

Service Service Service



Service Manual

TABLE OF CONTENTS

Handling Chip Components and Safety	1 - 1
Technical Specification & Service tools.....	2 - 1
Service Measurement.....	2 - 2
Connections and controls	3 - 1
Instruction for use.....	3-2 - 3-4
Disassembly Diagram.....	4 - 1
Block Diagram	5 - 1
Wiring Diagram	5 - 2
Tuner Board	
Circuit diagram	6 - 1
Tuner adjustment	6 - 1
Layout diagram.....	6 - 2
Recorder Board	
Circuit diagram	7 - 1
Layout diagram.....	7 - 2
Tape deck adjustment.....	7 - 2

CD / Control Board	
Circuit diagram	8 - 1
Layout diagram.....	8 - 2
Power Board	
Circuit diagram	9 - 1
Layout diagram.....	9 - 2
Rectifier Board	
Circuit diagram	9 - 2
Layout diagram.....	9 - 2
Exploded view - cabinet.....	10 - 1
Mechanical partslist	10 - 2
Electrical partslist	11 - 1 .. 11 - 2

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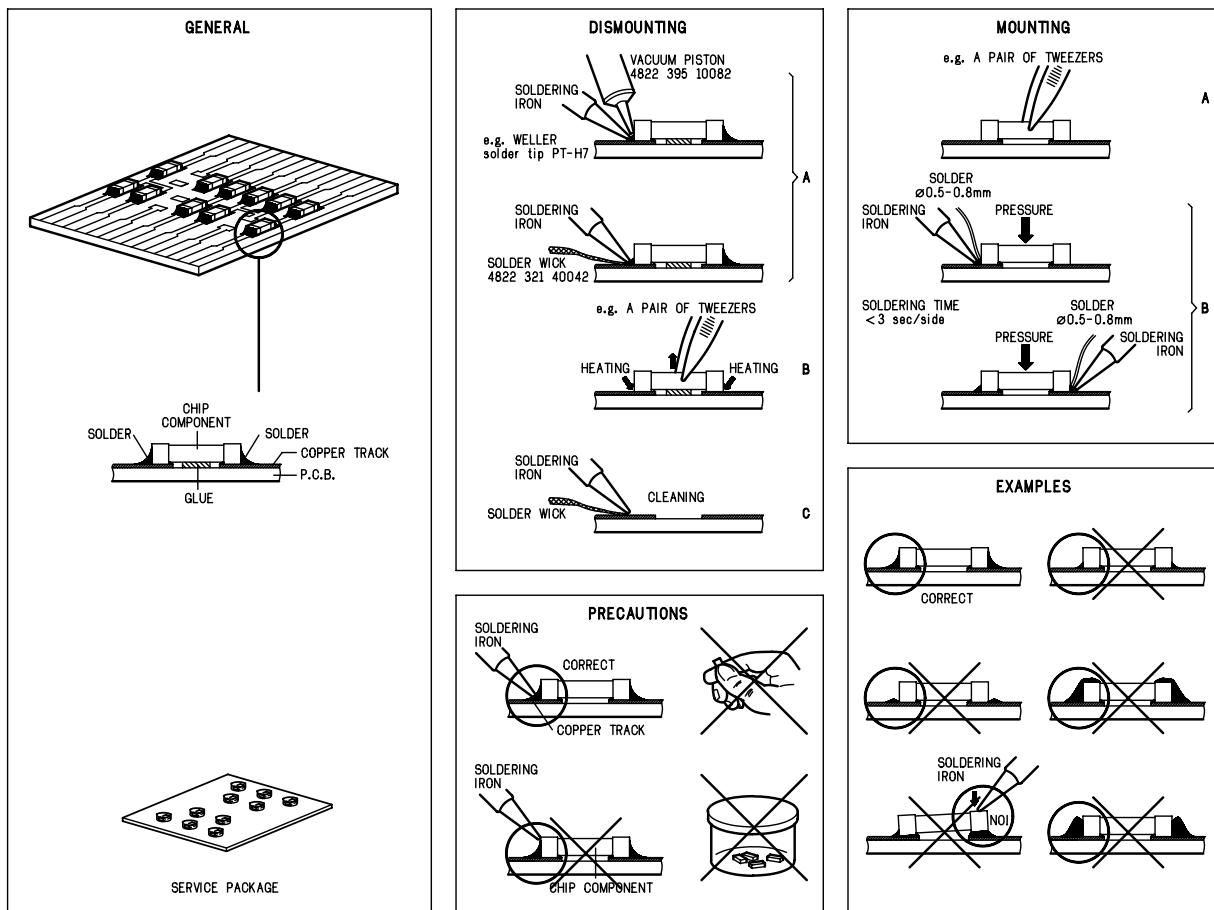
(GB) 3140 785 32630



**CLASS 1
LASER PRODUCT**

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.

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 enfile le bracelet servi d'une résistance de sécurité. Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

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

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

S Warning !

Osynlig laserstrålning när apparaten är öppnad och spärren är urkopplad. Beträkta ej strålen.

DK Advarsel !

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

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.

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

ESD



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 einen Pulsschleifer mit Widerstand mit dem Massepotential des Gerätes verbunden sind. Halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

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.

CLASS 1 LASER PRODUCT

FIN Varoitus !

Avatussa laitteessa ja suoja- ja suojalaituksissa olet alittina näkymättömälle lasersäteilylle. 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".

TECHNICAL SPECIFICATIONS

GENERAL

Mains voltage	-/01 : 120 / 230 V
Mains frequency	-/01 : 50 / 60 Hz
Battery	: 9 V (R14/UM-2/C-size x 6)
Power consumption	: 12 W
Dimension (W x H x D)	: 360 x 225 x 152mm
Weight	: 2.3 Kg

TUNER - AM SECTION

Tuning range	: 512 - 1635 kHz
IF frequency	: 468 kHz ± 3 kHz
Sensitivity	: 4000 µV/m at 26dB S/N
Selectivity	: 20 dB
IF rejection	: 70 dB
Image rejection	: 32 dB

AMPLIFIER

Output power	mains : 2 x 1 W battery : 2 x 1 W
Speaker impedance	: 2 x 8 ohm
Frequency response	: 100 Hz - 10 kHz (±3dB)

AUDIO CASSETTE RECORDER

Number of tracks	: 1 stereo
Tape speed	: 4.76 cm/sec ± 3%
Wow & flutter	: < 0.48 JIS UWTD
Fast wind/rewind	C60 : 130 sec.
Frequency response	P/B : 125 - 8000 Hz
S/N ratio	: ≥ 36 dB

TUNER - FM SECTION

Tuning range	: 87.5 - 108 MHz
IF frequency	: 10.7 MHz ± 0.2 MHz
Sensitivity	: 28 dBf at 26dB S/N
Selectivity	: 24 dB at 300kHz
IF rejection	: 65 dB
Image rejection	: 26 dB

COMPACT DISC

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

SERVICE TOOLS

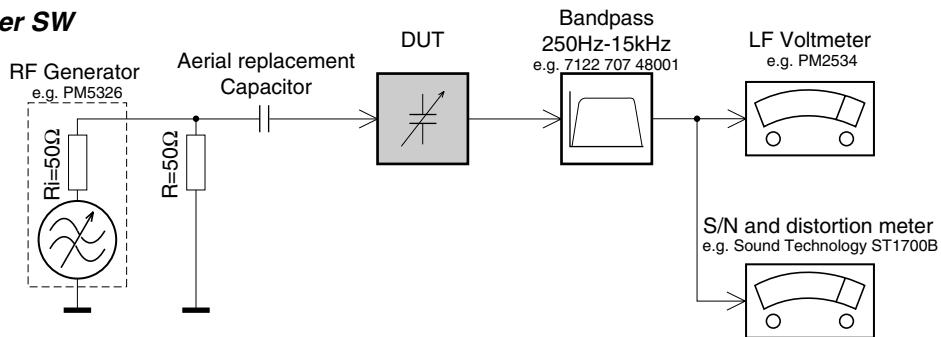
Audio signal disc SBC 429.....	4822 397 30184
Playability test disc SBC 444.....	4822 397 30245
Test disc 5 (disc without errors) +	
Test disc 5A (disc with dropout errors, black spots and fingerprints)	
SBC 426/426A.....	4822 397 30096
Burn in test disc (65 min. 1kHz signal at -30 dB level without "pause")	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, 1MΩ)		4822 320 11307
extendible cable (2m, 2MΩ, to connect wristband to connection box)		4822 320 11305
connecting cable (3m, 2MΩ, to connect table mat to connection box)		4822 320 11306
earth cable (1MΩ, 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

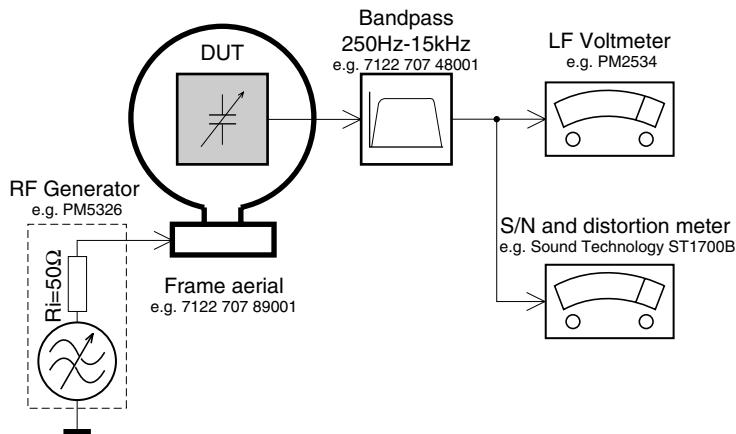
SERVICE MEASUREMENT

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).

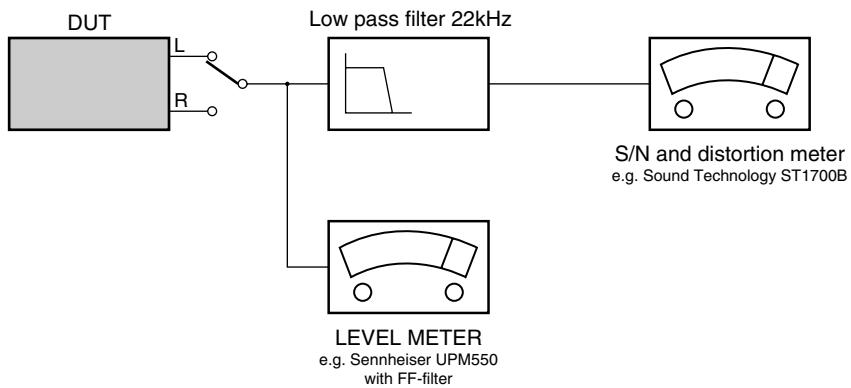
Tuner AM (MW,LW)



