

# Service Service Service



# Service Manual

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**CLASS 1  
LASER PRODUCT**

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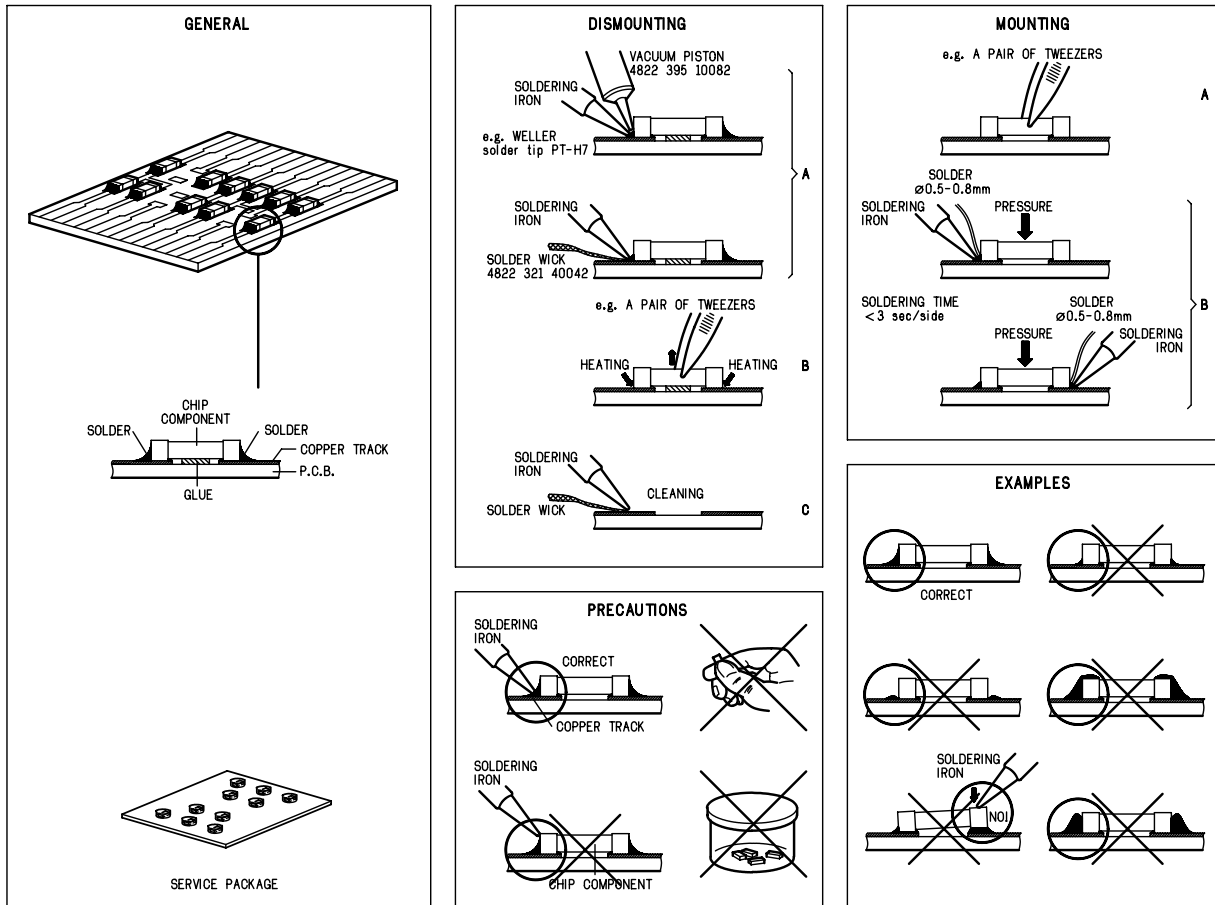
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# PHILIPS

## HANDLING CHIP COMPONENTS

**(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 wristband with resistance. Keep components and tools at this potential.

**ESD****(NL) WAARSCHUWING**

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

**(F) ATTENTION**

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD). Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.  
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfilez le bracelet muni 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 Pulsarmband mit Widerstand mit dem Massepotential des Gerätes verbunden sind.  
Halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

**(I) AVVERTIMENTO**

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

**(GB)**

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

**(F)**

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.  
Les composants de sécurité sont marqués ▲

**SAFETY****(D)**

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Gerätes darf nicht verändert werden. Für Reparaturen sind Originalersatzteile zu verwenden.  
Sicherheitsbauteile sind durch das Symbol ▲ markiert.

**(NL)**

Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.  
De Veiligheidsonderdelen zijn aangeduid met het symbool ▲

**(I)**

Le norme di sicurezza estigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.  
Componenti di sicurezza sono marcati con ▲

**(GB)**

**DANGER:** Invisible laser radiation when open.  
AVOID DIRECT EXPOSURE TO BEAM.

**(S) Varning !**

Osynlig laserstrålning när apparaten är öppnad och spårar är urkopplad. Betrakta ej strålen.

**(DK) Advarsel !**

Usynlig laserstrålning ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

**(FIN) Varoitus !**

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

**(GB)**

After servicing and before returning the set to customer perform a leakage current measurement test from all exposed metal parts to earth ground, to assure no shock hazard exists.  
The leakage current must not exceed 0.5mA.

**(F)**

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

## SPECIFICATIONS

### GENERAL

Mains voltage	-/00 : 230 V
	-/01/11 : 120 / 230 V
	-/17 : 120 V
Mains frequency	-/00 : 50 Hz
	-/01/11 : 50 / 60 Hz
	-/17 : 60 Hz
Battery	mains : 12 V (R20 x 8)
	remote : 3 V (R6 x 2)
Power consumption	: 35 W
Dimension (W x H x D)	: 520 x 160 x 296 mm
Weight	: 5.7 Kg

### AMPLIFIER

Output power	mains : 2 x 6.5 W
	battery : 2 x 6.5 W
Speaker impedance	: 2 x 8 ohm, 16W Woofer
	2 x 6 ohm, 8W Tweeter
Frequency response	: 100 Hz - 10 kHz ( $\pm 3$ dB)
Treble control	: +8 / -14 dB @ 10 kHz
Bass control	: +10 / -10 dB @ 100 Hz

### COMPACT DISC

Frequency response	: 20 Hz - 20 kHz
S/N ratio	: 60 dB
Distortion	1 kHz : 0.2%
Channel difference	1 kHz : 2 dB
Channel crosstalk	1 kHz : 40 dB
Laser wavelength	: 780 $\pm$ 20 nm
Laser light power	: < 0.3 mW

### TUNER - FM SECTION

Tuning range	: 87.5 - 108 MHz
IF frequency	: 10.7 MHz $\pm$ 0.03 MHz
Sensitivity	: 18 dB at 26dB S/N
Selectivity	: 24 dB at 300kHz
IF rejection	: 85 dB
Image rejection	: 24 dB

### TUNER - AM SECTION

Tuning range	MW : 531 - 1602 kHz
	-/17 : 530 - 1700 kHz
	LW : 153 - 279 kHz
Sensitivity	MW : 3200 $\mu$ V/m at 26dB S/N
	LW : 5500 $\mu$ V/m at 26dB S/N
Selectivity	MW : 22 dB
	LW : 29 dB
IF rejection	MW : 60 dB
	LW : 60 dB
Image rejection	MW : 32 dB
	LW : 38 dB

## SERVICE TOOLS

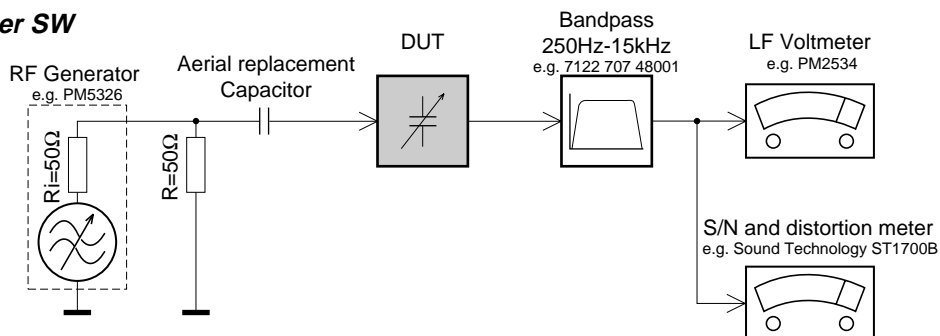
Audio signal disc SBC 429.....	4822 397 30184
Playability test disc SBC 444.....	4822 397 30245
Test disc 5 (disc without errors ) +	
Test disc 5A (disc with dropout errors, black spots and fingerprints)	
SBC 426/426A.....	4822 397 30096
Burn in test disc (65 min. 1kHz signal at -30 dB level without "pause").....	4822 397 30155

## AVAILABLE ESD PROTECTION EQUIPMENT

anti-static table mat large 1200x650x1.25mm	4822 466 10953
small 600x650x1.25mm	4822 466 10958
anti-static wristband	4822 395 10223
connection box (3 press stud connections, 1M $\Omega$ )	4822 320 11307
extendible cable (2m, 2M $\Omega$ , to connect wristband to connection box)	4822 320 11305
connecting cable (3m, 2M $\Omega$ , to connect table mat to connection box)	4822 320 11306
earth cable (1M $\Omega$ , to connect any product to mat or to connection box)	4822 320 11308
KIT ESD3 (combining all 6 prior products - small table mat)	4822 310 10671
wristband tester	4822 344 13999

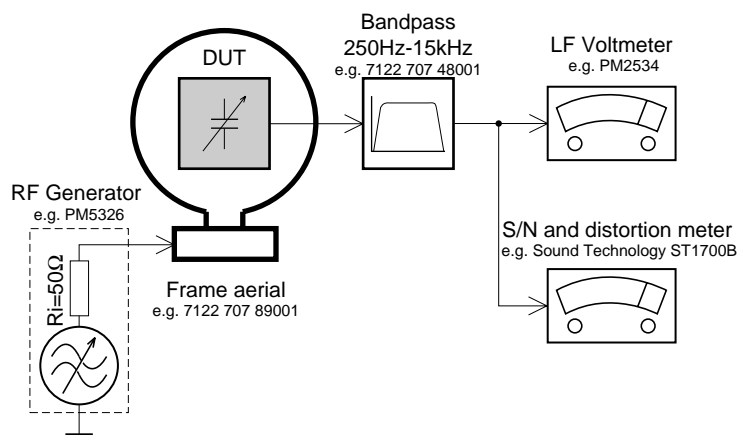
## SERVICE MEASUREMENT

### Tuner SW



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).

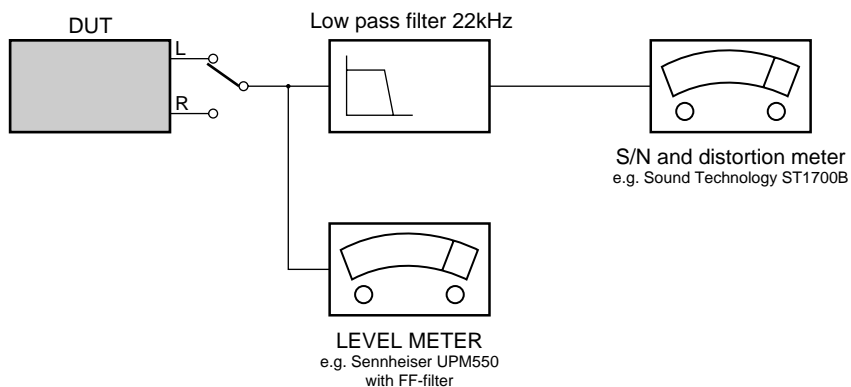
### Tuner AM (MW,LW)



To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's cage.

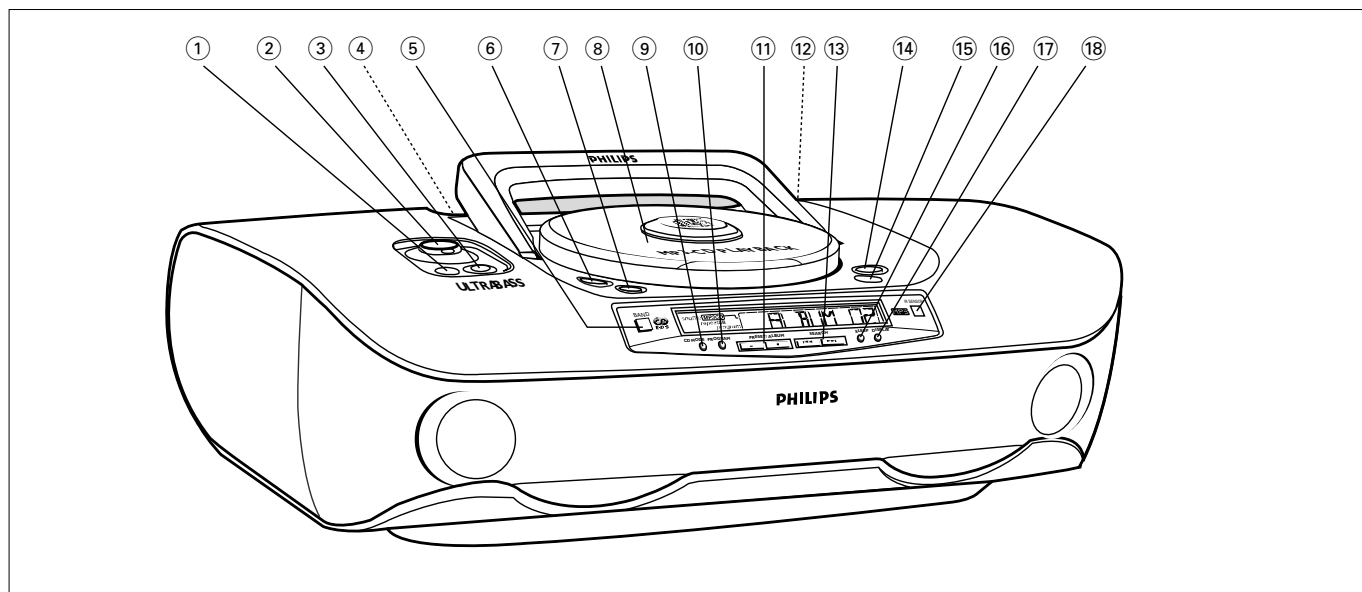
### CD

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





## CONTROLS



### Top and front panels

- 1 BASS/ TREBLE** – enhances bass/treble response
- 2 SOUND CONTROL CENTRE/VOLUME** – adjusts volume level and digital equalizer settings
- 3 ULTRABASS** – enhances bass response
- 4** – 3.5 mm headphone socket
- 5 BAND** – selects FM/ MW (AM)/ LW (some versions only) waveband
- 6 POWER** – switches the set on/off  
*Note: The set can only be switched on using this button.*
- 7 SOURCE** – selects sound source for CD or TUNER
- 8 MP3-CD/ CD door** – press door to open/ close
- 9 CD MODE** – plays MP3-CD/ CD tracks/ CD/ a program in random order  
- repeats a track/ MP3-CD/ CD/ program
- 10 PROGRAM**  
**MP3-CD/ CD:** programs and reviews programmed tracks;  
**TUNER:** programs tuner stations
- 11 PRESET / ALBUM** , **MP3 only:** selects previous/next album  
**TUNER:** selects a previous/next preset station
- 12 Telescopic aerial** – to improve FM reception
- 13 SEARCH** ,

**MP3-CD/ CD:** fast searches backwards, forwards within a track; skips to previous/ next track

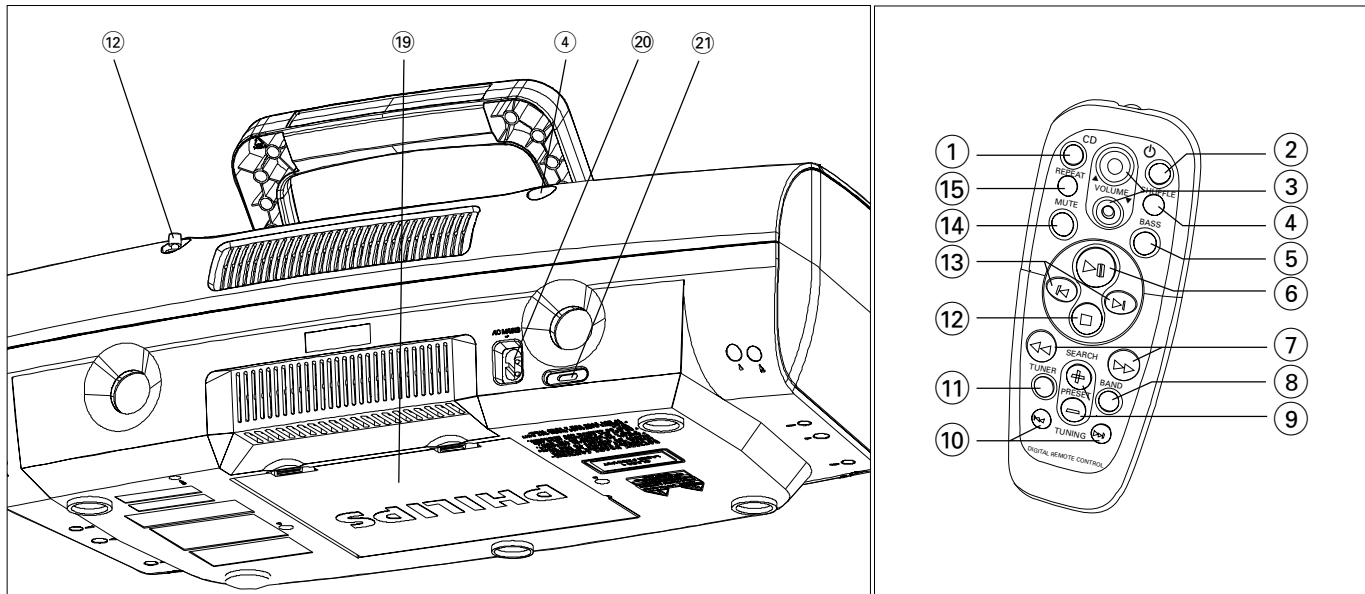
**TUNER:** tunes radio (manually: down, up); automatic search tuning (down, up)

- 14 PLAY•PAUSE** – starts or pauses MP3-CD/ CD playback
- 15 STOP** – stops MP3-CD/ CD playback; erases a MP3-CD/ CD program
- 16 SLEEP** – selects SLEEP function and adjusts the SLEEP time
- 17 DISPLAY**  
**MP3-CD:** shows various text and time information during playback  
**TUNER:** displays tuner information
- 18 IR SENSOR** – infrared for remote control

### Back & Bottom Panel

- 19 Battery door** – open to insert 8 x R-20, UM-1 or D-cells
- 20 AC MAINS** – inlet for power cord
- 21 Voltage selector (some versions only)** – adjust to match the local voltage 110/220V before plugging in the set

## CONTROLS



### Back Panel

- 17 Telescopic aerial** – to improve FM reception
- 18 Voltage selector** – (inside the battery compartment, not all versions) adjust to match the local voltage 110/220V before plugging in the set
- 19 AC MAINS** – inlet for mains lead
- 20 Battery door** – open to insert 6 x **R-14, UM-2** or **C-cells**

### Digital Remote Control

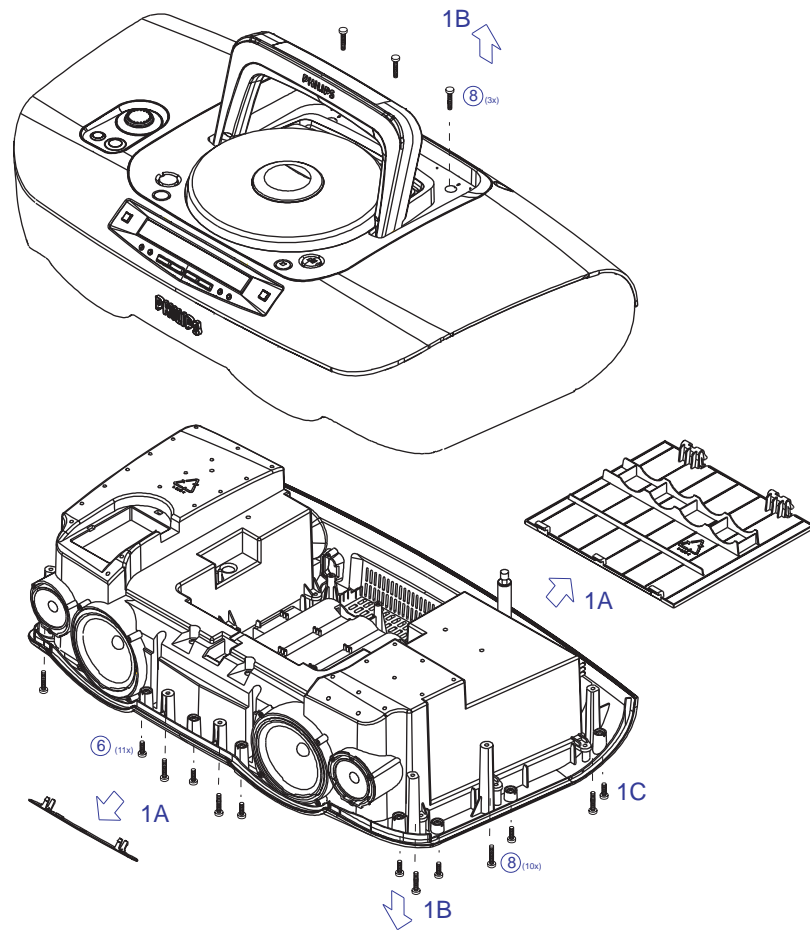
- 1 CD** – selects MP3-CD/ CD sound source
  - 2** – switches the set off
- Note:** When the set is switched off, the remote control cannot operate any commands. The set needs to be switched on first via the set's **POWER** button.
- 3 ▲ VOLUME ▼** – adjusts volume level
  - 4 SHUFFLE** – plays all MP3-CD/ CD tracks in random order
  - 5 BASS** – selects ULTRABASS on/off
  - 6 ►||** – starts MP3-CD/ CD playback  
– pauses MP3-CD/ CD playback
  - 7 SEARCH ◀▶** – search within MP3-CD/ CD track
  - 8 BAND** – selects FM/ MW (AM)/ LW (some versions only) waveband
  - 9 PRESET +, - (up, down)**  
**MP3-CD:** selects an album  
**TUNER:** selects a preset radio station
  - 10 TUNING ◀▶ (down, up)** – tunes to tuner stations
  - 11 TUNER** – selects tuner sound source
  - 12 ■** – stops MP3-CD/ CD playback;  
– erases a MP3-CD/ CD program
  - 13 ◀▶** – skips to the beginning of a current track previous/ subsequent track
  - 14 MUTE** – interrupts/ resumes sound
  - 15 REPEAT** – repeats a track/ program/ entire MP3-CD/ CD

For more information on operation instruction please visit Philips Audio internet site :  
<http://www.audio.philips.com>

## DISASSEMBLY DIAGRAM

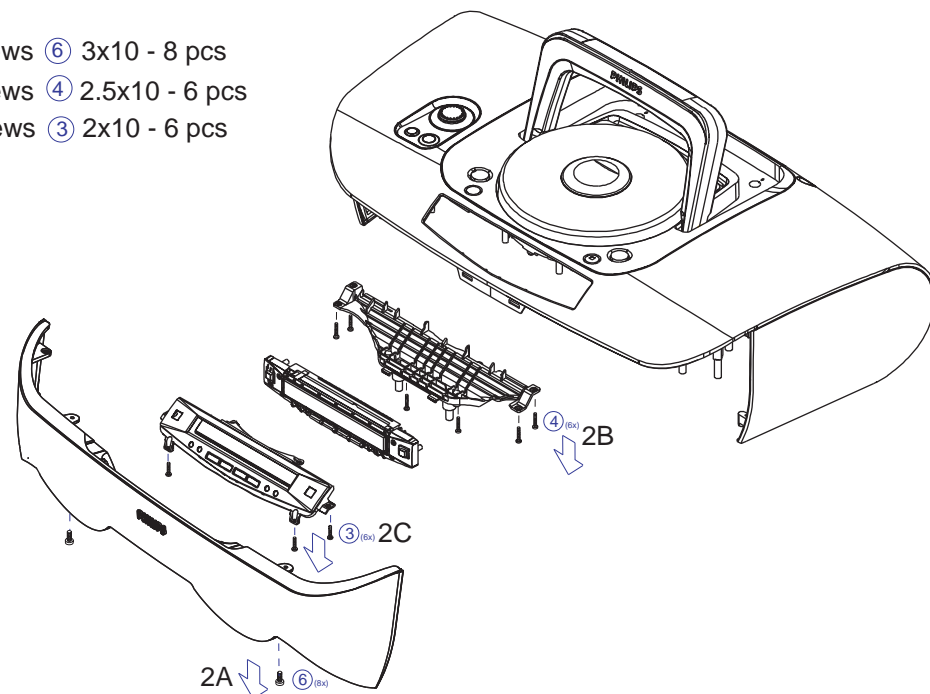
## 1. TO REMOVE TOP CABINET ASSEMBLY

- A. Remove door-battery (433) and cover-bottom (507)  
 B. Remove screws ⑧ 3x16 - 13 pcs  
 C. Remove screws ⑥ 3x10 - 11 pcs



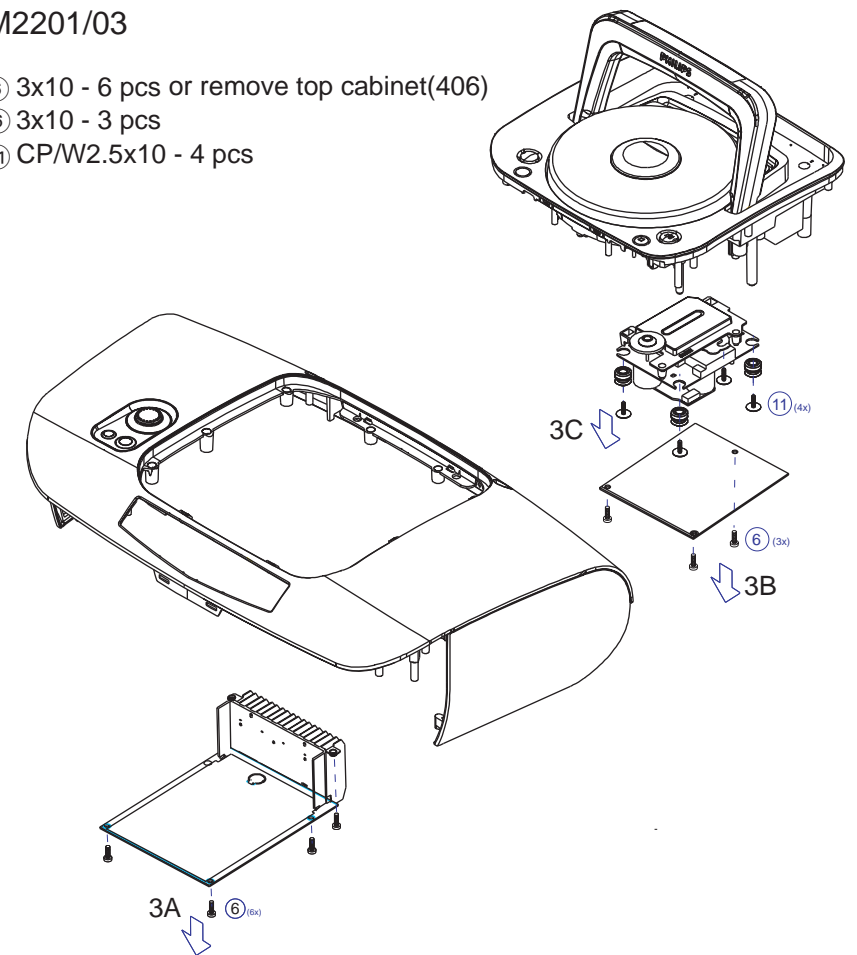
## 2. TO REMOVE FRONT PANEL ASSEMBLY

- A. Remove screws ⑥ 3x10 - 8 pcs  
 B. Remove screws ④ 2.5x10 - 6 pcs  
 C. Remove screws ③ 2x10 - 6 pcs



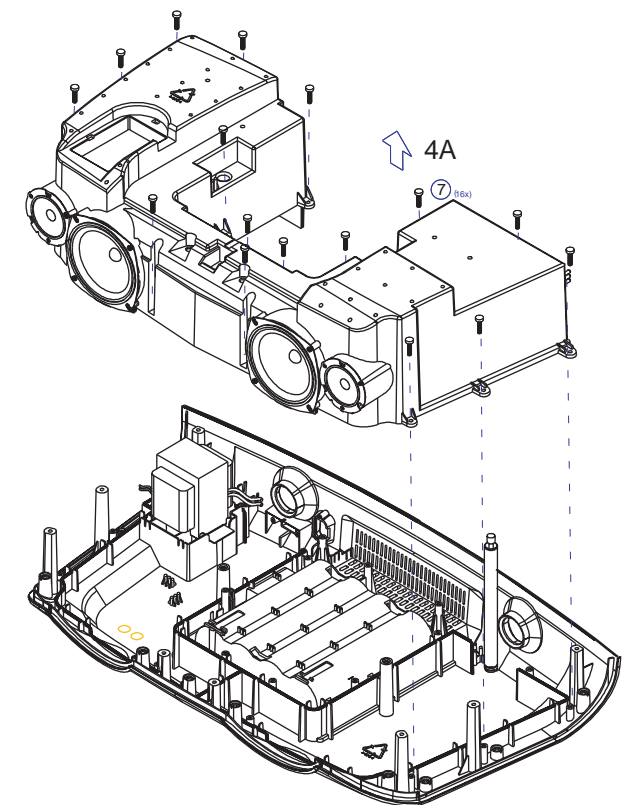
## 3. TO REMOVE VAM2201/03

- A. Remove screws ⑥ 3x10 - 6 pcs or remove top cabinet(406)  
 B. Remove screws ⑥ 3x10 - 3 pcs  
 C. Remove screws ⑪ CP/W2.5x10 - 4 pcs



