

Service
Service
Service



Service Manual



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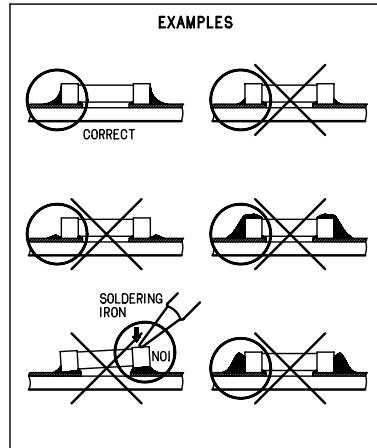
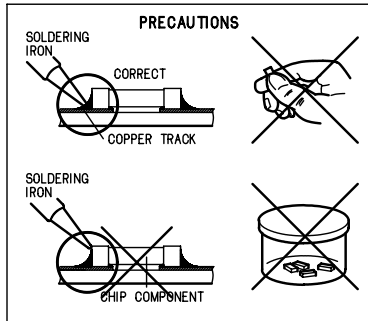
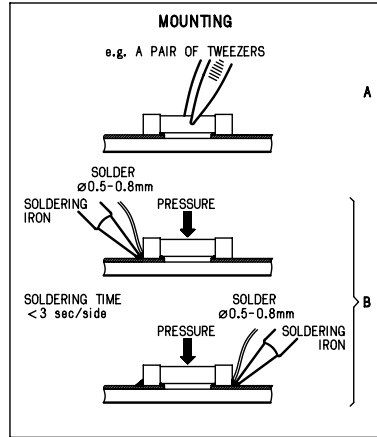
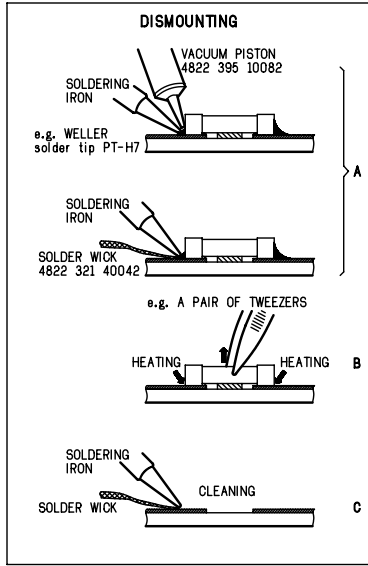
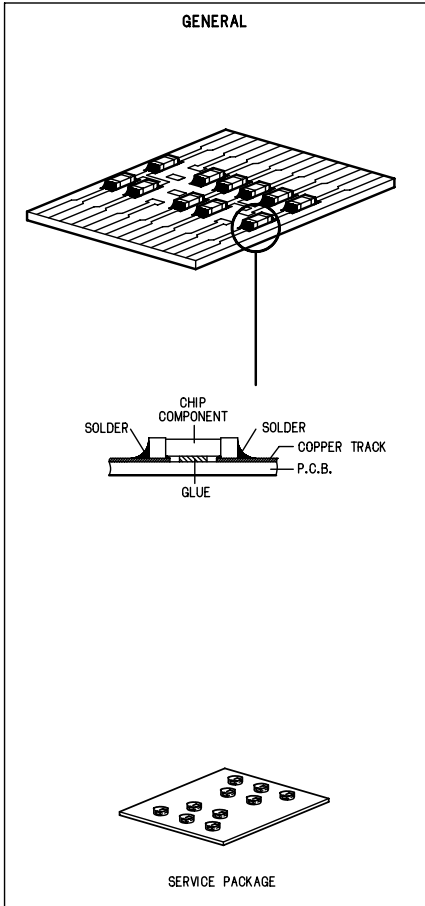
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HANDLING CHIP COMPONENTS



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.



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 sertit 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). Unsorgfältige 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 braccialetto a resistenza. Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

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



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

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

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

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.



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.

S Varning !
Osynlig laserstrålning när apparaten är öppnad och spårren 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 suoalukituksen ohitettaessa olet alltiina näkymättömälle laserisäteilylle. Älä katso säteeseen !

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

TECHNICAL SPECIFICATIONS

GENERAL

Mains voltage	-/00/05/14 : 230 V
	-/01 : 120 / 230 V
	/10 : 240V
	-/17 : 120 V
Mains freq.	-/00/05/10/14 : 50 Hz
	-/01 : 50 / 60 Hz
	-/17 : 60 Hz
Battery	main set : 9 V (R20, UM1 x 6)
	remote : 3V (R03, AAA x 2)
Power consumption	: < 35 W (max.)
Dimension (W x H x D)	: 471 x 153 x 251 mm
Weight	: 3.8 Kg

AMPLIFIER

Output power	mains : 2 x 1.6 W
	battery : 2 x 1.6 W
Speaker impedance	: 2 x 4 ohm
Frequency response	:
	BASS - 100 Hz : +6 / -14 dB
	MID - 1K Hz : +8 / -8 dB
	HIGH - 10K Hz : +10 / -10 dB
	DBB on : +8 dB

TUNER - FM SECTION

Tuning range	: 87.5 - 108 MHz
	65.81 - 74 MHz (/14 only)
IF frequency	: 10.7 MHz \pm 0.2 MHz
Sensitivity	: 20 dBf 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
IF frequency	: 450 kHz \pm 1 kHz
Sensitivity	MW : 3200 μ V/m at 26dB S/N
	LW : 5500 μ V/m at 26dB S/N
Selectivity	MW : 22 dB
	LW : 29 dB
IF rejection	MW : 64 dB
	LW : 60 dB
Image rejection	MW : 32 dB
	LW : 38 dB

AUDIO CASSETTE RECORDER

Number of tracks	: 1 stereo
Tape speed	: 4.76 cm/sec \pm 3%
Wow & flutter	: < 0.48 JIS UWTD
Fast wind/rewind C60	: < 110 sec.
Frequency response	P/B : 125 - 8000 Hz
S/N ratio	: > 36 dB (R/P)
Erasing ratio	: > 50 dB
Bias frequency	: 73 \pm 1.5 kHz

COMPACT DISC

Frequency response	: 100 Hz - 10 kHz \pm 2dB
S/N ratio	: 60 dB
Channel difference	1 kHz : 2 dB
Channel crosstalk	1 kHz : 40 dB
Laser wavelength	: 780 \pm 20 nm
Laser light power	: < 0.5 mW

SERVICE TOOLS

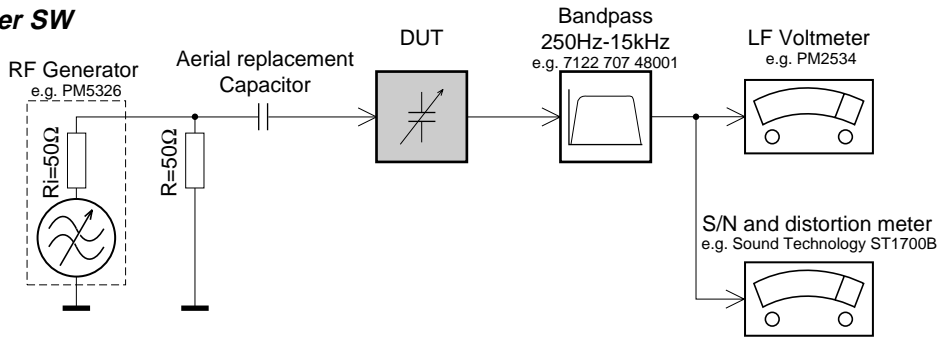
Audio signal disc SBC 429.....	4822 397 30184
Playability test disc SBC 444.....	4822 397 30245
Test disc 5 (disc without errors) +	
Test disc 5A (disc with dropout errors, black spots and fingerprints)	
SBC 426/426A.....	4822 397 30096
Burn in test disc (65 min. 1kHz signal at -30 dB level without "pause").....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

AVAILABLE ESD PROTECTION EQUIPMENT

anti-static table mat	large 1200x650x1.25mm	4822 466 10953
	small 600x650x1.25m	4822 466 10958
anti-static wristband		4822 395 10223
connection box (3 press stud connections, 1M)		4822 320 11307
extendible cable (2m, 2M, to connect wristband to connection box)		4822 320 11305
connecting cable (3m, 2M, to connect table mat to connection box)		4822 320 11306
earth cable (1M, 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

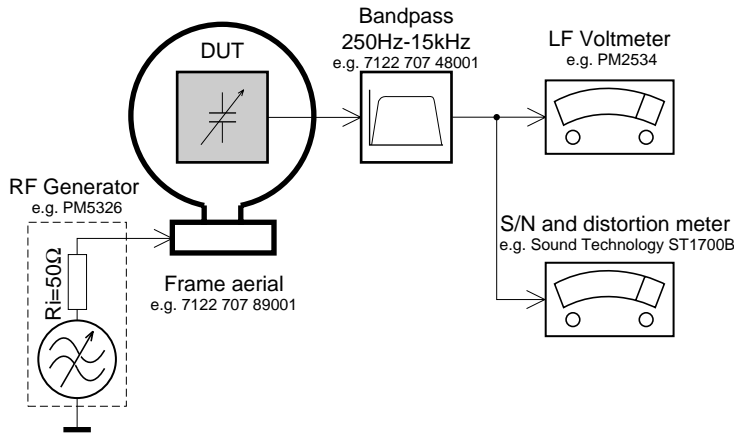
SERVICE MEASUREMENT

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).

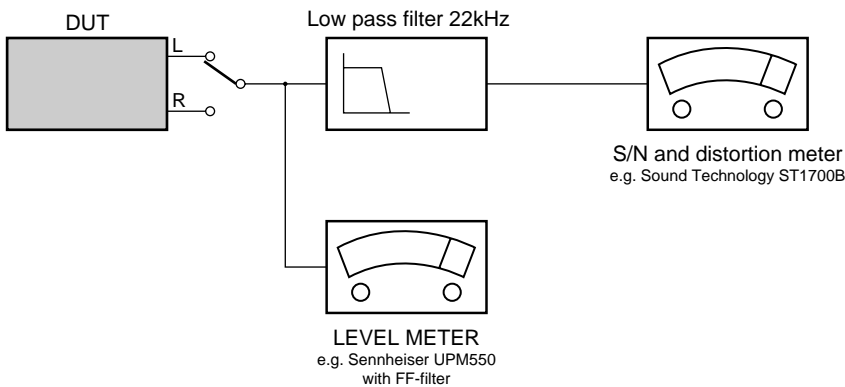
Tuner AM (MW,LW)



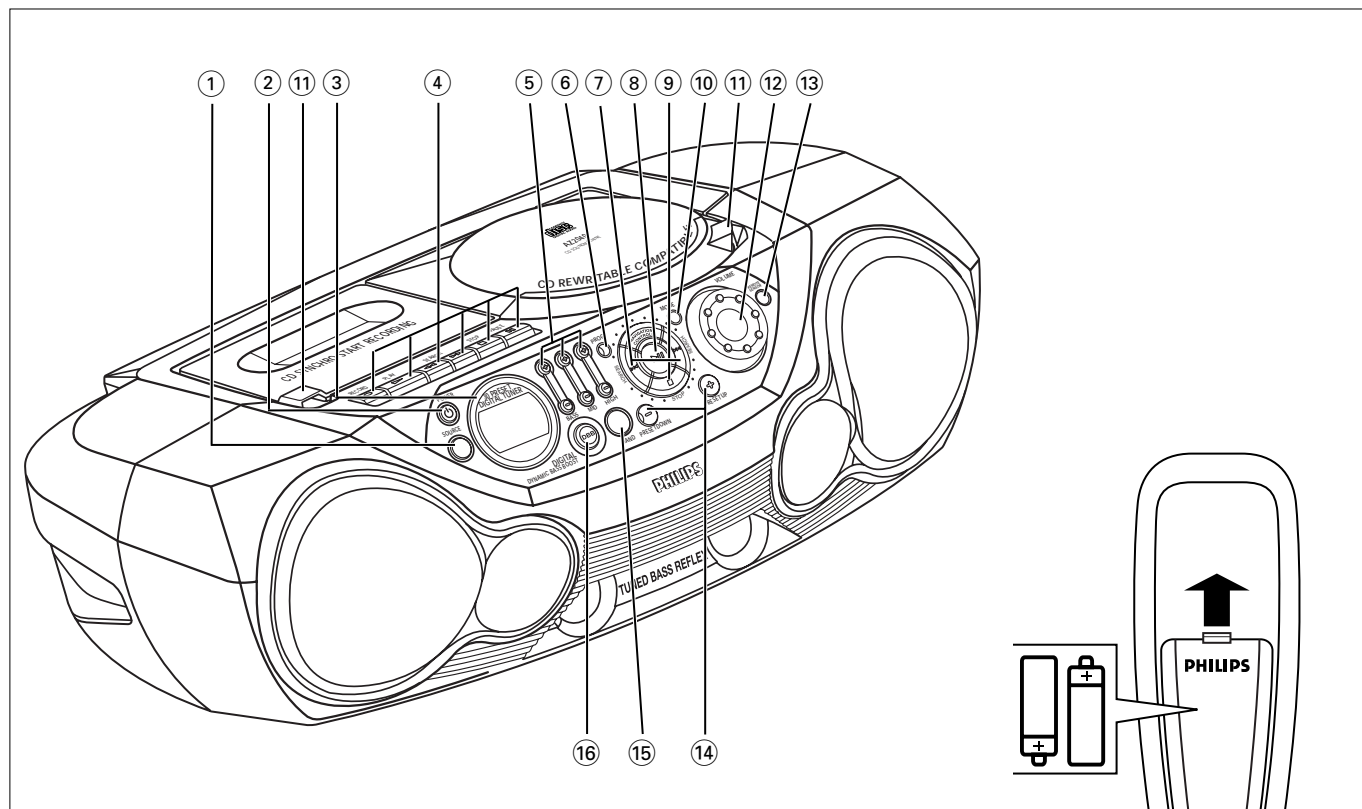
To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's cage.

CD

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



CONNECTIONS AND CONTROLS



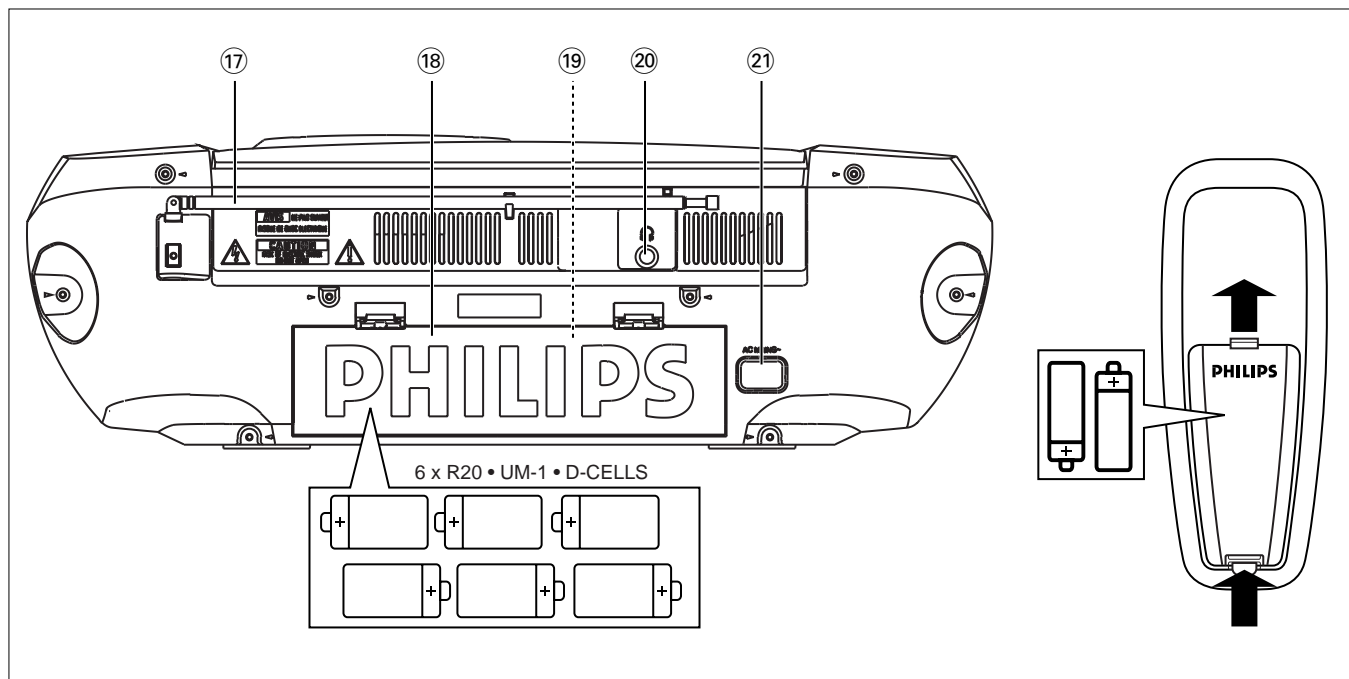
TOP AND FRONT PANELS

- ① **SOURCE** – selects CD/ TUNER / TAPE function
- ② ϕ – power on/ off switch
- ③ **Display** – shows the status of the set
- ④ **Cassette recorder keys**
 - RECORD** ● – starts recording
 - PLAY** ► – starts playback
 - SEARCH** ◀▶ – fast winds/rewinds tape
 - STOP** ■ – stops tape
 - PAUSE** || – pauses playback or recording
- ⑤ **BASS, MID, HIGH** – EQ keys to adjust the bass, mid & treble frequencies
- ⑥ **PROG**
 - CD:** programs tracks and reviews the program;
 - Tuner:** programs preset radio stations
- Navigation controls**
- ⑦ ◀▶
 - CD:**
 - searches back and forward within a track;
 - skips to the beginning of a current track/ previous/ later track
 - Tuner:** – tunes to radio stations (*down, up*).
- ⑧ ►|| – starts or pauses CD playback
- ⑨ ■ – stops CD playback;
 - erases a CD program
- ⑩ **MODE** – selects different play modes:
 - e.g. **REPEAT** or **SHUFFLE** (random) order
- ⑪ **Door** – lift at the respective door to open cassette/ tape or cd compartment
- ⑫ **VOLUME** – to adjust volume level
- ⑬ **REMOTE SENSOR** (*for AZ2045 model only*) – infrared sensor for remote control
- ⑭ **PRESET DOWN/ UP** (–, +) – selects a preset tuner station (*down, up*)
- ⑮ **BAND** – selects waveband
- ⑯ **DBB** – (Dynamic Bass Boost) activates a more vivid bass response

REMOTE CONTROL (*for AZ2045 only*)

- ① **CD** – selects CD sound source
- ② ϕ – 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 ϕ button.
- ③ **VOLUME** ▲, ▼ – adjusts volume level (*up, down*)
- ④ **SHUFFLE** – plays all CD tracks in random order
- ⑤ **BASS** – selects DBB on/off
- ⑥ ►|| – starts/ pauses CD playback
- ⑦ **SEARCH** ◀, ▶ – searches backwards/ forwards within a track
- ⑧ **BAND** – selects FM/ MW (AM) waveband
- ⑨ **PRESET** +, – – selects a preset radio station (*up, down*)
- ⑩ **TUNING** ◀▶ – tunes to tuner stations (*down, up*)
- ⑪ **TUNER** – selects tuner sound source
- ⑫ ■ – stops CD playback;
 - erases a 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 CD

CONNECTIONS AND CONTROLS



BACK PANEL

- ⑰ **Telescopic aerial** – improves FM reception
- ⑱ **Battery compartment** – for 6 batteries, type R-20, UM1 or D-cells
- ⑲ **Voltage selector** (*inside battery compartment, some versions only*) – adjust to match the local voltage 110/220V before plugging in the set
- ⑳ **🎧** – 3.5 mm stereo headphone socket
Note: The speakers will be muted when headphones are connected to the set.
- ㉑ **AC MAINS** – inlet for mains lead

POWER SUPPLY

Whenever convenient, use the power supply to conserve battery life. Make sure you remove the power plug from the set and wall outlet before inserting batteries.

Batteries (*not included*)

- Insert 6 batteries, type **R-20, UM-1 or D-cells**, (preferably alkaline) with the correct polarity.

Remote control (*for AZ2045 only*)

- Insert 2 batteries, type **AAA, R03 or UM4** (preferably alkaline).

Incorrect use of batteries can cause electrolyte leakage and will corrode the compartment or cause the batteries to burst.