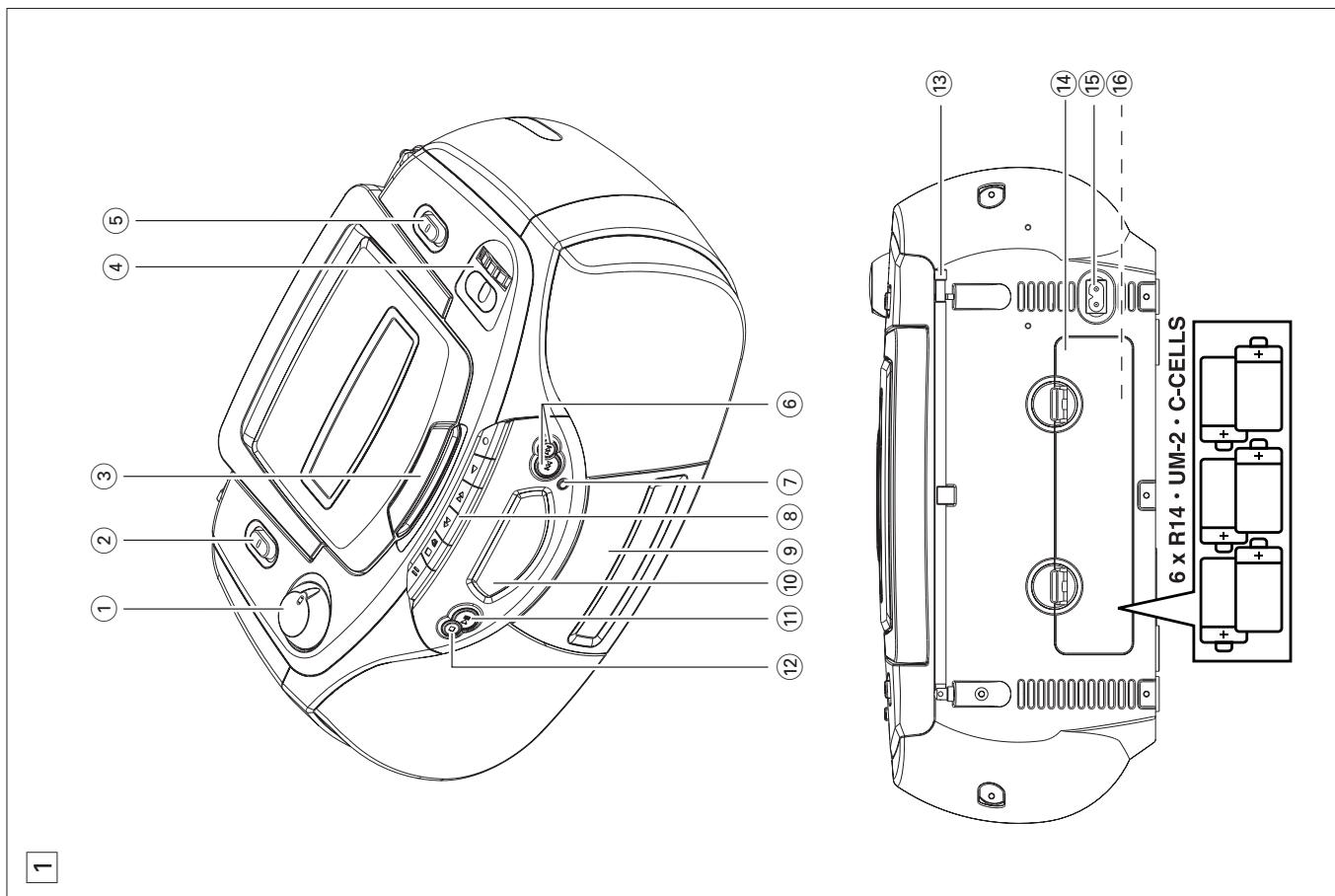
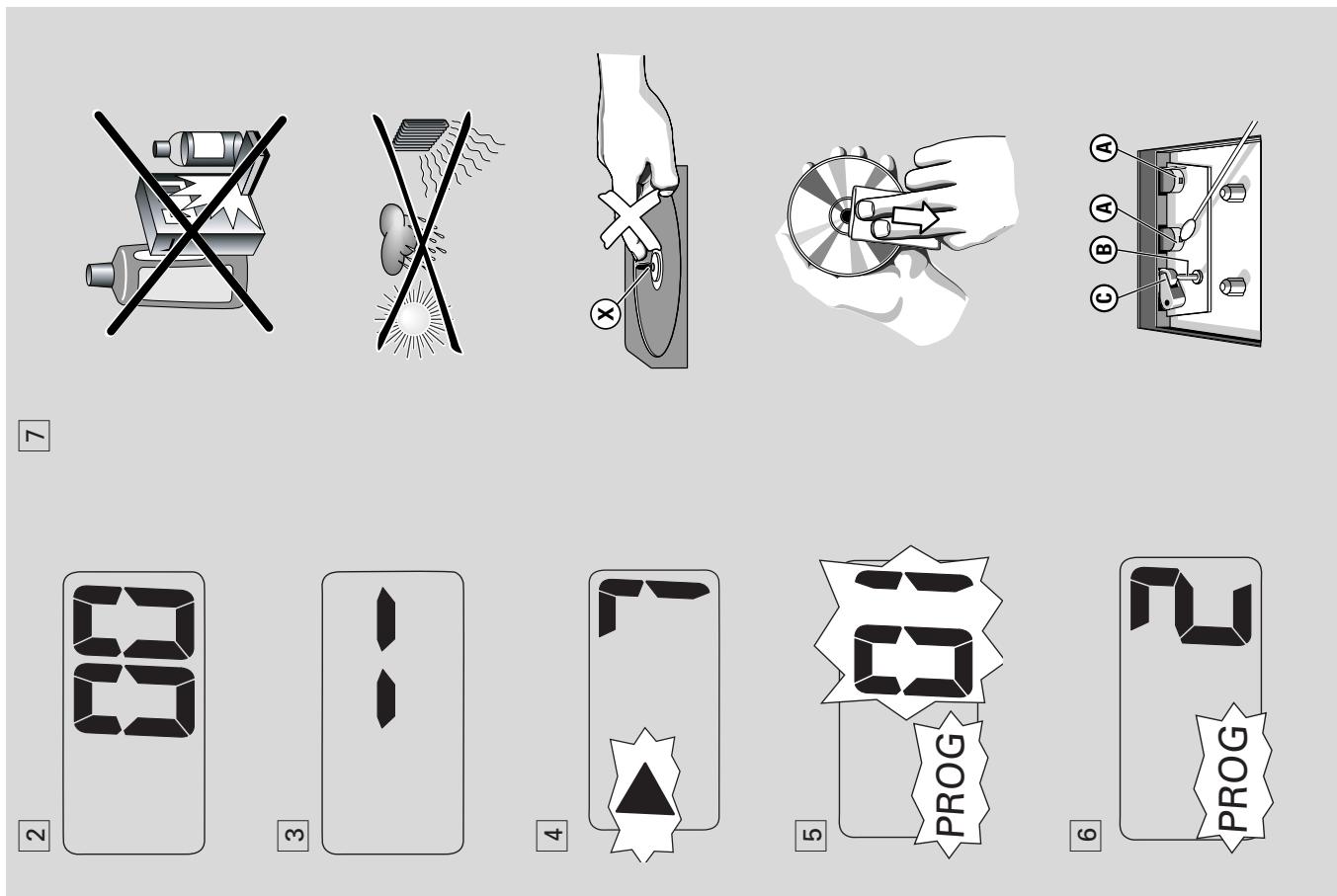
To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday«s cage.

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



English

Controls/Power Supply

Power Supply

Tuner/CD Player

INSTRUCTION FOR USE

3 - 2

Top and front panels (See ①)

- ⑯ Battery door - open to insert 6 x 1.5V R-14// UM2/ C-cells.
- ⑮ AC POWER/MAINS - inlet for power cord.
- ⑰ Source selector : CD,TUNER, TAPE/POWER OFF
 - selects CD,tuner or tape source of sound
 - power off switch
- ⑲ CD door
- ⑳ TUNING – tunes to radio stations
- ㉑ BAND – selects waveband
- ㉒ PREVIOUS, NEXT ↵, ↷
 - skips or searches a passage/track backwards or forward
- ㉓ PROG – programs and reviews programmed track numbers
- ㉔ CASSETTE RECORDER keys:
 - II – pauses playback or recording
 - ▲ – stops the tape;
 - opens the cassette holder
 - ◀ or ▶ – fast rewinds/ winds tape
 - ▶ – starts playback
- ㉕ Cassette door
- ㉖ CD Display – shows the CD functions
- ㉗ PLAY/PAUSE ▶ – starts or pauses CD playback
- ㉘ STOP ■ – stop playback
 - erases a CD program.

Batteries (not included)

- ⑱ Open the battery compartment and insert six batteries, type **R-14, UM-2** or **C-cells** (preferably alkaline) with the correct polarity as indicated by the "+" and "-" symbols inside the compartment. (See ①)
- ⑲ Replace the compartment door; making sure the batteries are firmly and correctly in place. The set is now ready to operate.

Batteries contain chemical substances, so they should be disposed of properly.

- ㉙ Telescopic antenna - improves FM reception.
- Note: AM band antenna is built into set (see Tuner reception)**

Back panel

- ㉚ CD player plays Audio Discs including CD-Recordables,

Playing a CD

- ① To select your sound source adjust the **source selector** to : **CD, TUNER** or **TAPE/POWER OFF**.

General operation

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

- ㉛ CD door open / no disc error in CD operation or with the CD/CD-R is blank or not finalized (see Troubleshooting)
- ㉜ : (See ③) reading disc contents
- ㉝ stop mode: total track number
- ㉞ During CD playback: ▶ and current track number
 - ▶: (See ④) playback on pause
 - PROG: when CD program is active

Tuner reception

- ② Adjust the sound with the **VOLUME** control.
- ③ To switch off the set, adjust the source selector to **TAPE/POWER OFF** position and check the cassette keys are released.

CD Player

- ④ Turn **TUNING** to tune to a station.
- For **FM** band signals, extend and turn the telescopic antenna for best reception. Reduce its length if the signal is too strong.
- For **MW (AM)** band signals, the set uses a built-in antenna. Direct this antenna for best reception by turning the whole set.
- ⑤ To switch off the radio, adjust the source selector to **TAPE/POWER OFF** position and check the cassette keys are released.

Display indication for CD functions:

- ㉟: (See ②) reading disc contents
- ㉟: (See ③) total track number
- ㉟: (See ④) playback on pause
- ㉟: (See ⑤) when CD program is active

Save energy

- To avoid unnecessary energy consumption, always adjust the **source selector** to **TAPE/POWER OFF** after using the set. Also check that the tape deck keys are released.

CD Player

CD Player

Cassette Recorder

INSTRUCTION FOR USE

3 - 3

- CD-RWs, MP3 CD-ROMs, CD-I, CDV, VCD, DVD or computer CDs are not possible for playback.

- Adjust the **source selector** to **CD**.
- Open the CD door and Insert a CD/ CD-R with the printed side facing up and press the CD door gently close.
- Press **PLAY/PAUSE** **►||** on the set to start playback.
- To pause playback press **PLAY/PAUSE** **►||**.
→ **►** flashes.
- To resume, press **PLAY/PAUSE** **►||** again.
- To stop CD play, press **STOP** **■**.
- To switch off the set, adjust the **source selector** to **TAPE/POWER OFF** position and check if the cassette keys are released.

Note : CD play will also stop when:

- you open the CD compartment;
- you select **TUNER** or **TAPE/POWER OFF** sound source;
- the CD has reached to the end.

- ### Selecting a different track
- During playback you can use **◀▶** **►||** to select a particular track.
- If you have selected a track number in the stop or pause position, press **PLAY/PAUSE** **►||** to start playback.
 - Press **►▶** once briefly for the next track, or press repeatedly until the desired track number appears in the display.
 - Press **◀▶** once briefly to return to the beginning of a current track.
 - Press **◀▶** more than once briefly for a previous track.

Finding a passage within a track

- During playback, press and hold down **◀▶** / **►||**.
- The CD is played at high speed and low volume.
- When you recognize the passage you want release **◀▶** / **►||**.
- Normal playback resumes.
- Note :** When searching within a final track and you reach the end of the last track, the CD goes to stop mode.

Programming track numbers

- You may store up to 20 tracks in the desired sequence. If you like, store any track more than once.
- In the stop position, press **PROG** to activate programming.
 - Display shows **2** / indicating the start of the program. **PROG** and **2** ; flashes. (See [5])

- Press **◀▶** or **►||** to select your desired track number.
- Press **PROG** to store the desired track number.
- Display shows **2** and flashes (up to **20** in sequence) indicating the next available program location. (See [6])

- Repeat steps **2** to **3** to select and store all desired tracks in this way.
→ If you attempt to store more than 20 tracks, no track can be selected and the display will review your programmed tracks.
- To play your program, press **PLAY/PAUSE** **►||**.

To review your set program

- In the stop position, press **PROG** once.
→ Display shows the stored tracks in sequence.

Erasing a program

- You can erase the contents of the memory by:
—press **STOP** **■** (twice during playback or; once in the stop position;
—selecting **TUNER** or **TAPE/POWER OFF** sound source:
—opening the CD door;
→ Display: **PROG** disappears.

Cassette playback

- Adjust the **source selector** to **TAPE/POWER OFF**.
- Press **■** to open the cassette holder and insert a cassette and close the deck.
- Press **►** to start playback.
- To pause playback press **■** To resume, press the key again.

Recording from the Radio

- During interruptions press **■** To resume recording, press **■** again.
- Adjust the **source selector** to **TUNER** to select your desired waveband.
 - Tune to the desired radio station (see **Tuner reception**).
→ Playing of the CD program starts automatically from the beginning of the player separately.
 - Press **●** to start recording.
 - For brief interruptions press **■** To resume recording, press **■** again.
 - To stop recording, press **■**.

Synchro Start CD recording

- Select **CD** source.
- Insert a CD and if desired, program track numbers.
- Press **■** to open the cassette holder. Insert a blank tape and close the deck.
- Press **●** to start recording.
→ Playing of the CD program starts automatically from the beginning of the player separately.
- For brief interruptions press **■** To resume recording, press **■** again.
- To stop recording, press **■**.

- The best recording level is set automatically. Altering the **VOLUME** will not affect the recording.

- To protect a tape from accidental erasure, break out the tabs. If you wish to record again, cover the tabs with a piece of adhesive tape.

Synchro Start CD recording

- Select **CD** source.
- Insert a CD and if desired, program track numbers.
- Press **■** to open the cassette holder. Insert a blank tape and close the deck.
- Press **●** to start recording.
→ Playing of the CD program starts automatically from the beginning of the player separately.
- For brief interruptions press **■** To resume recording, press **■** again.
- To stop recording, press **■**.

To review your set program

- In the stop position, press **PROG** once.
→ Display shows the stored tracks in sequence.

