

CD Stereo Radio Recorder

Service
Service
Service

AZ1060
AZ1065
all versions



Service Manual



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

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**CLASS 1
LASER PRODUCT**

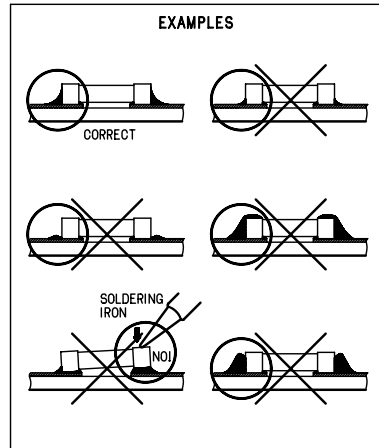
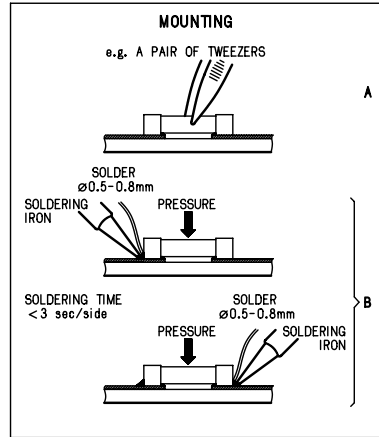
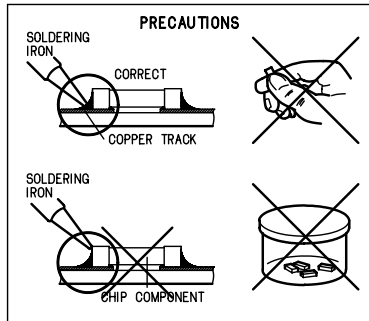
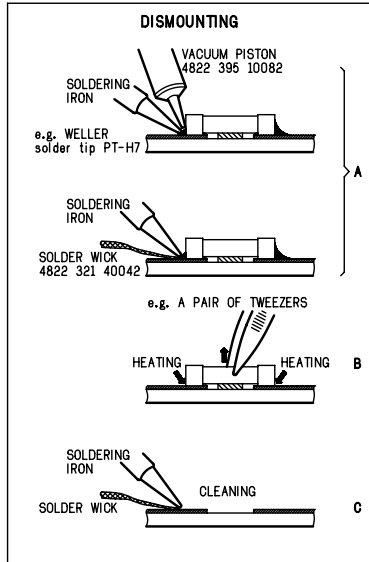
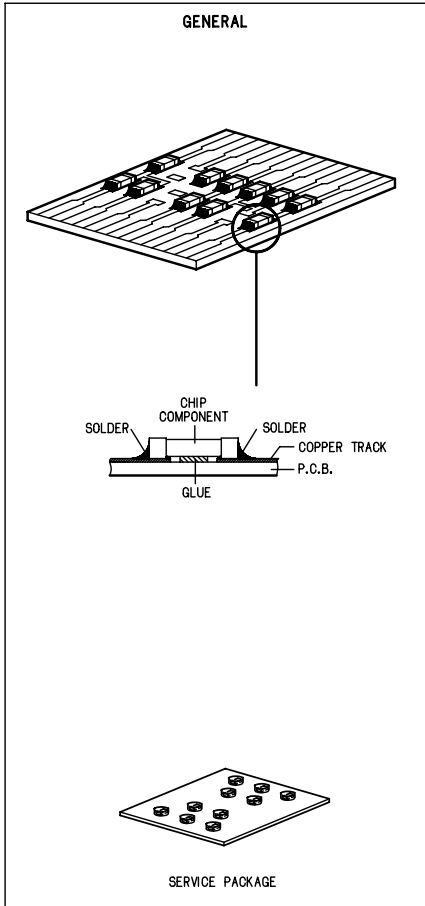
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PHILIPS

HANDLING CHIP COMPONENTS



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



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

D WARNUNG
Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).
Unvorsichtige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren.
Sorgen Sie dafür, daß Sie im Reparaturfall über ein Pulsarmband mit Widerstand mit dem Massepotential des Gerätes verbunden sind.
Halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

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

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



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

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

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

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

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



S Varning !
Osynlig laserstrålning när apparaten är öppnad och spårren är urkopplad. Betrakta ej strålen.

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.

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

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

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 |
| | -/01/11/16 : 120 / 230 V |
| | -/17 : 120 V |
| Mains frequency | -/00/05/14 : 50 Hz |
| | -/01/11/16 : 50 / 60 Hz |
| | -/17 : 60 Hz |
| Battery | mains : 9 V (R20 x 6) |
| | remote : 3V (R03 x 2) |
| Power consumption | : 5 W |
| Dimension (W x H x D) | : 435 x 262 x 174 mm |
| Weight | : 3.4 Kg |

AMPLIFIER

| | |
|--------------------|---------------------------------|
| Output power | mains : 2 x 1.4 W |
| | battery : 2 x 2 W |
| Speaker impedance | : 2 x 4 ohm |
| Frequency response | : 100 Hz - 10 kHz (± 3 dB) |

TUNER - FM SECTION

| | |
|-----------------|--------------------------|
| Tuning range | : 87.5 - 108 MHz |
| IF frequency | : 10.7 MHz \pm 0.2 MHz |
| Sensitivity | : 18 dBf at 26dB S/N |
| Selectivity | : 24 dB at 300kHz |
| IF rejection | : 85 dB |
| Image rejection | : 24 dB |

SERVICE TOOLS

| | |
|---|----------------|
| TORX T10 screwdriver with shaftlength 150mm..... | 4822 395 50423 |
| TORX screwdriver set SBC 163..... | 4822 295 50145 |
| 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 |
| Universal test cassette Fe SBC 420..... | 4822 397 30071 |

AVAILABLE ESD PROTECTION EQUIPMENT

| | |
|--|----------------|
| anti-static table mat large 1200x650x1.25mm | 4822 466 10953 |
| small 600x650x1.25mm | 4822 466 10958 |
| anti-static wristband | 4822 395 10223 |
| connection box (3 press stud connections, 1M) | 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 |

TUNER - AM SECTION

| | |
|-----------------|---------------------------------|
| Tuning range | MW : 531 - 1602 kHz |
| | -/17 : 530 - 1700 kHz |
| | LW : 153 - 279 kHz |
| IF frequency | : 468 kHz \pm 3 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

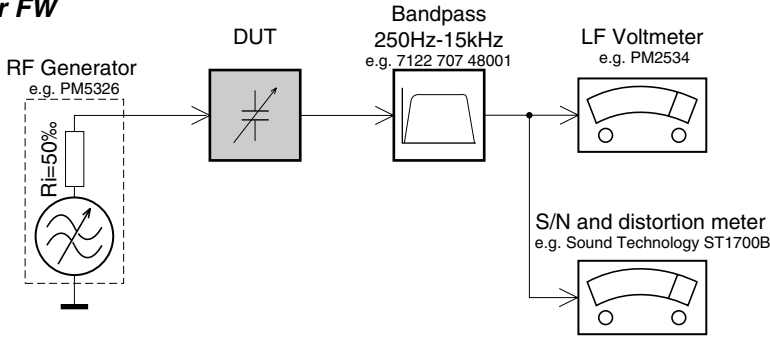
| | |
|----------------------|------------------------|
| Number of tracks | : 1 stereo |
| Tape speed | : 4.76 cm/sec \pm 3% |
| Wow & flutter | : < 0.48 JIS UWTD |
| Fast wind/rewind C60 | : < 110 sec. |
| Frequency response | P/B : 125 - 8000 Hz |
| S/N ratio | : 40 dB |

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 \pm 20 nm |
| Laser light power | : < 0.5 mW |

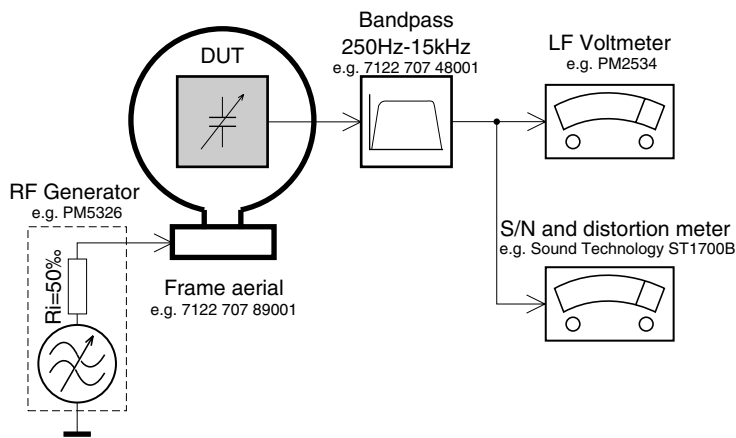
SERVICE MEASUREMENT

Tuner FW



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

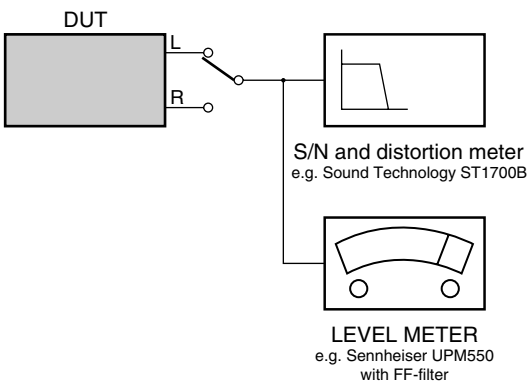
Tuner AM (MW,LW)



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

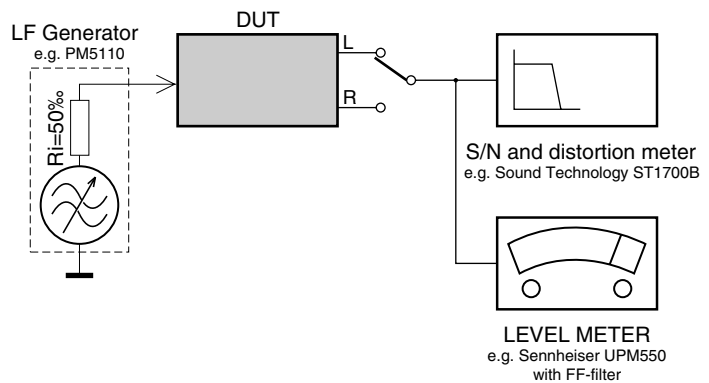
CD

Use Audio Signal Disc SBC429 4822 397 30184 (replaces test disc 3)



RECORDER

Use Universal Test Cassette Fe SBC420 4822 397 30071

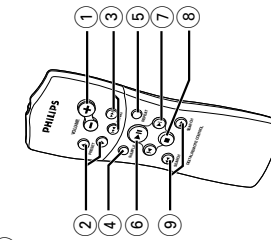


TOP AND FRONT PANELS

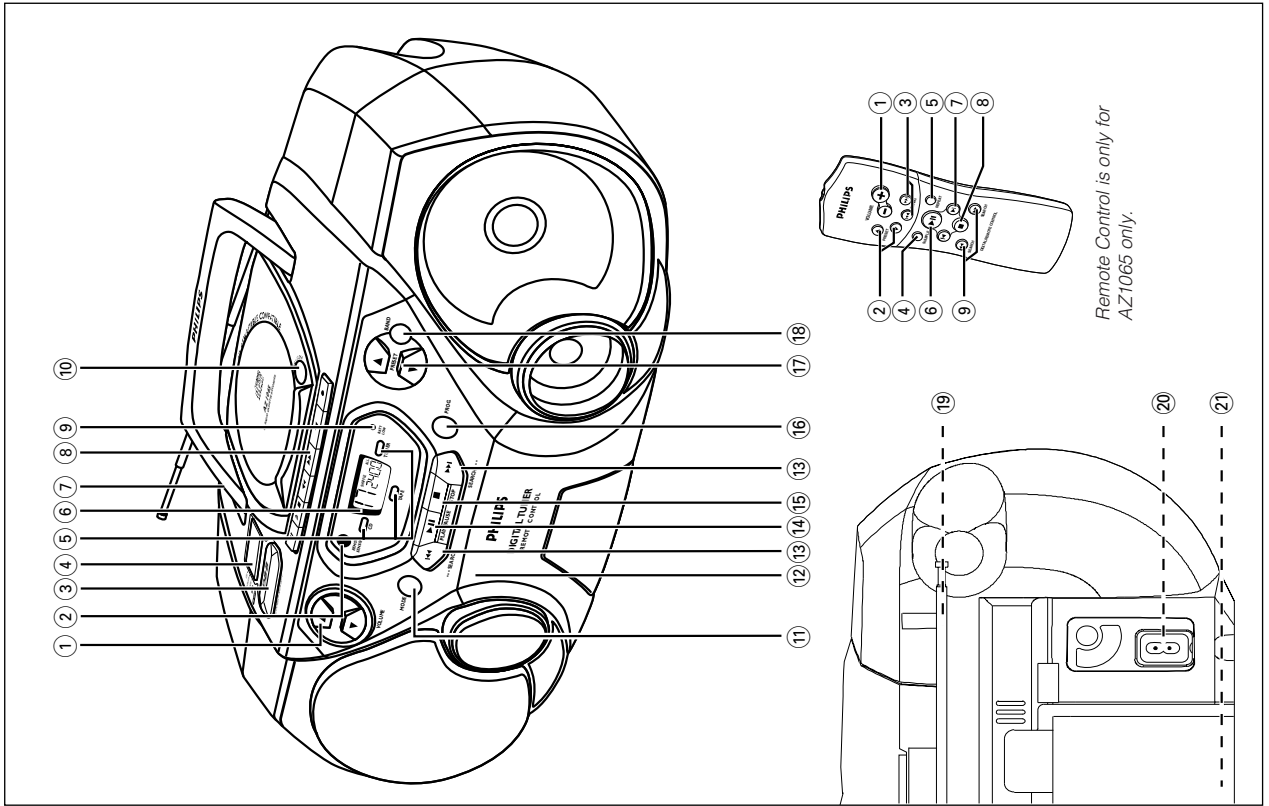
- ① **VOLUME** - adjusts the volume level
 - ② **REMOTE SENSOR** - infrared sensor for remote control
 - ③ **DBB** (Dynamic Bass Boost) - enhances the bass
 - ④ **POWER slider** - selects the sound source for CD/ TUNER/ TAPE/OFF and also switches the set off
 - ⑤ **Function indicators** - lights up if the respective CD, tape or tuner function is in use
 - ⑥ **Display** - shows the status of the set
 - ⑦ ϕ - 3.5 mm stereo headphone socket
- Note:** Connecting headphones will switch off the speakers.

CASSETTE RECORDER KEYS:

- ⑧ **PAUSE II** - interrupts recording or playback
- ⑨ **STOP-OPEN** - opens the cassette compartment - stops the tape;
- ⑩ **SEARCH** << / >> - fast winds/rewinds the tape
- ⑪ **PLAY** < - starts playback
- ⑫ **RECORD** ● - starts recording
- ⑬ **BATT LOW** - indicates when battery power is running low
- ⑭ **OPEN-CLOSE** - opens/ closes the CD door
- ⑮ **MODE** - selects a different play mode for CD playback e.g. repeats tracks or SHUFFLE, plays tracks in random order



Remote Control is only for AZ1065 only.



- ⑯ **PLAY-PAUSE** >|| - starts or interrupts CD playback
- ⑰ **STOP** ■ - stops CD playback or erases a CD programme
- ⑱ **PROG** - Radio: programmes preset radio stations; CD: programmes tracks and reviews the programme
- ⑲ **PRESET** ▲, ▼ (up, down) - selects a tuner, preset station
- ⑳ **BAND** - selects waveband

BACK PANEL

- ⑲ **Telescopic aerial** - improves FM reception
- ⑳ **AC MAINS** - inlet for mains lead
- ㉑ **Battery compartment** - for 6 x R-20, UM-1 or D-cells

REMOTE CONTROL

- ① **VOLUME** +, - - adjusts volume level
- ② **PRESET** ▲, ▼ (up, down) - selects a preset radio station
- ③ **TUNING** , >> (down, up) - tunes to radio stations
- ④ **SHUFFLE** - to play CD tracks in random order
- ⑤ **REPEAT** - repeats a track/ CD programme/ entire CD
- ⑥ **II** - starts and pauses CD playback/ interrupts CD playback
- ⑦ <, >, >>, << - skips to the beginning of a current track/ previous/ later track
- ⑧ **STOP** ■ - stops CD playback or erases a CD programme
- ⑨ **SEARCH** <<, >> - searches backwards or forwards within a track/CD

CAUTION

Use of controls or adjustments or performance of procedures other than herein may result in hazardous radiation exposure or other unsafe operation.

Whenever convenient, use the AC mains supply if you want to conserve battery life. Make sure you remove the plug from the set and wall socket before inserting batteries.

BATTERIES (OPTIONAL)

1. Open the battery compartment and insert six batteries, type **R-20, UM-1** or **D-cells**, (preferably alkaline) with the correct polarity as indicated by the "+" and "-" symbols inside the compartment.

Remote control (supplied)

Open the battery compartment and insert two batteries, type **AAA, R03** or **UM4** (preferably alkaline).

2. Replace the compartment door, making sure the batteries are firmly and correctly in place. The set is now ready to operate. If **BATT LOW** lights up, battery power is running low.

- The **BATT LOW** indicator eventually goes out if the batteries are too weak.

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

Therefore:

- 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.
- Remove the batteries if the set is not to be used for a long time.

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

For users in the U.K.: please follow the instructions on page 2.

Using Mains

1. Check if the mains voltage as shown on the type plate on the bottom of the set, corresponds to your local mains 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 to match with the local mains supply.
3. Connect the mains lead to the wall socket and the set is now ready for use.
4. To disconnect the set from the power supply completely, remove the plug from the wall outlet.

Standby power consumption 3 W

Switching on and off

1. Adjust the POWER slider to the desired sound source: **CD**, **TUNER** or **TAPE/OFF**.

→ The respective function indicator: **CD**, **TUNER** or **TAPE** lights up.
2. To switch off, adjust the POWER slider to **TAPE/OFF** position with the keys on the tape deck released.

→ The respective function indicator: **CD**, **TUNER** or **TAPE** goes out.
→ The volume and tuner presets will be retained in the set's memory.

Adjusting volume and sound

1. On the set press the **VOLUME** control to increase or decrease volume (or press **+** or **-** on the remote control).

→ Display shows the volume level **VOL** and a number from 0-32.

2. Adjust the **DBB** control to select dynamic bass boost on or off.

PHILIPS demo mode

1. Press the **CD STOP** button for 5 seconds.

→ After about 30 seconds, **PH..IL..IPS** scrolls across the display.
2. To return to the current display you can either:

- press any function button on the front panel. This interrupts the demo mode for 30 seconds;
- press the **CD STOP** button for 5 seconds. **PH..IL..IPS** scrolls once before the demo mode is cancelled.

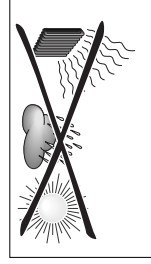
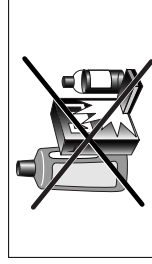
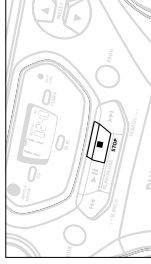
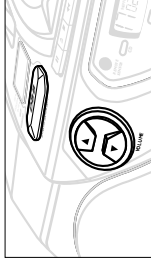
GENERAL INFORMATION

General maintenance






- Do not expose the set, batteries, CDs or cassettes to humidity, rain, sand or excessive heat caused by heating equipment or direct sunlight.
- To clean the set, use a soft, slightly dampened chamois leather. Do not use any cleaning agents containing alcohol, ammonia, benzene or abrasives as these may harm the housing.

Safety information

- Place the set on a hard and flat surface so that the system does not tilt. Make sure there is adequate ventilation to prevent the system from overheating.
- The mechanical parts of the set contain self-lubricating bearings and must not be oiled or lubricated.





TUNING TO RADIO STATIONS

1. Select **TUNER** source.
→ The function indication lights up.  is displayed briefly and then the radio station frequency is shown.
2. Press **BAND** once or more to select your waveband.
3. Press **SEARCH** or  (on the remote control, **TUNING** or ) and release when the frequency in the display starts running.
→ The radio automatically tunes to a station of sufficient reception. Display shows  during automatic tuning.
- If a FM station is received in stereo, **STEREO** is shown.
4. Repeat step 3 if necessary until you find the desired station.
 - To tune to a weak station, press **SEARCH** or  briefly and repeatedly until you have found optimal reception.



To improve radio reception

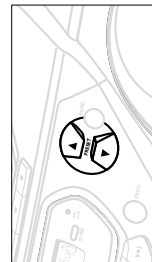
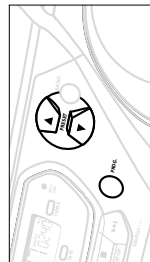
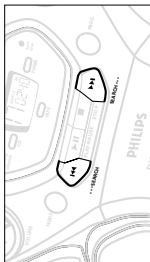
- For **FM**, pull out the telescopic aerial. Incline and turn the aerial. Reduce its length if the signal is too strong (very close to a transmitter).
- For **AM/AM/LW**, the set is provided with a built-in aerial so the telescopic aerial is not needed. Direct the aerial by turning the whole set.
- 5. To switch off, adjust the **POWER** slider to **TAPE/OFF** position with the keys on the tape deck released.
→ The function indicator goes out.








Programming radio stations

- You can store up to a total of 30 radio stations in the memory.
1. Tune to your desired station (see **Tuning to radio stations**).
 2. Press **PROG** to activate programming.
– Display: **PROGRAM** flashes.
 3. Press **PRESET**  or  once or more to allocate a number from 1 to 30 to this station.
 4. Press **PROG** again to confirm the setting.
– Display: **PROGRAM** disappears, the preset number and the frequency of the preset station are shown.
 5. Repeat the above four steps to store other stations.
– You can erase a preset station by storing another frequency in its place.






Tuning to preset stations

Press **PRESET**  or  until the desired preset station is displayed.







1. Select **CD** source.
→  is displayed briefly and the function indication lights up.
 2. Press **OPEN•CLOSE** to open the CD door.
→ Display:  **OPEN** when you open the CD door.
 3. Insert a CD or CD-R(W) with the printed side facing up and close the CD door.
→ Display:  flashes as the CD player scans the contents of a CD. The total number of tracks and playing time are then shown.
 4. Press **PLAY•PAUSE**  (on the remote control ) to start playback.
→ Display: Current track number and elapsed playing time of the track during CD playback.
 5. To interrupt playback press **PLAY•PAUSE** .
→ The display freezes and the elapsed playing time flashes when playback is interrupted.
 6. To stop CD playback, press **STOP** .
 7. To switch off, adjust the **POWER** slider to **TAPE/OFF** position with the keys on the tape deck released.
→ The function indicator goes out.
- Note:** CD play will also stop when:
- the CD door is opened;
 - the CD has reached the end (unless you have selected **REPEAT** or **REPEAT ALL**);
 - you select another source: **TAPE / TUNER**.

Selecting a different track

- Press **SEARCH** or  on the set, (on the remote control  or ) once or repeatedly until the desired track number appears in the display.
- If you have selected a track number shortly after loading a CD or in the **PAUSE** position, you will need to press **PLAY•PAUSE**  (on the remote control ) to start playback.

Finding a passage within a track

1. Press and hold down on **SEARCH** or  (on the remote control  or ).
→ The CD is played at high speed and low volume.
2. When you recognize the passage you want, release **SEARCH** or .
– Normal playback continues.

Note:

During a CD programme or if **SHUFFLE/ REPEAT** active, searching is only possible within a track.

Different play modes: SHUFFLE and REPEAT

You can select and change the various play modes before or during playback. The play modes can also be combined with PROGRAM. SHUFFLE - tracks of the entire CD/ programme are played in random order

SHUFFLE and **REPEAT ALL** - to repeat the entire CD/ programme continuously in random order

REPEAT ALL - repeats the entire CD/ programme

REPEAT - plays the current track continuously

1. To select your play mode, press the **MODE** button (on the remote control SHUFFLE or REPEAT) before or during playback until the display shows the desired function.
 2. Press **PLAY•PAUSE ▶II** (on the remote control ▶II) to start playback if in the STOP position.
 3. To return to normal playback, press the respective **MODE** (or the respective SHUFFLE or REPEAT) button until the various SHUFFLE/ REPEAT modes are no longer displayed.
- You can also press **STOP ■** to cancel your play mode.

Programming track numbers

Programme in the STOP position to select and store your CD tracks in the desired sequence. If you like, store any track more than once. Up to 20 tracks can be stored in the memory.

1. Use the **SEARCH** ◀ or ▶▶ on the set, (on the remote control ◀ or ▶▶) to select your desired track number.

2. Press **PROG**.

→ Display: **PROGRAM** and the selected track number PR 09 appears briefly.

→ If you attempt to programme without first selecting a track number, PR SEL is shown.

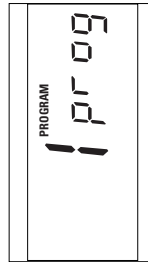
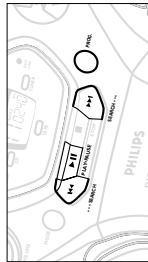
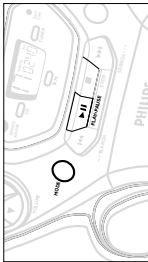
3. Repeat steps 1-2 to select and store all desired tracks.

→ FULL is displayed if you attempt to programme more than 20 tracks.

4. To start playback of your CD programme, press **PLAY•PAUSE ▶II** (on the remote control ▶II).

Reviewing the programme

In the stop position, press and hold down **PROG** for a while until the display shows all your stored track numbers in sequence.



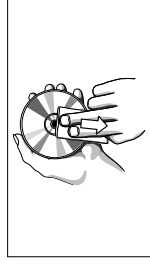
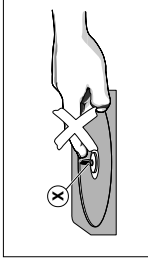
Erasing a programme

You can erase the programme by:

- pressing **STOP ■** once in the STOP position;
 - pressing **STOP ■** twice during playback;
 - pressing the CD door open;
 - switching to another source: **TAPE/TUNER**.
- The display shows 'PR 09' briefly.

CD player and CD handling

- The lens of the CD player should never be touched!
- If the CD player cannot read CDs correctly, use a commonly available cleaning CD to clean the lens before taking the set to repair. Other cleaning methods may destroy the lens.
- Sudden changes in the surrounding temperature can cause condensation to cloud over 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 keep the CD compartment closed to avoid dust on the lens.
- To take a CD out of its box, press the centre spindle while lifting the CD. Always pick up the CD by the edge and return the CD to its box after use to avoid scratching and dust.
- To clean the CD, wipe in a straight line from the centre 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.



