

Service Service Service

Manual #1859
AZ12021701



Service Manual

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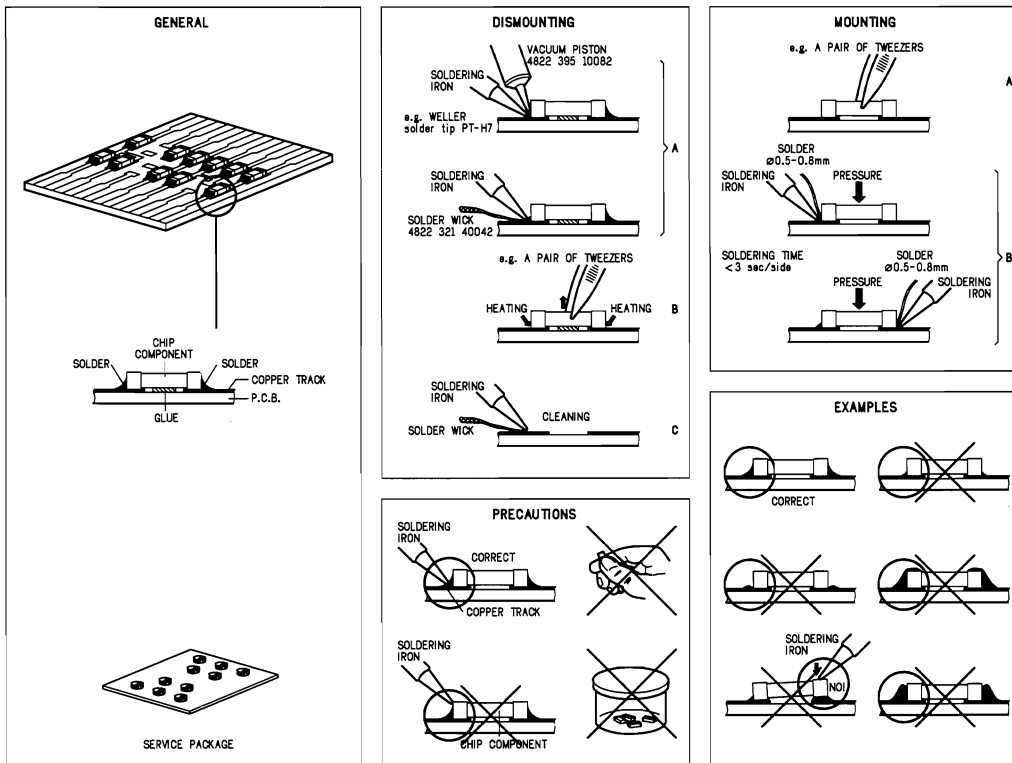
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COMPACT
disc
DIGITAL AUDIO



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 wrist wrap with resistance. Keep components and tools at this potential.

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD). Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.

Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfilez le braceleterti d'une résistance de sécurité.

Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

ESD



(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.

(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.

(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 cautela durante la loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.

Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

Anti-static table mat large 1200x650x1.25mm
small 600x650x1.25mm

Anti-static wrist band

Connection box (1MΩ)

Extendible cable (to connect wrist band to conn. box)

Connecting cable (to connect table mat to conn. box)

Earth cable (to connect any product to mat or box)

Complete kit ESD3 (combining all above products)

Wristband tester

4822 466 10953

4822 466 10958

4822 395 10223

4822 320 11307

4822 320 11305

4822 320 11306

4822 320 11308

4822 310 10671

4822 344 13999

(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 those symbol. ⚠

(S) Varning !

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

(DK) Advarsel !

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

(SF) Varoituis !

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

(GB) WARNING

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

(F) ATTENTION

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.

(D) WARNUNG

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Gerätes darf nicht verändert werden. Für Reparaturen sind Original-ersatzteile zu verwenden.

(NL) WAARSCHUWING

Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

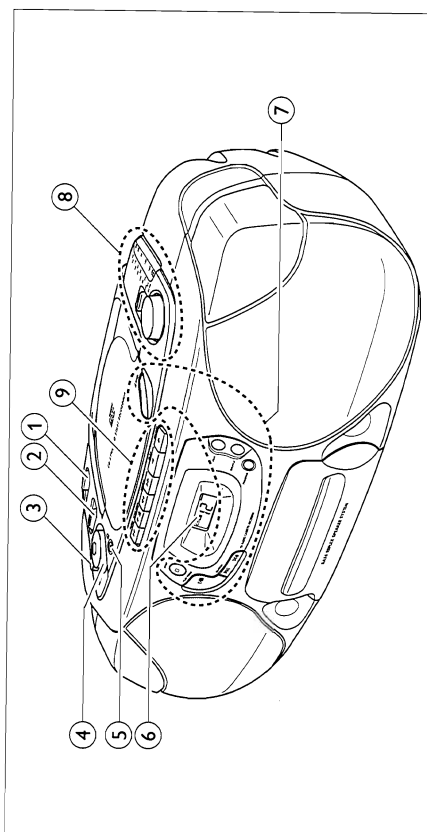
(I) AVVERTIMENTO

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.

(F)

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

CONNECTIONS AND CONTROLS



BASIC FUNCTIONS

- ① **POWER:**
CD, TUNER, TAPE...selects the sound source
- ② **INCREDIBLE**
SURROUNDcreates a phenomenal stereo effect
- ③ **DBB**.....enhances the bass
- ④ **VOLUME**.....adjusts the volume level
- ⑤ **3.5mm**.....3.5mm headphone socket
- Note: Connecting the headphones will switch off the speakers.*
- ⑥ **Display**
- PROGRAMprograms track numbers and reviews the program
- SHUFFLEplays CD tracks in random order
- REPEATrepeats a track, the entire CD, or the program
- ⑧ **RADIO**
- TUNINGtunes to radio stations
- BANDselects the wave band

⑨ CASSETTE RECORDER

- PAUSEinterrupts recording or playback
- STOP-OPENstops the tape and opens the cassette compartment
- SEARCHrewinds the tape
- SEARCHfast forwards the tape
- PLAYstarts playback
- RECORDstarts recording

⑦ CD PLAYER

- OPENopens the CD compartment
- STOPstops CD play and erases the program
- PLAY-PAUSEstarts and interrupts CD play
- SEARCHskips and searches forward and backward

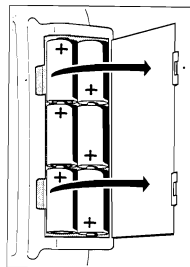
Batteries

For the set (optional)

Open the battery compartment of the set and insert 6 batteries, type **R20, UM-1** or **D-cells** (preferably alkaline).

Remove batteries if they are flat or the set is not going to be used for a longer period of time.

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

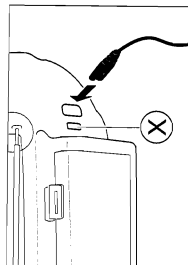


Mains

1 Check whether the mains voltage as shown on the type plate corresponds to your local mains voltage. If it does not, consult your dealer or service organisation. **The type plate is located on the bottom side of the set.**

2 If the set is equipped with a VOLTAGE selector , set this selector to the local mains voltage.

3 Connect the mains cable to the AC MAINS inlet and the wall socket. This switches on the mains supply. **The mains cable is inside the battery compartment.**



The battery supply will be switched off when the set is connected to the mains. To change over to battery supply, pull out the plug from the unit's AC MAINS socket.

To disconnect the set from the mains completely, remove the mains plug from the wall socket.

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

Environmental information

All redundant packing material has been omitted. We have done our utmost to make the packaging easily separable into three mono materials: cardboard (box), polystyrene foam (buffer) and polyethylene (bags, protective foam sheet).

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.

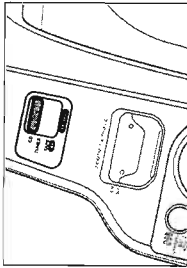
CONNECTIONS AND CONTROLS

Switching on and off

Set the POWER slider to the desired sound source: CD, TUNER, or TAPE.

The set is switched off when the POWER slider is in position OFF/TAPE and the keys of the tape deck are released.

Note: If you run the set on batteries, always be sure to switch the set off after use. This will avoid unnecessary power consumption.



Adjusting volume and sound

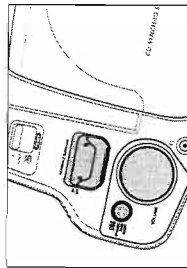
Adjust the volume using the VOLUME ∇ \triangle control.

Increase and decrease the bass level by pressing DBB.

Switch the surround sound effect on and off by pressing INCREDIBLE SURROUND.

The bass level can also be emphasised if you place the set against a wall or shelf. Do not cover any vents and leave sufficient room around the unit for ventilation.

Note: The effect of INCREDIBLE SURROUND may vary with different types of music.

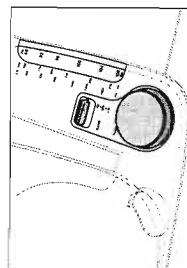


Radio – tuning to radio stations

1 Set the POWER slider to TUNER.

2 Select the wave band by using the BAND selector.

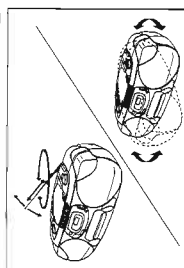
3 Tune to the desired radio station by using the TUNING knob.



Improving RADIO reception

For **FM** stations, pull out the telescopic antenna. To improve the signal, incline and turn the antenna. Reduce its length if the signal is too strong (very close to a transmitter).

For **MW** and **LW** stations, direct the built-in antenna by turning the whole set. The telescopic antenna is not needed.



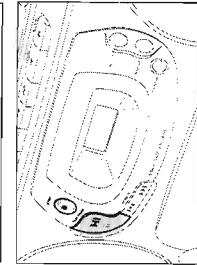
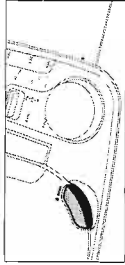
Playing a CD

1 Set the POWER slider to CD.

2 Press \triangle OPEN to open the CD compartment.

3 Insert an audio CD (printed side up) and close the CD compartment.

→ The CD player starts and scans the contents list of the CD. Then, the CD player stops. Display indication: the total number of tracks.



4 Press the PLAY/PAUSE \triangleright button to start CD play.
→ Display indication: the current track number.

5 Press the STOP \square button to stop CD play.
→ Display indication: the total number of tracks.

You can interrupt CD play by pressing PLAY/PAUSE \triangleright . Continue CD play by pressing the button again.

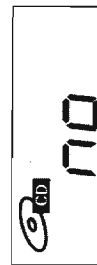
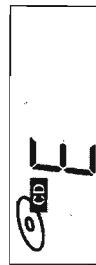
→ Display indication: the current track number flashes.



Note: CD play will also stop if:

- you open the CD compartment,
- the end of the CD is reached, or
- you move the POWER slider to TUNER or TAPE.

If you make a mistake when operating the CD player, or the CD player cannot read the CD, the display shows E or no . (See chapter "TROUBLESHOOTING".)



If you press PLAY/PAUSE \triangleright and there is no CD inserted the display shows no .

CONNECTIONS AND CONTROLS

Different playing modes: SHUFFLE / REPEAT

SHUFFLE – Playing in random order

- 1 Press SHUFFLE before or during CD play.
→ All the tracks of the CD (or program if available) will now be played in random order.

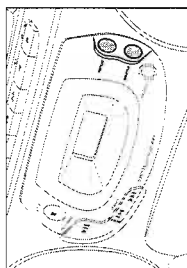
- 2 Press SHUFFLE again to return to normal CD play.

REPEAT – Repeating the entire CD or one track of the CD

- 1 Before or during CD play, press REPEAT repeatedly to cause the display to show the different repeating modes.
→ **REPEAT**: the current track is played repeatedly.
→ **REPEAT ALL**: the entire CD or program is played repeatedly.

- 2 Press REPEAT until the display indication disappears to return to normal CD play.

Note: You can activate the different playing modes at the same time, e.g. you can repeatedly play the entire CD or program in random order (SHUFFLE REPEAT ALL).



Search backward < and forward >

Selecting another track

Briefly press the SEARCH < or > button once/several times to skip to the beginning of the current/previous or subsequent track(s).

During play:

CD play continues automatically with the selected track.

When CD playback is stopped:

Press PLAY/PAUSE > to start CD play.

- Display indication: the selected track number.

Searching for a passage during CD play

- 1 Hold down the SEARCH < or > button to find a particular passage in a forward or backward direction.
→ CD play continues at a low volume.

- 2 Release the button when you have reached the desired passage.

Note: In the SHUFFLE and REPEAT modes or when playing a program, searching is only possible within the particular track.

Programming track numbers

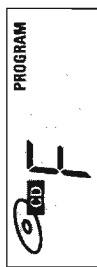
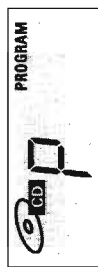
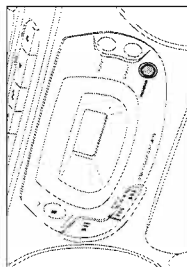
You can select a number of tracks and store these in the memory in the desired sequence. You can store any track more than once. A maximum of 20 tracks can be stored in the memory.

- 1 Select the desired track with SEARCH < or >.
- 2 As soon as the number of the desired track is displayed, press the PROGRAM button to store the track in the memory.
→ **PROGRAM** appears in the display and P lights up briefly. Then, the number of the stored track is shown.
- 3 Select and store all desired tracks in this way.

You can review your settings by pressing the PROGRAM button for more than 2 seconds.

- The display shows all stored track numbers in sequence.

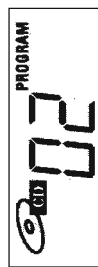
If you try to store more than 20 tracks the display shows F.



Playing the program

If you have selected the tracks in the stop position, press PLAY/PAUSE >.

If you have selected the tracks during CD play, first press STOP □, then press PLAY/PAUSE >.



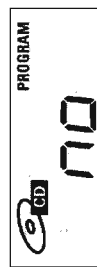
Erasing the program when CD playback is stopped

From the stop position, press STOP □.

- P lights up briefly, **PROGRAM** disappears and your program is erased.

Note: The program will also be erased if you

- interrupt the power supply,
- open the CD compartment, or
- move the POWER slider to TUNER or TAPE.



CONNECTIONS AND CONTROLS

Playing a cassette

- 1 Set the POWER slider to TAPE.
- 2 Press STOP-OPEN $\square \triangle$ to open the cassette compartment.
- 3 Insert a recorded cassette with the open side upwards and close the cassette compartment.
- 4 Press PLAY \blacktriangleleft to start playback.
- 5 Press \gg or \ll to rewind or fast forward the tape.
- 6 To stop the tape press STOP-OPEN $\square \triangle$.

Note: The keys are released at the end of the tape.

General information on recording

Recording is permissible insofar as copyright or other rights of third parties are not infringed upon.

For recording on this set you should use a cassette of the type NORMAL (IEC type I). This deck is not suitable for recording on cassettes of the type CHROME (IEC type II) or METAL (IEC type IV).

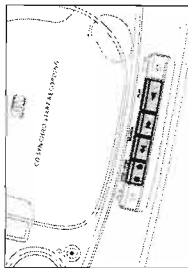
The recording level is set automatically. The controls VOLUME, INCREDIBLE SURROUND and DBB do not affect the recording.

At the very beginning and end of the tape, no recording will take place in the 7 seconds during which the leader tape passes the recorder heads.

Protecting tapes from accidental erasure

Keep the cassette side to be protected in front of you and snap off the left tab. Now, recording on this side is no longer possible.

To record again on this side of the cassette, cover the aperture with a piece of adhesive tape.

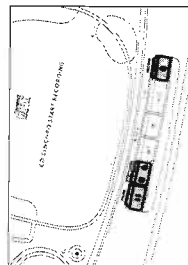


Recording from the CD player – CD synchro start

- 1 Set the POWER slider to CD.
- 2 Insert a CD and, if desired, program track numbers.
- 3 Press STOP-OPEN $\square \triangle$ to open the cassette compartment.
- 4 Insert a blank, unprotected cassette and close the cassette compartment.
- 5 Press RECORD \bigcirc to start recording.
→ Playing of the CD or program starts automatically. It is not necessary to start the CD player separately.
- 6 For brief interruptions press PAUSE $\square \square$. Press the PAUSE $\square \square$ key again to resume recording.
- 7 To stop recording, press STOP-OPEN $\square \triangle$.

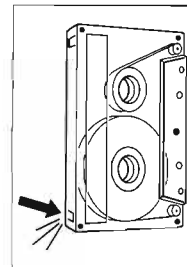
Note: the recording can be started from different positions:

- if the CD player is in pause mode, recording will start from this very position (use SEARCH \ll or \gg);
- if the CD player is in stop mode, recording will start from the beginning of the CD or program.



Recording from the radio

- 1 Set the POWER slider to TUNER.
- 2 Tune to the desired radio station (see chapter "RADIO").
- 3 Press STOP-OPEN $\square \triangle$ to open the cassette compartment.
- 4 Insert a blank, unprotected cassette and close the cassette compartment.
- 5 Press RECORD \bigcirc to start recording.
- 6 For brief interruptions press PAUSE $\square \square$. To resume recording press the PAUSE $\square \square$ key again.
- 7 To stop recording, press STOP-OPEN $\square \triangle$.



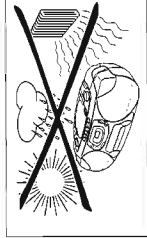
CONNECTIONS AND CONTROLS

General maintenance

Do not expose the set, batteries, CDs or tapes to humidity, rain, sand or excessive heat (caused by heating equipment or direct sunlight).

The mechanical parts of the set contain self-lubricating bearings and must not be oiled or lubricated!

You can clean the set with a soft, slightly dampened lint-free cloth. Do not use any cleaning agents as they may have a corrosive effect.



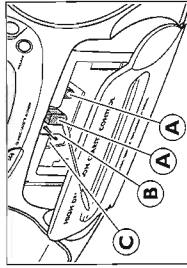
Tape deck maintenance

To ensure proper recording and playback quality, clean the parts (A), (B) and (C) after approx. 50 hours of operation. Use a cotton swab slightly moistened with alcohol or head-cleaner fluid.

Press PLAY <1 and clean the rubber pressure rollers (C).

Press PAUSE III and clean the capstans (B) and the heads (A).

Note: Cleaning of the heads (A) can also be done by playing a cleaning tape once.



CD player and CD handling

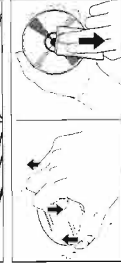
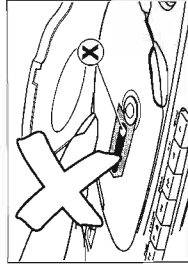
The lens (X) of the CD player should never be touched. Always keep the CD compartment closed to avoid dust on the lens.

The lens may cloud over when the set is suddenly moved from cold to warm surroundings. Playing a CD is not possible then. Leave the CD player in a warm environment until the moisture evaporates.

To take the CD out of its box easily, press the centre spindle while lifting the CD. Always pick up the CD by the edge and put it back in its box after use.

To clean the CD, wipe it in a straight line from the center toward the edge using a soft, lint-free cloth. A cleaning agent may damage the disc!

Never write on a CD or attach a sticker to it.



This set complies with the radio interference requirements of the European Community

WARNING

If a fault occurs, first check the points listed below before taking the set for repair.