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—press **STOP** **■** (twice during playback or; once in the stop position;
—selecting **TUNER** or **TAPE/POWER OFF** sound source:
—opening the CD door;
→ Display: **PROG** disappears.

Cassette playback

- Adjust the **source selector** to **TAPE/POWER OFF**.
- Press **■** to open the cassette holder and insert a cassette and close the deck.
- Press **►** to start playback.
- To pause playback press **■** To resume, press the key again.

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- Adjust the **source selector** to **TUNER** to select your desired waveband.
- Tune to the desired radio station (see **Tuner reception**).
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- Press **●** to start recording.
- For brief interruptions press **■** To resume recording, press **■** again.
- To stop recording, press **■**.

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- Insert a CD and if desired, program track numbers.
- Press **■** to open the cassette holder. Insert a blank tape and close the deck.
- Press **●** to start recording.
→ Playing of the CD program starts automatically from the beginning of the player separately.
- For brief interruptions press **■** To resume recording, press **■** again.
- To stop recording, press **■**.

Maintenance

Troubleshooting

Precautions & General Maintenance (See [7])

- Place the set on a hard and flat surface so that the system does not tilt.
- Do not expose the set, batteries, CDs to humidity, rain, sand or excessive heat caused by heating equipment or direct sunlight.
- Do not cover the set. Adequate ventilation with a minimum gap of 6 inches between the ventilation holes and surrounding surfaces is necessary to prevent heat buildup.
- The mechanical parts of the set contain self-lubricating bearings and must not be oiled or lubricated.
- To clean the set, use a dry cloth. Do not use any cleaning agents containing alcohol, ammonia, benzene or abrasives as these may harm the housing.

Tape deck maintenance (See [7])

To ensure quality recording and playback of the tape deck, clean parts A, B and C as shown, once a month. Use a cotton bud slightly moistened with alcohol or a special head cleaning fluid to clean the deck.

- Open the cassette holder by pressing ■▲.
- Press ▶ and clean the roller C.
- Press II and clean the heads A; and the capstan B.

- After cleaning, press ■.
→ Cleaning of the heads can also be done by playing a cleaning cassette through once.

CD player and CD handling (See [7])

- If the CD player cannot read CDs correctly, use a cleaning CD to clean the lens before taking the set to repair.
- The lens of the CD player should never be touched!

- Sudden changes in the surrounding temperature can cause condensation on the lens of your CD player. Playing a CD is then not possible. Do not attempt to clean the lens but leave the set in a warm environment until the moisture evaporates.

- Always close the CD-tape door to avoid dust on the lens.
- To clean the CD, wipe in a straight line from the center towards the edge using a soft, lint-free cloth. Do not use cleaning agents as they may damage the disc.
- Never write on a CD or attach any stickers to it.

- The mechanical parts of the set contain self-lubricating bearings and must not be oiled or lubricated.
- To clean the set, use a dry cloth. Do not use any cleaning agents containing alcohol, ammonia, benzene or abrasives as these may harm the housing.

Display does not function properly/ No reaction to operation of any of the controls

- Electrostatic discharge
- Switch off and unplug the set. Reconnect after a few seconds

The CD skips tracks

- CD damaged or dirty
- Replace or clean CD
- Program is active
- Quit program mode

**For more information on operation instruction please visit Philips
CD player and CD handling (See [7])**

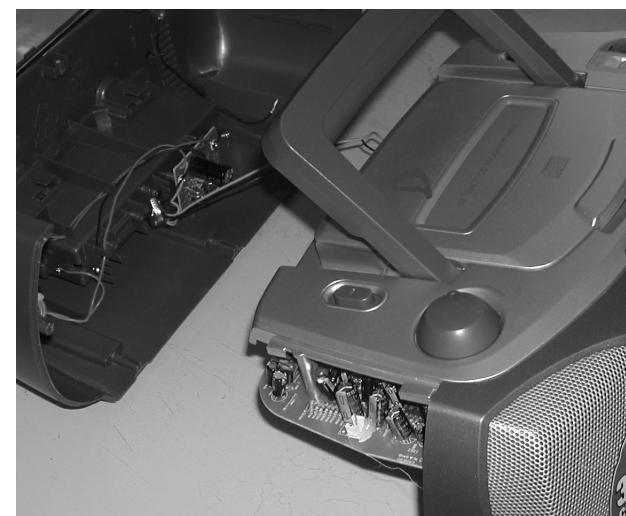
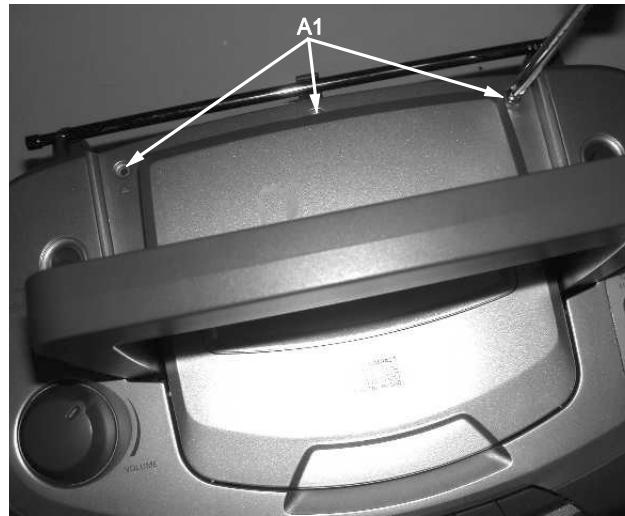
http://www.audio.philips.com

- If a fault occurs, first check the points listed below before taking the set for repair.
- If you are unable to remedy a problem by following these hints, consult your dealer or service centre.

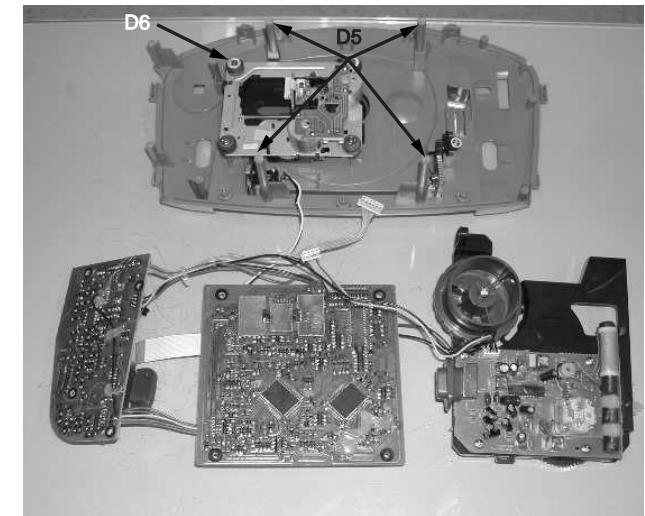
WARNING: Do not open the set as there is a risk of electric shock. Under no circumstances should you try to repair the set yourself, as this will invalidate the guarantee.

DISASSEMBLY DIAGRAM**A. REMOVE BACK CABINET ASSEMBLY**

- REMOVE SCREWS A1(3x10) 3PCS
- REMOVE SCREWS A2(3x30) 5PCS
- REMOVE BACK CABINET

**D REMOVE DECK MECHANISM**

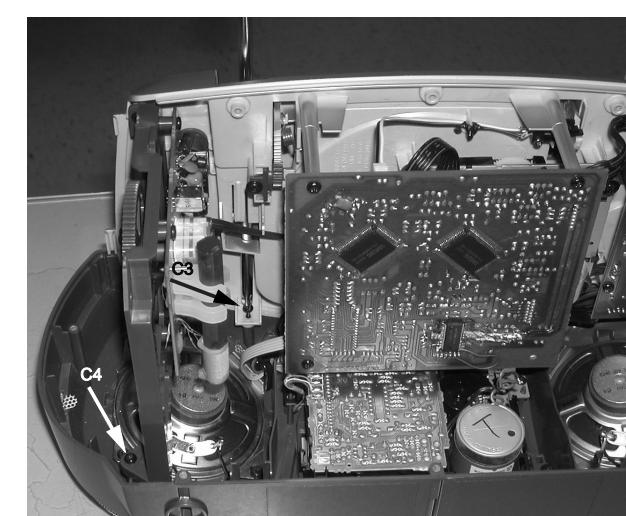
- REMOVE SCREWS D5(3x10) 4PCS
- REMOVE SCREWS D6(2.5x10) 4PCS