CASSETTE PLAYBACK

1. Select **TAPE** source.

→ The display shows **TAPE** throughout tape operation, and the function indication lights up.

2. Press **STOP•OPEN ■▲** to open the cassette door.

3. Insert a recorded cassette and close the cassette door.

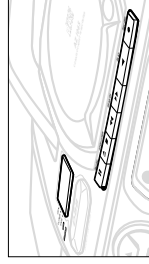
4. Press **PLAY ▶** to start playback.

5. To pause playback, press **PAUSE II**. To resume, press the key again.

6. By pressing **SEARCH ◀◀** or **▶▶** fast winding of the tape is possible in both directions.

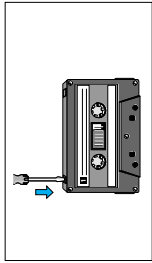
7. To stop the tape, press **STOP•OPEN ■▲**.

- The keys are automatically released at the end of the tape and the **TAPE** indication and function light go out, except if **PAUSE II** has been activated.



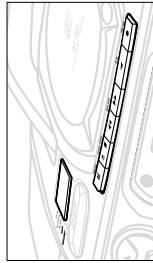
GENERAL INFORMATION ON RECORDING

- Recording is permissible insofar as copyright or other rights of third parties are not infringed.
 - This deck is not suitable for recording on CHROME (IEC II) or METAL (IEC IV) type cassettes. For recording, use only NORMAL type cassettes (IEC I) on which the tabs have not been broken.
 - The best recording level is set automatically. Altering the **VOLUME** and **DBB** controls will not affect the recording in progress.
 - At the very beginning and end of the tape, no recording will take place during the 7 seconds, when the leader tape passes the recorder heads.
 - To protect a tape from accidental erasure, have the tape in front of you and break out the left tab.
- Recording on this side is no longer possible. To record over this side again, cover the tabs with a piece of adhesive tape.



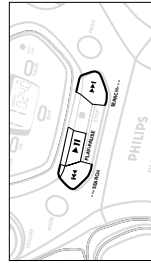
SYNCHRO START CD RECORDING

1. Select **CD** source.
 2. Insert a **CD** and, if desired, programme track numbers.
 3. Press **STOP•OPEN** **■▲** to open the cassette door.
 4. Insert a suitable cassette into the cassette deck and close the cassette door.
 5. Press **RECORD** **●** to start recording.
- Playing of the CD programme starts automatically from the beginning of the programme. It is not necessary to start the CD player separately.



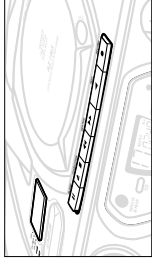
To select and record a particular passage

- Press **SEARCH** or **▶▶**. When you recognize the passage you want, release **SEARCH** controls.
 - To interrupt CD playback press **PLAY/PAUSE** **▶||** (on the remote control **▶||**).
 - Recording will begin from this exact point in the track when you press **RECORD** **●**.
6. For brief interruptions during recording, press **PAUSE II**. To resume recording, press **PAUSE II** again.
 7. To stop recording, press **STOP•OPEN** **■▲**.



Recording from the radio

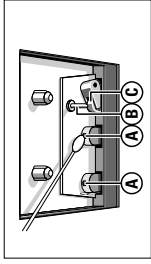
1. Tune to the desired radio station (see **Tuning to radio stations**).
2. Press **STOP•OPEN** **■▲** to open the cassette door.
3. Insert a suitable cassette into the cassette deck and close the cassette door.
4. Press **RECORD** **●** to start recording.
5. For brief interruptions, press **PAUSE II**. To resume recording, press **PAUSE II** again.
6. To stop recording, press **STOP•OPEN** **■▲**.



Tape deck maintenance

To ensure quality recording and playback of the tape deck, clean parts (A), (B) and (C) shown in the diagram below, after approx. 50 hours of operation, or on average once a month. Use a cotton bud slightly moistened with alcohol or a special head cleaning fluid to clean the deck.

1. Open the cassette holder by pressing **STOP•OPEN** **■▲**.
2. Press **PLAY** **◀** and clean the rubber pressure rollers (C).
3. Press **PAUSE II** and clean the magnetic heads (A) and also the capstan (B).
4. After cleaning, press **STOP•OPEN** **■▲**.



Note: Cleaning of the heads can also be done by playing a cleaning cassette through once.

Environmental information

All unnecessary packaging material has been omitted. We have done our utmost to make the packaging easy to separate into three materials: cardboard (box), expandable polystyrene (buffer), polyethylene (bags, protective foam).

Your set consists of materials which can be recycled if disassembled by a specialized company. Please observe the local regulations regarding the disposal of packing materials, exhausted batteries and old equipment.

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.

PROBLEM

- POSSIBLE CAUSE**
- REMEDY

No sound/power

- VOLUME not adjusted
- Adjust the VOLUME
- Headphones connected
- Disconnect headphones
- Mains lead not securely connected
- Connect the mains lead properly
- Batteries exhausted/ incorrectly inserted
- Insert (fresh) batteries correctly

Severe radio hum or noise

- Electrical interference: set too close to TV, VCR or computer
- Increase the distance

Poor radio reception

- Weak radio signal
- FM: Direct the FM telescopic aerial for optimum reception
- MW (AM) or LW: Direct the aerial by turning the whole set.

No disc or CD Err indication

- No CD inserted
- Insert a CD
- CD badly scratched or dirty
- Replace/ clean CD, see Maintenance
- Laser lens steamed up
- Wait until lens has cleared

Final disc indication

- CD-R(W) is blank or the disc is not finalised
- Use a finalised CD-R(W)
- CD badly scratched or dirty
- Replace/ clean CD, see Maintenance

The CD skips tracks

- CD is damaged or dirty
- Replace or clean the CD
- SHUFFLE or PROGRAM is active
- Quit SHUFFLE/PROGRAM mode(s)

Poor cassette sound quality

- Dust and dirt on the heads, etc.
- Clean deck parts etc., see Maintenance
- Use of incompatible cassette types (METAL or CHROME).
- Only use NORMAL (IEC1) for recording.

Recording does not work

- Cassette tab(s) may be broken
- Apply a piece of adhesive tape over the missing tab space.

Remote control does not function properly

- Batteries exhausted/ incorrectly inserted
- Insert (fresh) batteries correctly
- Distance/ angle between the set too large
- Reduce the distance/ angle

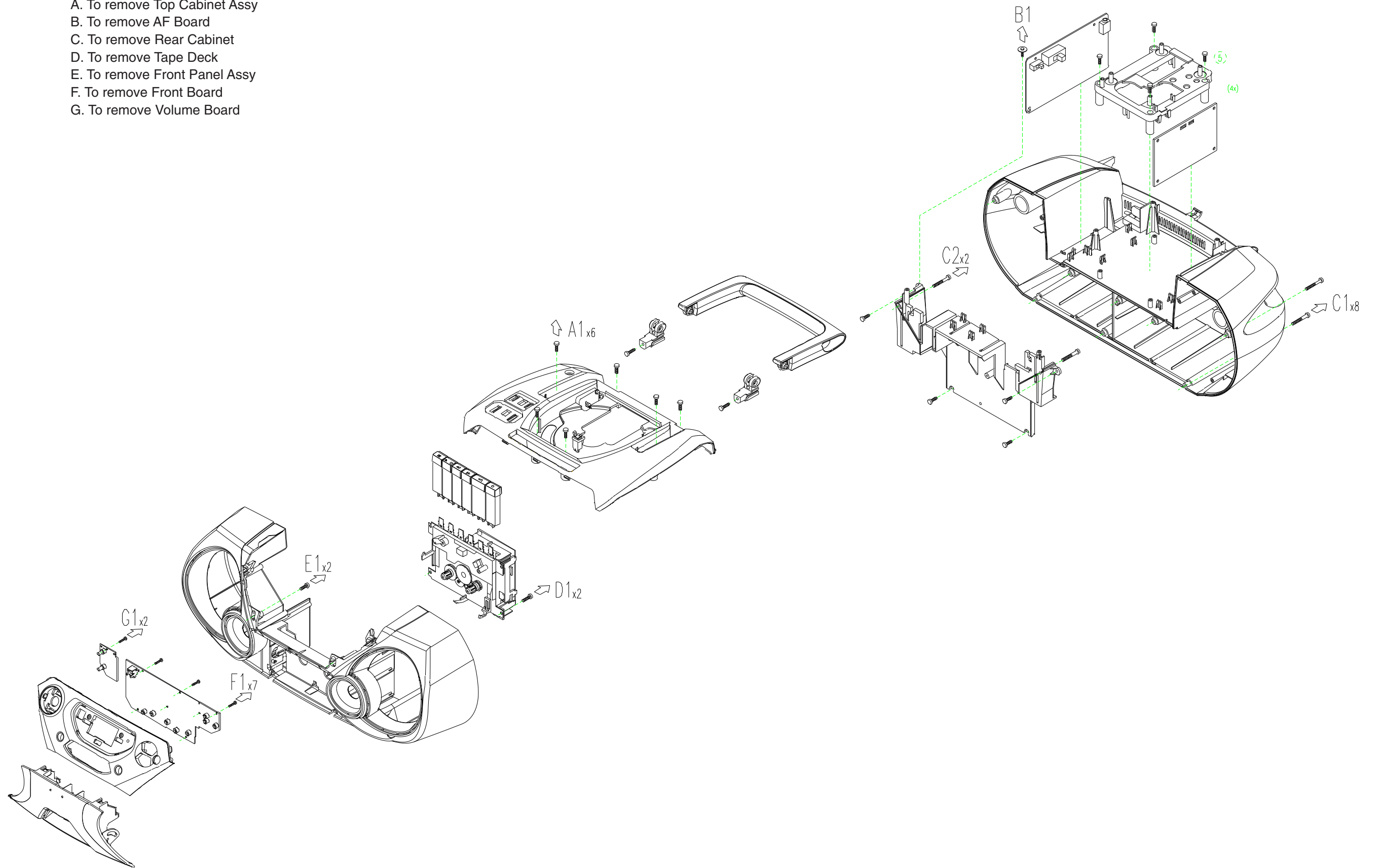
This product complies with the radio interference requirements of the European Union.
The type plate is located on the bottom of the set.

DISASSEMBLY DIAGRM

4-1

4-1

- A. To remove Top Cabinet Assy
- B. To remove AF Board
- C. To remove Rear Cabinet
- D. To remove Tape Deck
- E. To remove Front Panel Assy
- F. To remove Front Board
- G. To remove Volume Board



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

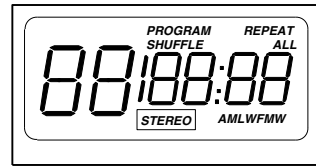
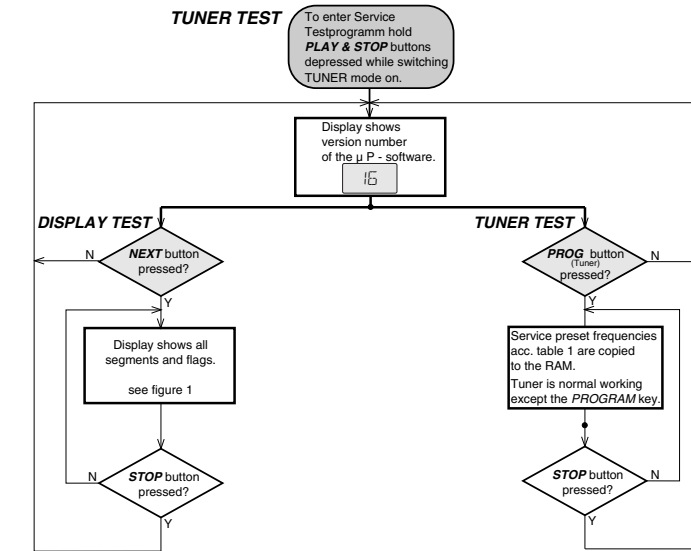
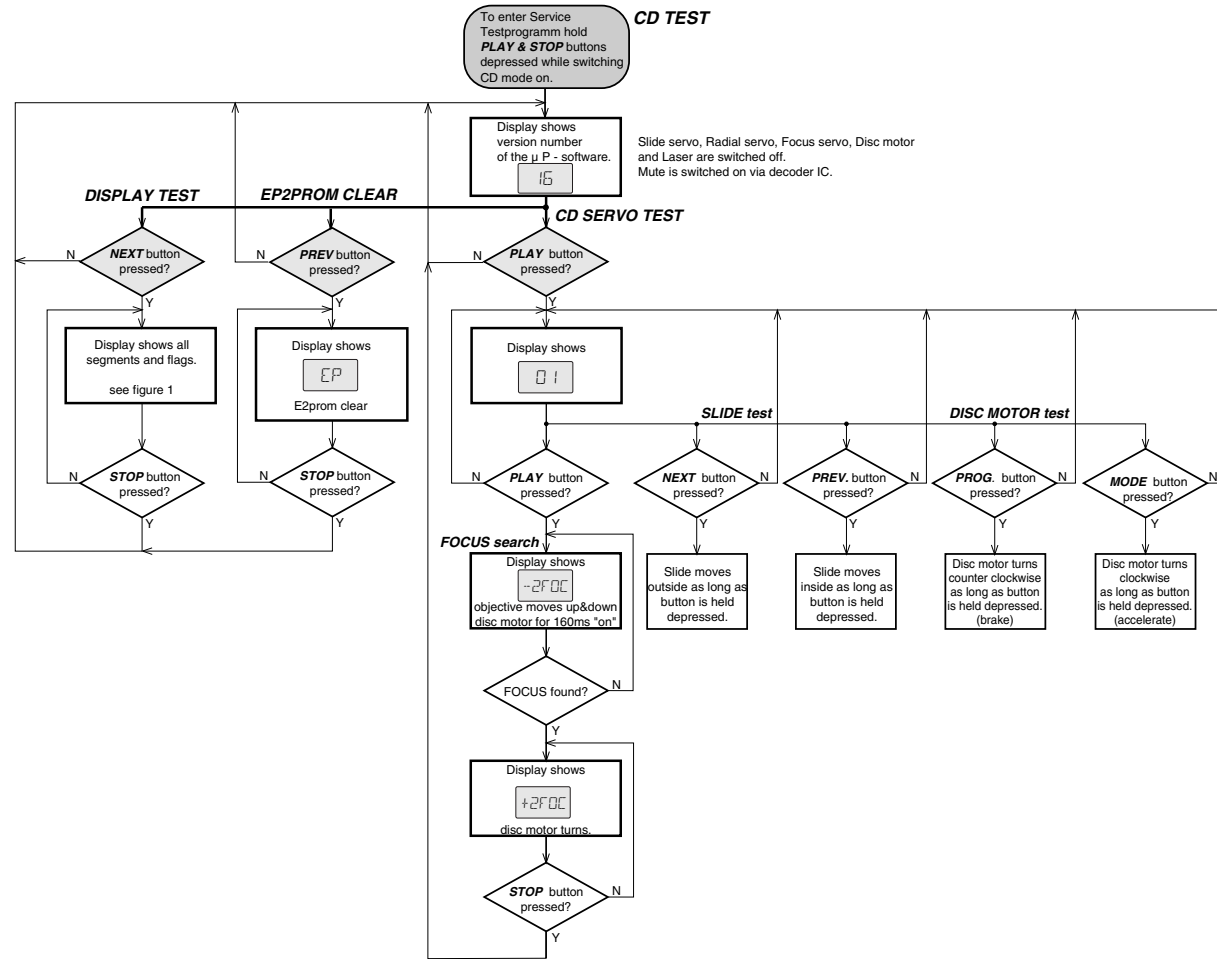


fig. 1



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 | /14/37 |
| 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 1

1) How to set frequency grid:

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

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

Selected frequency grid is stored in the EEPROM.

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 input (for data loopback to DAC) |
| SDI | 36 | serial data input (for data loopback to DAC) |
| SCLI | 37 | serial bit clock input (for data loopback to DAC) |
| RESET | 38 | power-on reset input (active LOW) |
| SDA | 39 | microcontroller interface data I/O line (open-drain output) |
| SCL | 40 | microcontroller interface clock line input |

Abbreviations and Pin-description of CD Ics

SERVO PROCESSOR SAA7325H

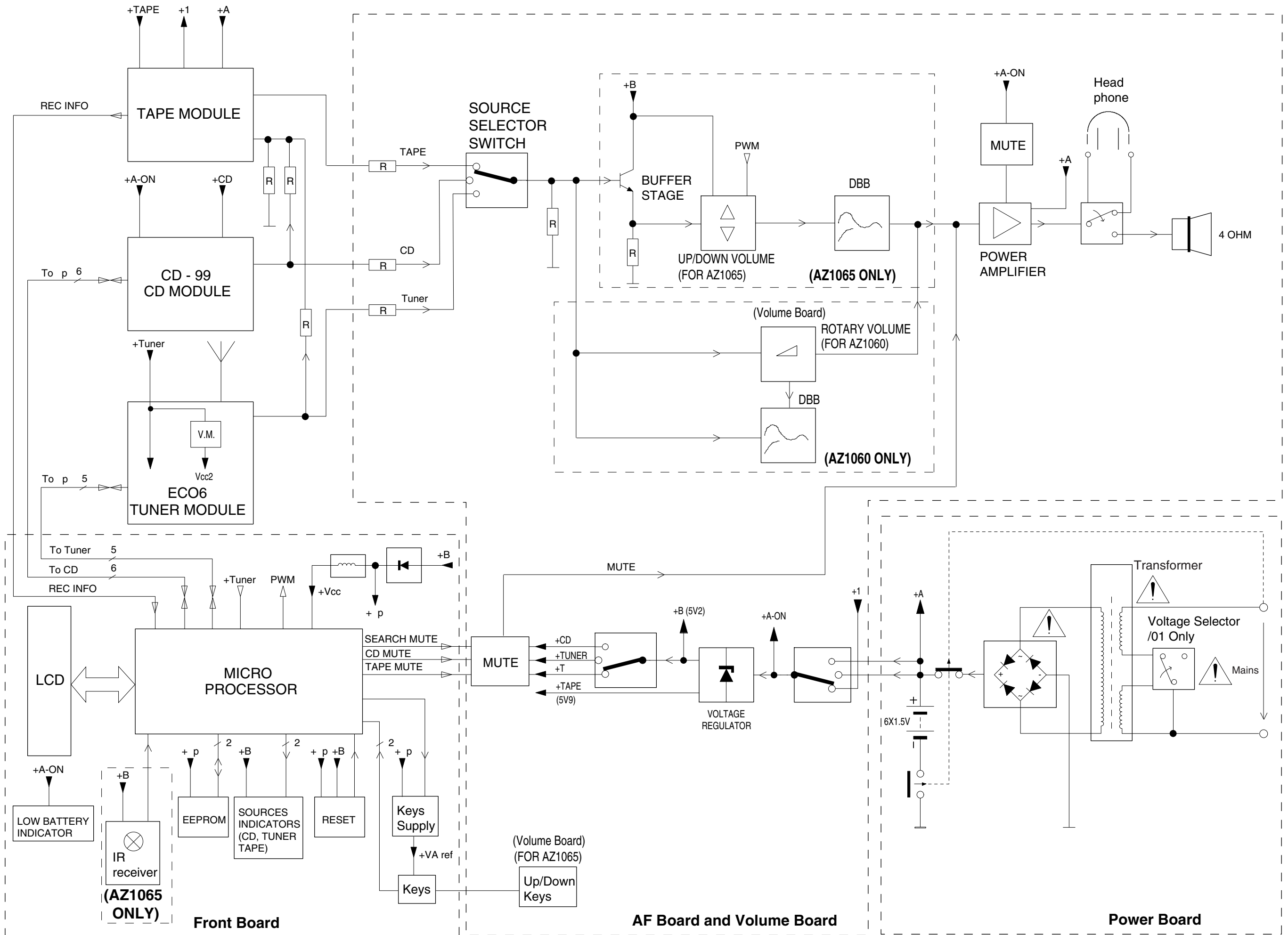
| SYMBOL | PIN | DESCRIPTION |
|---------------------|-------------------|---|
| RAB | 41 | microcontroller interface R/W and load control line input (4-wire bus mode) |
| SILD | 42 | microcontroller interface R/W and load control line input (4-wire bus mode) |
| STATUS | 43 | servo interrupt request 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) |

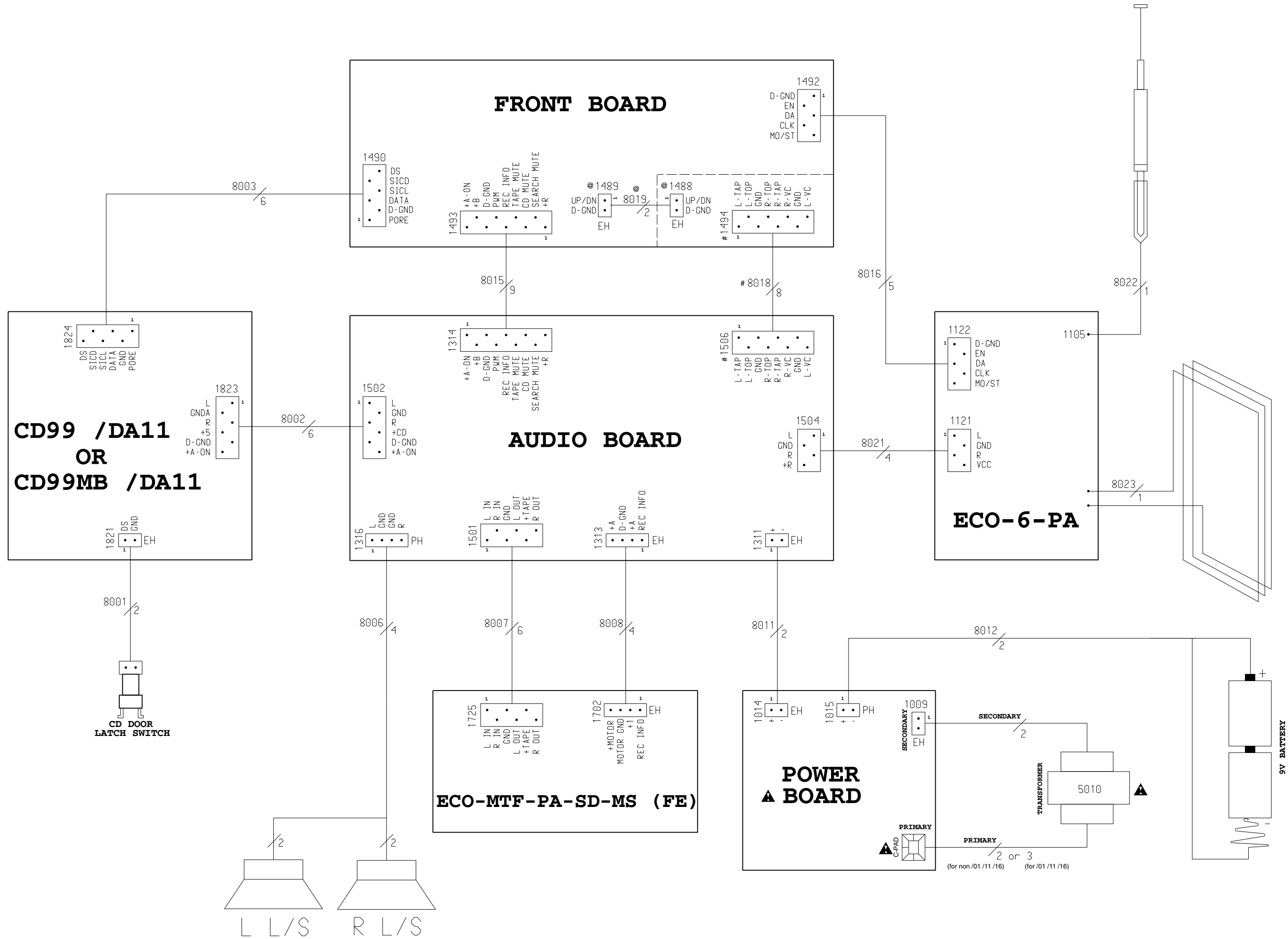
Note : All supply pins must be connected to the same external power supply voltage.