## 4. TO DISASSEMBLY BOTTOM CABINET ASSY

- A. Remove screws ⑦ 3x12 - 16 pcs



SERVICE TEST PROGRAM

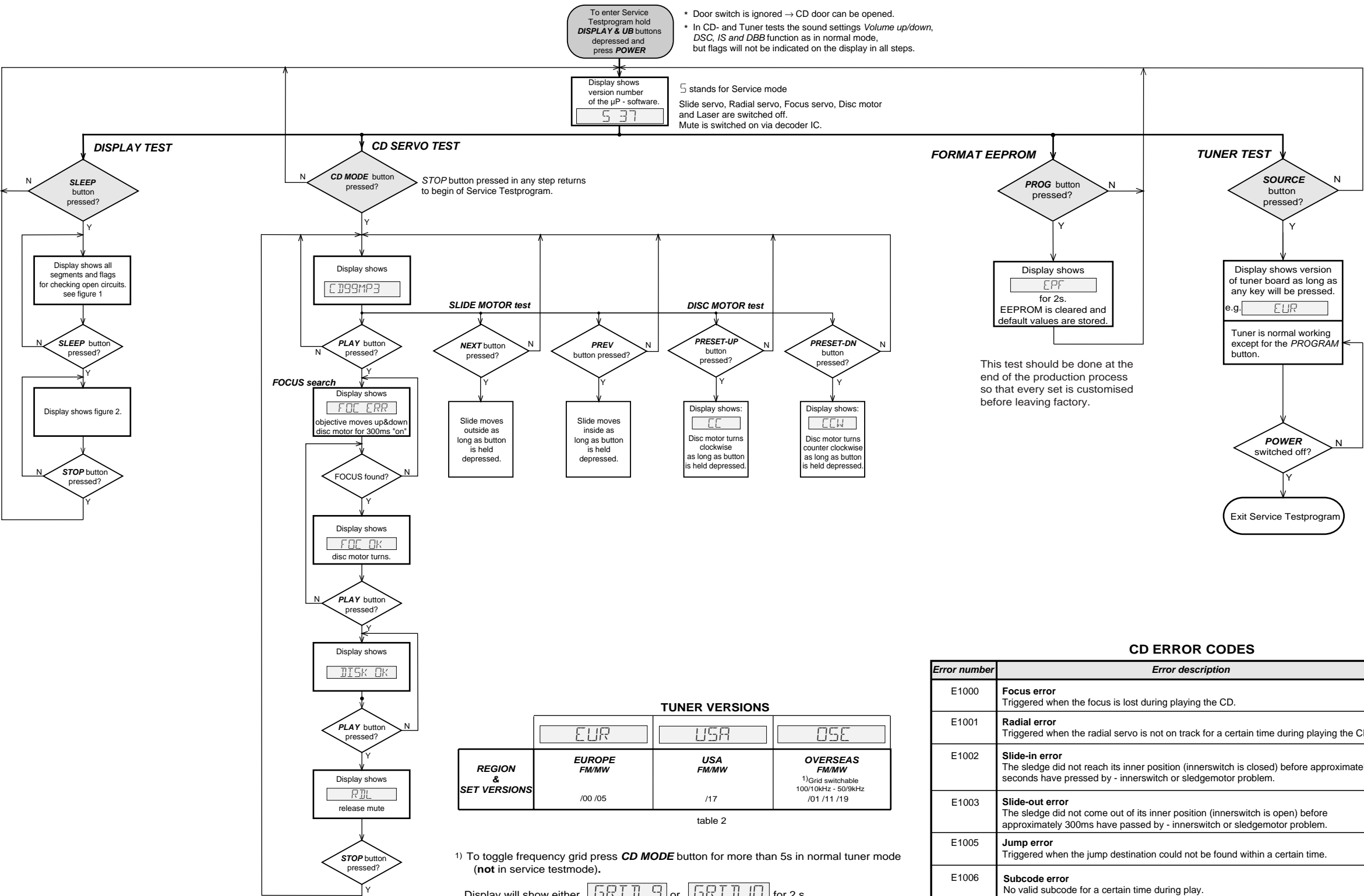


fig. 1



fig. 2



CD ERROR CODES		
Error number	Error description	Error type
E1000	<b>Focus error</b> Triggered when the focus is lost during playing the CD.	W
E1001	<b>Radial error</b> Triggered when the radial servo is not on track for a certain time during playing the CD.	W
E1002	<b>Slide-in error</b> The sledge did not reach its inner position (innerswitch is closed) before approximately 6 seconds have pressed by - innerswitch or sledgemotor problem.	W
E1003	<b>Slide-out error</b> The sledge did not come out of its inner position (innerswitch is open) before approximately 300ms have passed by - innerswitch or sledgemotor problem.	W
E1005	<b>Jump error</b> Triggered when the jump destination could not be found within a certain time.	W
E1006	<b>Subcode error</b> No valid subcode for a certain time during play.	W
E1007	<b>PLL error</b> The Phase-Lock-Loop could not lock within a certain time.	W
E1008	<b>Turntable motor error</b> Generated when the CD could not reach 75% of speed during start-up within a certain time. Discmotor problem.	W
E1020	<b>Focus search error</b> The focus point has not been found within a certain time.	F

table 1

**Error type:** W = Warning → set continues operation, message remains on the display until next error occurs or any key is pressed.  
F = Fatal Error → set stops operation, message remains on the display.

**Abbreviations and Pin-description of CD ICs****SERVO PROCESSOR SAA7325H**

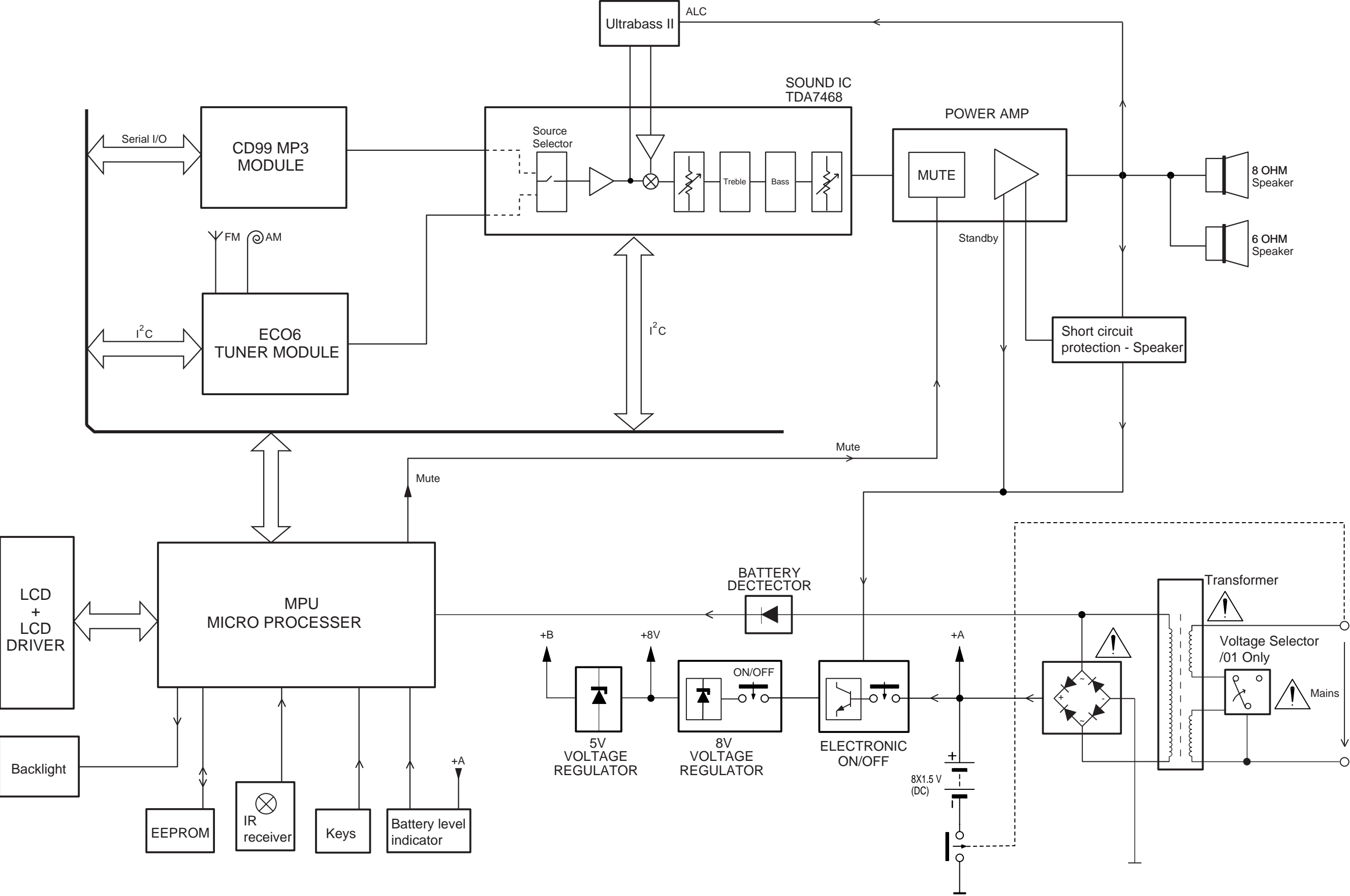
<b>SYMBOL</b>	<b>PIN</b>	<b>DESCRIPTION</b>
HFREF	1	comparator common mode input
HFIN	2	comparator signal input
ISLICE	3	current feedback output from data slicer
V <sub>SSA1</sub>	4 <sup>(1)</sup>	analog ground 1
V <sub>DDA1</sub>	5 <sup>(1)</sup>	analog supply voltage 1
I <sub>ref</sub>	6	reference current output pin
V <sub>RIN</sub>	7	reference voltage for servo ADC's
D1	8	unipolar current input (central diode signal input)
D2	9	unipolar current input (central diode signal input)
D3	10	unipolar current input (central diode signal input)
D4	11	unipolar current input (central diode signal input)
R1	12	unipolar current input (satellite diode signal input)
R2	13	unipolar current input (satellite diode signal input)
V <sub>SSA2</sub>	14 <sup>(1)</sup>	analog ground 2
CROUT	15	crystal/resonator output
CRIN	16	crystal/resonator input
V <sub>DDA2</sub>	17 <sup>(1)</sup>	analog supply voltage 2
LN	18	DAC left channel differential output - negative
LP	19	DAC left channel differential output - positive
V <sub>neg</sub>	20	DAC negative reference input
V <sub>pos</sub>	21	DAC positive reference input
RN	22	DAC right channel differential output - negative
RP	23	DAC right channel differential output - positive
SELPLL	24	selects whether internal clock multiplier PLL is used
TEST1	25	test control input 1; this pin should be tied LOW
CL16	26	16.9344 MHz system clock output
DATA	27	serial d4(1)ata output (3-state)
WCLK	28	word clock output (3-state)
SCLK	29	serial bit clock output (3-state)
EF	30	C2 error flag output (3-state)
TEST2	31	test control input 2; this pin should be tied LOW
KILL	32	kill output (programmable; open-drain)
V <sub>SSD1</sub>	33 <sup>(1)</sup>	digital ground 2
V2/V3	34	versatile I/O: input versatile pin 2 or output versatile pin 3 (open-drain)
WCLI	35	word clock iutput (for data loopback to DAC)
SDI	36	serial data input (for data loopback to DAC)
SCLI	37	serial bit clock input (for data loopback to DAC)
RESET	38	power-on reset input (active LOW)
SDA	39	microcontroller interface data I/O line (open-drain output)
SCL	40	microcontroller interface clock line input

**Abbreviations and Pin-description of CD ICs****SERVO PROCESSOR SAA7325H**

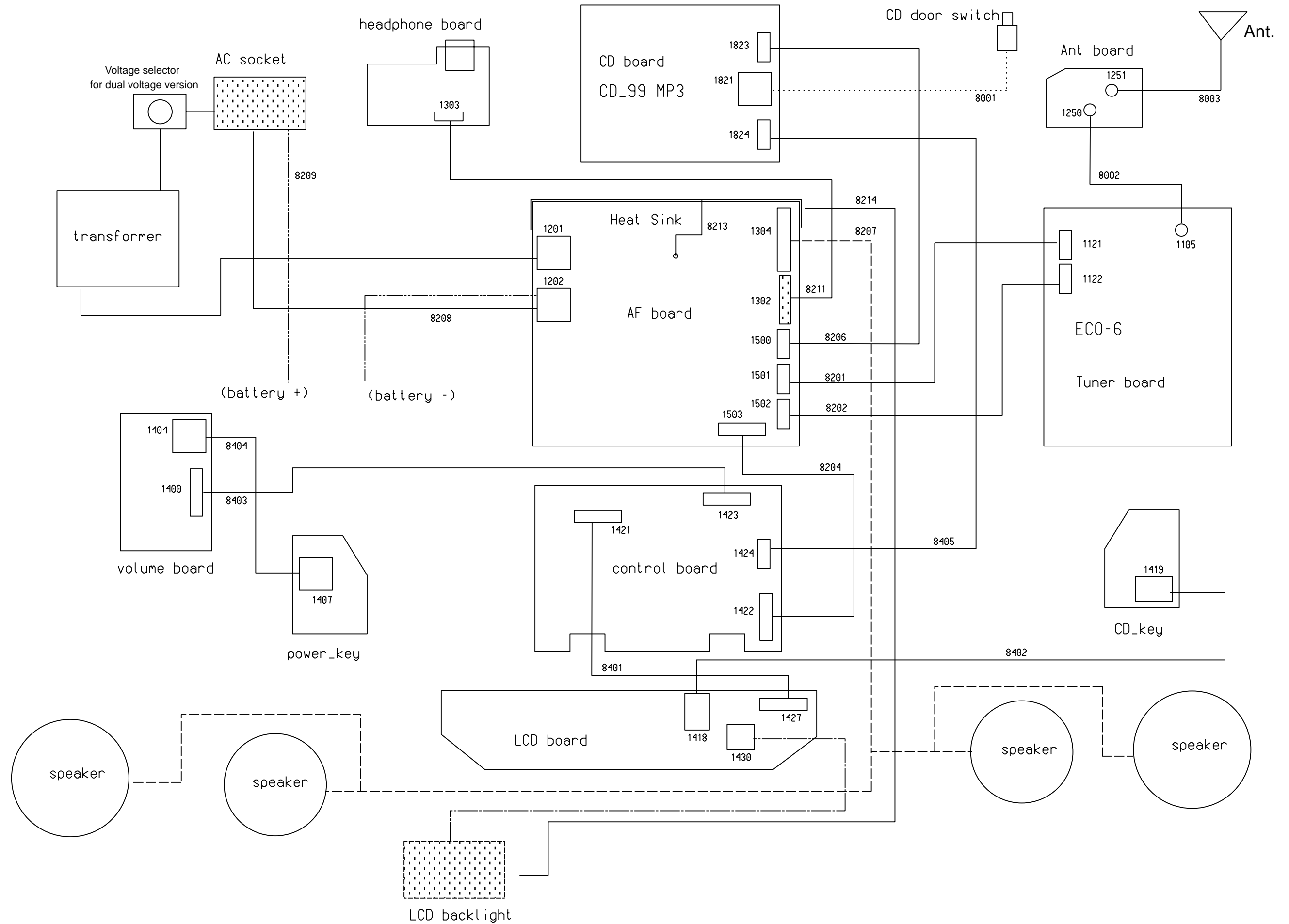
<b>SYMBOL</b>	<b>PIN</b>	<b>DESCRIPTION</b>
RAB	41	microcontroller interface R/W and load control line input (4-wire bus mode)
SILD	42	microcontroller interface R/W and load control line input (4-wire bus mode)
STATUS	43	servo interrupt request line/decoder status register output (open-drain)
TEST3	44	test control input 3; this pin should be tied LOW
RCK	45	subcode clock input
SUB	46	P-to-W subcode bits output (3-state)
SFSY	47	subcode frame sync output (3-state)
SBSY	48	subcode block sync output (3-state)
CL11/4	49	11.2896 MHz or 4.2336 MHz (for microcontroller) clock output
V <sub>SSD2</sub>	50 <sup>(1)</sup>	digital ground 3
DOBM	51	bi-phase mark output (externally buffered; 3-state)
V <sub>DDD1(P)</sub>	52 <sup>(1)</sup>	digital supply voltage 2 for periphery
CFLG	53	correction flag output (open-drain)
RA	54	radial actuator output
FO	55	focus actuator output
SL	56	sledge control output
V <sub>DDD2(C)</sub>	57 <sup>(1)</sup>	digital supply voltage 3 for core
V <sub>SSD3</sub>	58 <sup>(1)</sup>	digital ground 4
MOTO1	59	motor output 1; versatile (3-state)
MOTO2	60	motor output 2; versatile (3-state)
V4	61	versatile output pin 4
V5	62	versatile output pin 5
V1	63	versatile input pin 1
LDON	64	laser drive on output (open-drain)

Note : All supply pins must be connected to the same external power supply voltage.

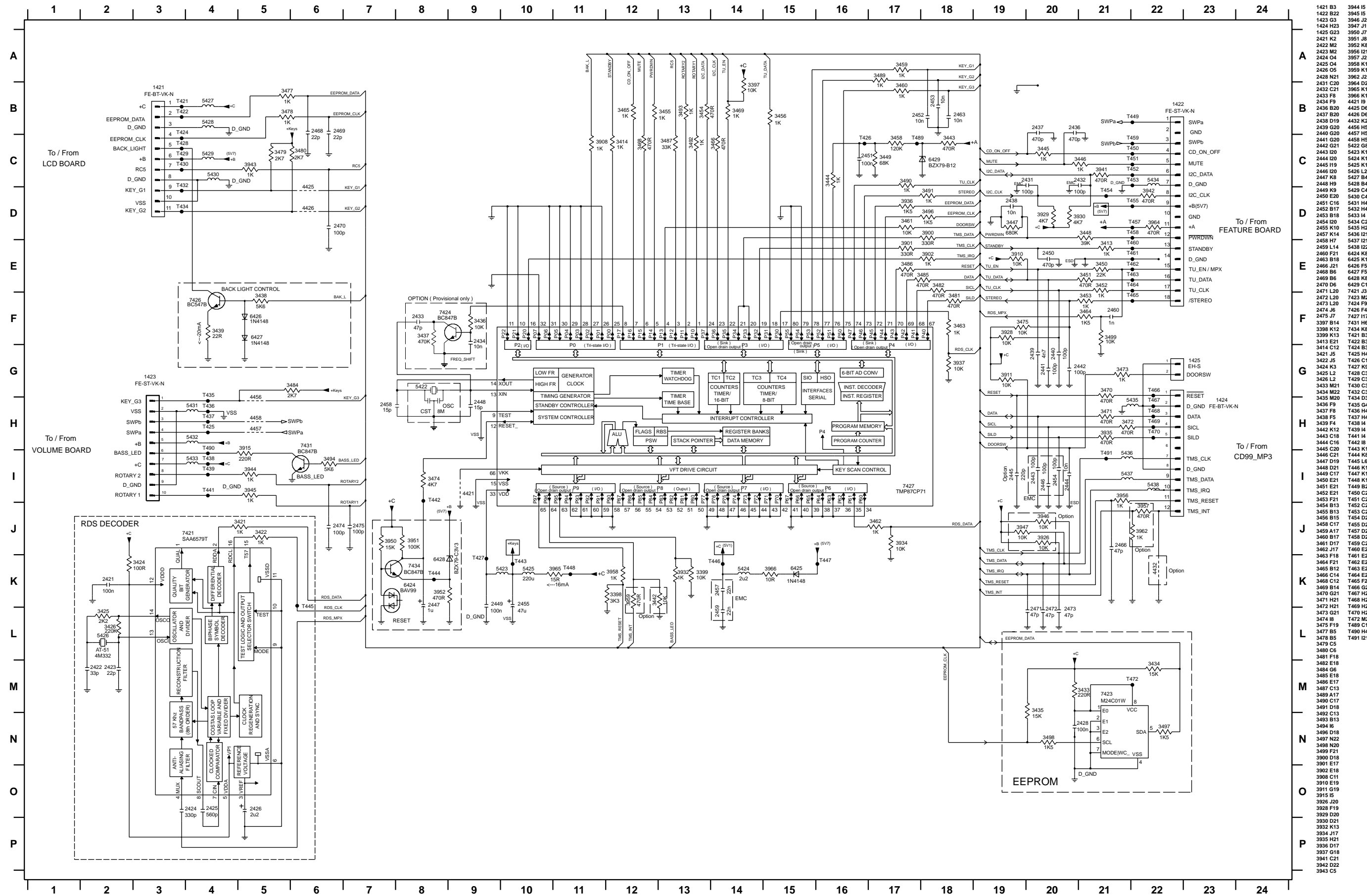
BLOCK DIAGRAM



## WIRING DIAGRAM



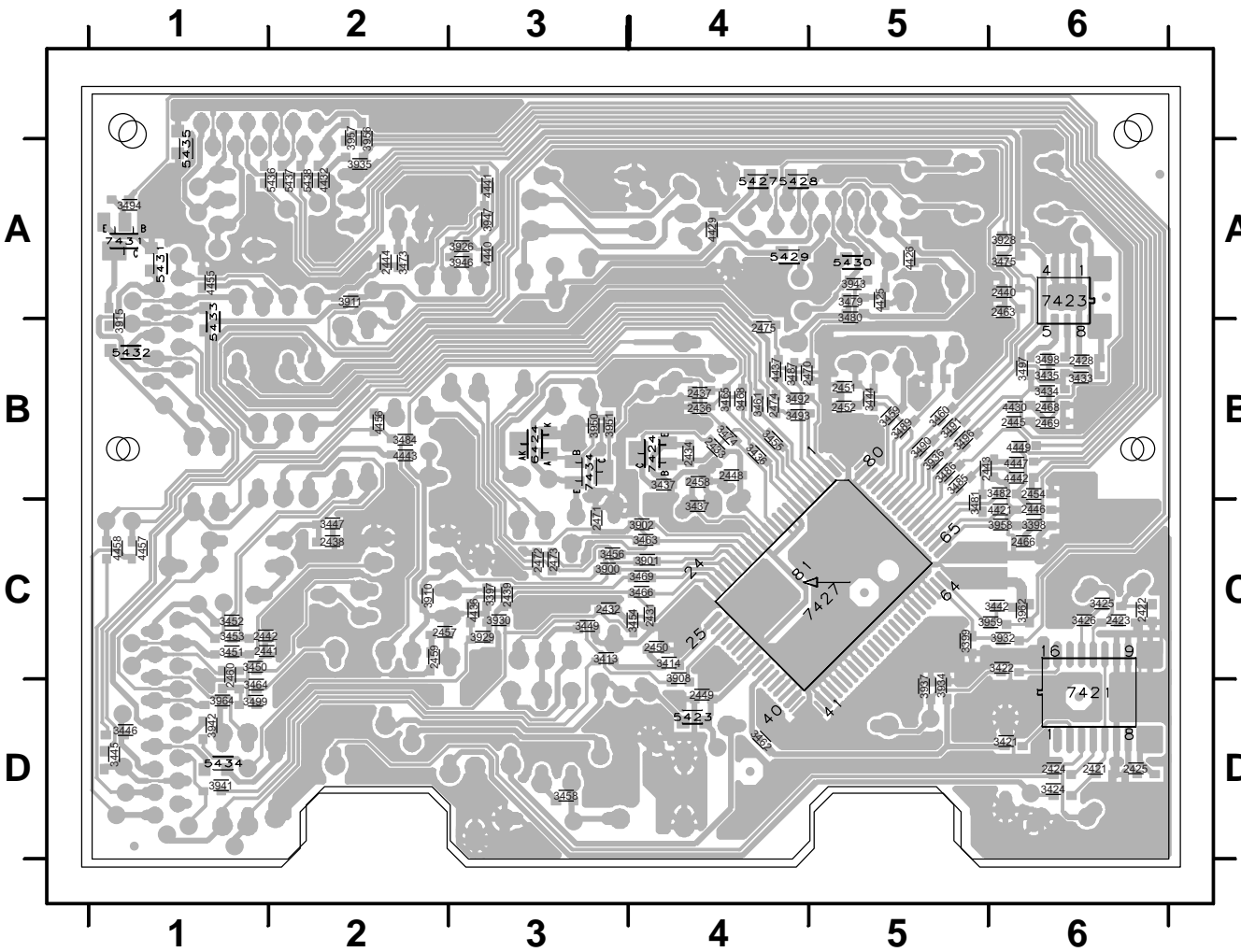
FRONT BOARD - CIRCUIT DIAGRAM





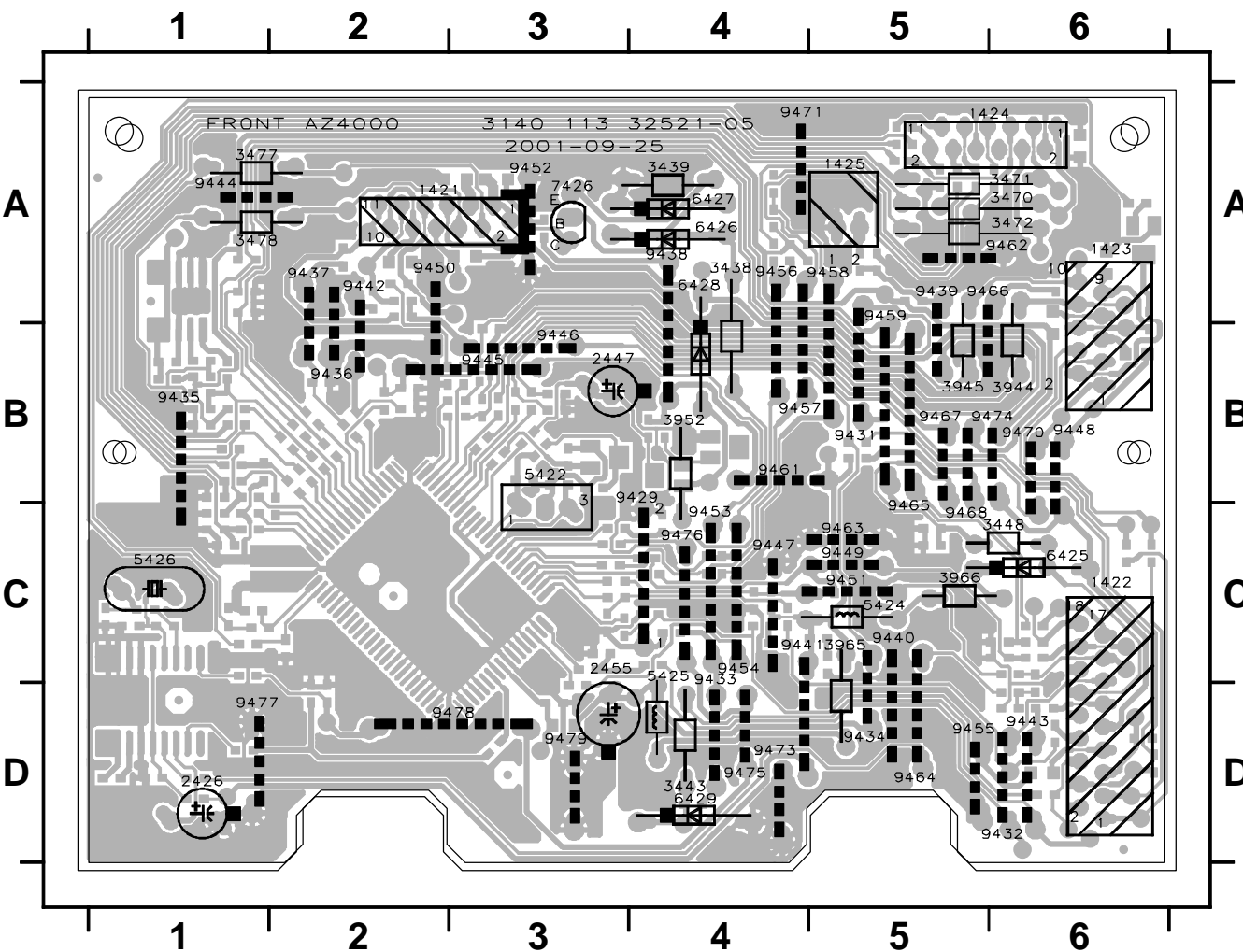
FRONT BOARD - LAYOUT DIAGRAM  
(SOLDER SIDE)