- *Do not mix battery types:* e.g. alkaline with carbon zinc. Only use batteries of the same type for the set.
- When inserting new batteries, do not try to mix old batteries with the new ones.
- **Batteries contain chemical substances, so they should be disposed of properly.**

Using AC Power

- 1** Check if the power supply, as shown on **the type plate located on the bottom of the set**, corresponds to your local power supply. If it does not, consult your dealer or service centre.
- 2** If your set is equipped with a voltage selector, adjust the selector so that it matches with the local mains.
- 3** Connect the mains lead to the wall socket.
- 4** To disconnect the mains supply, unplug the set from the wall socket.

Auto-Standby mode

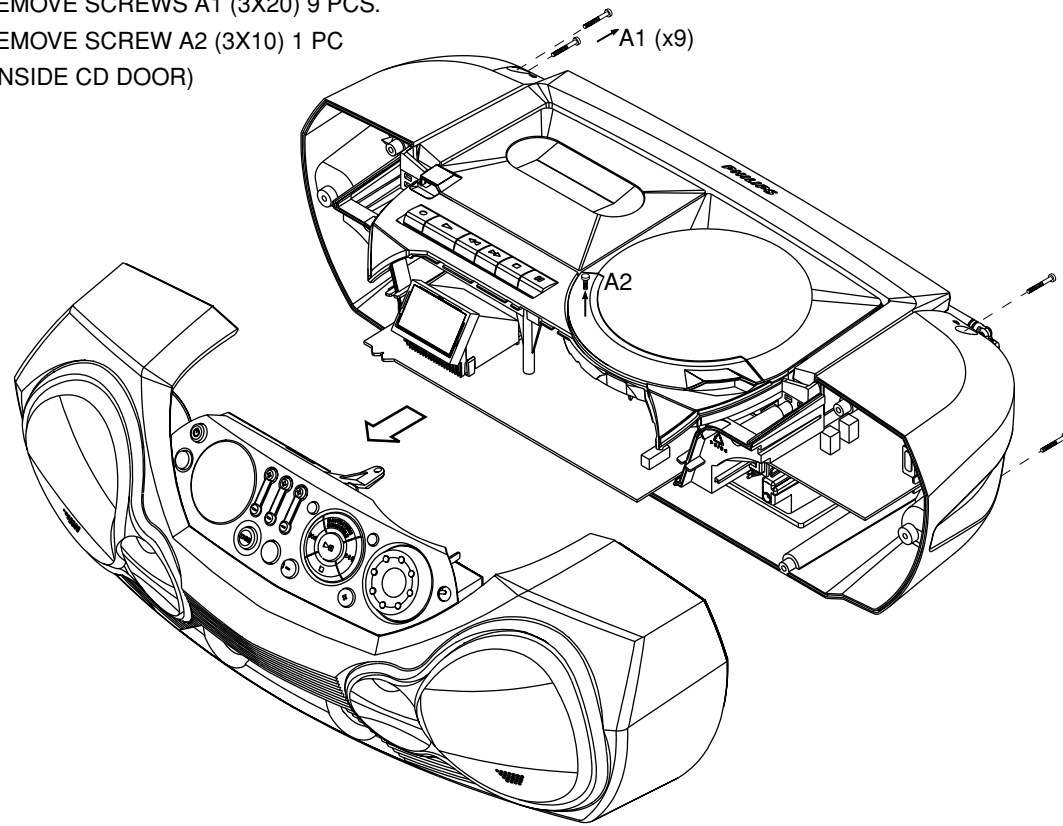
When a CD or tape has reached the end of playback and remains in the stop position for more than 15 minutes, the set will switch off automatically to save power.

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

DISASSEMBLY DIAGRAM

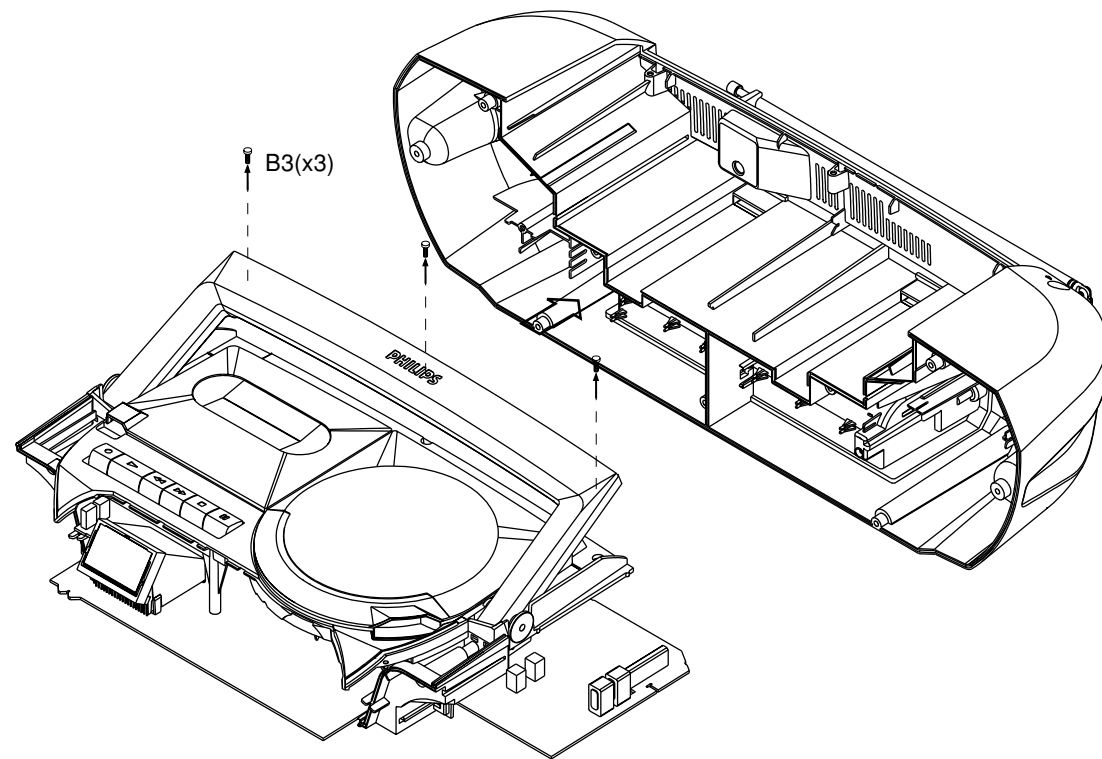
A. REMOVE FRONT CABINET ASSEMBLY

- REMOVE SCREWS A1 (3X20) 9 PCS.
- REMOVE SCREW A2 (3X10) 1 PC
(INSIDE CD DOOR)



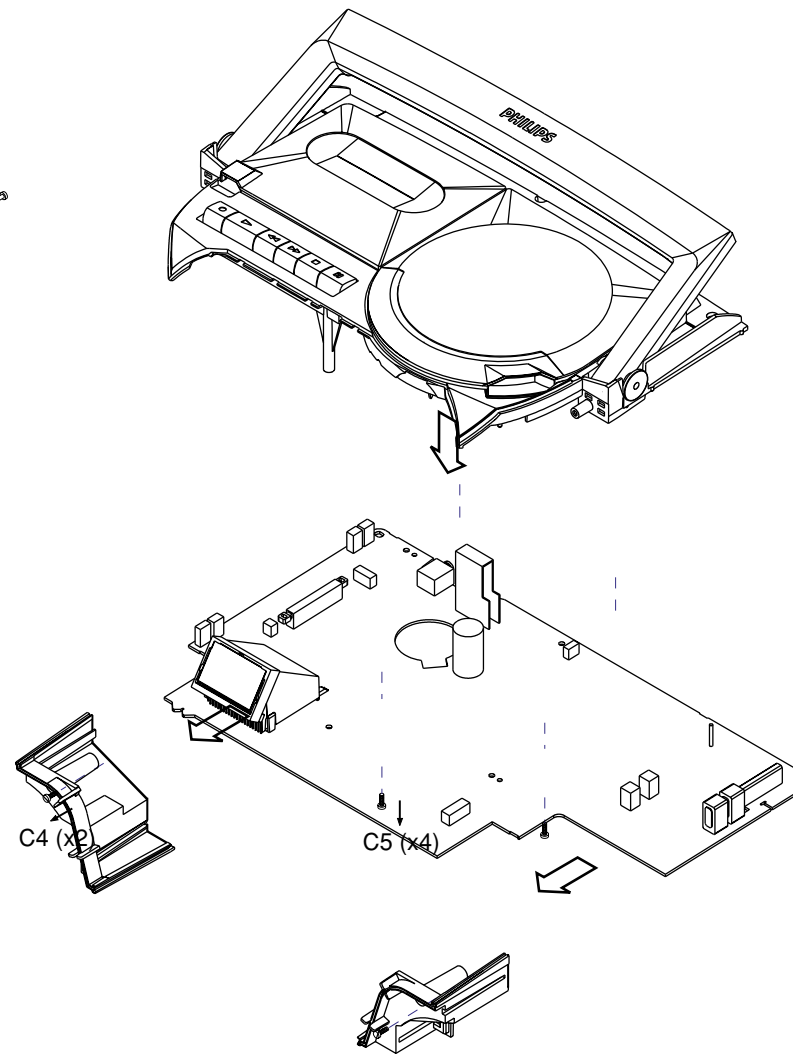
B. REMOVE BACK CABINET ASSEMBLY.

- REMOVE SCREWS B3 (3X10) 3 PCS.



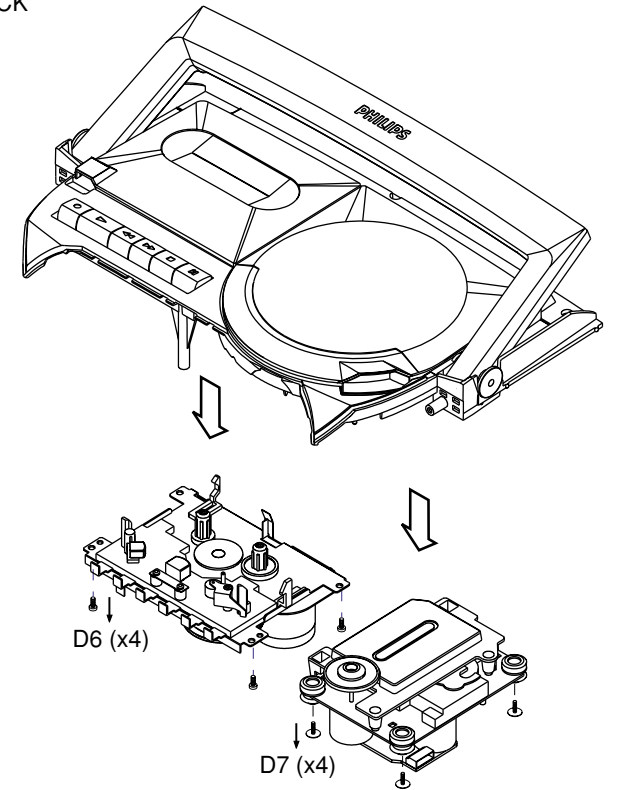
C. REMOVE COMBI BOARD ASSEMBLY

- REMOVE SCREWS C4 (3X10) 2 PCS.
- REMOVE FIXING BRACKETS
- REMOVE SCREWS C5 (3X10) 4 PCS.



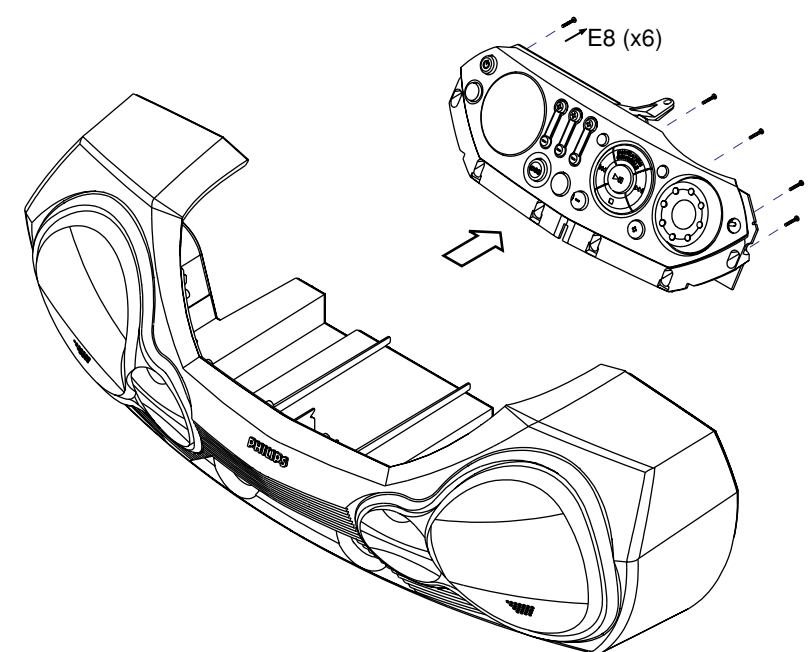
D. REMOVE DECK MECHANISM

- REMOVE SCREWS D6 (3X8) 4 PCS.
- REMOVE CASSETTE DECK
- REMOVE SCREWS D7 (2.5X10) 4 PCS.
- REMOVE CD DECK



E. REMOVE CD PANEL-FRONT ASSEMBLY

- REMOVE SCREWS E8 (2.5X10) 6 PCS.



SERVICE TEST PROGRAM

- * STOP button pressed in any step returns to begin of Service Testprogram.
- * To leave Service Testprogram press POWER to switch off.
- * Door switch is ignored → CD door can be opened.
- * Volume up/down buttons function independently of the service testprogram.

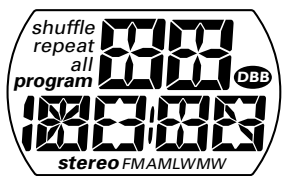
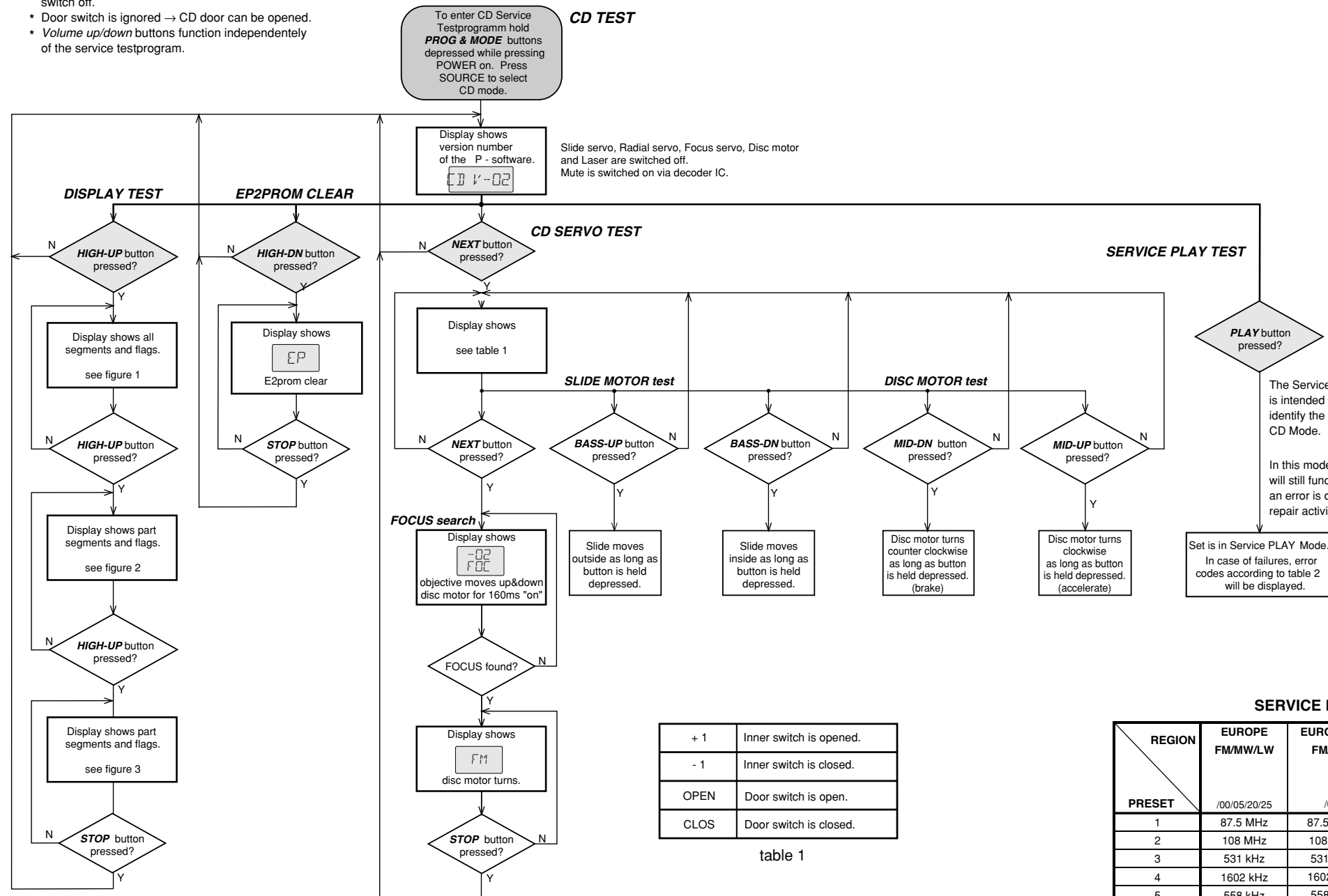


figure 1

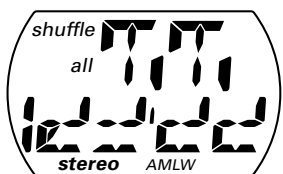


figure 2

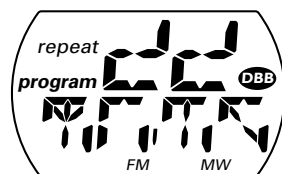


figure 3

+ 1	Inner switch is opened.
- 1	Inner switch is closed.
OPEN	Door switch is open.
CLOS	Door switch is closed.

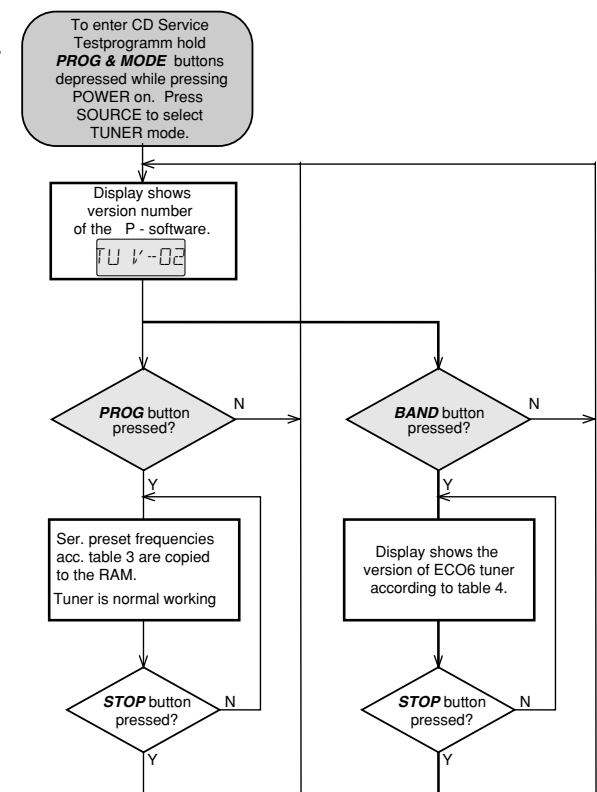
table 1

CD ERROR CODES

Error code	Error description
Err 1	No Focus found.
Err 2	Time out error for disc motor reach the normal speed.
Err 3	Focus error during tracking initialization.
Err 4	Subcode error on play mode.
Err 5	Focus error on play mode.
Err 6	Radial error on search mode.
Err 7	Focus error

table 2

TUNER TEST



SERVICE PRESET FREQUENCIES

REGION	EUROPE FM/MW/LW	EUROPE2B FM/MW	OVERSEAS FM/MW	EAST-EUROPE FM/MW	USA FM/MW
PRESET	/00/05/20/25	/00	¹⁾ Grid switchable 10-100kHz/9-50kHz /01/21	/14	/14/17/37
1	87.5 MHz	87.5 MHz	87.5 MHz	65.81 MHz	87.5 MHz
2	108 MHz	108 MHz	108 MHz	108 MHz	108 MHz
3	531 kHz	531 kHz	531/530 KHz	74 MHz	530 kHz
4	1602 kHz	1602 kHz	1602/1700 kHz	87.5 MHz	1700 kHz
5	558 kHz	558 kHz	558/560 kHz	531 kHz	560 kHz
6	1494 kHz	1494 kHz	1494/1500 kHz	1602 kHz	1500 kHz
7	153 kHz	-	-	558 kHz	-
8	279 kHz	-	-	1494 kHz	-
9	198 kHz	-	-	-	-
10	-	-	-	-	-
11	-	-	-	-	-
12	-	-	-	-	-
13	-	-	-	-	-

table 3

TUNER VERSION

VERS	REGION
01	/00 EUROPE - 3 BAND
06	/00 EUROPE - 2 BAND
10	/01 OVERSEAS
14	/14 EAST EUROPE
17	/17 USA

table 4

1) How to set frequency grid:

AM - 9 kHz / FM - 50 kHz : Hold **MODE** with the **PRESET DOWN** simultaneously and then switch to **TUNER**.

