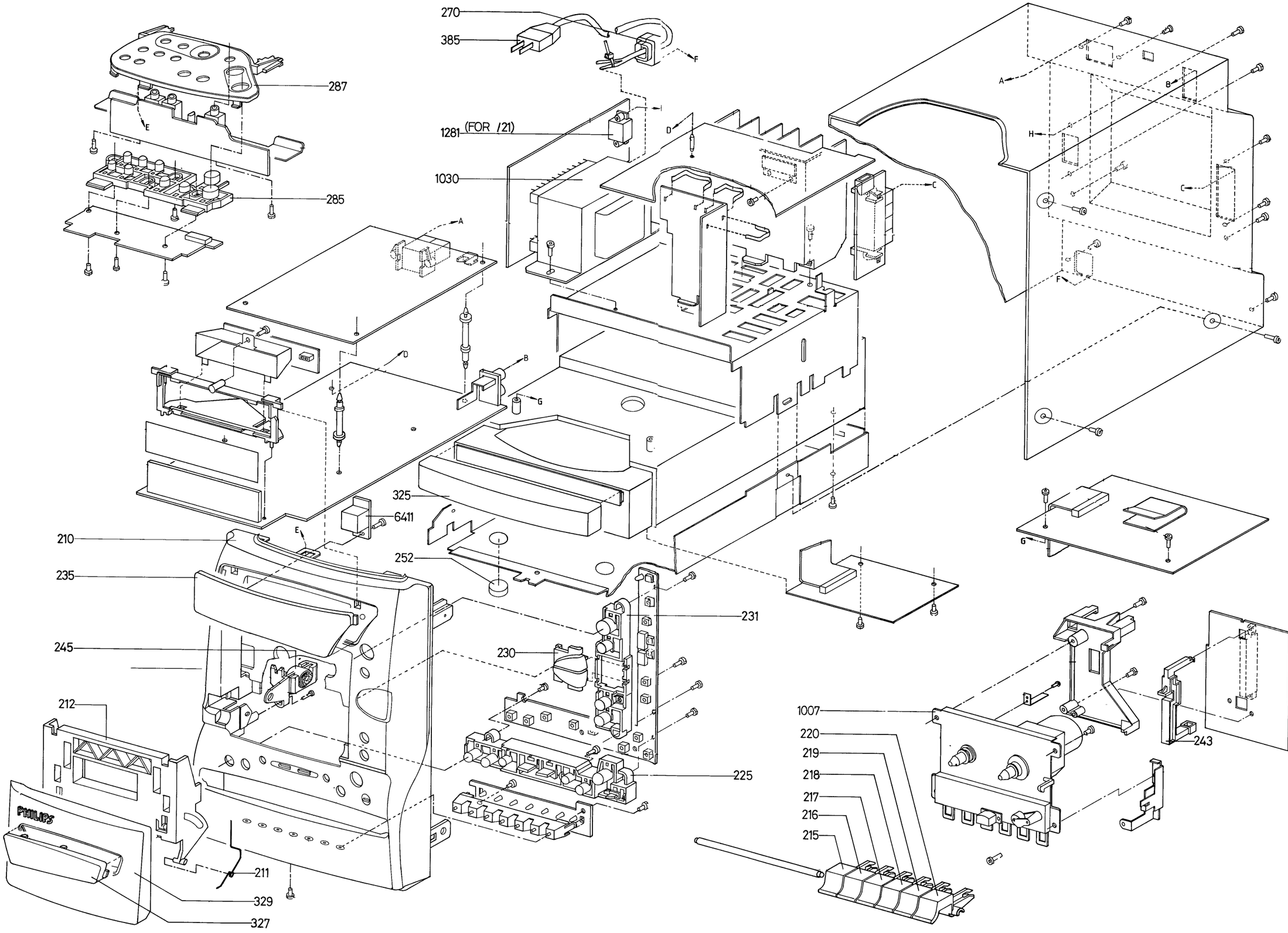
NOTE: NUMBERS IN CIRCLES REFERS TO POSITION
NUMBERS IN THE CDC EXPLODED VIEW.