2421 D6	2441 C1	2459 C2	3413 C3	3446 D1	3463 C4	3486 B5	3908 C4	3943 A5	4430 B6	5427 A4	7424 B4
2422 C6	2442 C1	2460 C1	3414 C4	3447 C2	3464 D1	3487 B4	3910 C2	3946 A3	4432 A2	5428 A4	7427 C5
2423 C6	2443 B5	2463 A6	3421 D6	3449 C3	3465 B4	3489 B5	3911 A2	3947 A3	4436 C3	5429 A4	7431 A1
2424 D6	2444 A2	2466 C6	3422 C6	3450 C1	3466 C4	3490 B5	3915 B1	3950 B3	4437 B4	5430 A5	7434 B3
2425 D6	2445 B6	2468 B6	3424 D6	3451 C1	3468 B4	3491 B5	3926 A3	3951 B3	4440 A3	5431 A1	
2428 B6	2446 C6	2469 B6	3425 C6	3452 C1	3469 C4	3492 B4	3928 A6	3956 A2	4441 A3	5432 B1	
2431 C4	2448 B4	2470 B4	3426 C6	3453 C1	3473 A2	3493 B4	3929 C3	3957 A2	4442 B6	5433 B1	
2432 C3	2449 D4	2471 C3	3433 B6	3454 C4	3474 B4	3494 A1	3930 C3	3958 C6	4443 B2	5434 D1	
2433 B4	2450 C4	2472 C3	3434 B6	3455 B4	3475 A6	3496 B5	3932 C6	3959 C6	4447 B6	5435 A1	
2434 B4	2451 B5	2473 C3	3435 B6	3456 C3	3479 A5	3497 B6	3934 D5	3962 C6	4449 B6	5436 A2	
2436 B4	2452 B5	2474 B4	3436 B4	3458 D3	3480 A5	3498 B6	3935 A2	3964 D1	4455 A1	5437 A2	
2437 B4	2453 B5	2475 B4	3437 B4	3459 B5	3481 C5	3499 D1	3936 B5	4421 C6	4456 B2	5438 A2	
2438 C2	2454 B6	3397 C3	3442 C6	3460 B5	3482 B6	3900 C3	3937 D5	4425 A5	4457 C1	6424 B3	
2439 C3	2457 C2	3398 C6	3444 B5	3461 B4	3484 B2	3901 C4	3941 D1	4426 A5	4458 C1	7421 D6	
2440 A6	2458 B4	3399 C5	3445 D1	3462 D4	3485 B5	3902 C4	3942 D1	4429 A4	5423 D4	7423 A6	

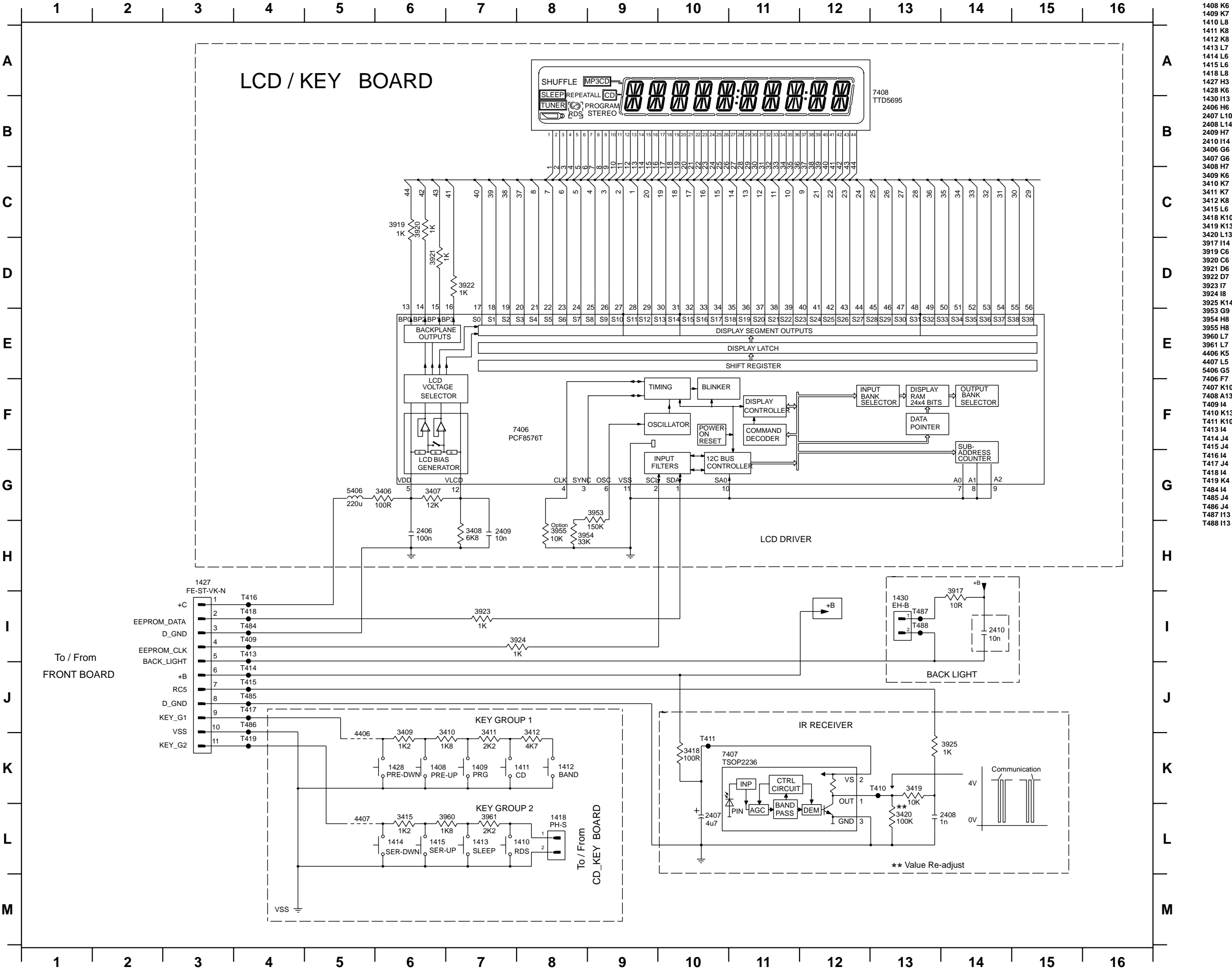


FRONT BOARD - LAYOUT DIAGRAM  
(COMPONENT SIDE)

1421 A2	3443 D4	3965 C5	6429 D4	9438 A4	9448 B6	9458 A5	9470 B6
1422 C6	3448 C6	3966 C5	7426 A3	9439 A5	9449 C5	9459 A5	9471 A4
1423 A6	3470 A6	5422 B3	9429 B4	9440 C5	9450 A2	9461 B4	9473 D4
1424 A5	3471 A6	5424 C5	9431 B5	9441 C4	9451 C5	9462 A6	9474 B6
1425 A5	3472 A6	5425 C4	9432 D6	9442 A2	9452 A3	9463 C5	9475 D4
2426 D1	3477 A1	5426 C1	9433 C4	9443 D6	9453 C4	9464 D5	9476 C4
2447 B3	3478 A1	6425 C6	9434 D5	9444 A1	9454 C4	9465 C5	9477 D1
2455 C3	3944 B6	6426 A4	9435 B1	9445 B3	9455 D5	9466 A5	9478 D3
3438 A4	3945 B5	6427 A4	9436 B2	9446 B3	9456 A4	9467 B5	9479 D3
3439 A4	3952 B4	6428 A4	9437 A2	9447 C4	9457 B4	9468 C5	

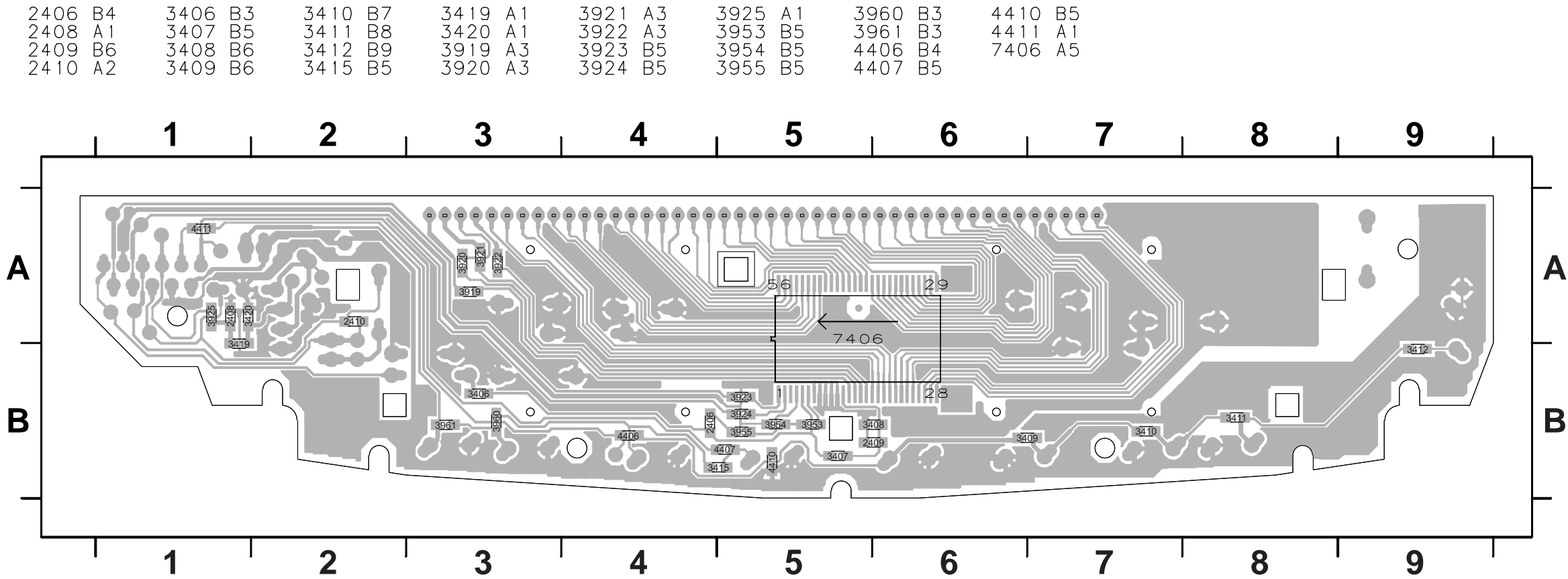
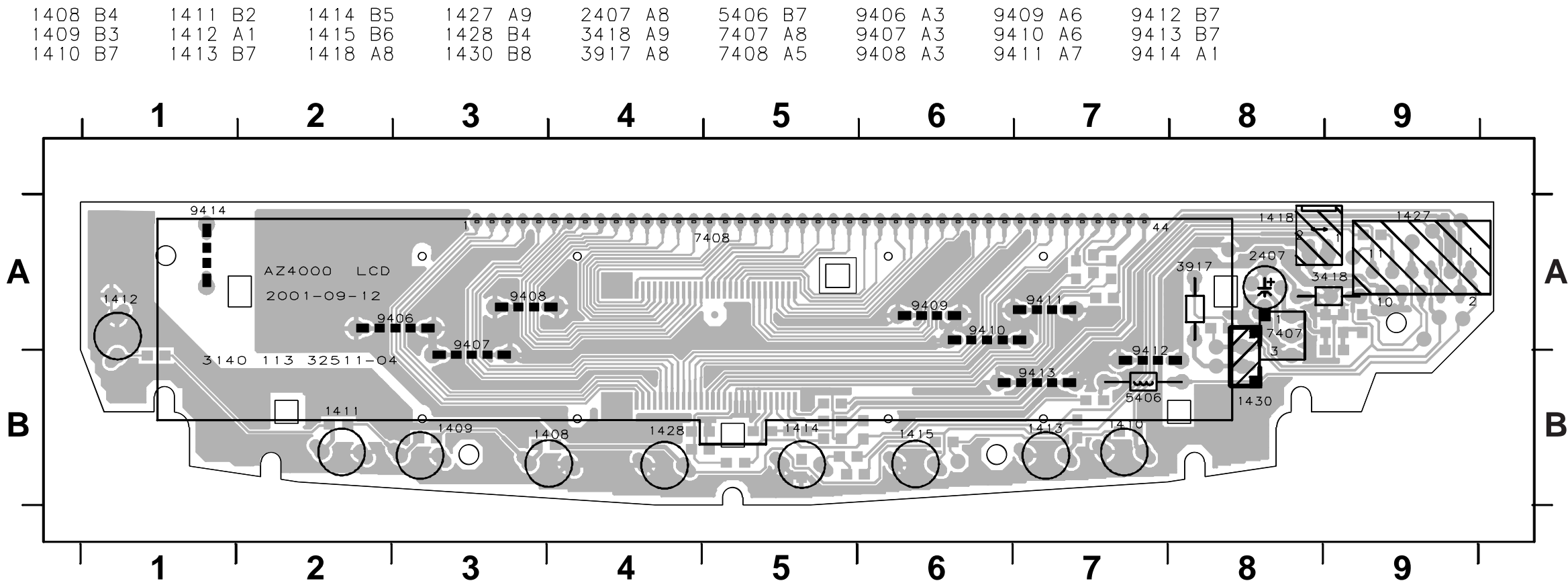


LCD / KEY BOARD - CIRCUIT DIAGRAM

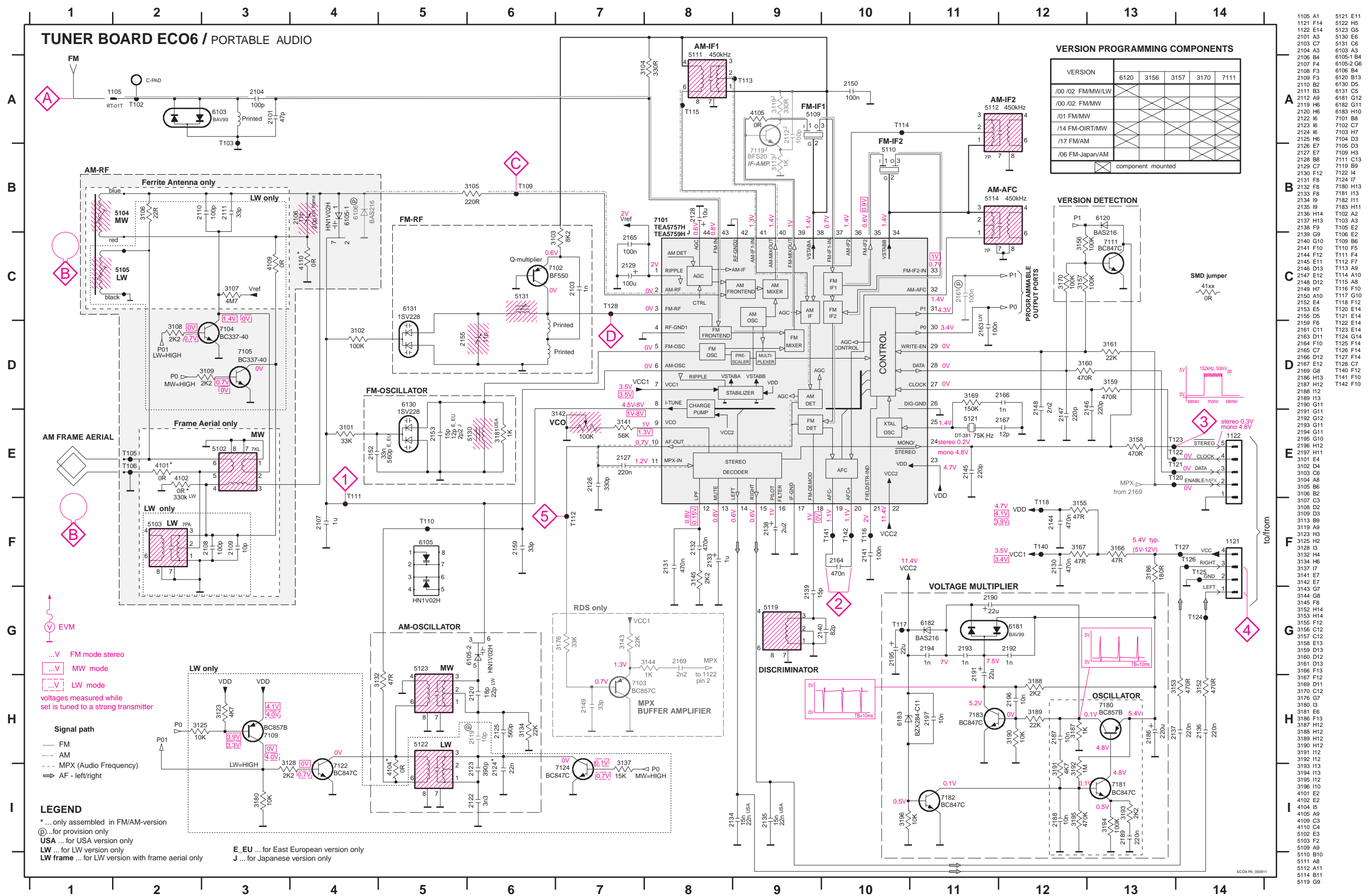


- 1408 K6
- 1409 K7
- 1410 L8
- 1411 K8
- 1412 K8
- 1413 L7
- 1414 L6
- 1415 L6
- 1418 L8
- 1427 H3
- 1428 K6
- 1430 I13
- 2406 H6
- 2407 L10
- 2408 L14
- 2409 H7
- 2410 I14
- 3406 G6
- 3407 G6
- 3408 H7
- 3409 K6
- 3410 K7
- 3411 K7
- 3412 K8
- 3415 L6
- 3418 K10
- 3419 K13
- 3420 L13
- 3917 I14
- 3919 C6
- 3920 C6
- 3921 D6
- 3922 D7
- 3923 I7
- 3924 I8
- 3925 K14
- 3953 G9
- 3954 H8
- 3955 H8
- 3960 L7
- 3961 L7
- 4406 K5
- 4407 L5
- 5406 G5
- 7406 F7
- 7407 K10
- 7408 A13
- T409 I4
- T410 K13
- T411 K10
- T413 I4
- T414 J4
- T415 J4
- T416 I4
- T417 J4
- T418 I4
- T419 K4
- T484 I4
- T485 J4
- T486 J4
- T487 I13
- T488 I13

LCD / KEY BOARD - LAYOUT DIAGRAM



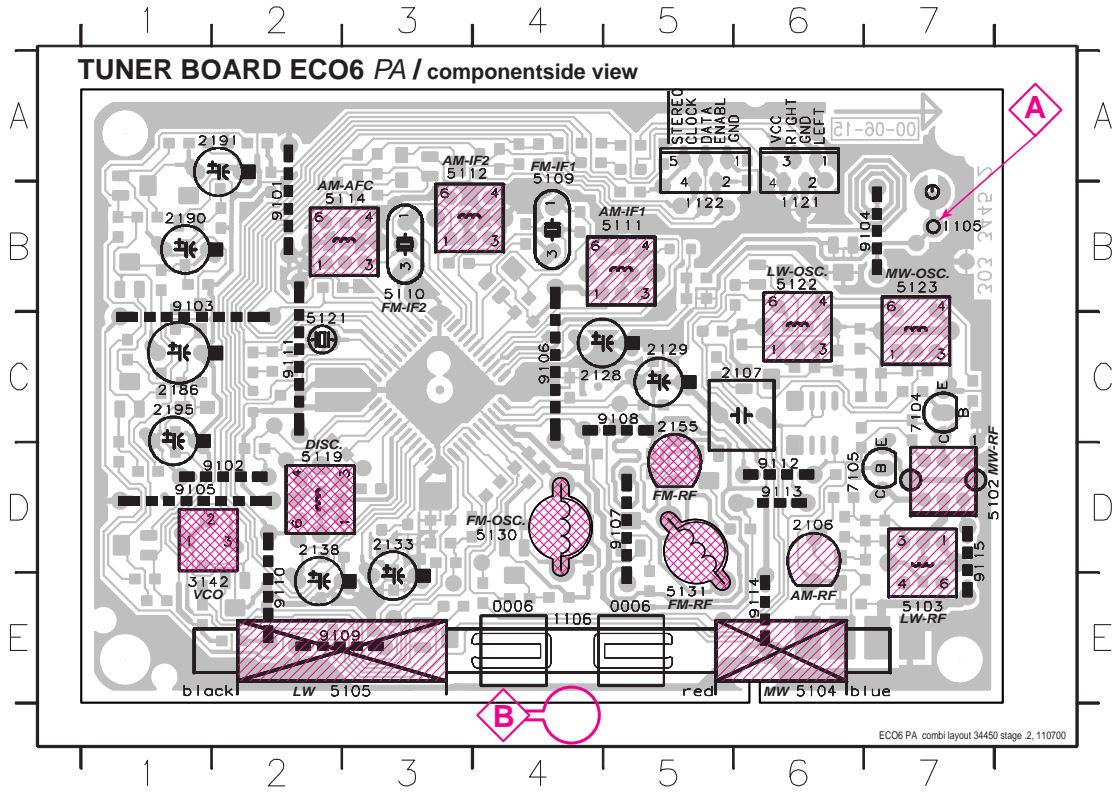
## TUNER BOARD - CIRCUIT DIAGRAM



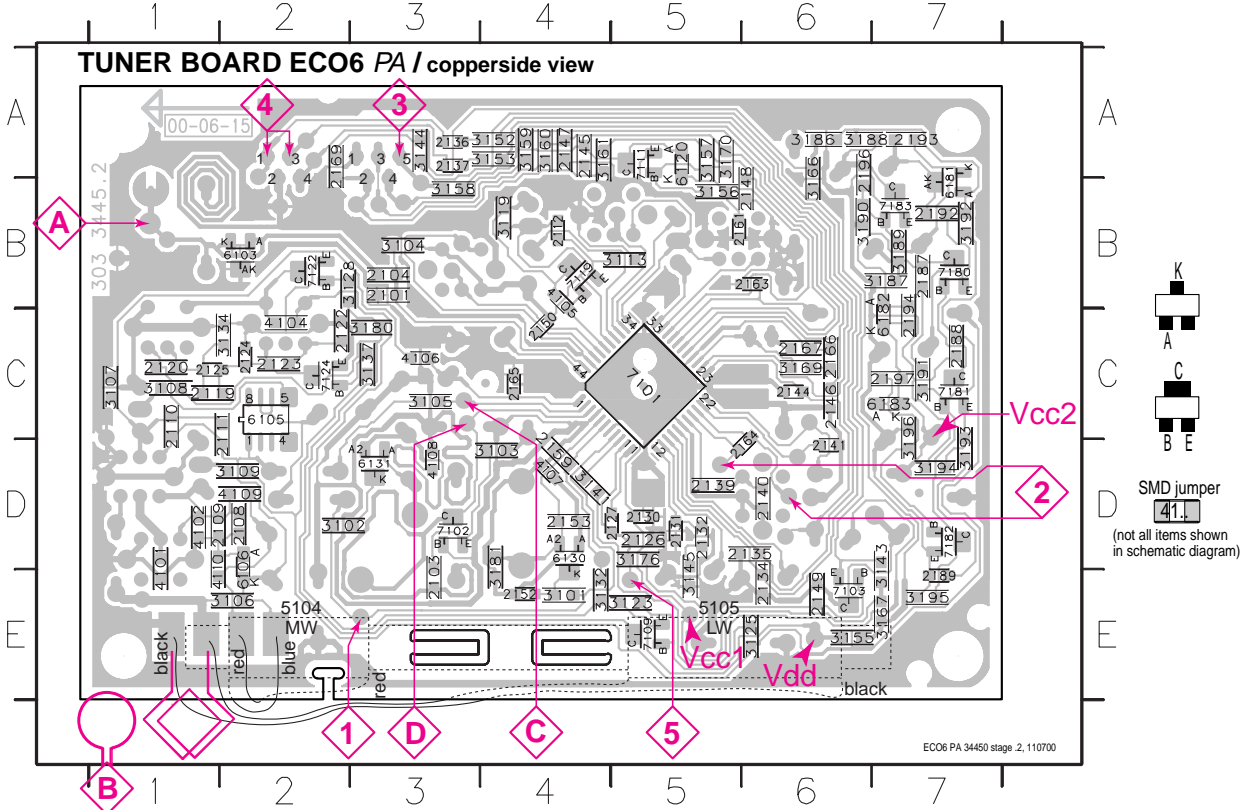


TUNER BOARD - LAYOUT DIAGRAM  
(ECO6 PA)

1105 B7 2106 D6 2129 C5 2155 C5 2191 A2 5102 D7 5110 B3 5114 B3 5122 B6 5131 E5 9101 B2 9104 B7 9107 D5 9110 E2 9113 D6  
1121 B6 2107 C6 2133 D3 2186 C1 2195 C1 5103 E7 5111 B4 5119 D2 5123 B7 7104 C7 9102 D2 9105 D1 9108 C5 9111 C2 9114 E6  
1122 B5 2128 C4 2138 D2 2190 B1 3142 E1 5109 B4 5112 B3 5121 C2 5130 D4 7105 D6 9103 B1 9106 C4 9109 E2 9112 D6 9115 D7



2101 B3 2119 C1 2130 D5 2140 D6 2150 C4 2166 C6 2194 C7 3106 E2 3128 B2 3152 A4 3161 A4 3186 A6 3194 D7 4107 D4 6130 D4 7109 E5 7183 B7  
2103 E3 2120 C1 2131 D5 2141 D6 2152 E4 2167 C6 2196 A6 3107 C1 3132 E4 3153 A4 3166 B6 3187 B7 3195 E7 4108 D3 6131 D3 7111 A5  
2104 B3 2122 C2 2132 D5 2144 C6 2153 D4 2169 A2 2197 C7 3108 C1 3134 C2 3155 E6 3167 E7 3188 A6 3196 C7 4109 D2 6181 B7 7119 B5  
2108 D2 2123 C2 2134 E6 2145 A4 2159 D4 2187 B7 3101 E4 3109 D2 3137 C3 3156 B5 3169 C6 3189 B7 4101 D1 4110 D1 6182 C7 7122 B2  
2109 D1 2124 C2 2135 D6 2146 C6 2161 B5 2188 C7 3102 D2 3113 B5 3141 D4 3157 A5 3170 A5 3190 B6 4102 D1 6103 B2 6183 C7 7124 C2  
2110 C1 2125 C1 2136 A3 2147 A4 2163 B6 2189 E7 3103 D4 3119 B5 3143 D7 3158 B3 3176 D5 3191 C7 4104 C2 6105 C2 7101 C5 7180 B7  
2111 C2 2126 D5 2137 A3 2148 B6 2164 D6 2192 B7 3104 B3 3123 E5 3144 A3 3159 A4 3180 C3 3192 B7 4105 B4 6106 D2 7102 D3 7181 C7  
2112 B4 2127 D5 2139 D5 2149 E6 2165 C4 2193 A7 3105 C3 3125 E6 3145 E5 3160 A4 3181 D4 3193 D7 4106 C3 6120 A5 7103 E6 7182 D7



These assembly drawings show a summary of all possible versions.  
For components used in a specific version see schematic diagram respectively partlist.