Under no circumstance should you try to repair the set yourself as this will invalidate the guarantee.

| Problem | Possible cause | Solution |
|--------------------------------------|--|--|
| No sound, no power | VOLUME is not adjusted. | Adjust volume. |
| | Headphone is connected. | Disconnect headphone. |
| | Mains cable is not securely connected. | Connect mains cable properly. |
| | Batteries are flat. | Insert fresh batteries. |
| No reaction to operation of any keys | Batteries are inserted incorrectly. | Insert batteries correctly. |
| | Trying to change over from mains to battery supply without removing the plug. | Remove the mains plug from the unit's AC MAINS inlet. |
| | Electrostatic discharge. | Disconnect the set from power supply, reconnect after a few seconds. |
| Poor radio reception | Weak radio signal. | Direct the antenna for optimum reception. |
| no or E indication | Interference caused by vicinity of electrical equipment like TVs, computers, engines, etc... | Keep the radio away from electrical equipment. |
| | The CD is badly scratched or dirty. | Replace or clean the CD. |
| | No CD is inserted. | Insert a CD. |
| | The CD is inserted upside down. | Insert CD with label upwards. |
| The CD skips tracks | The laser lens is steamed up. | Wait until the lens has cleared. |
| | The CD is damaged or dirty. | Replace or clean the CD. |
| | SHUFFLE or PROGRAM is active. | Switch off SHUFFLE or PROGRAM play. |
| Poor cassette sound quality | Dust and dirt on the heads, capstans or pressure rollers. | Clean heads, capstans, and pressure rollers. |
| Recording does not work | Use of unsuitable cassette types (METAL or CHROME) for recording. | Only use NORMAL type cassettes for recording. |
| | Cassette tabs(s) may be snapped off. | Apply a piece of adhesive tape over the aperture. |

SPECIFICATIONS

GENERAL

| | |
|-----------------------|-------------------------|
| Mains voltage | -/00 : 230 V |
| | -/01/11/11H : 120/230 V |
| | -/05/10 : 240 V |
| | -/17 : 120 V |
| Mains frequency | -/00/05/10 : 50 Hz |
| | -/01/11/11H : 50/60 Hz |
| | -/17 : 60 Hz |
| Battery | : R20 x 6 (9 V) |
| Power consumption | : 16 W |
| Dimension (W x H x D) | : 470 x 175 x 250 mm |
| Weight | : 4.5 Kg |

AMPLIFIER

| | |
|--------------------|---------------------|
| Output power | mains : 2 x 1.6 W |
| | battery : 2 x 1.6 W |
| Speaker impedance | : 2 x 4 Ω |
| Frequency response | : 100 Hz - 100 kHz |

TUNER - FM SECTION

| | |
|-----------------|---------------------------------|
| Tuning range | : 87.5 - 108 MHz |
| IF frequency | : 10.7 MHz \pm 0.2 MHz |
| Sensitivity | : < 22 dBf at 26 dB S/N |
| Selectivity | : < 20 dB at 1kHz \pm 300 kHz |
| IF rejection | : < 50 dB |
| Image rejection | : < 20 dB |

TUNER - AM SECTION

| | |
|-----------------------|-----------------------------------|
| Tuning range | MW : 522 - 1611 kHz |
| Tuning range | LW : 153 - 279 kHz |
| IF frequency | : 468 kHz \pm 3 kHz |
| Sensitivity | MW : < 4000 μ V/m at 26dB S/N |
| | LW : < 6000 μ V/m at 26dB S/N |
| Selectivity | MW : < 16 dB |
| | LW : < 20 dB |
| IF rejection ratio | MW : < 24 dB |
| | LW : < 26 dB |
| Image rejection ratio | MW : < 28 dB |
| | LW : < 30 dB |

AUDIO CASSETTE RECORDER

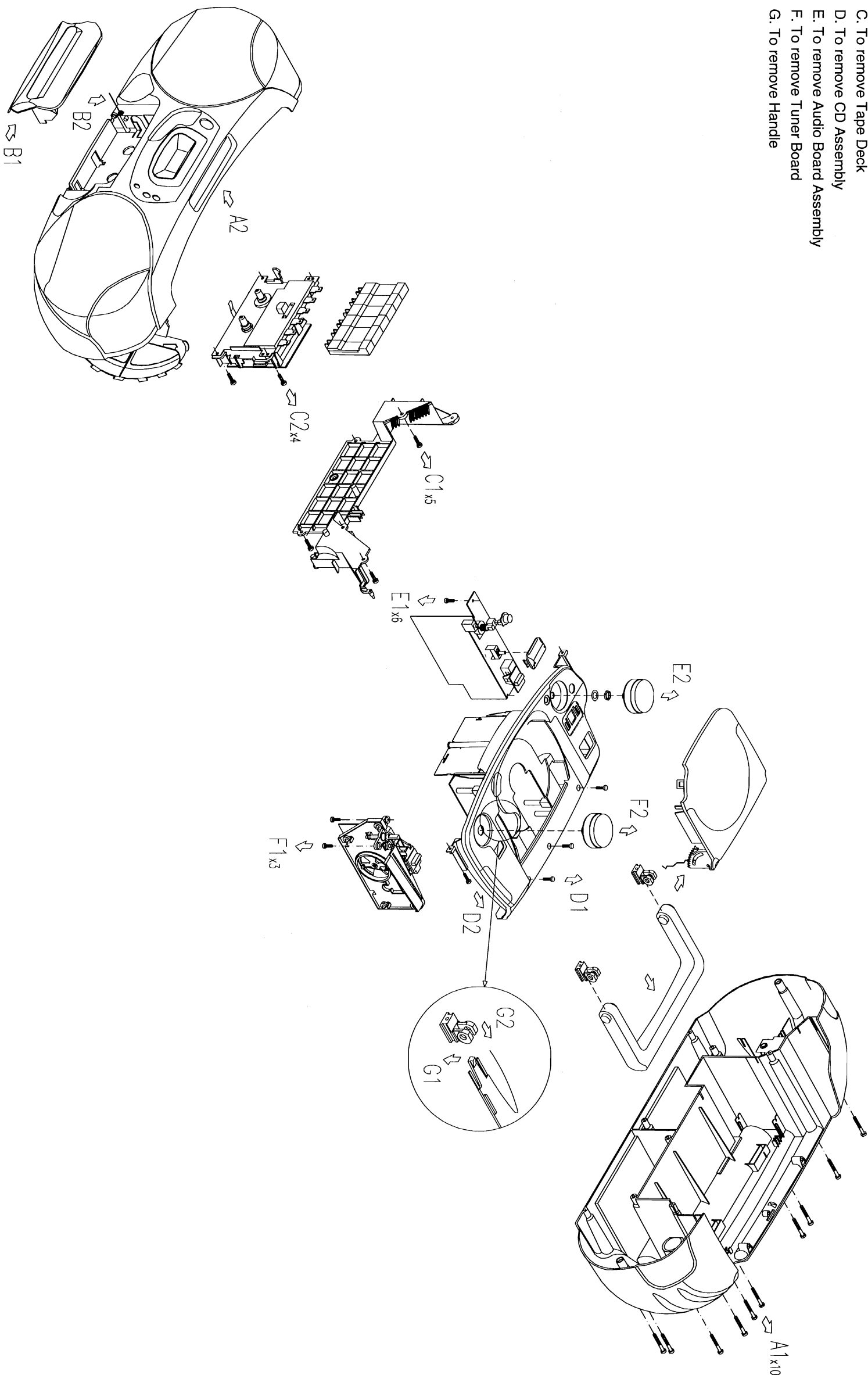
| | |
|----------------------|-------------------------|
| Number of tracks | : 1 stereo |
| Tape speed | : 4.76 cm/sec \pm 3 % |
| Wow & flutter | : < 0.48 % JIS UWTD |
| Fast wind/rewind C60 | : < 110 sec |
| Frequency response | P/B : 125 - 6300 Hz |
| S/N ratio | : \geq 38 dB |

COMPACT DISC

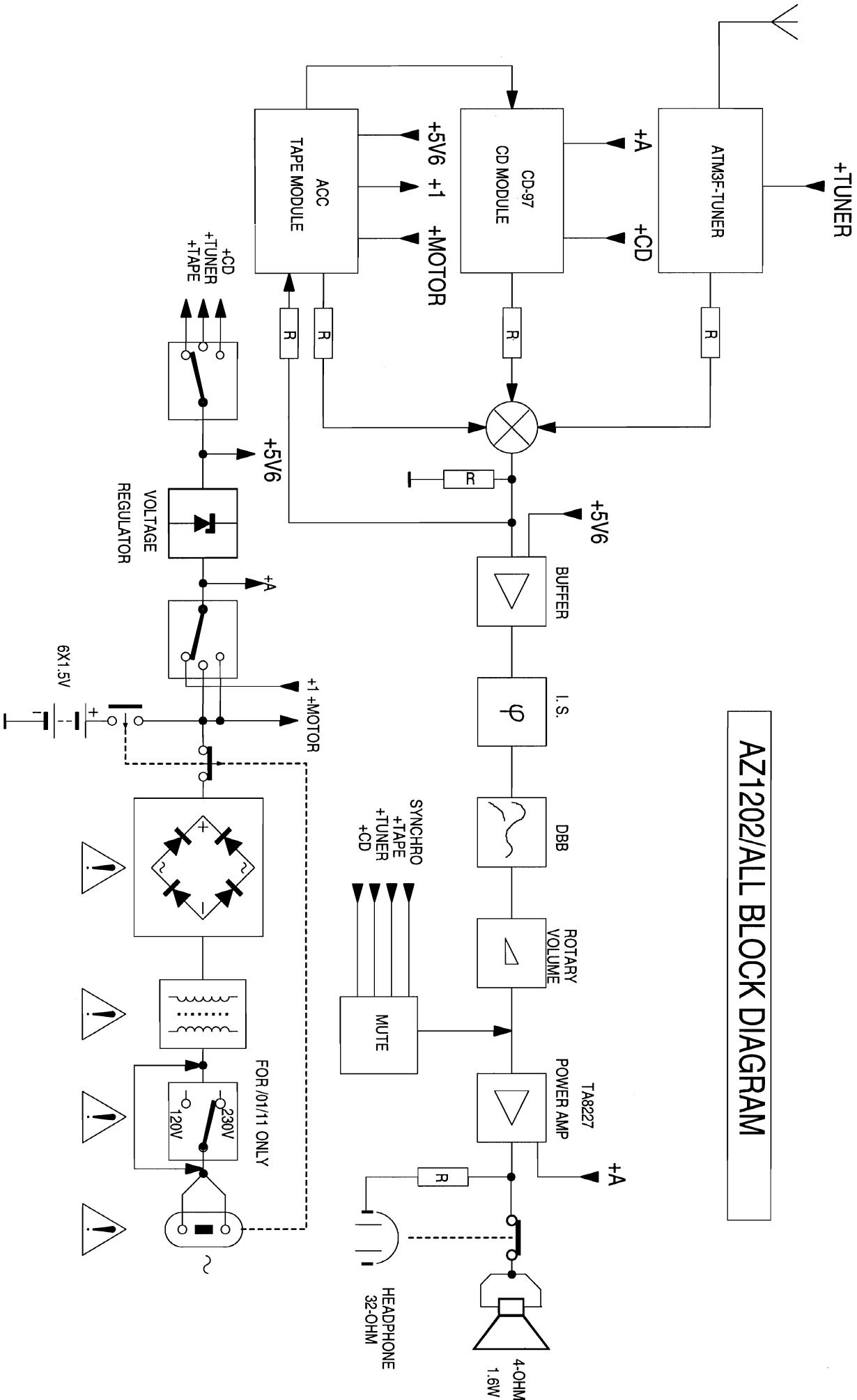
| | |
|--------------------|-------------------|
| Frequency response | : 100 Hz - 10 kHz |
| S/N ratio | : < 60 dB |
| Channel difference | 1 kHz : < 3 dB |
| Channel crosstalk | 1 kHz : > 15dB |
| Laser wavelength | : 780 \pm 20 nm |
| Laser light power | : < 0.3 mW |

DISASSEMBLY DIAGRAM

- A. To remove Front Cabinet Assembly
- B. To remove Cassette Door
- C. To remove Tape Deck
- D. To remove CD Assembly
- E. To remove Audio Board Assembly
- F. To remove Tuner Board
- G. To remove Handle