PARTES MECÂNICA DO APARELHO :

021	5322 255 40397	Mola clip 56379
022	4822 255 40128	Mola clip 56353
023	4822 492 63051	Mola clip 56364
210	4822 426 10046	Gabinete Frontal
211	4822 492 42698	Mola p/ tampa K7
212	4822 443 64085	Transportador K7
215	4822 410 63421	Botão "PAUSE"
216	4822 410 63422	Botão "STOP/EJECT"
217	4822 410 63423	Botão "F W D"
218	4822 410 63424	Botão "REWIND"
219	4822 410 63425	Botão "PLAY"
220	4822 410 63426	Botão "RECORD"
225	4822 410 63399	Botão "C D C"
230	4822 410 63407	Botão "VOLUME"
231	4822 410 63397	Botão "D S C"
235	4822 381 11553	Lente do Display
243	4822 404 31418	Alavanca de gravação
245	4822 529 10278	Hidraulico
252	4822 462 40683	Pé
270	4822 532 60948	
285	4822 410 63398	Botão set TUNER
287	4822 423 90211	Parte superior do gabinete
325	4822 432 93285	Cobertura CDC
327	4822 432 93283	Lente p/ tampa K7
329	4822 432 93286	Cobertura
350	4822 445 10407	Caixa acústica FB15
351	4822 158 60622	Antena AM
352	4822 320 11094	Antena FM
356	4822 218 10557	Controle Remoto
385	4806 321 17022	Cabo de Rêde
1007	4822 691 20966	DECK YS27Z-503
1030	4822 146 31402	Transformador de rêde
1281	4822 272 10269	Ficha de voltagem
6411	4822 214 52009	GP1U58XP

Obs.: As peças acima relacionadas, são as únicas disponíveis para reposição.

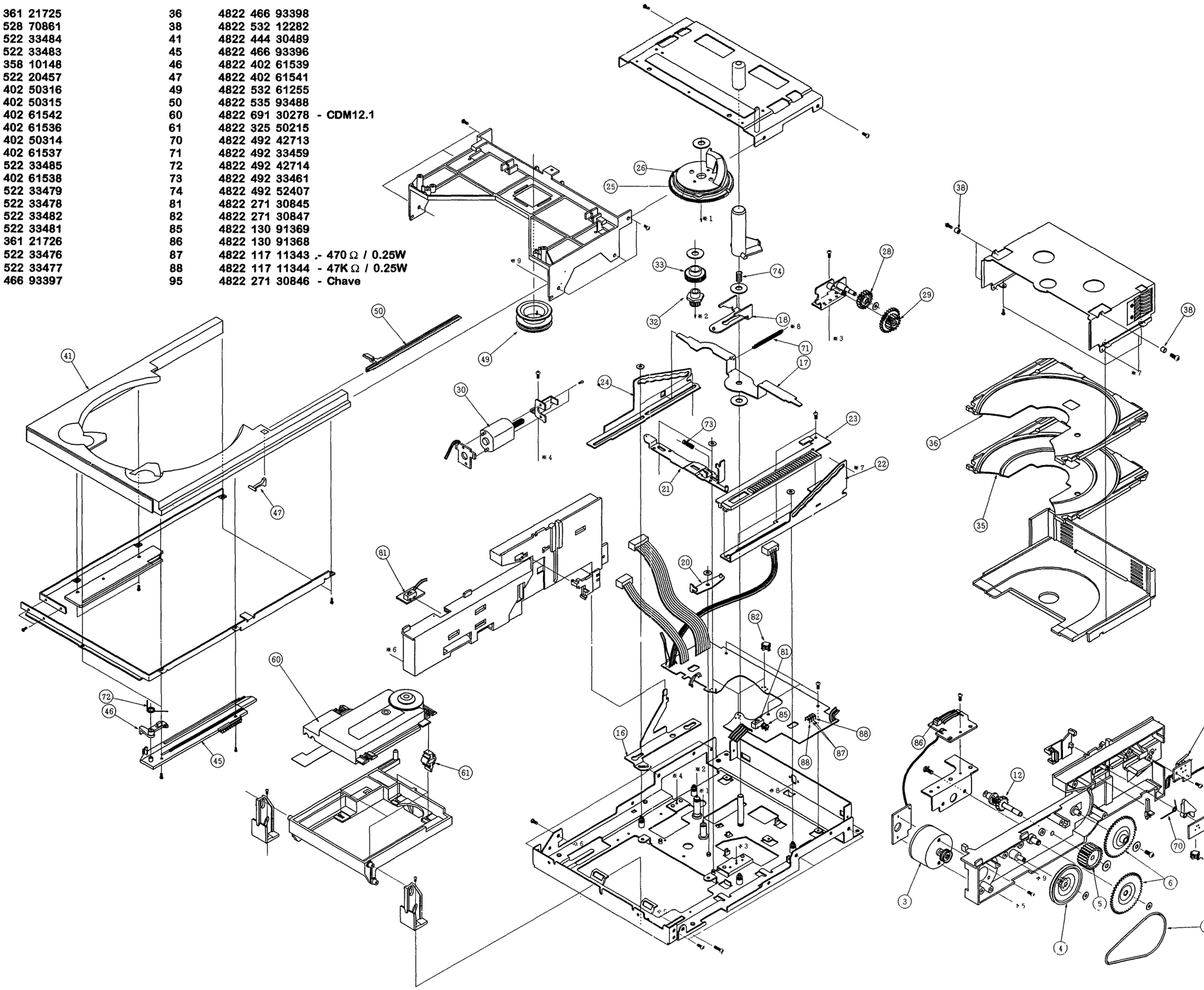
CENTER UNIT


270
385
287
285
1281 (FOR /21)
1030
325
6411
210
235
252
245
230
231
212
225
211
329
327
1007
220
219
218
217
216
215
243