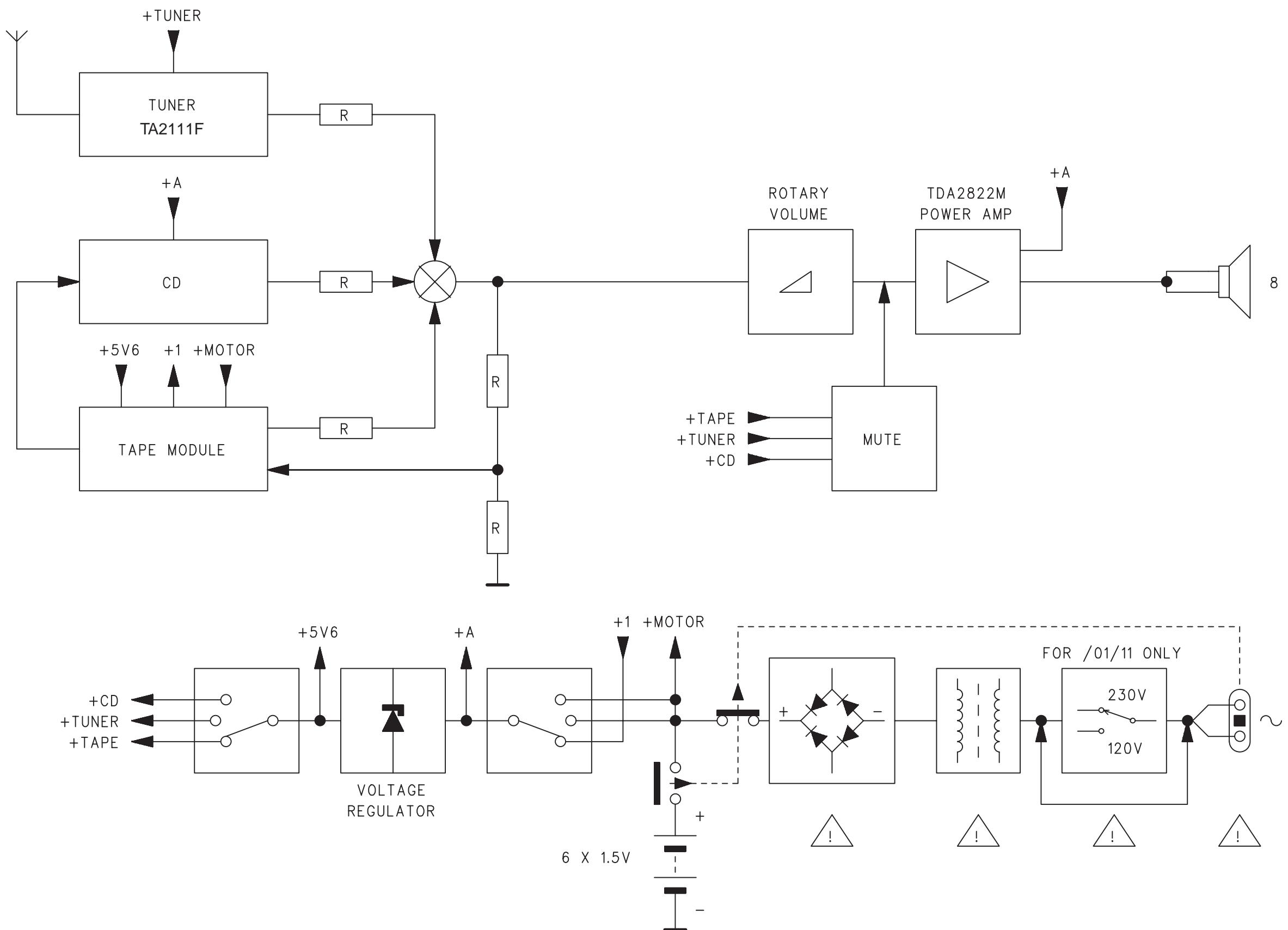
**B. REMOVE HANDLE**

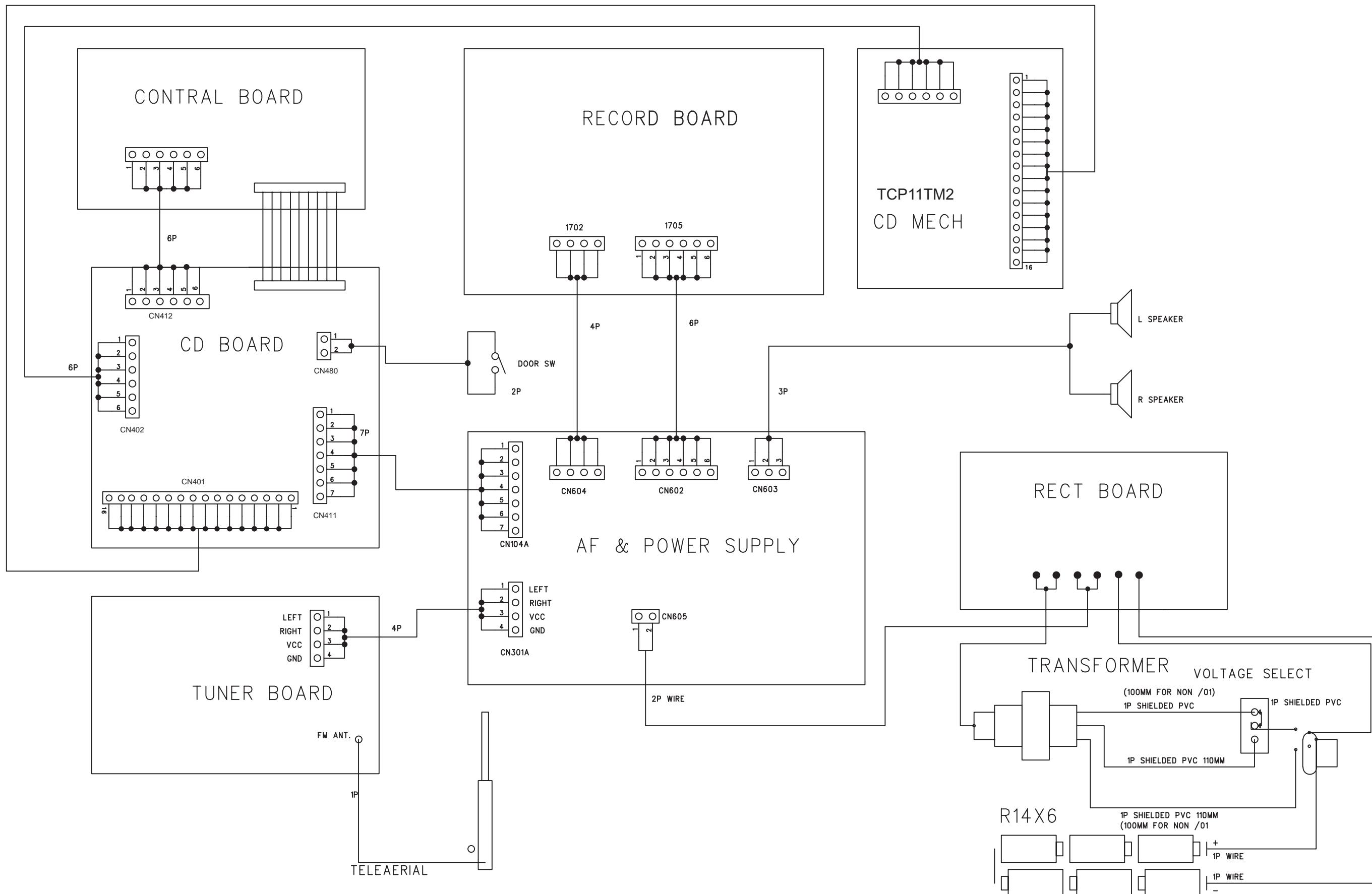
- PRESS DOWN THE STOPER AND PULL THE HANDLE OUT
- REMOVE HANDLE

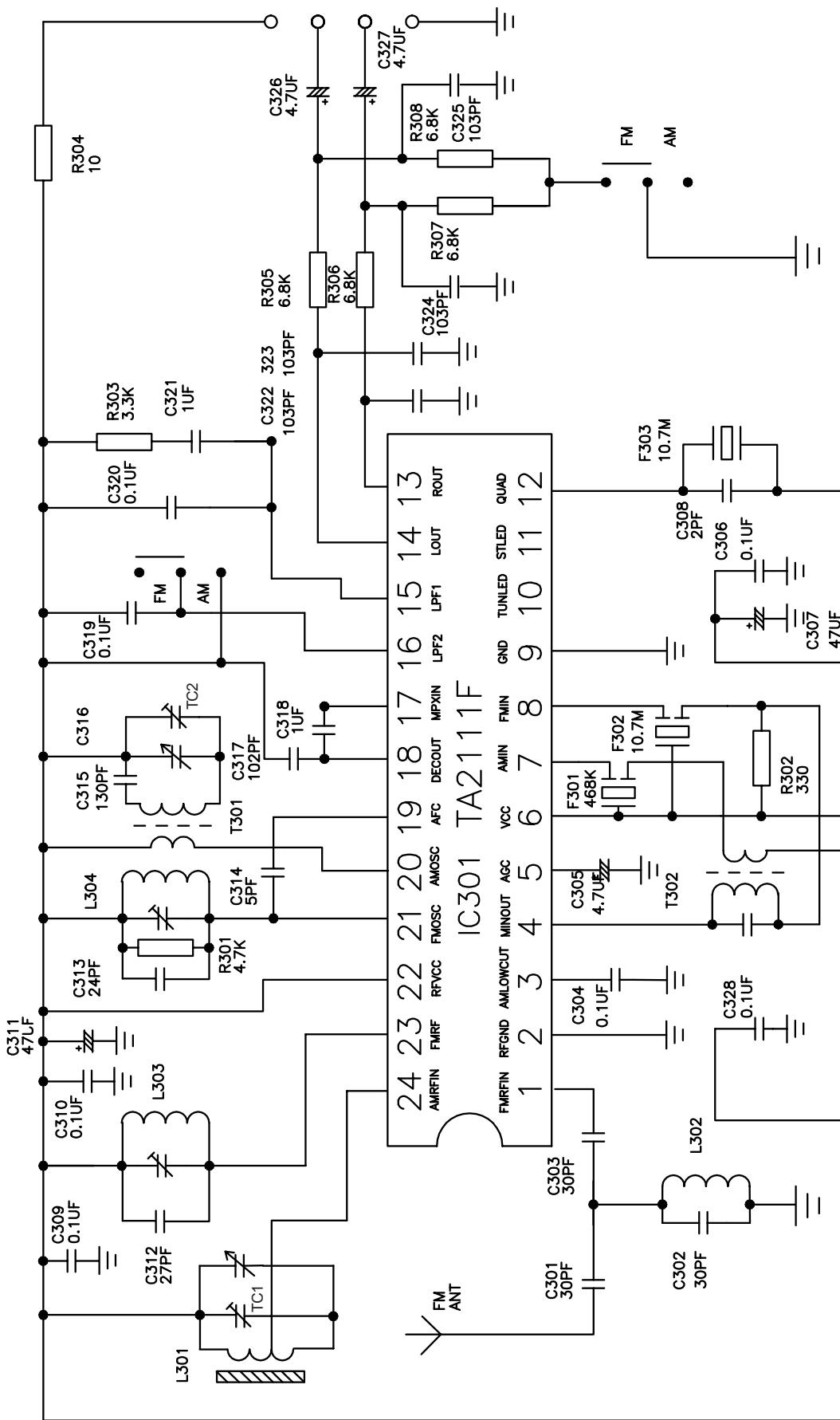
**C REMOVE TOP CABINET ASSEMBLY**

- REMOVE SCREWS C3(3x20) 2PCS
- REMOVE SCREWS C4(3x10) 1PC
- REMOVE TOP CABINET



BLOCK DIAGRAM

WIRING DIAGRAM

TUNER BOARD - CIRCUIT DIAGRAM**TUNER BOARD - ALIGNMENT PROCEDURE****Alignment Procedure****Model No. AZ-1004/01**

Instruments Required :

1. AM Signal Generator
2. FM Signal Generator
3. AM/FM if Sweep Generator
4. Dual Trace Oscilloscope
5. Solid State Voltage Meter (SSVM)
6. Frequency Counter
7. Nonmetallic Alignment Tools
8. Test Tape : Teac - MTT 113N (6.3 kHz) or Equiv.
9. Test Tape : Teac - MTT 111N (3 kHz) or Equiv.

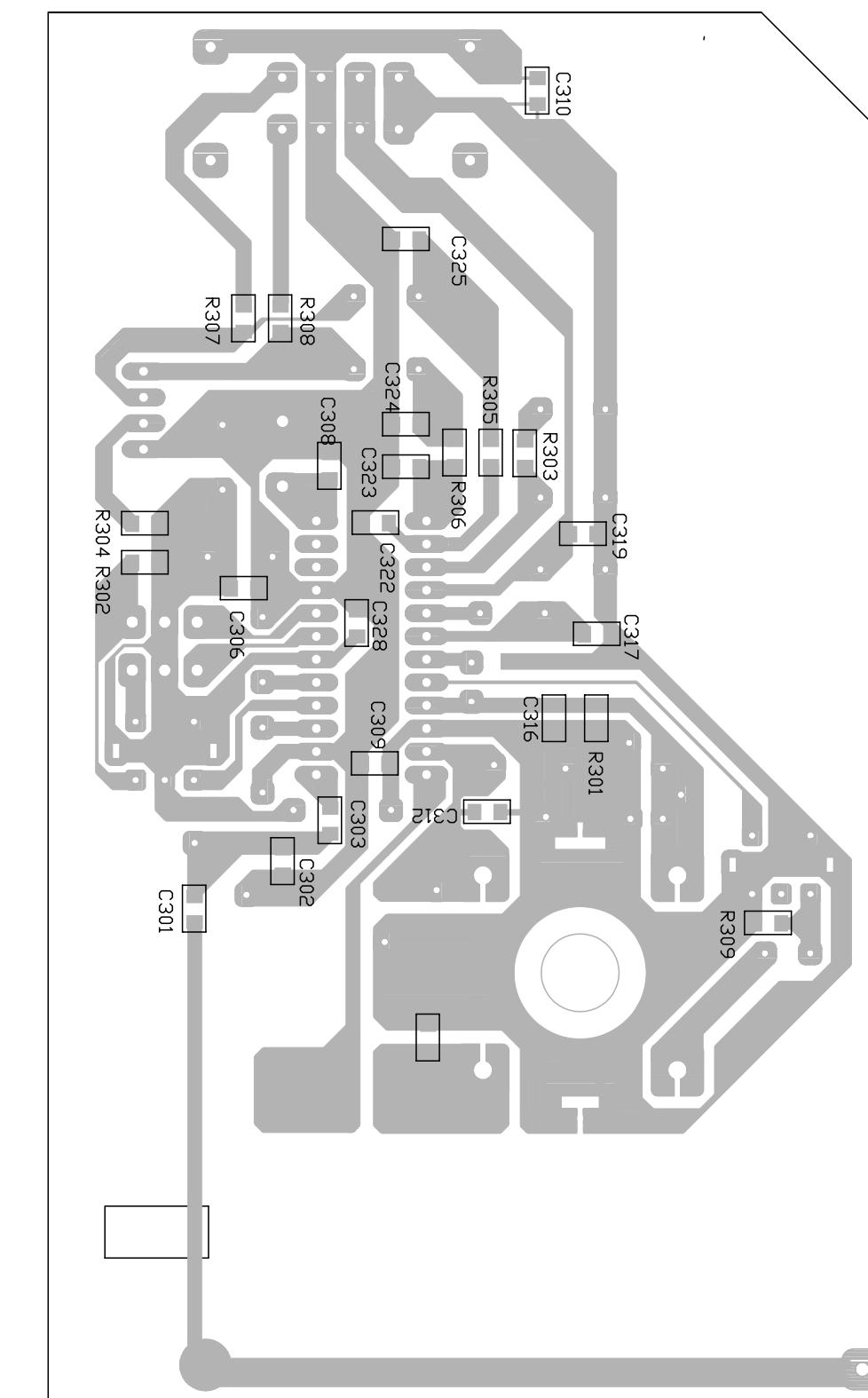
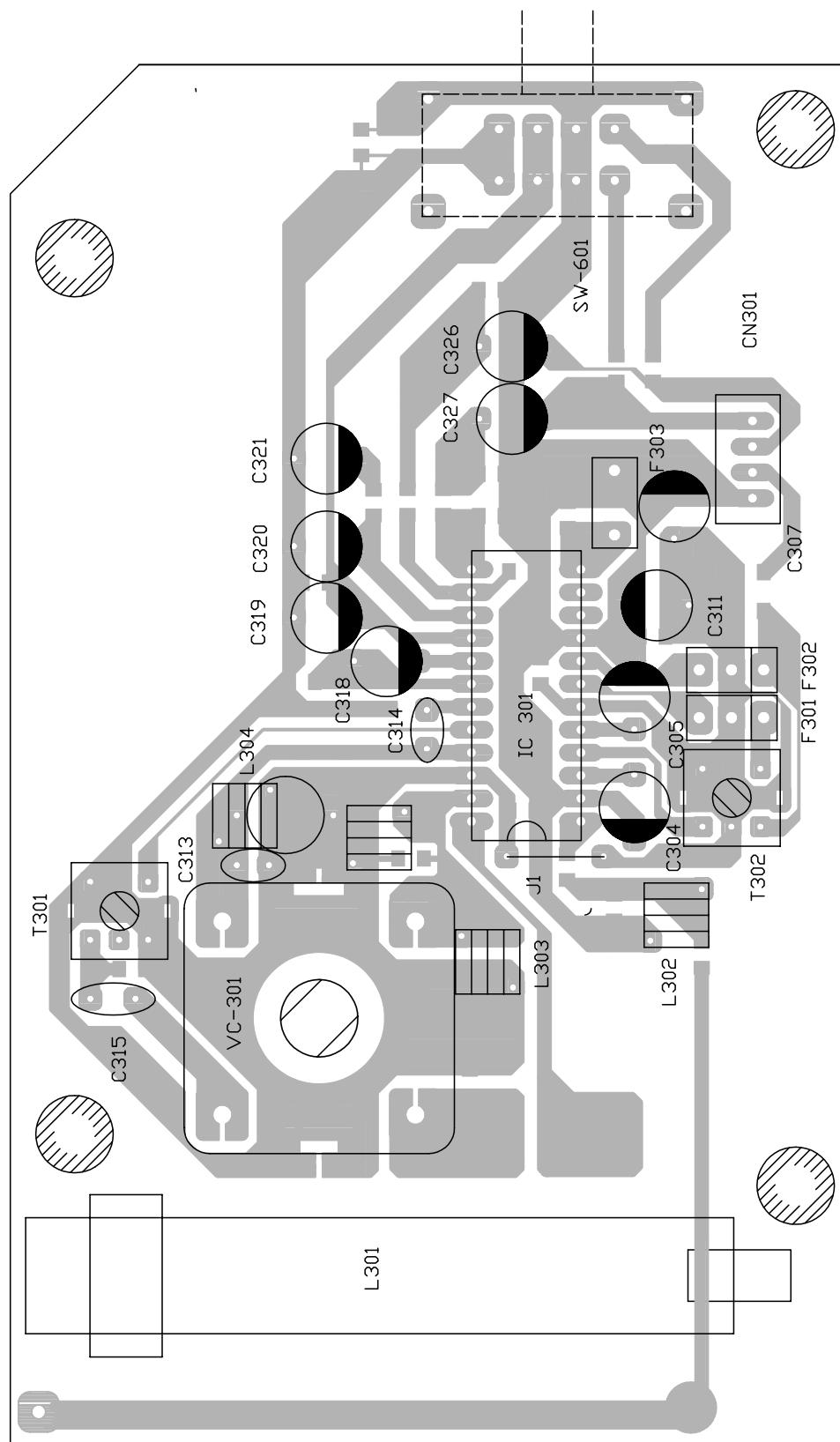
Important