BLOCK DIAGRAM

5-1

5-1



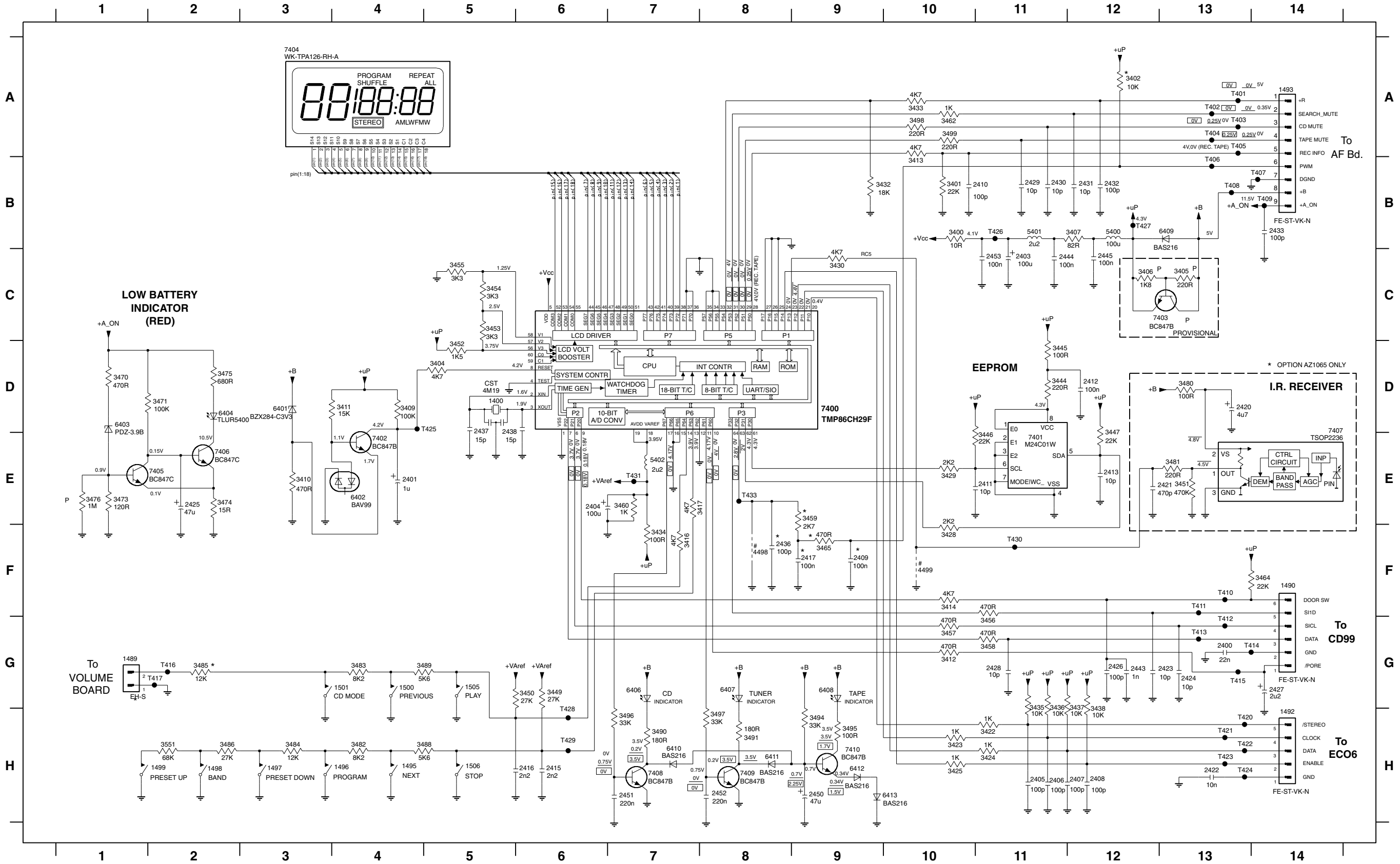


FRONT BOARD - CIRCUIT DIAGRAM

6-1

6-1

- 1400 D5 1496 H4 1505 G5 2405 H11 2411 E10 2420 D13 2426 G12 2432 B12 2444 C11 3400 B10 3407 B12 3414 F10 3425 H10 3434 F7 3445 D11 3452 D5 3458 G11 3470 D1 3480 D13 3486 H2 3495 H9 4498 F8 6402 E4 6409 B13 7401 E11 7407 E14 T403 A13 T409 B14 T415 G13 T423 H13 T429 H6
- 1489 G1 1497 H3 1506 H5 2406 H11 2412 D12 2421 E12 2427 G14 2433 B14 2445 C12 3401 B10 3409 D4 3416 F7 3428 F10 3435 G11 3446 E10 3453 C5 3459 E9 3471 D1 3481 E13 3488 H5 3496 H7 4499 F10 6403 D1 6410 H7 7402 E4 7408 H7 T404 A13 T410 F13 T416 G2 T424 H13 T430 F11
- 1490 F14 1498 H2 2400 G13 2407 H11 2413 E12 2422 H13 2428 G11 2436 F8 2450 H9 3402 A12 3410 E3 3417 E7 3429 E10 3436 G11 3447 E12 3454 C5 3460 E7 3473 D1 3482 H4 3489 G5 3497 H8 5400 B11 6404 D2 6411 H8 7403 C12 7409 H8 T405 A13 T411 F13 T417 G2 T425 D5 T431 E7
- 1492 H14 1499 H2 2401 E4 2408 H12 2415 H6 2423 G12 2429 B11 2437 E5 2451 H7 3404 D5 3411 D3 3422 H11 3430 C9 3437 G11 3449 G6 3455 C5 3462 A10 3474 E2 3483 G4 3490 H7 3498 A10 5401 B11 6406 G7 6412 H9 7404 A3 7410 H9 T406 B13 T412 G13 T420 H13 T426 B11 T433 E8
- 1493 A14 1500 G4 2403 C11 2409 F9 2416 H6 2424 G13 2430 B11 2438 E6 2452 H8 3405 C13 3412 G10 3423 H10 3432 B9 3438 G12 3450 G6 3456 G11 3464 F13 3475 D2 3484 H3 3491 H8 3499 A10 5402 E7 6407 G8 6413 H9 7405 E2 T401 A13 T407 B14 T413 G13 T421 H13 T427 B12
- 1495 H4 1501 G4 2404 E6 2410 B10 2417 F9 2425 E2 2431 B12 2443 G12 2453 C11 3406 C12 3413 B10 3424 H11 3433 A10 3444 D11 3451 E13 3457 G10 3465 F9 3476 E1 3485 G2 3494 H9 3551 H2 6401 D3 6408 G9 7400 D9 7406 E2 T402 A13 T408 B13 T414 G14 T422 H13 T428 H6



P = PROVISIONAL
 # = FOR AZ1060 (non RC + ROT VOL)
 * = FOR AZ1065 (RC + UP/DN VOL)

| ITEM MODEL | 2409 | 2417 | 2436 | 2420 | 2421 | 3402 | 3459 | 3465 | 3451 | 3480 | 3481 | 4498 | 4499 | 7407 |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| AZ1060 | × | × | × | × | × | × | × | × | × | × | × | ✓ | ✓ | × |
| AZ1065 | 100n | 100n | 100p | 4u7 | 470p | 10K | 2K7 | 470R | 470K | 100R | 220R | × | × | TSOP2236 |

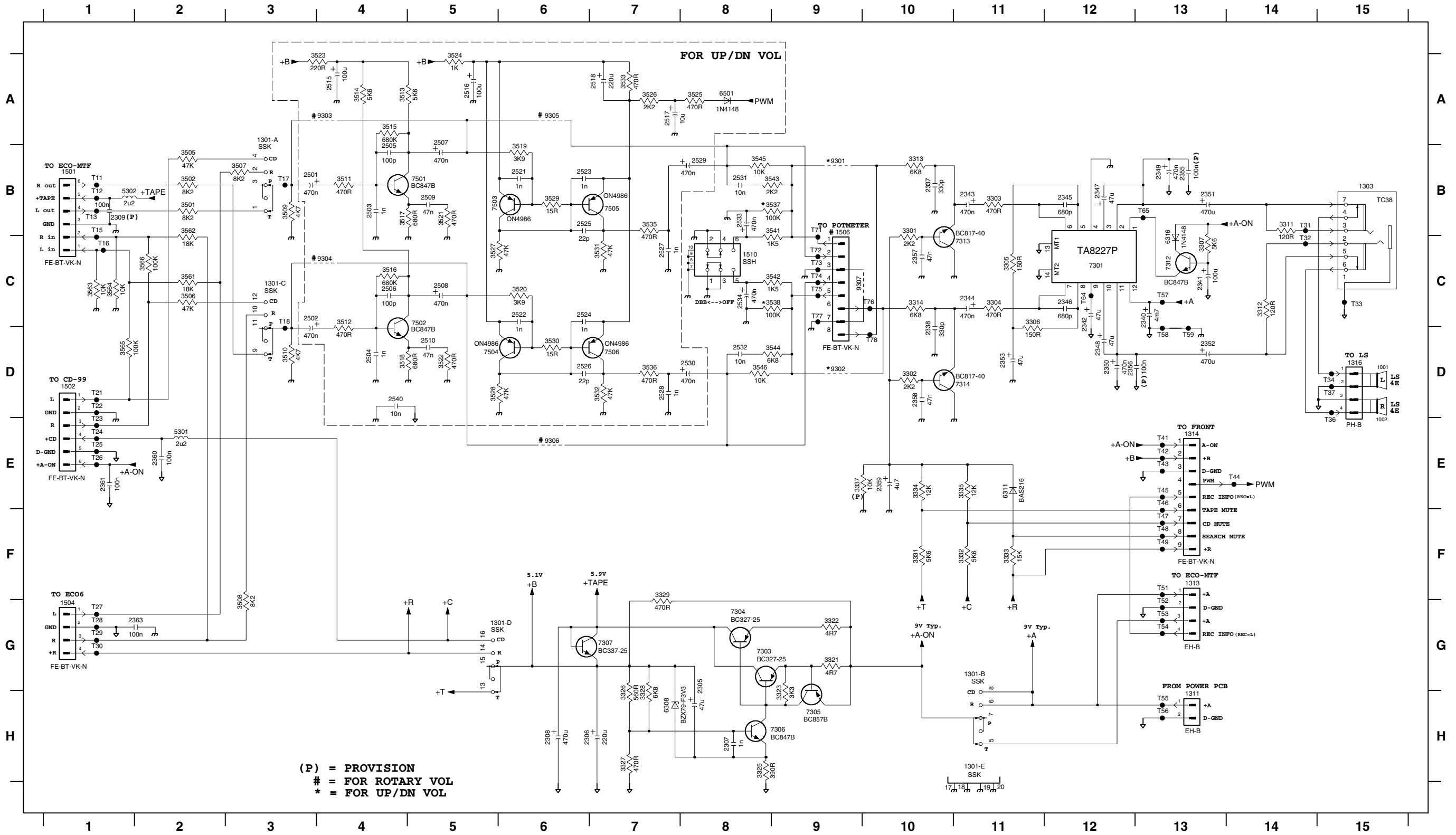
AC230V 50Hz
 AC120V 60Hz
 V TUNER MODE
 V CD MODE
 V TAPE MODE
 V AZ1065 ONLY VOL. 7

AF BOARD (AZ1060) - CIRCUIT DIAGRAM

7-1

7-1

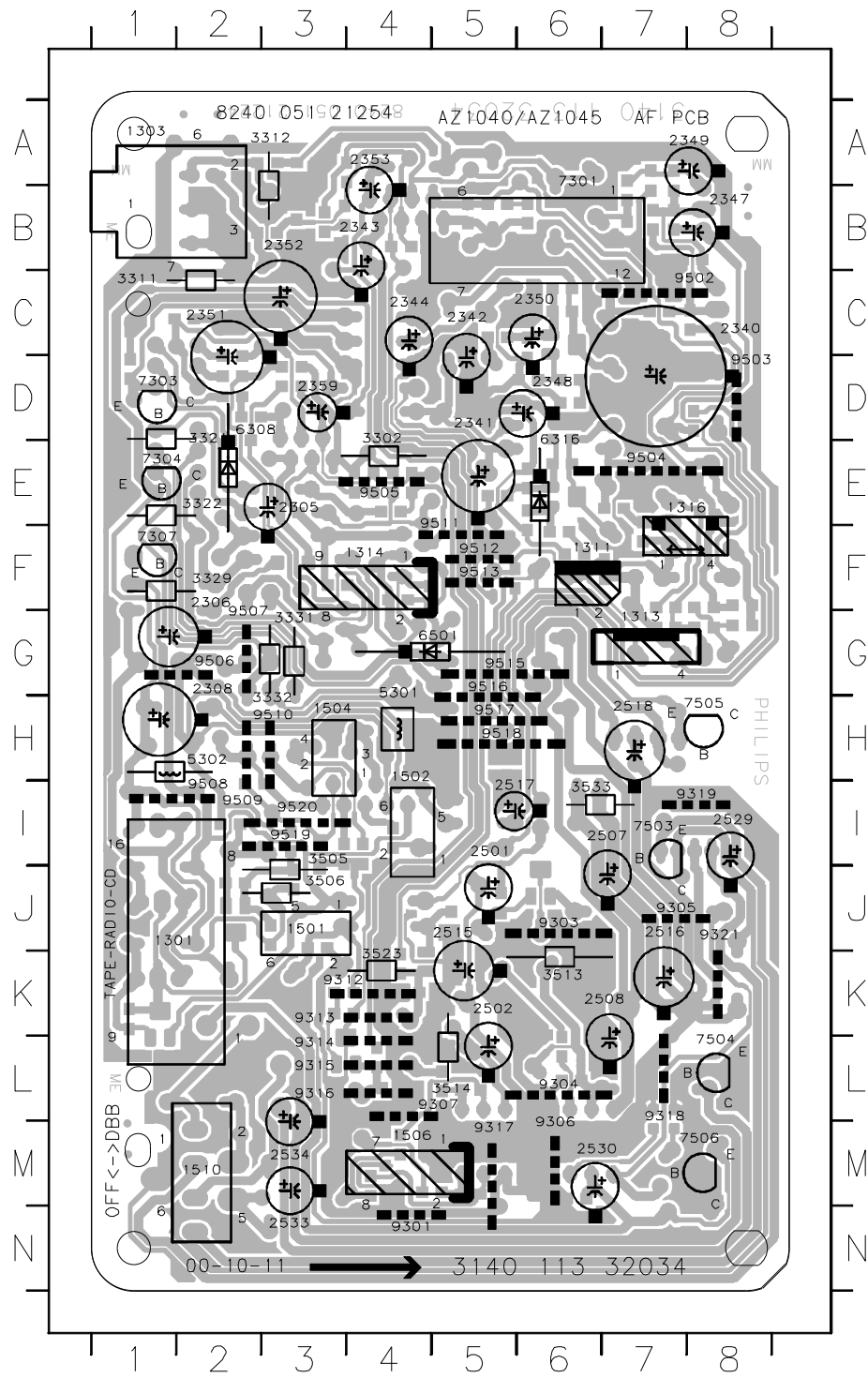
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|--------|---------|---------|---------|---------|------------|------------|---------|----------|----------|----------|---------|---------|---------|----------|----------|----------|----------|---------|---------|---------|---------|---------|---------|----------|----------|---------|---------|
| T11 B1 | T22 D1 | T30 G1 | T42 E13 | T51 F13 | T59 D13 | T76 C10 | 1301-D G5 | 1502 D1 | 2309 B1 | 2345 B12 | 2353 D11 | 2363 G2 | 2508 C5 | 2522 C6 | 2530 D8 | 3303 B11 | 3314 C10 | 3329 F7 | 3502 B2 | 3512 C4 | 3520 C6 | 3528 D5 | 3537 B9 | 3561 C2 | 6308 H7 | 7306 H8 | 7504 D6 | 9306 E6 |
| T12 B1 | T23 E1 | T31 B14 | T43 E13 | T52 G13 | T64 C12 | T77 C9 | 1301-E H11 | 1504 G1 | 2337 B10 | 2346 C12 | 2355 B13 | 2501 B3 | 2509 B5 | 2523 B6 | 2531 B8 | 3304 C11 | 3321 G9 | 3331 F10 | 3505 B2 | 3513 A4 | 3521 B5 | 3529 B6 | 3538 C9 | 3562 B2 | 6311 E11 | 7307 G7 | 7505 B7 | 9307 C9 |
| T13 B1 | T24 E1 | T32 C14 | T44 E14 | T53 G13 | T65 B13 | T78 D10 | 1303 B15 | 1506 B9 | 2338 D10 | 2347 B12 | 2356 D12 | 2502 C3 | 2510 D5 | 2524 C6 | 2532 D8 | 3305 C11 | 3322 G9 | 3332 F11 | 3506 C2 | 3514 A4 | 3522 D5 | 3530 D6 | 3541 B9 | 3563 C1 | 6316 C13 | 7312 C13 | 7506 D7 | |
| T15 B1 | T25 E1 | T33 C15 | T45 E13 | T54 G13 | T71 B9 | 1001 D15 | 1311 H13 | 1510 C8 | 2340 C13 | 2348 D12 | 2357 C10 | 2503 B4 | 2515 A4 | 2525 B6 | 2533 B8 | 3306 C11 | 3323 H9 | 3333 F11 | 3507 B3 | 3515 A4 | 3523 A4 | 3531 C7 | 3542 C9 | 3564 C1 | 6501 A8 | 7313 C11 | 7501 B9 | |
| T16 C1 | T26 E1 | T34 D15 | T46 E13 | T55 H13 | T72 C9 | 1002 E15 | 1313 F13 | 2305 G8 | 2341 C13 | 2349 B13 | 2358 D10 | 2504 D4 | 2516 A5 | 2526 D6 | 2534 C8 | 3307 C13 | 3325 H9 | 3334 E10 | 3508 G3 | 3516 C4 | 3524 A5 | 3532 D7 | 3543 B9 | 3565 D1 | 7301 C12 | 7314 D11 | 9302 D9 | |
| T17 B3 | T27 G1 | T36 E15 | T47 F13 | T56 H13 | T73 C9 | 1301-A A3 | 1314 E13 | 2306 H6 | 2342 C12 | 2350 D12 | 2359 E10 | 2505 B4 | 2517 A7 | 2527 C7 | 2540 D4 | 3311 B14 | 3326 H7 | 3335 E11 | 3509 B3 | 3517 B4 | 3525 A8 | 3533 A7 | 3544 D9 | 3566 C2 | 7303 G8 | 7501 B5 | 9303 A4 | |
| T18 C3 | T28 G1 | T37 D15 | T48 F13 | T57 C13 | T74 C9 | 1301-B G11 | 1316 D15 | 2307 H8 | 2343 B11 | 2351 B13 | 2360 E2 | 2506 C4 | 2518 A7 | 2528 D7 | 3301 B10 | 3312 C14 | 3327 H7 | 3337 E9 | 3510 D3 | 3518 D4 | 3526 A7 | 3535 B7 | 3545 B8 | 5301 E2 | 7304 G8 | 7502 C5 | 9304 C4 | |
| T21 D1 | T29 G1 | T41 E13 | T49 F13 | T58 D13 | T75 C9 | 1301-C C3 | 1501 B1 | 2308 H6 | 2344 C11 | 2352 D13 | 2361 E1 | 2507 A5 | 2521 B6 | 2529 B8 | 3302 D10 | 3313 B10 | 3328 H7 | 3501 B2 | 3511 B4 | 3519 B6 | 3527 C5 | 3536 D7 | 3546 D8 | 5302 B1 | 7305 H9 | 7503 B5 | 9305 A6 | |



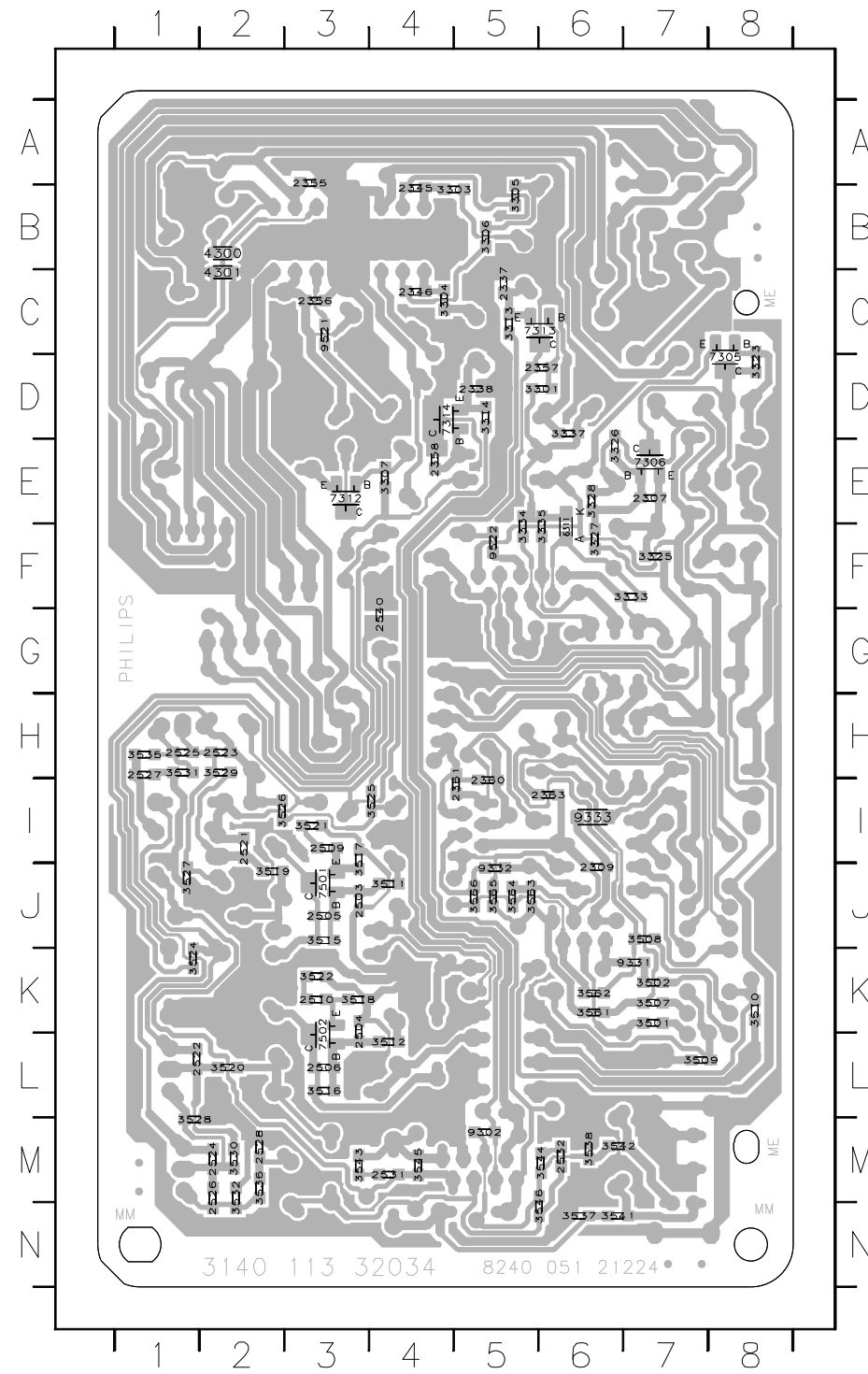
AF BOARD - LAYOUT DIAGRAM

7-2

7-2



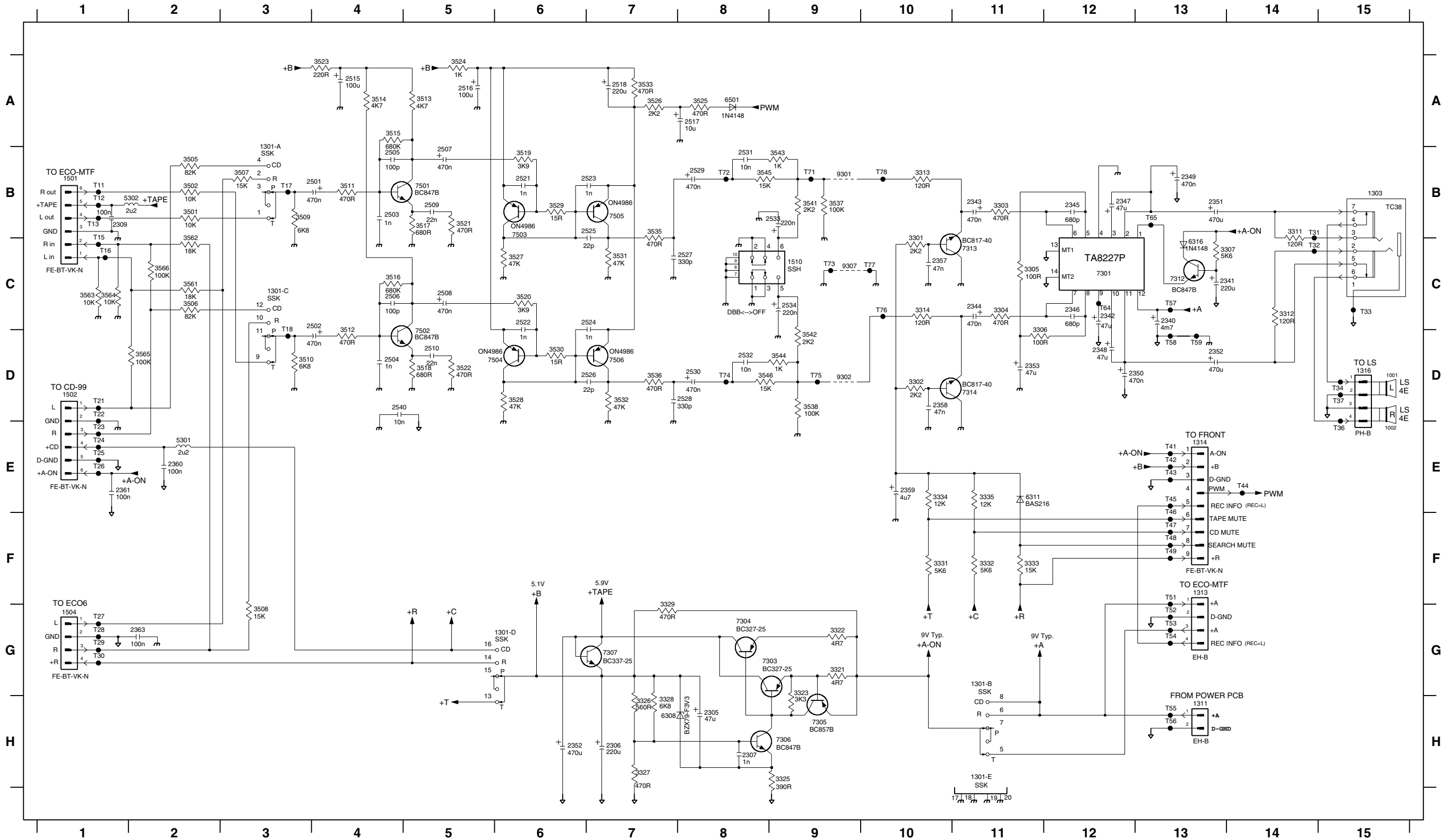
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|------|----|------|----|
| 1301 | J1 | 9305 | J7 |
| 1303 | A1 | 9306 | M6 |
| 1311 | F6 | 9307 | L5 |
| 1313 | G7 | 9312 | K3 |
| 1314 | F4 | 9313 | K3 |
| 1316 | E7 | 9314 | L3 |
| 1501 | J3 | 9315 | L3 |
| 1502 | H4 | 9316 | L3 |
| 1504 | H3 | 9317 | M5 |
| 1506 | M4 | 9318 | L7 |
| 1510 | M2 | 9319 | I8 |
| 2305 | E3 | 9321 | J8 |
| 2306 | F2 | 9502 | C8 |
| 2308 | G2 | 9503 | D8 |
| 2340 | C8 | 9504 | E7 |
| 2341 | D5 | 9505 | E4 |
| 2342 | C5 | 9506 | G2 |
| 2343 | B4 | 9507 | G2 |
| 2344 | C4 | 9508 | I2 |
| 2347 | B8 | 9509 | I2 |
| 2348 | D6 | 9510 | H3 |
| 2349 | A8 | 9511 | E5 |
| 2350 | C6 | 9512 | F5 |
| 2351 | C2 | 9513 | F5 |
| 2352 | B3 | 9515 | G5 |
| 2353 | A4 | 9516 | G5 |
| 2359 | D3 | 9517 | H5 |
| 2501 | I5 | 9518 | H5 |
| 2502 | K5 | 9519 | I3 |
| 2507 | I7 | 9520 | I3 |
| 2508 | K7 | | |
| 2515 | J5 | | |
| 2516 | J7 | | |
| 2517 | I5 | | |
| 2518 | H7 | | |
| 2529 | I8 | | |
| 2530 | M6 | | |
| 2533 | N3 | | |
| 2534 | M3 | | |
| 3302 | D4 | | |
| 3311 | C1 | | |
| 3312 | A3 | | |
| 3321 | D2 | | |
| 3322 | E2 | | |
| 3329 | F2 | | |
| 3331 | G3 | | |
| 3332 | H3 | | |
| 3505 | I3 | | |
| 3506 | J3 | | |
| 3513 | K6 | | |
| 3514 | L5 | | |
| 3523 | K4 | | |
| 3533 | I6 | | |
| 5301 | G4 | | |
| 5302 | H2 | | |
| 6308 | D2 | | |
| 6316 | D6 | | |
| 6501 | G5 | | |
| 7301 | A6 | | |
| 7303 | D1 | | |
| 7304 | E1 | | |
| 7307 | F1 | | |
| 7503 | I7 | | |
| 7504 | L8 | | |
| 7505 | H8 | | |
| 7506 | M8 | | |
| 9301 | N4 | | |
| 9303 | J6 | | |
| 9304 | L6 | | |