AM - 10 kHz / FM - 100 kHz : Hold **MODE** with the **PRESET UP** simultaneously and then switch to **TUNER**.

Selected frequency grid is stored in the EEPROM.

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

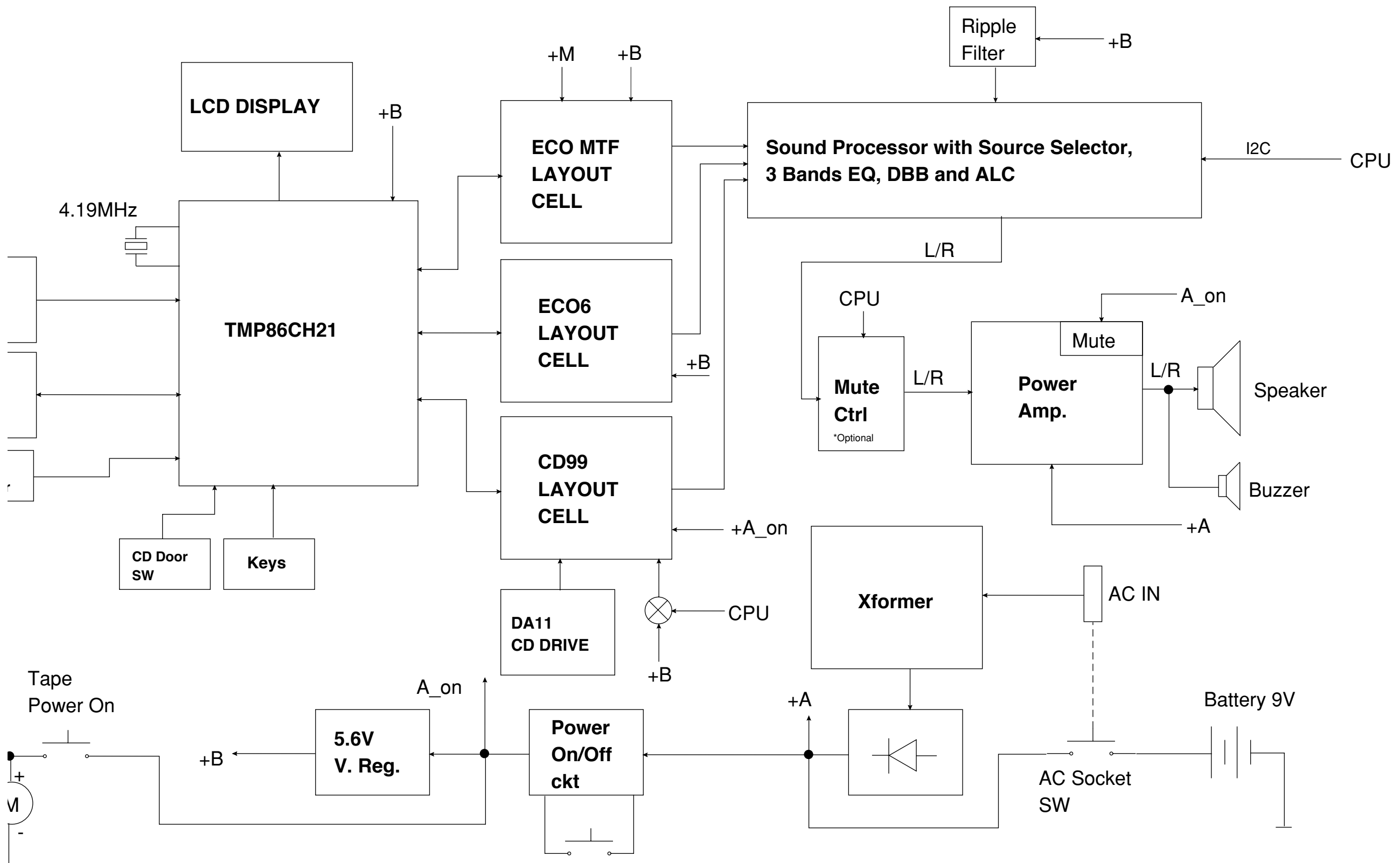
SYMBOL	PIN	DESCRIPTION
HFREF	1	comparator common mode input
HFIN	2	comparator signal input
ISLICE	3	current feedback output from data slicer
V _{SSA1}	4 ⁽¹⁾	analog ground 1
V _{DDA1}	5 ⁽¹⁾	analog supply voltage 1
I _{ref}	6	reference current output pin
V _{RIN}	7	reference voltage for servo ADC's
D1	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 _{SSA2}	14 ⁽¹⁾	analog ground 2
CROUT	15	crystal/resonator output
CRIN	16	crystal/resonator input
V _{DDA2}	17 ⁽¹⁾	analog supply voltage 2
LN	18	DAC left channel differential output - negative
LP	19	DAC left channel differential output - positive
V _{neg}	20	DAC negative reference input
V _{pos}	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 _{SSD1}	33 ⁽¹⁾	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**Abbreviations and Pin-description of CD Ics****SERVO PROCESSOR SAA7325H**

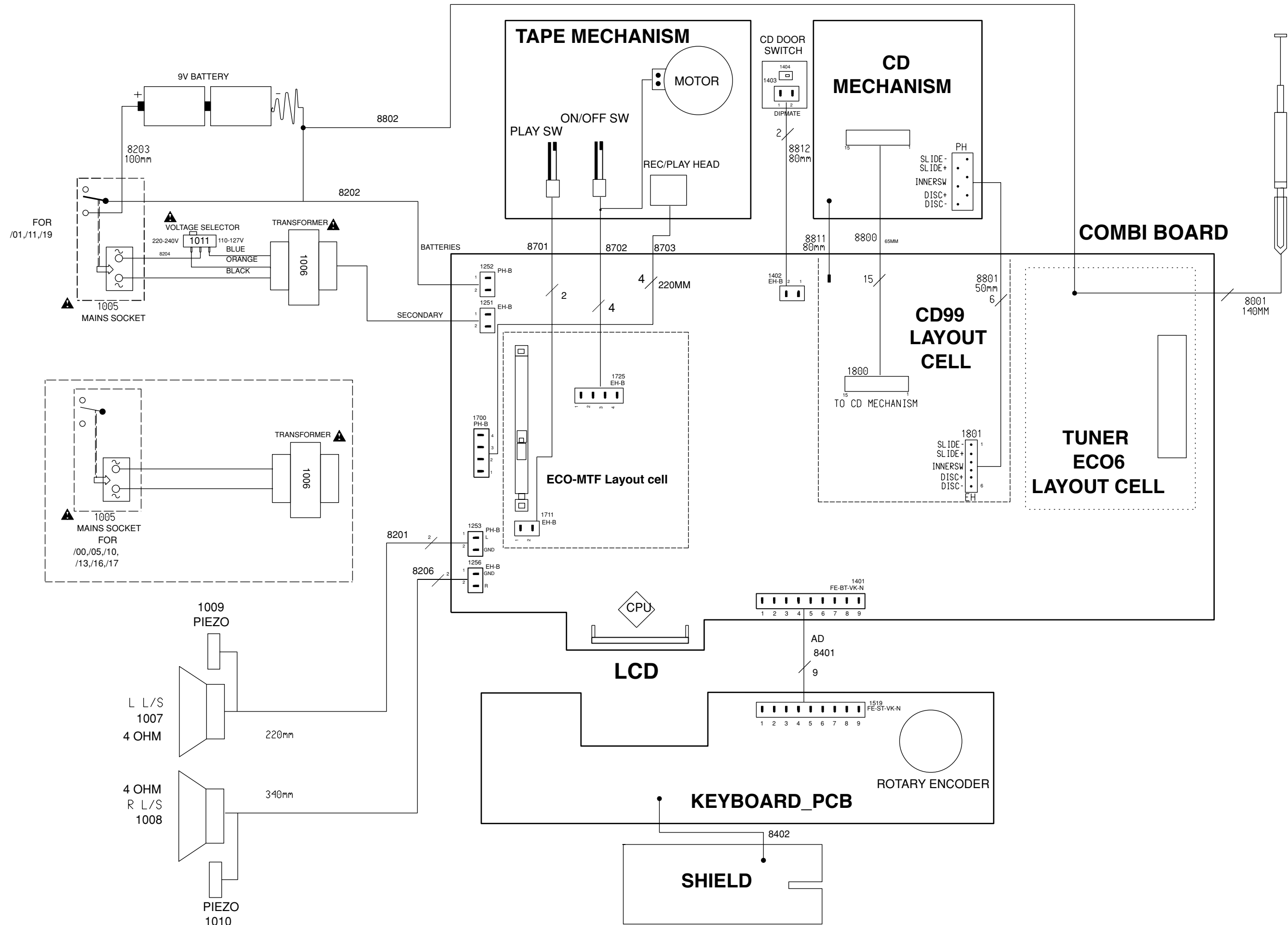
SYMBOL	PIN	DESCRIPTION
RAB	41	microcontroller interface R/W and load control line input (4-wire bus mode)
SILD	42	microcontroller interface R/W and load control line input (4-wire bus mode)
STATUS	43	servo interrupt request line/decoder status register output (open-drain)
TEST3	44	test control input 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 _{SSD2}	50 ⁽¹⁾	digital ground 3
DOBM	51	bi-phase mark output (externally buffered; 3-state)
V _{DD1(P)}	52 ⁽¹⁾	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 _{DD2(C)}	57 ⁽¹⁾	digital supply voltage 3 for core
V _{SSD3}	58 ⁽¹⁾	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.

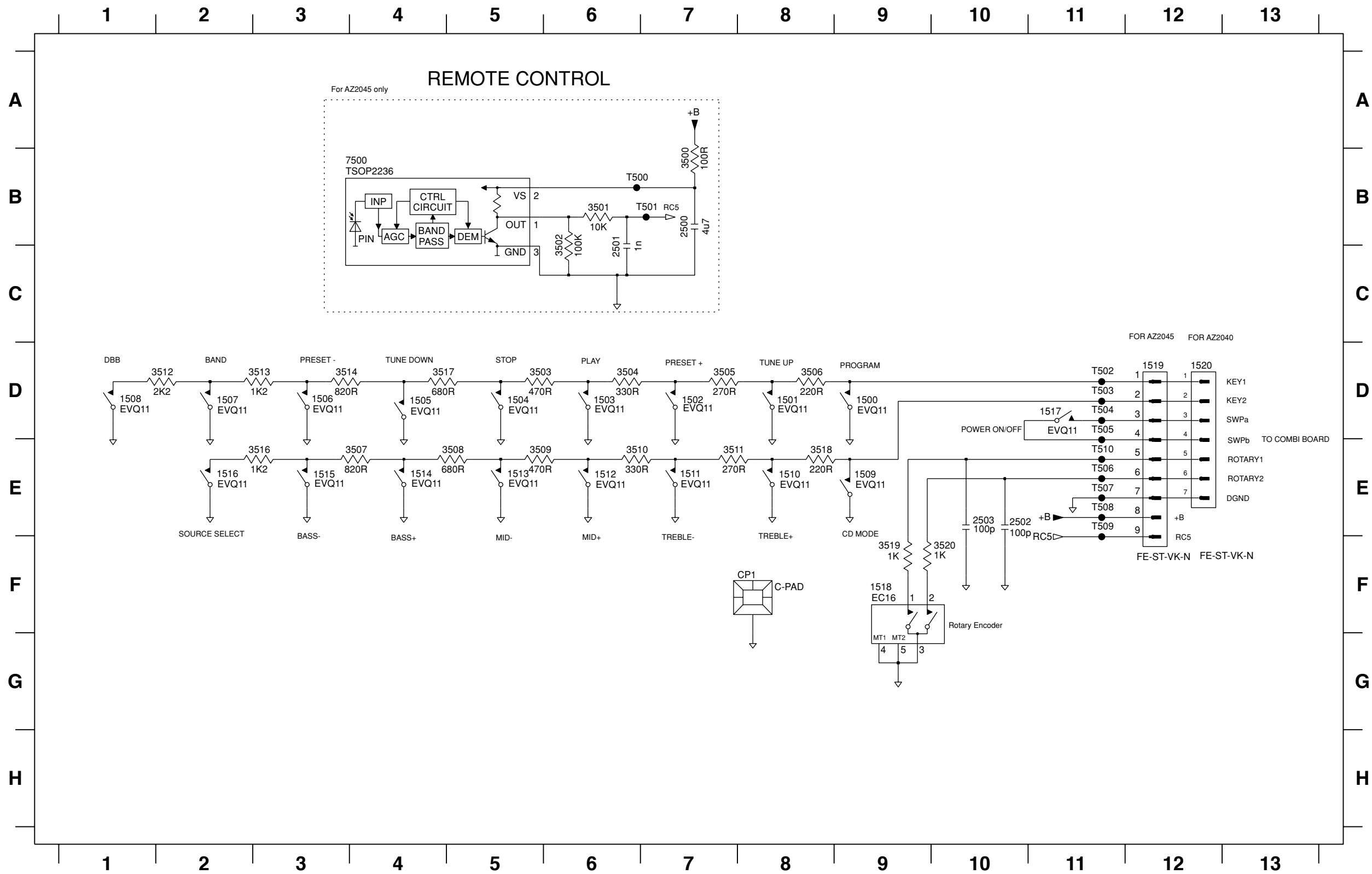
BLOCK DIAGRAM



WIRING DIAGRAM

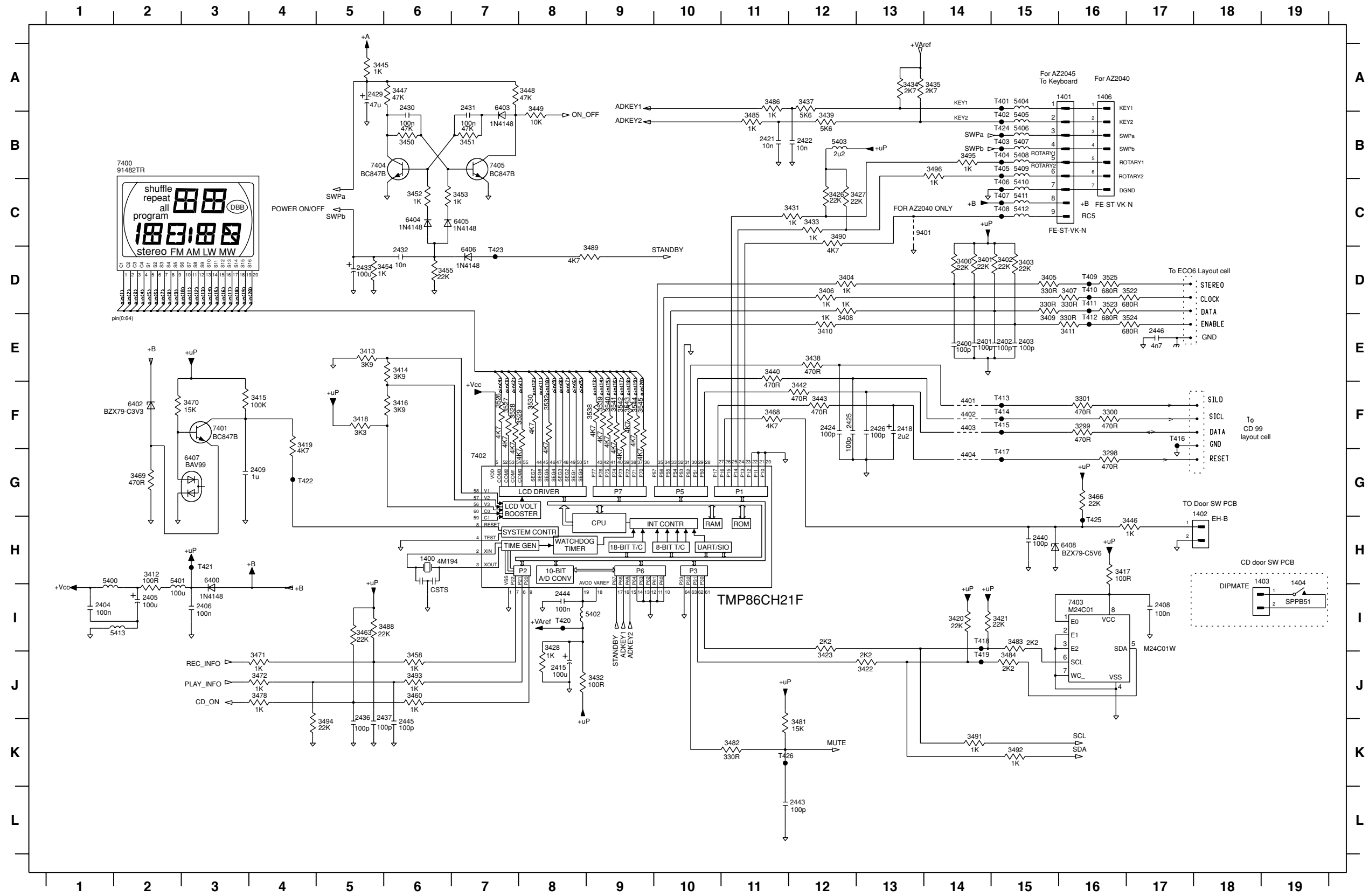


KEY BOARD - CIRCUIT DIAGRAM



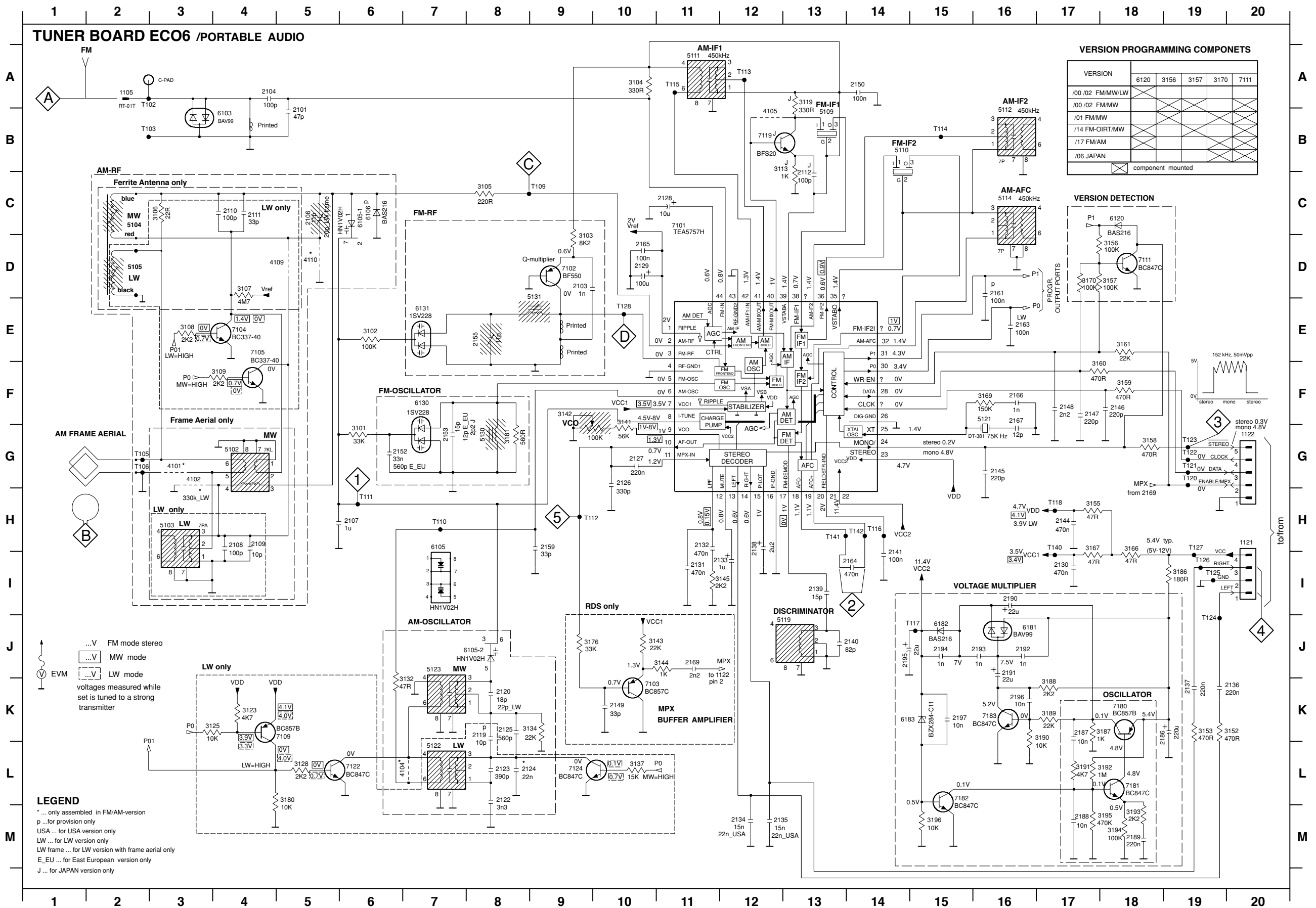
- CP1 F8
- 1500 D9
- 1501 D8
- 1502 D7
- 1503 D6
- 1504 D5
- 1505 D4
- 1506 D3
- 1507 D2
- 1508 D1
- 1509 E9
- 1510 E8
- 1511 E7
- 1512 E6
- 1513 E5
- 1514 E4
- 1515 E3
- 1516 E2
- 1517 D11
- 1518 F9
- 1519 D12
- 1520 D12
- 2500 B7
- 2501 C6
- 2502 E10
- 2503 E10
- 3500 B7
- 3501 B6
- 3502 C6
- 3503 D5
- 3504 D6
- 3505 D7
- 3506 D8
- 3507 E4
- 3508 E5
- 3509 E5
- 3510 E6
- 3511 E7
- 3512 D2
- 3513 D3
- 3514 D3
- 3516 E3
- 3517 D4
- 3518 E8
- 3519 F9
- 3520 F10
- 7500 B3
- T500 B6
- T501 B7
- T502 D11
- T503 D11
- T504 D11
- T505 D11
- T506 E11
- T507 E11
- T508 E11
- T509 E11
- T510 E11