1. Check Power Source Voltage
2. Set the Function Switch to Band Being Aligned.
3. Volume Should Be Turned To Minimum.
4. Signal Input Should be Kept as Low as Possible.
5. AM Modulation : 1 kHz 30%
6. FM Modulation : 1 kHz 22.5 kHz DEV.

Radio Alignment

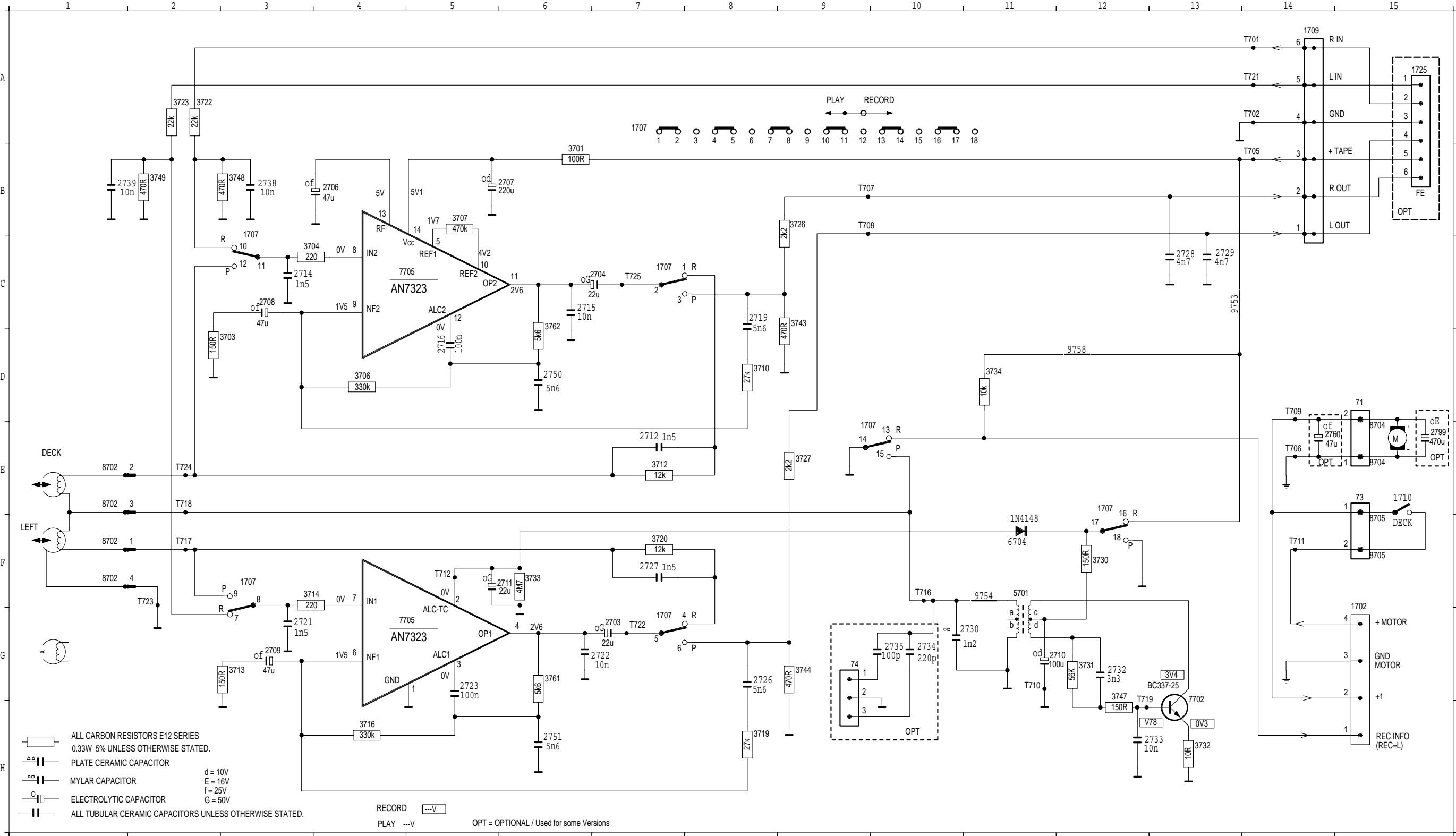
	Frequency	Input	Varian	Adjust	Output	Scope/Meter
MW IF						
	468 kHz	LOOP ANT AM Coil	MIN.	T302	IC301 Pins 18	MAX.
MW IF						
	526.5 kHz 1606.5 kHz	LOOP ANT AM Coil	MAX. MIN.	T301 TC2	IC301 Pins 18	MAX.
	600 kHz 1400 kHz		600 kHz 1400 kHz	L301 TC1		MAX.
FM IF						
	10.7 MHz	IC301 Pins 4	MIN.		IC301 Pins 18	Symmetrical
FM IF						
	87.5 MHz 108.5 MHz	FM ANT. C301 Cer. Cap.	MAX. MIN.	L304 FC1	IC301 Pins 18	MAX.
	90 MHz 106 MHz		90 MHz 106 MHz	L303 FC2		MAX.

TUNER BOARD - LAYOUT DIAGRAM

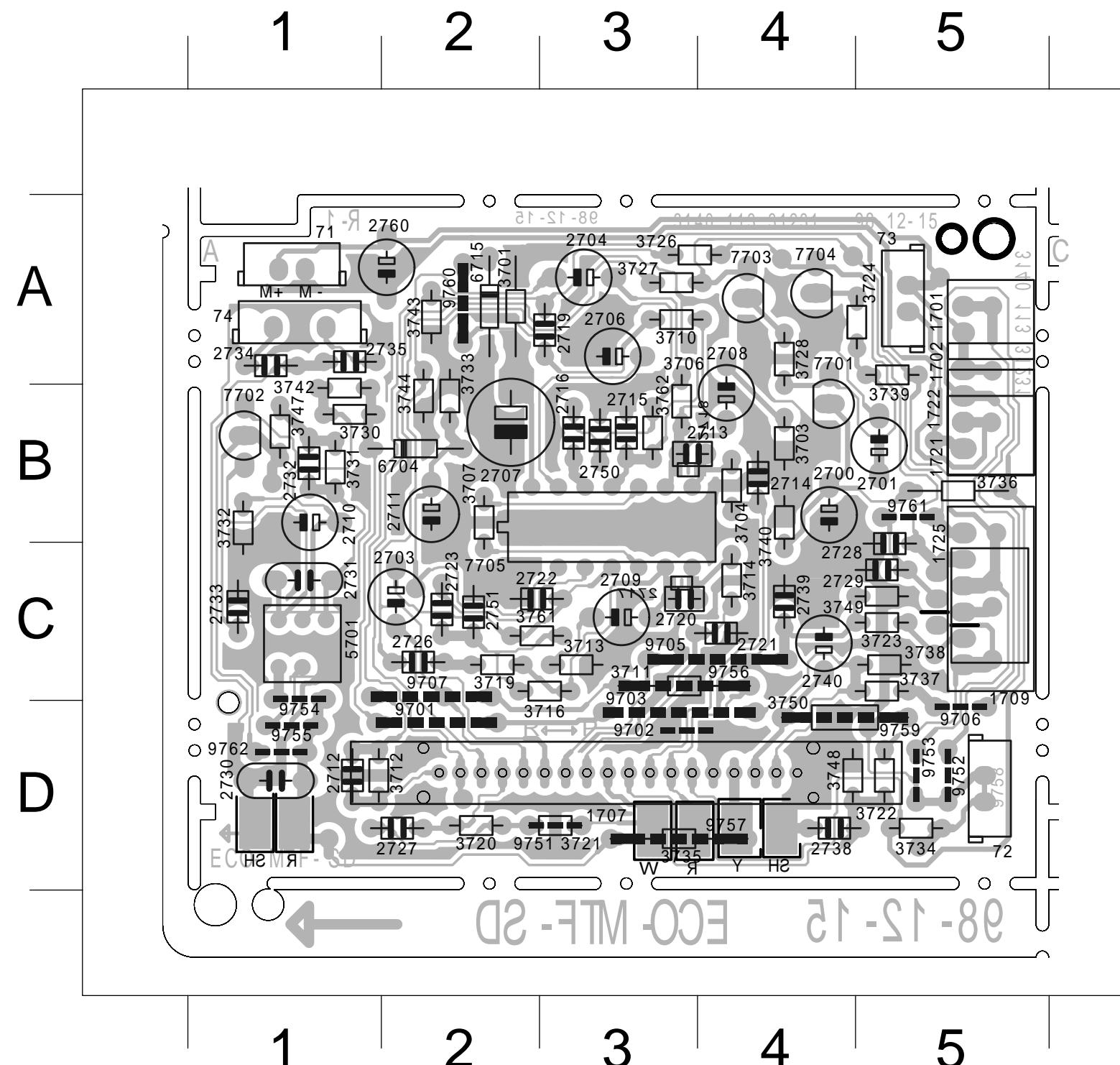


RECORDER BOARD - CIRCUIT DIAGRAM

71 D15 1707 C 3 1709 A14 2706 B 4 2711 F 6 2729 C 8 2727 F 7 2733 H13 2750 D 6 3703 D 3 3712 E 7 3720 F 7 3730 F12 3743 C 9 3761 G 6 3705 G 4 8702 E 1 9753 C13 T705 B14 T710 G11 T718 E 2 T724 E 7
 73 E15 1707 C 7 1710 A15 2707 B 3 2712 C 6 2721 G 3 2728 C13 2734 G10 2751 H 6 3704 C 3 3713 G 3 3722 A 2 3731 G12 3744 G 9 3762 F11 8704 E15 9754 F11 T706 B14 T711 E 2 T719 H13 T725 C 2
 74 G 9 1707 C 7 1725 A15 2708 C 3 2714 C 3 2722 G 7 2729 C13 2735 G10 2760 E14 3706 D 4 3714 F 3 3723 H13 3747 G12 3750 F11 8704 E15 9758 D12 T707 B10 T712 E 5 T721 A14
 1702 G15 1707 C 7 2703 G 5 2715 C 6 2723 G 5 2730 G11 2738 B 3 2799 E15 3707 B 5 3716 H 4 3726 B 9 3733 F 6 3748 B 3 6704 F11 8705 F15 1701 A14 T708 B10 T716 F10 T722 G 7
 1707 F 3 1707 E12 2704 C 7 2710 G12 2716 D 5 2726 G 8 2732 G12 2739 B 1 3701 B 6 3710 D 8 3719 H 8 3727 E 9 3734 D11 3749 B 2 7702 H13 8702 E 1 8705 F15 1702 A14 T709 D14 T717 F 2 7702 E 1 8705 F15 1701 A14 T708 B10 T716 F10 T722 G 7
 1707