C D C - Partes mecânica

Obs.: As peças abaixo relacionadas, são as únicas dionívels para reposição.

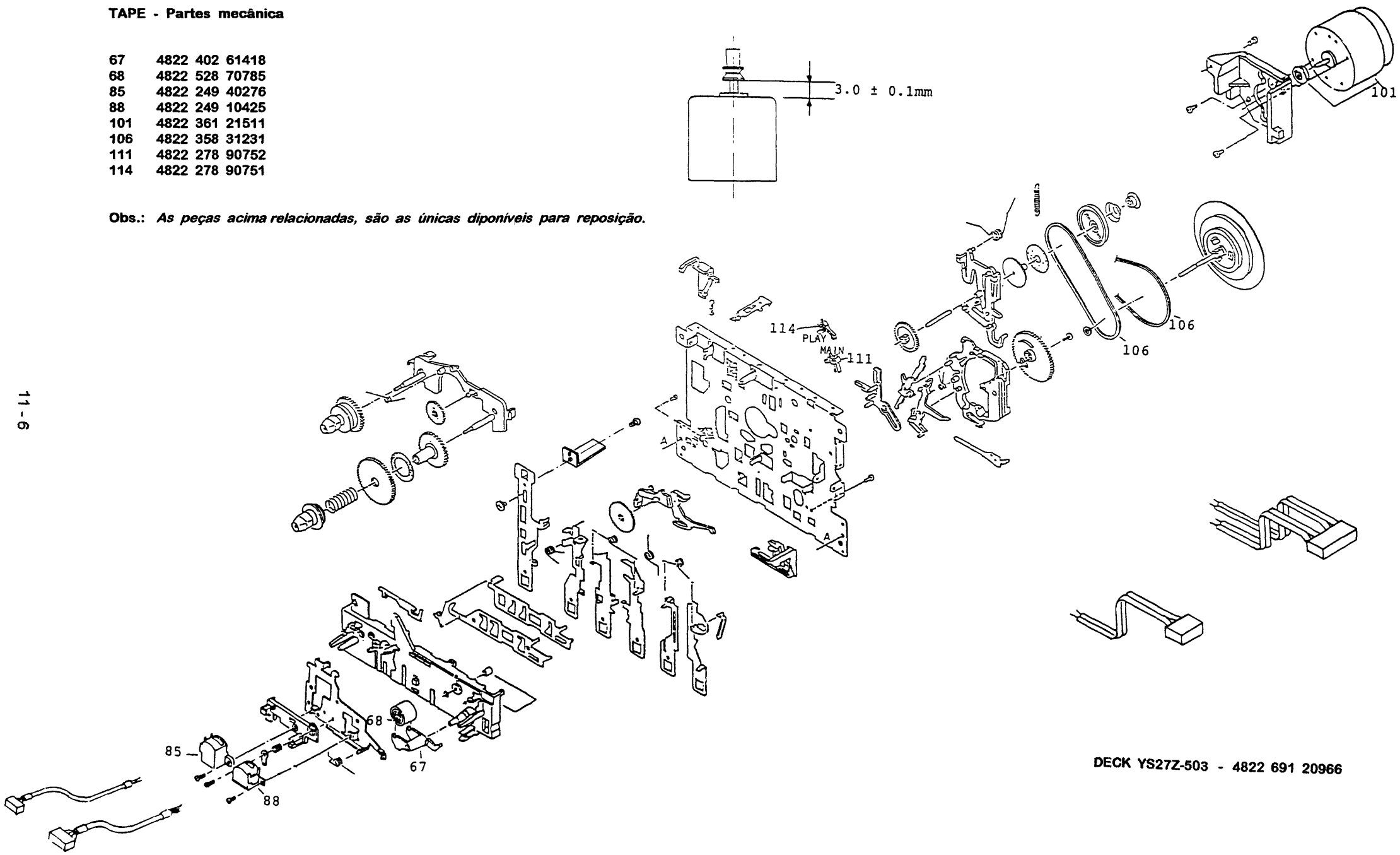
03	4822 361 21725	36	4822 466 93398
04	4822 528 70861	38	4822 532 12282
05	4822 522 33484	41	4822 444 30489
06	4822 522 33483	45	4822 466 93396
09	4822 358 10148	46	4822 402 61539
12	4822 522 20457	47	4822 402 61541
16	4822 402 50316	49	4822 532 61255
17	4822 402 50315	50	4822 535 93488
18	4822 402 61542	60	4822 691 30278 - CDM12.1
20	4822 402 61536	61	4822 325 50215
21	4822 402 50314	70	4822 492 42713
22	4822 402 61537	71	4822 492 33459
23	4822 522 33485	72	4822 492 42714
24	4822 402 61538	73	4822 492 33461
25	4822 522 33479	74	4822 492 52407
26	4822 522 33478	81	4822 271 30845
28	4822 522 33482	82	4822 271 30847
29	4822 522 33481	85	4822 130 91369
30	4822 361 21726	86	4822 130 91368
32	4822 522 33476	87	4822 117 11343 - 470 Ω / 0.25W
33	4822 522 33477	88	4822 117 11344 - 47K Ω / 0.25W
35	4822 466 93397	95	4822 271 30846 - Chave