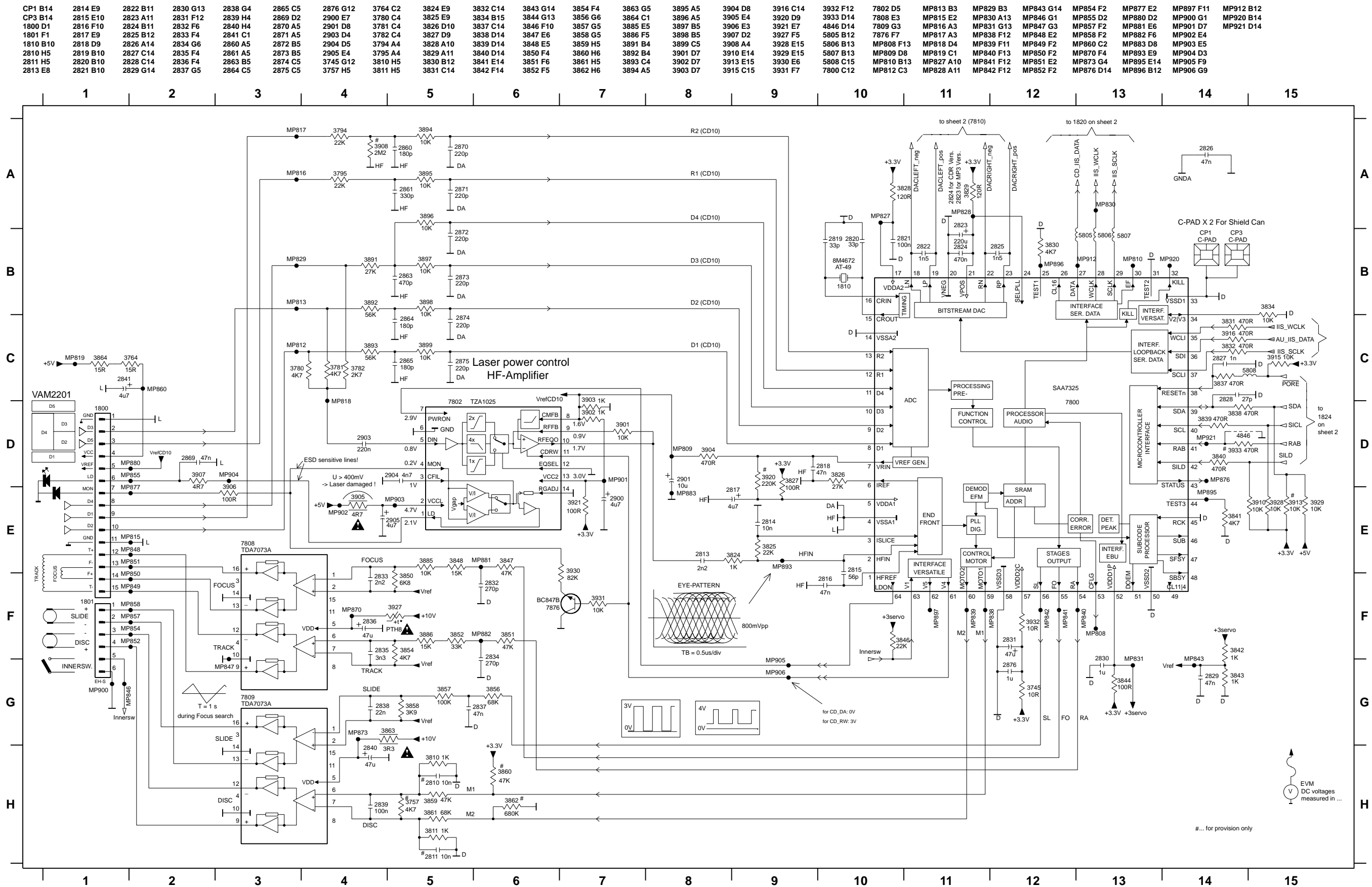
TUNER ADJUSTMENT TABLE ( ECO6 FM/MW- and FM/MW/LW - versions with ferrite antenna)

Waverange	Input frequency	Input	Tuned to	Adjust	Output	Scope/Voltmeter
VARICAP ALIGNMENT						
<b>FM</b> 87.5 - 108MHz (65.81 - 74, 87.5 - 108MHz)			108MHz	5130	<div>1</div>	8V ±0.2V
			87.5MHz (65.81MHz)	check		4.3V ±0.5V (1.2V ±0.5V)
<b>MW</b> FM/AM-version, 10kHz grid 530 - 1700kHz			1700kHz	5123		8V ±0.2V
			530kHz	check		1.1V ±0.4V
FM/MW-version, 9kHz grid 531 - 1602kHz			1602kHz	5123		6.9V ±0.2V
			531kHz	check		1.1V ±0.4V
<b>LW</b>  153 - 279kHz			279kHz	5122		8V ±0.2V
			153kHz	check		1.1V ±0.4V
<b>MW</b> FM/MW/LW- version, 9kHz grid 531 - 1602kHz			1602kHz	5123		8V ±0.2V
			531kHz	check		1.1V ±0.4V
FM IF						
<b>FM</b>	10.7MHz, 45mV continuous wave	<div>D</div>	<div>IC 7101 21 shortcircuit to block AFC</div> <div></div>	5119	<div>2</div>	0 ± 3 mV DC
FM RF						
<b>FM</b> 87.5 - 108MHz (65.81 - 74, 87.5 - 108MHz)	108MHz	<div>A</div> mod=1kHz Δf=±22.5kHz	108MHz	2155	<div>4</div>	MAX
	87.5MHz (65.81MHz)		87.5MHz (65.81MHz)	5131		
VCO						
<b>FM</b>	98MHz, 1mV continuous wave	<div>A</div>	98MHz	3142	<div>3</div>	152kHz ±1kHz <sup>1)</sup>
AM IF						
<b>MW</b>	450kHz	<div>C</div> Δf=±10kHz V <sub>RF</sub> = 0.5mV (as low as possible)	<div>IC 7101 36</div> <div></div>	5111	<div>5</div>	<div></div>
	connect pin 6 of IC 7101 (AM Osc.) with 2.2k to Vcc		<div>IC 7101 40</div> <div></div> <div>see remark 2)</div>	5112		
<b>AM AFC</b> <b>MW</b>		<div>C</div> continuous wave V <sub>RF</sub> = 2mV		5114	<div>2</div>	0 ± 2 mV DC
AM RF <sup>3)</sup>						
<b>LW</b>	198kHz	<div>B</div> <div></div>	198kHz	5105 LW ferrite coil	<div>5</div>	<div></div>
<b>MW</b> FM/MW/LW- and FM/MW-version (9kHz grid)	1494kHz		1494kHz	2106		
531 - 1602kHz	558kHz		558kHz	5104 MW ferrite coil		
<b>MW</b> FM/AM-version, 10kHz grid 530 - 1700kHz	1500kHz		1500kHz	2106		
	560kHz	Δf = ±30kHz V <sub>RF</sub> as low as possible	560kHz	5104 MW ferrite coil		

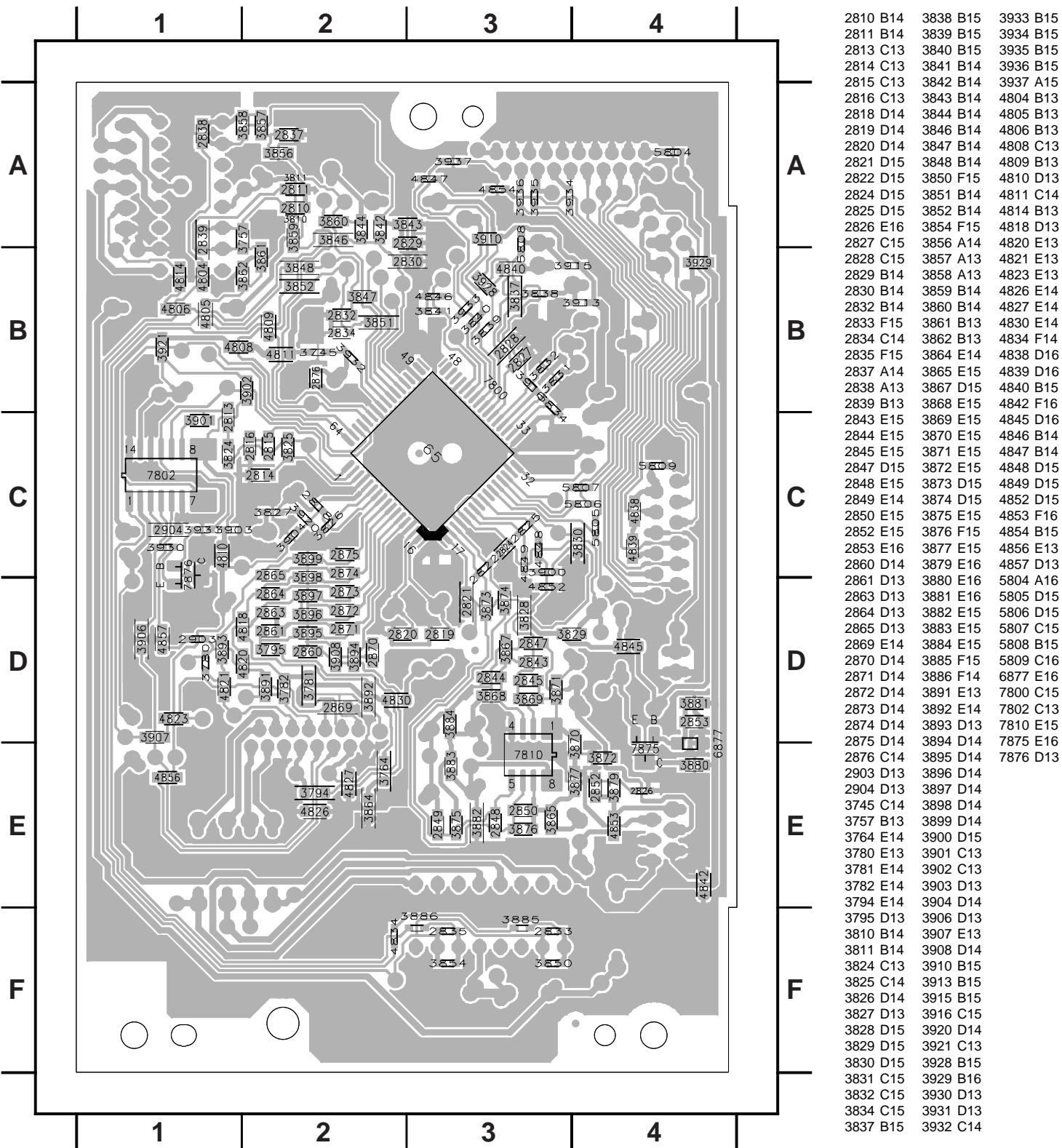
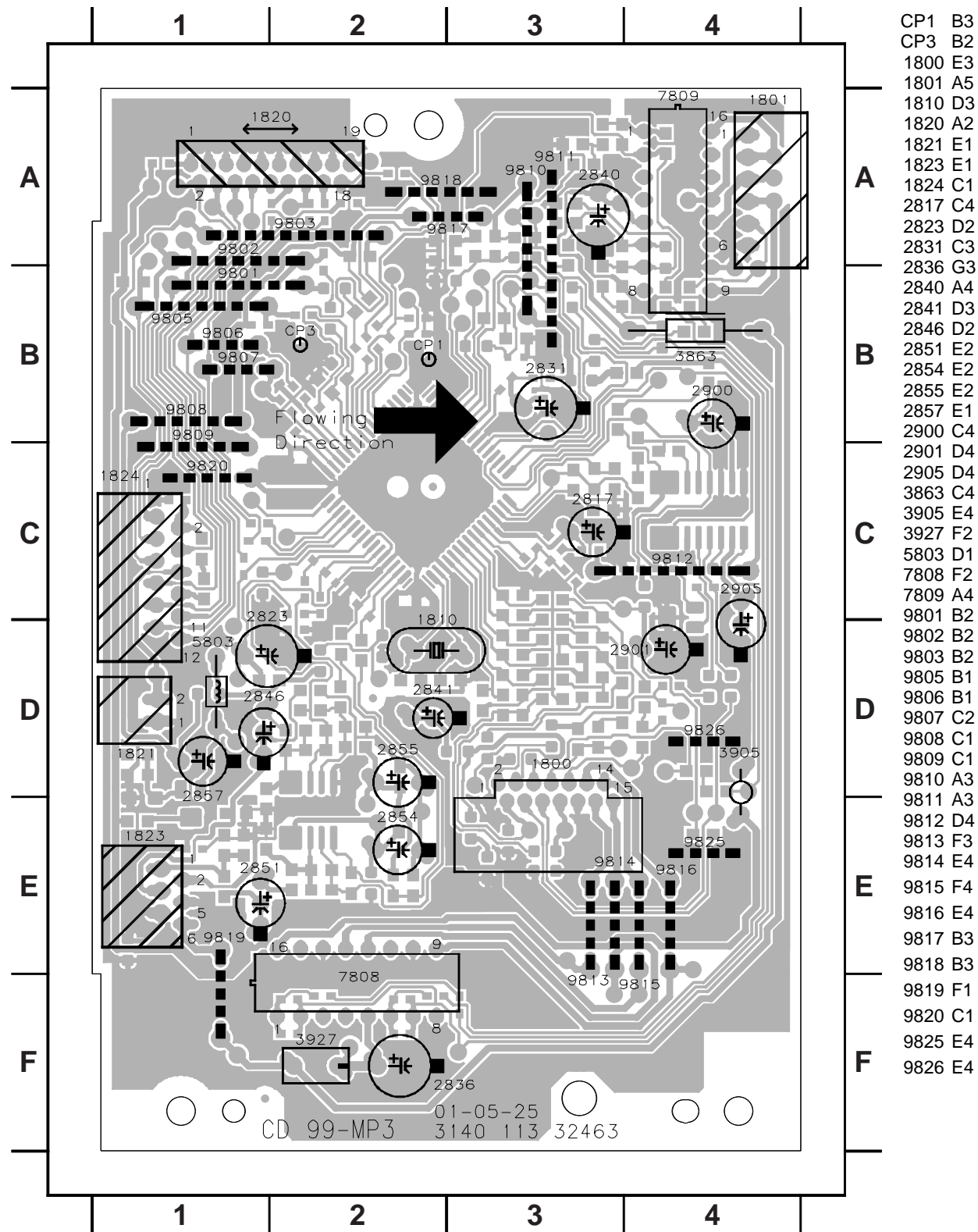
Use Service Testprogram. By selecting the TUNER TEST test frequencies will be stored as preset frequencies automatically.

- 1) If sensitivity of frequency counter is too low adjust to max. channel separation (input signal: stereo left 90% + 9%, adjust output on right channel to minimum)
- 2) RC network serves for damping the IF-filter while adjusting the other one.
- 3) LW has to be aligned before MW.

CIRCUIT DIAGRAM - CD99 / MP3 PART 1



LAYOUT DIAGRAM - CD99 / MP3

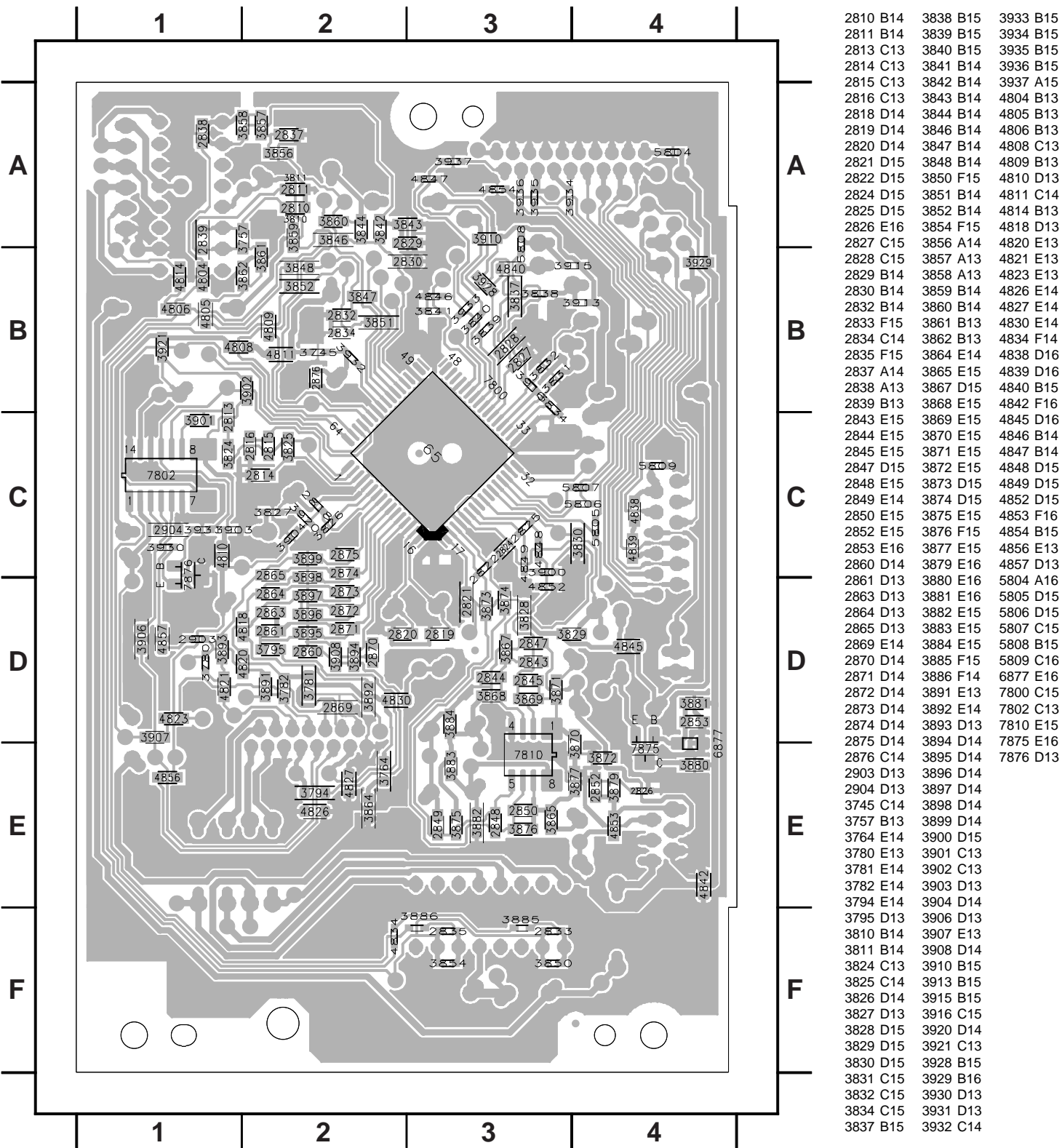
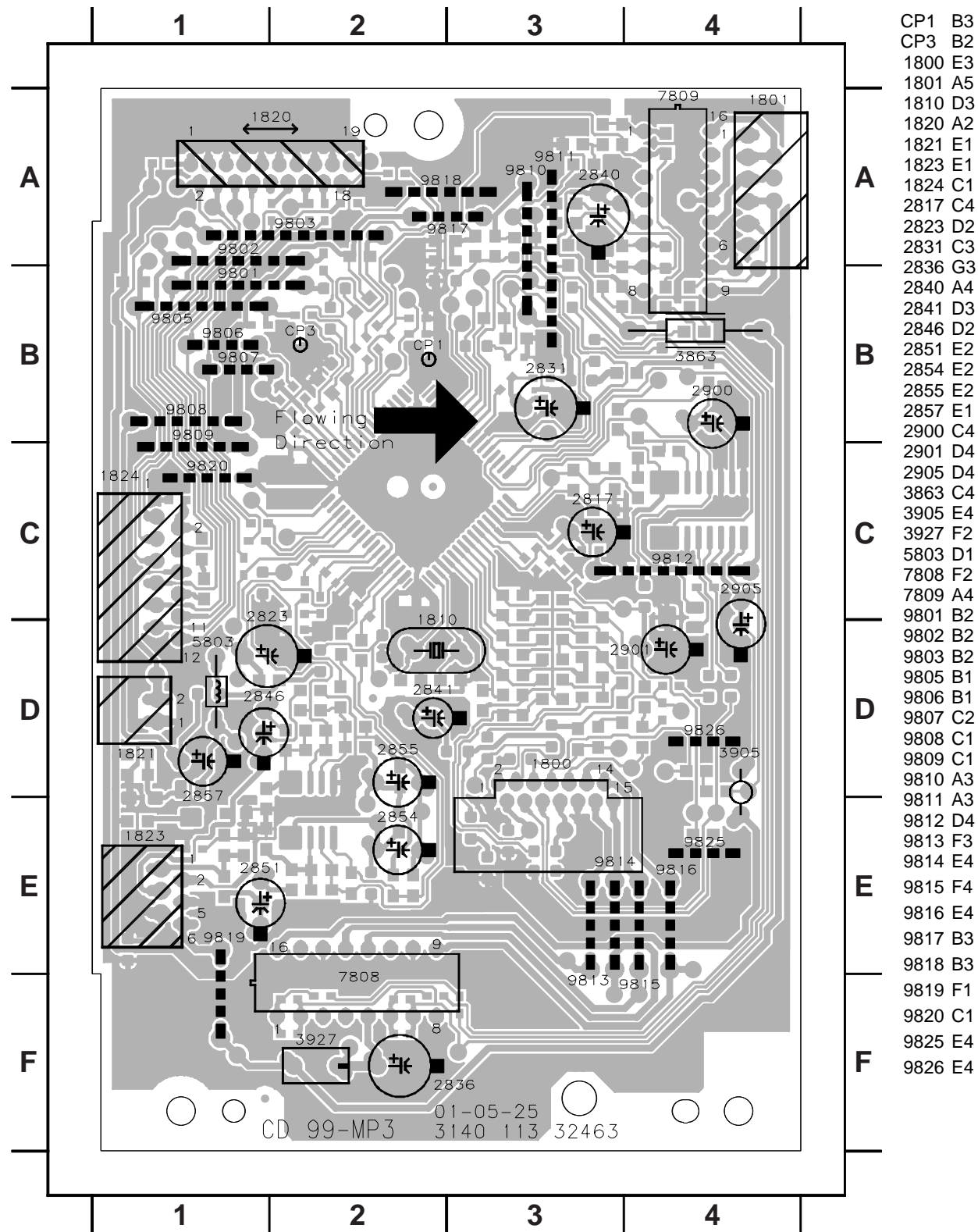


**1**                      **2**                      **3**                      **4**                      **5**                      **6**                      **7**                      **8**                      **9**                      **10**