COMBI BOARD - CIRCUIT DIAGRAM (FRONT PART)



- 1400 H6
- 1401 A15
- 1402 G17
- 1403 H19
- 1404 H9
- 1406 A16
- 2400 E14
- 2401 E14
- 2402 E15
- 2403 E15
- 2404 I1
- 2405 I2
- 2406 I3
- 2408 I17
- 2409 G4
- 2415 J8
- 2418 F13
- 2421 B11
- 2422 B12
- 2424 F12
- 2425 F12
- 2426 F13
- 2429 A5
- 2430 A6
- 2431 A7
- 2432 D6
- 2433 D5
- 2436 K5
- 2437 K6
- 2440 H15
- 2443 L12
- 2444 I8
- 2445 K6
- 2446 E17
- 3298 G16
- 3299 F16
- 3300 F16
- 3301 F16
- 3400 D14
- 3401 D14
- 3402 D15
- 3403 D15
- 3404 D12
- 3405 D15
- 3406 D12
- 3407 D16
- 3408 E12
- 3409 E15
- 3410 E12
- 3411 E16
- 3412 H2
- 3413 E5
- 3414 E6
- 3415 F4
- 3416 F6
- 3417 H16
- 3418 F5
- 3419 F4
- 3420 H4
- 3421 I15
- 3422 J13
- 3423 J12
- 3426 C12
- 3427 C13
- 3428 I8
- 3431 C12
- 3432 J9
- 3433 C12
- 3434 A13
- 3435 A14
- 3437 A12
- 3438 E12
- 3439 B12
- 3440 E11
- 3442 F12
- 3443 F12
- 3445 A5
- 3446 H17
- 3447 A6
- 3448 A8
- 3449 A8
- 3450 B6
- 3451 B7
- 3452 C6
- 3453 C7
- 3454 D6
- 3455 D6
- 3458 J6
- 3460 J6
- 3463 I5
- 3466 G16
- 3468 F11
- 3469 G2
- 3470 F3
- 3471 J4
- 3472 J4
- 3478 J4
- 3481 K12
- 3482 K11
- 3483 I15
- 3484 J15
- 3485 B11
- 3486 A11
- 3488 I6
- 3489 C9
- 3490 C12
- 3491 K14
- 3492 K15
- 3493 J6
- 3494 K5
- 3495 B14
- 3496 B14
- 3523 D17
- 3525 D16
- 3526 F7
- 3527 F7
- 3528 F7
- 3529 F8
- 3530 F8
- 3532 F8
- 3538 F9
- 3539 F9
- 3540 F9
- 3541 F9
- 3542 F9
- 3543 F9
- 3544 F9
- 3545 F9
- 4401 F14
- 4402 F14
- 4403 F14
- 4404 G14
- 5400 H1
- 5401 H2
- 5402 I9
- 5403 B12
- 5404 A15
- 5405 B15
- 5406 B15
- 5407 B15
- 5408 B15
- 5409 B15
- 5410 C15
- 5411 C15
- 5412 C15
- 5413 I2
- 5400 H3
- 6402 F2
- 6403 A7
- 6404 C6
- 6405 C7
- 6406 D7
- 6407 G3
- 6408 H16
- 7400 B2
- 7401 F3
- 7402 G7
- 7403 I6
- 7404 B6
- 7405 B7
- 9401 C13
- T401 B15
- T402 B15
- T403 B15
- T404 B15
- T405 B15
- T406 B15
- T407 C15
- T408 C15
- T409 D16
- T410 D16
- T411 D16
- T412 E16
- T413 F15
- T414 F15
- T415 F15
- T416 F17
- T417 G15
- T418 I14
- T419 J14
- T420 I8
- T421 H3
- T422 G4
- T423 D7
- T424 B15
- T425 H16
- T426 K11

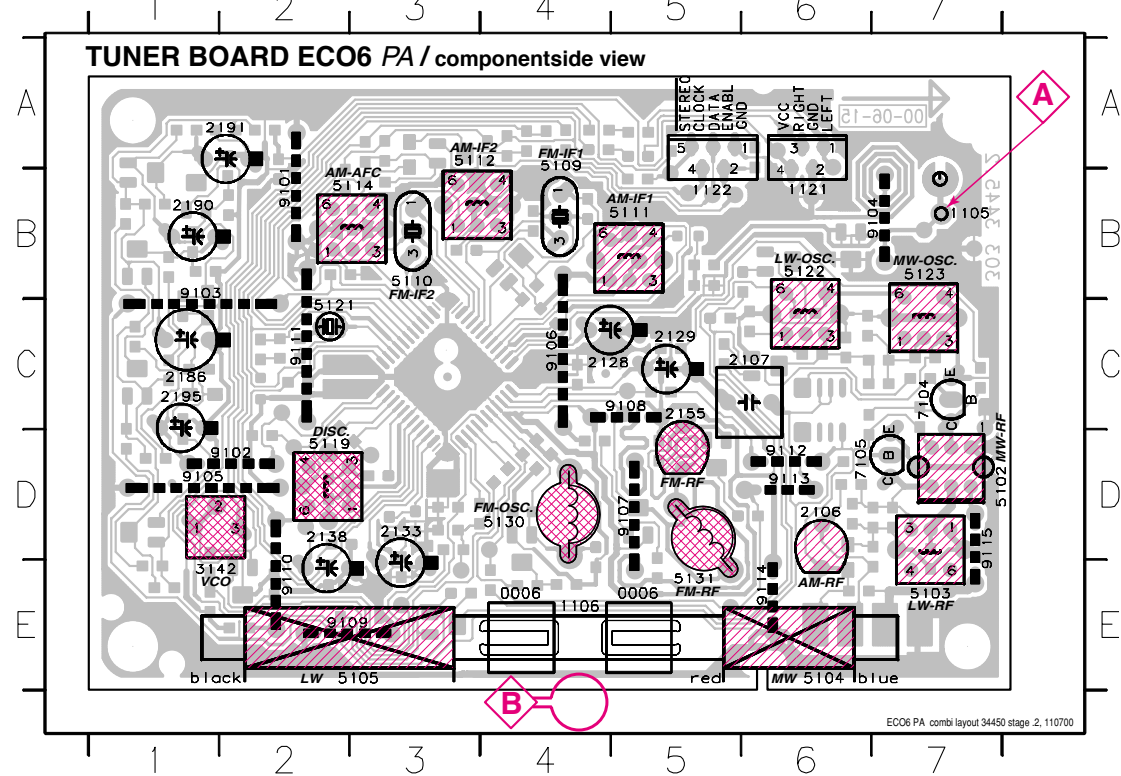
COMBI BOARD - CIRCUIT DIAGRAM (TUNER PART)



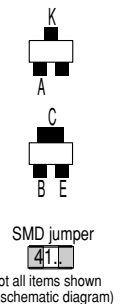
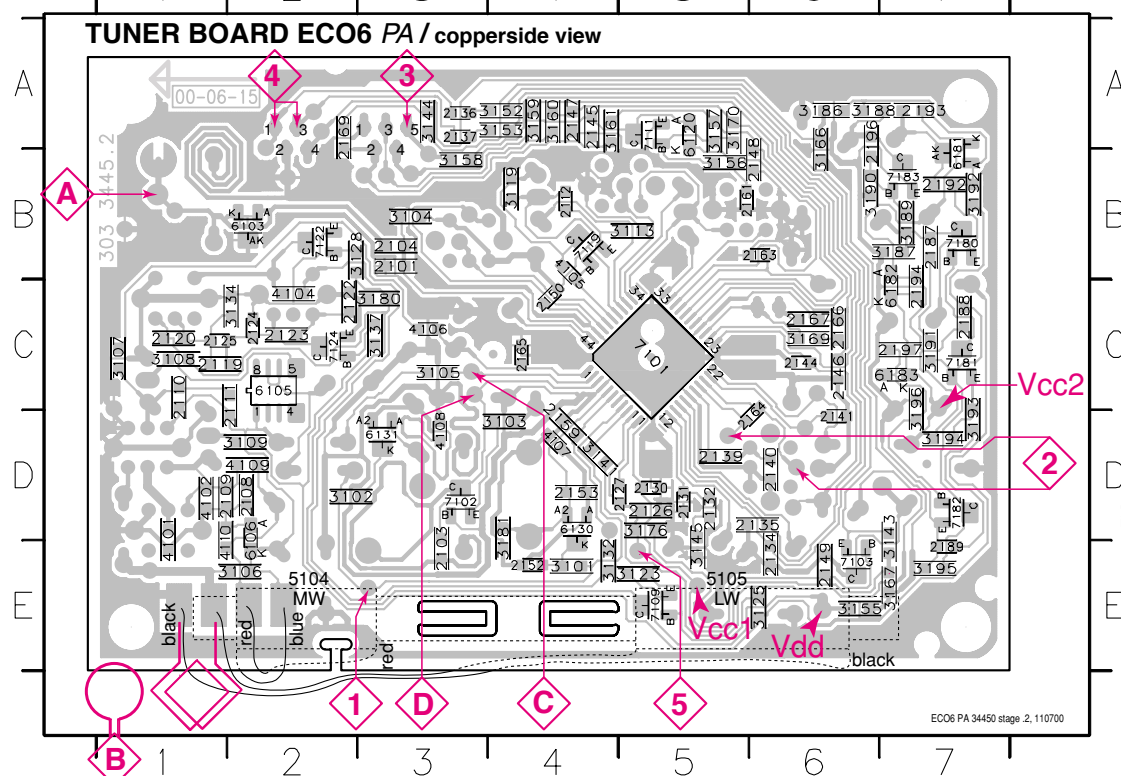
- 1105 A2
- 1121 H20
- 1122 G20
- 2101 B5
- 2103 D9
- 2104 A4
- 2106 C5
- 2107 H6
- 2108 H4
- 2109 H4
- 2110 C4
- 2111 C4
- 2112 C13
- 2119 K8
- 2120 K8
- 2122 L8
- 2123 L8
- 2124 L8
- 2125 K8
- 2126 G10
- 2127 G10
- 2128 C11
- 2129 D10
- 2130 H7
- 2131 H11
- 2132 H11
- 2133 H12
- 2134 M12
- 2135 M12
- 2136 K20
- 2137 K19
- 2138 H12
- 2139 H3
- 2140 J14
- 2141 H4
- 2144 H17
- 2145 G16
- 2146 F18
- 2147 F17
- 2148 F17
- 2149 K10
- 2150 A14
- 2152 G6
- 2153 G7
- 2155 E8
- 2159 H9
- 2161 D16
- 2163 E16
- 2164 H4
- 2165 D10
- 2166 F16
- 2167 F16
- 2169 J11
- 2186 K19
- 2187 K17
- 2188 M17
- 2189 M18
- 2190 H6
- 2191 J16
- 2192 J16
- 2193 J16
- 2194 J15
- 2195 J14
- 2196 K15
- 2197 K15
- 3101 G6
- 3102 E6
- 3103 D9
- 3104 A10
- 3105 C8
- 3106 C3
- 3107 D4
- 3108 E3
- 3109 F4
- 3113 B12
- 3119 A13
- 3123 K4
- 3125 K3
- 3128 L5
- 3132 K7
- 3134 K9
- 3137 L10
- 3141 F10
- 3142 F9
- 3143 J10
- 3144 J11
- 3145 H2
- 3152 K20
- 3153 K19
- 3155 H7
- 3156 D18
- 3157 D18
- 3158 G18
- 3159 F18
- 3160 F17
- 3161 E18
- 3166 H18
- 3167 H17
- 3169 F16
- 3170 D17
- 3176 J9
- 3180 L5
- 3181 G8
- 3186 I19
- 3187 K18
- 3188 K17
- 3189 K17
- 3190 K17
- 3191 L17
- 3192 L18
- 3193 M18
- 3194 M18
- 3195 M18
- 3196 M15
- 4101 G3
- 4102 G3
- 4104 L7
- 4105 B12
- 4109 D5
- 4110 D5
- 5102 G4
- 5103 H3
- 5109 B13
- 5110 B14
- 5111 A11
- 5112 B16
- 5114 C16
- 5119 J13
- 5121 F16
- 5122 L7
- 5123 J7
- 5130 G8
- 5131 E9
- 6103 B4
- 6105-1 C6
- 6105-2 J8
- 6106 C6
- 6120 C18
- 6130 F7
- 6131 E7
- 6181 J16
- 6182 J15
- 6183 K14
- 7101 C11
- 7102 D9
- 7103 K10
- 7104 E4
- 7105 E4
- 7109 K5
- 7111 D18
- 7119 B12
- 7122 L6
- 7124 L9
- 7180 K18
- 7181 L18
- 7182 L15
- 7183 K16
- T102 A2
- T103 B2
- T105 G2
- T106 G2
- T109 C9
- T110 H7
- T111 H6
- T112 H9
- T113 A12
- T114 B15
- T115 A11
- T116 H14
- T117 J15
- T118 H17
- T120 G19
- T121 G19
- T122 G19
- T123 G19
- T124 J19
- T125 H19
- T126 H19
- T127 H19
- T128 E10
- T140 H17
- T141 H13
- T142 H14

TUNER BOARD ECO6 - LAYOUT DIAGRAM

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 partslist.

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						
FM 87.5 - 108MHz (65.81 - 74, 87.5 - 108MHz)			108MHz	5130		8V -0.2V
			87.5MHz (65.81MHz)	check		4.3V -0.5V (1.2V -0.5V)
MW 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	1	6.9V -0.2V
			531kHz	check		1.1V -0.4V
LW 153 - 279kHz			279kHz	5122		8V -0.2V
			153kHz	check		1.1V -0.4V
MW FM/MW/LW- version, 9kHz grid 531 - 1602kHz			1602kHz	5123		8V -0.2V
			531kHz	check		1.1V -0.4V
FM IF						
FM	10.7MHz, 45mV continuous wave	D	IC 7101 21 shortcircuit to block AFC	5119	2	0 - 3 mV DC
FM RF						
FM 87.5 - 108MHz (65.81 - 74, 87.5 - 108MHz)	108MHz	A mod=1kHz Δf=-22.5kHz	108MHz	2155	4	MAX
	87.5MHz (65.81MHz)		87.5MHz (65.81MHz)	5131		
VCO						
FM	98MHz, 1mV continuous wave	A	98MHz	3142	3	152kHz -1kHz ¹⁾
AM IF						
MW	450kHz connect pin 6 of IC 7101 (AM Osc.) with 2.2k% to Vcc	C Δf=-10kHz V _{RF} = 0.5mV (as low as possible) see remark 2)	IC 7101 36 100nF	5111	5	symmetric max.
			IC 7101 40 100nF	5112		
AM AFC		C		5114	2	0 - 2 mV DC
AM RF³⁾						
LW	198kHz	B	198kHz	5105 LW ferrite coil	5	symmetric max.
MW FM/MW/LW- and FM/MW-version (9kHz grid) 531 - 1602kHz	1494kHz		2106			
	558kHz		5104 MW ferrite coil			
MW FM/AM-version, 10kHz grid 530 - 1700kHz	1500kHz	B	1500kHz	2106	5	symmetric max.
	560kHz		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 ²⁾ RC network serves for damping the IF-filter while adjusting the other one.
 (input signal: stereo left 90% + 9%, adjust output on right channel to minimum)
³⁾ LW has to be aligned before MW.
 ↑ Repeat

COMBI BOARD - CIRCUIT DIAGRAM (CD PART 1)

1800 E2	2807 F5	2815 G14	2823 B15	2831 H16	2839 K6	2864 E6	2875 E7	3800 B3	3808 A3	3816 F7	3824 G13	3835 C20	3844 H8	3852 H7	3860 K7	3892 D6	7800 E17	7804-A B1	MP803 H14	MP816 B5	MP825 B18	MP839 H15	MP848 G2	MP862 C19	MP893 G13
1801 I2	2808 F6	2816 G13	2824 B15	2832 H8	2840 K6	2865 E6	3706 B8	3801 A1	3809 A2	3817 F9	3825 G13	3837 D20	3845 H7	3853 H7	3861 K7	3893 E6	7802-A G8	7804-B C3	MP808 H18	MP817 B5	MP826 H16	MP840 H17	MP849 G2	MP870 H5	MP895 F19
2801 A3	2809 G8	2817 F12	2825 B16	2833 G5	2841 D1	2869 G3	3707 C8	3802 B1	3810 A4	3818 F8	3826 F14	3838 E20	3846 H15	3854 H6	3862 K7	3894 B7	7802-B G7	7807 F8	MP809 E14	MP818 F5	MP827 A14	MP841 H17	MP850 G2	MP873 J6	MP896 B17
2802 B4	2810 G9	2818 F13	2826 A18	2834 I6	2842 H9	2870 B7	3728 A15	3803 B1	3811 F6	3819 G8	3827 F13	3839 E20	3847 G8	3855 H6	3863 J6	3895 B7	7802-C G6	7808 G5	MP810 B18	MP819 D1	MP828 B15	MP842 H17	MP851 G2	MP876 F20	MP897 H15
2803 F5	2811 G10	2819 B13	2827 D20	2835 I6	2860 B6	2871 C7	3751 I17	3804 B1	3812 F6	3820 F9	3828 A15	3840 E20	3848 G7	3856 J8	3864 D1	3896 C7	7802-D G11	7809 I5	MP812 E5	MP820 G12	MP829 D5	MP843 I19	MP852 I2	MP877 F3	
2804 F5	2812 G11	2820 B14	2828 D20	2836 H6	2861 C6	2872 C7	3750 I15	3805 A1	3813 F6	3821 G10	3829 A15	3841 F20	3849 G6	3857 J7	3865 H9	3897 D7	7802-E G9	8401 K3	MP813 D5	MP821 D20	MP831 I18	MP844 F12	MP854 I2	MP880 F8	
2805 F5	2813 G12	2821 B15	2829 I19	2837 J7	2862 C6	2873 D7	3751 I15	3806 B2	3814 G7	3822 G10	3830 B17	3842 I20	3850 G6	3858 J6	3890 C6	3898 D7	7802-F H11	MP800 A3	MP814 C5	MP822 H9	MP837 B3	MP846 H2	MP855 G2	MP881 G7	
2806 F6	2814 F13	2822 B15	2830 I18	2838 J5	2863 D6	2874 E7	3757 J7	3807 A2	3815 F7	3823 F11	3834 C20	3843 I20	3851 H8	3859 K7	3891 D6	3899 E7	7803 C3	MP802 B2	MP815 F2	MP823 I9	MP838 H16	MP847 H2	MP860 D2	MP882 H7	