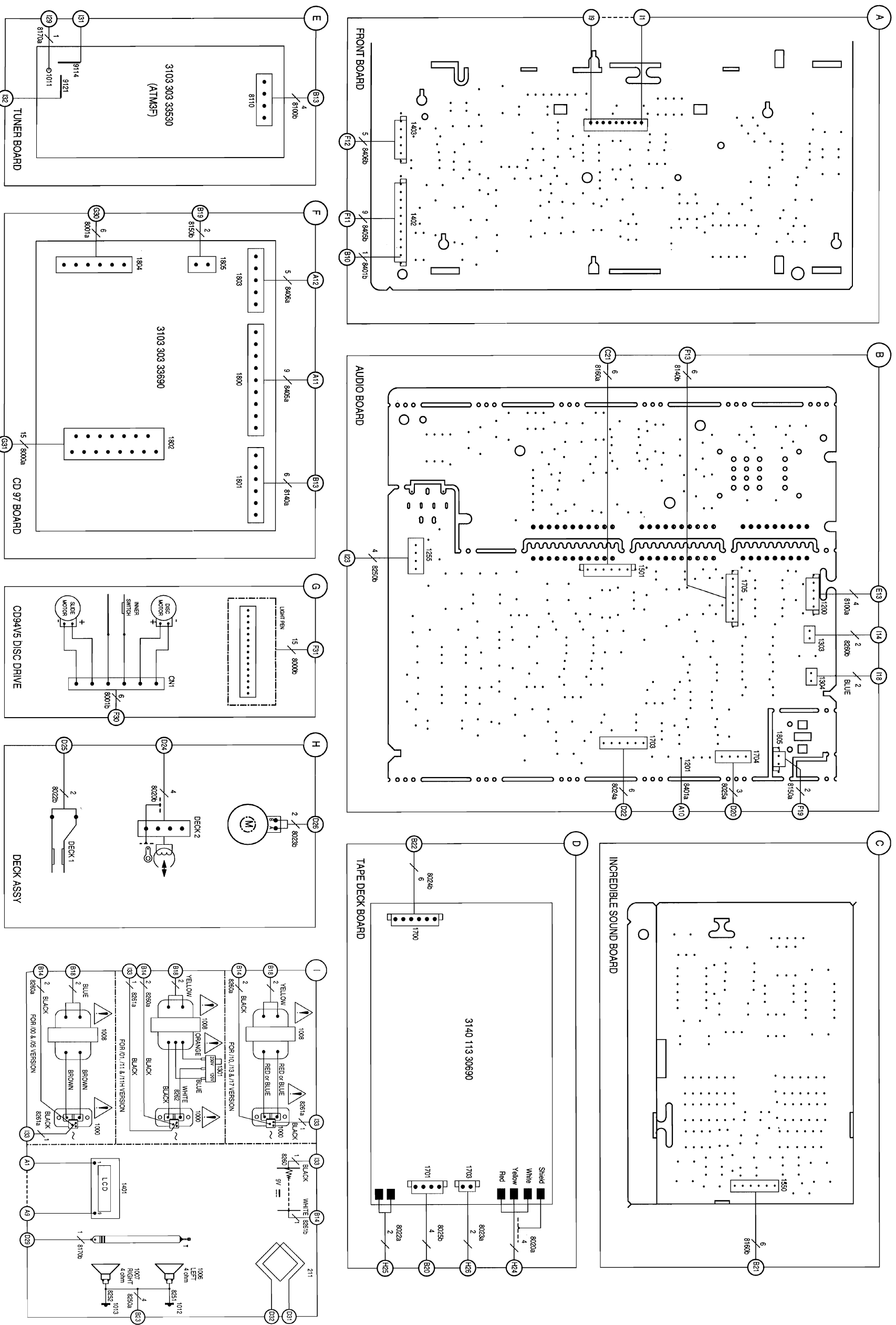


BLOCK DIAGRAM



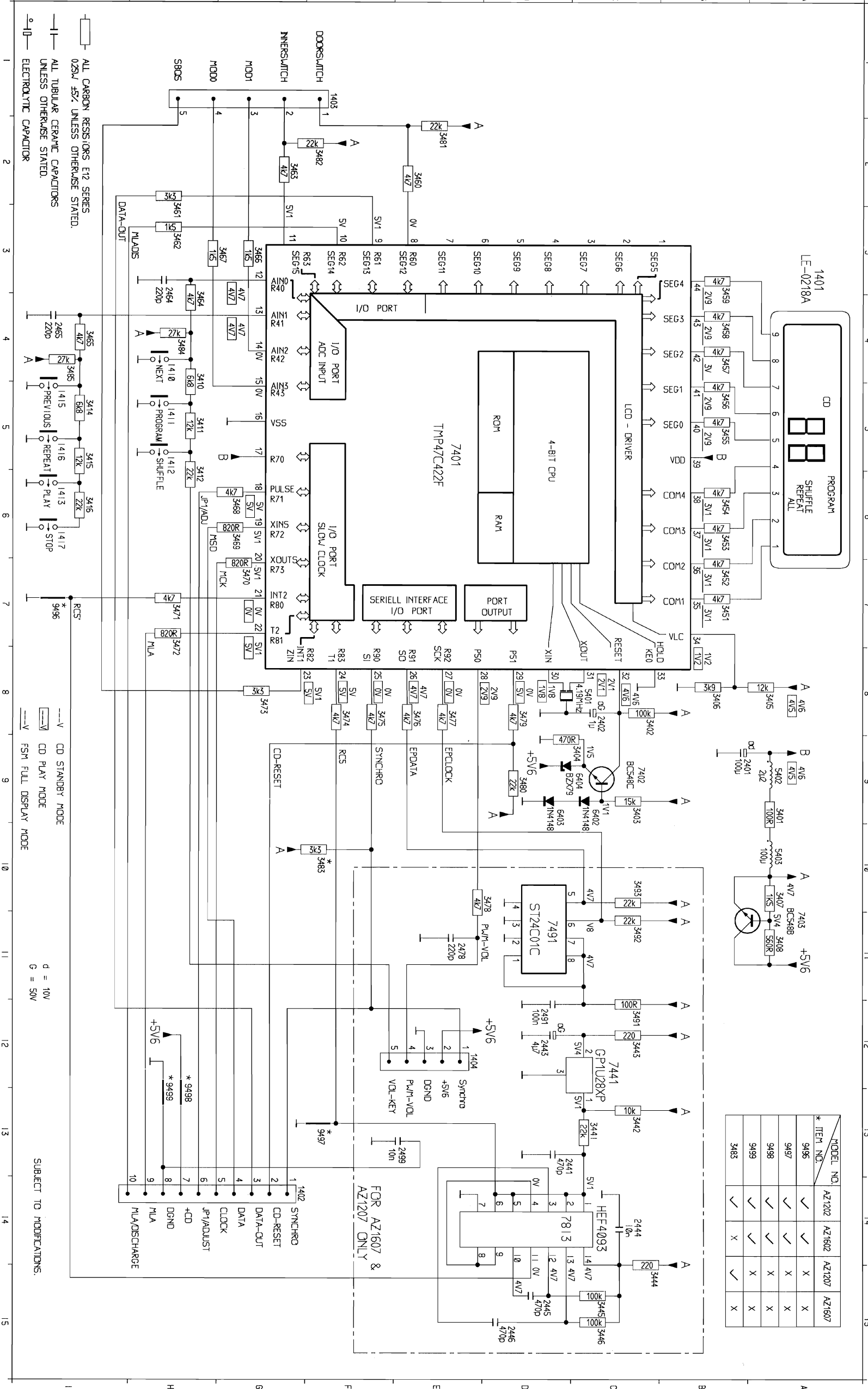
AZ1202/ALL BLOCK DIAGRAM

WIRING DIAGRAM



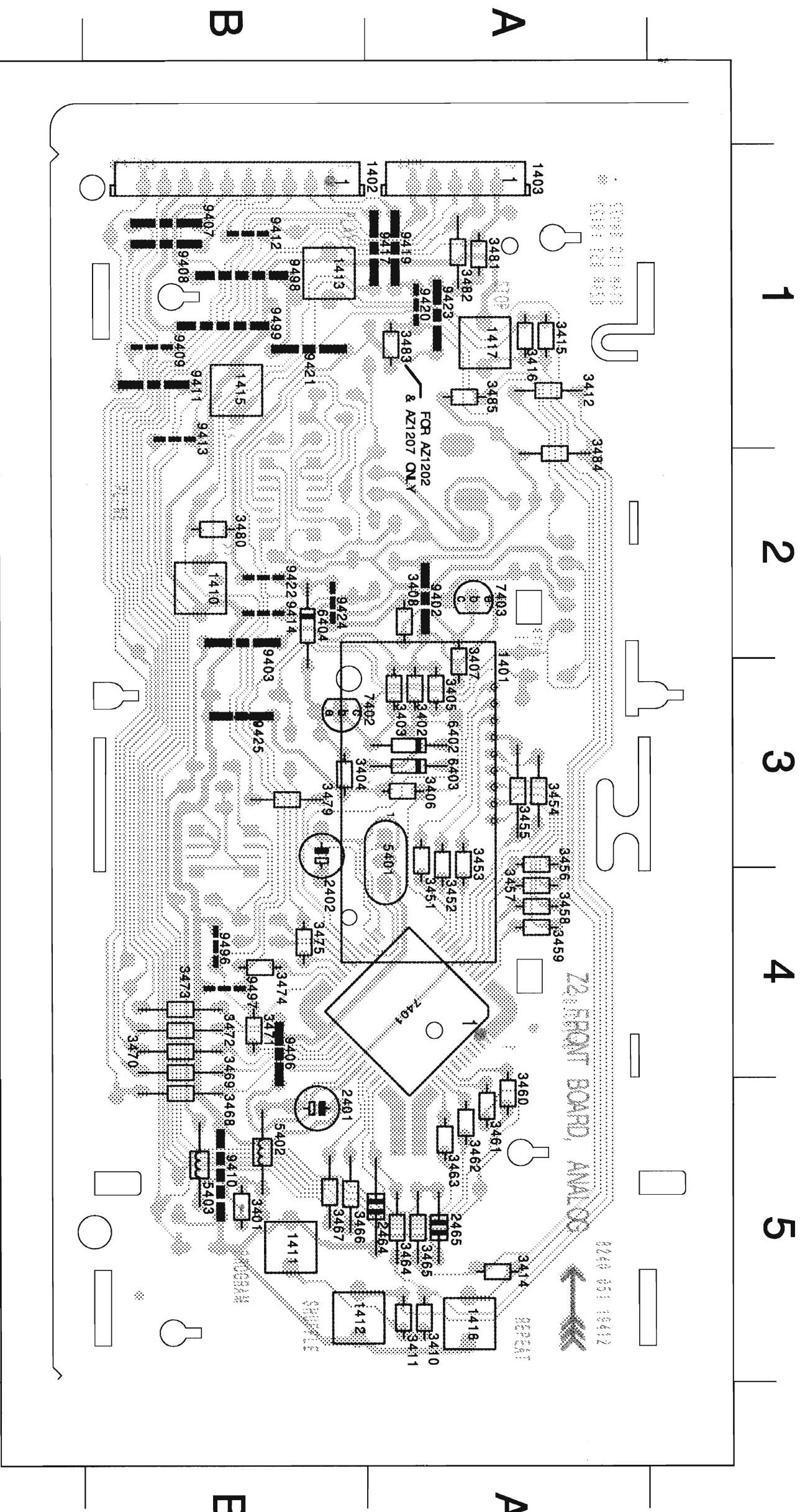
FRONT BOARD - CIRCUIT DIAGRAM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|------|------|-----|------|------|------|-----|------|------|------|-----|------|-----|------|------|------|------|------|-----|------|-----|------|-----|------|-----|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1401 | A 3 | 1411 | H 5 | 1417 | I 6 | 2444 | D 5 | 2491 | E 1 | 3403 | C 9 | 3408 | A 1 | 3415 | I 5 | 3444 | C 5 | 3453 | B 6 | 3458 | B 4 | 3463 | G 2 | 3468 | G 6 | 3473 | G 8 | 3478 | D 10 | 3483 | F 10 | 3493 | C 10 | 5403 | D 9 | 5404 | C 9 | 5406 | C 9 | 7401 | D 14 | 7403 | F 13 | 7441 | C 12 | 9498 | H 13 |
| 1402 | G 14 | 1412 | H 5 | 2401 | B 9 | 2445 | D 5 | 2491 | D 12 | 3404 | C 9 | 3410 | H 4 | 3416 | I 6 | 3445 | C 15 | 3454 | B 5 | 3459 | E 2 | 3464 | H 4 | 3469 | G 7 | 3474 | F 8 | 3479 | D 9 | 3484 | H 4 | 3485 | I 4 | 3491 | A 9 | 5402 | A 9 | 5403 | A 10 | 7402 | C 9 | 7403 | F 13 | 7491 | D 11 | 9499 | H 13 |
| 1403 | F 11 | 1413 | I 5 | 2402 | C 8 | 2446 | D 5 | 2491 | D 12 | 3405 | B 8 | 3411 | H 5 | 3417 | H 5 | 3446 | C 15 | 3455 | B 5 | 3460 | E 2 | 3465 | G 3 | 3470 | G 7 | 3475 | E 8 | 3480 | D 9 | 3485 | I 4 | 3491 | A 9 | 5402 | A 9 | 5403 | A 10 | 7402 | C 9 | 7403 | F 13 | 7491 | D 11 | 9499 | H 13 | | |
| 1404 | E 12 | 1415 | I 5 | 2403 | C 8 | 2447 | D 5 | 2492 | D 12 | 3406 | B 8 | 3412 | H 4 | 3418 | I 6 | 3447 | C 15 | 3456 | B 5 | 3461 | E 2 | 3466 | G 3 | 3471 | G 7 | 3476 | E 8 | 3481 | D 9 | 3486 | I 4 | 3492 | A 9 | 5403 | A 10 | 7402 | C 9 | 7403 | F 13 | 7404 | C 9 | 7405 | F 13 | 7492 | D 11 | 9499 | H 13 |
| 1410 | H 4 | 1416 | I 5 | 2404 | D 12 | 2448 | H 4 | 2493 | A 9 | 3407 | B 8 | 3414 | H 4 | 3420 | C 12 | 3448 | C 12 | 3457 | B 4 | 3462 | H 3 | 3467 | G 3 | 3472 | H 8 | 3477 | E 8 | 3482 | F 2 | 3492 | C 11 | 5403 | C 9 | 5404 | C 9 | 7403 | F 13 | 7404 | C 9 | 7405 | F 13 | 7492 | D 11 | 9499 | H 13 | | |

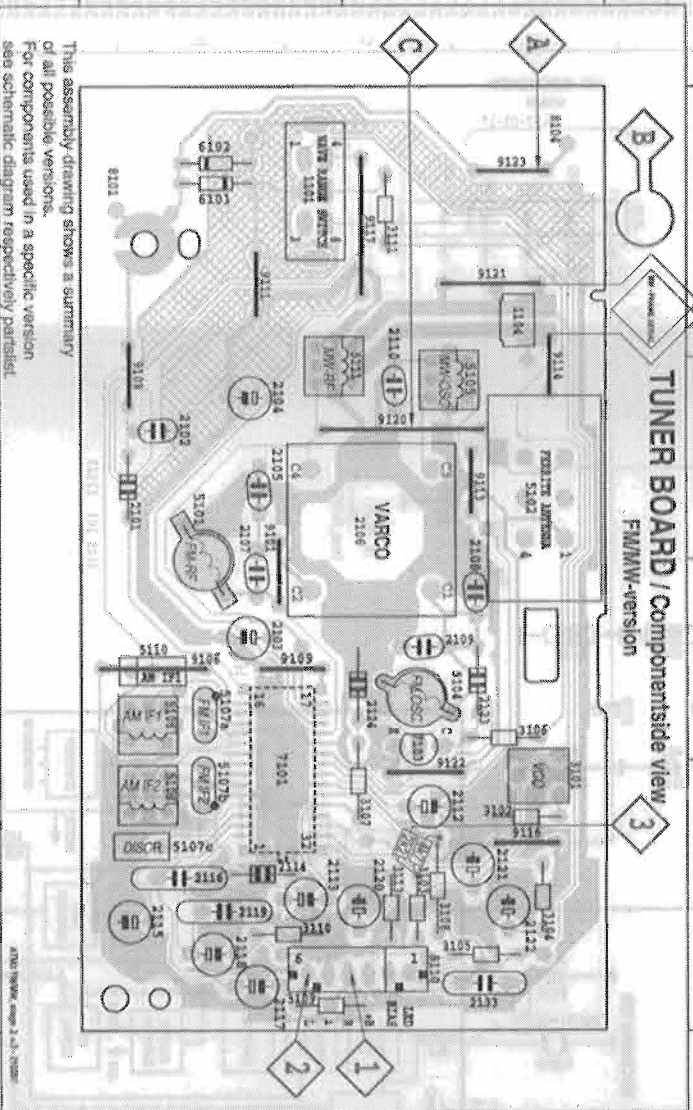


FRONT BOARD - LAYOUT DIAGRAM

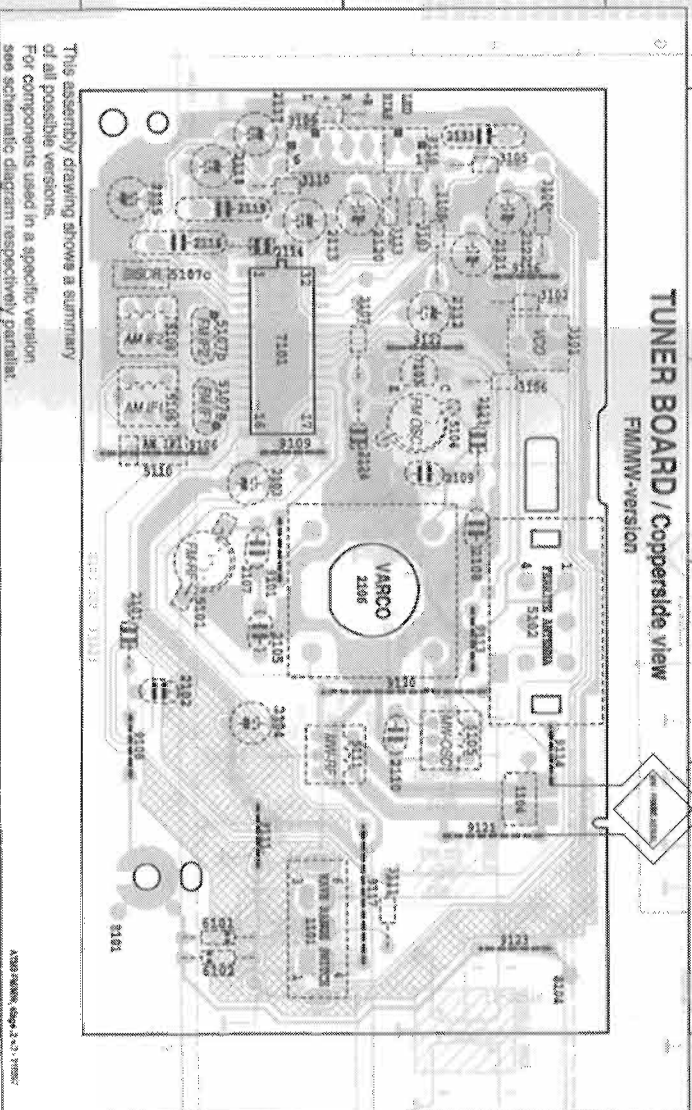
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|---|---|------|---|---|------|---|---|------|---|---|------|---|---|------|---|---|------|---|---|------|---|---|------|---|---|------|---|---|------|---|---|------|---|---|------|---|---|------|---|---|
| 1401 | A | 3 | 1415 | B | 1 | 3401 | B | 5 | 3408 | A | 2 | 3451 | A | 3 | 3458 | A | 4 | 3465 | A | 5 | 3472 | B | 4 | 3482 | A | 1 | 6402 | A | 3 | 9403 | B | 2 | 9412 | B | 1 | 9422 | B | 2 | 9499 | B | 1 |
| 1402 | B | 1 | 1416 | A | 5 | 3402 | A | 3 | 3410 | A | 5 | 3452 | A | 3 | 3459 | A | 4 | 3466 | B | 5 | 3473 | B | 4 | 3483 | A | 1 | 6403 | A | 3 | 9406 | B | 4 | 9413 | B | 1 | 9423 | A | 1 | | | |
| 1403 | A | 1 | 1417 | A | 1 | 3403 | A | 3 | 3411 | A | 5 | 3453 | A | 3 | 3460 | A | 5 | 3467 | B | 5 | 3474 | B | 4 | 3484 | A | 2 | 6404 | B | 2 | 9407 | B | 1 | 9414 | B | 2 | 9424 | B | 2 | | | |
| 1410 | B | 2 | 2401 | B | 5 | 3404 | B | 3 | 3412 | A | 1 | 3454 | A | 3 | 3461 | A | 5 | 3468 | B | 5 | 3475 | B | 4 | 3485 | A | 1 | 7401 | A | 4 | 9408 | B | 1 | 9417 | A | 1 | 9425 | B | 3 | | | |
| 1411 | B | 5 | 2402 | B | 3 | 3405 | A | 3 | 3414 | A | 5 | 3455 | A | 3 | 3462 | A | 5 | 3469 | B | 4 | 3479 | B | 3 | 5401 | A | 3 | 7402 | B | 3 | 9409 | B | 1 | 9419 | A | 1 | 9496 | B | 4 | | | |
| 1412 | B | 5 | 2464 | A | 5 | 3406 | A | 3 | 3415 | A | 1 | 3456 | A | 3 | 3463 | A | 5 | 3470 | B | 4 | 3480 | B | 2 | 5402 | B | 5 | 7403 | A | 2 | 9410 | B | 5 | 9420 | A | 1 | 9497 | B | 4 | | | |
| 1413 | B | 1 | 2465 | A | 5 | 3407 | A | 3 | 3416 | A | 1 | 3457 | A | 4 | 3464 | A | 5 | 3471 | B | 4 | 3481 | A | 1 | 5403 | B | 5 | 9402 | A | 2 | 9411 | B | 1 | 9421 | B | 1 | 9498 | B | 1 | | | |



| | | | | | | | | | |
|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|
| 2101 B 1 | 2106 A 2 | 2114 B 4 | 2121 A 4 | 3103 A 4 | 3110 B 4 | 5106 B 3 | 6101 B 1 | 9101 B 3 | 9116 A 4 |
| 2104 A 1 | 2107 B 3 | 2115 B 4 | 2122 A 4 | 3104 A 4 | 3113 A 1 | 5107A B 3 | 6102 B 1 | 9106 B 2 | 9117 A 1 |
| 2101 B 2 | 2108 A 3 | 2116 B 4 | 2123 A 4 | 3107 A 4 | 3116 B 4 | 5107B B 4 | 7101 A 3 | 9108 B 2 | 9120 A 2 |
| 2102 B 2 | 2109 A 3 | 2117 B 4 | 2124 A 3 | 3106 A 3 | 3101 B 3 | 5107C B 4 | 7101 B 3 | 9109 B 3 | 9121 A 1 |
| 2103 B 3 | 2110 A 2 | 2118 B 4 | 2125 A 4 | 3107 A 3 | 3107 B 4 | 5107D B 4 | 8101 B 1 | 9111 B 1 | 9122 A 4 |
| 2104 B 2 | 2112 A 4 | 2119 B 4 | 2126 A 4 | 3108 A 4 | 3104 A 3 | 5108 B 4 | 8104 A 1 | 9113 A 2 | 9123 A 1 |
| 2105 B 2 | 2113 B 4 | 2120 A 4 | 2127 A 4 | 3109 B 4 | 3105 A 2 | 5111 B 2 | 8110 A 4 | 9114 A 2 | |



| | | | | | | | | | |
|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|
| 2101 B 1 | 2106 A 2 | 2114 B 4 | 2121 A 4 | 3103 A 4 | 3110 B 4 | 5106 B 3 | 6101 B 1 | 9101 B 3 | 9116 A 4 |
| 2104 A 1 | 2107 B 3 | 2115 B 4 | 2122 A 4 | 3104 A 4 | 3113 A 1 | 5107A B 3 | 6102 B 1 | 9106 B 2 | 9117 A 1 |
| 2101 B 2 | 2108 A 3 | 2116 B 4 | 2123 A 4 | 3107 A 4 | 3116 B 4 | 5107B B 4 | 7101 A 3 | 9108 B 2 | 9120 A 2 |
| 2102 B 2 | 2109 A 3 | 2117 B 4 | 2124 A 3 | 3106 A 3 | 3101 B 3 | 5107C B 4 | 7101 B 3 | 9109 B 3 | 9121 A 1 |
| 2103 B 3 | 2110 A 2 | 2118 B 4 | 2125 A 4 | 3107 A 3 | 3107 B 4 | 5107D B 4 | 8101 B 1 | 9111 B 1 | 9122 A 4 |
| 2104 B 2 | 2112 A 4 | 2119 B 4 | 2126 A 4 | 3108 A 4 | 3104 A 3 | 5108 B 4 | 8104 A 1 | 9113 A 2 | 9123 A 1 |
| 2105 B 2 | 2113 B 4 | 2120 A 4 | 2127 A 4 | 3109 B 4 | 3105 A 2 | 5111 B 2 | 8110 A 4 | 9114 A 2 | |



TUNER ADJUSTMENT TABLE (ATM3 FM/AM - versions with AM-frame aerial)

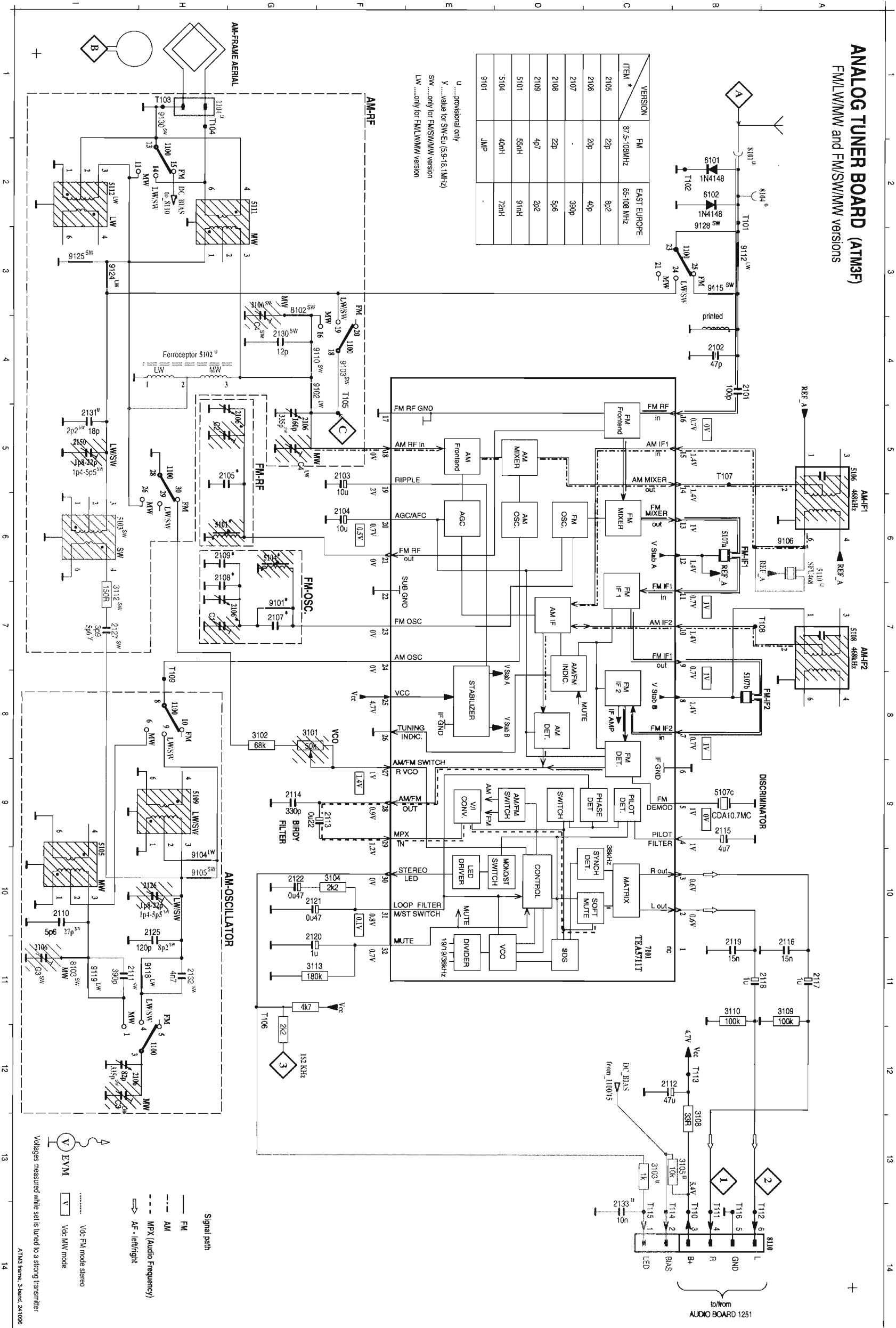
| Waverange | Input Frequency | Input | Set tuned to | Adjust | Measure on | Scope / Counter |
|---|------------------------|-------|--|---------|------------|-----------------|
| OSCILLATOR | | | | | | |
| FM 87,5 - 108 MHz | 87,35 MHz | A | lower band end | 5104 | 1 or 2 | |
| | | | | | | |
| MW 525 - 1607 kHz (530 - 1710 kHz) 1) | 108,05 MHz | A | upper band end | 2106 C1 | 1 or 2 | |
| | | | | | | |
| FM - RF 87,5 - 108 MHz | 512 kHz (520 kHz) | C | lower band end | 5105 | 1 or 2 | |
| | | | | | | |
| FM 87,5 - 108 MHz | 1635 kHz (1730 kHz) | C | upper band end | 2106 C3 | 1 or 2 | |
| | | | | | | |
| FM 87,5 - 108 MHz | 87,5 MHz | A | 87,5 MHz | 5101 | 1 or 2 | |
| | | | | | | |
| VCO | 108 MHz | A | 108 MHz | 2106 C2 | 1 or 2 | |
| | | | | | | |
| FM 87,5 - 108 MHz | 98 MHz | A | 98 MHz | 3101 | 3 | |
| | | | | | | |
| AM - IF | 468 kHz | C | connect pin 24 of IC 7101 (AM Osc) with short wire to ground | 5108 | 1 or 2 | |
| | | | | | | |
| AM - RF | 560 kHz | B | 560 kHz | 5111 | 1 or 2 | |
| | | | | | | |
| MW | 1500 kHz | B | 1500 kHz | 2106 C4 | 1 or 2 | |
| | | | | | | |

1) for USA /17
2) RC-network serves for damping the IF-filter while adjusting the other one.