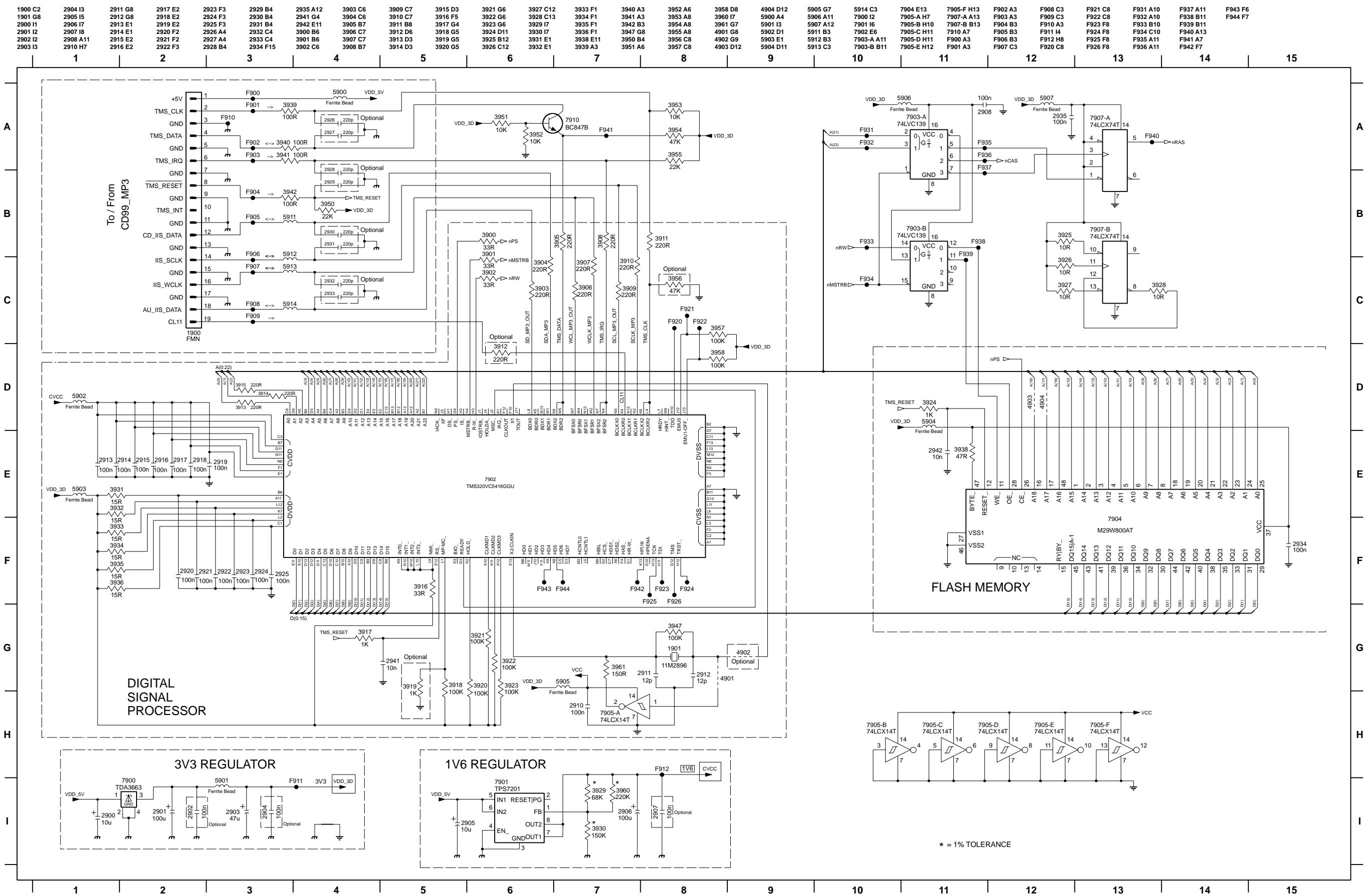




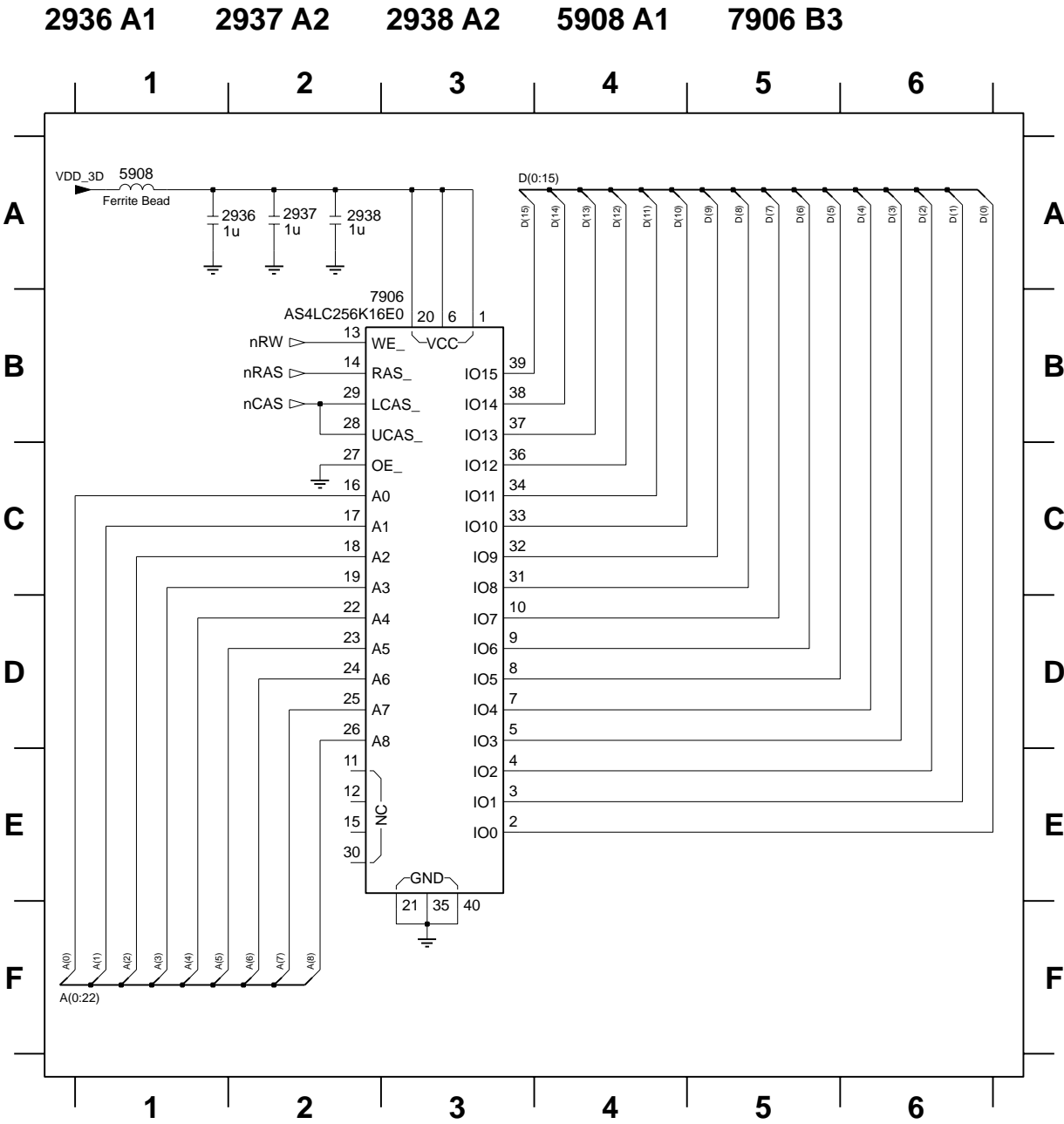
LAYOUT DIAGRAM - CD99 / MP3



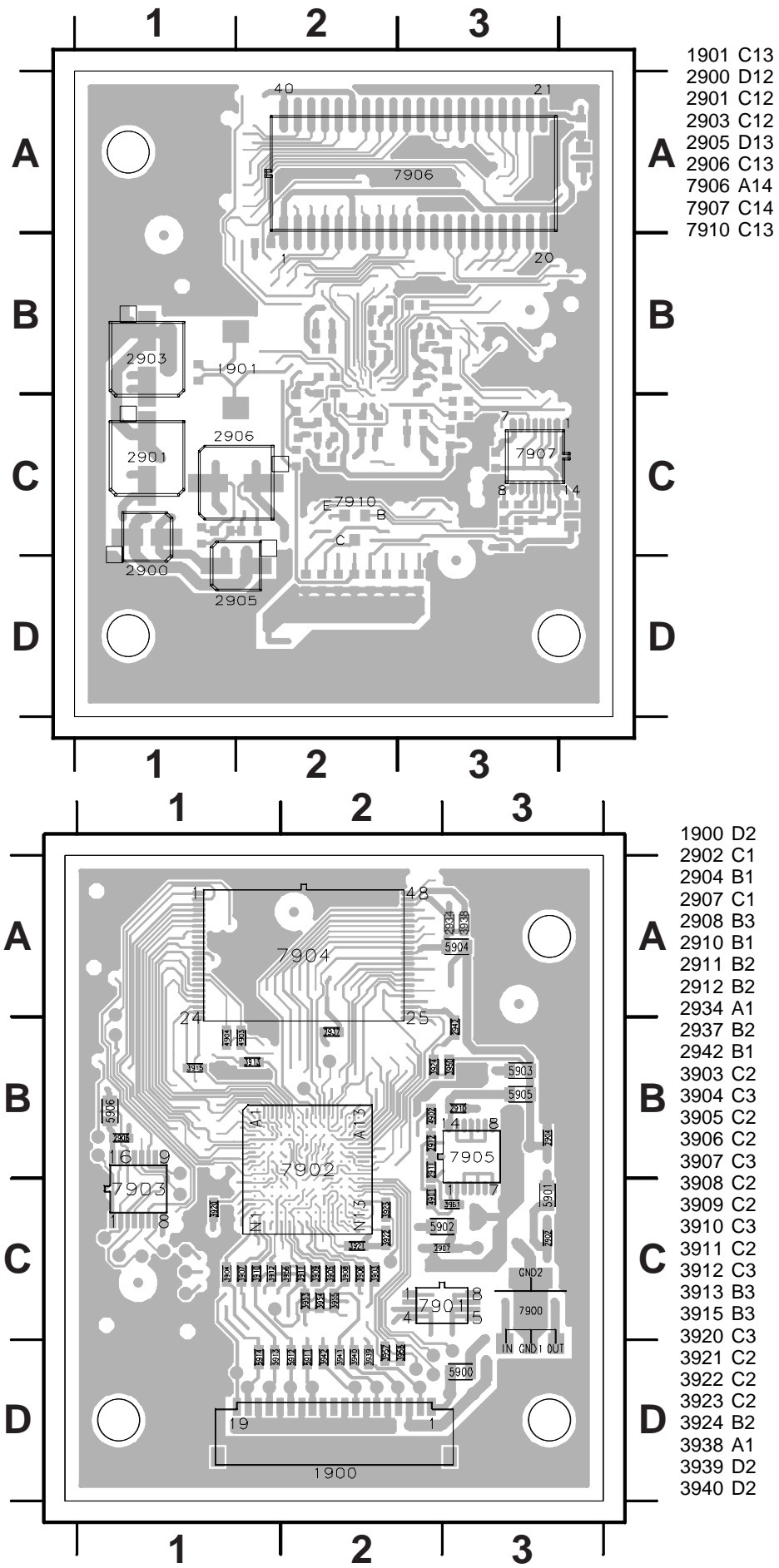
## CIRCUIT DIAGRAM - MP3 DECODER BOARD



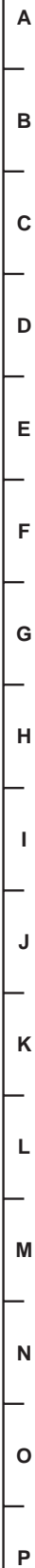
LAYOUT DIAGRAM - MP3 DECODER BOARD



DECODER BOARD - LAYOUT DIAGRAM

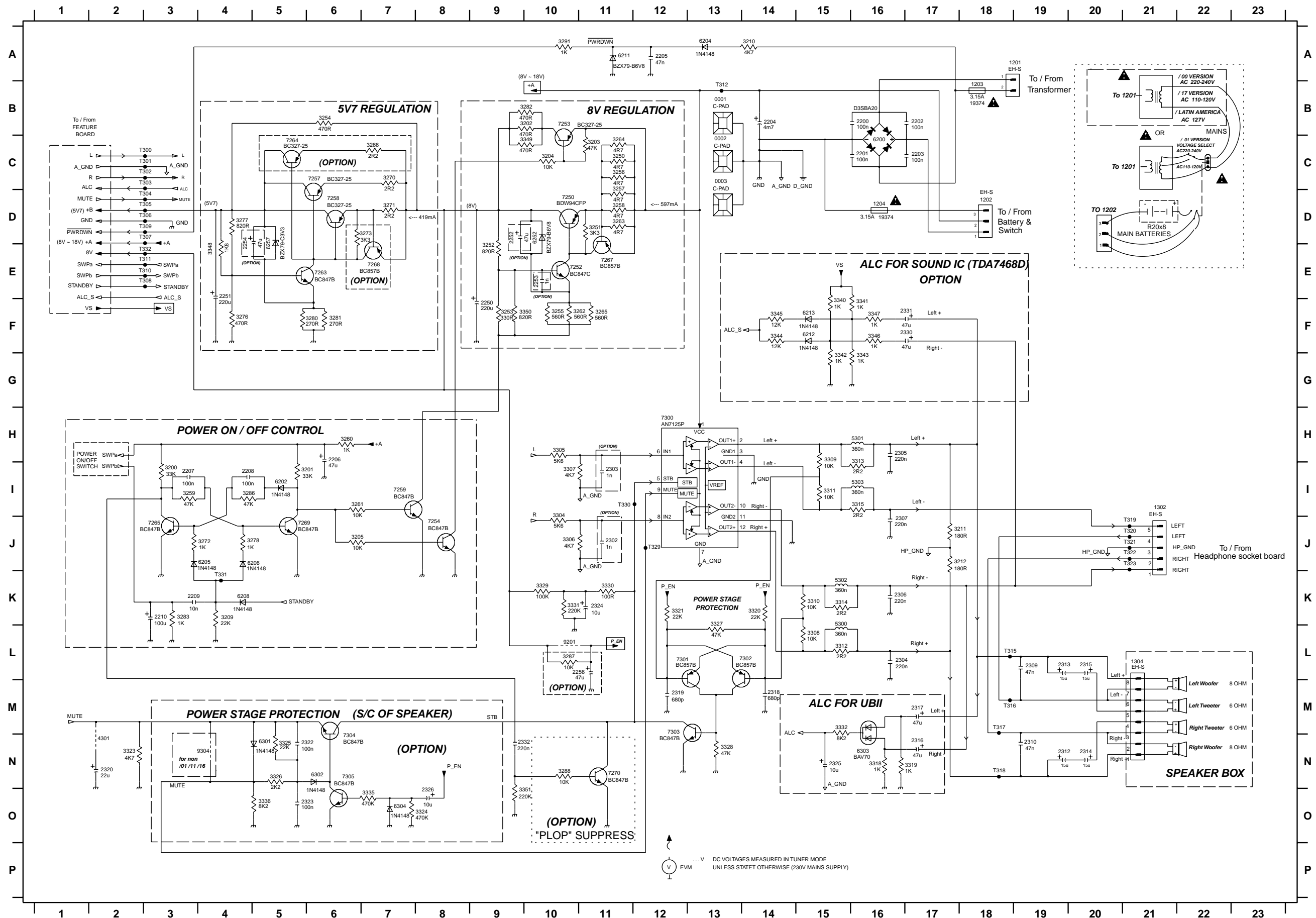


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C	-
D	-
E	-
F	-
G	-
H	-
I	-
J	-
K	-
L	-
M	-
N	-
O	-
P	-



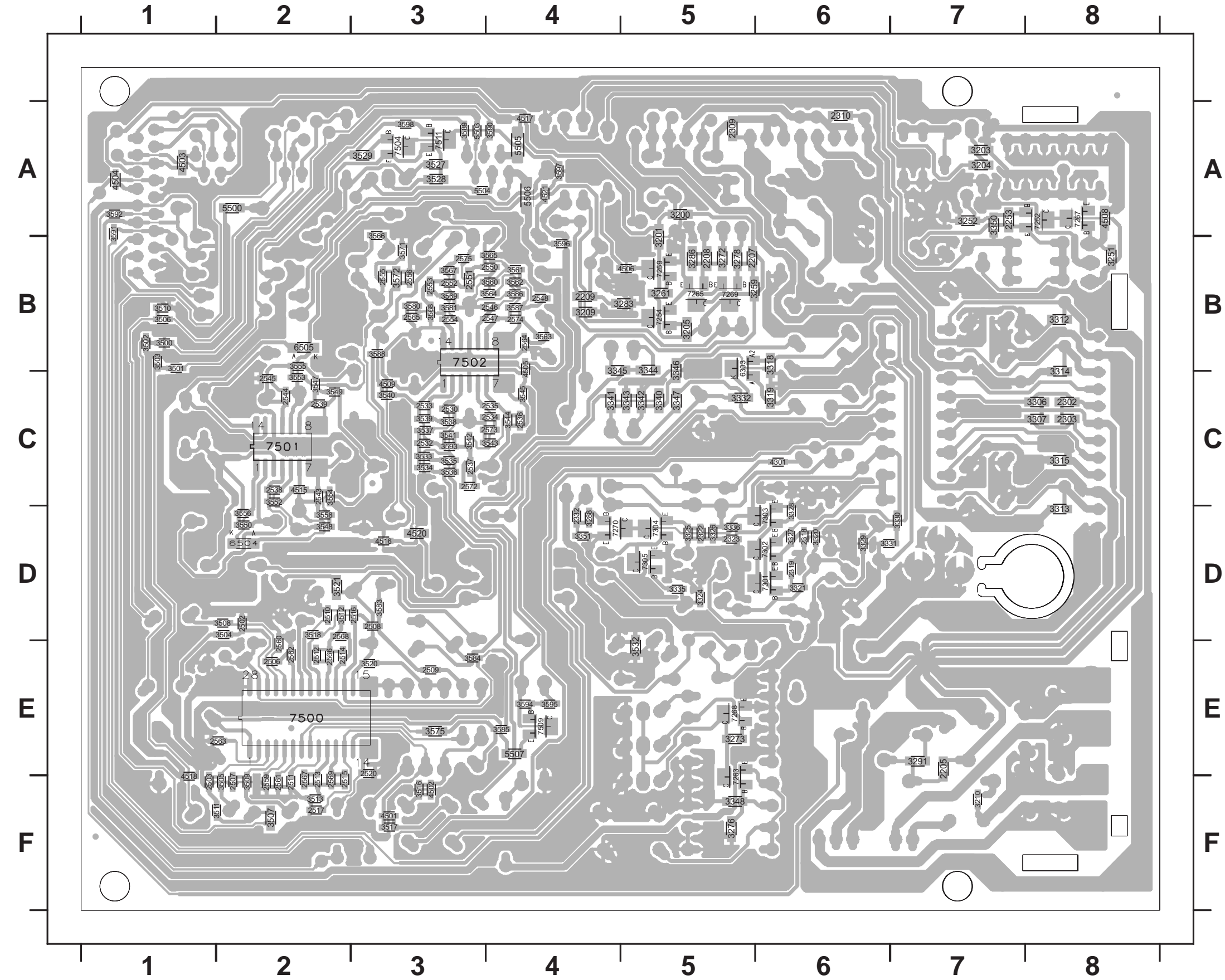
1500 H2  
1501 J2  
1502 N20  
1503 K21  
1504 P  
2501 H8  
2502 K14  
2503 K9  
2504 J8  
2505 H8  
2506 K14  
2507 K9  
2508 I15  
2509 H2  
2510 K13  
2511 K11  
2512 J16  
2513 L3  
2514 K16  
2515 L9  
2516 L15  
2517 L10  
2518 H2  
2521 M13  
2522 I11  
2523 J14  
2524 M14  
2525 H2  
2526 P5  
2527 O4  
2528 C3  
2529 H4  
2530 C5  
2532 B5  
2533 D6  
2534 C8  
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2536 D9  
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2549 C19  
2550 D19  
2551 C20  
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2557 H18  
2558 H18  
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2561 K11  
2562 K13  
2563 H11  
2564 J6  
2565 E22  
2566 J16  
2567 H18  
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2574 D18  
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3566 D19  
3567 C20

0001 B13 5303 I16  
0002 C13 6200 C16  
0003 C13 6202 I5  
0004 A18 6204 A13  
1200 I18 6205 I4  
1203 B18 6206 I5  
1204 D16 6208 K4  
1302 I21 6211 A11  
1302 I21 6212 I15  
2000 B16 6213 F15  
2201 E16 6252 D10  
2202 B17 6257 D5  
2203 I16 6301 N5  
2204 B14 6302 N6  
2205 A12 6303 N16  
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2208 I3 7252 I10  
2209 K3 7253 B10  
2210 K3 7254 I8  
2250 F9 7257 C6  
2251 I16 7258 I6  
2252 D9 7259 I7  
2253 E10 7263 E6  
2254 D4 7264 C5  
2255 I16 7265 I5  
2300 J11 7267 E11  
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2305 H16 7270 I11  
2306 I16 7271 I16  
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2310 N19 7303 M16  
2311 I19 7304 M6  
2313 I19 7305 N6  
2314 N20 9201 I10  
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2318 M14 7302 C3  
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2683 I10  
2684 I10  
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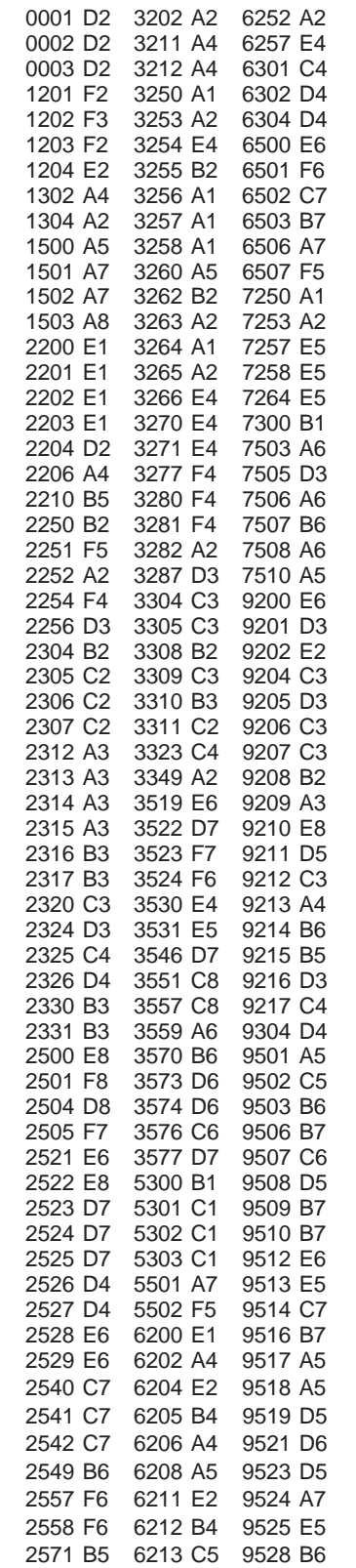


LAYOUT DIAGRAM - AF BOARD (SOLDER SIDE)



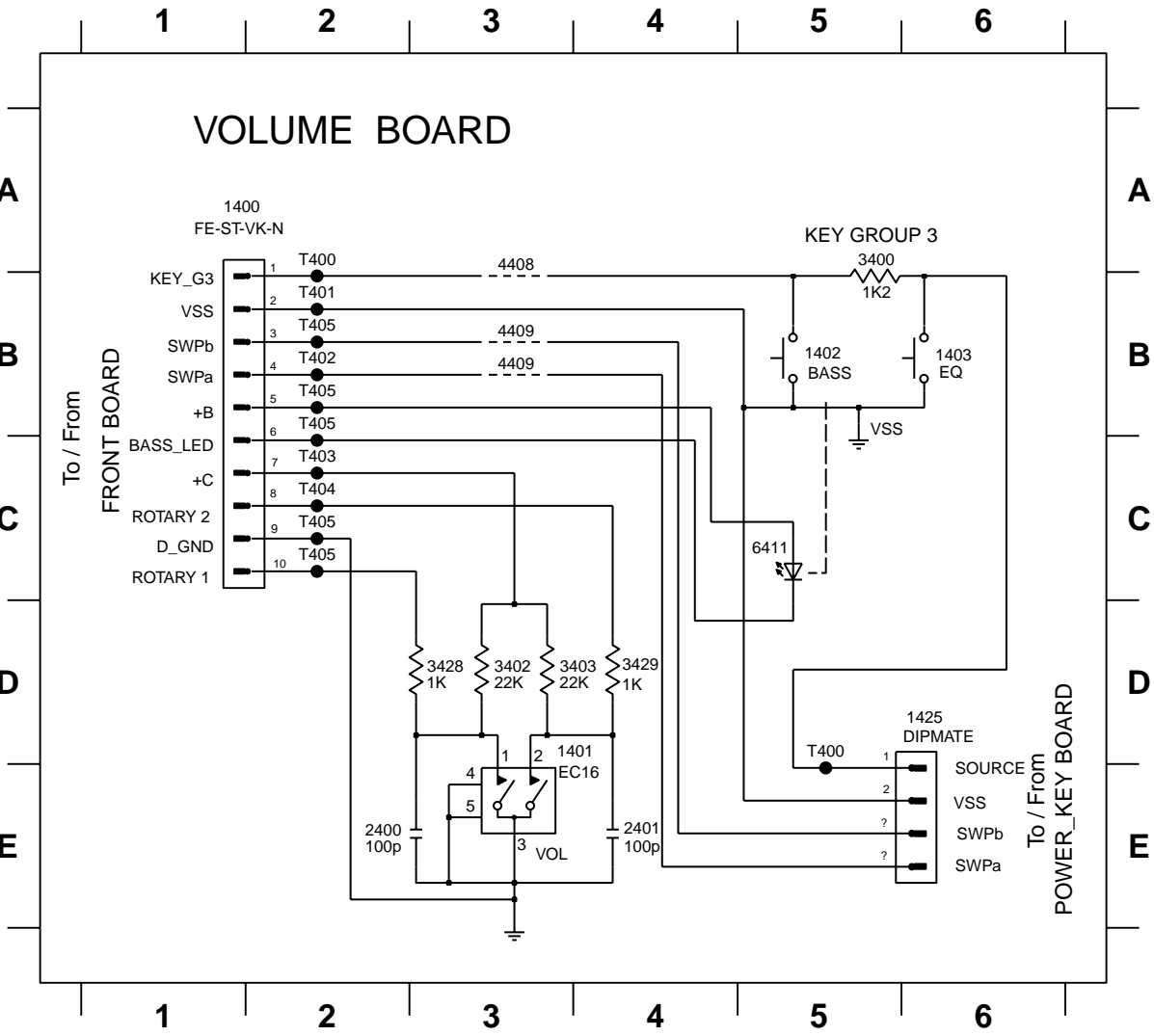
2205 E7	2574 B4	3511 F2	3597 A4
2207 B5	2575 B3	3512 D2	3598 A3
2208 B5	3200 A5	3513 F2	4301 C6
2209 B4	3201 B5	3516 F3	4501 F3
2253 A7	3203 A7	3517 F3	4502 F3
2302 C8	3204 A7	3518 D2	4503 A1
2303 C8	3205 B5	3520 E3	4504 A1
2309 A5	3209 B4	3521 D2	4505 B4
2310 A6	3210 F7	3527 A3	4506 B5
2318 D6	3251 B8	3528 A3	4508 A8
2319 D6	3252 A7	3529 A3	4509 C3
2322 D5	3259 B5	3532 E5	4515 C2
2323 D5	3261 B5	3533 C3	4516 D3
2332 D4	3272 B5	3534 C3	4517 A4
2502 D2	3273 E5	3535 C3	4518 F1
2503 F1	3276 F5	3536 C3	4520 D3
2506 E2	3278 B5	3537 C3	4521 A4
2507 F2	3283 B5	3538 C3	5500 A2
2508 D3	3286 B5	3539 C3	5503 A3
2509 E3	3288 D4	3540 C3	5504 A3
2510 D2	3291 E7	3541 C3	5505 A4
2511 F2	3306 C8	3542 C3	5506 A4
2512 E2	3307 C8	3543 C4	5507 E4
2513 F2	3312 B8	3544 C4	6303 B5
2514 E2	3313 D8	3545 C4	6504 D2
2515 F2	3314 C8	3547 C2	6505 B2
2516 D3	3315 C8	3548 D2	7252 A8
2517 F2	3318 B6	3549 C2	7254 B5
2520 E3	3319 C6	3550 D2	7259 B5
2530 C3	3320 D6	3552 C2	7263 F5
2532 C3	3321 D6	3553 C2	7265 B5
2533 C3	3324 D5	3554 C2	7267 A8
2534 C4	3325 D5	3555 B2	7268 E5
2535 C4	3326 D5	3556 D2	7269 B5
2536 C4	3327 D6	3558 D2	7270 D4
2537 C3	3328 D6	3560 B4	7301 D6
2538 C2	3329 D6	3561 B4	7302 D6
2539 C2	3330 D7	3562 B4	7303 D6
2543 C2	3331 D6	3563 B4	7304 D5
2544 C2	3332 C5	3564 B4	7305 D5
2545 C2	3335 D5	3565 B4	7500 E2
2546 B4	3336 D5	3566 A3	7501 C2
2547 B4	3340 C5	3567 B3	7502 B3
2548 B4	3341 C4	3568 B3	7504 A3
2550 B4	3342 C5	3569 B3	7509 E4
2551 B3	3343 C5	3571 B3	7511 A3
2552 B3	3344 B5	3572 B3	
2553 B3	3345 B4	3575 E3	
2554 B3	3346 B5	3580 B3	
2555 B3	3347 C5	3581 B3	
2556 B3	3348 F5	3583 D3	
2559 F2	3350 A7	3584 E3	
2560 E2	3351 D4	3585 E4	
2561 F2	3500 B1	3586 B4	
2562 E2	3501 B1	3587 B4	
2563 E2	3502 B1	3588 B3	
2564 B4	3503 B1	3589 A3	
2565 B3	3504 D2	3590 A4	
2566 E2	3505 F2	3591 A1	
2567 F2	3506 B1	3592 A1	
2568 D2	3507 F2	3593 C3	
2569 F2	3508 D2	3594 E4	
2572 C3	3509 F2	3595 E4	
2573 C4	3510 B1	3596 B4	

### LAYOUT DIAGRAM - AF BOARD (COMPONENT SIDE)



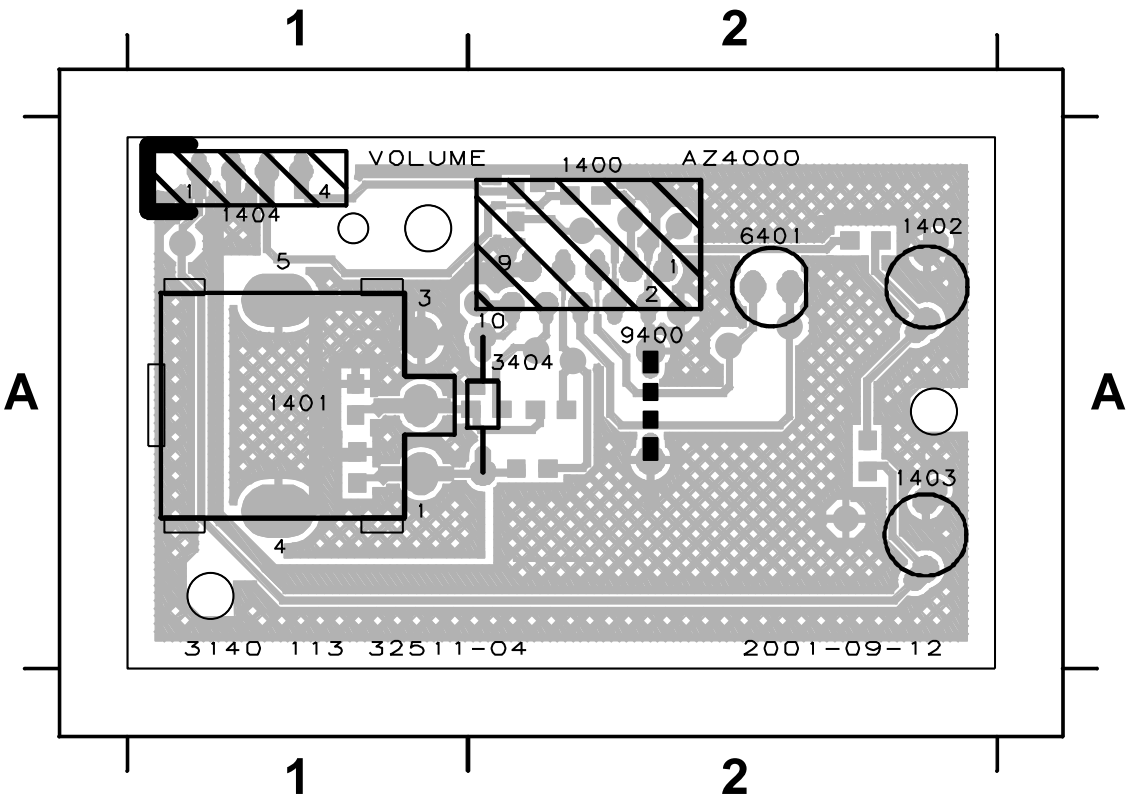
CIRCUIT DIAGRAM - VOLUME BOARD

1400 A2	1403 B6	2401 E4	3403 D4	4408 A3	6411 C5	T401 B2	T404 C2	T405 B2
1401 D3	1425 D6	3400 A5	3428 D3	4409 B3	T400 A2	T402 B2	T405 B2	T405 C2
1402 B5	2400 E2	3402 D3	3429 D4	4409 B3	T400 D5	T403 C2	T405 B2	T405 C2