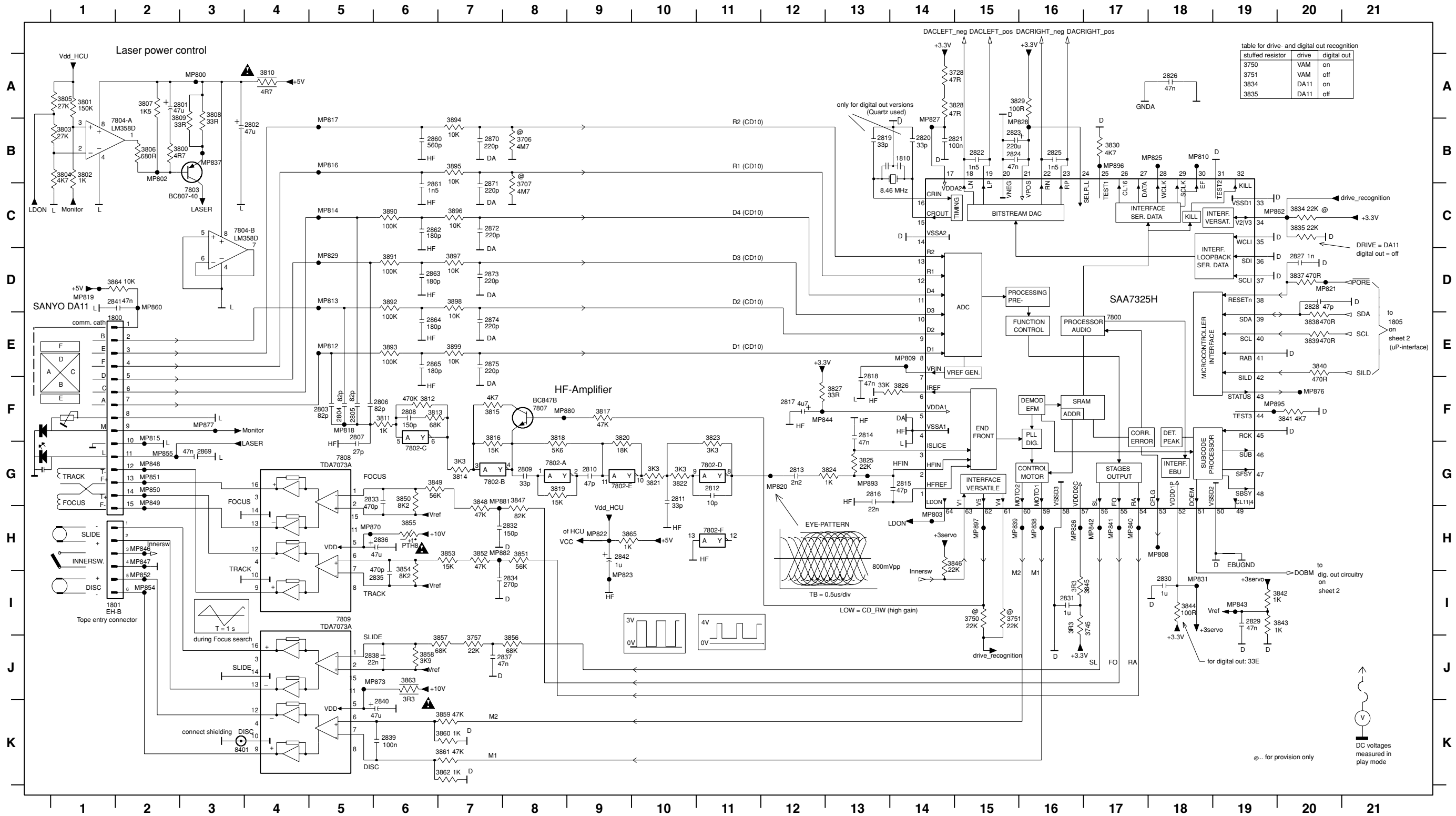


table for drive- and digital out recognition

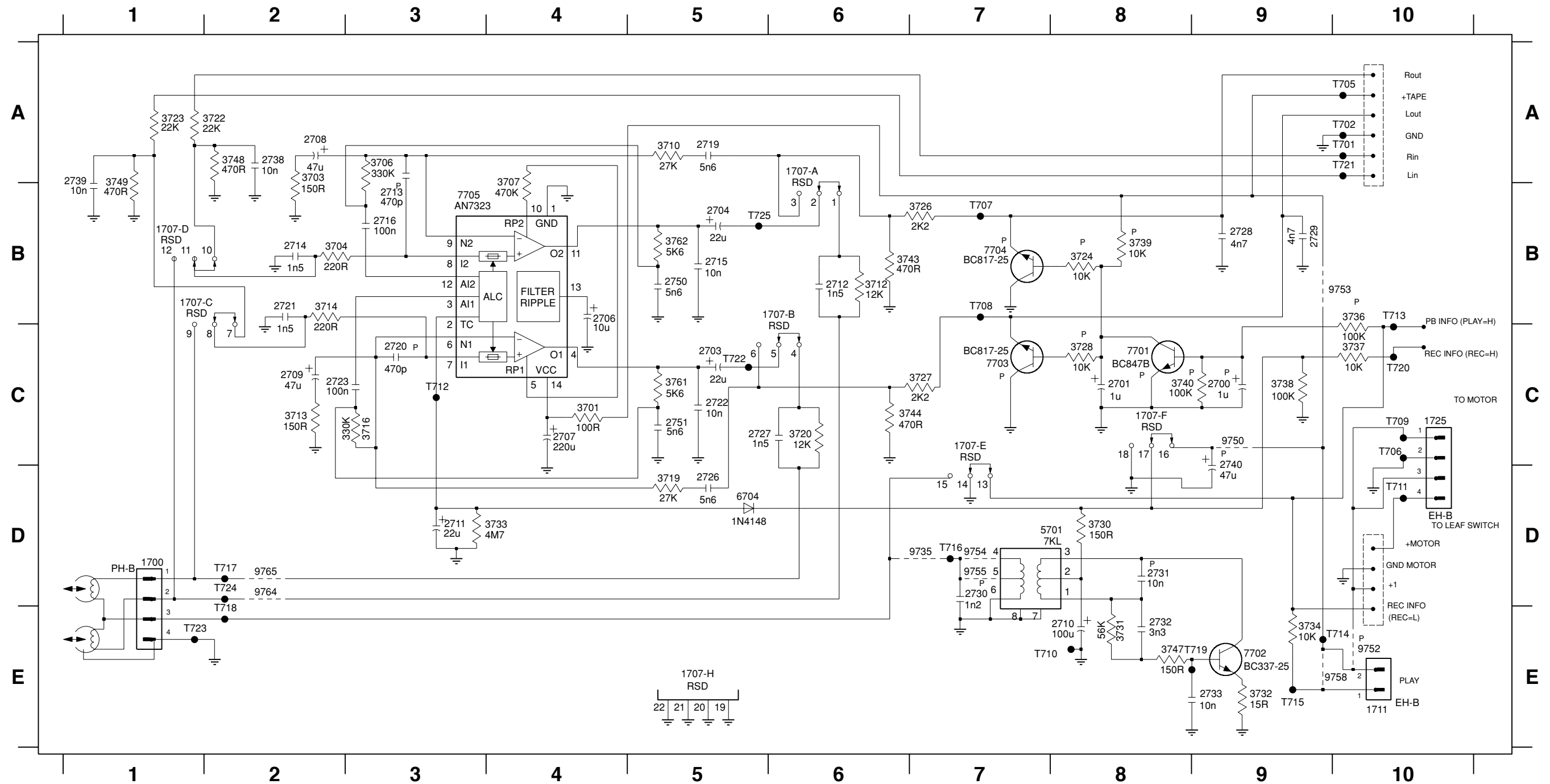
stuffed resistor	drive	digital out
3750	VAM	on
3751	VAM	off
3834	DA11	on
3835	DA11	off

DC voltages measured in play mode

@... for provision only

COMBI BOARD - CIRCUIT DIAGRAM (CD PART 2)

1700 D1	1707-H E5	2708 A2	2715 B5	2726 D5	2733 E9	2772 C8	3720 C6	3730 D8	3738 C9	3749 B1	3774 C4	7705 B3	9758 E9	T707 B7	T714 E10	T721 A10
1707-A A6	1711 E10	2709 C2	2716 B3	2727 C6	2738 A2	3710 A5	3722 A1	3731 E8	3739 B8	3761 C5	5701 D8	9735 D7	9764 D2	T708 B7	T715 E9	T722 C5
1707-B B6	1725 C10	2710 E8	2719 A5	2728 B9	2739 B1	3712 B6	3723 A1	3732 E9	3740 C9	3762 B5	6704 D5	9750 C9	9765 D2	T709 C10	T716 D7	T723 E1
1707-C B1	2700 C9	2711 D3	2720 C3	2729 B9	2740 D9	3713 C2	3724 B8	3733 D3	3743 B6	3770 B2	7701 C8	9752 E10	T701 A10	T710 E7	T717 D2	T724 D2
1707-D B1	2703 C5	2712 B6	2721 B2	2730 D7	2750 B5	3714 B2	3726 B7	3734 E9	3744 C6	3771 A3	7702 E9	9753 B10	T702 A10	T711 D10	T718 E2	T725 B5
1707-E C7	2706 B4	2713 A3	2722 C5	2731 D8	2770 B5	3716 C3	3727 C7	3736 B10	3747 E8	3772 B2	7703 C7	9754 D7	T705 A10	T712 C3	T719 E9	
1707-F C8	2707 C4	2714 B2	2723 C3	2732 E8	2771 C5	3719 D5	3729 C8	3737 C10	3748 A2	3773 B4	7704 B7	9755 D7	T706 C10	T713 B10	T720 C10	



P -- provisional

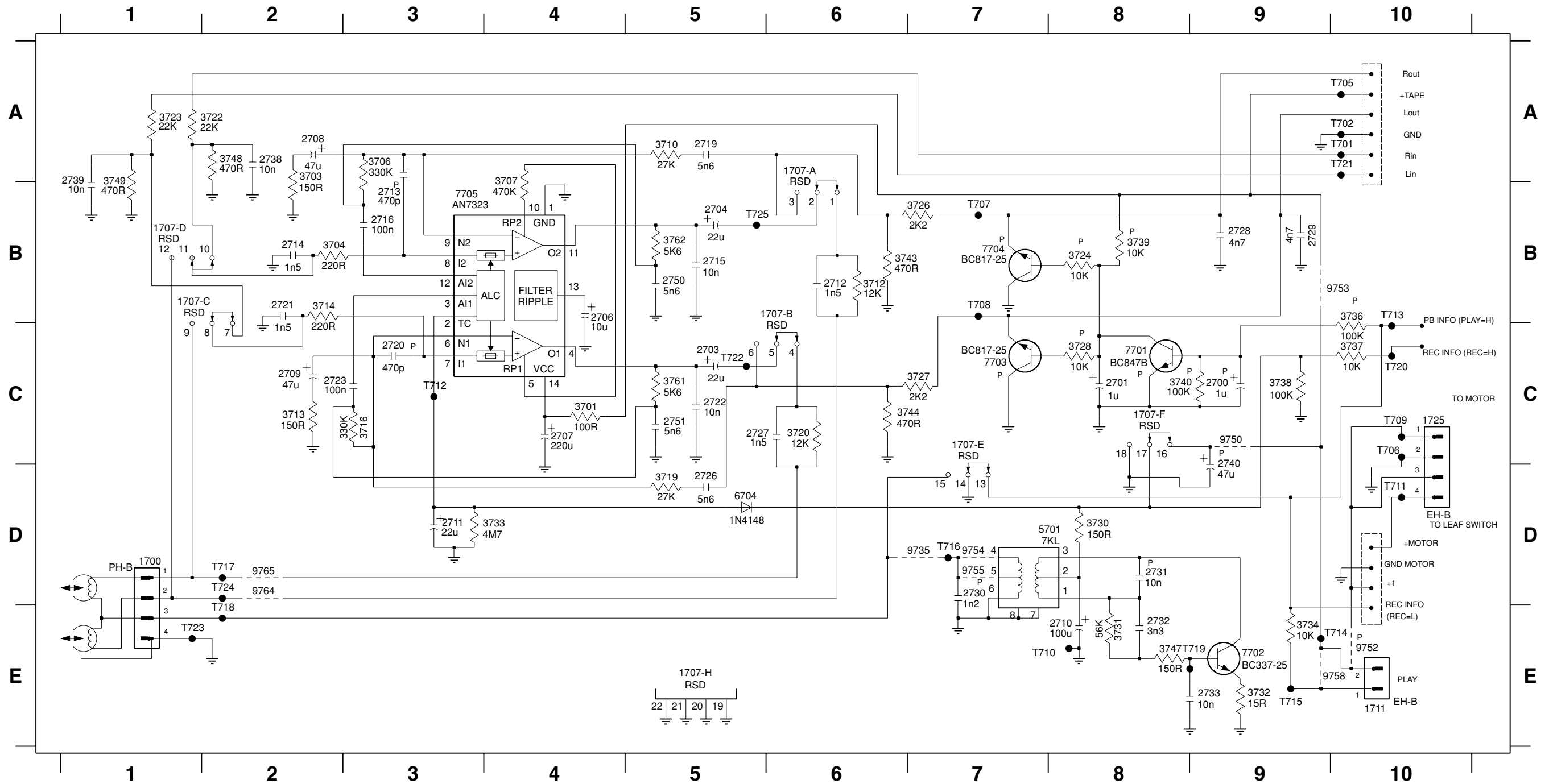
	1712	1713	1725	1711	1700
S11	○	○			○
S22			○	○	○

○ -- component mounted

PLAY ← ○ → RECORD

**COMBI BOARD - CIRCUIT DIAGRAM
(TAPE PART)**

1700 D1	1707-H E5	2708 A2	2715 B5	2726 D5	2733 E9	2772 C8	3720 C6	3730 D8	3738 C9	3749 B1	3774 C4	7705 B3	9758 E9	T707 B7	T714 E10	T721 A10
1707-A A6	1711 E10	2709 C2	2716 B3	2727 C6	2738 A2	3710 A5	3722 A1	3731 E8	3739 B8	3761 C5	5701 D8	9735 D7	9764 D2	T708 B7	T715 E9	T722 C5
1707-B B6	1725 C10	2710 E8	2719 A5	2728 B9	2739 B1	3712 B6	3723 A1	3732 E9	3740 C9	3762 B5	6704 D5	9750 C9	9765 D2	T709 C10	T716 D7	T723 E1
1707-C B1	2700 C9	2711 D3	2720 C3	2729 B9	2740 D9	3713 C2	3724 B8	3733 D3	3743 B6	3770 B2	7701 C8	9752 E10	T701 A10	T710 E7	T717 D2	T724 D2
1707-D B1	2703 C5	2712 B6	2721 B2	2730 D7	2750 B5	3714 B2	3726 B7	3734 E9	3744 C6	3771 A3	7702 E9	9753 B10	T702 A10	T711 D10	T718 E2	T725 B5
1707-E C7	2706 B4	2713 A3	2722 C5	2731 D8	2770 B5	3716 C3	3727 C7	3736 B10	3747 E8	3772 B2	7703 C7	9754 D7	T705 A10	T712 C3	T719 E9	
1707-F C8	2707 C4	2714 B2	2723 C3	2732 E8	2771 C5	3719 D5	3729 C8	3737 C10	3748 A2	3773 B4	7704 B7	9755 D7	T706 C10	T713 B10	T720 C10	



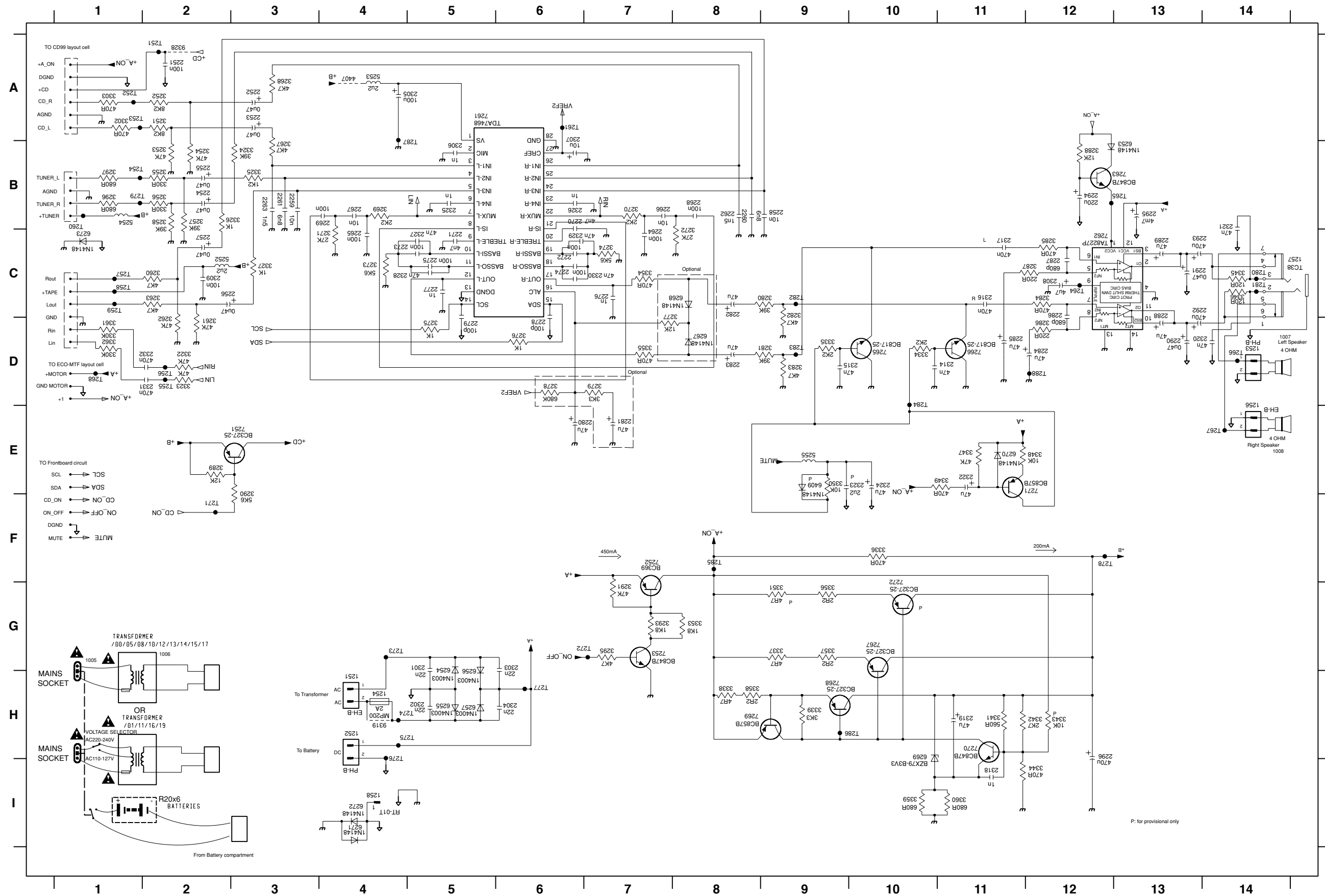
P -- provisional

	1712	1713	1725	1711	1700
S11	○	○			○
S22			○	○	○

○ -- component mounted

PLAY ← ○ → RECORD

COMBI BOARD - CIRCUIT DIAGRAM (AUDIO/SUPPLY PART)