ANALOG TUNER BOARD (ATM3F)
FM/LW/MW and FM/SW/MW versions

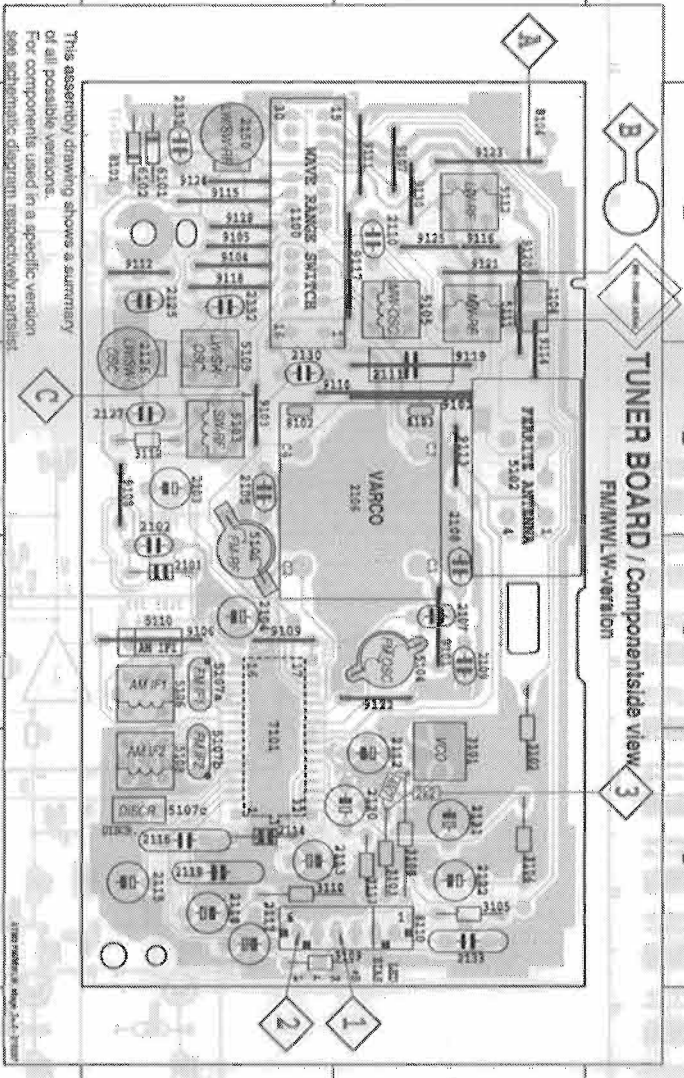
| VERSION | FM 87.5-108MHz | EAST EUROPE 65-108 MHz |
|---------|-------------------|---------------------------|
| 2105 | 22p | 8p2 |
| 2106 | 20p | 4p |
| 2107 | - | 39p |
| 2108 | 22p | 5p6 |
| 2109 | 4p7 | 2p2 |
| 5101 | 550H | 910H |
| 5104 | 400H | 720H |
| 9101 | JMP | - |

U provisional only
Y value for SW-EU (5.9-18.1MHz)
SW only for FM/SW/MW version
LW only for FM/LW/MW version



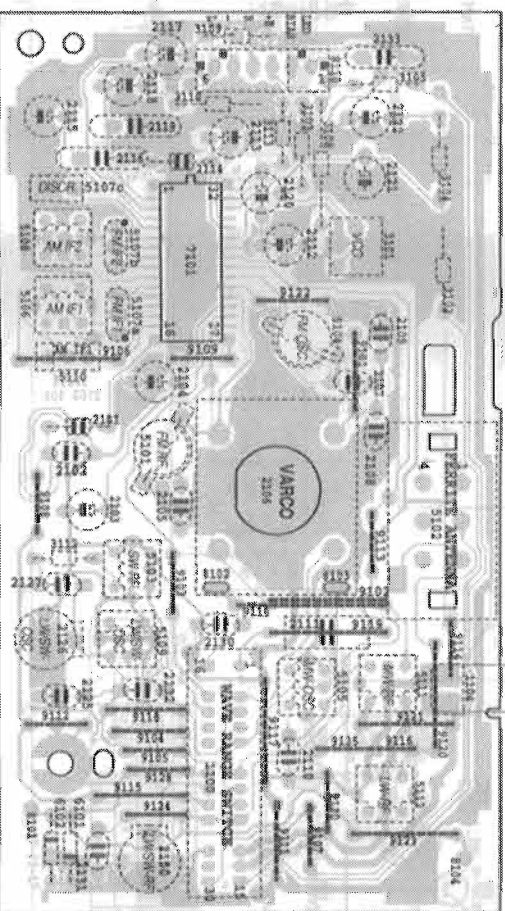
Signal path
FM
AM
MPX (Audio Frequency)
AF - left/right
Vdc FM mode stereo
Vdc MW mode
EVM
Volts measured while set is tuned to a strong transmitter
ATM3 Frame, 3-band, 241096

| | | | | | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2100 B 1 | 2108 A 3 | 2117 B 4 | 2120 B 2 | 5105 A 4 | 5106 A 3 | 5111 A 1 | 8110 A 4 | 9109 B 3 | 9118 B 1 | 9130 A 1 |
| 2104 A 1 | 2109 A 3 | 2118 B 4 | 2121 B 1 | 5109 A 4 | 5105 A 1 | 5112 A 1 | 9105 A 1 | 9110 A 2 | 9119 A 2 | |
| 2102 B 3 | 2110 B 1 | 2119 B 4 | 2122 B 2 | 5106 B 3 | 5106 B 3 | 6101 B 1 | 9101 A 2 | 9111 A 1 | 9120 A 1 | |
| 2103 B 2 | 2111 A 2 | 2120 A 4 | 2123 B 1 | 5120 B 4 | 5107 B 3 | 6102 B 1 | 9103 B 2 | 9112 B 1 | 9121 A 1 | |
| 2104 B 3 | 2112 A 4 | 2121 A 4 | 2124 B 1 | 5112 B 4 | 5107 B 3 | 7101 B 4 | 9104 B 1 | 9113 A 2 | 9122 A 3 | |
| 2105 B 2 | 2113 B 4 | 2122 A 4 | 2125 B 1 | 5101 A 4 | 5107 C 4 | 8101 B 1 | 9105 B 1 | 9114 A 2 | 9123 A 1 | |
| 2106 A 2 | 2114 B 4 | 2123 B 1 | 2126 B 2 | 5102 B 3 | 5108 B 4 | 8102 B 2 | 9106 B 3 | 9115 B 1 | 9124 B 1 | |
| 2107 A 3 | 2115 B 4 | 2124 B 2 | 2127 B 2 | 5103 B 2 | 5109 B 2 | 9107 B 2 | 9107 A 1 | 9116 A 1 | 9125 A 1 | |
| | | | | 5104 A 4 | 5110 B 1 | 9108 A 1 | 9108 B 2 | 9117 A 1 | 9126 B 1 | |



| | | | | | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1100 B 1 | 2108 A 3 | 2117 B 4 | 2120 B 2 | 5105 A 4 | 5106 A 3 | 5111 A 1 | 8110 A 4 | 9109 B 3 | 9118 B 1 | 9130 A 1 |
| 1104 A 1 | 2109 A 3 | 2118 B 4 | 2121 B 1 | 5109 A 4 | 5105 A 1 | 5112 A 1 | 9105 A 1 | 9110 A 2 | 9119 A 2 | |
| 1101 B 3 | 2110 B 1 | 2119 B 4 | 2122 B 2 | 5106 B 3 | 5106 B 3 | 6101 B 1 | 9101 A 2 | 9111 A 1 | 9120 A 1 | |
| 1103 B 2 | 2111 A 2 | 2120 A 4 | 2123 B 1 | 5120 B 4 | 5107 B 3 | 6102 B 1 | 9103 B 2 | 9112 B 1 | 9121 A 1 | |
| 1104 B 3 | 2112 A 4 | 2121 A 4 | 2124 B 1 | 5101 A 4 | 5107 B 3 | 7101 B 4 | 9104 B 1 | 9113 A 2 | 9122 A 3 | |
| 1105 B 2 | 2113 B 4 | 2122 A 4 | 2125 B 1 | 5102 B 3 | 5108 B 4 | 8101 B 1 | 9105 B 1 | 9114 A 2 | 9123 A 1 | |
| 1106 A 2 | 2114 B 4 | 2123 B 1 | 2126 B 2 | 5103 B 2 | 5109 B 2 | 8102 B 2 | 9106 B 3 | 9115 B 1 | 9124 B 1 | |
| 1107 A 3 | 2115 B 4 | 2124 B 2 | 2127 B 2 | 5104 A 4 | 5110 B 1 | 9107 B 2 | 9107 A 1 | 9116 A 1 | 9125 A 1 | |
| | | | | 5105 B 2 | 5110 B 3 | 9108 A 1 | 9108 B 2 | 9117 A 1 | 9126 B 1 | |

TUNER BOARD / copperside view FM/MW/LW-version



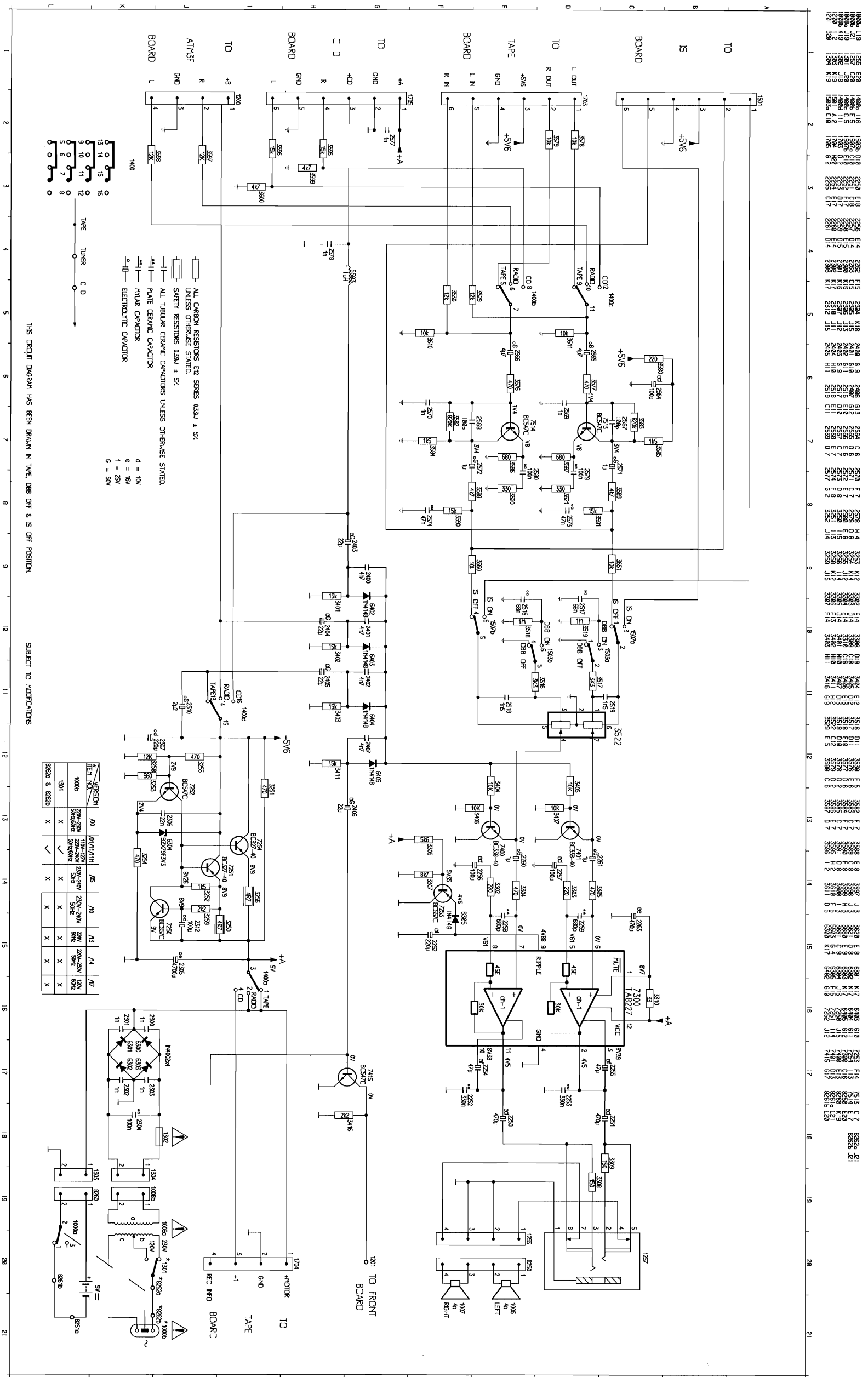
This assembly drawing shows a summary of all possible versions. For components used in a specific version, see schematic diagram respectively parallel.

TUNER ADJUSTMENT TABLE (ATMS FM/LW/MW- versions with AM-frame aerial)

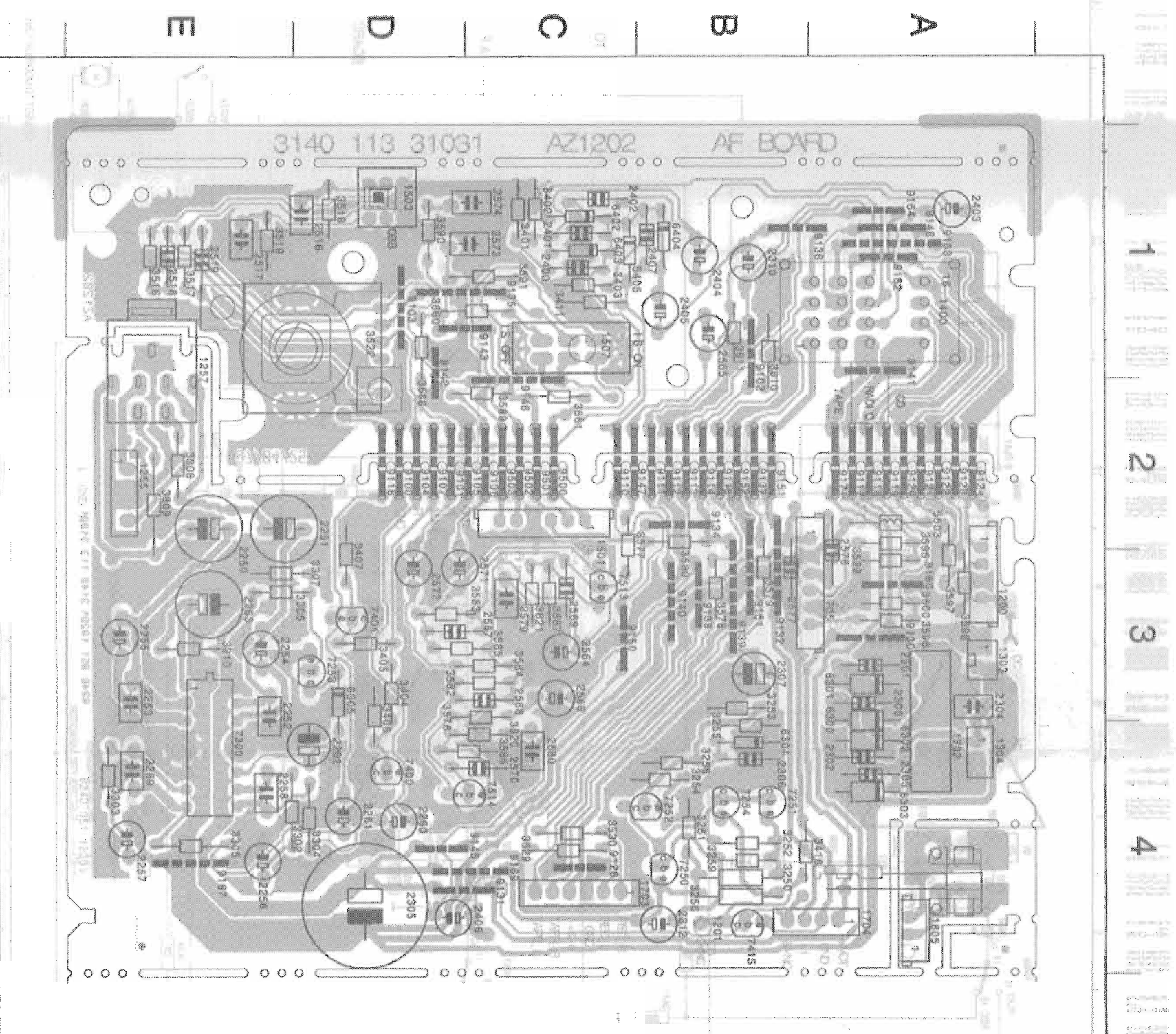
| Waverange | Input Frequency | Input | Set tuned to | Adjust | Measure on | Scope / Counter |
|---|--|--|----------------------|----------------------|----------------------|-----------------|
| OSCILLATOR | | | | | | |
| FM 87.5 - 108 MHz (65 - 108 MHz) ¹⁾ | 87.35 MHz (64.7 MHz) | A | lower band end | 5104 | 1 or 2 | |
| | 108.25 MHz | $\Delta f = \pm 500 \text{ kHz}$ $V_{RF} = 100 \mu\text{V}$ | upper band end | 2106 C1 | | |
| MW 525 - 1607 kHz (530 - 1710 kHz) ²⁾ | 512 kHz- (520 kHz) | C | lower band end | 5105 | | |
| | 1635 kHz- (1730 kHz) | $\Delta f = \pm 30 \text{ kHz}$ $V_{RF} = 100 \mu\text{V}$ | upper band end | 2106 C3 | 1 or 2 | |
| LW ³⁾ 148.5 - 284 kHz | 147 kHz | | lower band end | 5109 | | |
| | 291 kHz | | upper band end | 2126 | | |
| FM - RF | | | | | | |
| FM 87.5 - 108 MHz (65 - 108 MHz) ¹⁾ | 87.5 MHz (65 MHz) | A | 87.5 MHz (65 MHz) | 5101 | 1 or 2 | |
| | 108 MHz | $\Delta f = \pm 500 \text{ kHz}$ $V_{RF} = 10 \mu\text{V}$ | 108 MHz | 2106 C2 | | |
| VCO | | | | | | |
| FM 98 MHz | 98 MHz | A | 98 MHz | 3101 | 3 | |
| | $V_{RF} = 1 \text{ mV}$ | | | | | |
| AM - IF | | | | | | |
| AM | 468 kHz | C | 5106 | 1 or 2 | | |
| | connected pin 24 of IC 7101 (AM Osc) with short wire to ground | $\Delta f = \pm 15 \text{ kHz}$ $V_{RF} = 10 \text{ mV}$ | 5108 | | | |
| AM - RF | | | | | | |
| MW | 560 kHz | B | 560 kHz | 5111 | | |
| | 1500 kHz | | 1500 kHz | 2106 C4 | 1 or 2 | |
| LW ³⁾ | 170 kHz | $\Delta f = \pm 30 \text{ kHz}$ V_{RF} as low as possible | 170 kHz | 5112 | | |
| | 260 kHz | | 260 kHz | 2150 | | |

¹⁾ for East Europe /14 ²⁾ for USA /17 ³⁾ LW not for all versions
⁴⁾ RC-network serves for damping the IF-filter while adjusting the other one.