- | | | | |
|------|----|------|----|
| 2307 | E7 | 3530 | M2 |
| 2309 | J6 | 3531 | H1 |
| 2337 | C5 | 3532 | M2 |
| 2338 | D5 | 3535 | H1 |
| 2345 | B4 | 3536 | M2 |
| 2346 | C4 | 3537 | N6 |
| 2355 | A3 | 3538 | M6 |
| 2356 | C3 | 3541 | N6 |
| 2357 | D6 | 3542 | M6 |
| 2358 | E4 | 3543 | M3 |
| 2360 | I5 | 3544 | M6 |
| 2361 | I5 | 3545 | M4 |
| 2363 | I6 | 3546 | N6 |
| 2503 | J3 | 3561 | K6 |
| 2504 | K3 | 3562 | K6 |
| 2505 | J3 | 3563 | J5 |
| 2506 | L3 | 3564 | J5 |
| 2509 | I3 | 3565 | J5 |
| 2510 | K3 | 3566 | J5 |
| 2521 | I2 | 4300 | B2 |
| 2522 | L1 | 4301 | C2 |
| 2523 | H2 | 6311 | F6 |
| 2524 | M2 | 7305 | D8 |
| 2525 | H1 | 7306 | E7 |
| 2526 | M2 | 7312 | E3 |
| 2527 | H1 | 7313 | C6 |
| 2528 | M2 | 7314 | D4 |
| 2531 | M4 | 7501 | J3 |
| 2532 | M6 | 7502 | L3 |
| 2540 | G4 | 9302 | M5 |
| 3301 | D6 | 9331 | K7 |
| 3303 | B4 | 9332 | J5 |
| 3304 | C4 | 9333 | I6 |
| 3305 | B5 | 9521 | C3 |
| 3306 | B5 | 9522 | F5 |
| 3307 | E4 | | |
| 3313 | C5 | | |
| 3314 | D5 | | |
| 3323 | D8 | | |
| 3325 | F7 | | |
| 3326 | E6 | | |
| 3327 | F6 | | |
| 3328 | E6 | | |
| 3333 | F7 | | |
| 3334 | F5 | | |
| 3335 | F6 | | |
| 3337 | D6 | | |
| 3501 | K7 | | |
| 3502 | K7 | | |
| 3507 | K7 | | |
| 3508 | J7 | | |
| 3509 | L7 | | |
| 3510 | K8 | | |
| 3511 | J4 | | |
| 3512 | L4 | | |
| 3515 | J3 | | |
| 3516 | L3 | | |
| 3517 | I3 | | |
| 3518 | K3 | | |
| 3519 | J2 | | |
| 3520 | L2 | | |
| 3521 | I3 | | |
| 3522 | K3 | | |
| 3524 | K1 | | |
| 3525 | I4 | | |
| 3526 | I2 | | |
| 3527 | J1 | | |
| 3528 | M1 | | |
| 3529 | H2 | | |

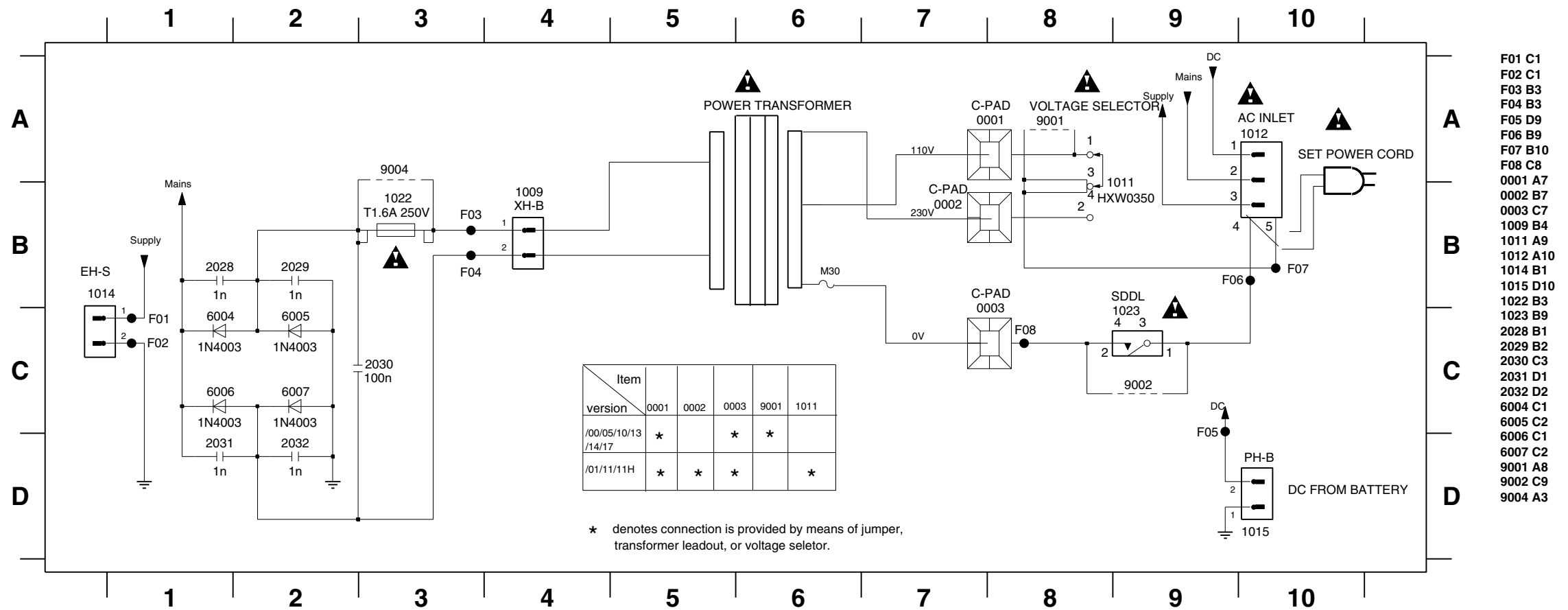
AF BOARD (AZ1065) - CIRCUIT DIAGRAM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|--------|---------|---------|---------|---------|------------|------------|----------|----------|----------|----------|---------|---------|---------|----------|----------|----------|----------|---------|---------|---------|---------|---------|----------|----------|----------|---------|
| T11 B1 | T22 D1 | T30 G1 | T42 E13 | T51 F13 | T59 D13 | T76 C10 | 1301-D G5 | 1502 D1 | 2338 D10 | 2347 B12 | 2357 C10 | 2503 B4 | 2515 A4 | 2525 B7 | 2533 B9 | 3306 D11 | 3323 H9 | 3333 F11 | 3508 G3 | 3516 C4 | 3524 A5 | 3532 D7 | 3543 B9 | 3565 D1 | 7301 C12 | 7314 D11 | 9302 D9 |
| T12 B1 | T23 E1 | T31 B14 | T43 E13 | T52 G13 | T64 C12 | T77 C10 | 1301-E H11 | 1504 G1 | 2340 C13 | 2348 D12 | 2358 D10 | 2504 D4 | 2516 A5 | 2526 D7 | 2534 C9 | 3307 C13 | 3325 H8 | 3334 E10 | 3509 B3 | 3517 B5 | 3525 A8 | 3533 A7 | 3544 D9 | 3566 C2 | 7303 G8 | 7301 B5 | 9307 C9 |
| T13 B1 | T24 E1 | T32 C14 | T44 E14 | T53 G13 | T65 B13 | T78 B10 | 1303 B15 | 1510 C9 | 2341 C13 | 2349 B13 | 2359 E10 | 2505 B4 | 2517 A7 | 2527 C7 | 2540 D4 | 3311 B14 | 3328 H7 | 3335 E11 | 3510 D3 | 3518 D5 | 3526 A7 | 3535 B7 | 3545 B8 | 5301 E2 | 7304 G8 | 7502 D5 | |
| T15 C1 | T25 E1 | T33 C15 | T45 E13 | T54 G13 | T71 B9 | 1001 D15 | 1311 H13 | 2305 H8 | 2342 D12 | 2350 D12 | 2360 E2 | 2506 C4 | 2518 A7 | 2528 D7 | 3301 C10 | 3312 C14 | 3327 H7 | 3501 B2 | 3511 B4 | 3519 B6 | 3527 C6 | 3536 D7 | 3546 D8 | 5302 B2 | 7305 H9 | 7503 B6 | |
| T16 C1 | T26 E1 | T34 D15 | T46 F13 | T55 H13 | T72 B8 | 1002 E15 | 1313 F13 | 2306 H7 | 2343 B11 | 2351 B13 | 2361 E1 | 2507 B5 | 2521 B6 | 2529 B8 | 3302 D10 | 3313 B10 | 3328 H7 | 3502 B2 | 3512 D4 | 3520 C6 | 3528 D6 | 3537 B9 | 3541 C2 | 6308 H7 | 7306 H9 | 7504 D6 | |
| T17 B3 | T27 G1 | T36 E15 | T47 F13 | T56 H13 | T73 C9 | 1301-A A3 | 1314 E13 | 2307 H8 | 2344 C11 | 2352 D13 | 2363 G2 | 2508 C5 | 2522 C6 | 2530 D8 | 3303 B11 | 3314 C10 | 3329 G7 | 3505 B2 | 3513 A5 | 3521 B5 | 3529 B6 | 3538 D9 | 3542 C2 | 6311 E11 | 7307 G7 | 7505 B7 | |
| T18 D3 | T28 G1 | T37 D15 | T48 F13 | T57 C13 | T74 D8 | 1301-B G11 | 1316 D15 | 2309 B1 | 2345 B12 | 2352 H6 | 2501 B4 | 2509 B5 | 2523 B7 | 2531 B8 | 3304 C11 | 3321 G9 | 3331 F10 | 3506 C2 | 3514 A4 | 3522 D5 | 3530 D6 | 3541 B9 | 3543 C1 | 6316 C13 | 7312 C13 | 7506 D7 | |
| T21 D1 | T29 G1 | T41 E13 | T49 F13 | T58 D13 | T75 D9 | 1301-C C3 | 1501 B1 | 2337 B10 | 2346 C12 | 2353 D11 | 2502 C4 | 2510 D5 | 2524 C7 | 2532 D8 | 3305 C11 | 3322 G9 | 3332 F11 | 3507 B3 | 3515 A4 | 3523 A4 | 3531 C7 | 3542 D9 | 3544 C1 | 6501 A8 | 7313 C11 | 9301 B9 | |

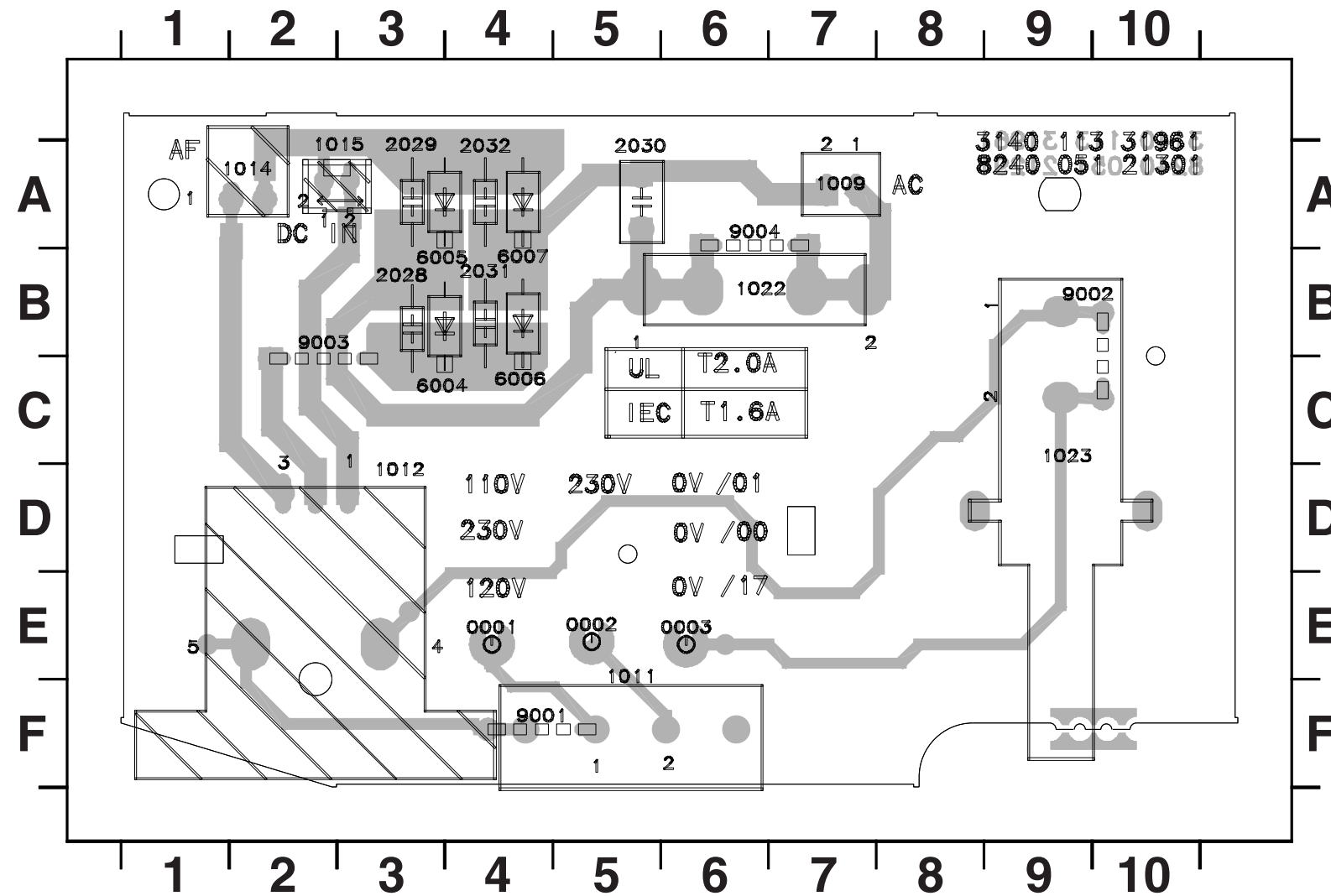


8-1
POWER BOARD - CIRCUIT & LAYOUT DIAGRAM

8-1

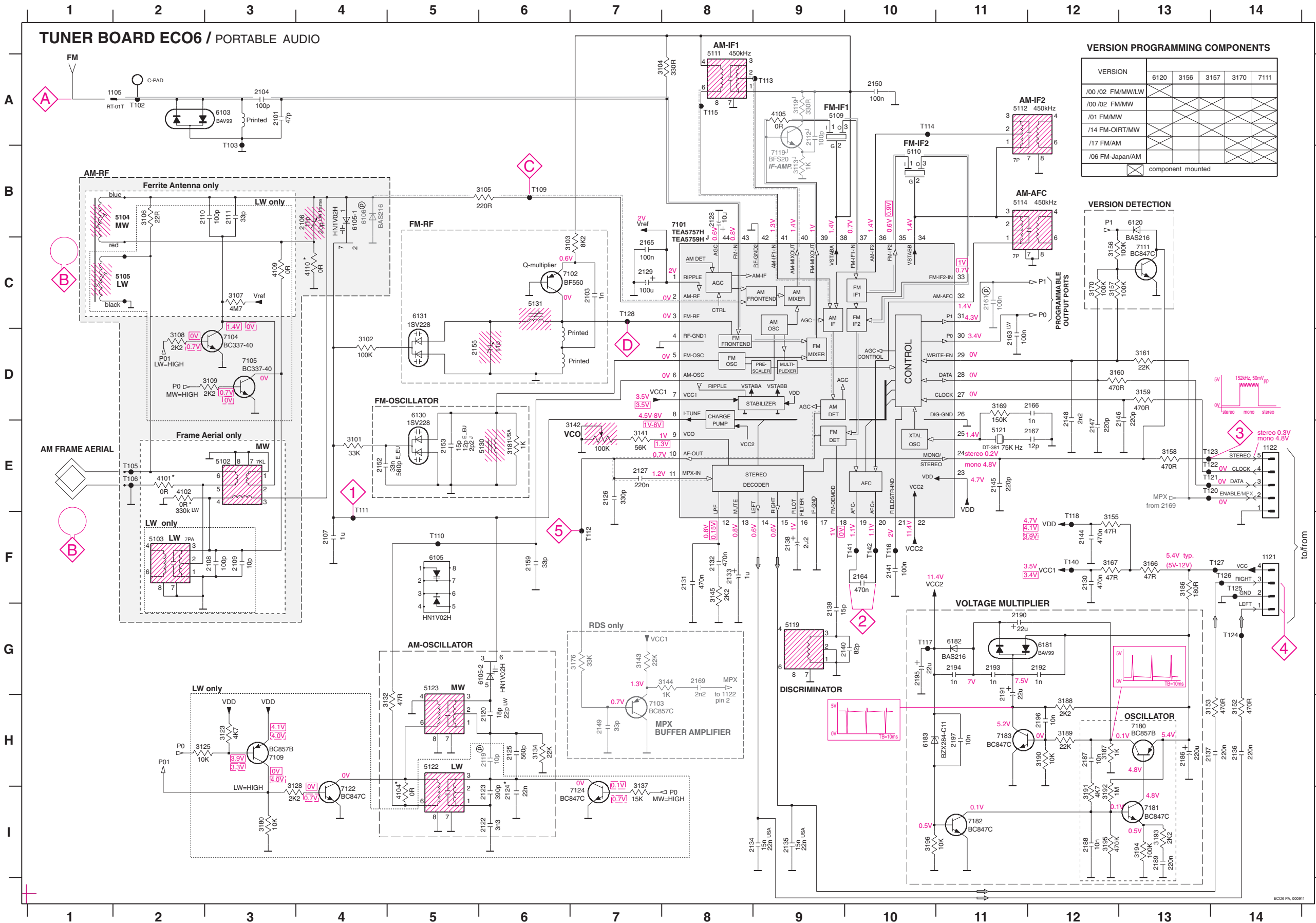


- F01 C1
- F02 C1
- F03 B3
- F04 B3
- F05 D9
- F06 B9
- F07 B10
- F08 C8
- 0001 A7
- 0002 B7
- 0003 C7
- 1009 B4
- 1011 A9
- 1012 A10
- 1014 B1
- 1015 D10
- 1022 B3
- 1023 B9
- 2028 B1
- 2029 B2
- 2030 C3
- 2031 D1
- 2032 D2
- 6004 C1
- 6005 C2
- 6006 C1
- 6007 C2
- 9001 A8
- 9002 C9
- 9004 A3



- 0001 E4
- 0002 E5
- 0003 E6
- 1009 A7
- 1011 E5
- 1012 D3
- 1014 A2
- 1015 A3
- 1022 B6
- 1023 C9
- 2028 B3
- 2029 A3
- 2030 A5
- 2031 B4
- 2032 A4
- 6004 C3
- 6005 B3
- 6006 C4
- 6007 B4
- 9001 F4
- 9002 B9
- 9003 B2
- 9004 A6

TUNER BOARD ECO6 - CIRCUIT DIAGRAM



VERSION PROGRAMMING COMPONENTS

| VERSION | 6120 | 3156 | 3157 | 3170 | 7111 |
|------------------|------|------|------|------|------|
| /00 /02 FM/MW/LW | | | | | |
| /00 /02 FM/MW | | | | | |
| /01 FM/MW | | | | | |
| /14 FM-OIRT/MW | | | | | |
| /17 FM/AM | | | | | |
| /06 FM-Japan/AM | | | | | |

component mounted

VERSION DETECTION

P1 6120
BAS216
7111
100k
BC847C
3156
100k

- 1105 A1
- 1121 F14
- 1122 E14
- 2101 A3
- 5123 H5
- 2103 C7
- 5123 G5
- 2104 A3
- 5130 E6
- 5131 C6
- 2106 B4
- 5130 A3
- 2108 F3
- 6105-1 B4
- 2109 F3
- 6105-2 G6
- 2110 B2
- 6106 B4
- 2111 B3
- 6120 B13
- 2112 A9
- 6130 D5
- 2119 H6
- 6131 C5
- 2120 H5
- 6181 G12
- 2122 I6
- 6182 G11
- 2123 I6
- 6183 H10
- 2124 I6
- 7101 B8
- 2125 H6
- 7102 C7
- 2126 E7
- 7103 H7
- 2127 E7
- 7104 D3
- 2128 B8
- 7105 D3
- 2129 C7
- 7109 H3
- 2130 F12
- 7111 C13
- 2131 F8
- 7119 B9
- 2132 F8
- 7122 I4
- 2133 F8
- 7124 I7
- 2134 I9
- 7180 H13
- 2135 I9
- 7181 I3
- 2136 H14
- 7182 H11
- 2137 H13
- 7183 H11
- 2138 F9
- T102 A2
- 2139 G9
- T103 A3
- 2140 G10
- T105 E2
- 2141 F10
- T106 E2
- 2142 H10
- T109 B6
- 2143 E11
- T110 F5
- 2144 D11
- T111 F4
- 2145 E11
- T112 F7
- 2146 D11
- T113 A9
- 2147 E10
- T114 A10
- 2148 D12
- T115 A8
- 2149 H7
- T116 F10
- 2150 A10
- T117 G10
- 2152 E4
- T118 F12
- 2153 E5
- T119 E14
- 2155 D5
- T120 E14
- 2159 F6
- T121 E14
- 2161 C11
- T122 E14
- 2163 D11
- T123 E14
- 2164 F10
- T124 G14
- 2165 C7
- T125 F14
- 2166 D12
- T126 F14
- 2167 E12
- T127 F14
- 2168 H12
- T128 C7
- 2169 G8
- T129 F12
- 2170 H2
- 2171 G10
- 2172 F14
- 2173 H12
- 2174 F10
- 2175 H10
- 2176 H10
- 2177 H10
- 2178 H10
- 2179 H10
- 2180 H10
- 2181 H10
- 2182 H10
- 2183 H10
- 2184 H10
- 2185 H10
- 2186 H10
- 2187 H10
- 2188 H10
- 2189 H10
- 2190 H10
- 2191 G11
- 2192 G12
- 2193 G11
- 2194 G11
- 2195 G10
- 2196 H12
- 2197 H11
- 3101 E4
- 3102 D4
- 3103 C6
- 3104 A8
- 3105 B6
- 3106 B2
- 3107 C3
- 3108 D2
- 3109 D3
- 3110 B9
- 3111 A9
- 3112 H3
- 3113 H3
- 3114 H4
- 3115 H4
- 3116 H4
- 3117 H6
- 3118 E7
- 3119 A7
- 3120 G7
- 3121 G7
- 3122 H4
- 3123 H4
- 3124 H4
- 3125 H4
- 3126 H4
- 3127 H4
- 3128 H4
- 3129 H4
- 3130 H4
- 3131 H4
- 3132 H4
- 3133 H4
- 3134 H4
- 3135 H4
- 3136 H4
- 3137 H4
- 3138 H4
- 3139 H4
- 3140 H4
- 3141 H4
- 3142 E7
- 3143 G7
- 3144 G8
- 3145 F8
- 3146 H4
- 3147 H4
- 3148 H4
- 3149 H4
- 3150 H4
- 3151 H4
- 3152 H4
- 3153 H4
- 3154 H4
- 3155 H4
- 3156 F12
- 3157 C12
- 3158 E13
- 3159 D13
- 3160 D12
- 3161 D13
- 3162 D13
- 3163 F13
- 3164 F12
- 3165 D11
- 3166 F12
- 3167 F12
- 3168 D11
- 3169 D11
- 3170 C12
- 3171 G7
- 3172 G7
- 3173 G7
- 3174 G7
- 3175 G7
- 3176 G7
- 3177 G7
- 3178 G7
- 3179 G7
- 3180 G7
- 3181 E6
- 3182 F13
- 3183 H12
- 3184 H12
- 3185 H12
- 3186 H12
- 3187 H12
- 3188 H12
- 3189 H12
- 3190 H12
- 3191 H12
- 3192 H12
- 3193 H13
- 3194 H13
- 3195 H12
- 3196 H10
- 4101 E2
- 4102 E2
- 4104 I5
- 4105 A9
- 4109 C3
- 4110 C4
- 5102 E3
- 5103 F2
- 5109 A9
- 5110 B10
- 5111 A8
- 5112 A11

LEGEND

* ... only assembled in FM/AM-version
 E, EU ... for East European version only
 J ... for Japanese version only
 (P) ... for provision only
 USA ... for USA version only
 LW ... for LW version only
 LW frame ... for LW version with frame aerial only

SMD jumper
 41xx
 OR

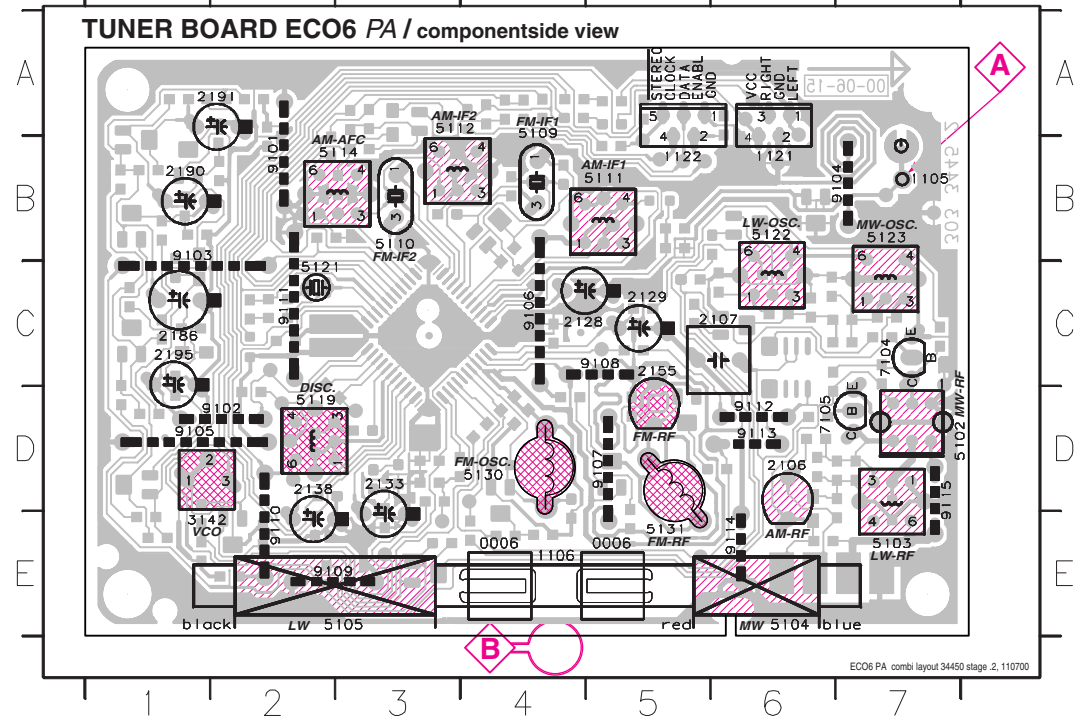
...V FM mode stereo
 ...V MW mode
 ...V LW mode
 voltages measured while set is tuned to a strong transmitter