TAPE - Partes mecânica

67	4822 402 61418
68	4822 528 70785
85	4822 249 40276
88	4822 249 10425
101	4822 361 21511
106	4822 358 31231
111	4822 278 90752
114	4822 278 90751

Obs.: ***As peças acima relacionadas, são as únicas diponíveis para reposição.***



DECK YS27Z-503 - 4822 691 20966

Posição	Código	DESCRIÇÃO
-		**TUNER - ECO4VA**
		DIVERSOS
1101	4822 267 10283	Soquete coax 75
1105	4822 265 31184	Suporte p/ antena
2115	4822 125 60101	Variável 3 ~ 11 pF / 100V
3148	4822 100 11163	Pot. 100KΩ 30% 0 1W
		BOBINAS
5107	4822 157 63835	
5108	4822 157 71093	
5109/20	4806 156 37045	RF 1 5T
5122/23	4822 157 60517	
5125	4822 157 61898	0,47 µH
5140	4822 158 60511	FI dc AM 450 KHz
5142	4822 157 70302	FI dc AM 450 KHz
5143/44	4822 242 70665	Filtro cer. 10.7 MHz
5145	4806 242 77124	
5170	4822 242 72976	Ressonador cer 7.2 MHz
		DIODOS
6105	4822 130 83075	HN1V02H
6109/24	4822 130 82833	1SV228
6121...	4806 130 37078	1N4148
6174	4822 130 34233	BZX79B5V1
		Tr's
7102...	4806 130 47321	BC848C
7105	4806 130 47337	2SA838B
7120	4806 130 47316	2SC1047
7168/74	4806 130 47269	BC858B
		I C 's
7140	4822 209 32011	TEA5712/N2 (RF)
7172	5322 209 11517	MM74HCU04M
7173	4822 209 31998	LC7218M

Posição	Código	DESCRIÇÃO
-		**CDC**
		Diversos
1830	4822 071 51601	Fusível T160mA/250V
1850/52	4822 267 60383	Soquete flex 24 pin.
5860	4822 242 81151	Cristal 16.9334 MHz
5861	5322 242 73691	Resson. cer. 8 MHz
5890	4822 242 73557	Resson cer. 8.467 MHz
8801	4822 321 62533	Cabo flex 24 pin
		Diodos
6857/8	4806 130 37501	1N4002
6881	4806 130 37190	BZX79C3V9
6883	4806 130 37314	BZX79C2V7
		Tr's
7820	4806 130 47332	BC338-40
7856	4806 130 47227	BC328-40
7881/3	4806 130 47217	BC558C
7884/5	4806 130 47030	BC337
		I C 's
7800	4822 209 30704	MC74HCU04D
7830	4822 209 33407	TMP87CC70
7850	4822 209 31064	TDA1301T/N1
7851/2/3	4822 209 32852	TDA7073A/N2
7860	4822 209 33339	SAA7345GPM5
7870	4822 209 33252	TDA1549T/N1
7872	4822 209 32421	TDA1311A/N2
7886	4822 209 80891	MC7805CT
-		**COMBI**
		Diversos
1400	4822 130 91395	Display - LPH6233-1
1460...	4822 276 13114	Chave
1496...	4822 134 41198	Lampada 12V (azul)
1552	4806 267 37060	Soquete AUX/PHONO
1560	4822 267 40898	Soquete HEADPHONE
		Resistor
3452/3/4	4822 116 90836	10KΩ x 5 / 0.125W