AUDIO BOARD - CIRCUIT DIAGRAM

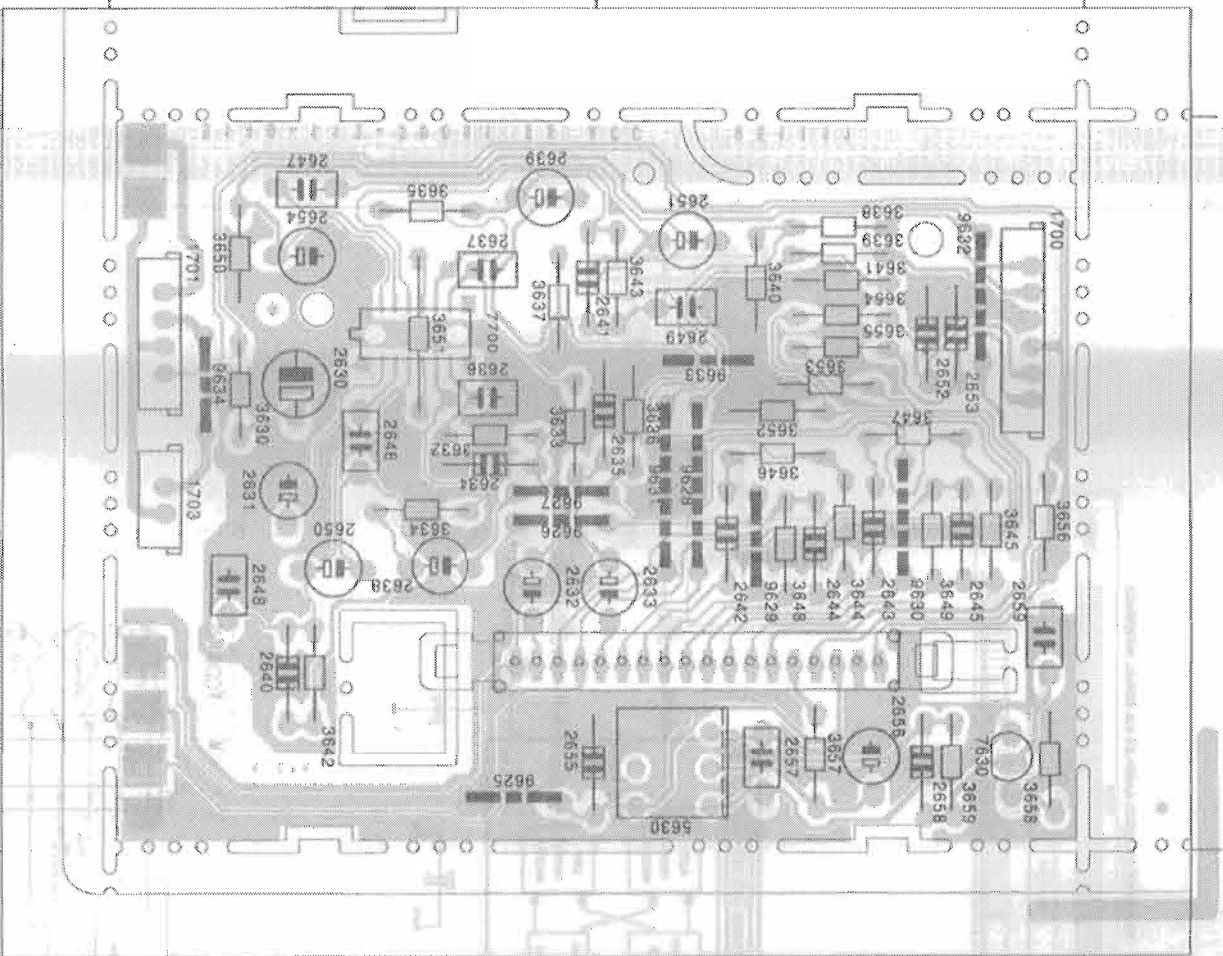


AUDIO BOARD - LAYOUT DIAGRAM



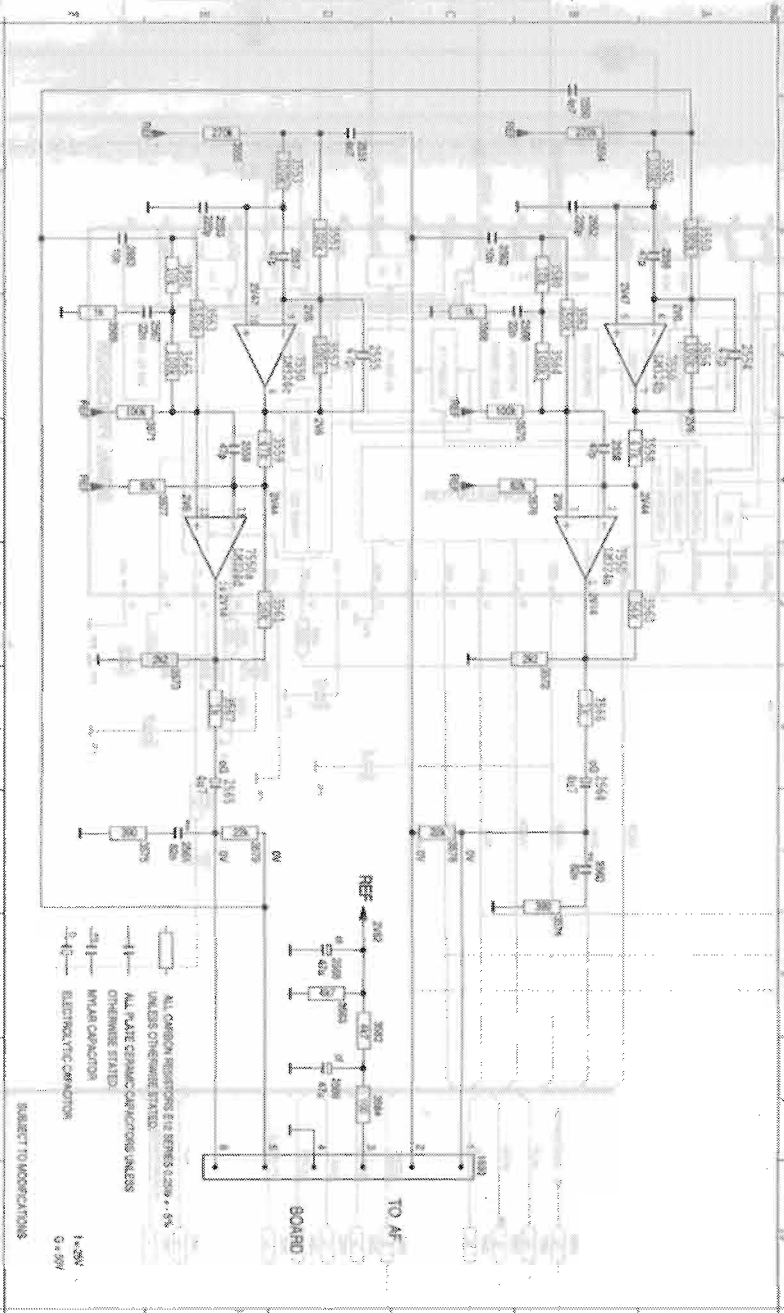
| | | | |
|----------|----------|----------|----------|
| 1200 A 3 | 3253 B 3 | 6404 B 1 | 9502 C 2 |
| 1255 E 2 | 3254 B 4 | 6405 C 1 | 9503 C 2 |
| 1257 E 2 | 3255 B 4 | 7250 B 4 | |
| 1302 A 4 | 3256 B 4 | 7251 B 4 | |
| 1303 A 3 | 3258 B 4 | 7252 B 4 | |
| 1304 A 4 | 3259 B 4 | 7253 B 3 | |
| 1501 C 2 | 3262 E 4 | 7254 B 4 | |
| 1503 D 1 | 3303 E 4 | 7300 E 4 | |
| 1507 C 1 | 3304 E 4 | 7400 D 3 | |
| 1703 C 4 | 3305 D 4 | 7401 D 3 | |
| 1704 A 4 | 3306 E 3 | 7415 B 4 | |
| 1705 A 3 | 3307 E 3 | 7513 C 3 | |
| 1805 A 4 | 3308 E 2 | 7514 C 4 | |
| 2250 E 2 | 3309 E 2 | 9100 D 2 | |
| 2251 E 2 | 3310 E 3 | 9101 D 2 | |
| 2252 E 3 | 3401 C 1 | 9102 B 1 | |
| 2253 E 3 | 3402 C 1 | 9103 D 1 | |
| 2254 E 3 | 3403 C 1 | 9104 D 2 | |
| 2255 E 3 | 3404 D 3 | 9105 C 2 | |
| 2256 E 4 | 3405 D 3 | 9106 C 2 | |
| 2257 E 4 | 3406 D 3 | 9107 D 2 | |
| 2258 E 4 | 3407 D 3 | 9110 C 2 | |
| 2259 E 4 | 3411 C 1 | 9111 B 2 | |
| 2260 D 4 | 3416 B 4 | 9112 B 2 | |
| 2261 D 4 | 3516 E 1 | 9113 B 2 | |
| 2262 D 4 | 3517 E 1 | 9114 B 2 | |
| 2263 E 3 | 3518 D 1 | 9115 B 2 | |
| 2300 A 3 | 3519 E 1 | 9116 D 2 | |
| 2301 A 3 | 3522 D 1 | 9117 A 2 | |
| 2302 A 4 | 3523 C 4 | 9118 A 2 | |
| 2303 A 4 | 3530 C 4 | 9119 A 2 | |
| 2304 A 3 | 3576 C 3 | 9120 A 2 | |
| 2305 D 4 | 3577 C 2 | 9121 A 2 | |
| 2306 B 4 | 3578 B 3 | 9122 A 2 | |
| 2307 B 3 | 3579 B 3 | 9123 A 2 | |
| 2310 B 1 | 3580 B 2 | 9124 A 2 | |
| 2312 B 4 | 3582 C 3 | 9126 C 4 | |
| 2400 C 1 | 3583 D 3 | 9130 A 3 | |
| 2401 C 1 | 3584 C 3 | 9131 D 4 | |
| 2402 C 1 | 3585 D 3 | 9132 B 3 | |
| 2403 A 1 | 3586 C 4 | 9134 B 2 | |
| 2404 B 1 | 3587 C 3 | 9135 D 1 | |
| 2405 B 1 | 3588 D 1 | 9136 B 1 | |
| 2406 D 4 | 3589 C 2 | 9137 B 2 | |
| 2407 B 1 | 3590 D 1 | 9138 B 3 | |
| 2516 D 1 | 3591 C 1 | 9139 B 3 | |
| 2517 E 1 | 3595 A 2 | 9140 B 3 | |
| 2518 E 1 | 3596 A 3 | 9141 A 1 | |
| 2519 E 1 | 3597 E 3 | 9142 D 1 | |
| 2564 C 3 | 3598 A 3 | 9143 D 1 | |
| 2565 B 1 | 3599 A 3 | 9145 D 4 | |
| 2566 C 3 | 3600 A 3 | 9146 C 2 | |
| 2567 D 3 | 3610 B 1 | 9147 C 2 | |
| 2568 C 3 | 3611 B 1 | 9148 A 1 | |
| 2569 C 3 | 3620 C 4 | 9150 C 3 | |
| 2570 C 4 | 3621 C 3 | 9151 B 2 | |
| 2571 D 3 | 3660 C 1 | 9152 B 2 | |
| 2572 D 3 | 3661 C 2 | 9160 A 3 | |
| 2573 C 1 | 5503 A 2 | 9161 B 3 | |
| 2574 C 1 | 6300 A 3 | 9162 A 1 | |
| 2577 B 3 | 6301 A 3 | 9163 A 1 | |
| 2578 A 3 | 6302 A 4 | 9164 A 1 | |
| 2579 C 3 | 6303 C 4 | 9167 E 4 | |
| 2580 C 4 | 6304 B 4 | 9169 C 4 | |
| 3230 B 4 | 6305 D 3 | 9171 A 2 | |
| 3251 B 4 | 6402 C 1 | 9500 C 2 | |
| 3252 B 4 | 6403 C 1 | 9501 C 2 | |

TAPE DECK BOARD - LAYOUT DIAGRAM



- 1619 A1 1628 A1 1639 A2 2635 A1 2645 A1 2655 A2 3636 A1 3646 A1 3656 A1 9628 A1 PAD4 A2
- 1620 A1 1630 A1 1640 A2 2636 A2 2646 A2 2656 A1 3637 A2 3647 A1 3657 A1 9629 A1 PAD5 A2
- 1621 A2 1631 A1 1700 A1 2637 A2 2647 A2 2657 A1 3638 A1 3648 A1 3658 A1 9630 A1 PAD6 A2
- 1622 A2 1632 A1 1701 A2 2638 A2 2648 A2 2658 A1 3639 A1 3649 A1 3659 A1 9631 A1
- 1623 A1 1633 A1 1703 A2 2639 A2 2649 A1 2659 A1 3640 A1 3650 A2 5630 A1 9632 A1
- 1624 A1 1634 A1 2630 A2 2640 A2 2650 A2 3630 A2 3641 A1 3651 A2 7630 A1 9633 A1
- 1625 A1 1635 A1 2631 A2 2641 A2 2651 A1 3632 A2 3642 A2 3652 A1 7700 A2 9635 A2
- 1626 A1 1636 A1 2632 A2 2642 A1 2652 A1 3633 A2 3643 A1 3653 A1 9625 A2 PAD1 A2
- 1627 A1 1637 A2 2633 A1 2643 A1 2653 A1 3634 A2 3644 A1 3654 A1 9626 A2 PAD2 A2
- 1628 A1 1638 A2 2634 A2 2644 A1 2654 A2 3635 A2 3645 A1 3655 A1 9627 A2 PAD3 A2

INCREDIBLE SOUND BOARD - CIRCUIT DIAGRAM

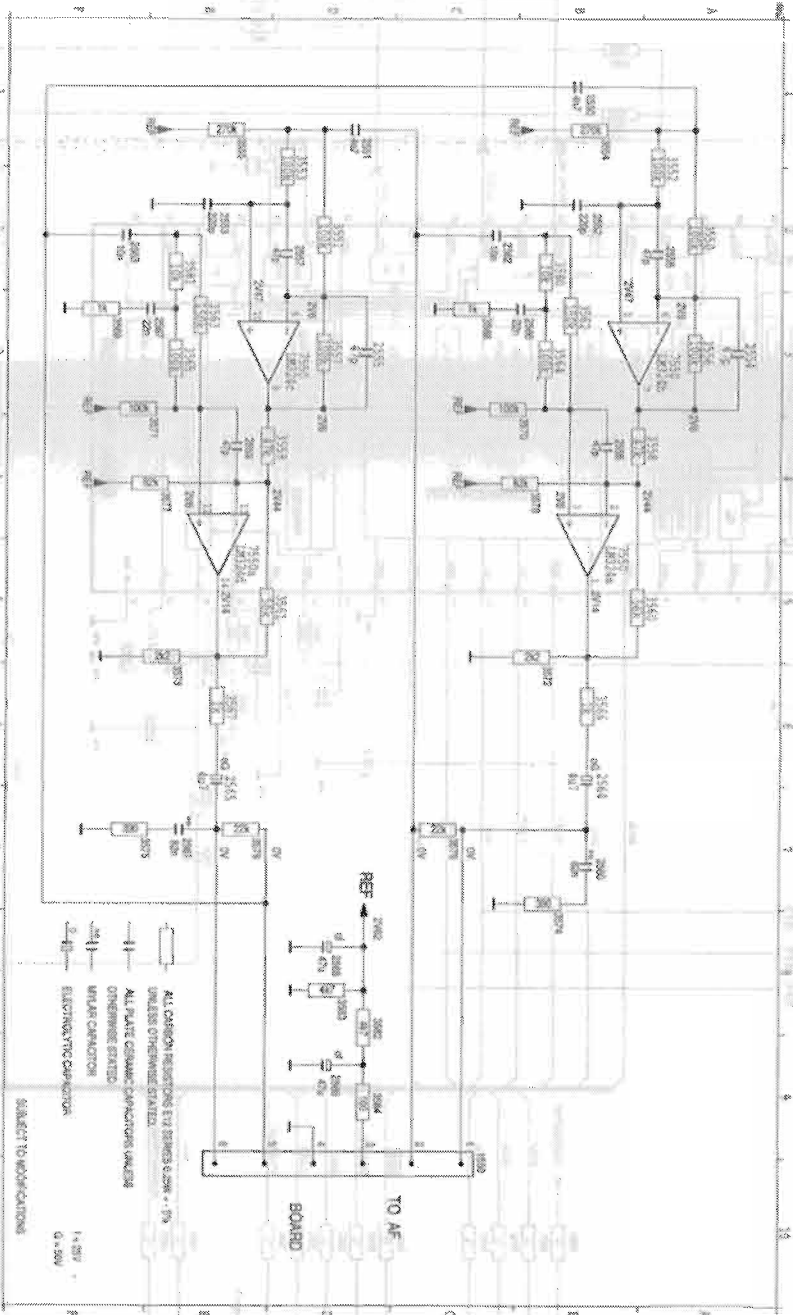


CASSETTE ADJUSTMENT

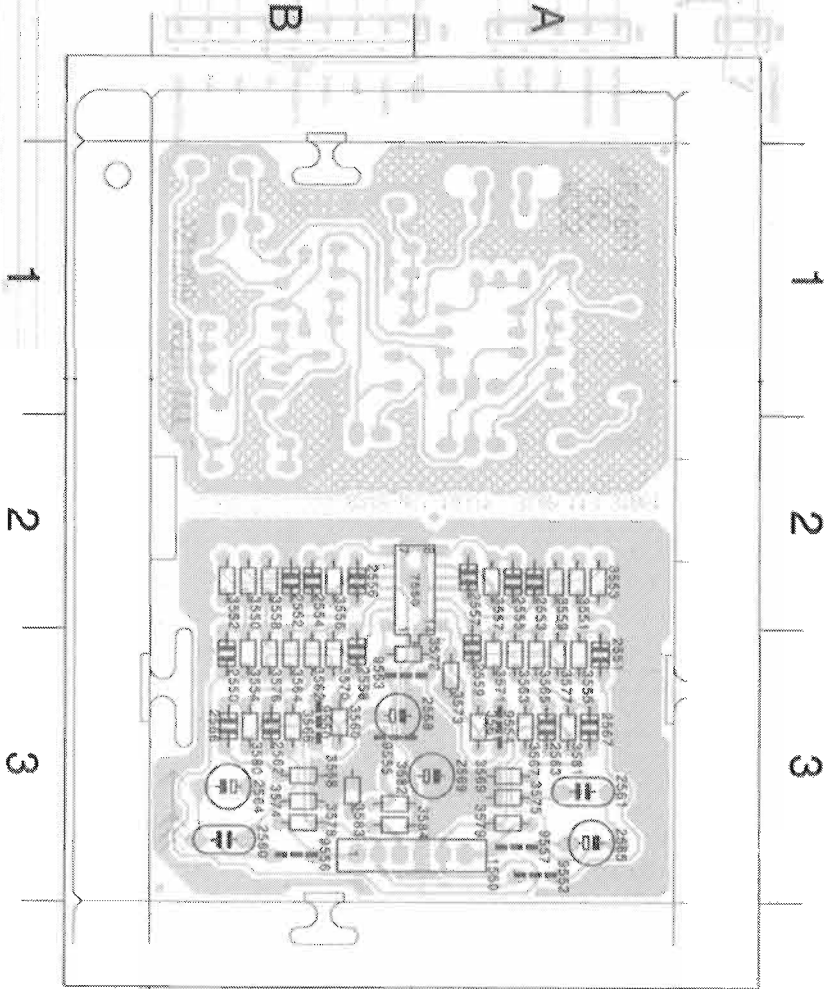
| Adjustment | Cassette | SK | Tape Deck | Measure on | Read on | Adjust with | Adjust to |
|--------------------------|----------|---------|-----------|------------|----------|-----------------------|--------------------------------|
| Head Azimuth | SBC420* | 10KHz | Tape | Play | H/P jack | mV meter | Left hand Screw R/P Head L = R |
| Tape speed Wow & flutter | SBC420* | 3150Hz | Tape | Play | H/P jack | Wow and flutter meter | Preset VR 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.

INCREDIBLE SOUND BOARD - CIRCUIT DIAGRAM



INCREDIBLE SOUND BOARD - LAYOUT DIAGRAM



MAGDALE TUDORIC - 1600

| | |
|----------|----------|
| 1550 B 3 | 3553 A 3 |
| 2550 B 3 | 3554 B 3 |
| 2551 A 3 | 3555 A 3 |
| 2552 B 2 | 3556 B 3 |
| 2553 A 2 | 3557 A 3 |
| 2554 B 2 | 3558 B 3 |
| 2555 A 2 | 3559 A 3 |
| 2556 B 2 | 3560 B 3 |
| 2557 A 2 | 3561 A 3 |
| 2558 B 2 | 3562 B 3 |
| 2559 A 2 | 3563 A 3 |
| 2560 B 2 | 3564 B 3 |
| 2561 A 2 | 3565 A 3 |
| 2562 B 2 | 3566 B 3 |
| 2563 A 2 | 3567 A 3 |
| 2564 B 2 | 3568 B 3 |
| 2565 A 2 | 3569 A 3 |
| 2566 B 2 | 3570 B 3 |
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| 2572 B 2 | 3576 B 3 |
| 2573 A 2 | 3577 A 3 |
| 2574 B 2 | 3578 B 3 |
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| 2577 A 2 | 3581 A 3 |
| 2578 B 2 | 3582 B 3 |
| 2579 A 2 | 3583 B 3 |
| 2580 B 2 | 3584 B 3 |
| 2581 A 2 | 3585 A 3 |
| 2582 B 2 | 3586 B 3 |
| 2583 A 2 | 3587 A 3 |
| 2584 B 2 | 3588 B 3 |
| 2585 A 2 | 3589 A 3 |
| 2586 B 2 | 3590 B 3 |
| 2587 A 2 | 3591 A 3 |
| 2588 B 2 | 3592 B 3 |
| 2589 A 2 | 3593 A 3 |
| 2590 B 2 | 3594 B 3 |
| 2591 A 2 | 3595 A 3 |
| 2592 B 2 | 3596 B 3 |
| 2593 A 2 | 3597 A 3 |
| 2594 B 2 | 3598 B 3 |
| 2595 A 2 | 3599 A 3 |
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| 2597 A 2 | 3601 A 3 |
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| 2599 A 2 | 3603 A 3 |
| 2600 B 2 | 3604 B 3 |
| 2601 A 2 | 3605 A 3 |
| 2602 B 2 | 3606 B 3 |
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| 2604 B 2 | 3608 B 3 |
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| 2614 B 2 | 3618 B 3 |
| 2615 A 2 | 3619 A 3 |
| 2616 B 2 | 3620 B 3 |
| 2617 A 2 | 3621 A 3 |
| 2618 B 2 | 3622 B 3 |
| 2619 A 2 | 3623 A 3 |
| 2620 B 2 | 3624 B 3 |
| 2621 A 2 | 3625 A 3 |
| 2622 B 2 | 3626 B 3 |
| 2623 A 2 | 3627 A 3 |
| 2624 B 2 | 3628 B 3 |
| 2625 A 2 | 3629 A 3 |
| 2626 B 2 | 3630 B 3 |
| 2627 A 2 | 3631 A 3 |
| 2628 B 2 | 3632 B 3 |
| 2629 A 2 | 3633 A 3 |
| 2630 B 2 | 3634 B 3 |
| 2631 A 2 | 3635 A 3 |
| 2632 B 2 | 3636 B 3 |
| 2633 A 2 | 3637 A 3 |
| 2634 B 2 | 3638 B 3 |
| 2635 A 2 | 3639 A 3 |
| 2636 B 2 | 3640 B 3 |
| 2637 A 2 | 3641 A 3 |
| 2638 B 2 | 3642 B 3 |
| 2639 A 2 | 3643 A 3 |
| 2640 B 2 | 3644 B 3 |
| 2641 A 2 | 3645 A 3 |
| 2642 B 2 | 3646 B 3 |
| 2643 A 2 | 3647 A 3 |
| 2644 B 2 | 3648 B 3 |
| 2645 A 2 | 3649 A 3 |
| 2646 B 2 | 3650 B 3 |
| 2647 A 2 | 3651 A 3 |
| 2648 B 2 | 3652 B 3 |
| 2649 A 2 | 3653 A 3 |
| 2650 B 2 | 3654 B 3 |
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| 2663 A 2 | 3667 A 3 |
| 2664 B 2 | 3668 B 3 |
| 2665 A 2 | 3669 A 3 |
| 2666 B 2 | 3670 B 3 |
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| 2669 A 2 | 3673 A 3 |
| 2670 B 2 | 3674 B 3 |
| 2671 A 2 | 3675 A 3 |
| 2672 B 2 | 3676 B 3 |
| 2673 A 2 | 3677 A 3 |
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| 2679 A 2 | 3683 A 3 |
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| 2681 A 2 | 3685 A 3 |
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| 2683 A 2 | 3687 A 3 |
| 2684 B 2 | 3688 B 3 |
| 2685 A 2 | 3689 A 3 |
| 2686 B 2 | 3690 B 3 |
| 2687 A 2 | 3691 A 3 |
| 2688 B 2 | 3692 B 3 |
| 2689 A 2 | 3693 A 3 |
| 2690 B 2 | 3694 B 3 |
| 2691 A 2 | 3695 A 3 |
| 2692 B 2 | 3696 B 3 |
| 2693 A 2 | 3697 A 3 |
| 2694 B 2 | 3698 B 3 |
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| 2699 A 2 | 3703 A 3 |
| 2700 B 2 | 3704 B 3 |