Signal path
 — FM
 --- AM
 - - - MPX (Audio Frequency)
 → AF - left/right

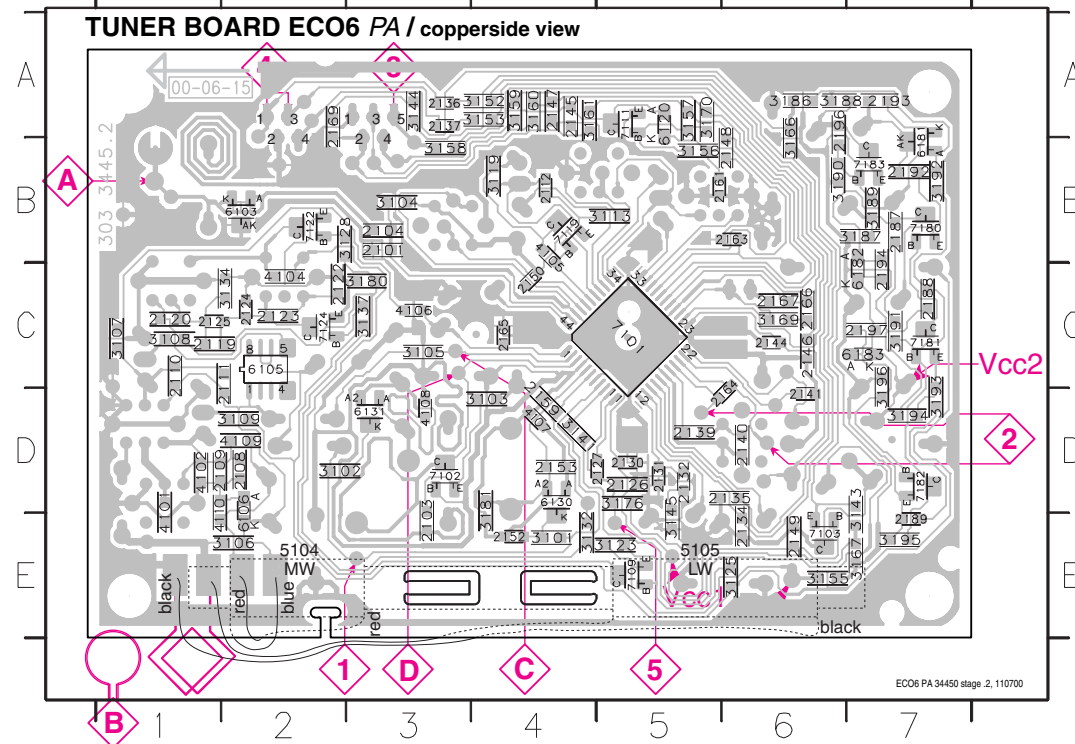
TUNER BOARD ECO6 - LAYOUT DIAGRAM

9-2

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



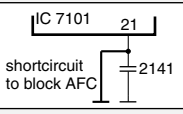
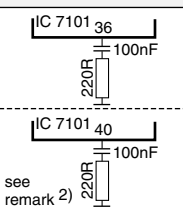
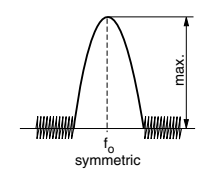
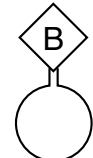
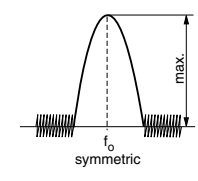
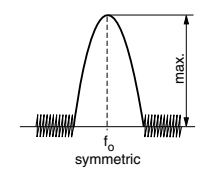
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 2103 E3 2120 C1 2131 D5 2141 D6 2152 E4 2167 C6 2196 A6 3107 C1 3132 E4 3153 A4 3166 B6 3187 B7 3195 E7 4108 D3 6131 D3 7111 A5
 2104 B3 2122 C2 2132 D5 2144 C6 2153 D4 2169 A2 2197 C7 3108 C1 3134 C2 3155 E6 3167 E7 3188 A6 3196 C7 4109 D2 6181 B7 7119 B5
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 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
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 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 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 AM-frame aerial)

9-2

| Waverange | Input frequency | Input | Tuned to | Adjust | Output | Scope/Voltmeter |
|--|---|--|---|--------|------------|---|
| VARICAP ALIGNMENT | | | | | | |
| FM 87.5 - 108MHz (65.81 - 74, 87.5 - 108MHz) | | | 108MHz | 5130 | 1 | 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 | 1 | 8V ±0.2V |
| | | | 531kHz | check | | 1.1V ±0.4V |
| FM IF | | | | | | |
| FM | 10.7MHz, 45mV continuous wave | D |  | 5119 | 2 | 0 ± 3 mV DC |
| FM RF | | | | | | |
| FM 87.5 - 108MHz (65.81 - 74, 87.5 - 108MHz) | 108MHz | A | 108MHz | 2155 | 4 | MAX |
| | 87.5MHz (65.81MHz) | mod=1kHz f=±22.5kHz | 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 3.3k to Vcc | C f=±10kHz V _{RF} = 0.5mV (as low as possible) see remark 2) |  | 5111 | 5 |  |
| | | | | 5112 | | |
| AM AFC MW | | C continuous wave V _{RF} = 2mV | | 5114 | 2 | 0 ± 2 mV DC |
| AM RF ³⁾ | | | | | | |
| MW ⁴⁾ FM/MW/LW- and FM/MW-version (9kHz grid) 531 - 1602kHz | 1494kHz | B  | 1494kHz | 2106 | 5 |  |
| | 558kHz | | 558kHz | 5102 | | |
| LW | 198kHz | | 198kHz | 5103 | 5 |  |
| MW FM/AM-version, 10kHz grid 530 - 1700kHz | 1500kHz | f = ±30kHz V _{RF} as low as possible | 1500kHz | 2106 | | |
| | 560kHz | | 560kHz | 5102 | | |

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

¹⁾ If sensitivity of frequency counter is too low adjust to max. channel separation (input signal: stereo left 90% + 9%, adjust output on right channel to minimum)
²⁾ RC network serves for damping the IF-filter while adjusting the other one.
³⁾ For AM RF adjustments the original frame antenna has to be used!
⁴⁾ MW has to be aligned before LW.

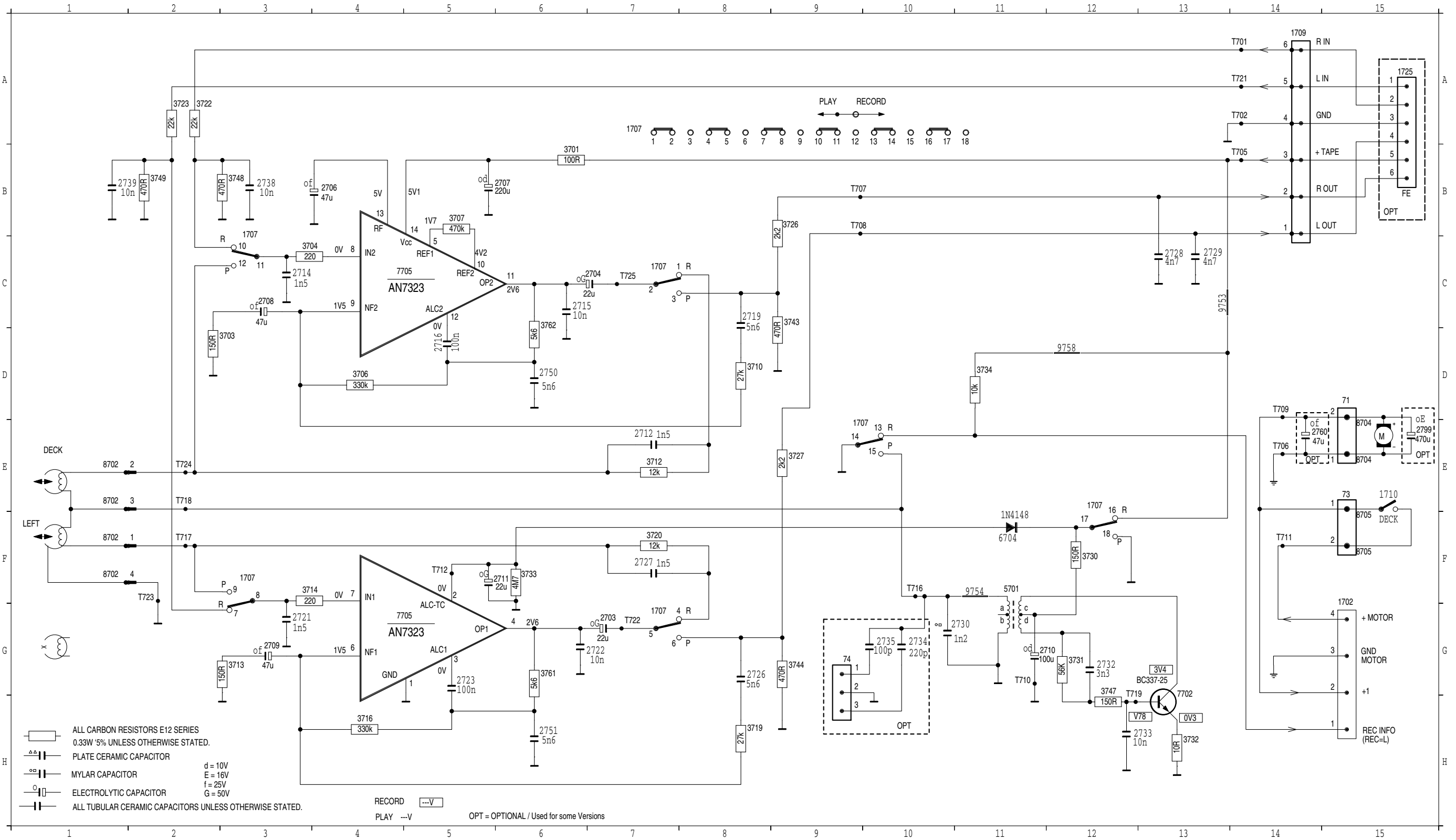
↑ Repeat

RECORDER BOARD - CIRCUIT DIAGRAM

10-1

10-1

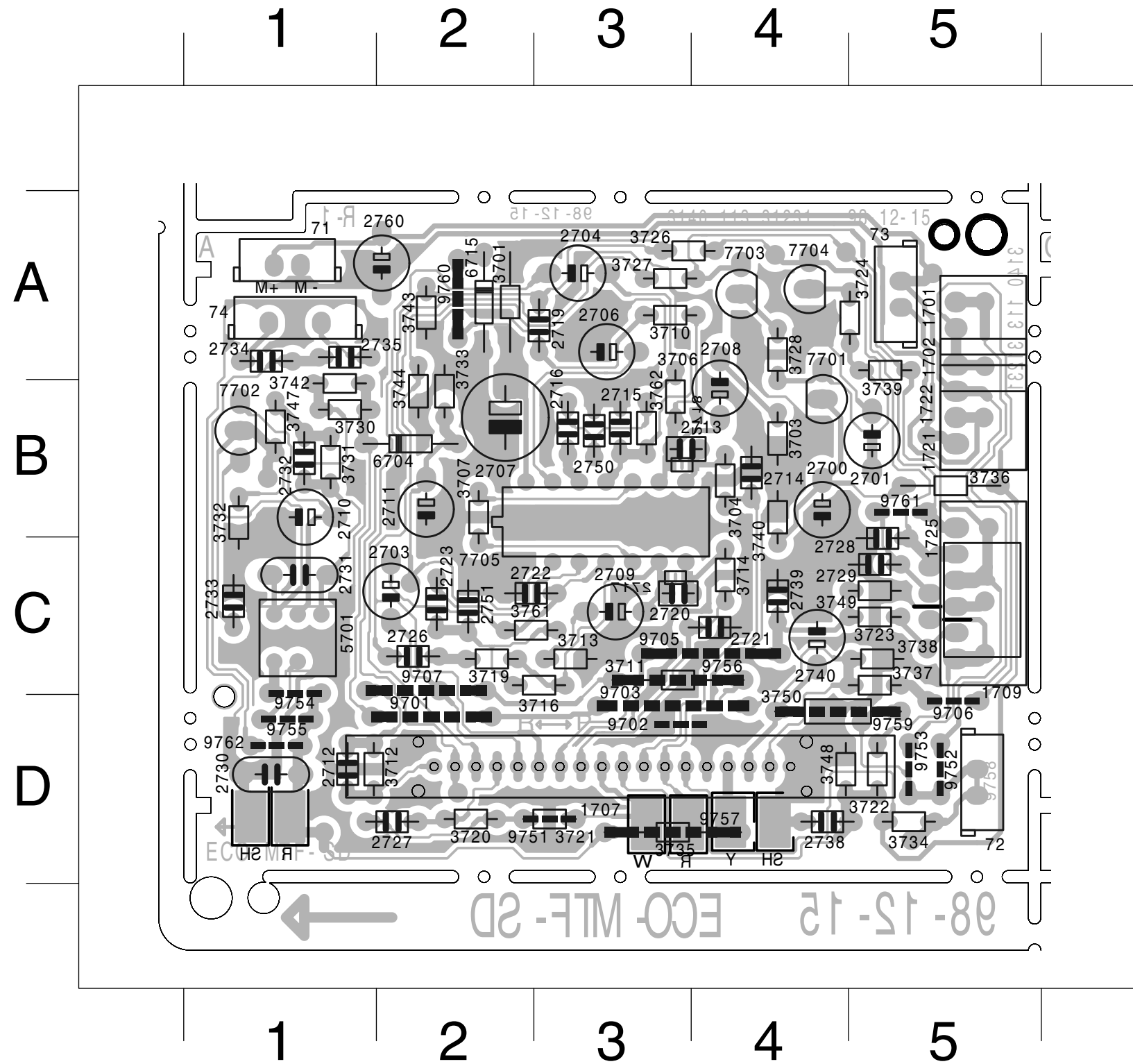
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
| 71 | D15 | 1707 | C 3 | 1709 | A14 | 2706 | B 4 | 2711 | F 6 | 2719 | 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 | 7705 | G 4 | 8702 | E 1 | 9753 | C13 | T705 | B14 | T710 | G11 | T718 | E 2 | T724 | E 2 |
| 73 | E15 | 1707 | C 7 | 1710 | E15 | 2707 | B 4 | 2712 | F 6 | 2721 | C 8 | 2728 | F 7 | 2734 | G10 | 2751 | H 6 | 3704 | C 3 | 3713 | F 7 | 3722 | F 7 | 3731 | F12 | 3744 | C 9 | 3762 | D 6 | 7705 | G 4 | 8704 | E 1 | 9754 | F11 | T706 | E14 | T711 | F14 | T719 | H13 | T725 | C 7 |
| 74 | G 9 | 1707 | C 7 | 1725 | A15 | 2708 | B 4 | 2714 | C 6 | 2722 | C 8 | 2729 | C13 | 2735 | G10 | 2760 | E14 | 3706 | D 4 | 3714 | F 7 | 3723 | F 7 | 3732 | H13 | 3747 | G12 | 5701 | F11 | 8702 | F 1 | 8704 | E 1 | 9758 | D12 | T707 | B10 | T712 | F 5 | T721 | A14 | T722 | G 7 |
| 1702 | G15 | 1707 | E 9 | 2703 | G 7 | 2709 | G12 | 2715 | D 5 | 2723 | G 8 | 2730 | G11 | 2738 | B 3 | 2799 | E15 | 3707 | B 5 | 3716 | H 8 | 3726 | E 9 | 3733 | F 6 | 3748 | B 2 | 6704 | F11 | 8702 | F 1 | 8705 | F15 | T701 | A14 | T708 | B10 | T716 | F 2 | T723 | F 2 | T723 | F 2 |
| 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 5 | 3719 | H 8 | 3727 | E 9 | 3734 | D11 | 3749 | B 2 | 7702 | H13 | 8702 | E 1 | 8705 | F15 | T702 | A14 | T709 | D14 | T717 | F 2 | T723 | F 2 | | |



RECORDER BOARD - LAYOUT DIAGRAM

10-2

10-2



| | | | |
|----------|----------|----------|-----------|
| 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 | |

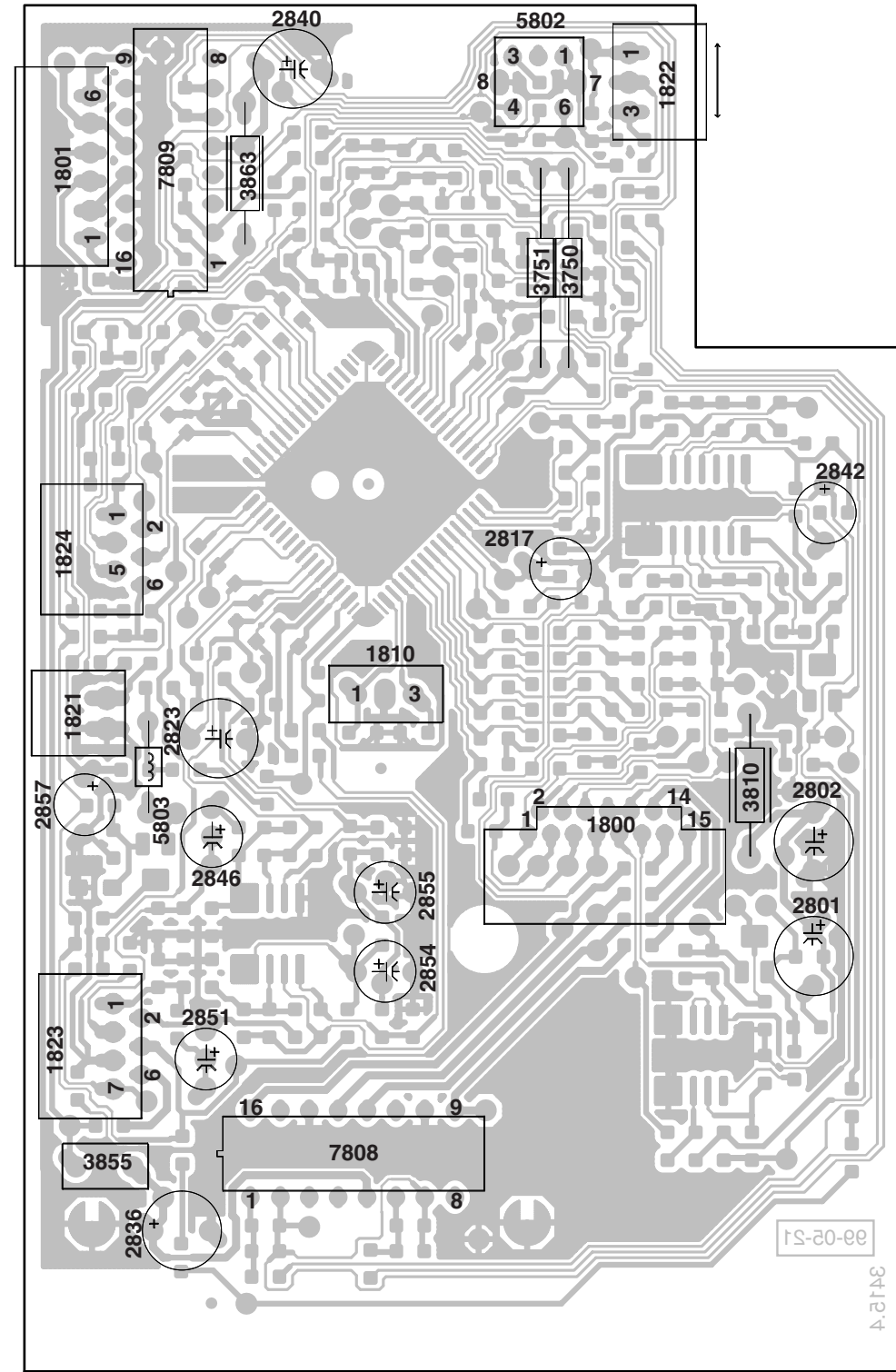
CASSETTE ADJUSTMENT

| 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 $\pm 3\%$.
Moreover, the wow and flutter value can be read.

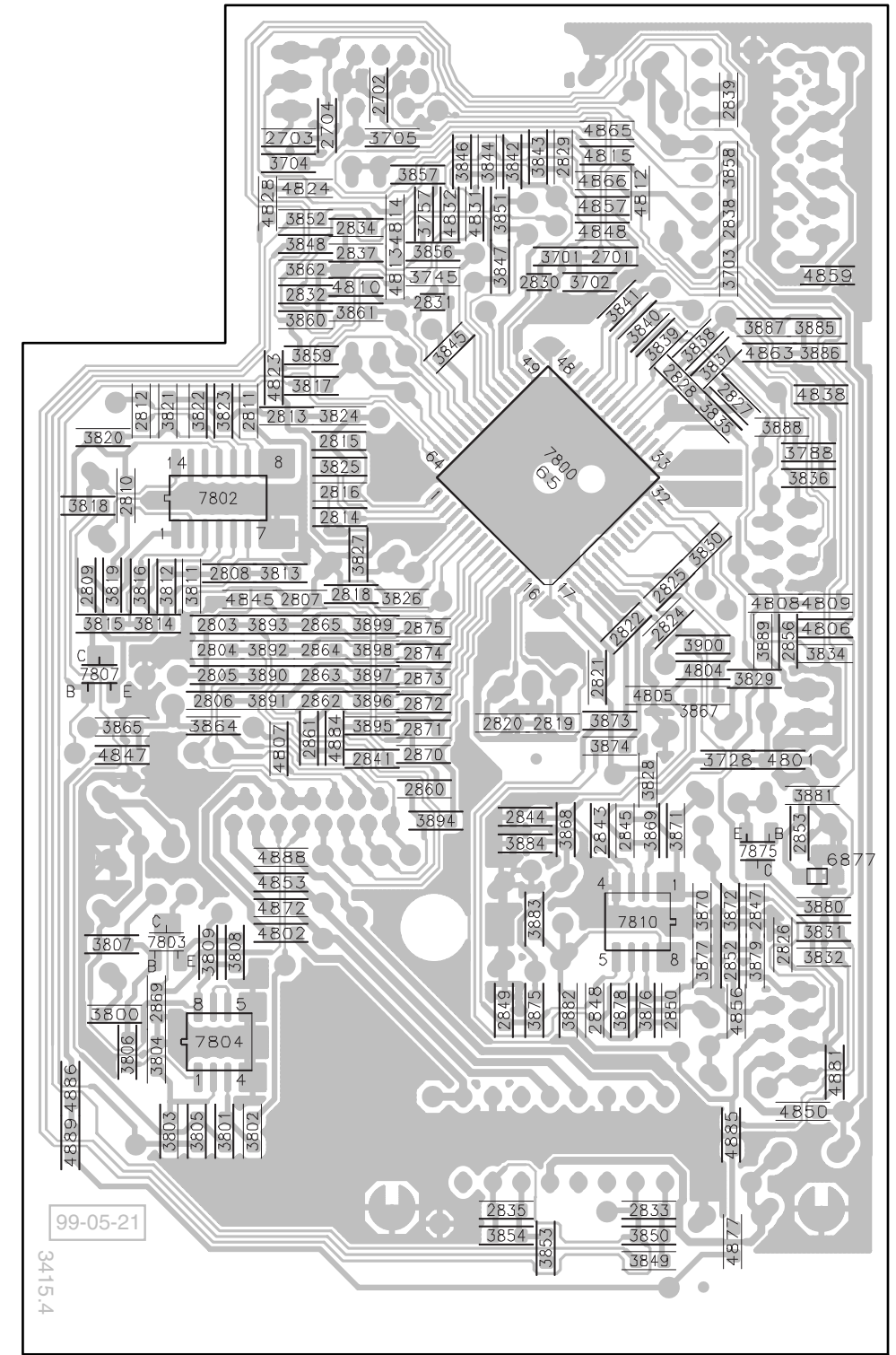
CD99 Board component side view



This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram respectively partslist.

CD99 Layout stage .4 990817

CD99 Board copper side view



This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram respectively partslist.