A

B

C

D

E

F

G

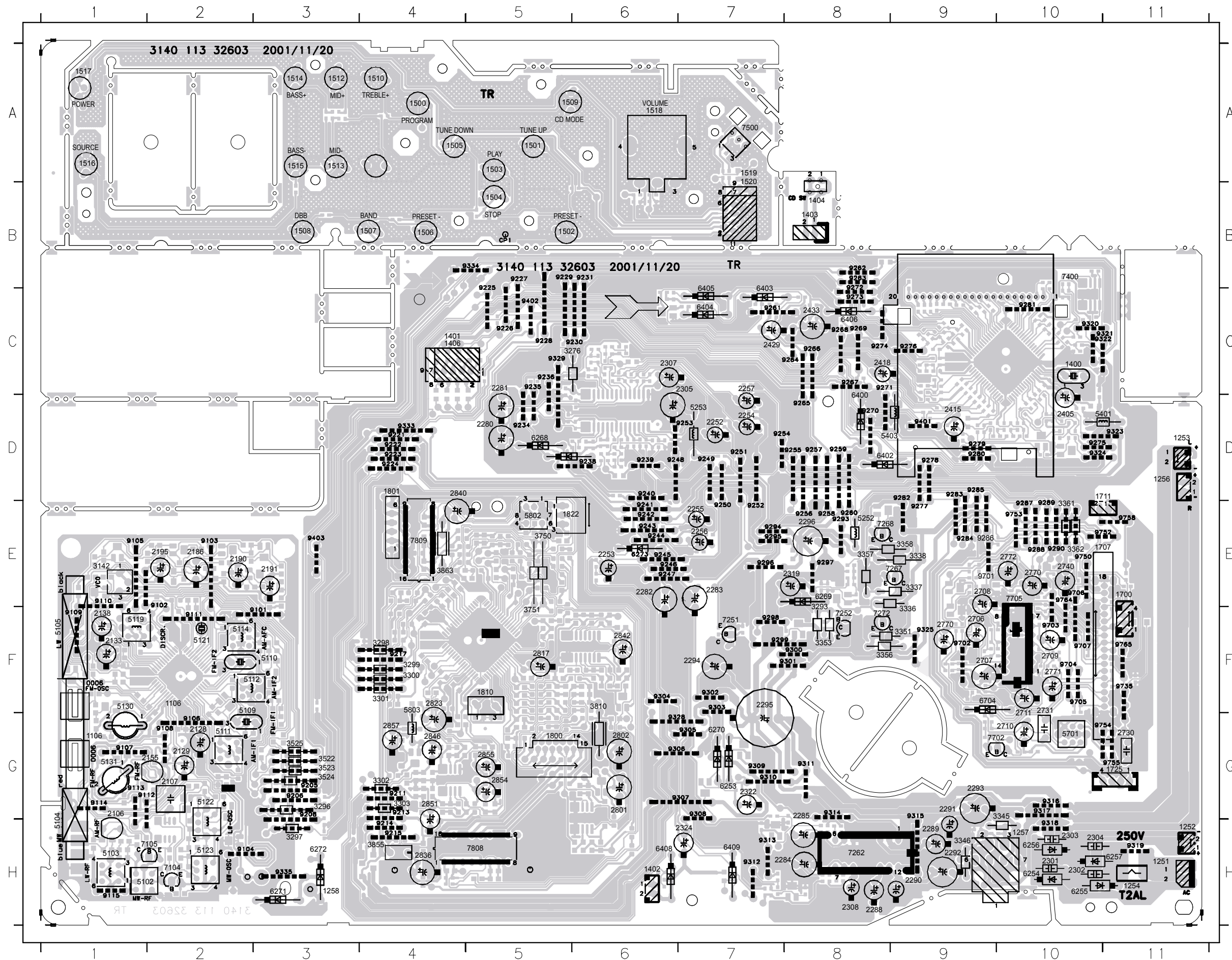
H

I

1251 H4	3289 E2
1252 H4	3290 E2
1253 D14	3291 G7
1254 H4	3293 G7
1256 E14	3295 G7
1257 C14	3296 B1
1258 I4	3297 B1
2251 A2	3302 A1
2252 A3	3303 A1
2253 A3	3322 C1
2254 B2	3323 D1
2255 B2	3324 B2
2256 C2	3325 B2
2257 C2	3326 B2
2258 B9	3327 C3
2259 B3	3334 D10
2260 B8	3335 D9
2261 B3	3336 F10
2262 B8	3337 G9
2263 B3	3338 H8
2264 C7	3339 H9
2265 C4	3341 H11
2266 B7	3342 H12
2267 B4	3343 H12
2268 B8	3344 H12
B4 B622	3345 C14
2270 B8	3346 C14
2271 C5	3347 E11
2272 C6	3348 E11
2273 C4	3349 E11
2274 C6	3350 E11
2275 C5	3351 E11
2276 C7	3352 G8
2277 C5	3353 C7
2278 D6	3355 D7
2279 C5	3356 G9
2280 E9	3357 G8
2281 E7	3358 H8
2282 C8	3359 H10
2283 D8	3360 B11
2284 D11	4007 A4
2285 E2	5252 C2
D10 D11	5252 C2
2286 C12	5253 A4
2287 C12	5253 A4
2288 C12	5253 A4
2289 B12	5253 A4
2290 C13	5255 H5
2291 C13	5255 H5
2292 C13	5255 H5
2293 C13	5255 H5
2294 B12	5257 H5
2295 B12	5257 H5
2296 B12	5257 H5
2297 B12	5257 H5
2298 B12	5257 H5
2299 B12	5257 H5
2300 B12	5257 H5
2301 B12	5257 H5
2302 B12	5257 H5
2303 B12	5257 H5
2304 B12	5257 H5
2305 B12	5257 H5
2306 B12	5257 H5
2307 B12	5257 H5
2308 B12	5257 H5
2309 B12	5257 H5
2310 B12	5257 H5
2311 B12	5257 H5
2312 B12	5257 H5
2313 B12	5257 H5
2314 B12	5257 H5
2315 B12	5257 H5
2316 B12	5257 H5
2317 B12	5257 H5
2318 B12	5257 H5
2319 B12	5257 H5
2320 B12	5257 H5
2321 B12	5257 H5
2322 B12	5257 H5
2323 B12	5257 H5
2324 B12	5257 H5
2325 B12	5257 H5
2326 B12	5257 H5
2327 B12	5257 H5
2328 B12	5257 H5
2329 B12	5257 H5
2330 B12	5257 H5
2331 B12	5257 H5
2332 B12	5257 H5
2333 B12	5257 H5
2334 B12	5257 H5
2335 B12	5257 H5
2336 B12	5257 H5
2337 B12	5257 H5
2338 B12	5257 H5
2339 B12	5257 H5
2340 B12	5257 H5
2341 B12	5257 H5
2342 B12	5257 H5
2343 B12	5257 H5
2344 B12	5257 H5
2345 B12	5257 H5
2346 B12	5257 H5
2347 B12	5257 H5
2348 B12	5257 H5
2349 B12	5257 H5
2350 B12	5257 H5
2351 B12	5257 H5
2352 B12	5257 H5
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2354 B12	5257 H5
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2356 B12	5257 H5
2357 B12	5257 H5
2358 B12	5257 H5
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2360 B12	5257 H5
2361 B12	5257 H5
2362 B12	5257 H5
2363 B12	5257 H5
2364 B12	5257 H5
2365 B12	5257 H5
2366 B12	5257 H5
2367 B12	5257 H5
2368 B12	5257 H5
2369 B12	5257 H5
2370 B12	5257 H5
2371 B12	5257 H5
2372 B12	5257 H5
2373 B12	5257 H5
2374 B12	5257 H5
2375 B12	5257 H5
2376 B12	5257 H5
2377 B12	5257 H5
2378 B12	5257 H5
2379 B12	5257 H5
2380 B12	5257 H5
2381 B12	5257 H5
2382 B12	5257 H5
2383 B12	5257 H5
2384 B12	5257 H5
2385 B12	5257 H5
2386 B12	5257 H5
2387 B12	5257 H5
2388 B12	5257 H5
2389 B12	5257 H5
2390 B12	5257 H5
2391 B12	5257 H5
2392 B12	5257 H5
2393 B12	5257 H5
2394 B12	5257 H5
2395 B12	5257 H5
2396 B12	5257 H5
2397 B12	5257 H5
2398 B12	5257 H5
2399 B12	5257 H5
2400 B12	5257 H5

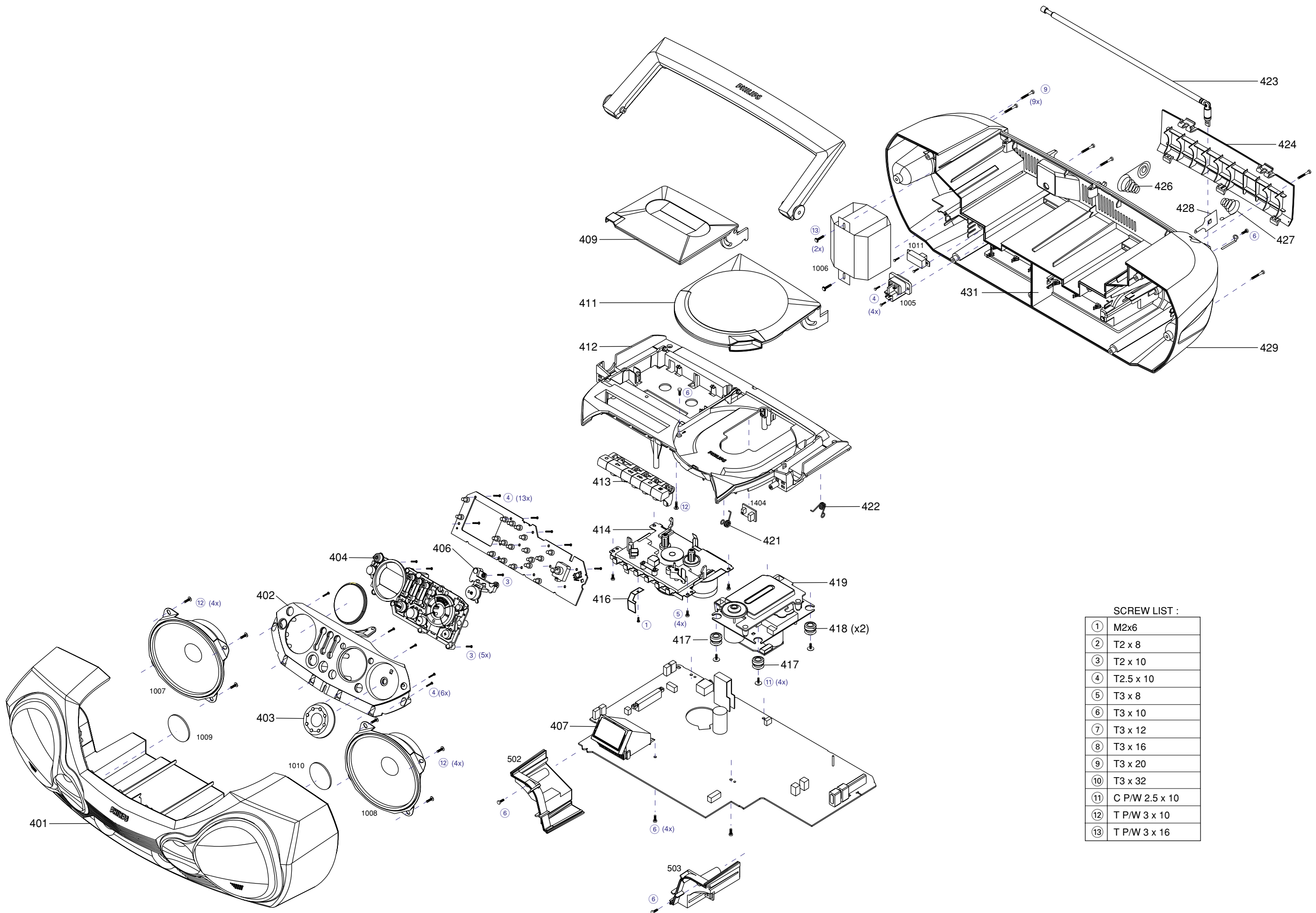
P: for provisional only

COMBI BOARD - LAYOUT DIAGRAM (COMPONENT SIDE)



Vertical text on the right side of the diagram, likely a component list or assembly instructions, including part numbers and quantities.

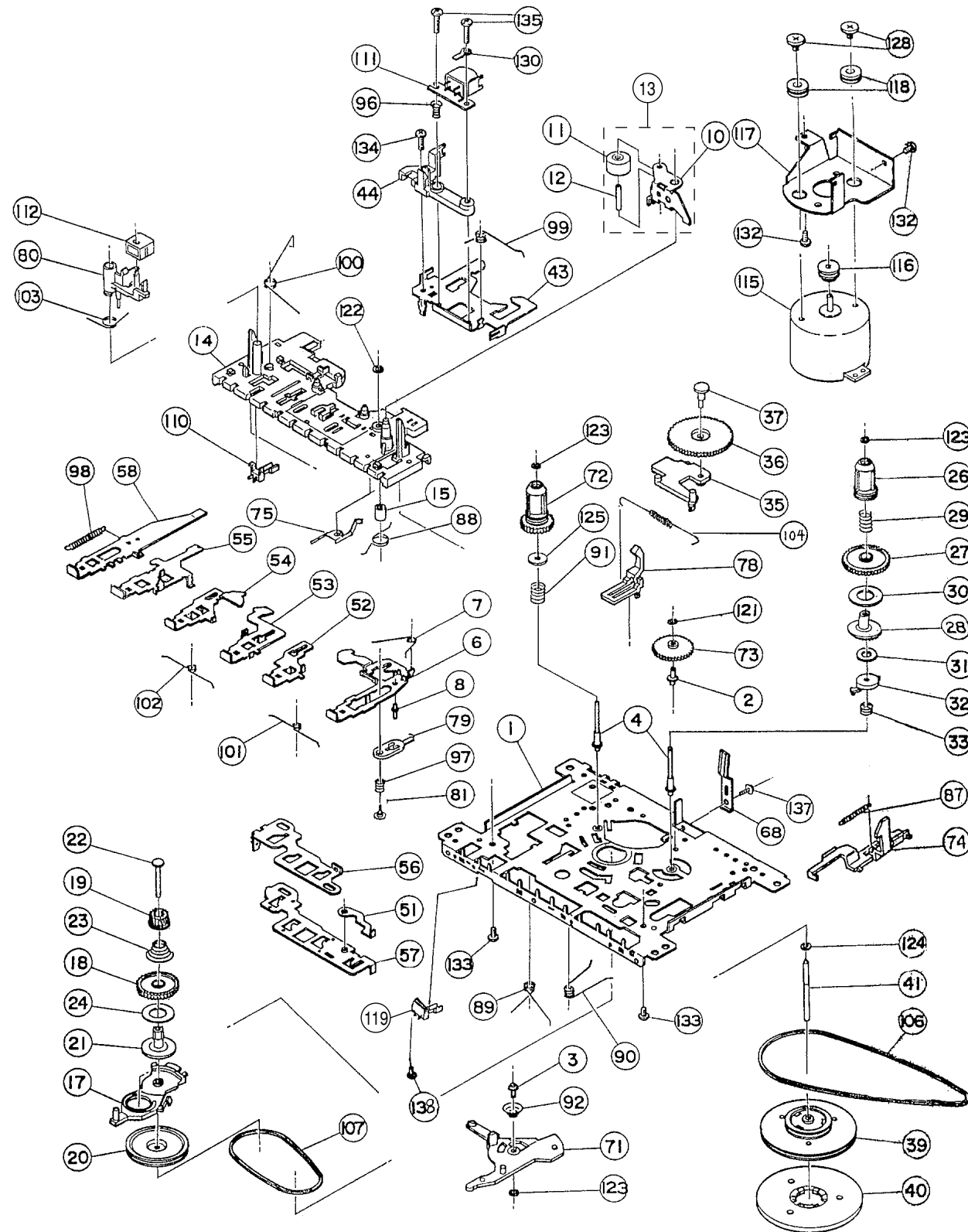
EXPLODED VIEW DIAGRAM - CABINET



SCREW LIST :

①	M2x6
②	T2 x 8
③	T2 x 10
④	T2.5 x 10
⑤	T3 x 8
⑥	T3 x 10
⑦	T3 x 12
⑧	T3 x 16
⑨	T3 x 20
⑩	T3 x 32
⑪	C P/W 2.5 x 10
⑫	T P/W 3 x 10
⑬	T P/W 3 x 16

EXPLODED VIEW DIAGRAM - TAPE DECK



MECHANICAL PARTSLIST - CABINET

401	3140 117 61760	FRONT CABINET ASS'Y	419	3103 309 05360	CD DA11B1N DRIVE ASSY
401	3140 117 63260	FRONT CABINET ASS'Y (AZ2045/17)	421	3140 111 01120	SPRING-CASS.DOOR
402	3140 117 62050	CD PANEL - FRONT ASS'Y (AZ2045)	422	3140 111 01130	SPRING-CD DOOR
402	3140 117 61770	CD PANEL - FRONT ASS'Y (AZ2040)	423	3140 118 71810	TELESCOPIC AERIAL
402	3140 117 62790	CD PANEL - FRONT ASS'Y (AZ2045/17)	424	3140 114 39870	DOOR-BATTERY
403	3140 114 39850	KNOB-VOLUME	426	4822 492 51733	SPRING
404	3140 114 39820	WINDOW KEYSETS	427	3140 111 01140	SPRING-COMPRESSION(-)
406	3140 114 39800	CD PLAY KEY	428	3140 111 21320	CONTACT PLATE
407	3140 114 39840	BRACKET-LCD	429	3140 117 61790	REAR CABINET ASS'Y
408	3140 114 39880	HANDLE	429	3140 117 62120	REAR CABINET ASS'Y /01 only
409	3140 114 39780	DOOR-CASSETTE	429	3140 117 63280	REAR CABINET ASS'Y AZ2045/17
411	3140 114 39770	DOOR-CD	431	3140 114 39890	COVER BASS
412	3140 117 61780	TOP CABINET ASS'Y (AZ2045)		3139 228 60070	REMOTE CONTROL RC19420002/01
412	3140 117 62780	TOP CABINET ASS'Y (AZ2040)			
412	3140 117 63270	TOP CABINET ASS'Y (AZ2045/17)			
413	3140 114 39860	KEYSET-CASSETTE			
414	3140 118 71870	TAPE DECK CDS83PBF-07			
416	3140 111 22030	SPRING-RECORDING			
417	4822 529 10387	DAMPER - RUBBER (40 DEG)			
418	4822 529 10386	DAMPER - RUBBER (30 DEG)			

MECHANICAL PARTSLIST - TAPE DECK

10	4822 528 70849	BRACKET, STEEL
11	4822 528 70695	ROLLER, RUBBER
13	4822 528 11189	PINCH ROLLER ASSY
106	4822 358 31325	MAIN BELT
107	9965 000 11408	SUB BELT (B)
110	4822 278 90663	LEAF SWITCH
111	9965 000 11448	R/P HEAD SR-20B03
112	9965 000 11449	E HEAD TC-235
115	9965 000 11450	MOTOR MG090Z90U24-1
116	9965 000 11451	MOTOR PULLEY
119	4822 276 13712	LEAF SWITCH LSA1115B

ADJUSTMENT - TAPE DECK

Adjustment	Cassette	SK ...	Deck 1	Measure on	Read on	Adjust with	Adjust to
Azimuth	10 kHz SBC420*	Tape	Play	H/P Jack	mV meter	Left hand Screw R/P head	max.
Motor Speed	3150 kHz SBC420*	Tape	Play	H/P Jack	Wow and flutter meter	Preset in motor	**a

* SBC420 : 4822 397 30071

**a The maximum permissible speed deviation is - 3%.
Moreover, the wow and flutter value can be read.

ELECTRICAL PARTSLIST - FRONT AND KEY BOARD

- MISCELLANEOUS -

1401	4822 265 11531	FFC SOCKET 9P HOR.
1404	4822 276 12889	MICRO SWITCH (DOOR)
1406	4822 267 10956	FFC SOCKET 7P HOR.
1500	2422 128 02922	SWI TACT 1P
1501	2422 128 02922	SWI TACT 1P
1502	2422 128 02922	SWI TACT 1P
1503	2422 128 02922	SWI TACT 1P
1504	2422 128 02922	SWI TACT 1P
1505	2422 128 02922	SWI TACT 1P
1506	2422 128 02922	SWI TACT 1P
1507	2422 128 02922	SWI TACT 1P
1508	2422 128 02922	SWI TACT 1P
1509	2422 128 02922	SWI TACT 1P
1510	2422 128 02922	SWI TACT 1P
1511	2422 128 02922	SWI TACT 1P

1512	2422 128 02922	SWI TACT 1P
1513	2422 128 02922	SWI TACT 1P
1514	2422 128 02922	SWI TACT 1P
1515	2422 128 02922	SWI TACT 1P
1516	2422 128 02922	SWI TACT 1P

1517	2422 128 02922	SWI TACT 1P
1518	2422 129 16349	ROT ENCODER 24P
1519	4822 265 11531	FFC SOCKET 9P HOR.
1520	4822 267 10956	FFC SOCKET 7P HOR.