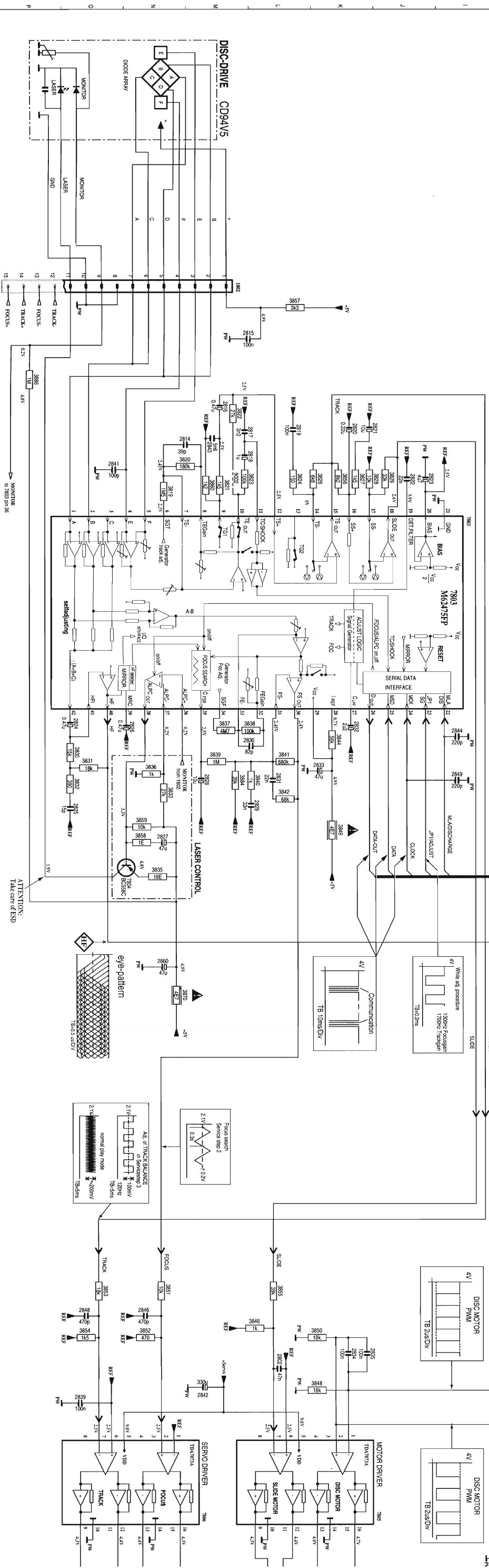
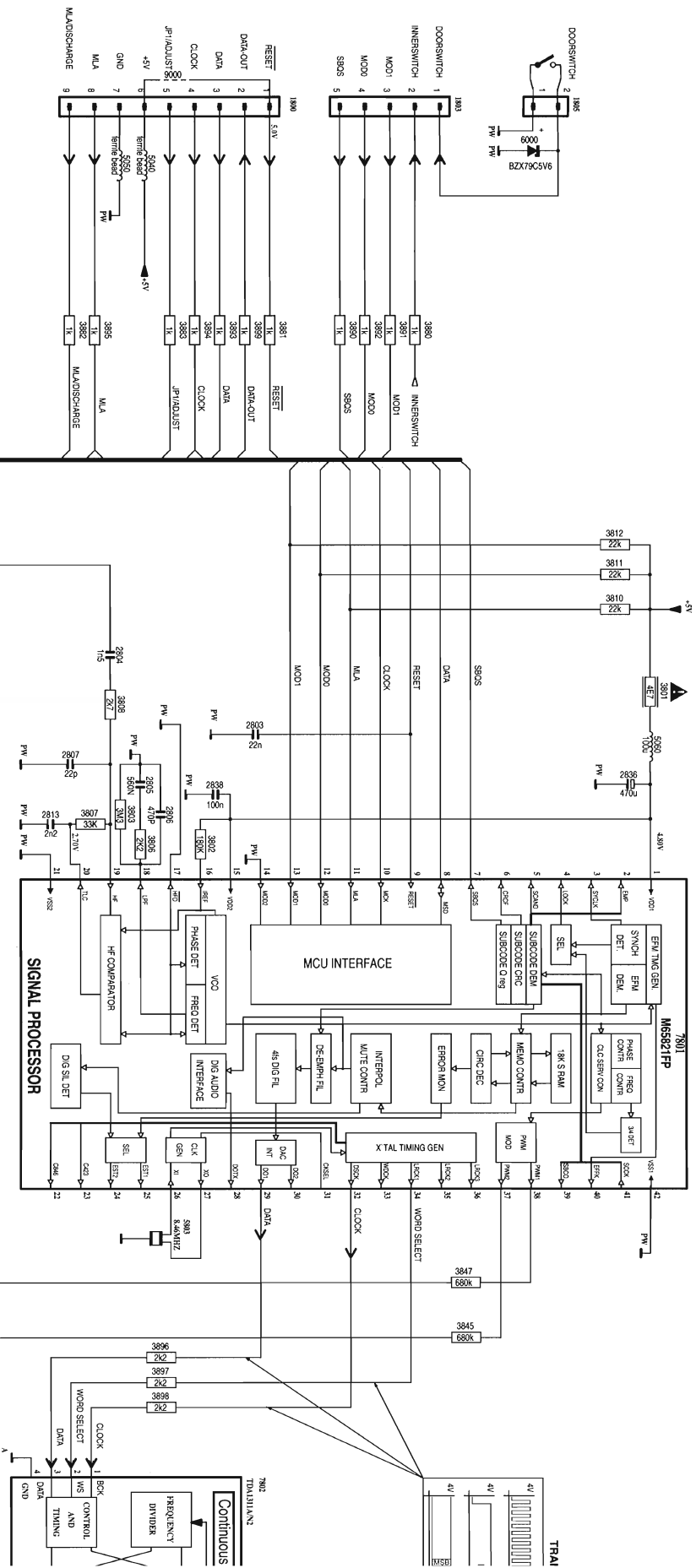
CASSETTE ADJUSTMENT

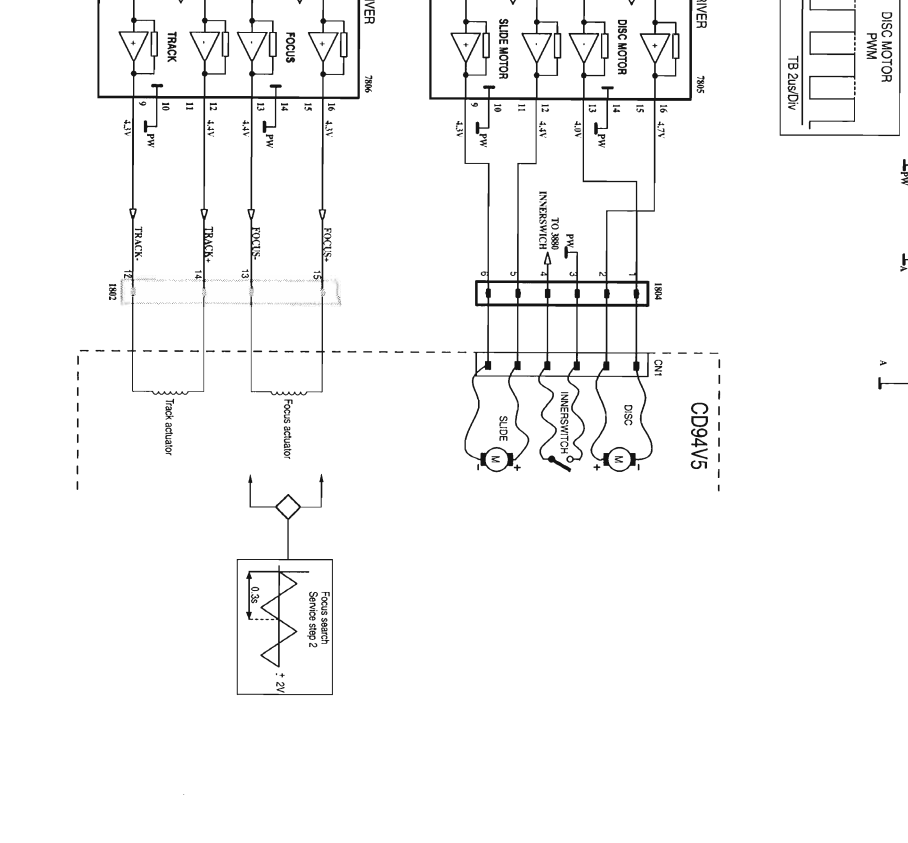
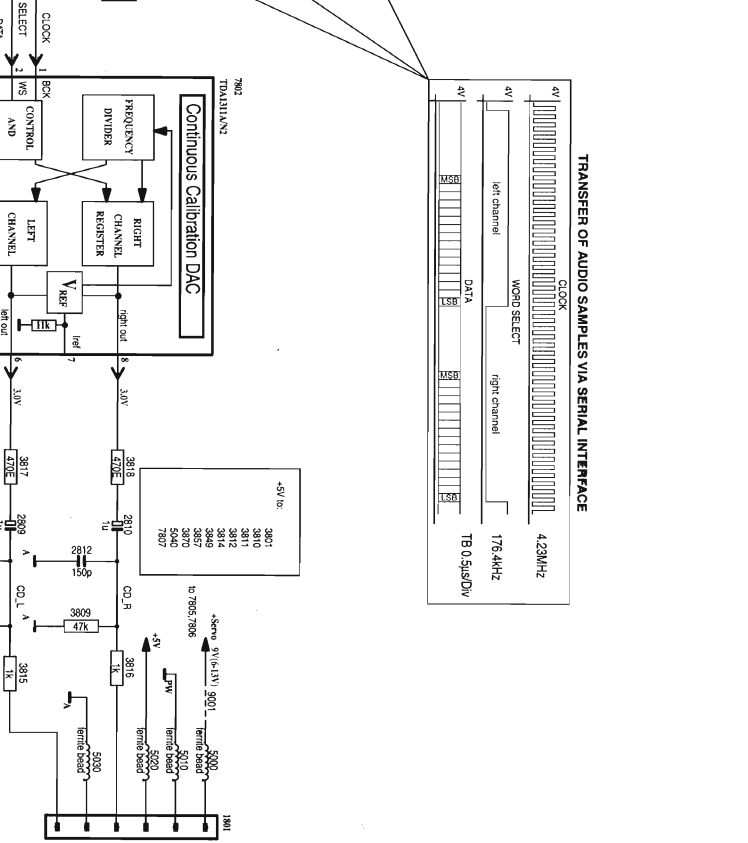
| Adjustment | Cassette | SK ... | Tape Deck | Measure on | Read on | Adjust with | Adjust to |
|--------------------------|----------|--------|-----------|------------|----------|-----------------------|--------------------------------|
| Head Azimuth | SBC420* | 10KHz | Tape | Play | H/P jack | mV meter | Left hand Screw R/P Head L = R |
| Tape speed Wow & flutter | SBC420* | 3150Hz | Tape | Play | H/P jack | Wow and flutter meter | Preset VR in motor **a |