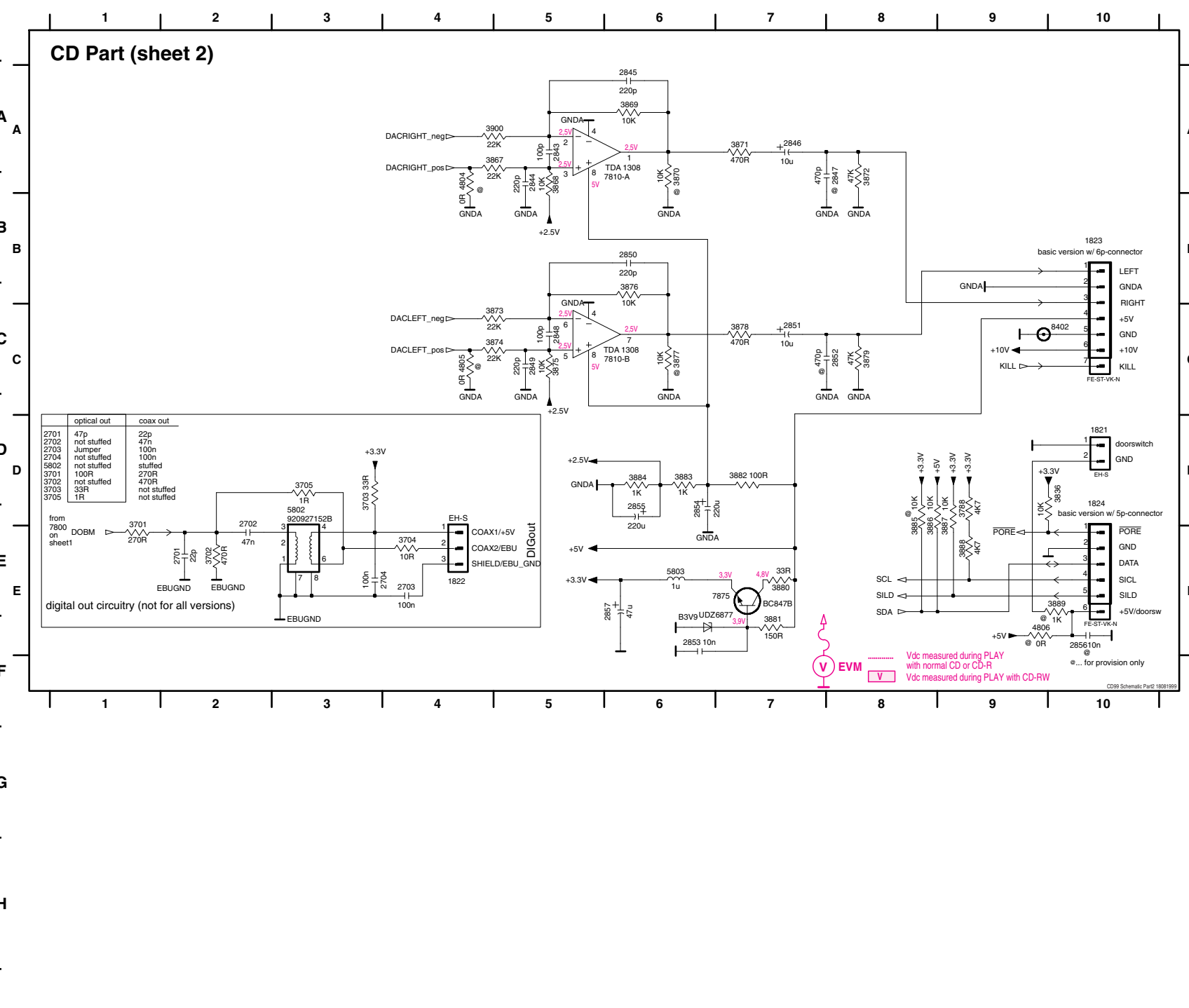
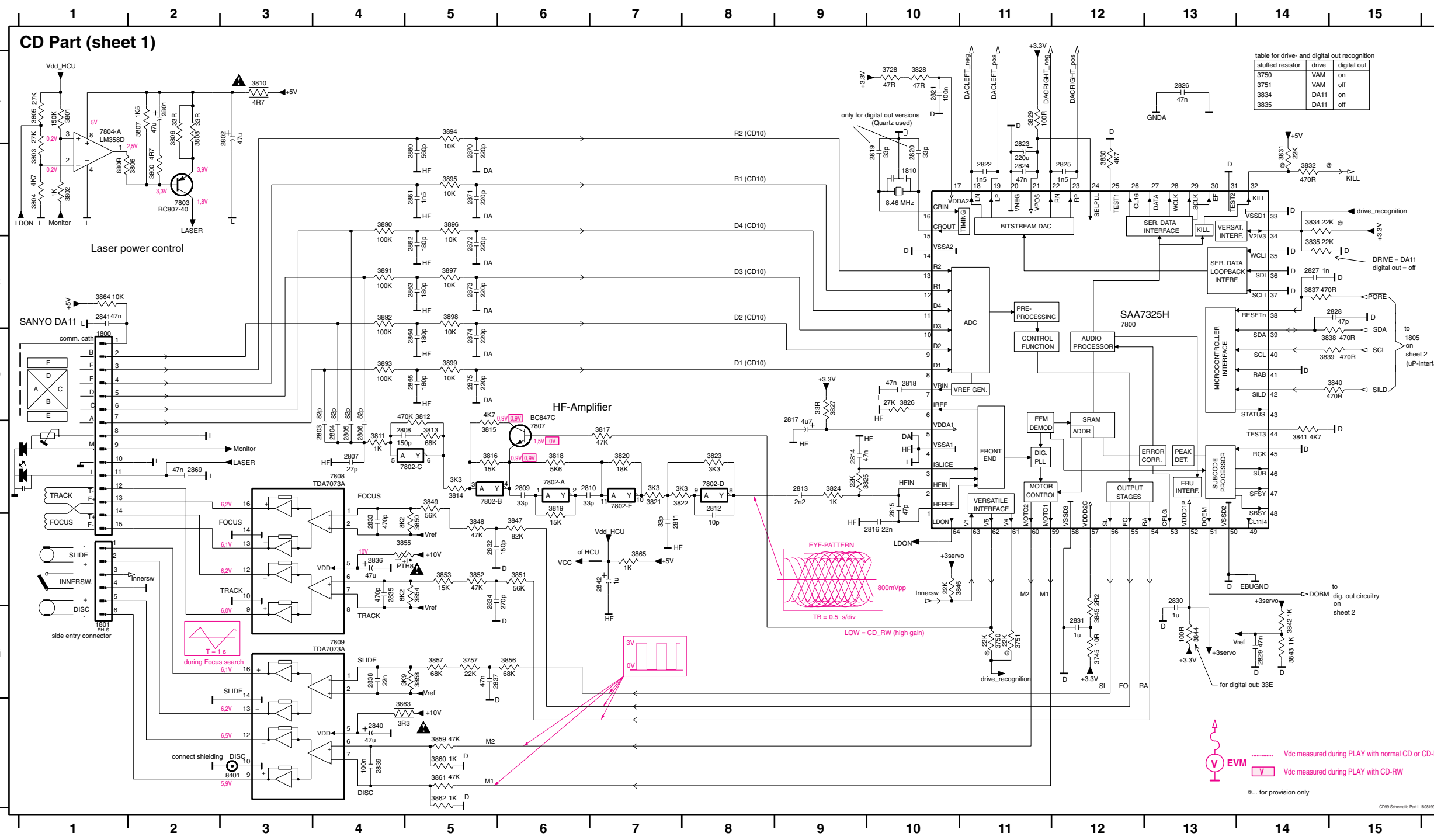
CD99 Layout stage .4 990817

| | | | | | |
|------|----|------|----|------|----|
| 1800 | F2 | 3703 | B5 | 3876 | F4 |
| 1801 | A5 | 3704 | A2 | 3877 | F4 |
| 1810 | D3 | 3705 | A3 | 3878 | F4 |
| 1821 | E5 | 3728 | E5 | 3879 | F5 |
| 1822 | A2 | 3745 | B3 | 3880 | F5 |
| 1823 | G5 | 3750 | B2 | 3881 | E5 |
| 1824 | D5 | 3751 | B2 | 3882 | F4 |
| 2701 | B4 | 3757 | B3 | 3883 | F3 |
| 2702 | A2 | 3788 | C5 | 3884 | E3 |
| 2703 | A2 | 3800 | F1 | 3885 | B5 |
| 2704 | A2 | 3801 | G2 | 3886 | C5 |
| 2801 | F1 | 3802 | G2 | 3887 | B5 |
| 2802 | E1 | 3803 | G1 | 3888 | C5 |
| 2803 | D2 | 3804 | G1 | 3889 | D5 |
| 2804 | D2 | 3805 | G1 | 3890 | D2 |
| 2805 | D2 | 3806 | G1 | 3891 | E2 |
| 2806 | E1 | 3807 | F1 | 3892 | D2 |
| 2807 | D2 | 3808 | F2 | 3893 | D2 |
| 2808 | D2 | 3809 | F1 | 3894 | E2 |
| 2809 | D1 | 3810 | E1 | 3895 | E3 |
| 2810 | C1 | 3811 | D1 | 3896 | E2 |
| 2811 | C2 | 3812 | D1 | 3897 | D2 |
| 2812 | C1 | 3813 | D2 | 3898 | D2 |
| 2813 | C2 | 3814 | D1 | 3899 | D2 |
| 2814 | D2 | 3815 | D1 | 3900 | D4 |
| 2815 | C2 | 3816 | D1 | 4801 | E5 |
| 2816 | C2 | 3817 | C2 | 4802 | F2 |
| 2817 | D2 | 3818 | C1 | 4804 | D4 |
| 2818 | D2 | 3819 | D1 | 4805 | E4 |
| 2819 | E4 | 3820 | C1 | 4806 | D5 |
| 2820 | E3 | 3821 | C1 | 4807 | E2 |
| 2821 | D4 | 3822 | C1 | 4808 | D5 |
| 2822 | D4 | 3823 | C2 | 4809 | D5 |
| 2823 | E4 | 3824 | C2 | 4810 | B2 |
| 2824 | D4 | 3825 | C2 | 4812 | B4 |
| 2825 | D4 | 3826 | D3 | 4813 | B3 |
| 2826 | F5 | 3827 | D2 | 4814 | B3 |
| 2827 | C5 | 3828 | E4 | 4815 | A4 |
| 2828 | C4 | 3829 | D5 | 4823 | C2 |
| 2829 | A4 | 3830 | D4 | 4824 | B2 |
| 2830 | B3 | 3831 | F5 | 4828 | B2 |
| 2831 | B3 | 3832 | F5 | 4831 | B3 |
| 2832 | B2 | 3834 | D5 | 4832 | B3 |
| 2833 | H4 | 3835 | C4 | 4838 | C5 |
| 2834 | B2 | 3836 | C5 | 4845 | D2 |
| 2835 | H3 | 3837 | C4 | 4847 | E1 |
| 2836 | G5 | 3838 | C4 | 4848 | B4 |
| 2837 | B2 | 3839 | C4 | 4850 | G5 |
| 2838 | B5 | 3840 | B4 | 4853 | F2 |
| 2839 | A5 | 3841 | B4 | 4856 | F5 |
| 2840 | A4 | 3842 | A3 | 4857 | B4 |
| 2841 | E2 | 3843 | A3 | 4859 | B5 |
| 2842 | C1 | 3844 | A3 | 4863 | C5 |
| 2843 | E4 | 3845 | C3 | 4865 | A4 |
| 2844 | E3 | 3846 | A3 | 4866 | B4 |
| 2845 | E4 | 3847 | B3 | 4872 | F2 |
| 2846 | E4 | 3848 | B2 | 4877 | H5 |
| 2847 | F5 | 3849 | H4 | 4881 | G5 |
| 2848 | F4 | 3850 | H4 | 4884 | E2 |
| 2849 | F3 | 3851 | B3 | 4885 | G5 |
| 2850 | F4 | 3852 | B2 | 4886 | G1 |
| 2851 | G4 | 3853 | H3 | 4888 | F2 |
| 2852 | F5 | 3854 | H3 | 4889 | G1 |
| 2853 | E5 | 3855 | G5 | 5802 | A2 |
| 2854 | F3 | 3856 | B3 | 5803 | F5 |
| 2855 | E3 | 3857 | B3 | 6877 | E5 |
| 2856 | D5 | 3858 | A5 | 7800 | C4 |
| 2857 | E5 | 3859 | C2 | 7802 | C2 |
| 2860 | E3 | 3860 | B2 | 7803 | F1 |
| 2861 | E2 | 3861 | B2 | 7804 | G2 |
| 2862 | E2 | 3862 | B2 | 7807 | D1 |
| 2863 | D2 | 3863 | A4 | 7808 | G4 |
| 2864 | D2 | 3864 | E1 | 7809 | A5 |
| 2865 | D2 | 3865 | E1 | 7810 | F4 |
| 2869 | F1 | 3867 | E4 | 7875 | F5 |
| 2870 | E3 | 3868 | E4 | 8401 | H3 |
| 2871 | E3 | 3869 | E4 | 8402 | H5 |
| 2872 | E3 | 3870 | F4 | | |
| 2873 | D3 | 3871 | E4 | | |
| 2874 | D3 | 3872 | F5 | | |
| 2875 | D3 | 3873 | E4 | | |
| 3701 | B4 | 3874 | E4 | | |
| 3702 | B4 | 3875 | F3 | | |

CD99 DA11 - CIRCUIT DIAGRAM

| | | | | | | | | | | | | | | | | | | | | | | |
|---------|---------|----------|----------|----------|---------|---------|---------|---------|----------|---------|---------|----------|----------|----------|----------|----------|---------|---------|-----------|-----------|-----------|---------|
| 1800 D1 | 2806 E4 | 2813 E9 | 2820 B10 | 2827 C14 | 2834 F5 | 2841 C1 | 2848 D5 | 2855 D5 | 2875 D5 | 3801 A1 | 3808 A2 | 3815 E5 | 3822 E7 | 3829 A11 | 3836 D14 | 3843 G12 | 3852 F5 | 3859 H5 | 3866 H5 | 3873 C5 | 7802-D E8 | 7808 E4 |
| 1801 D1 | 2807 E4 | 2814 E9 | 2821 B11 | 2828 C14 | 2835 F4 | 2842 F7 | 2849 E2 | 2869 E2 | 3728 A10 | 3802 B1 | 3809 A2 | 3816 E5 | 3823 E8 | 3830 B12 | 3837 D14 | 3844 F10 | 3853 F5 | 3860 H5 | 3867 C5 | 7802-E E7 | 7809 G4 | |
| 2801 A2 | 2808 E4 | 2815 E10 | 2822 B11 | 2829 G14 | 2836 F4 | 2843 B5 | 2850 B5 | 2870 B5 | 3745 G12 | 3803 B1 | 3810 A3 | 3817 E7 | 3824 E9 | 3831 B14 | 3838 D15 | 3847 F6 | 3854 F5 | 3861 H5 | 3868 C4 | 3899 D5 | 7802-F F8 | 8401 H3 |
| 2802 A3 | 2809 E6 | 2816 F10 | 2823 B11 | 2830 F13 | 2837 G5 | 2844 B5 | 2851 B5 | 2871 B5 | 3750 G11 | 3804 B1 | 3811 E4 | 3818 E6 | 3825 E9 | 3832 B14 | 3841 E14 | 3848 F5 | 3855 F4 | 3862 H5 | 3869 D4 | 7800 D12 | 7803 B2 | |
| 2803 E4 | 2810 E5 | 2817 D9 | 2824 B11 | 2831 G12 | 2838 G4 | 2845 C3 | 2852 C5 | 2872 C5 | 3751 G11 | 3805 A1 | 3812 D5 | 3819 E6 | 3826 D10 | 3834 B14 | 3843 G14 | 3850 F5 | 3856 G6 | 3863 H4 | 3870 A5 | 7802-A E6 | 7804-A A1 | |
| 2804 E4 | 2811 F7 | 2818 D9 | 2825 B12 | 2832 F5 | 2839 H4 | 2846 D5 | 2853 C5 | 2873 C5 | 3752 G5 | 3806 B2 | 3813 E5 | 3820 E7 | 3827 D9 | 3835 C14 | 3843 G14 | 3850 F5 | 3857 G5 | 3864 C1 | 3895 B5 | 7802-B E5 | 7804-B C3 | |
| 2805 E4 | 2812 E8 | 2819 B10 | 2826 A13 | 2833 F4 | 2840 H4 | 2847 D5 | 2854 D5 | 2880 B2 | 3807 A2 | 3814 E5 | 3821 E7 | 3828 A10 | 3837 C14 | 3844 G13 | 3851 F6 | 3858 G5 | 3865 F7 | 3896 B5 | 7802-C E5 | 7807 E6 | | |

| | | | | | | | | | | | | |
|----------|---------|---------|---------|----------|----------|---------|---------|---------|---------|----------|---------|-----------|
| 1821 D10 | 2702 E2 | 2845 A6 | 2850 B6 | 2855 D6 | 3703 D3 | 3867 A5 | 3872 A8 | 3877 C5 | 3882 D7 | 3887 E9 | 4805 C4 | 7810-A A5 |
| 1822 E4 | 2703 E4 | 2846 A7 | 2851 C7 | 2856 E10 | 3704 E4 | 3868 A5 | 3873 C5 | 3878 C7 | 3883 D6 | 3888 E9 | 4806 E9 | 7810-B C5 |
| 1823 B10 | 2704 E4 | 2847 A8 | 2852 C8 | 2857 E6 | 3705 D3 | 3869 A6 | 3874 C5 | 3879 C8 | 3884 D6 | 3889 E10 | 5802 D3 | 7875 E7 |
| 1824 D10 | 2843 A5 | 2848 C5 | 2853 E5 | 3701 E1 | 3788 E9 | 3870 A5 | 3875 C5 | 3880 E7 | 3885 E9 | 3900 A5 | 5803 E6 | 8402 C9 |
| 2701 E2 | 2844 A5 | 2849 C5 | 2854 D6 | 3702 E2 | 3836 D10 | 3871 A7 | 3876 B6 | 3881 E7 | 3886 E8 | 4804 A4 | 6877 E7 | |



EXPLODED VIEW DIAGRAM - CABINET

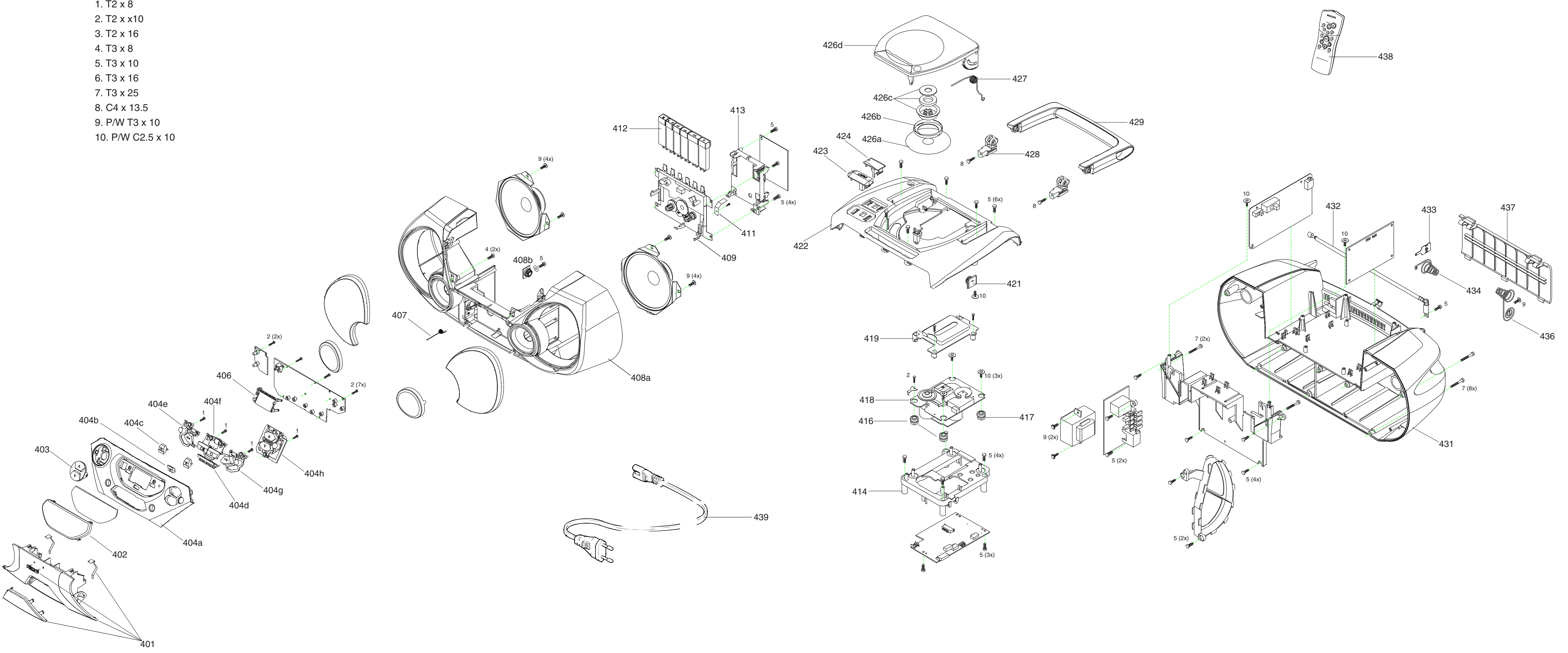
12-1

12-1

12-1

SCREW LIST

- 1. T2 x 8
- 2. T2 x 10
- 3. T2 x 16
- 4. T3 x 8
- 5. T3 x 10
- 6. T3 x 16
- 7. T3 x 25
- 8. C4 x 13.5
- 9. P/W T3 x 10
- 10. P/W C2.5 x 10



MECHANICAL PARTSLIST - CABINET

- 401 3140 117 60420 Door Cassette Assy (For AZ1060)
- 401 3140 117 60430 Door Cassette Assy (For AZ1065)
- 402 3140 114 36230 Lens CD
- 403 3140 114 36160 Rotary Volume (For AZ1060)
- 403 3140 114 36170 Up Down Volume (For AZ1065)

- 404 3140 117 60410 Front Panel Assy (For AZ1060)
- 404 3140 117 60450 Front Panel Assy (For AZ1065)
- 406 3140 114 36130 Bracket Didital LCD
- 407 4822 492 11776 Spring Cass Door
- 408 3140 117 60370 Front Cab. Assy Grill (For AZ1060)

- 408 3140 117 60690 Front Cab. Assy Grill (For AZ1065)
- 409 4822 691 10612 Tape Deck
- 411 3140 111 20800 Spring Recording
- 412 3140 114 36750 Keypad Cass
- 413 3140 114 20430 Bracket Recording

- 414 3140 114 31230 CD Mounting Frame
- 416 4822 529 10387 Damper Rubber (40 DEG)
- 417 4822 529 10386 Damper Rubber (30 DEG)
- 418 3103 309 05290 CD DA11 Drive Assy
- 419 4822 442 01096 CD Drive Cover

- 421 4822 529 10322 Damper Assy
- 422 3140 114 36710 Cabinet Top
- 423 3140 114 36730 Knob DBB
- 424 3140 114 36740 Knob Mode
- 426 3140 117 60400 CD Door Assy (For AZ1060)

- 426 3140 117 60440 CD Door Assy (For AZ1065)
- 427 3140 111 00750 Spring CD
- 428 4822 402 10724 Bracket Handle
- 429 3140 114 36720 Handle
- 431 3140 114 36700 Cabinet Rear

- 432 3140 118 71570 Antenna
- 433 3140 111 21320 Contact Plate
- 434 4822 492 51961 Spring Compression
- 436 4822 492 51733 Spring Compression
- 437 3140 114 36690 Door Battery

- 438 3139 228 87580 Remote RC331402/01 (For AZ1065)
- 439 4822 321 10249 Mains Cord (For -/00/01/11/14)
- 439 4822 321 10886 Mains Cord (For -/05)
- 439 4822 321 10954 Mains Cord (For -/10)
- 439 4822 321 11466 Mains Cord (For -/17)

MECHANICAL PARTSLIST - TAPE DECK

- 10 4822 528 70849 Pinch Roller Arm (B)
- 11 4822 528 70695 Pinch Roller Assy
- 74 4822 403 70968 Eject Hook (A)
- 106 4822 358 31325 Main Belt 45.2 x 1.2
- 107 4822 358 31124 Sub Belt 44.7 x 1.2

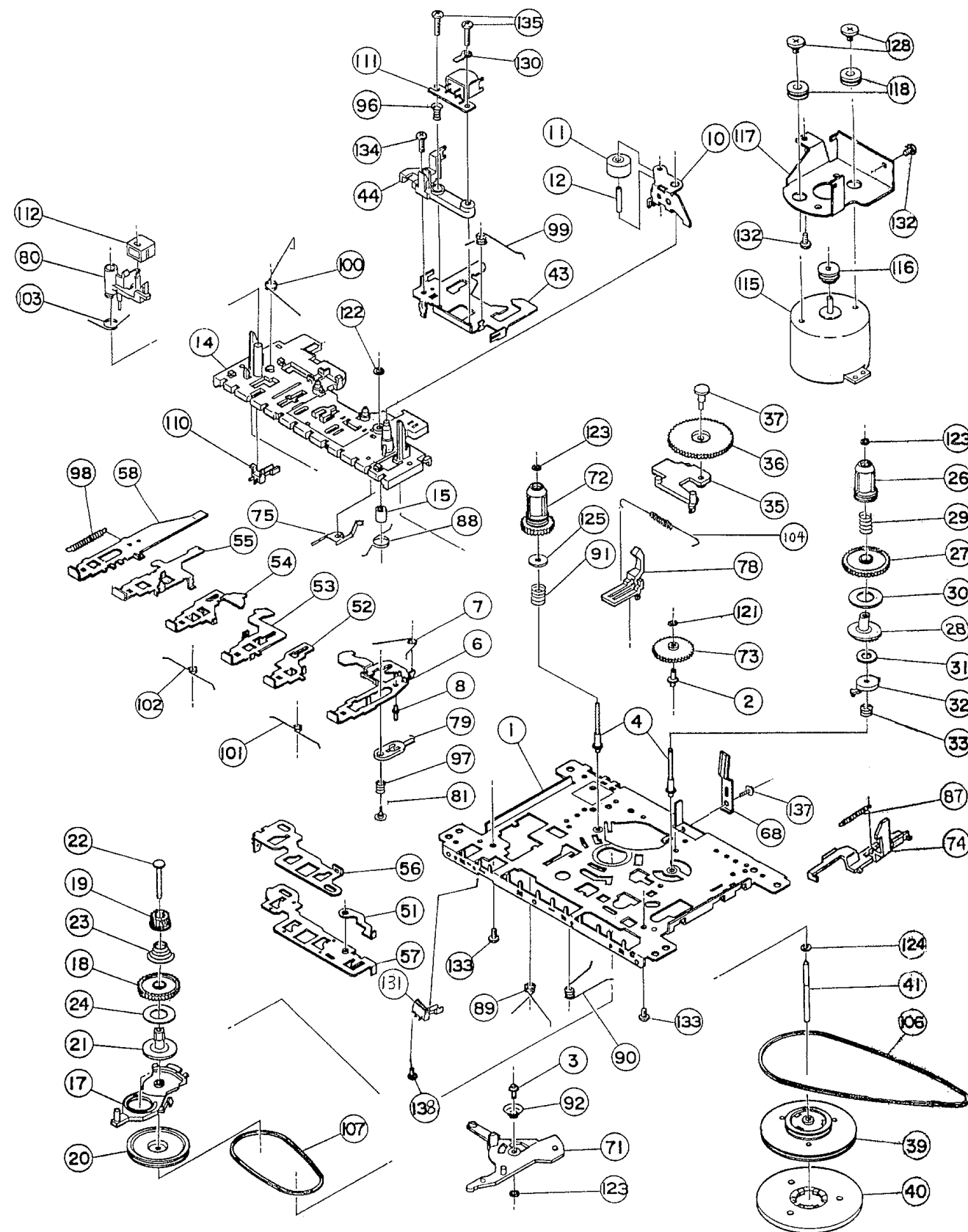
- 3140 115 27920 Instr Manual (For AZ1060/00/05)
- 3140 115 28040 Instr Manual (For AZ1060/14)
- 3140 115 28050 Instr Manual (For AZ1060/17)
- 3140 115 27930 Instr Manual (For AZ1065/00)
- 3140 115 28060 Instr Manual (For AZ1065/01/10/11)

- 3140 115 28080 Instr Manual (For AZ1065/17)

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

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

EXPLODED VIEW DIAGRAM - TAPE DECK



ELECTRICAL PARTSLIST - FRONT BOARD (AZ1060)

- CAPACITORS -

2400 3198 017 42230 22nF Y5V 50V
 2401 4822 124 22651 1,0µF 20% 50V
 2403 4822 124 23432 100µF 20% 10V
 2404 4822 124 23432 100µF 20% 10V
 2405 4822 122 31765 100pF 2% NPO 63V

2406 4822 122 31765 100pF 2% NPO 63V
 2407 4822 122 31765 100pF 2% NPO 63V
 2408 4822 122 31765 100pF 2% NPO 63V
 2410 4822 122 31765 100pF 2% NPO 63V
 2411 4822 122 33741 100pF 2% NPO 63V