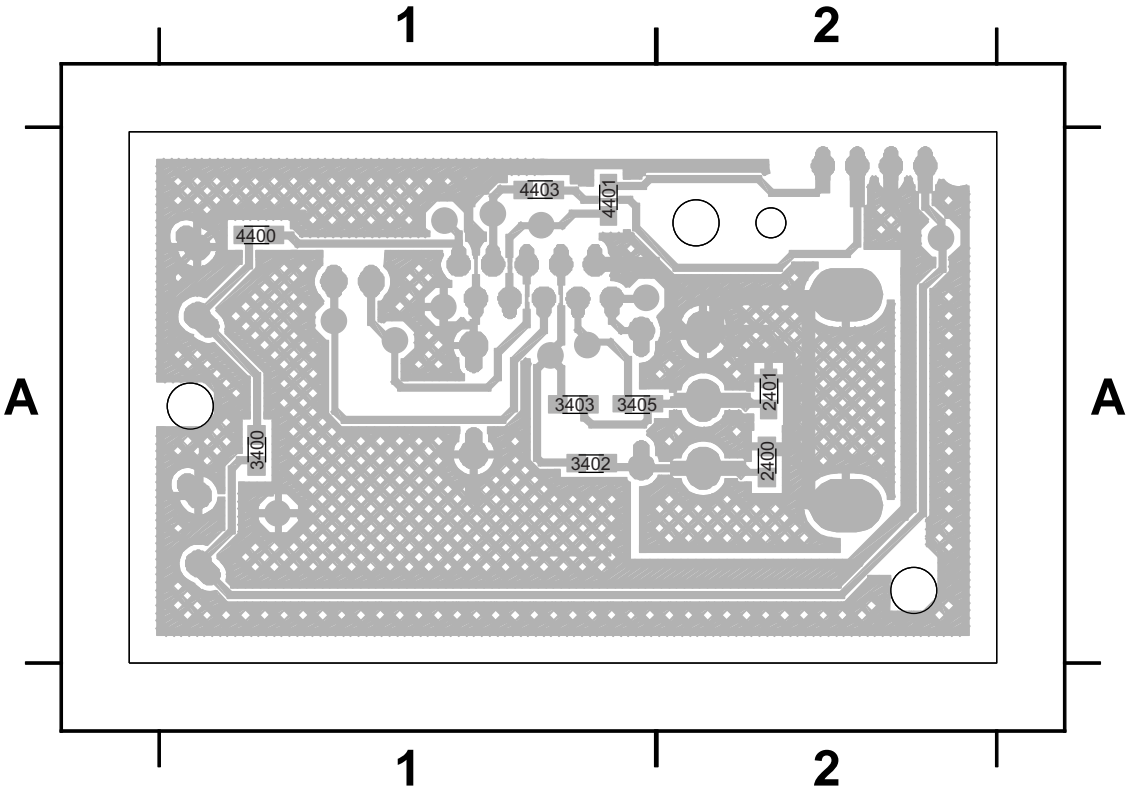


LAYOUT DIAGRAM - VOLUME BOARD

1400 A2	1402 A2	1404 A1	6401 A2
1401 A1	1403 A2	3404 A2	9400 A2

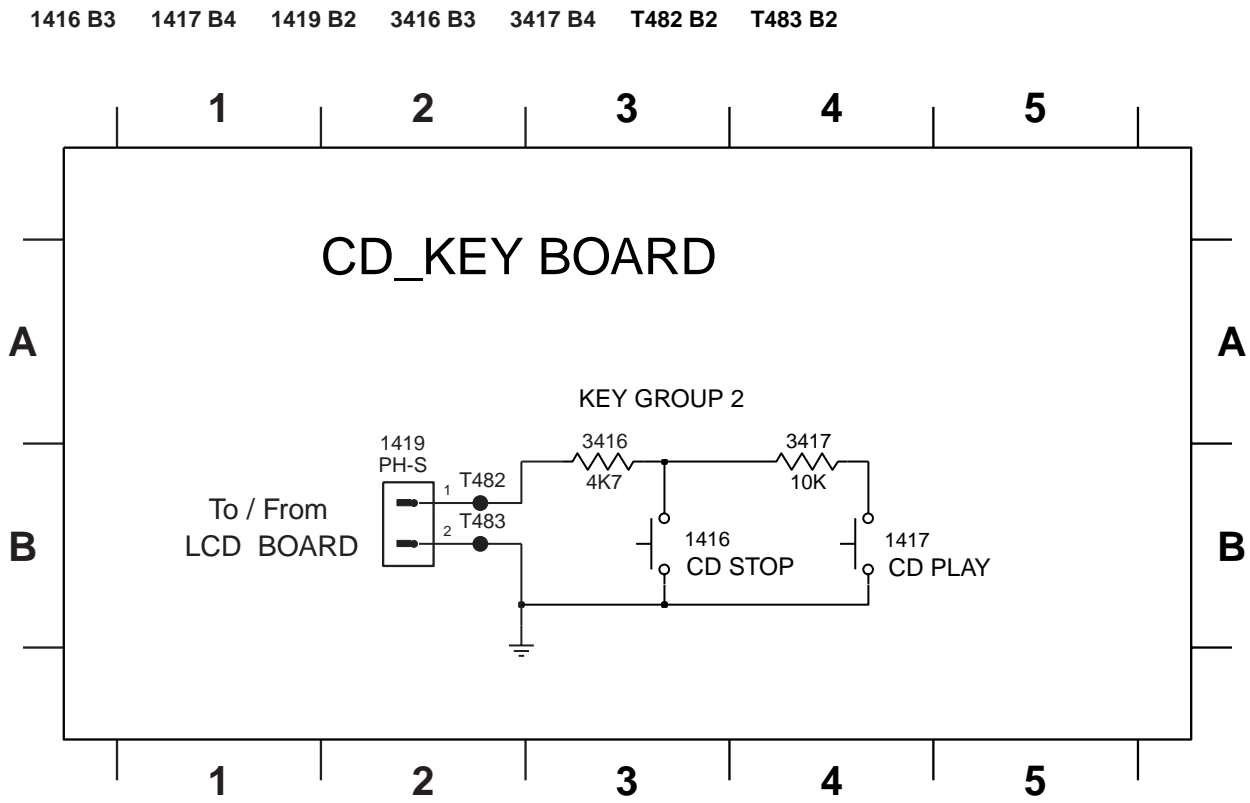


2400 A2	3400 A1	3403 A1	4400 A1	4403 A1
2401 A2	3402 A1	3405 A1	4401 A1	

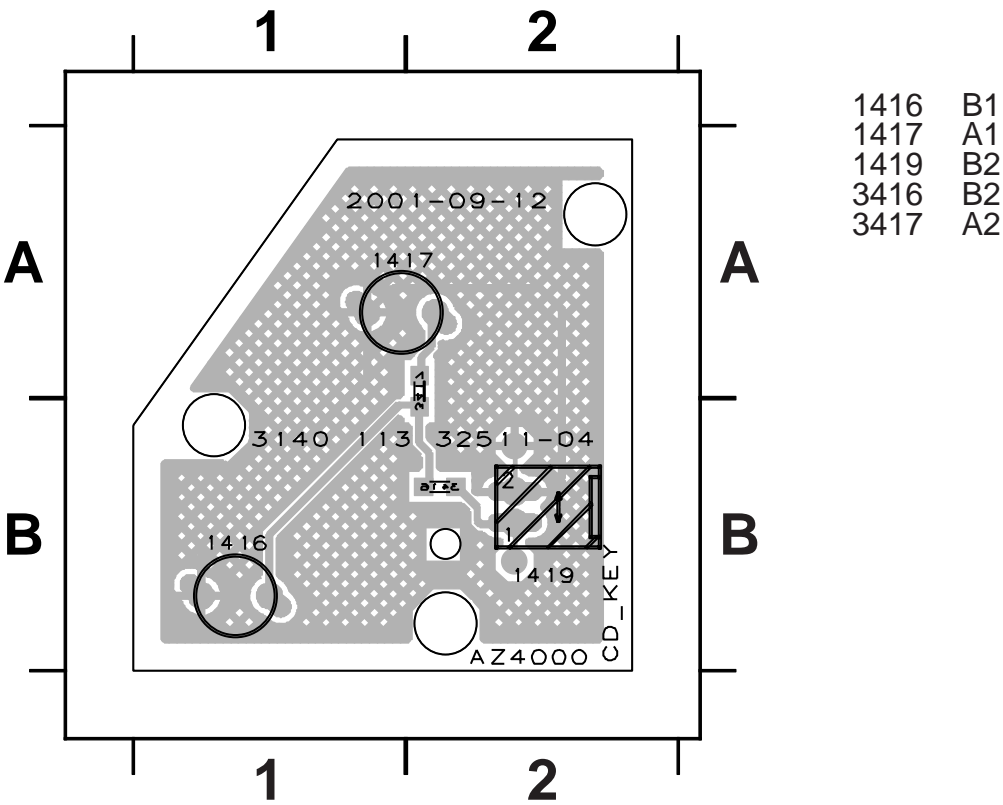




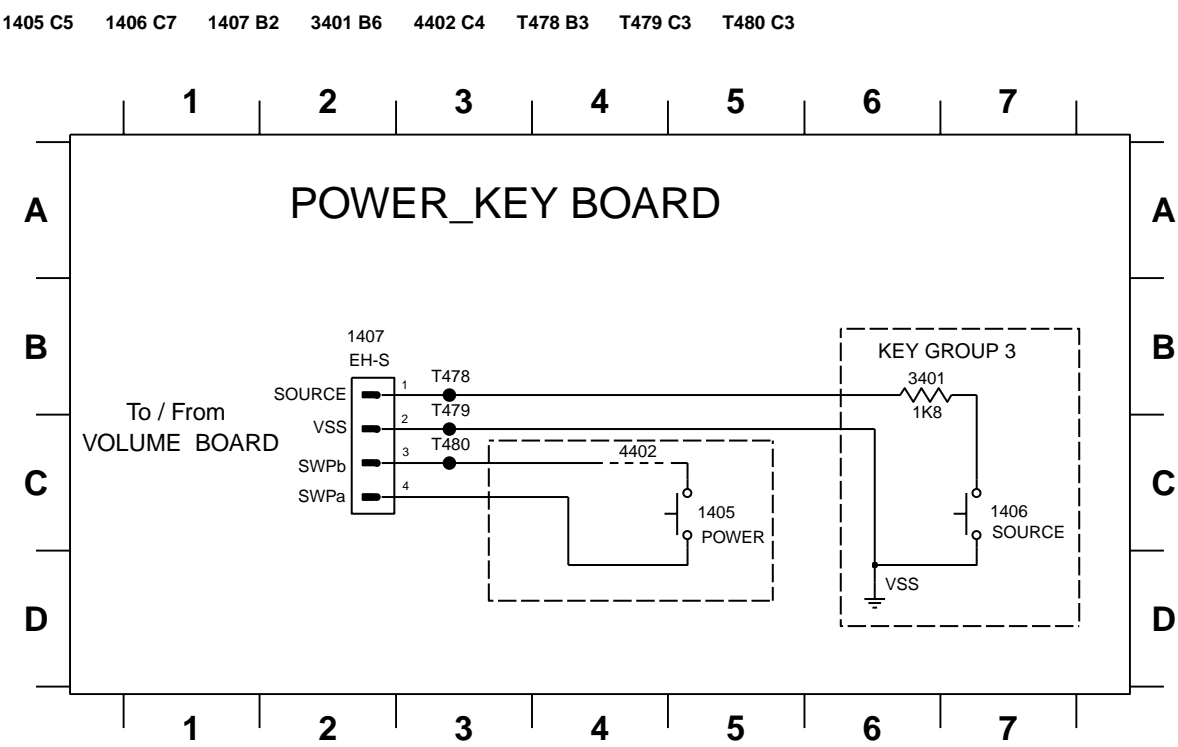
CIRCUIT DIAGRAM - CD KEY BOARD



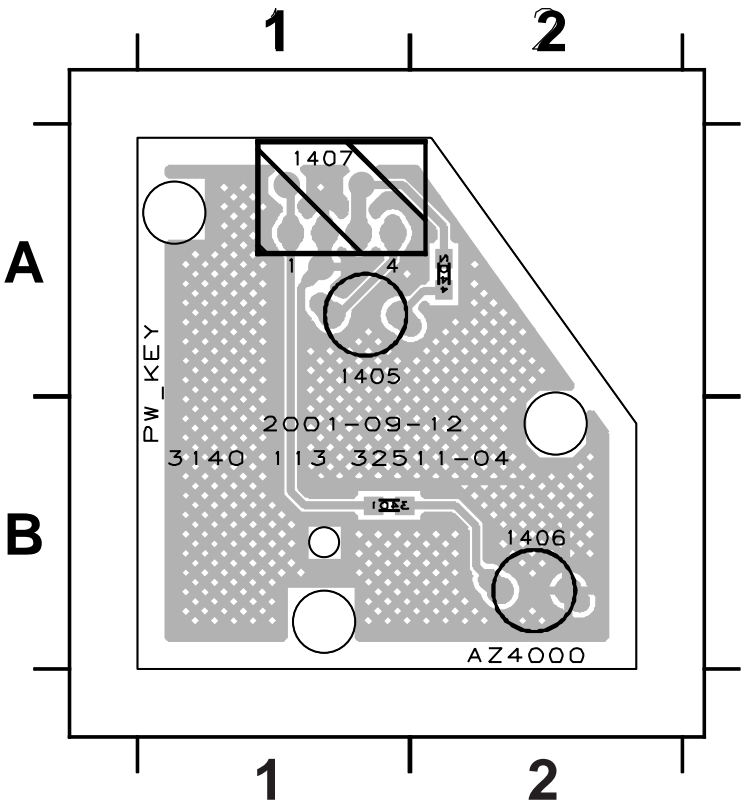
LAYOUT DIAGRAM - CD KEY BOARD



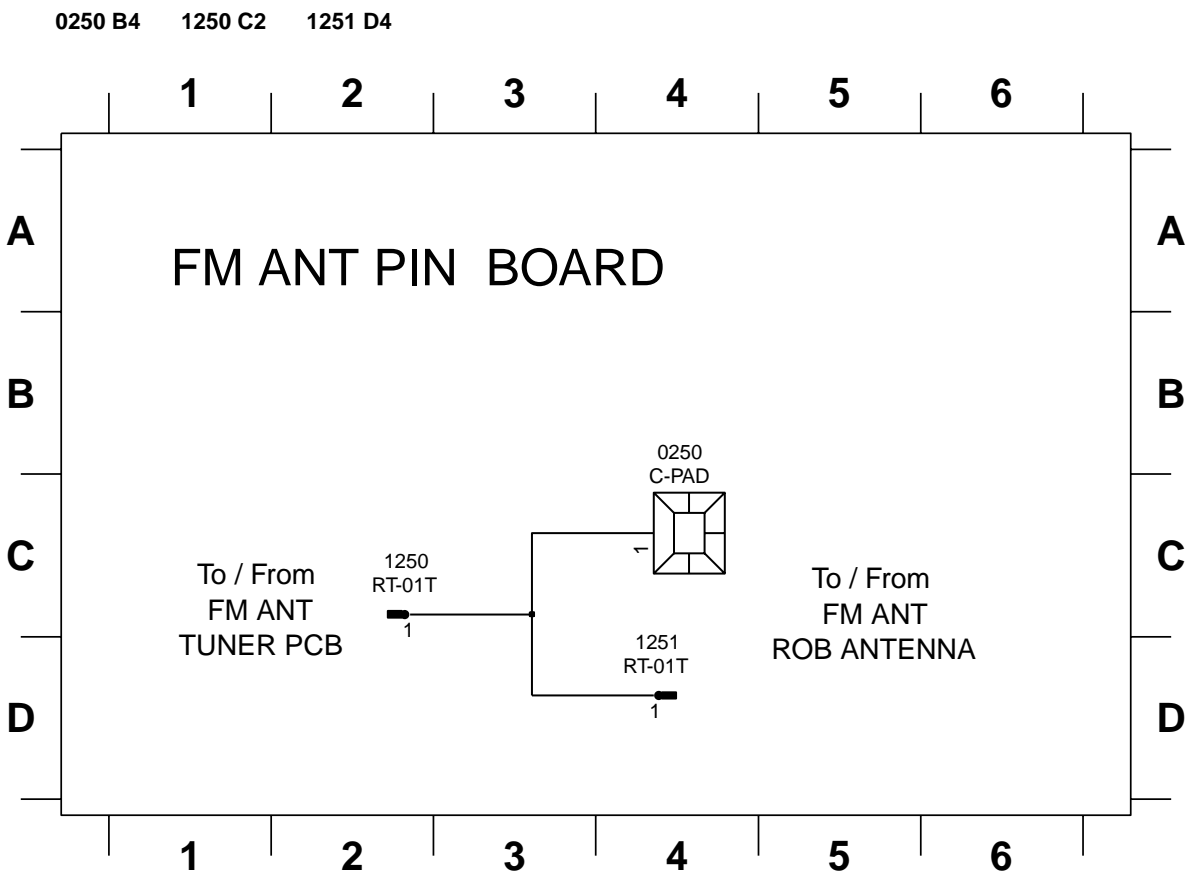
CIRCUIT DIAGRAM - POWER KEY BOARD



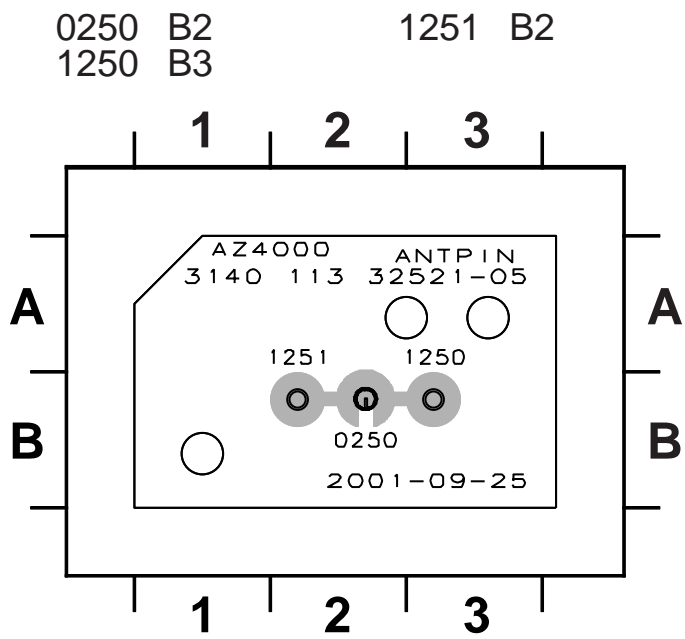
LAYOUT DIAGRAM - POWER KEY BOARD



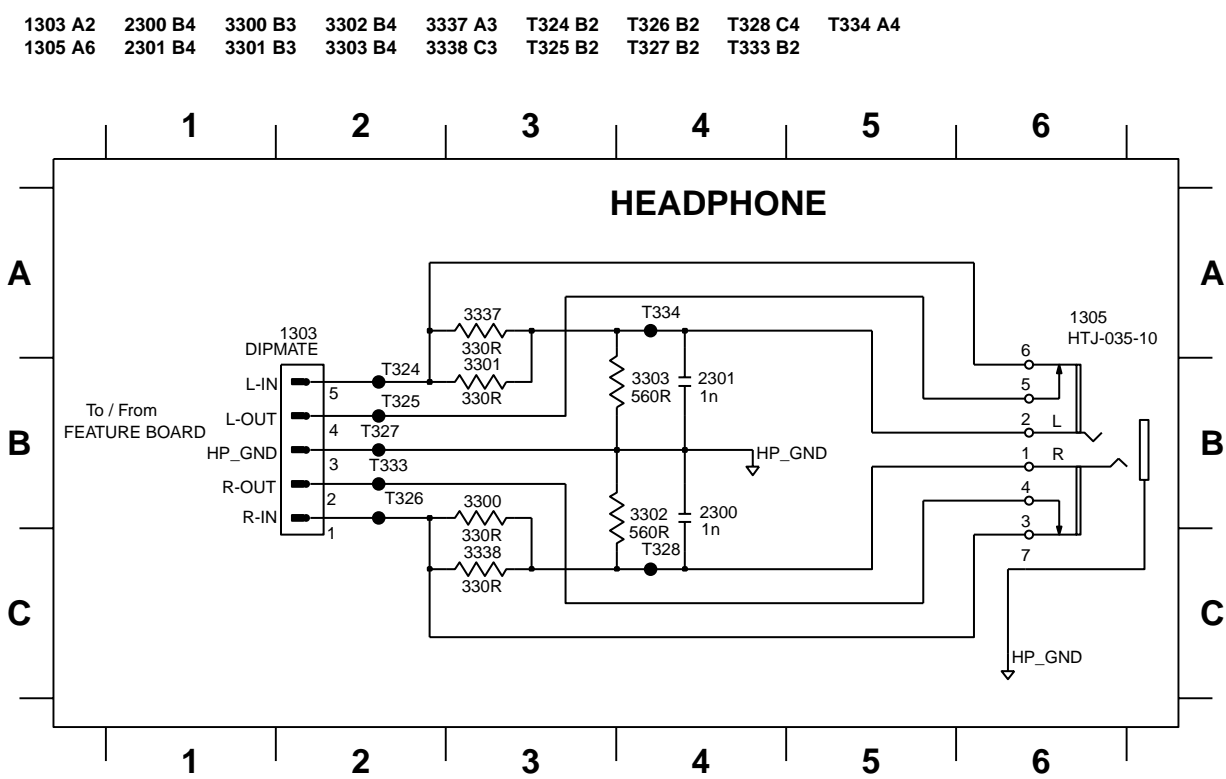
CIRCUIT DIAGRAM - FM ANT BOARD



LAYOUT DIAGRAM - FM ANT BOARD

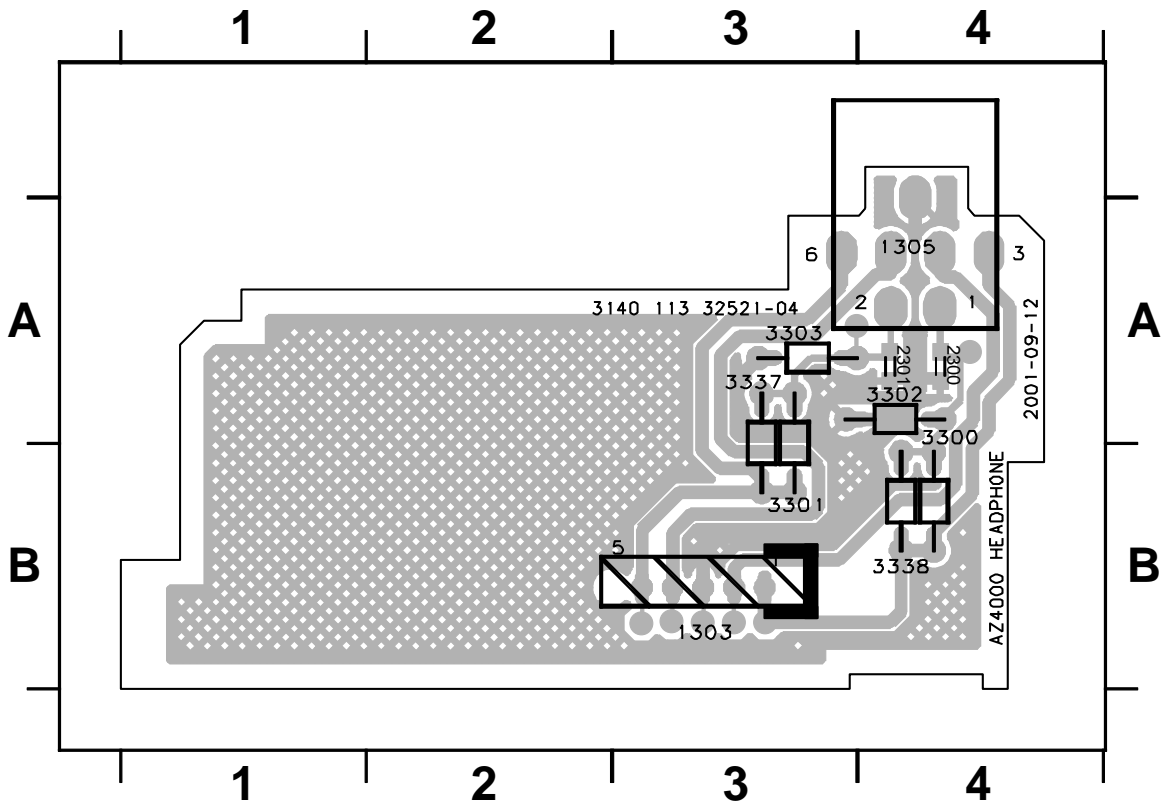


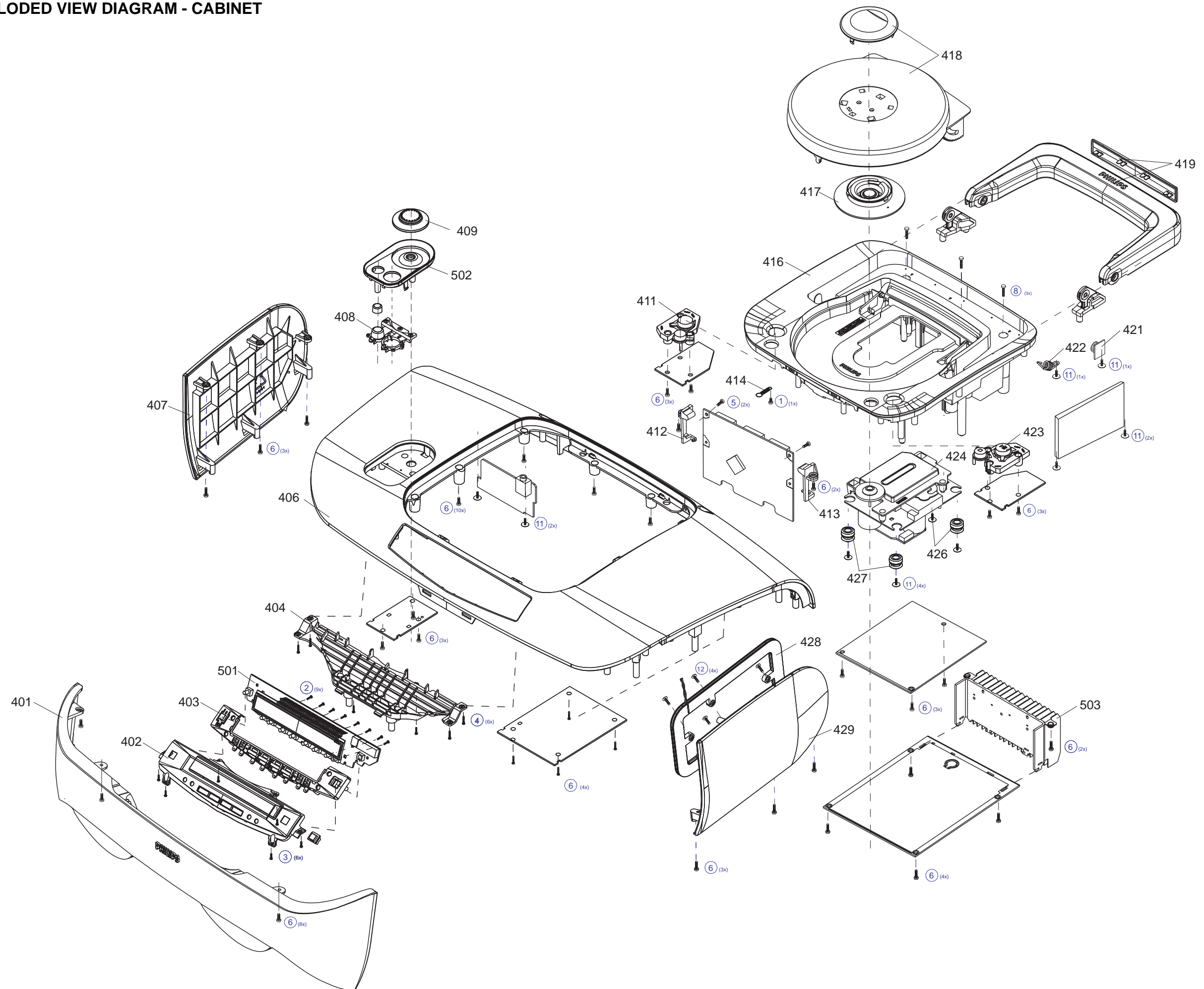
CIRCUIT DIAGRAM - HEADPHONE JACK BOARD



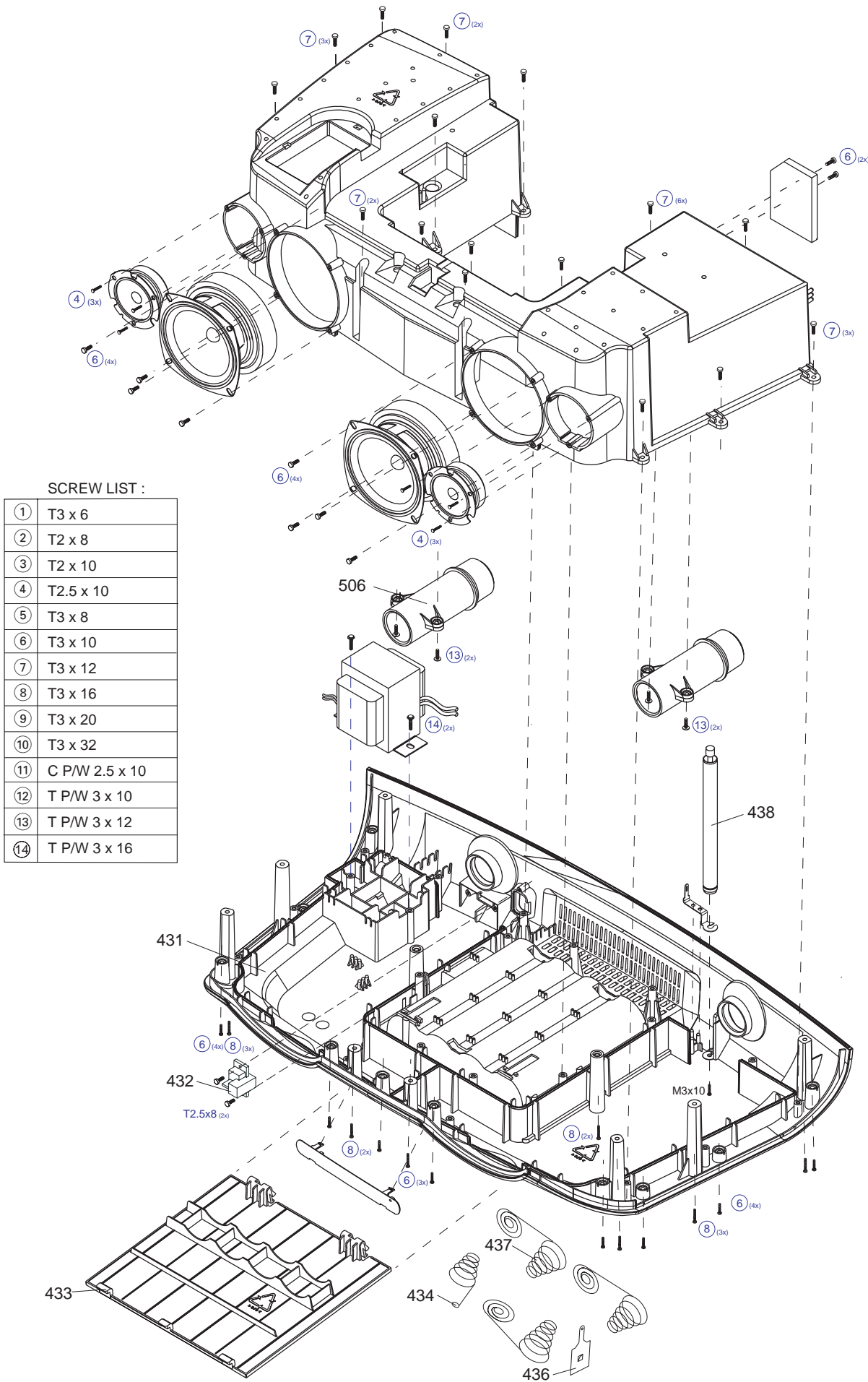
LAYOUT DIAGRAM - HEADPHONE JACK BOARD

1303 B3    2300 A4    3300 A4    3302 A4    3337 A3  
1305 A4    2301 A4    3301 B3    3303 B3    3338 B4





EXPLODED VIEW DIAGRAM - CABINET



MECHANICAL PARTSLIST - CABINET

401	3140 117 61380	SPK CLOTH ASSY-MIDDLE
402	3140 117 61280	FRONT PANEL ASSY /00
402	3140 117 61290	FRONT PANEL ASSY /11
402	3140 117 61300	FRONT PANEL ASSY /17
404	3140 114 37950	BRACKET FRONT PCB
406	3140 117 61340	TOP CABINET ASSY/00
406	3140 117 61350	TOP CABINET ASSY/11
406	3140 117 61360	TOP CABINET ASSY/17
407	3140 117 61400	SPK CLOTH ASSY-LEFT
408	3140 117 61330	UB-BUTTONSET ASSY
409	3140 114 37790	KNOB-VOLUME
411	3140 114 37900	BUTTON-POWER
412	3140 114 39250	BRACKET-PCB-CPU-L
413	3140 114 37970	BRACKET-PCB-CPU-R
414	3140 111 01060	CD PULL SPRING
416	3140 117 61320	CD TRAY ASSY
417	3140 117 59810	CLAMPER-VAM-RING-ASS'Y
418	3140 117 61270	SUB-ASSY-CD DOOR
419	3140 117 61260	SUB-ASSY-HANDLE
421	4822 529 10322	DAMPER ASSY
422	3140 111 01050	SPRING - CD
423	3140 114 37890	BUTTON-CD
424	9305 022 30103	VAM2201/03
426	4822 529 10431	DAMPER - RUBBER (25DEG)
427	4822 529 10431	DAMPER - RUBBER (25DEG)
429	3140 117 61390	SPK CLOTH ASSY-RIGHT
431	3140 117 61410	BOTTOM CABINET ASSY
432	3140 111 21360	CONTACT PLATE
433	3140 114 37920	DOOR-BATTERY
434	3140 111 01030	BATTERY SPRING-R20
436	3140 111 21890	R20 TERMINAL "-"
437	3140 111 01070	BATTERY SPRING - R20 '+/-'
438	3140 118 71770	AZ4000 ROD ANTENNA
	3139 228 60070	REMOTE CONTROL RC19420002/01

**ELECTRICAL PARTSLIST - FRONT BOARD****- MISCELLANEOUS -**

1305	2422 026 05076	3,5 mm PHONE SOCKET
1421	4822 267 11039	Connector 11P
1422	4822 265 11184	Connector 18P
1423	4822 265 11208	Connector 10P
1424	4822 267 10732	Connector 12P

**- CAPACITORS -**

2469	4822 122 33761	22pF 5% NP0 50V
2470	4822 122 31765	100pF 2% NP0 63V
2471	4822 122 33777	47pF 5% NP0 63V
2472	4822 122 33777	47pF 5% NP0 63V
2473	4822 122 33777	47pF 5% NP0 63V
2474	4822 122 31765	100pF 2% NP0 63V
2475	4822 122 31765	100pF 2% NP0 63V