- CAPACITORS -

2400	4822 122 31765	100pF 2% NP0 63V
2401	4822 122 31765	100pF 2% NP0 63V
2402	4822 122 31765	100pF 2% NP0 63V
2403	4822 122 31765	100pF 2% NP0 63V
2404	2238 586 59812	100nF +80-20% Y5V 50V
2405	4822 124 41584	100µF 20% 10V
2406	2238 586 59812	100nF +80-20% Y5V 50V
2408	2238 586 59812	100nF +80-20% Y5V 50V
2409	3198 017 41050	1µF 20% Y5V 10V
2415	4822 124 41584	100µF 20% 10V

2418	4822 124 22652	2,2µF 20% 50V
2421	5322 126 11583	10nF 10% X7R 50V
2422	5322 126 11583	10nF 10% X7R 50V
2424	4822 122 31765	100pF 2% NP0 63V
2425	4822 122 31765	100pF 2% NP0 63V

2426	4822 122 31765	100pF 2% NP0 63V
2429	4822 124 40433	47µF 20% 25V
2430	2238 586 59812	100nF +80-20% Y5V 50V
2431	2238 586 59812	100nF +80-20% Y5V 50V
2432	5322 126 11583	10nF 10% X7R 50V

- CAPACITORS -

2433	4822 124 40207	100µF 20% 25V
2436	4822 122 31765	100pF 2% NP0 63V
2437	4822 122 31765	100pF 2% NP0 63V
2440	4822 122 31765	100pF 2% NP0 63V
2443	4822 122 31765	100pF 2% NP0 63V
2444	2238 586 59812	100nF +80-20% Y5V 50V
2445	4822 122 31765	100pF 2% NP0 63V
2500	2020 552 96305	4,7µ +80-20% Y5V 10V
2501	5322 126 11578	1nF 10% X7R 50V
2502	4822 122 31765	100pF 2% NP0 63V

2503	4822 122 31765	100pF 2% NP0 63V
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- RESISTORS -

3298	4822 116 83883	470R 5% 0,5W
3299	4822 116 83883	470R 5% 0,5W
3300	4822 116 83883	470R 5% 0,5W
3301	4822 116 83883	470R 5% 0,5W
3400	4822 051 30223	22K 5% 0,062W
3401	4822 051 30223	22K 5% 0,062W
3402	4822 051 30223	22K 5% 0,062W
3403	4822 051 30223	22K 5% 0,062W
3404	4822 051 30102	1K 5% 0,062W
3405	4822 051 30331	330R 5% 0,062W
3406	4822 051 30102	1K 5% 0,062W
3407	4822 051 30331	330R 5% 0,062W
3408	4822 051 30102	1K 5% 0,062W
3409	4822 051 30331	330R 5% 0,062W
3410	4822 051 30102	1K 5% 0,062W

3411	4822 051 30331	330R 5% 0,062W
3412	4822 051 30101	100R 5% 0,062W
3413	4822 051 30392	3,9K 5% 0,063W
3414	4822 051 30392	3,9K 5% 0,063W
3415	4822 117 13632	100K 1% 0,62W
3416	4822 051 30392	3,9K 5% 0,063W
3417	4822 051 30101	100R 5% 0,062W
3418	4822 051 30332	3,3K 5% 0,062W
3419	4822 051 30472	4,7K 5% 0,062W
3420	4822 051 30223	22K 5% 0,062W

3421	4822 051 30223	22K 5% 0,062W
3422	4822 051 30222	2,2K 5% 0,062W
3423	4822 051 30222	2,2K 5% 0,062W
3426	4822 051 30223	22K 5% 0,062W
3427	4822 051 30223	22K 5% 0,062W

3428	4822 051 30102	1K 5% 0,062W
3431	4822 051 30102	1K 5% 0,062W
3432	4822 051 30101	100R 5% 0,062W
3433	4822 051 30102	1K 5% 0,062W
3434	4822 051 30272	2,7K 5% 0,062W

ELECTRICAL PARTSLIST - FRONT AND KEY BOARD

- RESISTORS -

3435	4822 051 30272	2,7K 5% 0,062W
3437	4822 051 30562	5,6K 5% 0,063W
3438	4822 051 30471	470R 5% 0,062W
3439	4822 051 30562	5,6K 5% 0,063W
3440	4822 051 30471	470R 5% 0,062W
3442	4822 051 30471	470R 5% 0,062W
3443	4822 051 30471	470R 5% 0,062W
3445	4822 051 30102	1K 5% 0,062W
3446	4822 051 30102	1K 5% 0,062W
3447	4822 117 12925	47K 1% 0,063W

3448	4822 117 12925	47K 1% 0,063W
3449	4822 051 30103	10K 5% 0,062W
3450	4822 117 12925	47K 1% 0,063W
3451	4822 117 12925	47K 1% 0,063W
3452	4822 051 30102	1K 5% 0,062W

3453	4822 051 30102	1K 5% 0,062W
3454	4822 051 30102	1K 5% 0,062W
3455	4822 051 30223	22K 5% 0,062W
3458	4822 051 30102	1K 5% 0,062W
3460	4822 051 30102	1K 5% 0,062W

3463	4822 051 30223	22K 5% 0,062W
3466	4822 051 30223	22K 5% 0,062W
3468	4822 051 30472	4,7K 5% 0,062W
3469	4822 051 30471	470R 5% 0,062W
3470	4822 051 30153	15K 5% 0,062W

3471	4822 051 30102	1K 5% 0,062W
3472	4822 051 30102	1K 5% 0,062W
3478	4822 051 30102	1K 5% 0,062W
3481	4822 051 30153	15K 5% 0,062W
3482	4822 051 30331	330R 5% 0,062W

3483	4822 051 30222	2,2K 5% 0,062W
3484	4822 051 30222	2,2K 5% 0,062W
3485	4822 051 30102	1K 5% 0,062W
3486	4822 051 30102	1K 5% 0,062W
3488	4822 051 30223	22K 5% 0,062W

3489	4822 051 30472	4,7K 5% 0,062W
3490	4822 051 30472	4,7K 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 30223	22K 5% 0,062W
3495	4822 051 30102	1K 5% 0,062W
3496	4822 051 30102	1K 5% 0,062W
3500	4822 051 30101	100R 5% 0,062W
3501	4822 051 30103	10K 5% 0,062W

3502	4822 117 13632	100K 1% 0,62W
3503	4822 051 30471	470R 5% 0,062W
3504	4822 051 30331	330R 5% 0,062W
3505	4822 051 30271	270R 5% 0,062W
3506	4822 051 30221	220R 5% 0,062W

- RESISTORS -

3507	4822 117 12968	820R 5% 0,62W
3508	4822 051 30681	680R 5% 0,062W
3509	4822 051 30471	470R 5% 0,062W
3510	4822 051 30331	330R 5% 0,062W
3511	4822 051 30271	270R 5% 0,062W

3512	4822 051 30222	2,2K 5% 0,062W
3513	4822 117 11817	1,2K 1% 1/16W
3514	4822 117 12968	820R 5% 0,62W
3516	4822 117 11817	1,2K 1% 1/16W
3517	4822 051 30681	680R 5% 0,062W

3518	4822 051 30221	220R 5% 0,062W
3519	4822 051 30102	1K 5% 0,062W
3520	4822 051 30102	1K 5% 0,062W
3522	4822 116 52228	680R 5% 0,5W
3523	4822 116 52228	680R 5% 0,5W

3524	4822 116 52228	680R 5% 0,5W
3525	4822 116 52228	680R 5% 0,5W
3526	4822 051 30472	4,7K 5% 0,062W
3527	4822 051 30472	4,7K 5% 0,062W
3528	4822 051 30472	4,7K 5% 0,062W

3529	4822 051 30472	4,7K 5% 0,062W
3530	4822 051 30472	4,7K 5% 0,062W
3532	4822 051 30472	4,7K 5% 0,062W
3538	4822 051 30472	4,7K 5% 0,062W
3539	4822 051 30472	4,7K 5% 0,062W

3540	4822 051 30472	4,7K 5% 0,062W
3541	4822 051 30472	4,7K 5% 0,062W
3542	4822 051 30472	4,7K 5% 0,062W
3543	4822 051 30472	4,7K 5% 0,062W
3544	4822 051 30472	4,7K 5% 0,062W

3545	4822 051 30472	4,7K 5% 0,062W
4401	4822 051 30008	0R JUMPER 0603
4402	4822 051 30008	0R JUMPER 0603
4403	4822 051 30008	0R JUMPER 0603
4404	4822 051 30008	0R JUMPER 0603

4407	4822 051 30008	0R JUMPER 0603
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- COILS & FILTERS -

1400	2422 540 98455	RES CER 4,194MHZ
5400	2422 549 44393	IND FXD 2,7K 100MHZ
5401	4822 157 11228	COIL 100µH 5% LAN02
5402	2422 549 44393	IND FXD 2,7K 100MHZ
5403	4822 157 62552	COIL 2,2µH

5404	2422 549 44393	IND FXD 2,7K 100MHZ
5405	2422 549 44393	IND FXD 2,7K 100MHZ
5406	2422 549 44393	IND FXD 2,7K 100MHZ
5407	2422 549 44393	IND FXD 2,7K 100MHZ
5408	2422 549 44393	IND FXD 2,7K 100MHZ

ELECTRICAL PARTSLIST - FRONT AND KEY BOARD

- COILS & FILTERS -

5409	2422 549 44393	IND FXD 2,7K 100MHZ
5410	2422 549 44393	IND FXD 2,7K 100MHZ
5411	2422 549 44393	IND FXD 2,7K 100MHZ
5412	2422 549 44393	IND FXD 2,7K 100MHZ
5413	2422 549 44393	IND FXD 2,7K 100MHZ

- DIODES -

6400	4822 130 30621	1N4148
6402	5322 130 31504	BZX79-B3V3
6403	4822 130 30621	1N4148
6404	4822 130 30621	1N4148
6405	4822 130 30621	1N4148
6406	4822 130 30621	1N4148
6407	5322 130 34337	BAV99
6408	4822 130 34173	BZX79-B5V6
6409	4822 130 30621	1N4148

- IC & TRANSISTORS -

7400	3140 110 51220	LCD PANEL AZ2045
7401	4822 130 60511	BC847B
7402	3140 110 51240	TMP86CH21F
7403	9965 000 04931	M24C01-WMN6
7404	4822 130 60511	BC847B
7405	4822 130 60511	BC847B
7500	9322 155 82667	IR RECEIVER TSOP2236

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

ELECTRICAL PARTSLIST - COMBI BOARD- TUNER PART**- CAPACITORS -**

2101	4822 122 33777	47pF 5% NP0 63V
2103	5322 126 11578	1nF 10% X7R 50V
2104	4822 122 31765	100pF 2% NP0 63V
2106	2020 800 00191	TRIM CAP 3P-11P N450
2107	4822 121 51319	1UF 10% 63V
2110	4822 122 31765	100pF 2% NP0 63V
2111	2222 867 15339	33pF 5% NP0 50V
2120	4822 122 33761	22pF 5% NP0 50V (3-band)
2120	4822 126 14507	18pF 5% NP0 50V (2-band)
2122	5322 126 11579	3,3nF10% X7R 63V
2123	2238 861 18391	390pF 1% NP0 50V
2124	4822 126 14494	22nF 10% X7R 25V
2125	2238 861 18561	560pF 1% NP0 50V
2126	4822 126 14241	330pF NP0 50V
2127	4822 126 13879	220nF +80-20% 16V
2128	4822 124 40248	10UF 20% 63V
2129	4822 124 41584	100UF 20% 10V
2130	3198 017 44740	470nF 20% Y5V 10V
2131	3198 017 44740	470nF 20% Y5V 10V
2132	3198 017 44740	470nF 20% Y5V 10V
2133	4822 124 21913	1UF 20% 63V
2134	3198 017 31530	15nF 10% X7R 50V
2134	4822 126 14494	22nF 10% X7R 25V (/17 only)
2134	4822 126 14494	22nF 10% X7R 25V (/17 only)
2135	3198 017 31530	15nF 10% X7R 50V
2136	4822 126 13879	220nF +80-20% 16V
2137	4822 126 13879	220nF +80-20% 16V
2138	4822 124 22652	2,2UF 20% 50V
2139	4822 122 33752	15pF 5% NP0 50V
2140	4822 126 14226	82pF 5% NP0 50V
2141	2238 586 59812	100nF +80-20% Y5V 50V
2144	3198 017 44740	470nF 20% Y5V 10V
2145	4822 126 13883	220pF 5% 50V
2146	4822 122 33575	220pF 5% NP0 63V
2147	4822 126 13883	220pF 5% 50V
2148	4822 126 14238	2,2nF X7R 50V
2150	4822 126 14585	100nF 10% X7R 50V
2152	4822 126 14549	33nF 16V X7R 50V
2152	4822 126 14249	560pF 10% NP0 25V (/14 only)
2153	4822 122 33752	15pF 5% NP0 50V
2153	4822 126 11663	12 pF 5% NP0 50V
2155	2020 800 00191	TRIM CAP 3P-11P N450
2159	2222 867 15339	33pF 5% NP0 50V
2163	2238 586 59812	100nF +80-20% Y5V 50V
2164	3198 017 44740	470nF 20% Y5V 10V
2165	2238 586 59812	100nF +80-20% Y5V 50V
2166	5322 126 11578	1nF 10% X7R 50V
2167	4822 126 11663	12 pF 5% NP0 50V
2186	4822 124 40196	220UF 20% 16V
2187	5322 126 11583	10nF 10% X7R 50V

- CAPACITORS -

2188	5322 126 11583	10nF 10% X7R 50V
2189	4822 126 13879	220nF +80-20% 16V
2190	4822 124 81151	22UF 20% 50V
2191	4822 124 81151	22UF 20% 50V
2192	5322 126 11578	1nF 10% X7R 50V
2193	5322 126 11578	1nF 10% X7R 50V
2194	5322 126 11578	1nF 10% X7R 50V
2195	4822 124 81151	22UF 20% 50V
2196	5322 126 11583	10nF 10% X7R 50V
2197	5322 126 11583	10nF 10% X7R 50V

- RESISTORS -

3101	4822 051 30333	33K 5% 0,062W
3102	4822 117 13632	100K 1% 0,62W
3103	4822 117 12902	8,2K 1% 0,063W
3104	4822 117 13577	330R 1% 1,25W
3105	4822 051 30221	220R 5% 0,062W
3106	4822 117 12139	22R 5% 0,062W
3107	4822 051 30475	4,7M 5% 0,062W
3108	4822 051 30222	2,2K 5% 0,062W
3109	4822 051 30222	2,2K 5% 0,062W
3123	4822 051 30472	4,7K 5% 0,062W
3125	4822 051 30103	10K 5% 0,062W
3128	4822 051 30222	2,2K 5% 0,062W
3132	4822 051 30479	47R 5% 0,062W
3134	4822 051 30223	22K 5% 0,062W
3137	4822 051 30153	15K 5% 0,062W
3141	4822 051 30563	56K 5% 0,062W
3142	4822 100 12159	100K 30% VAR.
3145	4822 051 30222	2,2K 5% 0,062W
3152	4822 051 30471	470R 5% 0,062W
3153	4822 051 30471	470R 5% 0,062W
3155	4822 051 30479	47R 5% 0,062W
3156	4822 117 13632	100K 1% 0,62W
3157	4822 117 13632	100K 1% 0,62W
3158	4822 051 30471	470R 5% 0,062W
3159	4822 051 30471	470R 5% 0,062W
3160	4822 051 30471	470R 5% 0,062W
3161	4822 051 20223	22K 5% 0,1W
3166	4822 051 20479	4,7R 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% 0,62W
3180	4822 051 30103	10K 5% 0,062W
3186	4822 117 11448	180R 1% 0,1W
3187	4822 051 30102	1K 5% 0,062W
3188	4822 051 30222	2,2K 5% 0,062W

ELECTRICAL PARTSLIST - COMBI BOARD- TUNER PART**- RESISTORS -**

3189	4822 051 30223	22K 5% 0,062W
3190	4822 051 30103	10K 5% 0,062W
3191	4822 051 30472	4,7K 5% 0,062W
3192	4822 051 30105	1M 5% 0,062W
3193	4822 051 30222	2,2K 5% 0,062W
3194	4822 117 13632	100K 1% 0,62W
3195	4822 051 30474	470K 5% 0,062W
3196	4822 051 30103	10K 5% 0,062W
4105	4822 051 30008	0R JUMPER 0603
4106	4822 051 30008	0R JUMPER 0603
4107	4822 051 30008	0R JUMPER 0603
4108	4822 051 30008	0R JUMPER 0603
4104	4822 051 30008	0R JUMPER 0603
4109	4822 051 30008	0R JUMPER 0603
4110	4822 051 30008	0R JUMPER 0603

- COILS & FILTERS -

1106	3140 114 50050	FER. BAR D10X80 (3-band)
1106	2422 549 44211	FER. BAR 5X13X55 (2-band)
5104	2422 536 00364	COIL MW ANT. (2-band)
5104	4822 157 11269	COIL MW ANT. (3-band)
5105	4822 157 11271	COIL LW ANT.
5109	4822 242 70665	SFE10,7MS3-A
5110	4822 242 70665	SFE10,7MS3-A
5111	2422 549 44023	IFT 450KHZ
5112	4822 157 70302	IFT FM
5114	4822 157 70302	IFT FM
5119	4822 157 11443	COIL 10,7MHZ
5121	4822 242 10261	COIL 75KHZ
5122	2422 549 44108	COIL MW OSC
5123	2422 549 44108	COIL LW OSC
5130	4822 157 11843	MD7B-01F
5131	4822 157 11843	MD7B-01F

- DIODES -

6103	5322 130 34337	BAV99
6105	4822 130 83075	HN1V02H-B
6120	4822 130 11397	BAS316
6130	4822 130 82833	1SV228
6130	9322 169 42685	BB804-SF2 (/17 only)
6131	4822 130 82833	1SV228
6131	9322 169 42685	BB804-SF2 (/17 only)
6181	5322 130 34337	BAV99
6182	4822 130 11397	BAS316
6183	9340 386 90115	BZX284-C11

- IC & TRANSISTORS -

7101	9351 740 80557	TEA5757H/V1
7102	4822 130 42131	BF550
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.