RECORDER BOARD - CIRCUIT DIAGRAM



CASSETTE ADJUSTMENT

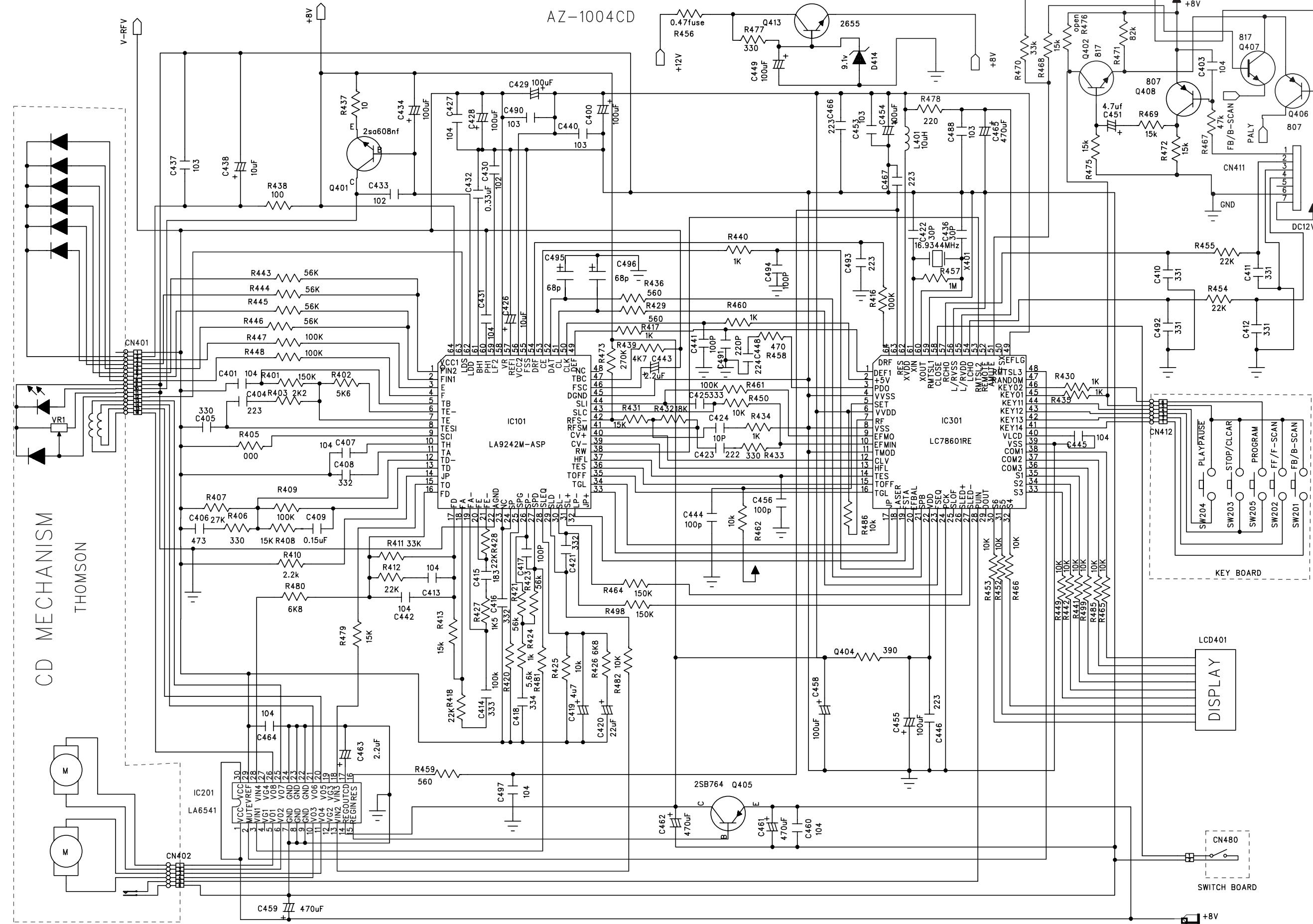
Adjustment	Cassette	SK	Deck 1	Measure on	Read on	Adjust with	Adjust to
Azimuth	10 kHz SBC420*	Tape	Play	H/P Jack	mV meter	Left hand Screw R/P head	max.
Motor Speed	3150 kHz SBC420*	Tape	Play	H/P Jack	Wow and flutter meter	Preset in motor	**a

* SBC420 : 4822 397 30071

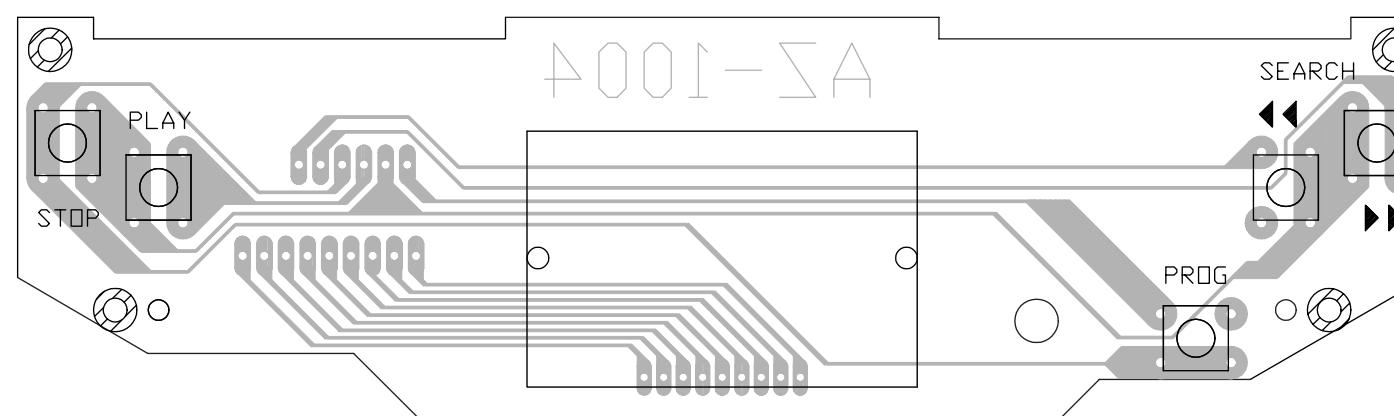
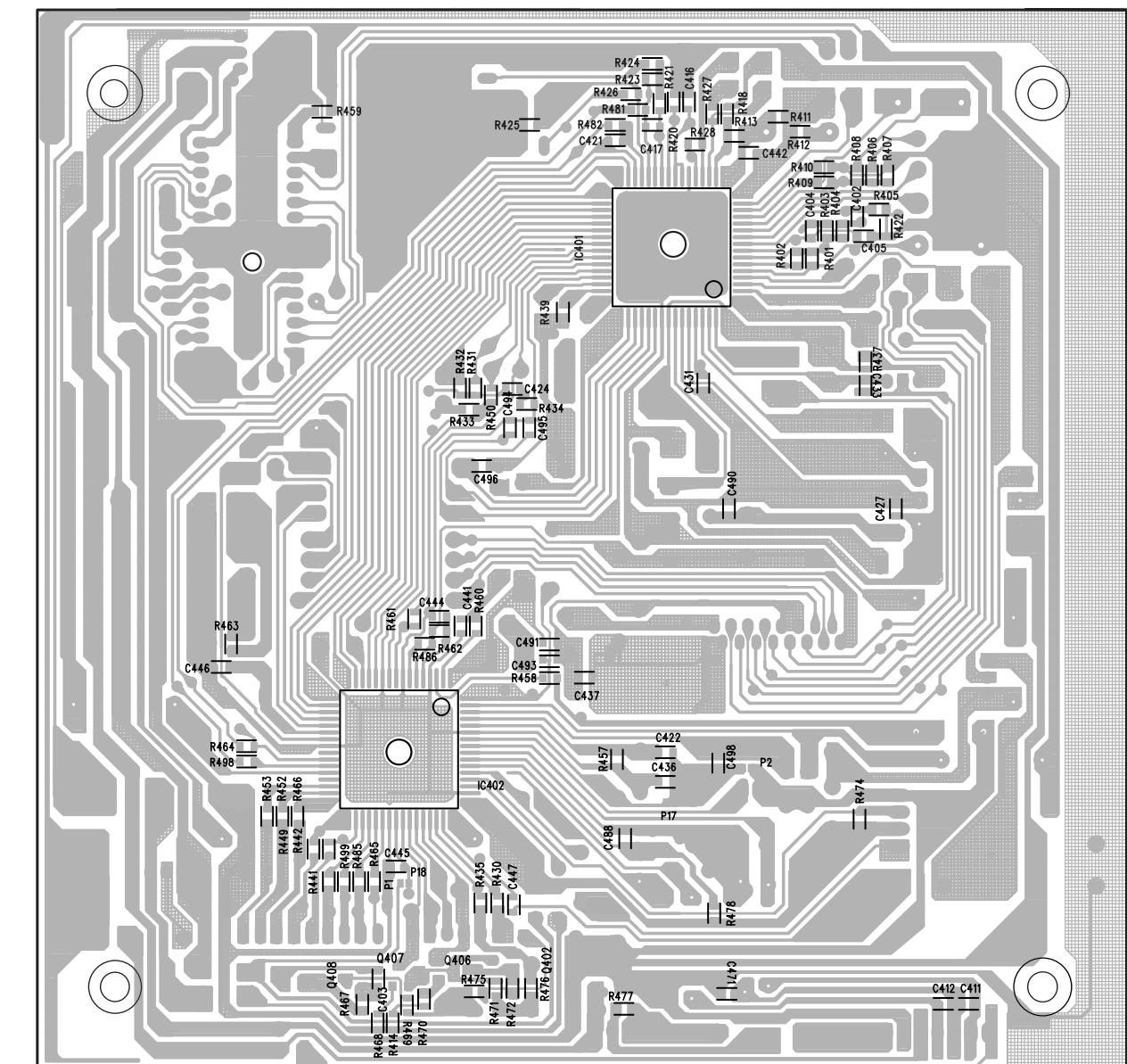
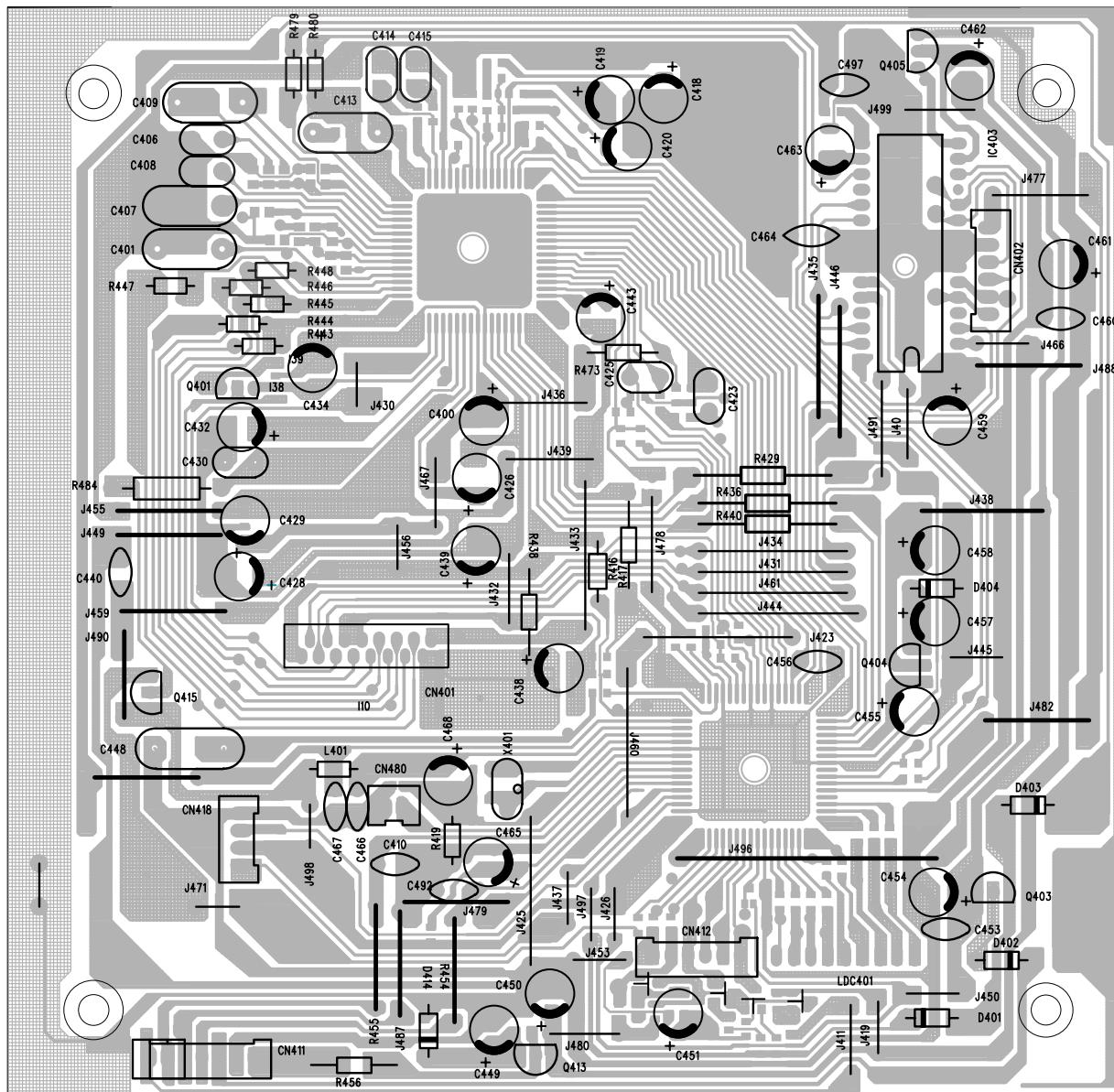
**a The maximum permissible speed deviation is -3%.
Moreover, the wow and flutter value can be read.