2412 4822 126 14305 100nF 10% X7R 16V
 2413 4822 122 33741 10pF 10% NPO 50V
 2415 4822 126 14238 2,2nF X7R 50V
 2416 4822 126 14238 2,2nF X7R 50V
 2422 5322 126 11583 10nF 10% X7R 50V

2423 4822 122 33741 10pF 10% NPO 50V
 2424 4822 122 33741 10pF 10% NPO 50V
 2425 4822 124 81286 47µF 20% 16V
 2426 4822 122 31765 100pF 2% NPO 63V
 2427 4822 124 22652 2,2µF 20% 50V

2428 4822 122 33741 10pF 10% NPO 50V
 2429 4822 122 33741 10pF 10% NPO 50V
 2430 4822 122 33741 10pF 10% NPO 50V
 2431 4822 122 33741 10pF 10% NPO 50V
 2432 4822 122 31765 100pF 2% NPO 63V

2433 4822 122 31765 100pF 2% NPO 63V
 2437 4822 122 33752 15pF 5% NPO 50V
 2438 4822 122 33752 15pF 5% NPO 50V
 2443 5322 126 11578 1nF 10% X7R 50V
 2444 4822 126 14305 100nF 10% X7R 16V

2445 4822 126 14305 100nF 10% X7R 16V
 2450 4822 124 81286 47µF 20% 16V
 2451 4822 126 13879 220nF +80-20% 16V
 2452 4822 126 13879 220nF +80-20% 16V
 2453 4822 126 14305 100nF 10% X7R 16V

- RESISTORS -

3400 4822 051 30109 10R 5% 0,062W
 3401 4822 051 30223 22K 5% 0,062W
 3404 4822 051 30472 4K7 5% 0,062W
 3407 4822 051 20829 82R 5% 0,1W
 3409 4822 117 13632 100K 1% 0,62W

3410 4822 051 20471 470R 5% 0,1W
 3411 4822 051 30153 15K 5% 0,062W
 3412 4822 051 20471 470R 5% 0,1W
 3413 4822 051 30472 4K7 5% 0,062W
 3414 4822 051 30472 4K7 5% 0,062W

- RESISTORS -

3416 4822 051 30472 4K7 5% 0,062W
 3417 4822 051 30472 4K7 5% 0,062W
 3422 4822 051 30102 1K 5% 0,062W
 3423 4822 051 30102 1K 5% 0,062W
 3424 4822 051 30102 1K 5% 0,062W

3425 4822 051 30102 1K 5% 0,062W
 3428 4822 051 30222 2K2 5% 0,062W
 3429 4822 051 30222 2K2 5% 0,062W
 3430 4822 051 30472 4K7 5% 0,062W
 3432 4822 051 30183 18K 5% 0,062W

3433 4822 051 30472 4K7 5% 0,062W
 3434 4822 117 11373 100R 1%
 3435 4822 051 30103 10K 5% 0,062W
 3436 4822 051 30103 10K 5% 0,062W
 3437 4822 051 30103 10K 5% 0,062W

3438 4822 051 30103 10K 5% 0,062W
 3444 4822 051 30221 220R 5% 0,062W
 3445 4822 117 11373 100R 1%
 3446 4822 051 30223 22K 5% 0,062W
 3447 4822 051 30223 22K 5% 0,062W

3449 4822 051 30273 27K 5% 0,062W
 3450 4822 051 30273 27K 5% 0,062W
 3452 4822 051 30152 1K5 5% 0,062W
 3453 4822 051 30332 3K3 5% 0,062W
 3454 4822 051 30332 3K3 5% 0,062W

3455 4822 051 30332 3K3 5% 0,062W
 3456 4822 051 20471 470R 5% 0,1W
 3457 4822 051 20471 470R 5% 0,1W
 3458 4822 051 20471 470R 5% 0,1W
 3460 4822 051 30102 1K 5% 0,062W

3462 4822 051 30102 1K 5% 0,062W
 3464 4822 051 30223 22K 5% 0,062W
 3470 4822 051 20471 470R 5% 0,1W
 3471 4822 117 13632 100K 1% 0,62W
 3473 4822 051 20121 120R 5% 0,1W

3474 4822 051 20159 15R 5% 0,1W
 3475 4822 117 10361 680R 1% 0,1W
 3482 4822 117 12902 8K2 1% 0,063W
 3483 4822 117 12902 8K2 1% 0,063W
 3484 4822 051 30123 12K 5% 0,062W

3486 4822 051 30273 27K 5% 0,062W
 3488 4822 051 30562 5K6 5% 0,063W
 3489 4822 051 30562 5K6 5% 0,063W
 3490 4822 117 11448 180R 1% 0,1W
 3491 4822 117 11448 180R 1% 0,1W

3494 4822 051 30333 33K 5% 0,062W
 3495 4822 117 11373 100R 1%
 3496 4822 051 30333 33K 5% 0,062W
 3497 4822 051 30333 33K 5% 0,062W
 3498 4822 051 30221 220R 5% 0,062W

ELECTRICAL PARTSLIST - FRONT BOARD (AZ1060)

- RESISTORS -

3499 4822 051 30221 220R 5% 0,062W
 3550 2120 354 90029 Var Resistor 50KX2
 3551 4822 051 30683 68K 5% 0,062W
 4440 4822 051 20008 Jumper
 4441 4822 051 30008 Jumper

4442 4822 051 30008 Jumper
 4443 4822 051 30008 Jumper
 4444 4822 051 30008 Jumper
 4445 4822 051 20008 Jumper
 4446 4822 051 30008 Jumper

4447 4822 051 30008 Jumper
 4448 4822 051 30008 Jumper
 4449 4822 051 30008 Jumper
 4451 4822 051 30008 Jumper
 4453 4822 051 30008 Jumper

4454 4822 051 30008 Jumper
 4455 4822 051 20008 Jumper
 4456 4822 051 20008 Jumper
 4457 4822 051 20008 Jumper
 4470 4822 051 30008 Jumper

4471 4822 051 30008 Jumper
 4472 4822 051 20008 Jumper
 4473 4822 051 20008 Jumper
 4474 4822 051 20008 Jumper
 4475 4822 051 20008 Jumper

4476 4822 051 20008 Jumper
 4477 4822 051 20008 Jumper
 4478 4822 051 20008 Jumper
 4497 4822 051 30008 Jumper
 4498 4822 051 30008 Jumper

4499 4822 051 30008 Jumper

- COILS -

5400 4822 157 11228 Coil 100µH 5%
 5401 4822 157 11823 Coil 2,2µH 5%
 5402 4822 157 11823 Coil 2,2µH 5%

- DIODES -

6401 4822 130 10838 Diode UDZ3.3B
 6402 5322 130 34337 Diode BAV99
 6403 4822 130 11564 Diode UDZ3.9B
 6404 4822 130 83059 LED TLUR4400
 6406 4822 130 10418 LED LTL16KGE

6407 4822 130 10418 LED LTL16KGE
 6408 4822 130 10418 LED LTL16KGE
 6409 4822 130 83757 Diode BAS216
 6410 4822 130 83757 Diode BAS216
 6411 4822 130 83757 Diode BAS216

- DIODES -

6412 4822 130 83757 Diode BAS216
 6413 4822 130 83757 Diode BAS216

- IC & TRANSISTORS -

7400 3140 110 50880 IC MCU TMP86CH29
 7401 9965 000 04931 IC M24C01-WMN6
 7402 5322 130 60159 Trans BC846B
 7404 3140 110 51040 LCD Display
 7405 5322 130 42755 Trans BC847C

7406 5322 130 42755 Trans BC847C
 7408 5322 130 60159 Trans BC846B
 7409 5322 130 60159 Trans BC846B
 7410 5322 130 60159 Trans BC846B

- MISCELLANEOUS -

1400 4822 242 73769 Filter CST4,19MGW
 1490 4822 265 11207 Connector 6P
 1492 4822 267 10958 Connector 5P
 1493 4822 265 11531 Flex Socket 9P
 1494 4822 265 11535 Flex Socket 8P

1495 2422 128 02917 Tact Switch
 1496 2422 128 02917 Tact Switch
 1497 2422 128 02917 Tact Switch
 1498 2422 128 02917 Tact Switch
 1499 2422 128 02917 Tact Switch

1500 2422 128 02917 Tact Switch
 1501 2422 128 02917 Tact Switch
 1505 2422 128 02917 Tact Switch
 1506 2422 128 02917 Tact Switch

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

ELECTRICAL PARTSLIST - FRONT BOARD (AZ1065)

- CAPACITORS -

2400 3198 017 42230 22nF Y5V 50V
 2401 4822 124 22651 1µF 20% 50V
 2403 4822 124 23432 100µF 20% 10V
 2404 4822 124 23432 100µF 20% 10V
 2405 4822 122 31765 100pF 2% NP0 63V

2406 4822 122 31765 100pF 2% NP0 63V
 2407 4822 122 31765 100pF 2% NP0 63V
 2408 4822 122 31765 100pF 2% NP0 63V
 2409 4822 126 14305 100nF 10% X7R 16V
 2410 4822 122 31765 100pF 2% NP0 63V

2411 4822 122 33741 10pF 10% NP0 50V
 2412 4822 126 14305 100nF 10% X7R 16V
 2413 4822 122 33741 10pF 10% NP0 50V
 2415 4822 126 14238 2,2nF X7R 50V
 2416 4822 126 14238 2,2nF X7R 50V

2417 4822 126 14305 100nF 10% X7R 16V
 2420 4822 124 22726 4,7µF 35V
 2421 4822 126 13881 470pF 5% 50V
 2422 5322 126 11583 10nF 10% X7R 50V
 2423 4822 122 33741 10pF 10% NP0 50V

2424 4822 122 33741 10pF 10% NP0 50V
 2425 4822 124 81286 47µF 20% 16V
 2426 4822 122 31765 100pF 2% NP0 63V
 2427 4822 124 22652 2,2µF 20% 50V
 2428 4822 122 33741 10pF 10% NP0 50V

2429 4822 122 33741 10pF 10% NP0 50V
 2430 4822 122 33741 10pF 10% NP0 50V
 2431 4822 122 33741 10pF 10% NP0 50V
 2432 4822 122 31765 100pF 2% NP0 63V
 2433 4822 122 31765 100pF 2% NP0 63V

2436 4822 122 31765 100pF 2% NP0 63V
 2437 4822 122 33752 15pF 5% NP0 50V
 2438 4822 122 33752 15pF 5% NP0 50V
 2443 5322 126 11578 1nF 10% X7R 50V
 2444 4822 126 14305 100nF 10% X7R 16V

2445 4822 126 14305 100nF 10% X7R 16V
 2450 4822 124 81286 47µF 20% 16V
 2451 4822 126 13879 220nF +80-20% 16V
 2452 4822 126 13879 220nF +80-20% 16V
 2453 4822 126 14305 100nF 10% X7R 16V

- RESISTORS -

3400 4822 051 30109 10R 5% 0,062W
 3401 4822 051 30223 22K 5% 0,062W
 3402 4822 051 30103 10K 5% 0,062W
 3404 4822 051 30472 4K7 5% 0,062W
 3407 4822 051 20829 82R 5% 0,1W

- RESISTORS -

3409 4822 117 13632 100K 1% 0.62W
 3410 4822 051 20471 470R 5% 0,1W
 3411 4822 051 30153 15K 5% 0,062W
 3412 4822 051 20471 470R 5% 0,1W
 3413 4822 051 30472 4K7 5% 0,062W

3414 4822 051 30472 4K7 5% 0,062W
 3416 4822 051 30472 4K7 5% 0,062W
 3417 4822 051 30472 4K7 5% 0,062W
 3422 4822 051 30102 1K 5% 0,062W
 3423 4822 051 30102 1K 5% 0,062W

3424 4822 051 30102 1K 5% 0,062W
 3425 4822 051 30102 1K 5% 0,062W
 3428 4822 051 30222 2K2 5% 0,062W
 3429 4822 051 30222 2K2 5% 0,062W
 3430 4822 051 30472 4K7 5% 0,062W

3432 4822 051 30183 18K 5% 0,062W
 3433 4822 051 30472 4K7 5% 0,062W
 3434 4822 117 11373 100R 1%
 3435 4822 051 30103 10K 5% 0,062W
 3436 4822 051 30103 10K 5% 0,062W

3437 4822 051 30103 10K 5% 0,062W
 3438 4822 051 30103 10K 5% 0,062W
 3444 4822 051 30221 220R 5% 0,062W
 3445 4822 117 11373 100R 1%
 3446 4822 051 30223 22K 5% 0,062W

3447 4822 051 30223 22K 5% 0,062W
 3449 4822 051 30273 22K 5% 0,062W
 3450 4822 051 30273 22K 5% 0,062W
 3451 4822 051 30474 470K 5% 0,062W
 3452 4822 051 30152 1K5 5% 0,062W

3453 4822 051 30332 3K3 5% 0,062W
 3454 4822 051 30332 3K3 5% 0,062W
 3455 4822 051 30332 3K3 5% 0,062W
 3456 4822 051 20471 470R 5% 0,1W
 3457 4822 051 20471 470R 5% 0,1W

3458 4822 051 20471 470R 5% 0,1W
 3459 4822 051 30272 2K7 5% 0,062W
 3460 4822 051 30102 1K 5% 0,062W
 3462 4822 051 30102 1K 5% 0,062W
 3464 4822 051 30223 22K 5% 0,062W

3465 4822 051 30471 470R 5% 0,062W
 3470 4822 051 20471 470R 5% 0,1W
 3471 4822 117 13632 100K 1% 0.62W
 3473 4822 051 20121 120R 5% 0,1W
 3474 4822 051 20159 15R 5% 0,1W

ELECTRICAL PARTSLIST - FRONT BOARD (AZ1065)

- RESISTORS -

3475 4822 117 10361 680R 1% 0,1W
 3480 4822 117 11373 100R 1%
 3481 4822 117 11503 220R 1% 0,1W
 3482 4822 117 12902 8K2 1% 0,063W
 3483 4822 117 12902 8K2 1% 0,063W

3484 4822 051 30123 12K 5% 0,062W
 3485 4822 051 30123 12K 5% 0,062W
 3486 4822 051 30273 27K 5% 0,062W
 3487 4822 051 30273 27K 5% 0,062W
 3488 4822 051 30562 5K6 5% 0,063W

3489 4822 051 30562 5K6 5% 0,063W
 3490 4822 117 11448 180R 1% 0,1W
 3491 4822 117 11448 180R 1% 0,1W
 3494 4822 051 30333 33K 5% 0,062W
 3495 4822 117 11373 100R 1%

3496 4822 051 30333 33K 5% 0,062W
 3497 4822 051 30333 33K 5% 0,062W
 3498 4822 051 30221 220R 5% 0,062W
 3499 4822 051 30221 220R 5% 0,062W
 3551 4822 051 30683 68K 5% 0,062W

4440 4822 051 20008 Jumper
 4441 4822 051 30008 Jumper
 4442 4822 051 30008 Jumper
 4443 4822 051 30008 Jumper
 4444 4822 051 30008 Jumper

4445 4822 051 20008 Jumper
 4446 4822 051 30008 Jumper
 4447 4822 051 30008 Jumper
 4448 4822 051 30008 Jumper
 4449 4822 051 30008 Jumper

4450 4822 051 30008 Jumper
 4451 4822 051 30008 Jumper
 4452 4822 051 30008 Jumper
 4453 4822 051 30008 Jumper
 4454 4822 051 30008 Jumper

4455 4822 051 20008 Jumper
 4456 4822 051 20008 Jumper
 4457 4822 051 20008 Jumper
 4470 4822 051 30008 Jumper
 4471 4822 051 30008 Jumper

4472 4822 051 20008 Jumper
 4473 4822 051 20008 Jumper
 4474 4822 051 20008 Jumper
 4475 4822 051 20008 Jumper
 4476 4822 051 20008 Jumper

4477 4822 051 20008 Jumper
 4478 4822 051 20008 Jumper

- COILS -

5400 4822 157 11228 Coil 100µH
 5401 4822 157 11823 Coil 2,2µH 5%
 5402 4822 157 11823 Coil 2,2µH 5%

- DIODES -

6401 4822 130 10838 Diode UDZ3.3B
 6402 5322 130 34337 Diode BAV99
 6403 4822 130 11564 Diode UDZ3.9B
 6404 4822 130 83059 LED TLUR4400
 6406 4822 130 10418 LED LTL16KGE

6407 4822 130 10418 LED LTL16KGE
 6408 4822 130 10418 LED LTL16KGE
 6409 4822 130 83757 Diode BAS216
 6410 4822 130 83757 Diode BAS216
 6411 4822 130 83757 Diode BAS216

6412 4822 130 83757 Diode BAS216
 6413 4822 130 83757 Diode BAS216

- IC & TRANSISTORS -

7400 3140 110 50880 IC MCU TMP86CH29
 7401 9965 000 04931 IC M24C01-WMN6
 7402 5322 130 60159 Trans BC846B
 7404 3140 110 51040 LCD Display
 7405 5322 130 42755 Trans BC847C

7406 5322 130 42755 Trans BC847C
 7407 9322 155 82667 IR Receiver TSOP2236
 7408 5322 130 60159 Trans BC846B
 7409 5322 130 60159 Trans BC846B
 7410 5322 130 60159 Trans BC846B

- MISCELLANEOUS -

1400 4822 242 73769 Filter CST4,19MGW
 1490 4822 265 11207 Connector 6P
 1492 4822 267 10958 Connector 5P
 1493 4822 265 11531 Flex Socket 9P
 1495 2422 128 02917 Tact Switch

1496 2422 128 02917 Tact Switch
 1497 2422 128 02917 Tact Switch
 1498 2422 128 02917 Tact Switch
 1499 2422 128 02917 Tact Switch
 1500 2422 128 02917 Tact Switch

1501 2422 128 02917 Tact Switch
 1503 2422 128 02922 Tact Switch
 1504 2422 128 02922 Tact Switch
 1505 2422 128 02917 Tact Switch
 1506 2422 128 02917 Tact Switch

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

ELECTRICAL PARTSLIST - AF BOARD**- CAPACITORS -**

| | | | | |
|------|----------------|--------|---------|------|
| 2305 | 4822 124 80483 | 47μF | 20% | 6,3V |
| 2306 | 4822 124 12052 | 220μF | 20% | 6,3V |
| 2307 | 5322 122 31647 | 1nF | 10% X7R | 63V |
| 2308 | 4822 124 80791 | 470μF | 16V | 20% |
| 2309 | 4822 126 14585 | 100nF | 10% X7R | 50V |
| 2337 | 5322 122 31863 | 330pF | 5% | 63V |
| 2338 | 5322 122 31863 | 330pF | 5% | 63V |
| 2340 | 4822 124 11878 | 4700μF | 16V | |
| 2341 | 4822 124 40196 | 220μF | 20% | 16V |
| 2342 | 4822 124 40433 | 47μF | 20% | 25V |
| 2343 | 4822 124 41407 | 0,47μF | 20% | 63V |
| 2344 | 4822 124 41407 | 0,47μF | 20% | 63V |
| 2345 | 4822 122 32535 | 680pF | 10% X7R | 63V |
| 2346 | 4822 122 32535 | 680pF | 10% X7R | 63V |
| 2347 | 4822 124 40433 | 47μF | 20% | 25V |
| 2348 | 4822 124 40433 | 47μF | 20% | 25V |
| 2349 | 4822 124 41407 | 0,47μF | 20% | 63V |
| 2350 | 4822 124 41407 | 0,47μF | 20% | 63V |
| 2351 | 4822 124 80791 | 470μF | 16V | 20% |
| 2352 | 4822 124 80791 | 470μF | 16V | 20% |
| 2353 | 4822 124 40433 | 47μF | 20% | 25V |
| 2357 | 4822 126 13751 | 47nF | 10% X7R | 63V |
| 2358 | 4822 126 13751 | 47nF | 10% X7R | 63V |
| 2359 | 4822 124 40769 | 4,7μF | 20% | 100V |
| 2360 | 4822 126 14585 | 100nF | 10% X7R | 50V |
| 2361 | 4822 126 14585 | 100nF | 10% X7R | 50V |
| 2363 | 4822 126 14585 | 100nF | 10% X7R | 50V |
| 2531 | 4822 122 33177 | 10nF | 20% X7R | 50V |
| 2532 | 4822 122 33177 | 10nF | 20% X7R | 50V |
| 2533 | 4822 124 40746 | 0,22μF | 20% | 63V |
| 2534 | 4822 124 40746 | 0,22μF | 20% | 63V |

- RESISTORS -

| | | | | |
|------|----------------|------|----|------|
| 3301 | 4822 117 11449 | 2K2 | 5% | 0,1W |
| 3302 | 4822 116 52256 | 2K2 | 5% | 0,5W |
| 3303 | 4822 051 20471 | 470R | 5% | 0,1W |
| 3304 | 4822 051 20471 | 470R | 5% | 0,1W |
| 3305 | 4822 117 10353 | 150R | 1% | 0,1W |
| 3306 | 4822 117 10353 | 150R | 1% | 0,1W |
| 3307 | 4822 051 20562 | 5K6 | 5% | 0,1W |
| 3311 | 4822 116 52206 | 120R | 5% | 0,5W |
| 3312 | 4822 116 52206 | 120R | 5% | 0,5W |
| 3313 | 4822 117 11507 | 6K8 | 1% | 0,1W |
| 3314 | 4822 117 11507 | 6K8 | 1% | 0,1W |
| 3321 | 4822 050 24708 | 4R7 | 1% | 0,6W |
| 3322 | 4822 050 24708 | 4R7 | 1% | 0,6W |
| 3323 | 4822 051 20332 | 3K3 | 5% | 0,1W |
| 3325 | 4822 051 20391 | 390R | 5% | 0,1W |

- RESISTORS -

| | | | | |
|------|----------------|--------|----|------|
| 3326 | 4822 051 20561 | 560R | 5% | 0,1W |
| 3327 | 4822 051 20471 | 470R | 5% | 0,1W |
| 3328 | 4822 117 11507 | 6K8 | 1% | 0,1W |
| 3329 | 4822 116 83883 | 470R | 5% | 0,5W |
| 3331 | 4822 116 52289 | 5K6 | 5% | 0,5W |
| 3332 | 4822 116 52289 | 5K6 | 5% | 0,5W |
| 3333 | 4822 116 83933 | 15K | 1% | 0,1W |
| 3334 | 4822 117 11383 | 12K | 1% | 0,1W |
| 3335 | 4822 117 11383 | 12K | 1% | 0,1W |
| 3501 | 4822 051 20822 | 8K2 | 5% | 0,1W |
| 3502 | 4822 051 20822 | 8K2 | 5% | 0,1W |
| 3505 | 4822 050 23303 | 33K | 1% | 0,6W |
| 3506 | 4822 050 23303 | 33K | 1% | 0,6W |
| 3507 | 4822 051 20822 | 8K2 | 5% | 0,1W |
| 3508 | 4822 051 20822 | 8K2 | 5% | 0,1W |
| 3509 | 4822 117 10833 | 10K | 1% | 0,1W |
| 3510 | 4822 117 10833 | 10K | 1% | 0,1W |
| 3541 | 4822 117 11139 | 1K5 | 1% | 0,1W |
| 3542 | 4822 117 11139 | 1K5 | 1% | 0,1W |
| 3543 | 4822 117 11449 | 2K2 | 5% | 0,1W |
| 3544 | 4822 117 11449 | 2K2 | 5% | 0,1W |
| 3545 | 4822 117 10833 | 10K | 1% | 0,1W |
| 3546 | 4822 117 10833 | 10K | 1% | 0,1W |
| 3561 | 4822 117 10965 | 18K | 1% | 0,1W |
| 3562 | 4822 117 10965 | 18K | 1% | 0,1W |
| 3563 | 4822 117 10833 | 10K | 1% | 0,1W |
| 3564 | 4822 117 10833 | 10K | 1% | 0,1W |
| 3565 | 4822 117 10837 | 100K | 1% | 0,1W |
| 3566 | 4822 117 10837 | 100K | 1% | 0,1W |
| 9331 | 4822 051 20008 | Jumper | | |
| 9332 | 4822 051 20008 | Jumper | | |
| 9333 | 4822 051 20008 | Jumper | | |
| 9521 | 4822 051 20008 | Jumper | | |
| 9522 | 4822 051 20008 | Jumper | | |

- COILS -

| | | | | |
|------|----------------|-------|----|--|
| 5301 | 4822 157 11823 | 2,2μH | 5% | |
| 5302 | 4822 157 62552 | 2,2μH | | |

- DIODES -

| | | | | |
|------|----------------|------------------|--|--|
| 6308 | 3198 010 53380 | Diode BZX79-B3V3 | | |
| 6311 | 4822 130 83757 | Diode BAS216 | | |
| 6316 | 4822 130 30621 | Diode 1N4148 | | |

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

| | | | | |
|------|----------------|----------------|--|--|
| 7301 | 4822 209 31544 | IC TA8227P | | |
| 7303 | 4822 130 41246 | Trans BC327-25 | | |
| 7304 | 4822 130 41246 | Trans BC327-25 | | |
| 7305 | 4822 130 60373 | Trans BC856B | | |
| 7306 | 5322 130 60159 | Trans BC846B | | |
| 7307 | 4822 130 40981 | Trans BC337-25 | | |
| 7312 | 5322 130 60159 | Trans BC846B | | |
| 7313 | 4822 130 42615 | Trans BC817-40 | | |
| 7314 | 4822 130 42615 | Trans BC817-40 | | |

- MISCELLANEOUS -

| | | | | |
|------|----------------|------------------|--|--|
| 1301 | 4822 277 11846 | Slide Switch | | |
| 1303 | 2422 026 05076 | Headphone Socket | | |
| 1314 | 2422 025 14518 | Connector 9P | | |
| 1501 | 4822 267 10731 | Connector 6P | | |
| 1502 | 4822 267 10731 | Connector 6P | | |
| 1504 | 4822 267 10733 | Connector 4P | | |
| 1506 | 4822 265 11515 | Connector 8P | | |
| 1510 | 4822 277 11786 | Silde Switch | | |