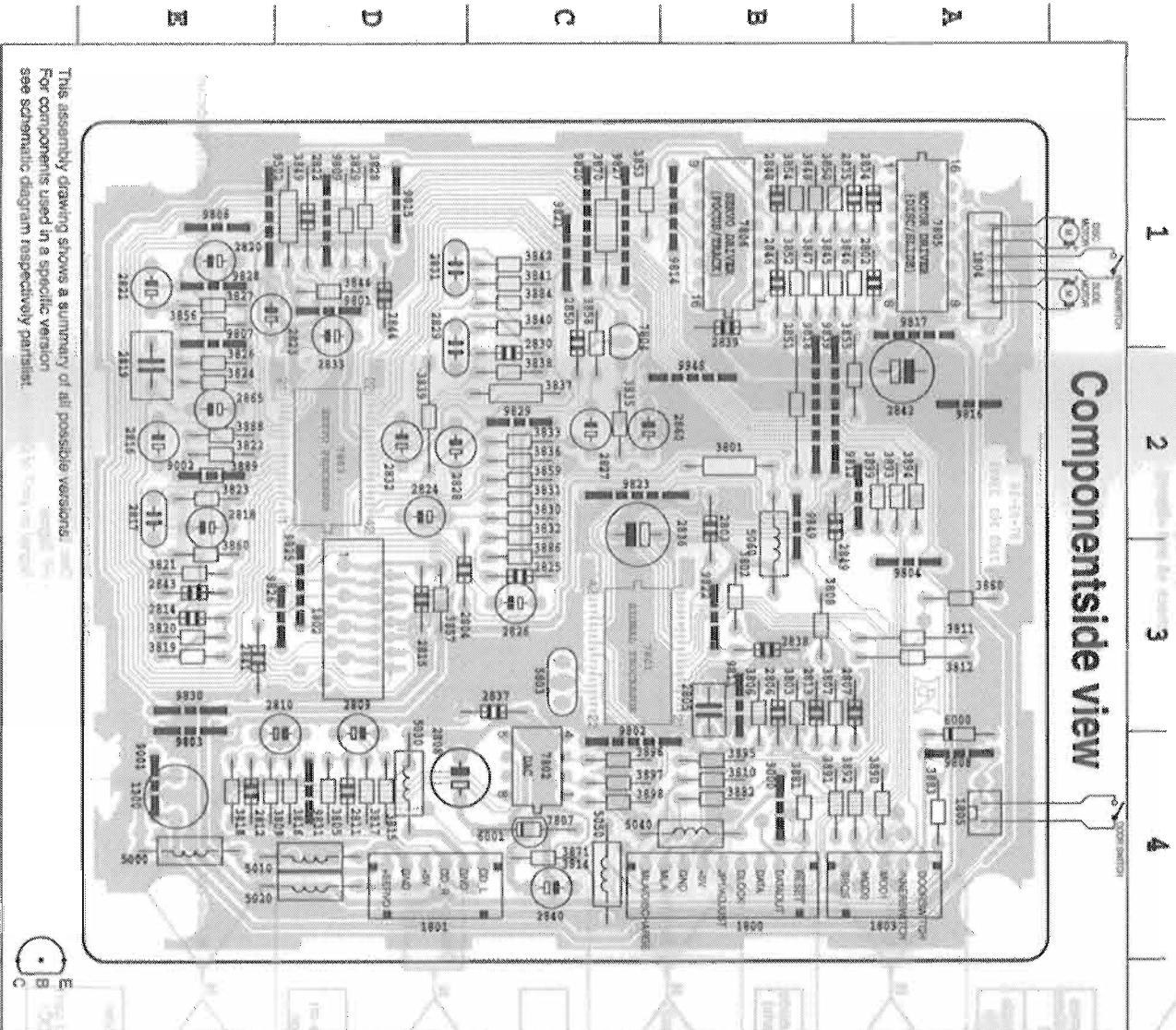
*SBC420 : 4822 397 30071

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

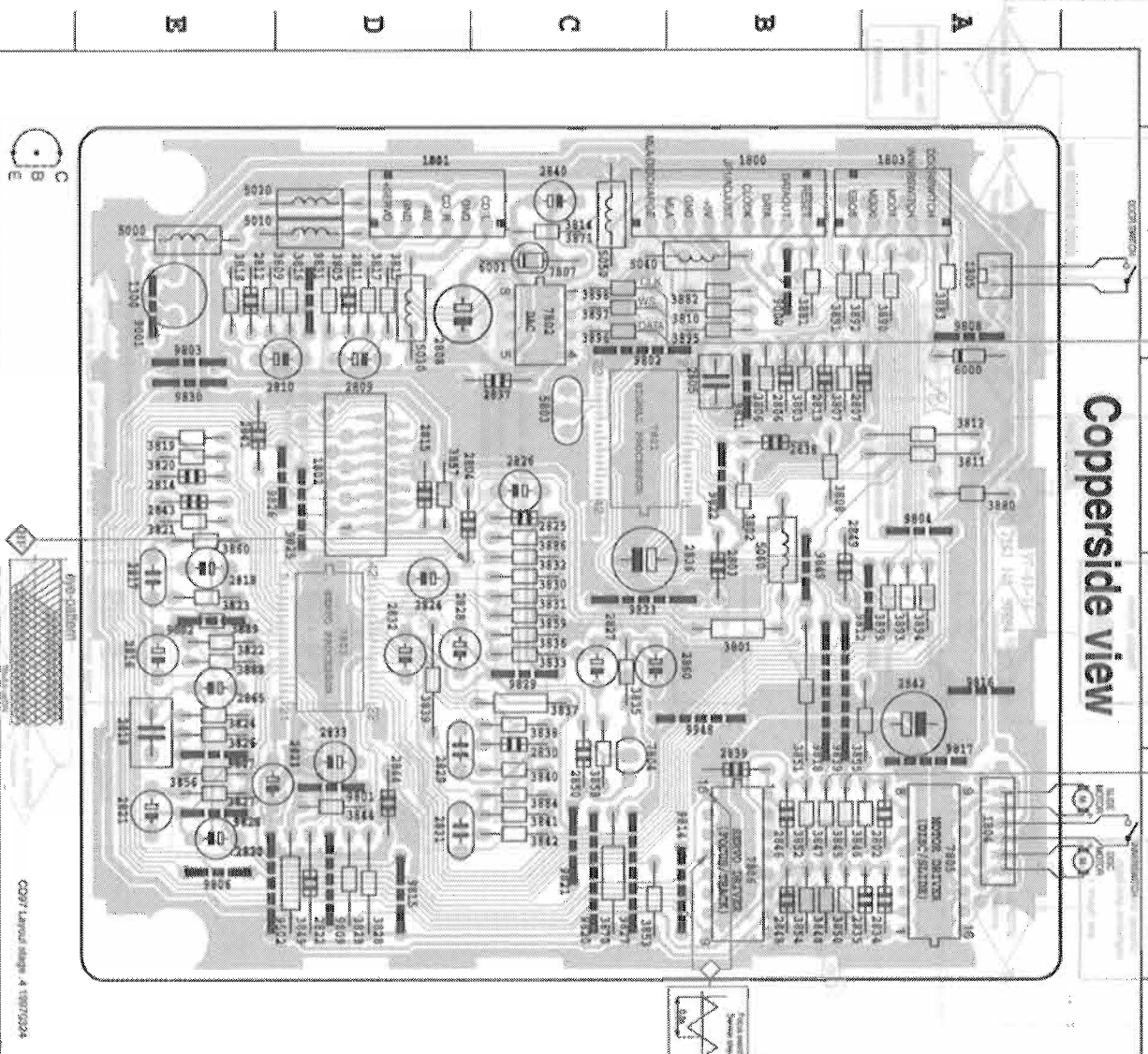
CD97 - CIRCUIT DIAGRAM





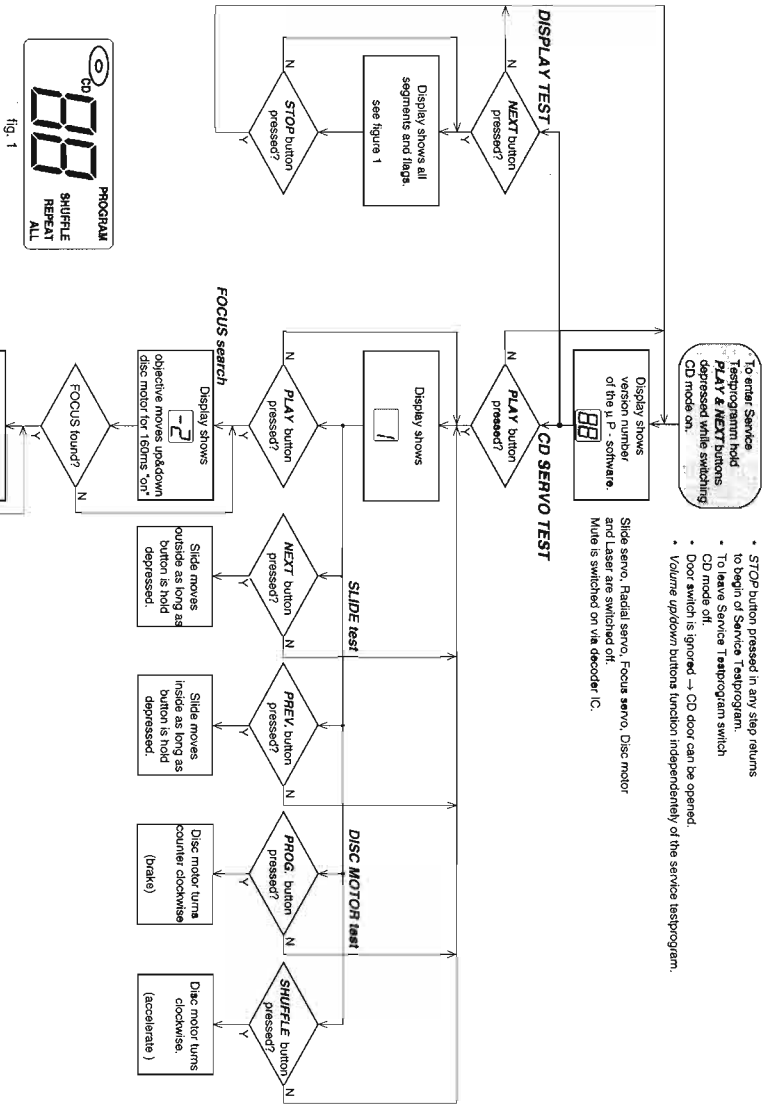


| | | |
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| 1302 D 3 | 3810 B 4 | 3894 A 2 |
| 1303 A 4 | 3811 A 3 | 3895 B 4 |
| 1304 A 1 | 3812 A 3 | 3896 C 4 |
| 1305 A 1 | 3814 C 4 | 3897 C 4 |
| 1306 A 1 | 3815 D 4 | 3898 C 4 |
| 1307 B 2 | 3816 D 4 | 3899 A 2 |
| 1308 B 2 | 3817 D 4 | 5000 B 4 |
| 1309 B 3 | 3818 B 4 | 5000 B 4 |
| 1310 B 3 | 3819 B 3 | 5020 D 4 |
| 1311 B 3 | 3820 B 3 | 5030 D 4 |
| 1312 B 3 | 3821 B 3 | 5040 B 4 |
| 1313 B 3 | 3822 B 2 | 5050 C 4 |
| 1314 B 3 | 3823 B 2 | 5060 B 3 |
| 1315 B 3 | 3824 B 2 | 5070 C 3 |
| 1316 B 3 | 3825 B 2 | 6000 C 4 |
| 1317 B 3 | 3826 B 2 | 7000 C 4 |
| 1318 B 3 | 3827 B 1 | 7000 C 4 |
| 1319 B 3 | 3828 B 1 | 7000 C 4 |
| 1320 B 3 | 3829 B 1 | 7000 C 4 |
| 1321 B 3 | 3830 B 1 | 7000 C 4 |
| 1322 B 3 | 3831 B 1 | 7000 C 4 |
| 1323 B 3 | 3832 B 1 | 7000 C 4 |
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| 1325 B 3 | 3834 B 1 | 7000 C 4 |
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| 1327 B 3 | 3836 B 1 | 7000 C 4 |
| 1328 B 3 | 3837 B 1 | 7000 C 4 |
| 1329 B 3 | 3838 B 1 | 7000 C 4 |
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| 1331 B 3 | 3840 B 1 | 7000 C 4 |
| 1332 B 3 | 3841 B 1 | 7000 C 4 |
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| 1334 B 3 | 3843 B 1 | 7000 C 4 |
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| 1383 B 3 | 3892 B 1 | 7000 C 4 |
| 1384 B 3 | 3893 B 1 | 7000 C 4 |
| 1385 B 3 | 3894 B 1 | 7000 C 4 |
| 1386 B 3 | 3895 B 1 | 7000 C 4 |
| 1387 B 3 | 3896 B 1 | 7000 C 4 |
| 1388 B 3 | 3897 B 1 | 7000 C 4 |
| 1389 B 3 | 3898 B 1 | 7000 C 4 |
| 1390 B 3 | 3899 B 1 | 7000 C 4 |
| 1391 B 3 | 3900 B 1 | 7000 C 4 |
| 1392 B 3 | 3901 B 1 | 7000 C 4 |
| 1393 B 3 | 3902 B 1 | 7000 C 4 |
| 1394 B 3 | 3903 B 1 | 7000 C 4 |
| 1395 B 3 | 3904 B 1 | 7000 C 4 |
| 1396 B 3 | 3905 B 1 | 7000 C 4 |
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| 1402 B 3 | 3911 B 1 | 7000 C 4 |
| 1403 B 3 | 3912 B 1 | 7000 C 4 |
| 1404 B 3 | 3913 B 1 | 7000 C 4 |
| 1405 B 3 | 3914 B 1 | 7000 C 4 |
| 1406 B 3 | 3915 B 1 | 7000 C 4 |
| 1407 B 3 | 3916 B 1 | 7000 C 4 |
| 1408 B 3 | 3917 B 1 | 7000 C 4 |
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| 1422 B 3 | 3931 B 1 | 7000 C 4 |
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| 1424 B 3 | 3933 B 1 | 7000 C 4 |
| 1425 B 3 | 3934 B 1 | 7000 C 4 |
| 1426 B 3 | 3935 B 1 | 7000 C 4 |
| 1427 B 3 | 3936 B 1 | 7000 C 4 |
| 1428 B 3 | 3937 B 1 | 7000 C 4 |
| 1429 B 3 | 3938 B 1 | 7000 C 4 |
| 1430 B 3 | 3939 B 1 | 7000 C 4 |
| 1431 B 3 | 3940 B 1 | 7000 C 4 |
| 1432 B 3 | 3941 B 1 | 7000 C 4 |
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| 1434 B 3 | 3943 B 1 | 7000 C 4 |
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| 1436 B 3 | 3945 B 1 | 7000 C 4 |
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| 1442 B 3 | 3951 B 1 | 7000 C 4 |
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| 1447 B 3 | 3956 B 1 | 7000 C 4 |
| 1448 B 3 | 3957 B 1 | 7000 C 4 |
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| 1479 B 3 | 3988 B 1 | 7000 C 4 |
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| 1481 B 3 | 3990 B 1 | 7000 C 4 |
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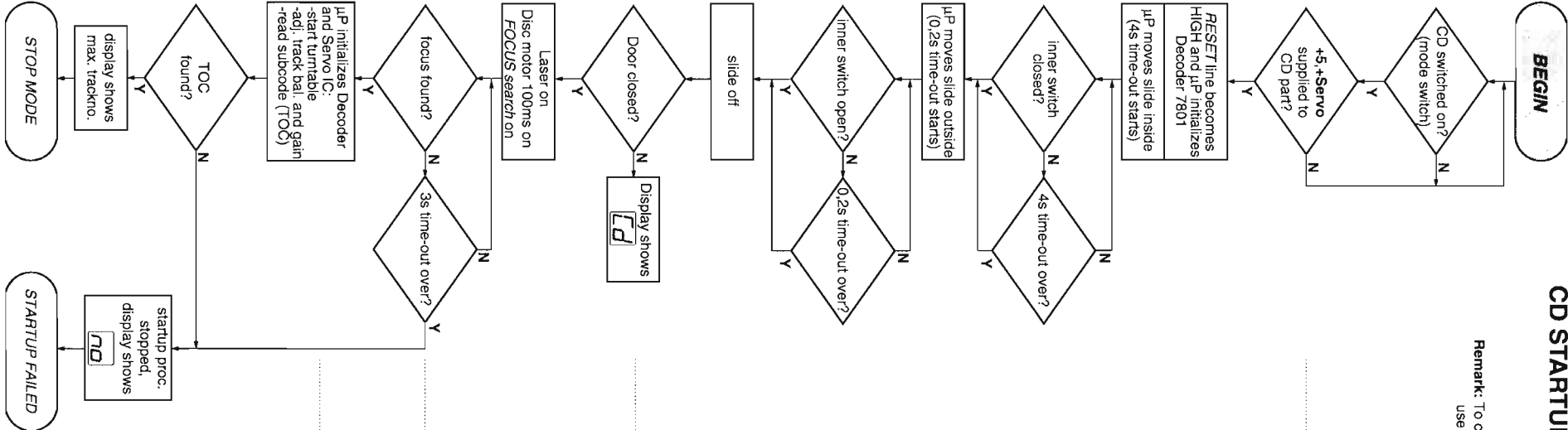


This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram respectively parallel.

CD - SERVICE TESTPROGRAM



CD STARTUP - PROCEDURE



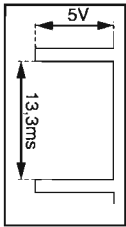
Remark: To check focus servo, slide servo, track servo and turntable use service test program

- Battery empty?
- check +5 and +Servo

check: - door switch

- check - Laser light on ? - Check pin 38 of 7803 and LASER CONTROL circuit
- Focus Servo

- check: - Motor control pin 37/38 of Decoder 7801 and Disc Motor driver 7805
- HF Signal
- Signal on pin7 of Decoder 7801



Abbreviations and Pin-descriptions of CD ICs

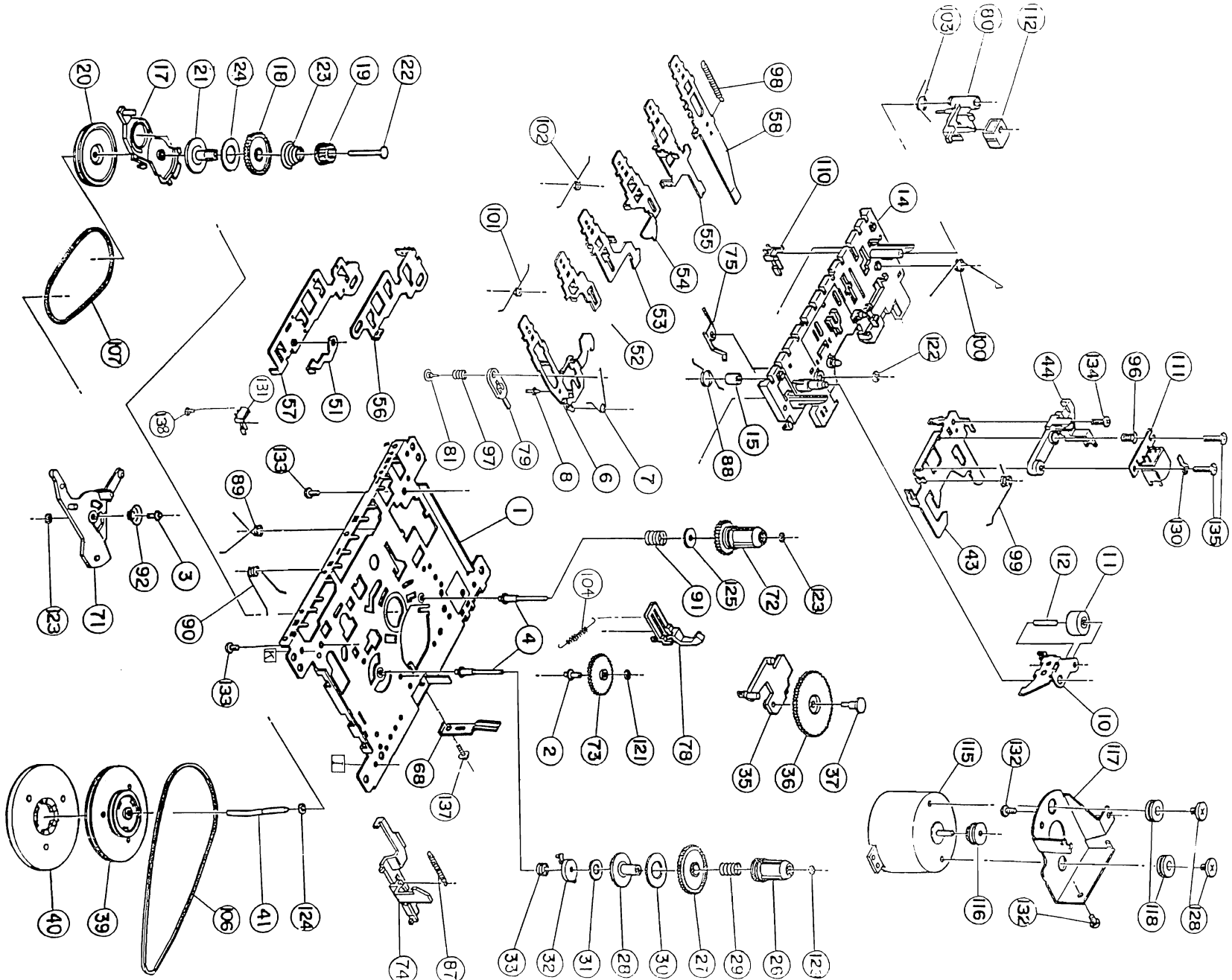
SERVO PROCESSOR M62475FP

| Pin | Name | Direction | Description |
|-----|-----------|-----------|---|
| 1-3 | A, B, C | - | Current input (central photo diode signal input) |
| 4-5 | E, F | - | Diode array → Servo processor |
| 6 | SGT | - | Diode array → Servo processor |
| 7 | TE - | - | Servo processor → Track servo |
| 8 | TEGain | - | Inverting input of trackerror amplifier |
| 9 | TG1 | - | Gain control pin of track error amplifier |
| 10 | TE out | - | Track Gain 1 - switch: controls the gain of the track servo amplifier |
| 11 | TC/Shock | - | Track Error amplifier output |
| 12 | TS + | - | Track Cross/Shock detector input |
| 13 | TG2 | - | Non inverting input of track servo amplifier |
| 14 | TS - | - | Track Gain 2 - switch: controls the gain of the track servo amplifier |
| 15 | TS out | - | Inverting input of track servo amplifier |
| 16 | SS + | - | Output of track servo amplifier |
| 17 | SS - | - | Non inverting input of slide servo amplifier |
| 18 | Slide out | - | Inverting input of slide servo amplifier |
| 19 | DETFIL | - | Output of slide servo amplifier |
| 20 | BIAS | - | Pin for connection of DETection FILter capacitor of ADJUST LOGIC |
| 21 | GND | - | Reference Voltage output Vcc2 of internal BIAS-generator |
| 22 | MLA/DIS | - | Ground connection pin (negative supply) |
| 23 | JP1/SG | - | Serial interface Microprocessor Latch control / DIScharge control for adjustment |
| 24 | MCK | - | Serial interface Clock input line |
| 25 | MSD | - | Serial interface Data input line |
| 26 | Dout | - | Serial interface Data output line |
| 27 | CLPF | - | Pin for connection of Low Pass Filter capacitor for ADJUST LOGIC |
| 28 | IREF | - | Reference current input |
| 29 | VCC | - | Positive supply connection pin (4V - 5.5V) |
| 30 | FSout | - | Output of focus servo amplifier |
| 31 | FS - | - | Inverting input of focus servo amplifier |
| 32 | FEgain | - | Gain control pin of focus error amplifier |
| 33 | FE - | - | Inverting input of focus error amplifier |
| 34 | SGF | - | Signal generator output to focus servo, sends 1300Hz for adjust. procedure |
| 35 | CFSR | - | Charge capacitor for Focus Search triangle-generator |
| 36 | APC + | - | Non inverting input of Automatic laser Power Control amplifier |
| 37 | APC - | - | Inverting input of Automatic laser Power Control amplifier |
| 38 | APC out | - | Output of Automatic laser Power Control amplifier |
| 39 | MRC | - | Connection pin for capacitor of Mirror detector |
| 40 | HF | - | Output of HF amplifier |
| 41 | HFI | - | Inverting input of HF amplifier |
| 42 | ABC | - | Sum output of amplified A, B and C input (central photo diode signal input) to external ac-coupling capacitor |

SIGNAL PROCESSOR M65821FP

| Pin | Name | Direction | Description |
|-------|----------|-----------|---|
| 1 | VDD1 | - | +supply for signal processor |
| 2 | EMP | - | Emphasis flag output |
| 3 | SYCLK | - | Frame synchronize output |
| 4 | LOCK | - | Low disc rotation detect output |
| 5 | SCAND | - | Subcode sync signal detection |
| 6 | CRCF | - | Subcode Q ORC check flag output |
| 7 | SBCS | - | Interrupt signal to read out subcode Q data |
| 8 | MSD | - | Data line |
| 9 | RESET | - | System reset |
| 10 | MCK | - | Clock input |
| 11 | MLA | - | Latch clock input |
| 12-14 | MODx | - | Mode setting inputs (0,1,2) |
| 15 | VDD2 | - | +supply for data slicer and VCO |
| 16 | IREF | - | Current reference |
| 17 | HFD | - | HF signal detect |
| 18 | LPF | - | PLL loop filter |
| 19 | HF | - | HF signal input |
| 20 | TLC | - | Output from slice level control |
| 21 | VSS2 | - | Ground |
| 22 | C846 | - | 8.4672MHz clock output |
| 23 | C423 | - | 4.2336MHz clock output |
| 24 | EST2 | - | Error monitor output2 |
| 25 | EST1 | - | Error monitor output1 |
| 26 | XI | - | Crystal oscillator input |
| 27 | XO | - | Crystal oscillator output |
| 28 | DOTX | - | Output of digital interface |
| 29 | DO1 | - | Output of digital interface |
| 30 | DO2 | - | Serial data output to DAC |
| 31 | CKSEL | - | Serial data output to Dual DAC |
| 32 | DSCK | - | Crystal selector input. H=8MHz, L=16MHz |
| 33 | WDCK | - | Data shift clock |
| 34 | LCK1 | - | Word clock |
| 35-36 | not used | - | Left/Right clock |
| 37 | PWM1 | - | Disc motor driving (Pulse Width Modulation) output1 |
| 38 | PWM2 | - | Disc motor driving (Pulse Width Modulation) output2 |
| 39-41 | not used | - | |
| 42 | VSS1 | - | Digital system ground |

EXPLODED VIEW DIAGRAM - TAPE DECK



| | | | | | |
|-----|----------------|------------------------|-----|----------------|-----------------------------------|
| 401 | 4822 459 04629 | Front Panel | 448 | 4822 492 40854 | Torsion Spring |
| 402 | 4822 450 10364 | Lens CD (Not for -/17) | 449 | 4822 528 40208 | Drum |
| 402 | 4822 450 10365 | Lens CD (For -/17) | 451 | 4822 528 80907 | Pulley Pom |
| 403 | 4822 450 10361 | Window LCD | 452 | 4822 450 10322 | Pointer |
| 404 | 4822 450 10362 | Cassette Door Lens | 453 | 4822 529 10386 | Damper Rubber (30 Deg) |
| 406 | 4822 443 10733 | Cassette Door | 456 | 4822 529 10322 | Damper Assy |
| 407 | 4822 492 42709 | Spring Door | 457 | 4822 450 10363 | Lens Tuning (For -/00/05) |
| 408 | 4822 459 04631 | Front Cabinet Assy | 457 | 4822 450 10359 | Lens Tuning (Not for -/00/05) |
| 409 | 4822 410 11243 | Button Set Search | 458 | 4822 410 11126 | Knob Tuning |
| 411 | 4822 410 11242 | Button Set Play | 459 | 4822 402 10724 | Bracket Handle |
| 413 | 4822 402 10722 | Bracket LCD | 462 | 4822 492 11418 | Spring CD |
| 414 | 4822 410 11239 | Cassette Knob | 463 | 4822 426 10473 | Cabinet Rear |
| 416 | 4822 492 11061 | Spring Recording | 464 | 4822 265 20318 | Socket Main (Not for -/17) |
| 417 | 4822 402 10126 | Lever Recording | 464 | 4822 265 20706 | Socket Main (For -/17) |
| 418 | 4822 410 11237 | Button Set Shuffle | 466 | 4822 492 51733 | Spring Compression |
| 419 | 4822 529 10322 | Damper Assy | 467 | 4822 492 51961 | Spring Compression |
| 422 | 4822 402 10784 | Bracket Sound Box | 468 | 4822 290 80313 | Contact Plate |
| 423 | 4822 691 10612 | Tape Deck Mechanism | 469 | 4822 443 10655 | Battery Door |
| 428 | 4822 529 10387 | Damper Rubber (40 Deg) | 471 | 4822 303 14038 | Telescopic Aerial |
| 429 | 4822 410 11124 | Knob DBB | | 4822 321 10249 | Mains Cord (For -/00/01/11) |
| 431 | 4822 410 11241 | Knob IS | | 4822 321 10886 | Mains Cord (For -/05/11H) |
| 432 | 4822 410 11123 | Knob Mode | | 4822 321 10954 | Mains Cord (For -/10) |
| 434 | 4822 402 10723 | Lever Eject | | 4822 321 10882 | Mains Cord (For -/17) |
| 436 | 4822 492 11058 | Spring Eject | | 4822 736 15477 | Instr Manual (For -/01/10/11/11H) |
| 437 | 4822 418 10272 | Tray CD (For -/00/05) | | 4822 736 15482 | Instr Manual (For -/00/05) |
| 437 | 4822 418 10269 | Tray CD (For -/01) | | 4822 736 15478 | Instr Manual (For -/17) |
| 437 | 4822 418 10269 | Tray CD (For -/10) | | | |
| 437 | 4822 418 10269 | Tray CD (For -/11/11H) | | | |
| 437 | 4822 418 10271 | Tray CD (For -/17) | | | |
| 438 | 4822 410 11132 | Knob Volume | | | |
| 439 | 4822 410 11128 | Knob Open | | | |
| 441 | 4822 535 60096 | Disc | | | |
| 443 | 4822 532 12798 | Pressure Ring Assy | | | |
| 446 | 4822 410 11238 | Knob Band | | | |
| 447 | 4822 464 10294 | Frame Tuning | | | |