71 A 1	2729 C 5	3733 B 2	9756 C 3
72 D 5	2730 D 1	3734 D 5	9757 D 3
73 A 5	2731 C 1	3735 D 3	9759 D 4
74 A 1	2732 B 1	3736 B 5	9760 A 2
1701 A 5	2733 C 1	3737 C 5	9761 B 5
1702 B 5	2734 A 1	3738 C 5	9762 D 1
1707 D 3	2735 A 1	3739 A 5	T701 C 5
1709 C 5	2738 D 4	3740 B 4	T702 C 5
1721 B 5	2739 C 4	3742 B 1	T705 B 5
1722 B 5	2740 C 4	3743 A 2	T706 B 5
1725 C 5	2750 B 3	3744 B 2	T709 A 5
2700 B 4	2751 C 2	3747 B 1	T710 C 1
2701 B 5	2760 A 2	3748 D 4	T711 B 5
2703 C 2	3701 A 2	3749 C 5	T712 C 2
2704 A 3	3703 B 4	3750 D 4	T713 A 5
2706 A 3	3704 B 4	3761 C 2	T714 D 5
2707 B 2	3706 B 3	3762 B 3	T715 D 5
2708 B 4	3707 B 2	5701 C 1	T716 D 1
2709 C 3	3710 A 3	6704 B 2	T719 B 1
2710 B 1	3711 C 3	6715 A 2	T720 A 5
2711 B 2	3712 D 1	7701 B 4	T721 C 5
2712 D 1	3713 C 3	7702 B 1	T722 C 2
2713 B 3	3714 C 4	7703 A 4	T725 D 2
2714 B 4	3716 C 3	7704 A 4	T7707 A 4
2715 B 3	3719 C 2	7705 B 3	T7708 A 4
2716 B 3	3720 D 2	9701 D 2	
2717 C 3	3721 D 3	9702 D 3	
2718 B 3	3722 D 5	9703 D 3	
2719 A 3	3723 C 5	9705 C 4	
2720 C 3	3724 A 5	9706 D 5	
2721 C 4	3726 A 3	9707 C 2	
2722 C 2	3727 A 3	9751 D 3	
2723 C 2	3728 A 4	9752 D 5	
2726 C 2	3730 B 1	9753 D 5	
2727 D 2	3731 B 1	9754 C 1	
2728 C 5	3732 B 1	9755 D 1	