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

ELECTRICAL PARTSLIST - TUNER BOARD ECO6

- 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 00204 | Var Cap 4,2pF-20pF | 100V |
| 2107 | 4822 121 51319 | 1µF 10% | 63V |
| 2108 | 4822 122 31765 | 100pF 2% NP0 | 63V |
| 2109 | 4822 122 33741 | 10pF 10% NP0 | 50V |
| 2120 | 4822 122 33761 | 22pF 5% NP0 | 50V |
| 2122 | 5322 126 11579 | 3,3nF 10% X7R | 63V |
| 2123 | 2238 861 18391 | 390pF 1% NP0 | 50V |
| 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 | 10µF 20% | 63V |
| 2129 | 4822 124 41584 | 100µF 20% | 10V |
| 2130 | 3198 017 44740 | 470nF Y5V | 10V |
| 2131 | 3198 017 44740 | 470nF Y5V | 10V |
| 2132 | 3198 017 44740 | 470nF Y5V | 10V |
| 2133 | 4822 124 21913 | 1µF 20% | 63V |
| 2134 | 3198 017 31530 | 15nF X7R | 50V |
| 2135 | 3198 017 31530 | 15nF X7R | 50V |
| 2136 | 4822 126 13879 | 220nF +80-20% | 16V |
| 2137 | 4822 126 13879 | 220nF +80-20% | 16V |
| 2138 | 4822 124 22652 | 2,2µF 20% | 50V |
| 2139 | 4822 122 33752 | 15pF 5% NP0 | 50V |
| 2140 | 4822 126 14226 | 82pF 5% NP0 | 50V |
| 2141 | 4822 126 14305 | 100nF 10% X7R | 16V |
| 2144 | 3198 017 44740 | 470nF 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 13838 | 100nF +80-20% Y5V | 50V |
| 2152 | 4822 126 14549 | 33nF 16V X7R | |
| 2153 | 4822 122 33752 | 15pF 5% NP0 | 50V |
| 2155 | 2020 800 00191 | Var Cap 3pF-11pF | 100V |
| 2159 | 4822 126 11671 | 33pF | |
| 2163 | 4822 126 14305 | 100nF 10% X7R | 16V |
| 2164 | 3198 017 44740 | 470nF Y5V | 10V |
| 2165 | 4822 126 14305 | 100nF 10% X7R | 16V |
| 2166 | 5322 126 11578 | 1nF 10% X7R | 50V |
| 2167 | 4822 126 11663 | 12pF | |
| 2186 | 4822 124 40196 | 220µF 20% | 16V |
| 2187 | 5322 126 11583 | 10nF 10% X7R | 50V |
| 2188 | 5322 126 11583 | 10nF 10% X7R | 50V |
| 2189 | 4822 126 13879 | 220nF +80-20% | 16V |
| 2190 | 4822 124 81151 | 22µF | 50V |
| 2191 | 4822 124 81151 | 22µF | 50V |
| 2192 | 5322 126 11578 | 1nF 10% X7R | 50V |
| 2193 | 5322 126 11578 | 1nF 10% X7R | 50V |

- CAPACITORS -

| | | | |
|------|----------------|--------------|-----|
| 2194 | 5322 126 11578 | 1nF 10% X7R | 50V |
| 2195 | 4822 124 81151 | 22µF | 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 | 8K2 1% | 0.063W |
| 3104 | 4822 117 13577 | 330R 1% | 1,25W |
| 3105 | 4822 051 30221 | 220R 5% | 0,062W |
| 3108 | 4822 051 30222 | 2K2 5% | 0,062W |
| 3109 | 4822 051 30222 | 2K2 5% | 0,062W |
| 3123 | 4822 051 30472 | 4K7 5% | 0,062W |
| 3125 | 4822 051 30103 | 10K 5% | 0,062W |
| 3128 | 4822 051 30222 | 2K2 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% | |
| 3145 | 4822 051 30222 | 2K2 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 |
| 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 30479 | 47R 5% | 0,062W |
| 3167 | 4822 051 30479 | 47R 5% | 0,062W |
| 3169 | 4822 051 30154 | 150K 5% | 0,062W |
| 3180 | 4822 051 30103 | 10K 5% | 0,062W |
| 3186 | 4822 051 30181 | 180R 5% | 0,062W |
| 3187 | 4822 051 30102 | 1K 5% | 0,062W |
| 3188 | 4822 051 30222 | 2K2 5% | 0,062W |
| 3189 | 4822 051 30223 | 22K 5% | 0,062W |
| 3190 | 4822 051 30103 | 10K 5% | 0,062W |
| 3191 | 4822 051 30472 | 4K7 5% | 0,062W |
| 3192 | 4822 051 30105 | 1M 5% | 0,062W |
| 3193 | 4822 051 30222 | 2K2 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 |
| 4102 | 4822 051 30334 | 330K 5% | 0,062W |
| 4105 | 4822 051 30008 | Jumper | |
| 4107 | 4822 051 30008 | Jumper | |
| 4108 | 4822 051 30008 | Jumper | |
| 4110 | 4822 051 30008 | Jumper | |

ELECTRICAL PARTSLIST - TUNER BOARD ECO6

- COILS, CRYSTAL & FILTERS -

| | | | |
|------|----------------|---------------------|--|
| 5102 | 4822 157 71634 | MW Aerial | |
| 5103 | 2422 549 44107 | Ind Var 252kHz | |
| 5109 | 4822 242 70665 | Filter SFE10,7MS3-A | |
| 5110 | 4822 242 70665 | Filter SFE10,7MS3-A | |
| 5111 | 2422 549 44023 | Ind Var 450kHz | |
| 5112 | 4822 157 70302 | Coil F7MCS-12216N | |
| 5114 | 4822 157 70302 | Coil F7MCS-12216N | |
| 5119 | 4822 157 11443 | Coil 2,4µF | |
| 5121 | 4822 242 10261 | Crystal 75kHz | |
| 5122 | 2422 549 44108 | Ind Var 796kHz | |
| 5123 | 2422 549 44108 | Ind Var 796kHz | |
| 5130 | 4822 157 11843 | Coil MD7B-01F | |
| 5131 | 4822 157 11843 | Coil MD7B-01F | |

- DIODES -

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

- IC & TRANSISTORS -

| | | | |
|------|----------------|----------------|--|
| 7101 | 4822 209 90924 | IC TEA5757H/V1 | |
| 7102 | 4822 130 42131 | Trans BF550 | |
| 7104 | 4822 130 40855 | Trans BC337 | |
| 7105 | 4822 130 40855 | Trans BC337 | |
| 7109 | 4822 130 60373 | Trans BC856B | |
| 7122 | 5322 130 42755 | Trans BC847C | |
| 7124 | 5322 130 42755 | Trans BC847C | |
| 7180 | 4822 130 60373 | Trans BC856B | |
| 7181 | 5322 130 42755 | Trans BC847C | |
| 7182 | 5322 130 42755 | Trans BC847C | |
| 7183 | 5322 130 42755 | Trans BC847C | |

- MISCELLANEOUS -

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

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

ELECTRICAL PARTSLIST - CD99 DA11

- CAPACITORS -

| | | |
|------|--------------|---------------------|
| 2801 | 482212441751 | 47µF 20% 50V |
| 2802 | 482212441751 | 47µF 20% 50V |
| 2803 | 482212613695 | 82pF 1% NP0 63V |
| 2804 | 482212613695 | 82pF 1% NP0 63V |
| 2805 | 482212613695 | 82pF 1% NP0 63V |
| 2806 | 482212613695 | 82pF 1% NP0 63V |
| 2807 | 482212613691 | 27pF 1% NP0 63V |
| 2808 | 532212233538 | 150pF 2% NP0 63V |
| 2809 | 482212613691 | 27pF 1% NP0 63V |
| 2810 | 482212613691 | 27pF 1% NP0 63V |
| 2811 | 532212232659 | 33pF 5% 50V |
| 2812 | 532212232448 | 10pF 5% NP0 63V |
| 2813 | 482212233127 | 2,2nF 10% X7R 63V |
| 2814 | 482212613751 | 47nF 10% X7R 63V |
| 2815 | 482212613692 | 47pF 1% NP0 63V |
| 2816 | 532212232654 | 22nF 10% X7R 63V |
| 2817 | 482212440769 | 4,7µF 20% 100V |
| 2818 | 482212613751 | 47nF 10% X7R 63V |
| 2821 | 482212614585 | 100nF 10% X7R 50V |
| 2822 | 482212613344 | 1,5nF 5% 63V |
| 2823 | 482212442383 | 220µF 20% 4V |
| 2824 | 482212613751 | 47nF 10% X7R 63V |
| 2825 | 482212613344 | 1,5nF 5% 63V |
| 2826 | 482212613751 | 47nF 10% X7R 63V |
| 2827 | 532212231647 | 1nF 10% X7R 63V |
| 2828 | 482212613692 | 47pF 1% NP0 63V |
| 2829 | 482212613751 | 47nF 10% X7R 63V |
| 2830 | 482212614043 | 1µF +80-20% Y5V 16V |
| 2831 | 482212614043 | 1µF +80-20% Y5V 16V |
| 2832 | 532212233538 | 150pF 2% NP0 63V |
| 2833 | 532212232268 | 470pF 10% 50V |
| 2834 | 482212233216 | 270pF 5% NP0 50V |
| 2835 | 532212232268 | 470pF 10% 50V |
| 2836 | 482212441751 | 47µF 20% 50V |
| 2837 | 482212613751 | 47nF 10% X7R 63V |
| 2838 | 532212232654 | 22nF 10% X7R 63V |
| 2839 | 482212614585 | 100nF 10% X7R 50V |
| 2840 | 482212441751 | 47µF 20% 50V |
| 2841 | 482212613751 | 47nF 10% X7R 63V |
| 2842 | 482212421913 | 1µF 20% 63V |
| 2843 | 532212232531 | 100pF 5% NP0 50V |
| 2844 | 482212233575 | 220pF 5% NP0 63V |
| 2845 | 482212233575 | 220pF 5% NP0 63V |
| 2846 | 482212440248 | 10µF 20% 63V |
| 2848 | 532212232531 | 100pF 5% NP0 50V |
| 2849 | 482212233575 | 220pF 5% NP0 63V |
| 2850 | 482212233575 | 220pF 5% NP0 63V |
| 2851 | 482212440248 | 10µF 20% 63V |
| 2853 | 482212233177 | 10nF 20% X7R 50V |
| 2854 | 482212411912 | 220µF 20% 6,3V |

- CAPACITORS -

| | | |
|------|--------------|-------------------|
| 2855 | 482212411912 | 220µF 20% 6,3V |
| 2857 | 482212412362 | 47µF 4V 20% |
| 2860 | 532211680853 | 560pF 5% NP0 63V |
| 2861 | 532212231865 | 1,5nF 10% X7R 63V |
| 2862 | 482212610326 | 180pF 5%NP0 63V |
| 2863 | 482212610326 | 180pF 5%NP0 63V |
| 2864 | 482212610326 | 180pF 5%NP0 63V |
| 2865 | 482212610326 | 180pF 5%NP0 63V |
| 2869 | 482212613751 | 47nF 10% X7R 63V |
| 2870 | 482212233575 | 220pF 5% NP0 63V |
| 2871 | 482212233575 | 220pF 5% NP0 63V |
| 2872 | 482212233575 | 220pF 5% NP0 63V |
| 2873 | 482212233575 | 220pF 5% NP0 63V |
| 2874 | 482212233575 | 220pF 5% NP0 63V |
| 2875 | 482212233575 | 220pF 5% NP0 63V |
| 3728 | 482205120479 | 47R 5% 0,1W |
| 3745 | 482205120109 | 10R 5% 0,1W |
| 3757 | 482205120223 | 22K 5% 0,1W |
| 3788 | 482205120472 | 4K7 5% 0,1W |
| 3800 | 482205120478 | 4R70 5% 0,1W |
| 3801 | 482205120154 | 150K 5% 0,1W |
| 3802 | 482205110102 | 1K 2% 0,25W |
| 3803 | 482205120273 | 27K 5% 0,1W |
| 3804 | 482205120472 | 4K7 5% 0,1W |
| 3805 | 482205120273 | 27K 5% 0,1W |
| 3806 | 482211710361 | 680R 1% 0,1W |
| 3807 | 482211711139 | 1K5 1% 0,1W |
| 3808 | 482205120339 | 33R 5% 0,1W |
| 3809 | 482205120339 | 33R 5% 0,1W |
| 3810 | 482205210478 | 4R7 5% 0,33W |
| 3811 | 482205110102 | 1K 2% 0,25W |
| 3812 | 482205120474 | 470K 5% 0,1W |
| 3813 | 482205120683 | 68K 5% 0,1W |
| 3814 | 482205120332 | 3K3 5% 0,1W |
| 3815 | 482205120472 | 4K7 5% 0,1W |
| 3816 | 482211683933 | 15K 1% 0,1W |
| 3817 | 482211710834 | 47K 1% 0,1W |
| 3818 | 482205120562 | 5K6 5% 0,1W |
| 3819 | 482211683933 | 15K 1% 0,1W |
| 3820 | 482211710965 | 18K 1% 0,1W |
| 3821 | 482205120332 | 3K3 5% 0,1W |
| 3822 | 482205120332 | 3K3 5% 0,1W |
| 3823 | 482205120332 | 3K3 5% 0,1W |
| 3824 | 482205110102 | 1K 2% 0,25W |
| 3825 | 482205120223 | 22K 5% 0,1W |

- RESISTORS -

ELECTRICAL PARTSLIST - CD99 DA11

- RESISTORS -

| | | |
|------|--------------|--------------|
| 3826 | 482205120273 | 27K 5% 0,1W |
| 3827 | 482205120339 | 33R 5% 0,1W |
| 3828 | 482205120479 | 47R 5% 0,1W |
| 3829 | 482205120101 | 100R 5% 0,1W |
| 3830 | 482205120472 | 4K7 5% 0,1W |
| 3835 | 482205120223 | 22K 5% 0,1W |
| 3836 | 482211710833 | 10K 1% 0,1W |
| 3837 | 482205120471 | 470R 5% 0,1W |
| 3838 | 482205120471 | 470R 5% 0,1W |
| 3839 | 482205120471 | 470R 5% 0,1W |
| 3840 | 482205120471 | 470R 5% 0,1W |
| 3841 | 482205120472 | 4K7 5% 0,1W |
| 3842 | 482205110102 | 1K 2% 0,25W |
| 3843 | 482205110102 | 1K 2% 0,25W |
| 3844 | 482205120101 | 100R 5% 0,1W |
| 3845 | 482205120228 | 2R2 5% 0,1W |
| 3846 | 482205120223 | 22K 5% 0,1W |
| 3847 | 482211711149 | 82K 1% 0,1W |
| 3848 | 482211710834 | 47K 1% 0,1W |
| 3849 | 482211711148 | 56K 1% 0,1W |
| 3850 | 482205120822 | 8K2 5% 0,1W |
| 3851 | 482211711148 | 56K 1% 0,1W |
| 3852 | 482211710834 | 47K 1% 0,1W |
| 3853 | 482211683933 | 15K 1% 0,1W |
| 3854 | 482205120822 | 8K2 5% 0,1W |
| 3855 | 482211640227 | 4R6 25% 12V |
| 3856 | 482205120683 | 68K 5% 0,1W |
| 3857 | 482205120683 | 68K 5% 0,1W |
| 3858 | 482205120392 | 3K9 5% 0,1W |
| 3859 | 482211710834 | 47K 1% 0,1W |
| 3860 | 482205110102 | 1K 2% 0,25W |
| 3861 | 482211710834 | 47K 1% 0,1W |
| 3862 | 482205110102 | 1K 2% 0,25W |
| 3863 | 482205210338 | 3R3 5% 0,33W |
| 3864 | 482211710833 | 10K 1% 0,1W |
| 3865 | 482205110102 | 1K 2% 0,25W |
| 3867 | 482205120223 | 22K 5% 0,1W |
| 3868 | 482211710833 | 10K 1% 0,1W |
| 3869 | 482211710833 | 10K 1% 0,1W |
| 3871 | 482205120471 | 470R 5% 0,1W |
| 3872 | 482211710834 | 47K 1% 0,1W |
| 3873 | 482205120223 | 22K 5% 0,1W |
| 3874 | 482205120223 | 22K 5% 0,1W |
| 3875 | 482211710833 | 10K 1% 0,1W |
| 3876 | 482211710833 | 10K 1% 0,1W |
| 3878 | 482205120471 | 470R 5% 0,1W |
| 3879 | 482211710834 | 47K 1% 0,1W |
| 3880 | 482205120339 | 33R 5% 0,1W |
| 3881 | 482211710353 | 150R 1% 0,1W |
| 3882 | 482205120101 | 100R 5% 0,1W |

- RESISTORS -

| | | |
|------|--------------|--------------|
| 3883 | 482205110102 | 1K 2% 0,25W |
| 3884 | 482205110102 | 1K 2% 0,25W |
| 3886 | 482211710833 | 10K 1% 0,1W |
| 3887 | 482211710833 | 10K 1% 0,1W |
| 3888 | 482205120472 | 4K7 5% 0,1W |
| 3889 | 482205110102 | 1K 2% 0,25W |
| 3890 | 482211710837 | 100K 1% 0,1W |
| 3891 | 482211710837 | 100K 1% 0,1W |
| 3892 | 482211710837 | 100K 1% 0,1W |
| 3893 | 482211710837 | 100K 1% 0,1W |
| 3894 | 482211710833 | 10K 1% 0,1W |
| 3895 | 482211710833 | 10K 1% 0,1W |
| 3896 | 482211710833 | 10K 1% 0,1W |
| 3897 | 482211710833 | 10K 1% 0,1W |
| 3898 | 482211710833 | 10K 1% 0,1W |
| 3899 | 482211710833 | 10K 1% 0,1W |
| 3900 | 482205120223 | 22K 5% 0,1W |
| 4801 | 482205120008 | Jumper |
| 4802 | 482205120008 | Jumper |
| 4807 | 482205120008 | Jumper |
| 4808 | 482205120008 | Jumper |
| 4809 | 482205120008 | Jumper |
| 4810 | 482205120008 | Jumper |
| 4812 | 482205120008 | Jumper |
| 4813 | 482205120008 | Jumper |
| 4814 | 482205120008 | Jumper |
| 4815 | 482205120008 | Jumper |
| 4823 | 482205120008 | Jumper |
| 4824 | 482205120008 | Jumper |
| 4828 | 482205120008 | Jumper |
| 4831 | 482205120008 | Jumper |
| 4832 | 482205120008 | Jumper |
| 4838 | 482205120008 | Jumper |
| 4845 | 482205120008 | Jumper |
| 4847 | 482205120008 | Jumper |
| 4848 | 482205120008 | Jumper |
| 4850 | 482205120008 | Jumper |
| 4853 | 482205120008 | Jumper |
| 4856 | 482205120008 | Jumper |
| 4857 | 482205120008 | Jumper |
| 4859 | 482205120008 | Jumper |
| 4863 | 482205120008 | Jumper |
| 4865 | 482205120008 | Jumper |
| 4866 | 482205120008 | Jumper |
| 4872 | 482205120008 | Jumper |
| 4877 | 482205120008 | Jumper |
| 4881 | 482205120008 | Jumper |
| 4884 | 482205120008 | Jumper |
| 4885 | 482205120008 | Jumper |
| 4886 | 482205120008 | Jumper |

ELECTRICAL PARTSLIST - CD99 DA11**- RESISTORS -**

| | | |
|------|--------------|--------|
| 4888 | 482205120008 | Jumper |
| 4889 | 482205120008 | Jumper |

- COILS & FILTERS -

| | | |
|------|--------------|------------------------|
| 1810 | 482224273557 | Filter CST8,46MTW-TF01 |
| 5803 | 482215711231 | Coil LAN02TB1R0J |

- DIODES -

| | | |
|------|--------------|---------------|
| 6877 | 482213011564 | Diode UDZ3.9B |
|------|--------------|---------------|

- IC & TRANSISTORS -

| | | |
|------|--------------|----------------|
| 7800 | 482220917324 | IC SAA7325H |
| 7802 | 532220911517 | IC PC74HCU04T |
| 7803 | 532213060123 | Trans BC807-40 |
| 7804 | 532220982941 | IC LM358D |
| 7807 | 532213042755 | Trans BC847C |
| 7808 | 482220932852 | IC TDA7073A/N2 |
| 7809 | 482220932852 | IC TDA7073A/N2 |
| 7810 | 482220933165 | IC TDA1308T/N1 |
| 7875 | 482213060511 | Trans BC847B |

- MISCELLANEOUS -

| | | |
|------|--------------|-------------------|
| 1800 | 482226510925 | Connector 15P |
| 1823 | 482226511207 | Connector 6P |
| 1824 | 482226511207 | Connector 6P |
| 8000 | 482232012178 | Flexible Foil 15P |

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

ELECTRICAL PARTSLIST - RECORDER BOARD**- CAPACITORS -**

| | | | |
|------|--------------|-------|-------------|
| 2703 | 482212481151 | 22µF | 50V |
| 2704 | 482212481151 | 22µF | 50V |
| 2706 | 482212440433 | 47µF | 20% 25V |
| 2707 | 482212440196 | 220µF | 20% 16V |
| 2708 | 482212440433 | 47µF | 20% 25V |
| 2709 | 482212440433 | 47µF | 20% 25V |
| 2710 | 482212441584 | 100µF | 20% 10V |
| 2711 | 482212481151 | 22µF | 50V |
| 2712 | 482212612878 | 1,5nF | 10% 16V |
| 2714 | 482212612878 | 1,5nF | 10% 16V |
| 2715 | 482212151387 | 10nF | 20% 16V |
| 2716 | 482212612882 | 100nF | +80-20% 50V |
| 2719 | 482212613098 | 5,6nF | 20% 16V |
| 2721 | 482212612878 | 1,5nF | 10% 16V |
| 2722 | 482212151387 | 10nF | 20% 16V |
| 2723 | 482212612882 | 100nF | +80-20% 50V |
| 2726 | 482212613098 | 5,6nF | 20% 16V |
| 2727 | 482212612878 | 1,5nF | 10% 16V |
| 2728 | 482212611714 | 4,7nF | 20% |
| 2729 | 482212611714 | 4,7nF | 20% |
| 2730 | 202030090561 | 1,2nF | 10% |
| 2732 | 482212210577 | 3,3nF | 10% 16V |
| 2733 | 482212151387 | 10nF | 20% 16V |
| 2738 | 482212151387 | 10nF | 20% 16V |
| 2739 | 482212151387 | 10nF | 20% 16V |
| 2750 | 482212613098 | 5,6nF | 20% 16V |
| 2751 | 482212613098 | 5,6nF | 20% 16V |

- RESISTORS -

| | | | | |
|------|--------------|------|----|------|
| 3701 | 482211652175 | 100R | 5% | 0,5W |
| 3703 | 482211683868 | 150R | 5% | 0,5W |
| 3704 | 482211683872 | 220R | 5% | 0,5W |
| 3706 | 482211652272 | 330K | 5% | 0,5W |
| 3707 | 482211652285 | 470K | 5% | 0,5W |
| 3710 | 482211652264 | 27K | 5% | 0,5W |
| 3712 | 482211652238 | 12K | 5% | 0,5W |
| 3713 | 482211683868 | 150R | 5% | 0,5W |
| 3714 | 482211683872 | 220R | 5% | 0,5W |
| 3716 | 482211652272 | 330K | 5% | 0,5W |
| 3719 | 482211652264 | 27K | 5% | 0,5W |
| 3720 | 482211652238 | 12K | 5% | 0,5W |
| 3722 | 482211652257 | 22K | 5% | 0,5W |
| 3723 | 482211652257 | 22K | 5% | 0,5W |
| 3726 | 482211652256 | 2K2 | 5% | 0,5W |

- RESISTORS -

| | | | | |
|------|--------------|------|----|------|
| 3727 | 482211652256 | 2K2 | 5% | 0,5W |
| 3730 | 482211683868 | 150R | 5% | 0,5W |
| 3731 | 482211652291 | 56K | 5% | 0,5W |
| 3732 | 482211652176 | 10R | 5% | 0,5W |
| 3733 | 482211130893 | 4M7 | 5% | 0,2W |
| 3734 | 482205021003 | 10K | 1% | 0,6W |
| 3743 | 482211683883 | 470R | 5% | 0,5W |
| 3744 | 482211683883 | 470R | 5% | 0,5W |
| 3747 | 482211683868 | 150R | 5% | 0,5W |
| 3748 | 482211683883 | 470R | 5% | 0,5W |
| 3749 | 482211683883 | 470R | 5% | 0,5W |
| 3761 | 482211652289 | 5K6 | 5% | 0,5W |
| 3762 | 482211652289 | 5K6 | 5% | 0,5W |

- COIL -

| | | |
|------|--------------|-------------|
| 5701 | 482215710371 | Coil 100kHz |
|------|--------------|-------------|

- DIODE -

| | | |
|------|--------------|--------------|
| 6704 | 482213030621 | Diode 1N4148 |
|------|--------------|--------------|

- IC & TRANSISTORS -

| | | |
|------|--------------|----------------|
| 7702 | 482213040981 | Trans BC337-25 |
| 7705 | 482220917498 | IC AN7323 |

- MISCELLANEOUS -

| | | |
|------|--------------|--------------|
| 1707 | 482227711504 | Push Switch |
| 1725 | 482226511207 | Connector 6P |

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

ELECTRICAL PARTSLIST - POWER BOARD**- CAPACITORS -**

| | | | |
|------|----------------|---------------|-----|
| 2028 | 4822 126 12882 | 100nF +80-20% | 50V |
| 2029 | 4822 126 12882 | 100nF +80-20% | 50V |
| 2030 | 5322 121 42386 | 100nF 5% | 63V |
| 2031 | 4822 126 12882 | 100nF +80-20% | 50V |
| 2032 | 4822 126 12882 | 100nF +80-20% | 50V |

- DIODES -

| | | |
|------|----------------|---------------|
| 6004 | 4822 130 31878 | Diode 1N4003G |
| 6005 | 4822 130 31878 | Diode 1N4003G |
| 6006 | 4822 130 31878 | Diode 1N4003G |
| 6007 | 4822 130 31878 | Diode 1N4003G |

- MISCELLANEOUS -

| | | |
|------|----------------|--------------|
| 1012 | 4822 265 20287 | Socket Mains |
|------|----------------|--------------|

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

ELECTRICAL PARTSLIST - MISCELLANEOUS**- MISCELLANEOUS -**

| | | |
|------|------------------|---------------------------------|
| 1007 | 4822 240 10248 | Speaker 4 Ohm 6W |
| 1008 | 4822 240 10248 | Speaker 4 Ohm 6W |
| 1009 | 2422 264 00423 | Piezo Speaker |
| 1010 | 2422 264 00423 | Piezo Speaker |
| 1011 | △ 3140 113 22610 | Volt Selector (For -/01/11/16) |
| 5001 | △ 3140 118 32850 | Transformer (For -/00/05/10/14) |
| 5001 | △ 3140 118 33060 | Transformer (For -/01/11/16) |
| 5001 | △ 3140 118 32860 | Transformer (For -/17) |
| 8002 | 3140 110 21680 | FFC Foil 6P |
| 8003 | 3139 110 34590 | FFC Foil 6P |
| 8007 | 4822 320 12243 | Flex Cable 6P |
| 8015 | 3140 110 21690 | FFC Foil 9P |
| 8016 | 3139 110 34420 | FFC Foil 5P |
| 8018 | 3140 110 21720 | FFC Foil 8P |
| 8021 | 3140 110 21670 | FFC Foil 4P |
| 8800 | 4822 320 12178 | Flexible Foil 15P |
| | 4822 276 13963 | CD Door Switch |

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