Posição	Código	DESCRIÇÃO
-		**COMBI**
		Bobinas
5401	5322 242 73697	Resson cer 8MHz
5402	4822 242 70938	Cristal 32 768MHz
5403/7	4822 157 52983	22µH 10%
5404	4806 157 57092	1 mH 10%
5405	4822 157 62552	2,2 µH 10%
5406	4822 157 63134	560µH 10%
		Diodos
6400..	4806 130 37078	1N4148
6411	4822 214 52009	GP1U58XP
		Tr's
7405/11	4806 130 47041	BC548B
7406	4806 130 47042	BC548C
7408/9	4806 130 47050	BC558B
7502...	4806 130 47045	BC549C
7520/21	4806 130 47332	BC338-40
		I C 's
7401	4822 209 33236	TMP87C20F
7402	4822 209 31508	ST24C01
7404/7	4806 209 87164	HEF4094BP
7504/5	5322 209 14865	MC14066BCP
7512/3	4806 209 87373	NJM4560D
7515	4822 209 30537	TC9153P
7600	4822 209 10263	HEF4052B
-		**POWER**
		Diversos
1281	4822 272 10269	Seletor de voltagem
1285	4822 071 51602	Fusível T1.6A / 250V
1288	4822 253 10065	Fusível T5.0A / 250V
1304	4822 267 31176	Soquete p/ falante
1419...	4822 276 13114	Chave
1700	4806 277 27096	Chave IDE
0385	4806 321 17022	Cabo de Rede

Posição	Código	DESCRIÇÃO
-		**POWER**
		Bobinas
5281	4822 157 72185	400µH 30%
5311...	4822 157 62552	2,2 µH 20%
5770	4822 156 20946	Osc 100KHz
		Diodos
6250	4822 130 82079	D3SBA20
6251...	4806 130 37078	1N4148
6253	4822 130 34173	BZX79C5V6
6255...	5322 130 80686	1N5392
6272	4822 130 80235	BZX79C3V3
6273	4806 130 37198	BZX79C2V4
6401...	4822 130 82978	LTL-16KPE (red)
		Tr's
7250...	4806 130 47041	BC548B
7252	4822 130 40917	BD238
7255	4806 130 47050	BC558B
7715...	4806 130 47042	BC548C
7770	4806 130 47234	BC337-40
		I C 's
7257	4806 209 87639	MC78L05ACP
7258	4822 209 80817	L7805CV
7313/4	4822 209 73356	AN7161N(FP)
7701	4822 209 32918	AN7318S
7951	5322 209 12171	74HC4094D

12 - 1

A. Procedure to remove the CDC from the set. (Refer to set disassembly drawing)

1. To open the CD tray, turn the PULLEY A(see Fig.1) clockwise.
2. Remove the nose piece (position no.264)
3. Unscrew the two mounting screws at the rear of the CDC and remove the CDC.

B. If the CD tray is jammed,

1. Unplug connector from socket 1802(refer to CD circuits).
2. Apply 5V across PIN 3 & 4 to bring the CD mechanism down.
   CAUTION : Tray can only opened when CD mechanism is down and before GEAR C & D disengage.
3. Apply 5V across PIN 1 & 2 to bring the tray out.
4. Proceed with **A.**

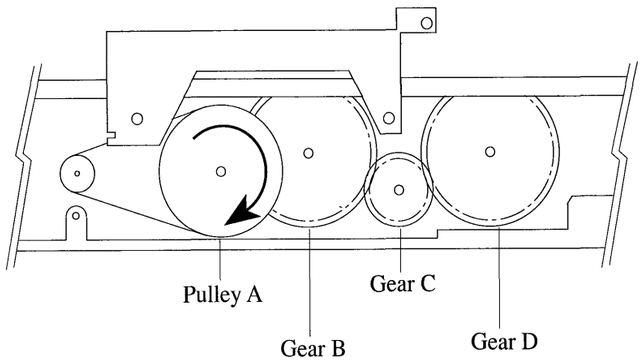


Fig. 1 Right-side view of CDC mechanism

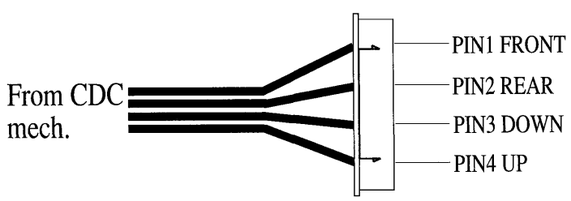


Fig. 2 Item (92) of CDC mechanism

Anotações para alterações técnicas