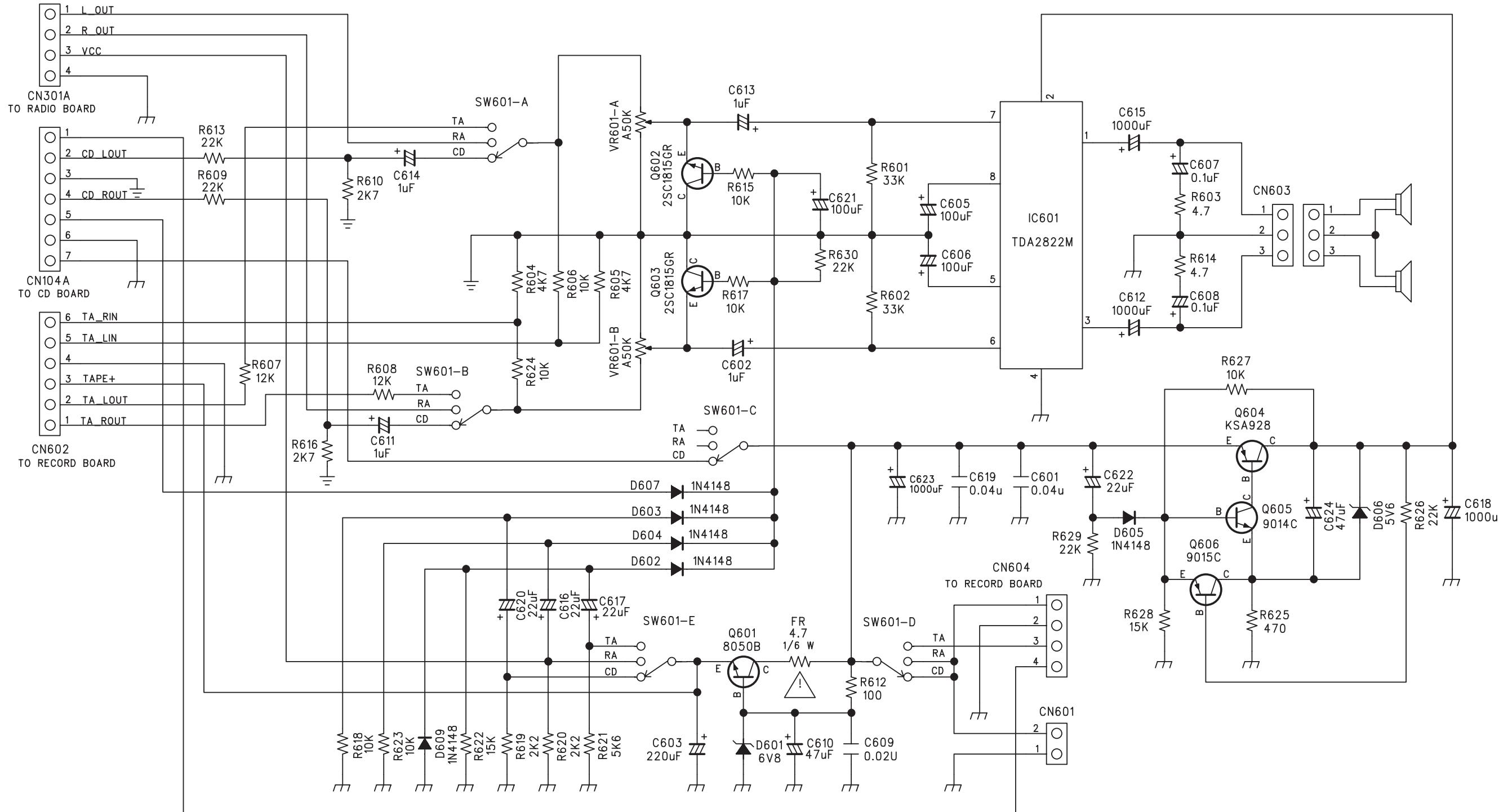
CD / CONTROL BOARD - CIRCUIT DIAGRAM



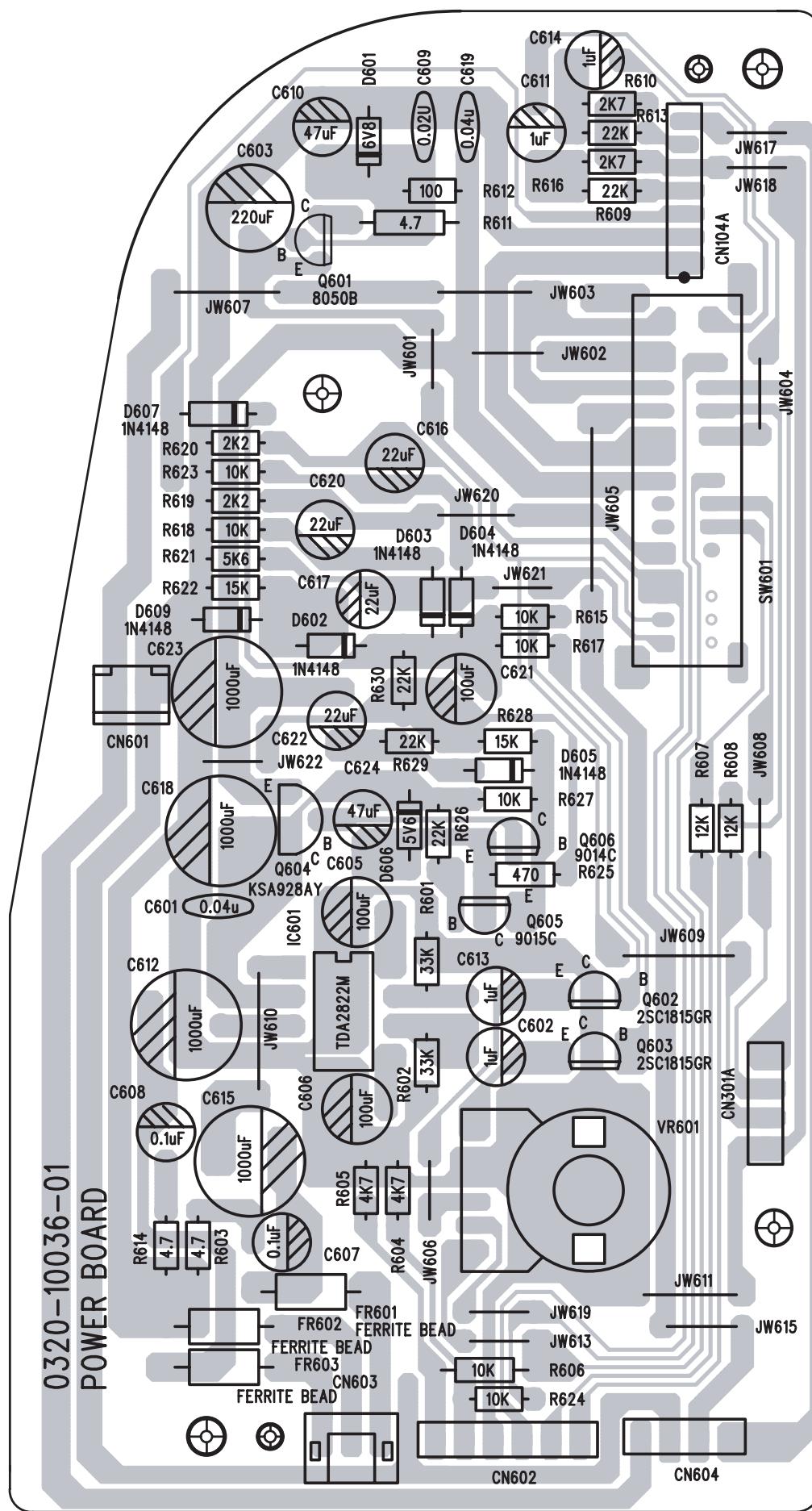
CD / CONTROL BOARD - LAYOUT DIAGRAM



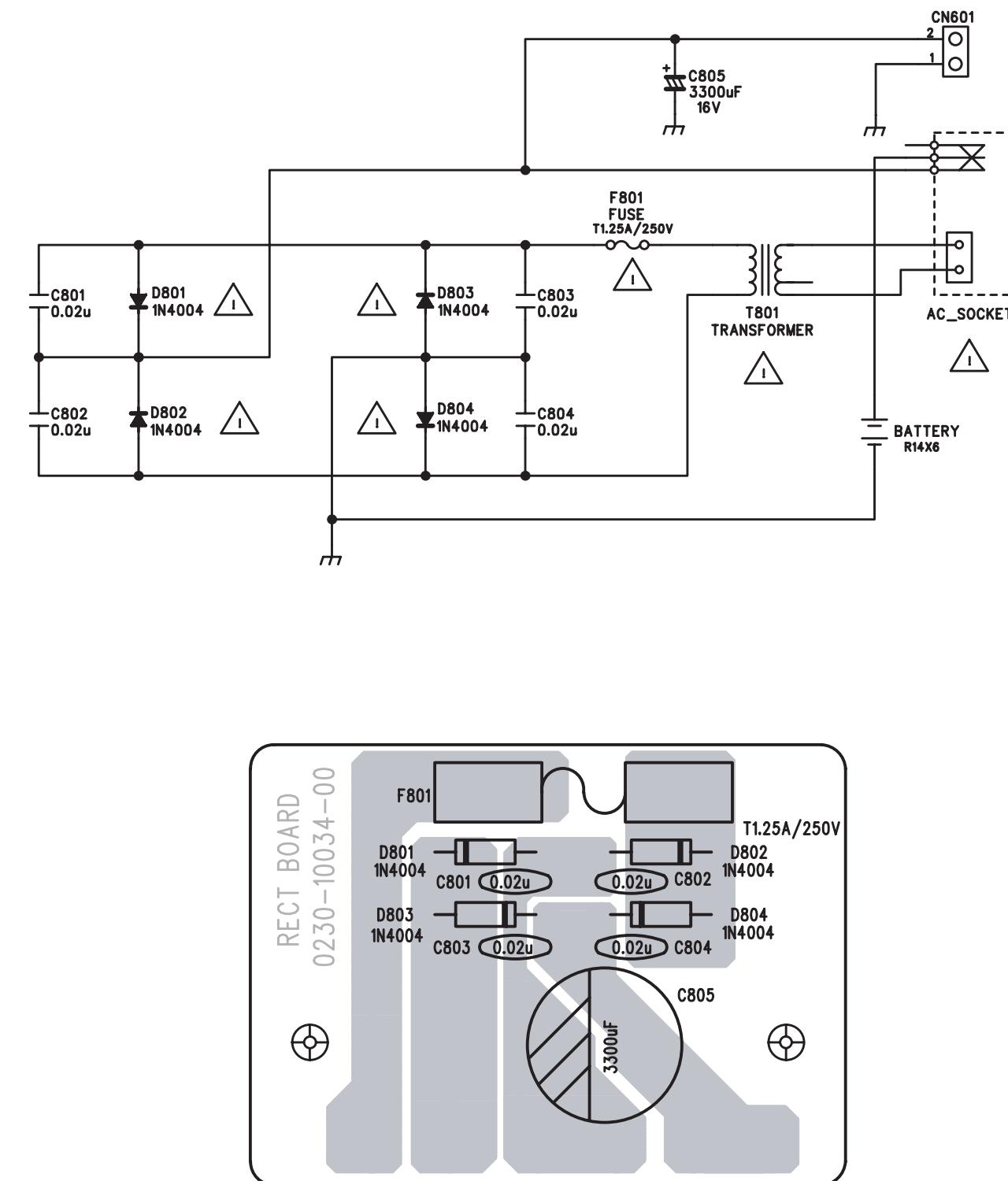
POWER BOARD - CIRCUIT DIAGRAM



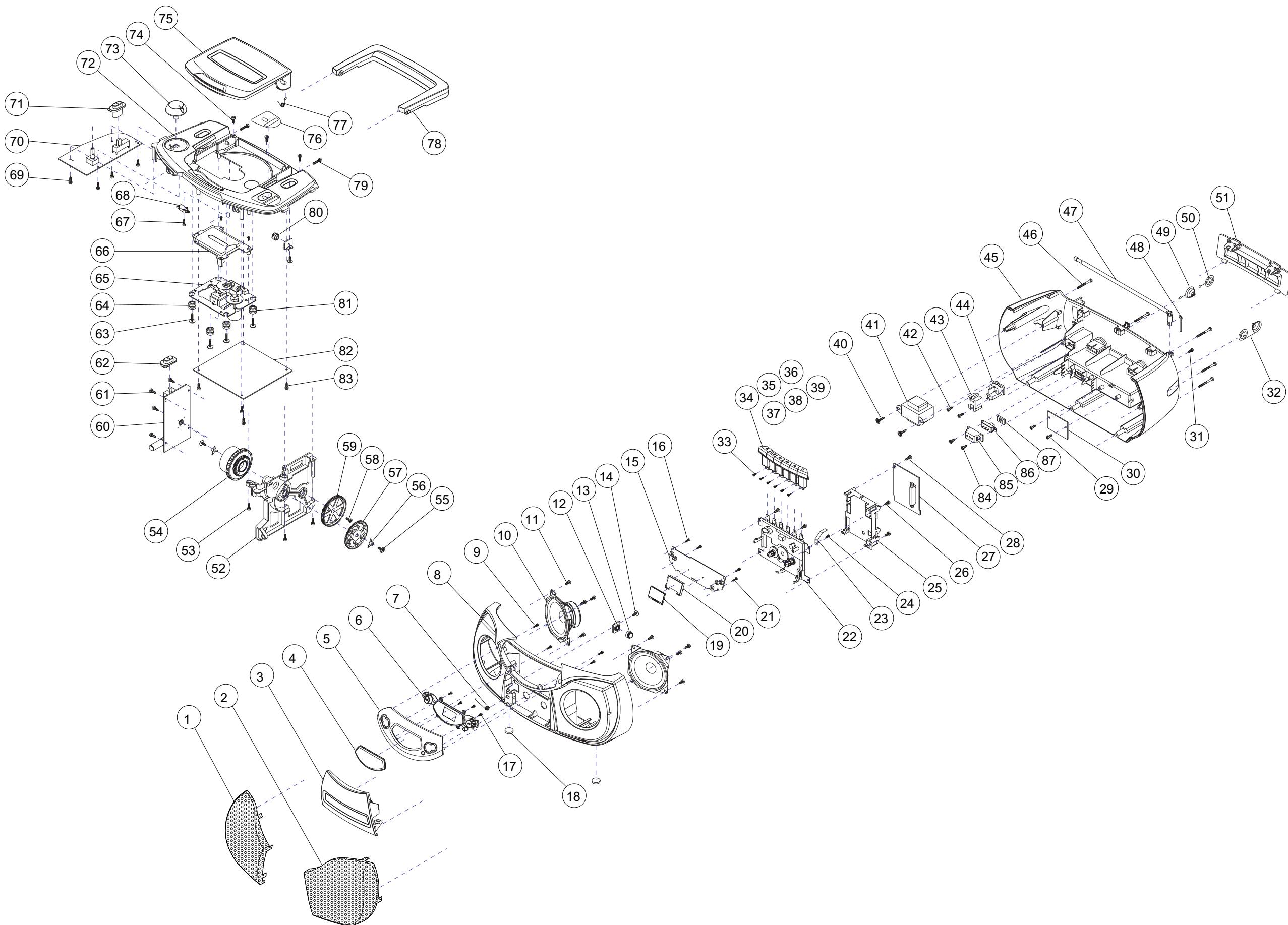
POWER BOARD - LAYOUT DIAGRAM



RECTIFIER BOARD - CIRCUIT / LAYOUT DIAGRAM



EXPLODED VIEW DIAGRAM - CABINET



MECHANICAL PARTSLIST

3	9965 000 17747	CASSETTE DOOR
6	9965 000 17759	FUNCTION KNOB-CD
7	3140 111 01220	CASS. DOOR SPRING
8	9965 000 17745	FRONT PANEL ASSY
13	9965 000 17757	CASS DOOR DAMPING GEAR ASSY
20	9965 000 17763	BRACKET-LCD
22	9965 000 16885	CASS. DECK : TK20FX-V682-001
23	3140 111 20800	SPRING-RECORDING
25	3140 114 20430	BRACKET ECO-MTF-SD
32	3140 111 01280	BATTERY CONTACT (+,-)
34	9965 000 17754	CASS BUTTON (PAUSE)
35	9965 000 17753	CASS BUTTON (STOP)
36	9965 000 17751	CASS BUTTON (F.F)
37	9965 000 17752	CASS BUTTON (REW)
38	9965 000 17750	CASS BUTTON (PLAY)
39	9965 000 17749	CASS BUTTON (REC)
45	9965 000 17741	REAR CABINET
47	3140 118 71920	TELESCOPIC AERIAL
49	3140 111 01270	BATTERY CONTACT SPRING (-)
50	3140 111 22110	BATTERY CONTACT SPRING (+)
51	9965 000 17746	BATTERY DOOR
54	9965 000 17748	TUNING KNOB
57	9965 000 17761	TUNING GEAR
59	9965 000 17762	PVC GEAR
62	9965 000 17760	FUNCTION KNOB-BAND
64	9965 000 17765	CD DAMPER 30 DEG
65	9965 000 17245	CD MECHANISM TCP11TM2
66	9965 000 17755	DUST COVER
72	9965 000 17743	TOP CD CABINET
73	9965 000 17758	VOLUME KNOB
75	9965 000 17742	CD DOOR
77	9965 000 17764	CD DOOR SPRING
78	9965 000 17744	HANDLE
80	9965 000 17756	CD DOOR DAMPING GEAR ASSY
81	4822 529 10387	CD DAMPER (40 DEG)
	9965 000 17766	INSTRUCTION SHEET AZ1004/01

ELECTRICAL PARTSLIST**CD / CONTROL BOARD****- MISCELLANEOUS -**

LCD401	9965 000 17776	LCD DISPLAY 0237 OTR-P1
R456	⚠ 9965 000 17773	FUSIBLE RES 0.47R 1/2W
SW201	4822 276 13443	TACT SWITCH
SW202	4822 276 13443	TACT SWITCH
SW203	4822 276 13443	TACT SWITCH

SW204	4822 276 13443	TACT SWITCH
SW205	4822 276 13443	TACT SWITCH
	9965 000 17774	FFC 16P 140MM
	9965 000 17775	CD DOOR SWITCH

- COILS AND FILTERS -

L401	9965 000 17770	CHOKE COIL 10UH
X401	9965 000 16781	CER.RES CRA16.93M

- DIODES -

D414	9965 000 17767	ZENER DIODE 9V1 1/2W
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- IC & TRANSISTORS -

IC401	9965 000 17768	IC LA9242M
IC402	9965 000 17769	IC LC78601RE-8615D
IC403	4822 209 15786	LA6541D
Q401	9965 000 17771	TRANS 2SA608NG
Q402	4822 130 42615	BC817-40
Q405	9965 000 17772	TRANS 2SB764E-SSH
Q406	5322 130 60123	BC807-40
Q407	4822 130 42615	BC817-40
Q408	5322 130 60123	BC807-40
Q413	5322 130 41843	2SC2655Y

TUNER BOARD**- MISCELLANEOUS -**

SW301	9965 000 17784	SLIDE SWITCH 4P2T
VC301	9965 000 17787	AM/FM PVC
	9965 000 17271	ANTENNA BAR 5X13X55

- COILS AND FILTERS -

F301	9965 000 17777	AM CER. FILTER SFU468B
F302	9965 000 17778	FM CER. FILTER LT10.7MJ
F303	9965 000 17779	FM CER. FILTER JT10.7MG
L301	9965 000 17781	MW ANT. COIL 93:30T
L302	9965 000 17782	FM COIL 4-1/2T
L303	9965 000 17782	FM COIL 4-1/2T
L304	9965 000 17783	BOBBIN COIL 3-1/2T
T301	9965 000 17785	MW OSC COIL
T302	9965 000 17786	AM IFT YELLOW

- IC & TRANSISTORS -

IC301	9965 000 17780	TA2111N
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RECORDER BOARD**- MISCELLANEOUS -**

1707	4822 277 11504	PUSH SWITCH 6P2T
5701	4822 157 10371	BIAS OSC COIL

- DIODES -

6704	4822 130 30621	1N4148
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- IC & TRANSISTORS -

7702	4822 130 40981	BC337-25
7705	4822 209 17498	AN7323

ELECTRICAL PARTSLIST

POWER BOARD

- MISCELLANEOUS -

R611	⚠ 9965 000 17788	FUSIBLE RES 4.7R 1/2W
SW601	9965 000 17789	SLIDE SWITCH 6P3T
VR601	9965 000 17790	ROTARY VOLUME B50K

- DIODES -

D601	4822 130 34278	BZX79-B6V8
D602	4822 130 30621	1N4148
D603	4822 130 30621	1N4148
D604	4822 130 30621	1N4148
D605	4822 130 30621	1N4148
D606	4822 130 34173	BZX79-C5V6
D607	4822 130 30621	1N4148
D609	4822 130 30621	1N4148

- IC & TRANSISTORS -

IC601	5322 209 83002	TDA2822M
Q601	9965 000 16928	KTC-8050C
Q602	4822 130 41306	2SC1815GR
Q603	4822 130 41306	2SC1815GR
Q604	9965 000 11826	KSA928AY
Q605	9965 000 16929	KTC-9015C
Q606	9965 000 16927	KTC-9014C

RECTIFIER BOARD

- MISCELLANEOUS -

F801	⚠ 4822 070 31252	FUSE 1.25A
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- DIODES -

D801	4822 130 31878	1N4003G
D802	4822 130 31878	1N4003G
D803	4822 130 31878	1N4003G
D804	4822 130 31878	1N4003G

OTHERS

- MISCELLANEOUS -

⚠ 2422 030 00333	AC SOCKET
⚠ 3140 118 33580	TRANSFORMER 120/230V
⚠ 2422 070 98151	MAINSCORD EUR /00C
⚠ 9965 000 17792	VOLTAGE SELECTOR

9965 000 17791 SPEAKER 3" 8 OHM 2W

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