ELECTRICAL PARTSLIST - COMBI BOARD- CD PART**- CAPACITORS -**

2801	4822 124 40433	47µF 20% 25V
2802	4822 124 40433	47µF 20% 25V
2803	4822 126 14226	82pF 5% NP0 50V
2804	4822 126 14226	82pF 5% NP0 50V
2805	4822 126 14226	82pF 5% NP0 50V
2806	4822 126 13695	82pF 1% NP0 63V
2807	4822 126 11669	27pF 5% 50V
2808	5322 122 33538	150pF 2% NP0 63V
2809	4822 126 11669	27pF 5% 50V
2810	4822 126 13692	47pF 1% NP0 63V
2811	2222 867 15339	33pF 5% NP0 50V
2812	4822 122 33741	10PF 10% NP0 50V
2813	4822 126 14238	2,2nF X7R 50V
2814	3198 024 44730	47nF Y5V 50V
2815	4822 122 33777	47pF 5% NP0 63V
2816	5322 122 32654	22nF 10% X7R 63V
2817	4822 124 40769	4,7µF 20% 100V
2818	3198 024 44730	47nF Y5V 50V
2821	2238 586 59812	100nF +80-20% 50V
2822	4822 126 13344	1,5nF 5% 63V
2823	4822 124 42383	220µF 20% 4V
2824	4822 126 13751	47nF10% X7R 63V
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 122 33777	47pF 5% NP0 63V
2830	3198 017 41050	1µF Y5V 10V
2831	4822 126 14043	1µF +80-20% 16V
2832	4822 122 33753	150pF 5% NP0 50V
2833	4822 126 13881	470pF 5% 50V
2834	4822 126 14506	270pF 5% 50V
2835	4822 126 13881	470pF 5% 50V
2836	4822 124 40433	47µF 20% 25V
2837	3198 024 44730	47nF Y5V 50V
2838	3198 017 42230	22nF Y5V 50V
2839	2238 586 59812	100nF +80-20% 50V
2840	4822 124 40433	47µF 20% 25V
2841	4822 126 13751	47nF10% X7R 63V
2842	4822 124 21913	1µF 20% 63V
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 40248	10µF 20% 63V
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 40248	10µF 20% 63V
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 12362	47µ 4V 20%
2860	5322 116 80853	560pF 5% NP0 63V
2861	4822 126 13344	1,5nF 5% 63V
2862	4822 126 14508	180pF 5% 50V
2863	4822 126 14508	180pF 5% 50V
2864	4822 126 14508	180pF 5% 50V
2865	4822 126 14508	180pF 5% 50V
2869	3198 024 44730	47nF Y5V 50V
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	4822 126 13751	47nF10% X7R 63V

- RESISTORS -

3800	4822 117 13608	4,7R 5% 0,0016W
3801	4822 051 30154	150K 5% 0,062W
3802	4822 051 30102	1K 5% 0,062W
3803	4822 051 30273	27K 5% 0,062W
3804	4822 051 30472	4,7K 5% 0,062W
3805	4822 051 30273	27K 5% 0,062W
3806	4822 117 10361	680R 1% 0,1W
3807	4822 051 30152	1,5K 5% 0,062W
3808	4822 051 30339	33R 5% 0,062W
3809	4822 051 30339	33R 5% 0,062W
3810	4822 052 10478	4,7R 5% 0,33W
3811	4822 051 30102	1K 5% 0,062W
3812	4822 051 30474	470K 5% 0,062W
3813	4822 051 30683	68K 5% 0,062W
3814	4822 051 30332	3,3K 5% 0,062W
3815	4822 051 30472	4,7K 5% 0,062W
3816	4822 051 30153	15K 5% 0,062W
3817	4822 117 10834	47K 1% 0,1W
3818	4822 051 20562	5,6K 5% 0,1W
3819	4822 051 30153	15K 5% 0,062W
3820	4822 051 30183	18K 5% 0,062W
3821	4822 051 20332	3,3K 5% 0,1W
3822	4822 051 30332	3,3K 5% 0,062W
3823	4822 051 20332	3,3K 5% 0,1W
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 20339	33R 5% 0,1W
3828	4822 051 20479	47R 5% 0,1W
3829	4822 051 30101	100R 5% 0,062W

ELECTRICAL PARTSLIST - COMBI BOARD- CD PART

- RESISTORS -

3830	4822 051 30472	4,7K 5% 0,062W
3835	4822 051 30223	22K 5% 0,062W
3836	4822 117 10833	10K 1% 0,1W
3837	4822 051 20471	470R 5% 0,1W
3838	4822 051 20471	470R 5% 0,1W
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 10102	1K 2% 0,25W
3843	4822 051 30102	1K 5% 0,062W
3844	4822 051 30101	100R 5% 0,062W
3845	4822 051 30109	10R 5% 0,062W
3846	4822 051 20223	22K 5% 0,1W
3847	4822 117 12864	82K 5% 0,6W
3848	4822 117 10834	47K 1% 0,1W
3849	4822 051 30563	56K 5% 0,062W
3850	4822 117 12902	8,2K 1% 0,063W
3851	4822 051 30563	56K 5% 0,062W
3852	4822 117 10834	47K 1% 0,1W
3853	4822 051 30153	15K 5% 0,062W
3854	4822 117 12902	8,2K 1% 0,063W
3855	4822 116 40227	4,6R 25% 12V (FUS.)
3856	4822 051 20683	68K 5% 0,1W
3857	4822 051 20154	150K 5% 0,1W
3858	4822 051 30392	3,9k 5% 0,063W
3859	4822 117 10834	47K 1% 0,1W
3860	4822 051 30102	1K 5% 0,062W
3861	4822 117 10834	47K 1% 0,1W
3862	4822 051 10102	1K 2% 0,25W
3863	4822 052 10338	3,3R 5% 0,33W
3864	4822 117 10833	10K 1% 0,1W
3865	4822 051 30102	1K 5% 0,062W
3867	4822 051 20223	22K 5% 0,1W
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
3878	4822 051 30471	470R 5% 0,062W
3879	4822 117 12925	47K 1% 0,063W
3880	4822 051 20339	33R 5% 0,1W
3881	4822 051 30151	150R 5% 0,062W
3882	4822 117 11373	100R 1%
3883	4822 051 30102	1K 5% 0,062W
3884	4822 051 30102	1K 5% 0,062W
3886	4822 117 10833	10K 1% 0,1W
3887	4822 117 10833	10K 1% 0,1W

- RESISTORS -

3888	4822 051 20472	4,7K 5% 0,1W
3890	4822 117 10837	100K 1% 0,1W
3891	4822 117 10837	100K 1% 0,1W
3892	4822 117 13632	100K 1% 0,62W
3893	4822 117 13632	100K 1% 0,62W
3894	4822 117 10833	10K 1% 0,1W
3895	4822 117 10833	10K 1% 0,1W
3896	4822 117 10833	10K 1% 0,1W
3897	4822 117 10833	10K 1% 0,1W
3898	4822 117 10833	10K 1% 0,1W
3899	4822 117 10833	10K 1% 0,1W
3900	4822 051 20223	22K 5% 0,1W
4801	4822 051 30008	0R JUMPER 0603
4802	4822 051 20008	0R JUMPER 0805
4807	4822 051 20008	0R JUMPER 0805
4809	4822 051 20008	0R JUMPER 0805
4810	4822 051 20008	0R JUMPER 0805
4812	4822 051 20008	0R JUMPER 0805
4813	4822 051 20008	0R JUMPER 0805
4814	4822 051 20008	0R JUMPER 0805
4815	4822 051 20008	0R JUMPER 0805
4823	4822 051 20008	0R JUMPER 0805
4824	4822 051 20008	0R JUMPER 0805
4828	4822 051 20008	0R JUMPER 0805
4831	4822 051 20008	0R JUMPER 0805
4832	4822 051 20008	0R JUMPER 0805
4838	4822 051 20008	0R JUMPER 0805
4845	4822 051 20008	0R JUMPER 0805
4847	4822 051 20008	0R JUMPER 0805
4848	4822 051 20008	0R JUMPER 0805
4850	4822 051 20008	0R JUMPER 0805
4853	4822 051 20008	0R JUMPER 0805
4856	4822 051 30008	0R JUMPER 0603
4857	4822 051 20008	0R JUMPER 0805
4859	4822 051 20008	0R JUMPER 0805
4863	4822 051 20008	0R JUMPER 0805
4865	4822 051 20008	0R JUMPER 0805
4872	4822 051 20008	0R JUMPER 0805
4877	4822 051 30008	0R JUMPER 0603
4881	4822 051 20008	0R JUMPER 0805
4884	4822 051 20008	0R JUMPER 0805
4885	4822 051 30008	0R JUMPER 0603
4886	4822 051 20008	0R JUMPER 0805
4888	4822 051 20008	0R JUMPER 0805
4889	4822 051 20008	0R JUMPER 0805

ELECTRICAL PARTSLIST - COMBI BOARD- CD PART

- COILS & FILTERS -

1810	2422 540 98519	RES CER 8,467MHZ
5803	4822 157 11231	1 μ H
5804	2422 549 44393	IND FXD 100MHZ 2K7

- DIODES -

6877	4822 130 11564	UDZ3.9B
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- IC & TRANSISTORS -

7800	9352 641 80557	SAA7324H/M2B
7802	5322 209 11517	PC74HCU04T
7803	5322 130 60123	BC807-40
7804	5322 209 82941	LM358D
7807	5322 130 42755	BC847C
7808	4822 209 32852	TDA7073A/N2
7809	4822 209 32852	TDA7073A/N2
7810	4822 209 33165	TDA1308T/N1
7875	4822 130 60511	BC847B

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

ELECTRICAL PARTSLIST - COMBI BOARD- TAPE PART**- MISCELLANEOUS -**

1707	4822 277 11504	SWITCH-PUSH
5701	4822 157 10371	COIL BIAS OSC

- CAPACITORS -

2706	4822 124 21732	10µF 20% 25V
2707	4822 124 40196	220µF 20% 16V
2708	4822 124 80231	47µF 20% 25V
2709	4822 124 40433	47µF 20% 25V
2710	4822 124 23052	100µF 20% 16V
2711	4822 124 81151	22µF 20% 50V
2712	4822 126 14247	1,5nF X7R 50V
2714	4822 126 14247	1,5nF X7R 50V
2715	5322 126 11583	10nF 10% X7R 50V
2716	2238 586 59812	100nF +80-20% 50V
2719	2238 586 15633	5,6nF 10% X7R 50V
2721	4822 126 14247	1,5nF X7R 50V
2722	5322 126 11583	10nF 10% X7R 50V
2723	2238 586 59812	100nF +80-20% 50V
2726	2238 586 15633	5,6nF 10% X7R 50V
2727	4822 126 14247	1,5nF X7R 50V
2728	4822 126 13193	4,7nF 10% X7R 63V
2729	4822 126 13193	4,7nF 10% X7R 63V
2730	2020 300 90561	1,2nF 10% 50V
2732	5322 126 11579	3,3nF 10% X7R 63V
2733	5322 126 11583	10nF 10% X7R 50V
2738	5322 126 11583	10nF 10% X7R 50V
2739	5322 126 11583	10nF 10% X7R 50V
2750	2238 586 15633	5,6nF 10% X7R 50V
2751	2238 586 15633	5,6nF 10% X7R 50V
2770	4822 124 11946	22µF 20% 16V
2771	4822 124 81151	22µF 20% 50V

- RESISTORS -

3710	4822 051 30273	27K 5% 0,062W
3712	4822 051 30123	12K 5% 0,062W
3713	4822 051 30151	150R 5% 0,062W
3714	4822 051 30221	220R 5% 0,062W
3716	4822 051 30334	330K 5% 0,062W
3719	4822 051 30273	27K 5% 0,062W
3720	4822 051 30123	12K 5% 0,062W
3722	4822 051 30223	22K 5% 0,062W
3723	4822 051 30223	22K 5% 0,062W
3726	4822 051 30222	2,2K 5% 0,062W
3727	4822 051 30222	2,2K 5% 0,062W
3728	4822 051 20479	47R 5% 0,1W
3730	4822 051 30151	150R 5% 0,062W
3731	4822 051 30563	56K 5% 0,062W
3732	4822 117 12971	15R 5% 0,62W

- RESISTORS -

3733	4822 051 30475	4,7M 5% 0,062W
3734	4822 051 30103	10K 5% 0,062W
3737	4822 051 30103	10K 5% 0,062W
3738	4822 117 13632	100K 1% 0,62W
3743	4822 051 30471	470R 5% 0,062W
3744	4822 051 30471	470R 5% 0,062W
3745	4822 051 30109	10R 5% 0,062W
3747	4822 051 30151	150R 5% 0,062W
3748	4822 051 30471	470R 5% 0,062W
3749	4822 051 30471	470R 5% 0,062W
3757	4822 051 20223	22K 5% 0,1W
3761	4822 051 30562	5,6K 5% 0,063W
3762	4822 051 30562	5,6K 5% 0,063W
3770	4822 051 30151	150R 5% 0,062W
3771	4822 051 30334	330K 5% 0,062W
3772	4822 051 30221	220R 5% 0,062W
3773	4822 051 30474	470K 5% 0,062W
3774	4822 051 30101	1R 5% 0,062W
3788	4822 051 20472	4,7K 5% 0,1W
4701	4822 051 30008	0R JUMPER 0603
4702	4822 051 30008	0R JUMPER 0603
4703	4822 051 30008	0R JUMPER 0603
4704	4822 051 30008	0R JUMPER 0603
4705	4822 051 30008	0R JUMPER 0603
4706	4822 051 30008	0R JUMPER 0603
4707	4822 051 30008	0R JUMPER 0603
4708	4822 051 30008	0R JUMPER 0603
4709	4822 051 30008	0R JUMPER 0603
4710	4822 051 30008	0R JUMPER 0603
4711	4822 051 30008	0R JUMPER 0603
4712	4822 051 30008	0R JUMPER 0603

- DIODE, IC & TRANSISTORS -

6704	4822 130 30621	1N4148
7702	4822 130 40981	BC337-25
7705	4822 209 17498	AN7323

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

ELECTRICAL PARTSLIST - COMBI BOARD - AF PART**- MISCELLANEOUS -**

1254	△	2422 086 10783	FUSE 2A 250V IEC
1254	△	4822 253 10128	FUSE 2A 250V UL
1257		2422 026 05076	HEADPHONE JACK

- CAPACITORS -

2251		2238 586 59812	100nF +80-20% 50V
2252		4822 124 41407	0,47µF 20% 63V
2253		4822 124 41407	0,47µF 20% 63V
2254		4822 124 41407	0,47µF 20% 63V
2255		4822 124 41407	0,47µF 20% 63V

2256		4822 124 41407	0,47µF 20% 63V
2257		4822 124 41407	0,47µF 20% 63V
2258		5322 126 11583	10nF 10% X7R 50V
2259		5322 126 11583	10nF 10% X7R 50V
2260		5322 126 11582	6,8nF 10% X7R 63V

2261		5322 126 11582	6,8nF 10% X7R 63V
2262		4822 126 14247	1,5nF X7R 50V
2263		4822 126 14247	1,5nF X7R 50V
2264		2238 586 59812	100nF +80-20% 50V
2265		2238 586 59812	100nF +80-20% 50V

2266		5322 126 11583	10nF 10% X7R 50V
2267		5322 126 11583	10nF 10% X7R 50V
2268		2238 586 59812	100nF +80-20% 50V
2269		2238 586 59812	100nF +80-20% 50V
2270		4822 126 13193	4,7nF 10% X7R 63V

2271		4822 126 13193	4,7nF 10% X7R 63V
2272		2238 586 59812	100nF +80-20% 50V
2273		2238 586 59812	100nF +80-20% 50V
2274		2238 586 59812	100nF +80-20% 50V
2275		2238 586 59812	100nF +80-20% 50V

2276		3198 016 31020	1nF NP0 25V
2277		3198 016 31020	1nF NP0 25V
2278		4822 122 31765	100pF 2% NP0 63V
2279		4822 122 31765	100pF 2% NP0 63V
2280		4822 124 40433	47µF 20% 25V

2282		4822 124 41751	47µF 20% 50V
2283		4822 124 41751	47µF 20% 50V
2284		4822 124 40207	100µF 20% 25V
2285		4822 124 40207	100µF 20% 25V
2286		3198 016 36810	680pF NP0 25V

2287		3198 016 36810	680pF NP0 25V
2288		4822 124 40433	47µF 20% 25V
2289		4822 124 40433	47µF 20% 25V
2290		4822 124 41407	0,47µF 20% 63V
2291		4822 124 41407	0,47µF 20% 63V

2292		4822 124 80195	470µF 20% 10V
2293		4822 124 80195	470µF 20% 10V
2294		4822 124 40196	220µF 20% 16V
2295		4822 124 11878	4700µF 20% 16V.
2296		4822 124 80195	470µF 20% 10V

- CAPACITORS -

2301		4822 126 11585	22nF +80-20% 25V
2302		4822 126 11585	22nF +80-20% 25V
2303		4822 126 11585	22nF +80-20% 25V
2304		4822 126 11585	22nF +80-20% 25V
2305		4822 124 41584	100µF 20% 10V

2306		3198 016 31020	1nF NP0 25V
2307		4822 124 40248	10µF 20% 63V
2308		4822 124 40769	4,7µF 20% 100V
2309		2238 586 59812	100nF +80-20% 50V
2314		3198 017 34730	47nF X7R 16V

2315		3198 017 34730	47nF X7R 16V
2316		3198 017 44740	47nF X7R 16V
2317		3198 017 44740	47nF X7R 16V
2318		3198 016 31020	1nF NP0 25V
2319		4822 124 40433	47µF 20% 25V

2320		3198 017 34730	47nF X7R 16V
2321		3198 017 34730	47nF X7R 16V
2322		4822 124 40433	47µF 20% 25V
2323		4822 126 14491	2.2µF 10V 0805
2324		4822 124 40433	47µF 20% 25V

2325		3198 016 31020	1nF NP0 25V
2326		3198 016 31020	1nF NP0 25V
2327		2238 586 59812	100nF +80-20% 50V
2328		2238 586 59812	100nF +80-20% 50V
2329		2238 586 59812	100nF +80-20% 50V

2330		2238 586 59812	100nF +80-20% 50V
2331		3198 017 44740	47nF X7R 16V
2332		3198 017 44740	47nF X7R 16V

- RESISTORS -

3251		4822 117 12902	8,2K 1% 0,063W
3252		4822 117 12902	8,2K 1% 0,063W
3253		4822 117 12925	47K 1% 0,063W
3254		4822 117 12925	47K 1% 0,063W
3255		4822 051 30331	330R 5% 0,062W

3256		4822 051 30331	330R 5% 0,062W
3257		4822 051 30393	39K 5% 0,062W
3258		4822 051 30393	39K 5% 0,062W
3260		4822 051 30472	4,7K 5% 0,062W
3261		4822 117 12925	47K 1% 0,063W

3262		4822 117 12925	47K 1% 0,063W
3263		4822 051 30472	4,7K 5% 0,062W
3267		4822 051 30471	470R 5% 0,062W
3268		4822 051 30471	470R 5% 0,062W
3269		4822 051 30222	2,2K 5% 0,062W

3270		4822 051 30222	2,2K 5% 0,062W
3271		4822 051 30273	27K 5% 0,062W
3272		4822 051 30273	27K 5% 0,062W
3273		4822 051 30272	2,7K 5% 0,062W
3274		4822 051 30272	2,7K 5% 0,062W

ELECTRICAL PARTSLIST - COMBI BOARD - AF PART**- IC & TRANSISTORS -**

7263	4822 130 60511	BC847B
7265	4822 130 42804	BC817-25
7266	4822 130 42804	BC817-25
7267	4822 130 41246	BC327-25
7268	4822 130 41246	BC327-25
7269	4822 130 60373	BC856B
7270	4822 130 60511	BC847B
7271	4822 130 60373	BC856B
7272	4822 130 41246	BC327-25

ELECTRICAL PARTSLIST - MISCELLANEOUS

1005	⚠ 2422 030 00333	AC SOCKET
1005	⚠ 4822 265 20706	AC SOCKET (/17 only)
1006	⚠ 3140 118 33180	TRANSFORMER 230V
1006	⚠ 3140 118 33190	TRANSFORMER 120/220V
1006	⚠ 3140 118 33200	TRANSFORMER 120V
1007	2422 264 00447	LOUDSPEAKER 4 OHM 6W
1007	2422 264 00448	LOUDSPEAKER 4 OHM 6W (/17 only)
1008	2422 264 00447	LOUDSPEAKER 4 OHM 6W
1008	2422 264 00448	LOUDSPEAKER 4 OHM 6W (/17 only)
1009	2422 264 00456	LOUDSPEAKER, PIEZO
1009	2422 264 00405	LOUDSPEAKER, PIEZO (/17 only)
1010	2422 264 00456	LOUDSPEAKER, PIEZO
1010	2422 264 00405	LOUDSPEAKER, PIEZO (/17 only)
1011	⚠ 2422 127 00453	VOLTAGE SELECTOR
8401	3139 110 35700	FFC FOIL 9P 140MM
8800	4822 320 12637	FFC FOIL 15P 70MM

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

ELECTRICAL PARTSLIST - COMBI BOARD - AF PART**- IC & TRANSISTORS -**

7263	4822 130 60511	BC847B
7265	4822 130 42804	BC817-25
7266	4822 130 42804	BC817-25
7267	4822 130 41246	BC327-25
7268	4822 130 41246	BC327-25
7269	4822 130 60373	BC856B
7270	4822 130 60511	BC847B
7271	4822 130 60373	BC856B
7272	4822 130 41246	BC327-25

ELECTRICAL PARTSLIST - MISCELLANEOUS

1005	△ 2422 030 00333	AC SOCKET
1005	△ 4822 265 20706	AC SOCKET (/17 only)
1006	△ 3140 118 33180	TRANSFORMER 230V
1006	△ 3140 118 33190	TRANSFORMER 120/220V
1006	△ 3140 118 33200	TRANSFORMER 120V
1007	2422 264 00447	LOUDSPEAKER 4 OHM 6W
1007	2422 264 00448	LOUDSPEAKER 4 OHM 6W (/17 only)
1008	2422 264 00447	LOUDSPEAKER 4 OHM 6W
1008	2422 264 00448	LOUDSPEAKER 4 OHM 6W (/17 only)
1009	2422 264 00456	LOUDSPEAKER, PIEZO
1009	2422 264 00405	LOUDSPEAKER, PIEZO (/17 only)
1010	2422 264 00456	LOUDSPEAKER, PIEZO
1010	2422 264 00405	LOUDSPEAKER, PIEZO (/17 only)
1011	△ 2422 127 00453	VOLTAGE SELECTOR
8401	3139 110 35700	FFC FOIL 9P 140MM
8800	4822 320 12637	FFC FOIL 15P 70MM

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