**- CAPACITORS -**

2300	5322 126 11578	1nF 10% X7R 50V
2301	5322 126 11578	1nF 10% X7R 50V
2421	4822 126 14305	100nF 10% X7R 16V
2422	2222 867 15339	33pF 5% NP0 50V
2423	4822 122 33761	22pF 5% NP0 50V
2424	4822 126 14241	330pF 5% NPO 50V
2425	4822 126 14249	560pF 10% X7R 50V
2426	4822 124 22652	2,2µF 20% 50V
2428	4822 126 14305	100nF 10% X7R 16V
2431	4822 122 31765	100pF 2% NP0 63V
2432	4822 122 31765	100pF 2% NP0 63V
2433	4822 122 33777	47pF 5% NP0 63V
2434	5322 126 11583	10nF 10% X7R 50V
2436	4822 126 13881	470pF 5% 50V
2437	4822 126 13881	470pF 5% 50V
2438	5322 126 11583	10nF 10% X7R 50V
2439	4822 126 13193	4,7nF 10% X7R 63V
2440	4822 122 31765	100pF 2% NP0 63V
2441	4822 122 31765	100pF 2% NP0 63V
2442	4822 122 31765	100pF 2% NP0 63V
2443	4822 122 31765	100pF 2% NP0 63V
2444	5322 126 11583	10nF 10% X7R 50V
2445	4822 126 13883	220pF 5% 50V
2446	4822 122 31765	100pF 2% NP0 63V
2447	4822 124 22651	1µF 20% 50V
2448	4822 122 33752	15pF 5% NP0 50V
2449	4822 126 14305	100nF 10% X7R 16V
2450	4822 126 13881	470pF 5% 50V
2451	4822 126 14305	100nF 10% X7R 16V
2452	5322 126 11583	10nF 10% X7R 50V
2453	5322 126 11583	10nF 10% X7R 50V
2454	4822 122 31765	100pF 2% NP0 63V
2455	4822 124 80231	47µF 20% 16V
2457	4822 126 14494	22nF 10% X7R 25V
2458	4822 122 33752	15pF 5% NP0 50V
2459	4822 126 14494	22nF 10% X7R 25V
2460	3198 016 31020	1nF 5% NP0 25V
2463	5322 126 11583	10nF 10% X7R 50V
2466	4822 122 33777	47pF 5% NP0 63V
2468	4822 122 33761	22pF 5% NP0 50V

**- RESISTORS -**

3300	4822 116 52219	330R 5% 0,5W
3301	4822 116 52219	330R 5% 0,5W
3302	4822 116 52226	560R 5% 0,5W
3303	4822 116 52226	560R 5% 0,5W
3337	4822 116 52219	330R 5% 0,5W
3338	4822 116 52219	330R 5% 0,5W
3397	4822 051 30103	10K 5% 0,062W
3398	4822 051 30332	3,3K 5% 0,062W
3399	4822 051 30103	10K 5% 0,062W
3413	4822 051 30102	1K 5% 0,062W
3414	4822 051 30102	1K 5% 0,062W
3421	4822 051 30102	1K 5% 0,062W
3422	4822 051 30102	1K 5% 0,062W
3424	4822 051 30101	100R 5% 0,062W
3425	4822 051 30222	2,2K 5% 0,062W
3426	4822 117 12891	220K 1% ERJ3E
3433	4822 051 30221	220R 5% 0,062W
3434	4822 051 30153	15K 5% 0,062W
3435	4822 051 30153	15K 5% 0,062W
3436	4822 051 30103	10K 5% 0,062W
3437	4822 051 30474	470K 5% 0,062W
3438	4822 116 52289	5,6K 5% 0,5W
3439	4822 116 52186	22R 5% 0,5W
3442	4822 051 30103	10K 5% 0,062W
3443	4822 116 83883	470R 5% 0,5W
3444	4822 051 30102	1K 5% 0,062W
3445	4822 051 30102	1K 5% 0,062W
3446	4822 051 30102	1K 5% 0,062W
3447	4822 051 30684	680K 5% 0,062W
3448	4822 116 83882	39K 5% 0,5W
3449	4822 051 30273	27K 5% 0,062W
3450	4822 051 30223	22K 5% 0,062W
3451	4822 051 30471	470R 5% 0,062W
3452	4822 051 30102	1K 5% 0,062W
3453	4822 051 30102	1K 5% 0,062W
3454	4822 051 30471	470R 5% 0,062W
3455	4822 051 30102	1K 5% 0,062W
3456	4822 051 30102	1K 5% 0,062W
3458	4822 051 30683	68K 5% 0,062W
3459	4822 051 30102	1K 5% 0,062W



**ELECTRICAL PARTSLIST - FRONT BOARD****- RESISTORS -**

3460	4822 051 30102	1K 5% 0,062W
3461	4822 051 30103	10K 5% 0,062W
3462	4822 051 30102	1K 5% 0,062W
3463	4822 051 30102	1K 5% 0,062W
3464	4822 051 30152	1,5K 5% 0,062W
3465	4822 051 30102	1K 5% 0,062W
3466	4822 051 30471	470R 5% 0,062W
3468	4822 051 30471	470R 5% 0,062W
3469	4822 051 30102	1K 5% 0,062W
3470	4822 116 83883	470R 5% 0,5W
3471	4822 116 83883	470R 5% 0,5W
3472	4822 116 83883	470R 5% 0,5W
3473	4822 051 30102	1K 5% 0,062W
3474	4822 051 30472	4,7K 5% 0,062W
3475	4822 051 30103	10K 5% 0,062W
3477	4822 050 11002	1K 1% 0,4W
3478	4822 050 11002	1K 1% 0,4W
3479	4822 051 30272	2,7K 5% 0,062W
3480	4822 051 30272	2,7K 5% 0,062W
3481	4822 051 30471	470R 5% 0,062W
3482	4822 051 30471	470R 5% 0,062W
3484	4822 051 30272	2,7K 5% 0,062W
3485	4822 051 30471	470R 5% 0,062W
3486	4822 051 30471	470R 5% 0,062W
3487	4822 051 30333	33K 5% 0,062W
3489	4822 051 30102	1K 5% 0,062W
3490	4822 051 30102	1K 5% 0,062W
3491	4822 051 30102	1K 5% 0,062W
3492	4822 051 30102	1K 5% 0,062W
3493	4822 051 30102	1K 5% 0,062W
3494	4822 051 30562	5,6K 5% 0,063W
3496	4822 051 30152	1,5K 5% 0,062W
3497	4822 051 30152	1,5K 5% 0,062W
3498	4822 051 30152	1,5K 5% 0,062W
3499	4822 051 30103	10K 5% 0,062W
3900	4822 051 30331	330R 5% 0,062W
3901	4822 051 30331	330R 5% 0,062W
3902	4822 051 30102	1K 5% 0,062W
3908	4822 051 30102	1K 5% 0,062W
3910	4822 051 30103	10K 5% 0,062W
3911	4822 051 30103	10K 5% 0,062W
3915	4822 051 30221	220R 5% 0,062W
3928	4822 051 30103	10K 5% 0,062W
3929	4822 051 30472	4,7K 5% 0,062W
3930	4822 051 30472	4,7K 5% 0,062W
3932	4822 051 30102	1K 5% 0,062W
3934	4822 051 30103	10K 5% 0,062W
3935	4822 051 30471	470R 5% 0,062W
3936	4822 051 30152	1,5K 5% 0,062W
3937	4822 051 30103	10K 5% 0,062W

**- RESISTORS -**

3941	4822 051 30471	470R 5% 0,062W
3942	4822 051 30471	470R 5% 0,062W
3943	4822 051 30102	1K 5% 0,062W
3944	4822 050 11002	1K 1% 0,4W
3945	4822 050 11002	1K 1% 0,4W
3947	4822 051 30103	10K 5% 0,062W
3950	4822 051 30153	15K 5% 0,062W
3951	4822 117 13632	100K 1% 0,62W
3952	4822 116 83883	470R 5% 0,5W
3956	4822 051 30102	1K 5% 0,062W
3957	4822 051 30471	470R 5% 0,062W
3958	4822 051 30102	1K 5% 0,062W
3959	4822 051 30471	470R 5% 0,062W
3962	4822 051 30102	1K 5% 0,062W
3964	4822 051 30471	470R 5% 0,062W
3965	4822 116 52182	15R 5% 0,5W
3966	4822 116 52176	10R 5% 0,5W
4421	4822 051 30008	0R JUMPER 0603
4425	4822 051 30008	0R JUMPER 0603
4426	4822 051 30008	0R JUMPER 0603
4429	4822 051 30008	0R JUMPER 0603
4430	4822 051 30008	0R JUMPER 0603
4436	4822 051 30008	0R JUMPER 0603
4437	4822 051 30008	0R JUMPER 0603
4440	4822 051 30008	0R JUMPER 0603
4441	4822 051 30008	0R JUMPER 0603
4442	4822 051 30008	0R JUMPER 0603
4443	4822 051 30008	0R JUMPER 0603
4447	4822 051 30008	0R JUMPER 0603
4449	4822 051 30008	0R JUMPER 0603
4455	4822 051 30008	0R JUMPER 0603
4456	4822 051 30008	0R JUMPER 0603
4457	4822 051 30008	0R JUMPER 0603
4458	4822 051 30008	0R JUMPER 0603
9431	4822 050 11002	1K 1% 0,4W
9437	4822 050 11002	1K 1% 0,4W
9442	4822 050 11002	1K 1% 0,4W

**- COILS & FILTERS -**

5304	2422 549 44919	IND FXD 600R 100MHz
5422	2422 540 98518	RES CER 8MHZ
5423	2422 549 44393	IND FXD 2,7K 100MHz
5424	4822 157 62552	2,2µH
5425	2422 535 94311	IND FXD 220µH 5%

**ELECTRICAL PARTSLIST - FRONT BOARD****- COILS & FILTERS -**

5426	4822 242 11033	CRYSTAL 4,332MHz
5427	2422 549 44393	IND FXD 2,7K 100MHz
5428	2422 549 44393	IND FXD 2,7K 100MHz
5429	2422 549 44393	IND FXD 2,7K 100MHz
5430	2422 549 44393	IND FXD 2,7K 100MHz
5431	2422 549 44393	IND FXD 2,7K 100MHz
5432	2422 549 44393	IND FXD 2,7K 100MHz
5433	2422 549 44393	IND FXD 2,7K 100MHz
5434	2422 549 44393	IND FXD 2,7K 100MHz
5435	2422 549 44393	IND FXD 2,7K 100MHz
5436	2422 549 44607	IND FXD 600R 100MHz
5437	2422 549 44607	IND FXD 600R 100MHz
5438	2422 549 44607	IND FXD 600R 100MHz

**- DIODES -**

6424	5322 130 34337	BAV99
6425	4822 130 30621	1N4148
6426	4822 130 30621	1N4148
6427	4822 130 30621	1N4148
6428	5322 130 31504	BZX79-B3V3
6429	4822 130 34197	BZX79-B12

**- IC & TRANSISTORS -**

7421	4822 209 31981	SAA6579T
7423	9965 000 04931	M24C01-WMN6
7424	4822 130 60511	BC847B
7426	4822 130 40959	BC547B
7431	4822 130 60511	BC847B
7434	4822 130 60511	BC847B

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

**ELECTRICAL PARTSLIST - LCD BOARD****- MISCELLANEOUS -**

2	3140 118 50990	BACKLIGHT ASSY BLUE
1400	4822 265 11208	CONNECTOR 10P
1401	2422 129 16349	ROT ENCODER 24P
1402	2422 128 02922	SWITCH-TACT 1P
1403	2422 128 02922	SWITCH-TACT 1P
1405	2422 128 02922	SWITCH-TACT 1P
1406	2422 128 02922	SWITCH-TACT 1P
1408	2422 128 02922	SWITCH-TACT 1P
1409	2422 128 02922	SWITCH-TACT 1P
1410	2422 128 02922	SWITCH-TACT 1P
1411	2422 128 02922	SWITCH-TACT 1P
1412	2422 128 02922	SWITCH-TACT 1P
1413	2422 128 02922	SWITCH-TACT 1P
1414	2422 128 02922	SWITCH-TACT 1P
1415	2422 128 02922	SWITCH-TACT 1P
1416	2422 128 02922	SWITCH-TACT 1P
1417	2422 128 02922	SWITCH-TACT 1P
1427	2422 025 14541	CONNECTOR 11P
1428	2422 128 02922	SWITCH-TACT 1P
5406	2422 535 94311	IND FXD 220µH 5%

**- CAPACITORS -**

2400	4822 122 31765	100pF 2% NP0 63V
2401	4822 122 31765	100pF 2% NP0 63V
2406	4822 126 14305	100nF 10% X7R 16V
2407	4822 124 12032	4,7µF 20% 50V
2408	3198 016 31020	1nF 5% NP0 25V
2409	5322 126 11583	10nF 10% X7R 50V
2410	5322 126 11583	10nF 10% X7R 50V

**- RESISTORS -**

3400	4822 117 11817	1,2K 1% 0,062W
3401	4822 117 12903	1,8K 1% 0,063W
3402	4822 051 30223	22K 5% 0,062W
3403	4822 051 30223	22K 5% 0,062W
3404	4822 050 11002	1K 1% 0,4W
3405	4822 051 30102	1K 5% 0,062W
3406	4822 051 30101	100R 5% 0,062W
3407	4822 051 30123	12K 5% 0,062W
3408	4822 051 30682	6,8K 5% 0,062W
3409	4822 117 11817	1,2K 1% 0,062W
3410	4822 117 12903	1,8K 1% 0,063W
3411	4822 051 30222	2,2K 5% 0,062W
3412	4822 051 30472	4,7K 5% 0,062W
3415	4822 117 11817	1,2K 1% 0,062W
3416	4822 051 30472	4,7K 5% 0,062W

**- RESISTORS -**

3417	4822 051 30103	10K 5% 0,062W
3418	4822 116 52175	100R 5% 0,5W
3419	4822 051 30103	10K 5% 0,062W
3420	4822 117 13632	100K 1% 0,062W
3917	4822 116 52176	10R 5% 0,5W
3919	4822 051 30102	1K 5% 0,062W
3920	4822 051 30102	1K 5% 0,062W
3921	4822 051 30102	1K 5% 0,062W
3922	4822 051 30102	1K 5% 0,062W
3923	4822 051 30102	1K 5% 0,062W
3924	4822 051 30102	1K 5% 0,062W
3925	4822 051 30102	1K 5% 0,062W
3953	4822 117 13632	100K 1% 0,062W
3954	4822 051 30183	18K 5% 0,062W
3955	4822 051 30103	10K 5% 0,062W
3960	4822 117 12903	1,8K 1% 0,063W
3961	4822 051 30222	2,2K 5% 0,062W
4400	4822 051 30008	0R JUMPER 0603
4401	4822 051 30008	0R JUMPER 0603
4402	4822 051 30008	0R JUMPER 0603
4403	4822 051 30008	0R JUMPER 0603
4406	4822 051 30008	0R JUMPER 0603
4407	4822 051 30008	0R JUMPER 0603
4410	4822 051 30008	0R JUMPER 0603
4411	4822 051 30008	0R JUMPER 0603

**- DIODES, TRANSISTORS & ICS -**

6401	4822 130 10418	LTL16KGE
7406	5322 209 11129	PCF8576T
7407	9322 155 82667	IR RECEIVER TSOP2236
7408	3140 110 51260	LCD PANEL

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



**ELECTRICAL PARTSLIST - TUNER BOARD****- MISCELLANEOUS -**

1121	4822 267 10733	Connector 4P
1122	4822 267 10954	Connector 5P

**- CAPACITORS -**

2101	4822 126 13692	47pF 1% NP0 63V
2103	5322 122 31647	1nF 10% X7R 63V
2104	5322 122 32531	100pF 5% NP0 50V
2106	2020 800 00204	CTRM 4P-20P N750 (/00)
2106	2020 800 00191	CTRM 3P-11P N450 (/11, /17)
2107	4822 121 51319	1µF 10% 63V
2108	5322 122 32531	100pF 5% NP0 50V
2109	5322 122 32448	10pF 5% NP0 63V
2120	5322 122 32658	22pF 5% 50V (/00)
2120	4822 126 14507	18PF 5% 50V (/11,/17)
2122	4822 122 33891	3,3nF 10% X7R 63V
2123	2238 861 18391	390pF 1% NP0 50V
2124	4822 126 14494	22nF 10% X7R 25V (/11, /17)
2125	2238 861 18561	560pF 1% NP0 50V
2126	5322 122 31863	330pF 5% NP0 63V
2127	4822 126 14076	220nF 80/20% 25V
2128	4822 124 40248	10µF 20% 63V
2129	4822 124 41584	100µF 20% 10V
2130	4822 126 13482	470nF 80/20% 16V
2131	4822 126 13482	470nF 80/20% 16V
2132	4822 126 13482	470nF 80/20% 16V
2133	4822 124 21913	1µF 20% 63V
2134	4822 126 13188	15nF 5% X7R 63V
2134	4822 126 14494	22nF 5% X7R 63V (/17)
2135	4822 126 13188	15nF 5% X7R 63V
2135	4822 126 14494	22nF 5% X7R 63V (/17)
2136	4822 126 14076	220nF 80/20% 25V
2137	4822 126 14076	220nF 80/20% 25V
2138	4822 124 22652	2,2µF 20% 50V
2139	4822 126 14236	15pF 5% 50V
2140	4822 126 13695	82pF 1% NP0 63V
2141	4822 126 13838	100nF 80/20% Y5V 50V
2144	4822 126 13482	470nF 80/20% 16V
2145	4822 122 33575	220pF 5% NP0 63V
2146	4822 122 33575	220pF 5% NP0 63V
2147	4822 122 33575	220pF 5% NP0 63V
2148	4822 122 33127	2,2nF 10% X7R 63V
2149	5322 122 32659	33pF 5% 50V
2150	4822 126 13838	100nF 80/20% Y5V 50V
2152	4822 126 12105	33nF 5% X7R 50V
2153	4822 126 13486	15pF 2% NP0 63V
2155	2020 800 00191	CTRM 100V 3P-11P N450
2159	5322 122 32659	33pF 5% 50V
2163	4822 126 13838	100nF 80/20% Y5V 50V
2164	4822 126 13482	470nF 80/20% 16V

**- CAPACITORS -**

2165	4822 126 13838	100nF 80/20% Y5V 50V
2166	5322 122 31647	1nF 10% X7R 63V
2167	4822 122 33926	12pF 1% 50V
2169	4822 122 33127	2,2nF 10% X7R 63V
2186	4822 124 40196	220µF 20% 16V
2187	4822 122 33177	10nF 20% X7R 50V
2188	4822 122 33177	10nF 20% X7R 50V
2189	4822 126 14076	220nF 80/20% 25V
2190	4822 124 81151	22µF 20% 50V
2191	4822 124 81151	22µF 20% 50V
2192	5322 122 31647	1nF 10% X7R 63V
2193	5322 122 31647	1nF 10% X7R 63V
2194	5322 122 31647	1nF 10% X7R 63V
2195	4822 124 81151	22µF 20% 50V
2196	4822 122 33177	10nF 20% X7R 50V
2197	4822 122 33177	10nF 20% X7R 50V

**- RESISTORS -**

3101	4822 051 20333	33K 5% 0,1W
3102	4822 117 10837	100K 1% 0.1W
3103	4822 051 20822	8,2K 5% 0,1W
3104	4822 117 13577	330R 1% 1,25W
3105	4822 117 11503	220R 1% 0.1W
3108	4822 117 11449	2,2K 5% 0,1W
3109	4822 117 11449	2,2K 5% 0,1W
3123	4822 051 20472	4,7K 5% 0,1W
3125	4822 117 10833	10K 1% 0,1W
3128	4822 117 11449	2,2K 5% 0,1W
3132	4822 051 20479	47R 5% 0,1W
3134	4822 051 20223	22K 5% 0,1W
3137	4822 116 83933	15K 1% 0,1W
3141	4822 117 11148	56K 1% 0,1W
3142	4822 100 12159	100K 30%
3143	4822 051 20223	22K 5% 0,1W
3144	4822 051 10102	1K 2% 0,25W
3145	4822 117 11449	2,2K 5% 0,1W
3152	4822 051 20471	470R 5% 0,1W
3153	4822 051 20471	470R 5% 0,1W
3155	4822 051 20479	47R 5% 0,1W
3156	4822 117 13632	100K 1% 0,1W
3158	4822 051 20471	470R 5% 0,1W
3159	4822 051 20471	470R 5% 0,1W
3160	4822 051 20471	470R 5% 0,1W
3161	4822 051 20223	22K 5% 0,1W
3166	4822 051 20479	47R 5% 0,1W
3167	4822 051 20479	47R 5% 0,1W
3169	4822 051 20154	150K 5% 0,1W
3170	4822 117 13632	100K 1% 0,1W

**ELECTRICAL PARTSLIST - TUNER BOARD****- RESISTORS -**

3176	4822 051 20333	33K 5% 0,1W
3180	4822 117 10833	10K 1% 0,1W
3186	4822 117 11448	180R 1% 0,1W
3187	4822 051 10102	1K 2% 0,25W
3188	4822 117 11449	2,2K 5% 0,1W
3189	4822 051 20223	22K 5% 0,1W
3190	4822 117 10833	10K 1% 0,1W
3191	4822 051 30472	4,7K 5% 0,1W
3192	4822 051 30105	1M 5% 0,1W
3193	4822 051 30222	2,2K 5% 0,1W
3194	4822 117 13632	100K 1% 0,1W
3195	4822 051 30474	470K 5% 0,1W
3196	4822 117 10833	10K 1% 0,1W
4101	4822 051 30008	0R JUMP. (0603)
4102	4822 051 20334	330K 5% 0,1W (/00)
4102	4822 051 30008	0R JUMP. (0603) (/11, /17)
4104	4822 051 30008	0R JUMP. (0603)
4105	4822 051 20008	0R JUMP. (0805)
4107	4822 051 20008	0R JUMP. (0805)
4108	4822 051 20008	0R JUMP. (0805)
4110	4822 051 20008	0R JUMP. (0805)

**- TRANSISTORS & IC -**

7101	4822 209 90924	TEA5757H/V1
7102	4822 130 42131	BF550
7103	5322 130 42756	BC857C
7104	4822 130 40855	BC337
7105	4822 130 40855	BC337
7109	4822 130 60373	BC856B
7111	5322 130 42755	BC847C
7122	5322 130 42755	BC847C
7124	5322 130 42755	BC847C
7180	4822 130 60373	BC856B
7181	5322 130 42755	BC847C
7182	5322 130 42755	BC847C
7183	5322 130 42755	BC847C

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

**- COILS & FILTERS -**

5102	4822 157 71634	MW ANT COIL
5103	2422 549 44107	LW ANT COIL
5109	4822 242 70665	SFE10,7MS3-A
5110	4822 242 70665	SFE10,7MS3-A
5111	2422 549 44023	AM IFT 450KHZ
5112	4822 157 70302	AM IFT 450KHZ
5114	4822 157 70302	AM IFT 450KHZ
5119	4822 157 11443	FM DISCRIMINATOR
5121	4822 242 10261	CRYSTAL 75KHZ
5122	2422 549 44108	MW OSC COIL
5123	2422 549 44108	LW OSC COIL
5130	4822 157 11843	COIL MD7B-01F
5131	4822 157 11843	COIL MD7B-01F

**- DIODES -**

6103	5322 130 34337	BAV99
6105	4822 130 83075	HN1V02H-B
6120	4822 130 83757	BAS216
6130	4822 130 82833	1SV228
6131	4822 130 82833	1SV228
6181	5322 130 34337	BAV99
6182	4822 130 83757	BAS216
6183	9340 386 90115	BZX284-C11

**ELECTRICAL PARTSLIST - CD99/MP3 BOARD****- MISCELLANEOUS -**

1011	3140 118 82770	PBAS MP3 DECODER
1800	4822 265 10925	FFC CONNECTOR 15P
1823	4822 265 11207	FFC CONNECTOR 6P
1824	4822 267 51453	FFC CONNECTOR 12P
8800	4822 320 12178	FFC CABLE 15P 65MM BD

8802	8240 005 53670	FFC CABLE 19P 80MM BD
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**- CAPACITORS -**

2813	2238 786 11554	2,2nF 5% NP0 16V
2814	5322 126 11583	10nF 10% X7R 50V
2815	4822 126 14225	56pF 5% NP0 50V
2816	3198 024 44730	47nF Y5V 50V
2817	4822 124 40769	4,7µF 20% 100V

2818	3198 024 44730	47nF Y5V 50V
2819	2222 867 15339	33pF 5% NP0 50V
2820	2222 867 15339	33pF 5% NP0 50V
2821	4822 126 14585	100nF 10% X7R 50V
2822	4822 126 14247	1,5nF X7R 50V

2823	4822 124 42383	220µF 20% 4V
2824	3198 017 44740	470nF Y5V 10V
2825	4822 126 13344	1,5nF 5% 63V
2826	3198 024 44730	47nF Y5V 50V
2827	5322 126 11578	1nF 10% X7R 50V

2828	4822 126 13691	27pF 1% NP0 63V
2829	3198 024 44730	47nF Y5V 50V
2830	4822 126 14043	1µF +80-20% Y5V 16V
2831	4822 124 81286	47µF 20% 16V
2832	4822 126 14506	270pF 5% 50V NP0

2833	4822 126 14238	2,2nF X7R 50V
2834	4822 126 14506	270pF 5% 50V NP0
2835	4822 126 14247	1,5nF X7R 50V
2836	4822 124 41751	47µF 20% 50V
2837	3198 024 44730	47nF Y5V 50V

2838	4822 126 14494	22nF 10% X7R 25V
2839	4822 126 14585	100nF 10% X7R 50V
2840	4822 124 81286	47µF 20% 16V
2841	4822 124 40769	4,7µF 20% 100V
2843	4822 122 31765	100pF 2% NP0 63V

2844	4822 126 13883	220pF 5% 50V
2845	4822 126 13883	220pF 5% 50V
2846	4822 124 22833	10µF 20% 50V
2848	4822 122 31765	100pF 2% NP0 63V
2849	4822 126 13883	220pF 5% 50V

2850	4822 126 13883	220pF 5% 50V
2851	4822 124 22833	10µF 20% 50V
2853	5322 126 11583	10nF 10% X7R 50V
2854	4822 124 11912	220µF 20% 6,3V
2855	4822 124 11912	220µF 20% 6,3V

**- CAPACITORS -**

2857	4822 124 41751	47µF 20% 50V
2860	4822 126 14508	180pF 5% 50V NP0
2861	4822 126 14241	330PF NPO 50V
2863	4822 126 13881	470pF 5% 50V
2864	4822 126 14508	180pF 5% 50V NP0

2865	4822 126 14508	180pF 5% 50V NP0
2869	4822 126 13751	47nF 10% X7R 63V
2870	4822 126 13883	220pF 5% 50V
2871	4822 126 13883	220pF 5% 50V
2872	4822 126 13883	220pF 5% 50V

2873	4822 126 13883	220pF 5% 50V
2874	4822 126 13883	220pF 5% 50V
2875	4822 126 13883	220pF 5% 50V
2876	3198 017 41050	1µF Y5V 10V
2900	4822 124 40769	4,7µF 20% 100V

2901	4822 124 40248	10µF 20% 63V
2903	4822 126 13879	220nF +80-20% 16V
2904	5322 126 10223	4,7nF10% X7R 63V
2905	4822 124 40769	4,7µF 20% 100V

**- RESISTORS -**

3745	4822 051 30109	10R 5% 0,062W
3764	4822 051 20159	15R 5% 0,1W
3780	4822 051 30472	4,7K 5% 0,062W
3781	4822 051 20472	4,7K 5% 0,1W
3782	4822 051 30272	2,7K 5% 0,062W

3794	4822 051 20223	22K 5% 0,1W
3795	4822 051 30223	22K 5% 0,062W
3810	4822 051 30102	1K 5% 0,062W
3811	4822 051 30102	1K 5% 0,062W
3824	4822 051 30102	1K 5% 0,062W

3825	4822 051 30223	22K 5% 0,062W
3826	4822 051 30273	27K 5% 0,062W
3827	4822 051 30101	100R 5% 0,062W
3828	4822 051 20121	120R 5% 0,1W
3829	4822 051 30121	120R 5% 0,062W

3830	4822 051 20472	4,7K 5% 0,1W
3831	4822 051 30471	470R 5% 0,062W
3832	4822 051 30471	470R 5% 0,062W
3834	4822 051 30103	10K 5% 0,062W
3837	4822 051 20471	470R 5% 0,1W

3838	4822 051 30471	470R 5% 0,062W
3839	4822 051 30471	470R 5% 0,062W
3840	4822 051 30471	470R 5% 0,062W
3841	4822 051 30472	4,7K 5% 0,062W
3842	4822 051 30102	1K 5% 0,062W

**ELECTRICAL PARTSLIST - CD99/MP3 BOARD****- RESISTORS -**

3843	4822 051 30102	1K 5% 0,062W
3844	4822 051 30101	100R 5% 0,062W
3846	4822 051 20223	22K 5% 0,1W
3847	4822 117 12925	47K 1% 0,063W
3848	4822 116 83933	15K 1% 0,1W

3850	4822 051 30682	6,8K 5% 0,062W
3851	4822 117 10834	47K 1% 0,1W
3852	4822 051 20333	33K 5% 0,1W
3854	4822 051 30472	4,7K 5% 0,062W
3856	4822 051 30683	68K 5% 0,062W

3857	4822 117 13632	100K 1% 0,62W
3858	4822 051 30392	3,9K 5% 0,063W
3859	4822 117 12925	47K 1% 0,063W
3861	4822 051 30683	68K 5% 0,062W
3863	4822 052 10338	3,3R 5% 0,33W

3864	4822 051 20159	15R 5% 0,1W
3865	4822 051 30471	470R 5% 0,062W
3867	4822 051 30223	22K 5% 0,062W
3868	4822 051 30103	10K 5% 0,062W
3869	4822 051 30103	10K 5% 0,062W

3871	4822 051 30471	470R 5% 0,062W
3872	4822 117 12925	47K 1% 0,063W
3873	4822 051 30223	22K 5% 0,062W
3874	4822 051 30223	22K 5% 0,062W
3875	4822 051 30103	10K 5% 0,062W

3876	4822 051 30103	10K 5% 0,062W
3879	4822 117 12925	47K 1% 0,063W
3880	4822 051 30339	33R 5% 0,062W
3881	4822 051 30151	150R 5% 0,062W
3882	4822 117 11373	100R 1% 0805

3883	4822 051 30102	1K 5% 0,062W
3884	4822 051 30102	1K 5% 0,062W
3885	4822 051 30103	10K 5% 0,062W
3886	4822 051 30153	15K 5% 0,062W
3891	4822 051 30273	27K 5% 0,062W

3892	4822 117 11148	56K 1% 0,1W
3893	4822 051 30563	56K 5% 0,062W
3894	4822 051 30103	10K 5% 0,062W
3895	4822 051 30103	10K 5% 0,062W
3896	4822 051 30103	10K 5% 0,062W

3897	4822 051 30103	10K 5% 0,062W
3898	4822 051 30103	10K 5% 0,062W
3899	4822 051 30103	10K 5% 0,062W
3900	4822 051 30223	22K 5% 0,062W
3901	4822 051 30103	10K 5% 0,062W

3902	4822 051 30102	1K 5% 0,062W
3903	4822 051 30102	1K 5% 0,062W
3904	4822 051 30471	470R 5% 0,062W
3905	4822 052 10478	4,7R 5% 0,33W
3906	4822 117 11373	100R 1% 0805

**- RESISTORS -**

3907	4822 117 13608	4,7R 5% 0,0016W
3910	4822 051 30103	10K 5% 0,062W
3915	4822 051 30103	10K 5% 0,062W
3916	4822 051 30471	470R 5% 0,062W
3921	4822 051 30101	100R 5% 0,062W

3927	4822 116 40227	4,6R 25% 12V
3928	4822 051 30103	10K 5% 0,062W
3929	4822 051 30103	10K 5% 0,062W
3930	4822 117 12864	82K 5% 0,6W
3931	4822 051 30103	10K 5% 0,062W

3932	4822 051 30109	10R 5% 0,062W
3933	4822 051 30471	470R 5% 0,062W
3934	4822 051 30471	470R 5% 0,062W
3935	4822 051 30471	470R 5% 0,062W
3936	4822 051 30471	470R 5% 0,062W

3937	4822 051 30101	100R 5% 0,062W
4804	4822 051 30008	0R JUMPER (0603)
4805	4822 051 20008	0R JUMPER (0805)
4806	4822 051 30008	0R JUMPER (0603)
4808	4822 051 30008	0R JUMPER (0603)

4809	4822 051 20008	0R JUMPER (0805)
4810	4822 051 20008	0R JUMPER (0805)
4811	4822 051 20008	0R JUMPER (0805)
4814	4822 051 30008	0R JUMPER (0603)
4818	4822 051 30008	0R JUMPER (0603)

4820	4822 051 30008	0R JUMPER (0603)
4821	4822 051 30008	0R JUMPER (0603)
4823	4822 051 30008	0R JUMPER (0603)
4826	4822 051 20008	0R JUMPER (0805)
4827	4822 051 20008	0R JUMPER (0805)

4830	4822 051 20008	0R JUMPER (0805)
4834	4822 051 30008	0R JUMPER (0603)
4838	4822 051 30008	0R JUMPER (0603)
4839	4822 051 30008	0R JUMPER (0603)
4840	4822 051 20008	0R JUMPER (0805)

4842	4822 051 20008	0R JUMPER (0805)
4845	4822 051 20008	0R JUMPER (0805)
4846	4822 051 30008	0R JUMPER (0603)
4847	4822 051 30008	0R JUMPER (0603)
4848	4822 051 20008	0R JUMPER (0805)

4849	4822 051 30008	0R JUMPER (0603)
4852	4822 051 30008	0R JUMPER (0603)
4853	4822 051 30008	0R JUMPER (0603)
4854	4822 051 30008	0R JUMPER (0603)
4856	4822 051 30008	0R JUMPER (0603)

4857	4822 051 20008	0R JUMPER (0805)
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**ELECTRICAL PARTSLIST - CD99/MP3 BOARD****- COILS & FILTERS -**

1810	2422 543 01068	CRYSTAL 8,4672MHZ
5803	4822 157 11231	1μH 10%
5804	4822 157 11074	100μH
5805	4822 157 11074	100μH
5806	4822 157 11074	100μH
5807	4822 157 11074	100μH
5808	4822 157 11074	100μH
5809	4822 157 11074	100μH

**- DIODES -**

6877	4822 130 11564	UDZ3,9B
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**- IC & TRANSISTORS -**

7800	9352 684 20557	SAA7325H/T/M2B
7802	9352 622 36118	TZA1025T/V2
7808	4822 209 32852	TDA7073A/N2
7809	4822 209 32852	TDA7073A/N2
7810	4822 209 33165	TDA1308T/N1
7875	4822 130 60511	BC847B
7876	4822 130 60511	BC847B

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

**ELECTRICAL PARTSLIST - MP3 DECODER BOARD****- CAPACITORS -**

2900	4822 124 23002	10µF 20% 16V
2901	4822 124 12095	100µF 20% 16V
2903	4822 124 80151	47µF 20% 16V
2905	4822 124 23002	10µF 20% 16V
2906	4822 124 12095	100µF 20% 16V
2908	4822 126 14305	100nF 10% X7R 16V
2910	4822 126 14305	100nF 10% X7R 16V
2911	4822 126 11663	12pF 1% 50V
2912	4822 126 11663	12pF 1% 50V
2913	4822 126 14305	100nF 10% X7R 16V
2914	4822 126 14305	100nF 10% X7R 16V
2915	4822 126 14305	100nF 10% X7R 16V
2916	4822 126 14305	100nF 10% X7R 16V
2917	4822 126 14305	100nF 10% X7R 16V
2918	4822 126 14305	100nF 10% X7R 16V
2919	4822 126 14305	100nF 10% X7R 16V
2920	4822 126 14305	100nF 10% X7R 16V
2921	4822 126 14305	100nF 10% X7R 16V
2922	4822 126 14305	100nF 10% X7R 16V
2923	4822 126 14305	100nF 10% X7R 16V
2924	4822 126 14305	100nF 10% X7R 16V
2925	4822 126 14305	100nF 10% X7R 16V
2934	4822 126 14305	100nF 10% X7R 16V
2935	4822 126 14305	100nF 10% X7R 16V
2936	3198 017 41050	1µF Y5V 10V
2937	3198 017 41050	1µF Y5V 10V
2938	3198 017 41050	1µF Y5V 10V
2941	5322 126 11583	10nF 10% X7R 50V
2942	5322 126 11583	10nF 10% X7R 50V

**- RESISTORS -**

3900	4822 051 30339	33R 5% 0,062W
3901	4822 051 30339	33R 5% 0,062W
3902	4822 051 30339	33R 5% 0,062W
3903	4822 051 30221	220R 5% 0,062W
3904	4822 051 30221	220R 5% 0,062W
3905	4822 051 30221	220R 5% 0,062W
3906	4822 051 30221	220R 5% 0,062W
3907	4822 051 30221	220R 5% 0,062W
3908	4822 051 30221	220R 5% 0,062W
3909	4822 051 30221	220R 5% 0,062W
3910	4822 051 30221	220R 5% 0,062W
3911	4822 051 30221	220R 5% 0,062W
3913	4822 051 30221	220R 5% 0,062W
3914	4822 051 30221	220R 5% 0,062W
3915	4822 051 30221	220R 5% 0,062W

**- RESISTORS -**

3916	4822 051 30339	33R 5% 0,062W
3917	4822 051 30102	1K 5% 0,062W
3918	4822 117 13632	100K 1% 0,62W
3920	4822 117 13632	100K 1% 0,62W
3921	4822 117 13632	100K 1% 0,62W
3922	4822 117 13632	100K 1% 0,62W
3923	4822 117 13632	100K 1% 0,62W
3924	4822 051 30102	1K 5% 0,062W
3925	4822 051 30109	10R 5% 0,062W
3926	4822 051 30109	10R 5% 0,062W
3927	4822 051 30109	10R 5% 0,062W
3928	4822 051 30109	10R 5% 0,062W
3929	5322 117 13035	68K 1% 0,063W
3931	4822 117 12971	15R 5% 0,62W
3932	4822 117 12971	15R 5% 0,62W
3933	4822 117 12971	15R 5% 0,62W
3934	4822 117 12971	15R 5% 0,62W
3935	4822 117 12971	15R 5% 0,62W
3936	4822 117 12971	15R 5% 0,62W
3938	4822 051 30479	47R 5% 0,062W
3939	4822 051 30101	100R 5% 0,062W
3940	4822 051 30101	100R 5% 0,062W
3941	4822 051 30101	100R 5% 0,062W
3942	4822 051 30101	100R 5% 0,062W
3947	4822 117 13632	100K 1% 0,62W
3950	4822 051 30223	22K 5% 0,062W
3951	4822 051 30103	10K 5% 0,062W
3952	4822 051 30103	10K 5% 0,062W
3953	4822 051 30103	10K 5% 0,062W
3954	4822 117 12925	47K 1% 0,063W
3955	4822 051 30223	22K 5% 0,062W
3957	4822 117 13632	100K 1% 0,62W
3958	4822 117 13632	100K 1% 0,62W
3960	5322 117 13039	220K 1% 0,063W
3961	4822 051 30151	150R 5% 0,062W
4901	4822 051 30008	0R JUMPER 0603
4903	4822 051 30008	0R JUMPER 0603
4904	4822 051 30008	0R JUMPER 0603

**- COILS & FILTERS -**

1901	2422 543 01241	CRYSTAL 11,2896MHz
5900	4822 157 71206	FERRITE BEAD
5901	4822 157 71206	FERRITE BEAD
5902	4822 157 71206	FERRITE BEAD
5903	4822 157 71206	FERRITE BEAD
5904	4822 157 71206	FERRITE BEAD
5905	4822 157 71206	FERRITE BEAD
5906	4822 157 71206	FERRITE BEAD
5907	4822 157 71206	FERRITE BEAD
5908	4822 157 71206	FERRITE BEAD

**ELECTRICAL PARTSLIST - MP3 DECODER BOARD****- COILS & FILTERS -**

5911	4822 157 11074	100µH
5912	4822 157 11074	100µH
5913	4822 157 11074	100µH
5914	4822 157 11074	100µH

**- IC & TRANSISTORS -**

7900	9352 629 68135	TDA3663/N1
7901	9322 111 68668	TPS7201QPWR
7902	9322 171 79671	TMS320DA150GGU160
7903	9351 960 10118	74LVC139PW
7904	8240 005 53740	FLASH MEMORY M29W800AT
7905	9322 171 26668	74LCX14T
7906	9322 171 14668	AS4LC256K16E0-60JC R
7907	9322 158 50668	74LCX74T
7910	4822 130 60511	BC847B

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



**ELECTRICAL PARTSLIST - AF BOARD****- MISCELLANEOUS -**

1203	▲	4822 071 53152	FUSE 3,15A
1204	▲	4822 071 53152	FUSE 3,15A
1500		4822 267 10731	CONNECTOR 6P
1501		4822 265 11183	CONNECTOR 4P
1502		4822 267 10958	CONNECTOR 50

1503		4822 265 11184	CONNECTOR 18P
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**- CAPACITORS -**

2200		5322 121 42386	100nF 5% 63V
2201		5322 121 42386	100nF 5% 63V
2202		5322 121 42386	100nF 5% 63V
2203		5322 121 42386	100nF 5% 63V
2204		4822 124 12012	4700µF 20% 25V
2205		3198 017 34730	47nF 10% X7R 16V
2206		4822 124 40433	47µF 20% 25V
2207		4822 126 14305	100nF 10% X7R 16V
2208		4822 126 14305	100nF 10% X7R 16V
2209		5322 126 11583	10nF 10% X7R 50V
2210		4822 124 40207	100µF 20% 25V
2250		4822 124 40196	2,2µF 20% 50V
2251		4822 124 40196	220µF 20% 16V
2252		4822 124 40433	47µF 20% 25V
2254		4822 124 40433	47µF 20% 25V
2304		4822 121 42408	220nF 5% 63V
2305		4822 121 42408	220nF 5% 63V
2306		4822 121 42408	220nF 5% 63V
2307		4822 121 42408	220nF 5% 63V
2309		3198 017 34730	47nF 10% X7R 16V
2310		3198 017 34730	47nF 10% X7R 16V
2312		2020 012 93743	15µF 20% 50V
2313		2020 012 93743	15µF 20% 50V
2314		2020 012 93743	15µF 20% 50V
2315		2020 012 93743	15µF 20% 50V
2316		4822 124 40433	47µF 20% 25V
2317		4822 124 40433	47µF 20% 25V
2318		3198 016 36810	680pF 5% NP0 25V
2319		3198 016 36810	680pF 5% NP0 25V
2320		4822 124 81151	22µF 50V
2324		4822 124 40248	10µF 20% 63V
2325		4822 124 40248	10µF 20% 63V
2332		4822 126 13879	220nF +80-20% 16V
2500		4822 124 41407	0,47µF 20% 63V
2501		4822 124 41407	0,47µF 20% 63V
2502		4822 126 13881	470pF 5% 50V
2503		4822 126 13881	470pF 5% 50V
2504		4822 124 41407	0,47µF 20% 63V
2505		4822 124 41407	0,47µF 20% 63V
2506		4822 126 13881	470pF 5% 50V

**- CAPACITORS -**

2507		4822 126 13881	470pF 5% 50V
2508		3198 017 41050	1 F 10% Y5V 10V
2509		3198 017 41050	1 F 10% Y5V 10V
2510		4822 126 13193	4,7nF10% X7R 63V
2511		4822 126 13193	4,7nF10% X7R 63V
2512		4822 126 14305	100nF 10% X7R 16V
2513		4822 126 14305	100nF 10% X7R 16V
2514		3198 017 34730	47nF 10% X7R 16V
2515		3198 017 34730	47nF 10% X7R 16V
2516		3198 016 31020	1nF 10% NP0 25V
2517		3198 016 31020	1nF 10% NP0 25V
2520		4822 122 31765	100pF 2% NP0 63V
2521		4822 122 33195	100pF 10% 50V
2522		4822 124 41584	100µF 20% 10V
2523		4822 124 40196	220µF 20% 16V
2524		4822 124 41407	0,47µF 20% 63V
2526		4822 124 81151	22µF 50V
2527		4822 124 41584	100µF 20% 10V
2528		4822 124 21913	1µF 20% 63V
2529		4822 124 21913	1µF 20% 63V
2530		4822 126 14549	33nF 10% X7R 16V
2532		4822 126 14494	22nF 10% X7R 25V
2534		4822 126 14305	100nF 10% X7R 16V
2537		4822 126 14305	100nF 10% X7R 16V
2540		4822 124 80195	470µF 20% 10V
2541		4822 124 40248	10µF 20% 63V
2542		4822 124 40248	10µF 20% 63V
2545		3198 017 44740	470nF 10% Y5V 10V
2546		4822 126 14305	100nF 10% X7R 16V
2548		4822 126 14305	100nF 10% X7R 16V
2549		4822 124 22652	2,2µF 20% 50V
2551		4822 126 14491	2,2µF 10V 0805
2552		4822 126 14305	100nF 10% X7R 16V
2553		4822 126 14305	100nF 10% X7R 16V
2557		4822 124 22652	2,2µF 20% 50V
2558		4822 124 22652	2,2µF 20% 50V
2559		3198 016 31020	1nF 10% NP0 25V
2560		3198 016 31020	1nF 10% NP0 25V
2561		3198 016 31020	1nF 10% NP0 25V
2562		3198 016 31020	1nF 10% NP0 25V
2563		3198 016 31020	1nF 10% NP0 25V
2564		4822 126 14305	100nF 10% X7R 16V
2566		4822 126 14305	100nF 10% X7R 16V
2567		4822 126 14305	100nF 10% X7R 16V
2568		4822 126 14305	100nF 10% X7R 16V
2569		4822 126 14305	100nF 10% X7R 16V
2571		4822 124 40207	100 F 20% 25V
2572		4822 126 14494	22nF 10% X7R 25V
2573		4822 126 14494	22nF 10% X7R 25V
2575		5322 126 11579	3,3nF 10% X7R 63V



**ELECTRICAL PARTSLIST - AF BOARD****- RESISTORS -**

3200	4822 051 30333	33K 5% 0,062W
3201	4822 051 30333	33K 5% 0,062W
3202	4822 116 83883	470R 5% 0,5W
3203	4822 117 12925	47K 1% 0,063W
3204	4822 051 30103	10K 5% 0,062W
3205	4822 051 30103	10K 5% 0,062W
3209	4822 051 30223	22K 5% 0,062W
3210	4822 051 30472	4,7K 5% 0,062W
3211	4822 116 52213	180R 5% 0,5W
3212	4822 116 52213	180R 5% 0,5W
3250	4822 050 24708	4,7R 1% 0,6W
3251	4822 051 30332	3,3K 5% 0,062W
3252	4822 116 52231	820R 5% 0,5W
3253	4822 116 52219	330R 5% 0,5W
3254	4822 116 83883	470R 5% 0,5W
3255	4822 116 52226	560R 5% 0,5W
3256	4822 050 24708	4,7R 1% 0,6W
3257	4822 050 24708	4,7R 1% 0,6W
3258	4822 050 24708	4,7R 1% 0,6W
3259	4822 117 12925	47K 1% 0,063W
3260	4822 050 11002	1K 1% 0,4W
3261	4822 051 30103	10K 5% 0,062W
3262	4822 116 52226	560R 5% 0,5W
3263	4822 050 24708	4,7R 1% 0,6W
3264	4822 050 24708	4,7R 1% 0,6W
3265	4822 116 52226	560R 5% 0,5W
3266	4822 116 81154	2,2R 5% 0,5W
3270	4822 116 81154	2,2R 5% 0,5W
3271	4822 116 81154	2,2R 5% 0,5W
3272	4822 051 30102	1K 5% 0,062W
3273	4822 051 30332	3,3K 5% 0,062W
3276	4822 051 30471	470R 5% 0,062W
3277	4822 116 52231	820R 5% 0,5W
3278	4822 051 30102	1K 5% 0,062W
3280	4822 116 83876	270R 5% 0,5W
3281	4822 116 83876	270R 5% 0,5W
3282	4822 116 83883	470R 5% 0,5W
3283	4822 051 30102	1K 5% 0,062W
3286	4822 117 12925	47K 1% 0,063W
3291	4822 051 30102	1K 5% 0,062W
3304	4822 116 52289	5,6K 5% 0,5W
3305	4822 116 52289	5,6K 5% 0,5W
3306	4822 051 30472	4,7K 5% 0,062W
3307	4822 051 30472	4,7K 5% 0,062W
3308	4822 050 21003	10K 1% 0,6W
3309	4822 050 21003	10K 1% 0,6W
3310	4822 050 21003	10K 1% 0,6W
3311	4822 050 21003	10K 1% 0,6W
3312	4822 117 13613	2,2R 5% 0603
3313	4822 117 13613	2,2R 5% 0603

**- RESISTORS -**

3314	4822 117 13613	2,2R 5% 0603
3315	4822 117 13613	2,2R 5% 0603
3318	4822 051 30102	1K 5% 0,062W
3319	4822 051 30102	1K 5% 0,062W
3320	4822 051 30223	22K 5% 0,062W
3321	4822 051 30223	22K 5% 0,062W
3323	4822 116 52283	4,7K 5% 0,5W
3327	4822 117 12925	47K 1% 0,063W
3328	4822 117 12925	47K 1% 0,063W
3329	4822 117 13632	100K 1% 0,062W
3330	4822 051 30101	100R 5% 0,062W
3331	4822 117 12891	220K 1%
3332	4822 117 12902	8,2K 1% 0,063W
3348	4822 117 12903	1,8K 1% 0,063W
3349	4822 116 83883	470R 5% 0,5W
3350	4822 117 12968	820R 5% 0,62W
3351	4822 117 12891	220K 1%
3500	4822 051 30682	6,8K 5% 0,062W
3501	4822 051 30682	6,8K 5% 0,062W
3502	4822 051 30223	22K 5% 0,062W
3503	4822 051 30223	22K 5% 0,062W
3504	4822 051 30472	4,7K 5% 0,062W
3505	4822 051 30472	4,7K 5% 0,062W
3506	4822 117 12903	1,8K 1% 0,063W
3507	4822 117 12903	1,8K 1% 0,063W
3508	4822 051 30102	1K 5% 0,062W
3509	4822 051 30102	1K 5% 0,062W
3510	4822 051 30223	22K 5% 0,062W
3511	4822 051 30223	22K 5% 0,062W
3512	4822 051 30472	4,7K 5% 0,062W
3513	4822 051 30472	4,7K 5% 0,062W
3516	4822 051 30471	470R 5% 0,062W
3517	4822 051 30471	470R 5% 0,062W
3518	4822 051 30102	1K 5% 0,062W
3519	4822 050 11002	1K 1% 0,4W
3523	4822 116 83883	470R 5% 0,5W
3524	4822 116 83883	470R 5% 0,5W
3527	4822 117 12925	47K 1% 0,063W
3528	4822 051 30102	1K 5% 0,062W
3529	4822 051 30223	22K 5% 0,062W
3530	4822 116 83872	220R 5% 0,5W
3531	4822 116 83883	470R 5% 0,5W
3532	4822 051 30471	470R 5% 0,062W
3533	4822 117 12925	47K 1% 0,063W
3534	4822 117 12925	47K 1% 0,063W
3535	4822 117 13632	100K 1% 0,062W
3536	4822 117 13632	100K 1% 0,062W
3537	4822 051 30563	56K 5% 0,062W
3538	4822 051 30563	56K 5% 0,062W
3539	4822 051 30333	33K 5% 0,062W

**ELECTRICAL PARTSLIST - AF BOARD****- RESISTORS -**

3540	4822 051 30103	10K 5% 0,062W
3541	4822 117 12902	8,2K 5% 0,062W
3542	4822 051 30153	15K 5% 0,062W
3543	4822 051 30273	27K 5% 0,062W
3544	4822 051 30683	68K 5% 0,062W

3545	4822 051 30103	10K 5% 0,062W
3546	4822 116 52245	150K 5% 0,5W
3547	4822 051 30154	150K 5% 0,062W
3548	4822 117 13632	100K 1% 0,062W
3549	4822 117 13632	100K 1% 0,062W

3550	4822 051 30102	1K 5% 0,062W
3551	4822 050 11002	1K 1% 0,4W
3552	4822 051 30101	100R 5% 0,062W
3553	4822 051 30101	100R 5% 0,062W
3554	4822 051 30154	150K 5% 0,062W

3555	4822 051 30154	150K 5% 0,062W
3556	4822 051 30102	1K 5% 0,062W
3557	4822 050 11002	1K 1% 0,4W
3558	4822 051 30102	1K 5% 0,062W
3559	4822 116 83884	47K 5% 0,5W

3560	4822 051 30123	12K 5% 0,062W
3561	4822 051 30472	4,7K 5% 0,062W
3562	4822 051 30472	4,7K 5% 0,062W
3563	4822 051 30103	10K 5% 0,062W
3564	4822 117 12925	47K 1% 0,063W

3565	4822 051 30102	1K 5% 0,062W
3566	4822 051 30102	1K 5% 0,062W
3567	4822 051 30563	56K 5% 0,062W
3568	4822 051 30123	12K 5% 0,062W
3569	4822 117 12864	82K 5% 0,6W

3570	4822 050 21003	10K 1% 0,6W
3571	4822 051 30334	330K 5% 0,062W
3572	4822 051 30154	150K 5% 0,062W
3573	4822 116 83874	220K 5% 0,5W
3574	4822 116 52238	12K 5% 0,5W

3575	4822 051 30123	12K 5% 0,062W
3576	4822 116 52175	100R 5% 0,5W
3577	4822 116 52175	100R 5% 0,5W
3580	4822 117 12903	1,8K 1% 0,063W
3581	4822 051 30103	10K 5% 0,062W

3583	4822 051 30102	1K 5% 0,062W
3584	4822 051 30472	4,7K 5% 0,062W
3585	4822 051 30472	4,7K 5% 0,062W
3586	4822 051 30273	27K 5% 0,062W
3587	4822 051 30183	18K 5% 0,062W

3588	4822 051 30102	1K 5% 0,062W
3589	4822 051 30471	470R 5% 0,062W
3590	4822 051 30471	470R 5% 0,062W
3591	4822 051 30471	470R 5% 0,062W
3592	4822 051 30471	470R 5% 0,062W

**- RESISTORS -**

3594	4822 051 30102	1K 5% 0,062W
3595	4822 051 30101	100R 5% 0,062W
3596	4822 051 30103	10K 5% 0,062W
3597	4822 051 30562	5,6K 5% 0,063W
3598	4822 051 30103	10K 5% 0,062W

3599	4822 117 12891	220K 5% 0,062W
4301	4822 051 30008	0R JUMPER 0603
4501	4822 051 30008	0R JUMPER 0603
4502	4822 051 30008	0R JUMPER 0603
4504	4822 051 30008	0R JUMPER 0603

4505	4822 051 30008	0R JUMPER 0603
4506	4822 051 30008	0R JUMPER 0603
4508	4822 051 30008	0R JUMPER 0603
4509	4822 051 30008	0R JUMPER 0603
4515	4822 051 30008	0R JUMPER 0603

4516	4822 051 30008	0R JUMPER 0603
4517	4822 051 30008	0R JUMPER 0603
4518	4822 051 30008	0R JUMPER 0603
4519	4822 051 30008	0R JUMPER 0603
4520	4822 051 30008	0R JUMPER 0603

4521	4822 051 30008	0R JUMPER 0603
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**- COILS & FILTERS -**

5300	4822 157 11837	0,36UH 10%
5301	4822 157 11837	0,36UH 10%
5302	4822 157 11837	0,36UH 10%
5303	4822 157 11837	0,36UH 10%
5500	2422 549 44393	IND FXD 100MHZ 2K7

5501	4822 157 10686	CHOKE COIL 0,47UH
5502	4822 157 62552	2,2UH
5503	4822 157 11074	100UH
5504	4822 157 11074	100UH
5505	2422 549 44919	IND FXD 100MHZ 600R

5506	2422 549 44919	IND FXD 100MHZ 600R
5507	2422 549 44393	IND FXD 100MHZ 2K7

**- DIODES -**

6200	4822 130 82079	D3SBA20
6202	4822 130 30621	1N4148
6204	4822 130 30621	1N4148
6205	4822 130 30621	1N4148
6206	4822 130 30621	1N4148

6208	4822 130 30621	1N4148
6211	4822 130 34278	BZX79-B6V8
6252	4822 130 34278	BZX79-B6V8
6257	3198 010 53380	BZX79-B3V3
6303	5322 130 34331	BAV70

**ELECTRICAL PARTSLIST - AF BOARD****- DIODES -**

6502	4822 130 30621	1N4148
6503	4822 130 30621	1N4148
6504	4822 130 83757	BAS216
6505	4822 130 83757	BAS216
6506	4822 130 30621	1N4148
6507	4822 130 61219	BZX79-B10

**- IC & TRANSISTORS -**

7250	9322 139 24687	BDW94CFP
7252	5322 130 42755	BC847C
7253	4822 130 41246	BC327-25
7254	4822 130 60511	BC847B
7257	4822 130 41246	BC327-25
7258	4822 130 41246	BC327-25
7259	4822 130 60511	BC847B
7263	4822 130 60511	BC847B
7264	4822 130 41246	BC327-25
7265	4822 130 60511	BC847B
7267	4822 130 60373	BC856B
7268	4822 130 60373	BC856B
7269	4822 130 60511	BC847B
7300	9322 133 18682	AN7125P
7301	4822 130 60373	BC856B
7302	4822 130 60373	BC856B
7303	4822 130 60511	BC847B
7500	9322 150 74668	TDA7468D
7501	4822 209 60177	LM339D
7502	4822 209 63709	LM324D
7503	4822 130 41246	BC327-25
7504	4822 130 60511	BC847B
7505	5322 130 44647	BC368
7506	4822 130 40959	BC547B
7507	4822 130 40959	BC547B
7508	4822 130 40959	BC547B
7509	4822 130 60511	BC847B
7510	5322 130 44593	BC369
7511	4822 130 60511	BC847B

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

**ELECTRICAL PARTSLIST - MISCELLANEOUS****- MISCELLANEOUS -**

1001	▲	2422 030 00333	AC SOCKET (VDE)
1001	▲	4822 265 20706	AC SOCKET (UL)
1002		4822 276 13963	CD DOOR SWITCH
1003		2422 264 00446	LOUDSPEAKER 8 OHM 10W
1004		2422 264 00446	LOUDSPEAKER 8 OHM 10W
1005		2422 264 00396	LOUDSPEAKER TWEETER
1006		2422 264 00396	LOUDSPEAKER TWEETER
1007	▲	4822 277 21794	VOLTAGE SELECTOR (/11)
1070	▲	3140 118 33150	TFM POWER EI-57 230V
1070	▲	3140 118 33160	TFM POWER EI-57 120/230V
1070	▲	3140 118 33170	TFM POWER EI-57 120V UL
8201		3140 110 22130	FFC FOIL 4P 280MM AD
8202		3140 110 22140	FFC FOIL 5P 280MM AD
8204		3140 110 22180	FFC FOIL 18P 120MM AD
8206		3140 110 22190	FFC FOIL 06P 80MM AD
8401		3140 110 22170	FFC FOIL 11P 220MM AD
8403		3140 110 21940	FFC FOIL 10P 340MM AD
8405		3140 110 21950	FFC FOIL 12P 180MM AD

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