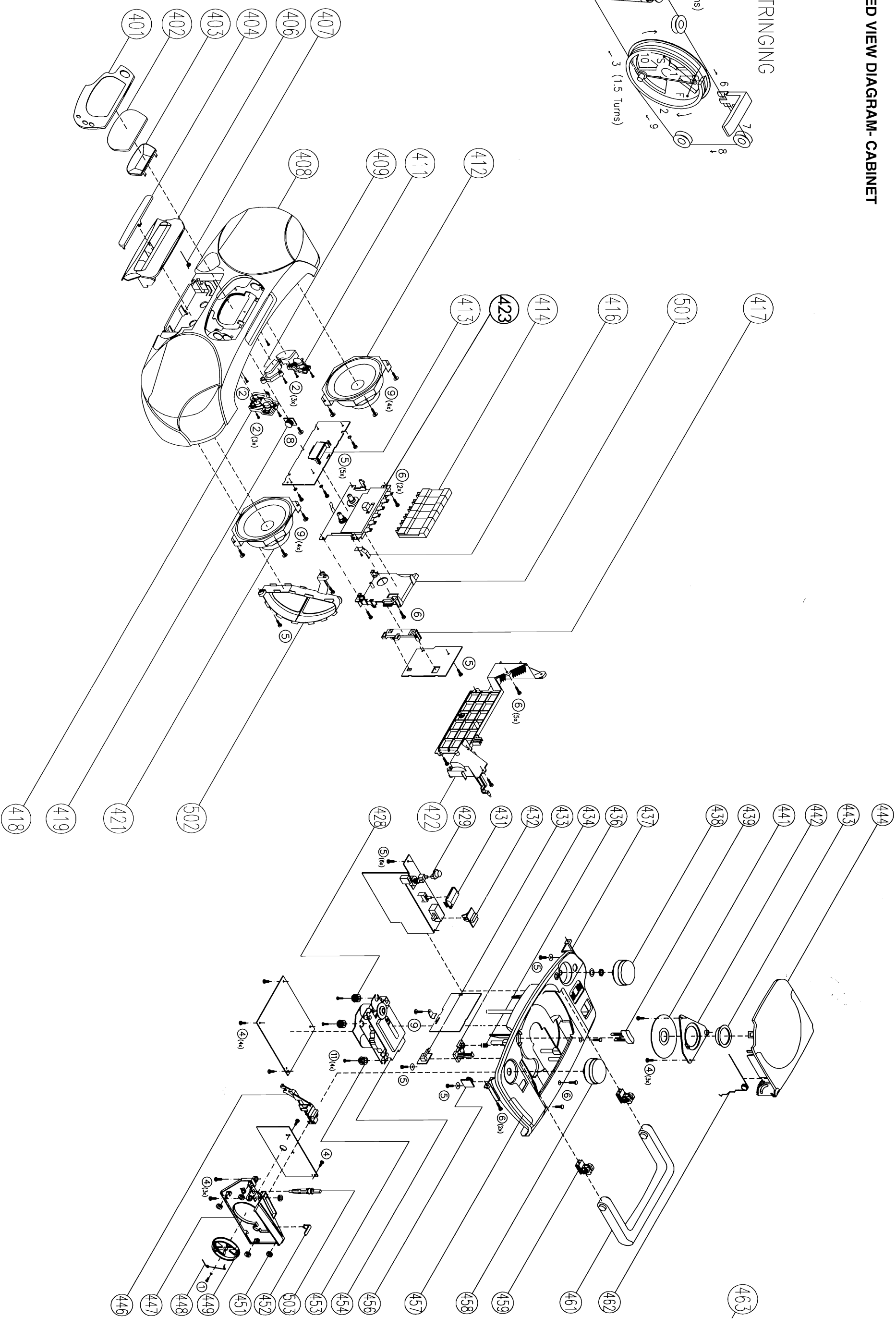
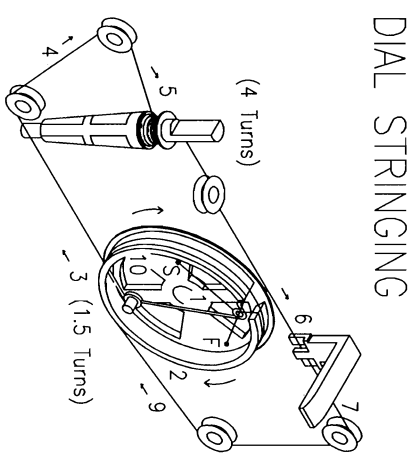
Note : Only those parts mentioned in the list are normal service parts.

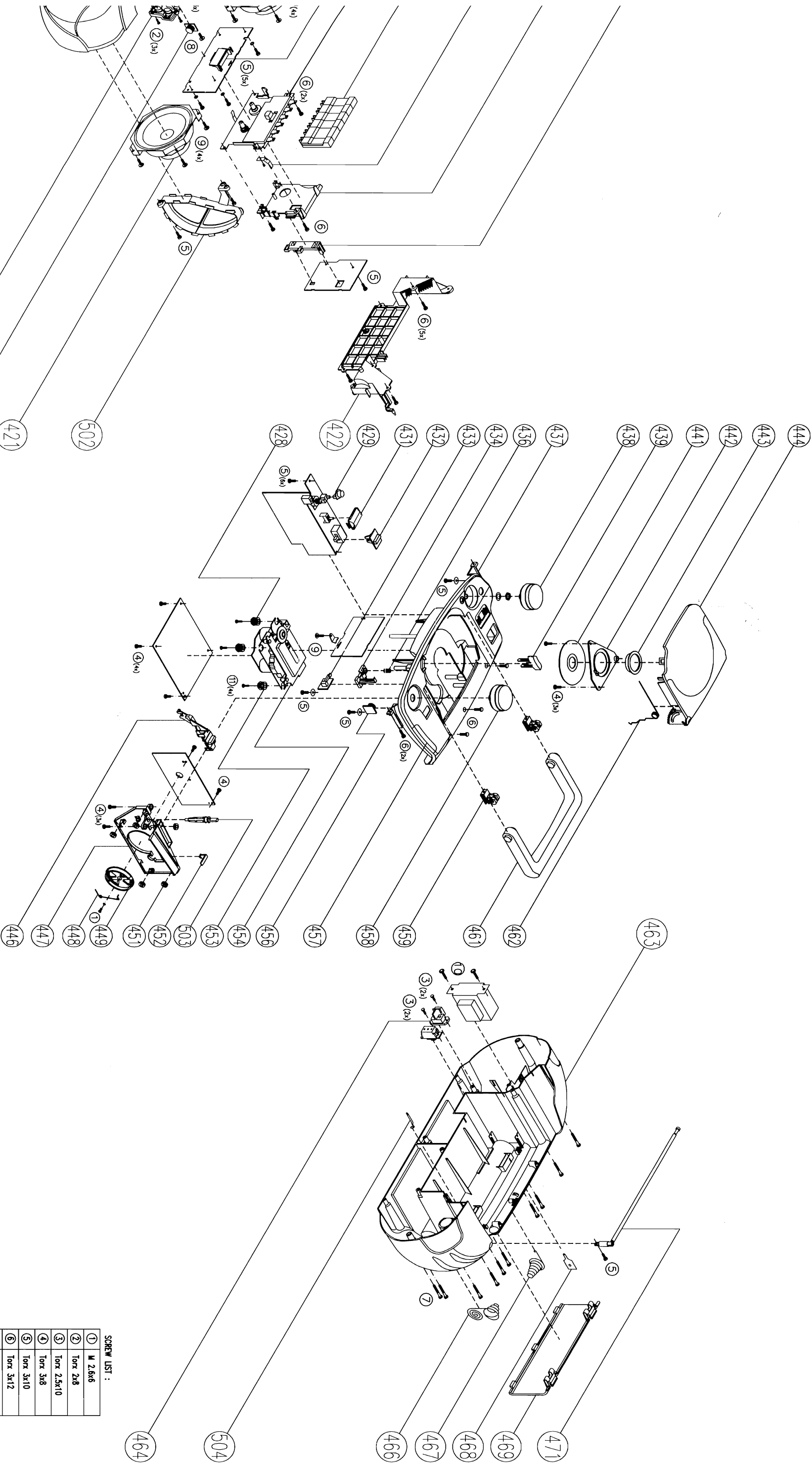
EXPLODED VIEW DIAGRAM - TAPE DECK

| | | | | | |
|-----|----------------|----------------------|-----|----------------|-------------------|
| 10 | 4822 528 70849 | Pinch Roller Arm (B) | 110 | 4822 278 90721 | Leaf Switch |
| 11 | 4822 528 70695 | Pinch Roller Assy | 111 | 4822 249 30218 | MS18R-AKONI |
| 74 | 4822 403 70968 | Eject Hook (A) | 112 | 4822 249 40306 | E. Head |
| 106 | 4822 358 31325 | Main Belt 45.2 x 1.2 | 115 | 4822 361 21656 | Motor EG-530AD-9B |
| 107 | 4822 358 31124 | Sub Belt 44.7 x 1.2 | 116 | 4822 528 81497 | Motor Pulley |

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

EXPLODED VIEW DIAGRAM- CABINET





SCREW LIST :

| | |
|---|-----------------|
| ① | M 2.6x6 |
| ② | Torx 2x8 |
| ③ | Torx 2.5x10 |
| ④ | Torx 3x8 |
| ⑤ | Torx 3x10 |
| ⑥ | Torx 3x12 |
| ⑦ | Torx 3x25 |
| ⑧ | Torx P/W 3x10 |
| ⑨ | Torx P/W 3x12 |
| ⑩ | Torx P/W 3x16 |
| ⑪ | Plus P/W 2.5x10 |

AUDIO BOARD

| | | | | | | |
|---------------------------------------|--------|------|----------------|--------------|----|------|
| <div><div></div><div>63V</div></div> | %, 50V | 3411 | 4822 116 52244 | 15K | 5% | 0,5W |
| | 50V | 3416 | 4822 116 52304 | 82K | 5% | 0,5W |
| | 50V | 3516 | 4822 116 52269 | 3K3 | 5% | 0,5W |
| | 63V | 3517 | 4822 116 52269 | 3K3 | 5% | 0,5W |
| | 63V | 3518 | 4822 116 52235 | 1M | 5% | 0,5W |
| | 50V | 3519 | 4822 116 52235 | 1M | 5% | 0,5W |
| | 50V | 3522 | 4822 102 10447 | Rot 50KB x 2 | | |
| | 50V | 3529 | 4822 116 83863 | 1K | 5% | 0,5W |
| | 50V | 3530 | 4822 116 83863 | 1K | 5% | 0,5W |
| | 63V | 3576 | 4822 116 83883 | 470R | 5% | 0,5W |
| <div><div></div><div>63V</div></div> | | 3577 | 4822 116 83883 | 470R | 5% | 0,5W |
| | | 3578 | 4822 116 52238 | 12K | 5% | 0,5W |
| | | 3579 | 4822 116 52238 | 12K | 5% | 0,5W |
| | | 3580 | 4822 116 83872 | 220R | 5% | 0,5W |
| | | 3582 | 4822 116 52305 | 820K | 5% | 0,5W |
| | 0,33W | 3583 | 4822 116 52305 | 820K | 5% | 0,5W |
| | 0,5W | 3584 | 4822 116 52243 | 1K5 | 5% | 0,5W |
| | 0,5W | 3585 | 4822 116 52243 | 1K5 | 5% | 0,5W |
| | 0,5W | 3586 | 4822 116 52228 | 680R | 5% | 0,5W |
| | 0,5W | 3587 | 4822 116 52228 | 680R | 5% | 0,5W |
| <div><div></div><div>0,5W</div></div> | | 3588 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| | 0,33W | 3589 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| | 0,5W | 3590 | 4822 116 52244 | 15K | 5% | 0,5W |
| | 0,5W | 3591 | 4822 116 52244 | 15K | 5% | 0,5W |
| | 0,5W | 3595 | 4822 116 83961 | 6K8 | 5% | 0,5W |
| | 0,5W | 3596 | 4822 116 83961 | 6K8 | 5% | 0,5W |
| | 0,5W | 3597 | 4822 116 52238 | 12K | 5% | 0,5W |
| | 0,5W | 3598 | 4822 116 52238 | 12K | 5% | 0,5W |
| | 0,5W | 3599 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| | 0,5W | 3600 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| <div><div></div><div>0,5W</div></div> | | 3610 | 4822 116 83864 | 10K | 5% | 0,5W |
| | 0,5W | 3611 | 4822 116 83864 | 10K | 5% | 0,5W |
| | 0,5W | 3620 | 4822 116 52219 | 330R | 5% | 0,5W |
| | 0,5W | 3621 | 4822 116 52219 | 330R | 5% | 0,5W |
| | 0,5W | 3660 | 4822 116 83864 | 10K | 5% | 0,5W |
| | 0,5W | 3661 | 4822 116 83864 | 10K | 5% | 0,5W |
| | 0,5W | | | | | |
| | 0,5W | | | | | |
| | 0,5W | | | | | |
| | 0,5W | | | | | |

| | | | |
|---------------------------------------|---------------------------------------|------------------------|--|
| <div><div></div><div>5503</div></div> | <div><div></div><div>5503</div></div> | | |
| | 4822 157 51195 | Coil 1µH 20% | |
| | <div><div></div><div>6300</div></div> | | |
| | 4822 130 31878 | Diode 1N4003G | |
| | 4822 130 31878 | Diode 1N4003G | |
| | 4822 130 31878 | Diode 1N4003G | |
| | 4822 130 31878 | Diode 1N4003G | |
| | 4822 130 32806 | BZX79-F3V3 | |
| | 4822 130 30621 | Diode 1N4148 | |
| | 4822 130 30621 | Diode 1N4148 | |
| <div><div></div><div>6403</div></div> | 4822 130 30621 | Diode 1N4148 | |
| | 4822 130 30621 | Diode 1N4148 | |
| | 4822 130 30621 | Diode 1N4148 | |
| | 4822 130 30621 | Diode 1N4148 | |
| | 4822 130 30621 | Diode 1N4148 | |
| | 4822 130 30621 | Diode 1N4148 | |
| | 4822 130 30621 | Diode 1N4148 | |
| | 4822 130 30621 | Diode 1N4148 | |
| | 4822 130 30621 | Diode 1N4148 | |
| | 4822 130 30621 | Diode 1N4148 | |
| <div><div></div><div>7250</div></div> | 4822 130 42231 | Trans BC557C | |
| | 4822 130 41327 | Trans BC327-40 | |
| | 4822 130 44503 | Trans BC547C | |
| | 4822 130 42231 | Trans BC557C | |
| | 4822 130 41327 | Trans BC327-40 | |
| | 4822 209 31544 | IC TA8227P | |
| | 5322 130 44779 | Trans BC338-40 | |
| | 5322 130 44779 | Trans BC338-40 | |
| | 4822 130 44503 | Trans BC547C | |
| | 4822 130 44503 | Trans BC547C | |
| <div><div></div><div>7514</div></div> | 4822 130 44503 | Trans BC547C | |
| | 4822 130 44503 | Trans BC547C | |
| | 4822 130 44503 | Trans BC547C | |
| | 4822 130 44503 | Trans BC547C | |
| | 4822 130 44503 | Trans BC547C | |
| | 4822 130 44503 | Trans BC547C | |
| | 4822 130 44503 | Trans BC547C | |
| | 4822 130 44503 | Trans BC547C | |
| | 4822 130 44503 | Trans BC547C | |
| | 4822 130 44503 | Trans BC547C | |
| - MISCELLANEOUS - | | | |
| 1006 | 4822 240 10248 | Loudspeaker 6W | |
| 1007 | 4822 240 10248 | Loudspeaker 6W | |
| 1008 | 4822 146 10825 | Transf (For -/00/0510) | |
| 1008 | 4822 146 10821 | Transf (For -/01) | |
| 1008 | 4822 146 10821 | Transf (For -/11/11H) | |

AUDIO BOARD

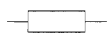
| | | | |
|-------------------|----------------|-------------------------|--|
| - MISCELLANEOUS - | | | |
| 1008 | 4822 146 10822 | Transf (For -/17) | |
| 1257 | 4822 267 31468 | Phone Socket 3.5mm | |
| 1301 | 4822 277 21794 | Volt Sel (For -/01) | |
| 1301 | 4822 277 21794 | Volt Sel (For -/11/11H) | |
| 1302 | 4822 070 32002 | Fuse 2A | |
| 1400 | 4822 277 30689 | Slide Switch | |
| 1503 | 4822 276 12648 | Push Switch | |
| 1507 | 4822 277 21698 | Slide Switch | |
| 1800 | 4822 276 13625 | Push Switch | |
| | 4822 280 10336 | Loudspeaker Piezo | |
| | 4822 280 10336 | Loudspeaker Piezo | |

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

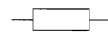
TAPE DECK



| | | |
|------|----------------|-------------------|
| 2630 | 4822 126 13678 | 470μF 10V |
| 2631 | 4822 124 41596 | 22μF 20% 50V |
| 2632 | 4822 124 40242 | 1μF 20% 63V |
| 2633 | 4822 124 40242 | 1μF 20% 63V |
| 2634 | 4822 126 12878 | 1,5nF 10% 16V |
| 2635 | 4822 126 12878 | 1,5nF 10% 16V |
| 2636 | 5322 122 32311 | 470pF 10% 100V |
| 2637 | 5322 122 32311 | 470pF 10% 100V |
| 2638 | 4822 124 11958 | 47μF 20% 25V |
| 2639 | 4822 124 11958 | 47μF 20% 25V |
| 2640 | 4822 126 12787 | 330pF 10% Y5V 50V |
| 2641 | 4822 126 12787 | 330pF 10% Y5V 50V |
| 2642 | 4822 121 51304 | 10nF 10% 50V |
| 2643 | 4822 121 51304 | 10nF 10% 50V |
| 2644 | 4822 126 12339 | 2,2nF 10% Y5R |
| 2645 | 4822 126 12339 | 2,2nF 10% Y5R |
| 2646 | 5322 121 42386 | 100nF 5% 63V |
| 2647 | 5322 121 42386 | 100nF 5% 63V |
| 2648 | 4822 126 11167 | 22nF 20% 50V |
| 2649 | 4822 126 11167 | 22nF 20% 50V |
| 2650 | 4822 124 11958 | 47μF 20% 25V |
| 2651 | 4822 124 11958 | 47μF 20% 25V |
| 2652 | 4822 122 33197 | 1nF 10% 50V |
| 2653 | 4822 122 33197 | 1nF 10% 50V |
| 2654 | 4822 124 41596 | 22μF 20% 50V |
| 2655 | 4822 122 33197 | 1nF 10% 50V |
| 2656 | 4822 124 40242 | 1μF 20% 63V |
| 2657 | 4822 121 51304 | 10nF 10% 50V |
| 2658 | 4822 126 11714 | 4,7nF 20% |
| 2659 | 4822 126 12147 | 22nF 10% Y5R 25V |



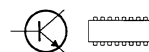
| | | |
|------|----------------|--------------|
| 3630 | 4822 116 83872 | 220R 5% 0,5W |
| 3632 | 4822 116 83883 | 470R 5% 0,5W |
| 3633 | 4822 116 83883 | 470R 5% 0,5W |
| 3634 | 4822 116 83883 | 470R 5% 0,5W |
| 3635 | 4822 116 83883 | 470R 5% 0,5W |



| | | |
|------|----------------|--------------|
| 3636 | 4822 116 52197 | 56R 5% 0,5W |
| 3637 | 4822 116 52197 | 56R 5% 0,5W |
| 3638 | 4822 116 52271 | 33K 5% 0,5W |
| 3639 | 4822 116 52271 | 33K 5% 0,5W |
| 3640 | 4822 116 83961 | 6K8 5% |
| 3641 | 4822 116 83961 | 6K8 5% |
| 3642 | 4822 116 52252 | 180K 5% 0,5W |
| 3643 | 4822 116 52252 | 180K 5% 0,5W |
| 3644 | 4822 116 83864 | 10K 5% 0,5W |
| 3645 | 4822 116 83864 | 10K 5% 0,5W |
| 3646 | 4822 116 52244 | 15K 5% 0,5W |
| 3647 | 4822 116 52244 | 15K 5% 0,5W |
| 3648 | 4822 116 52238 | 12K 5% 0,5W |
| 3649 | 4822 116 52238 | 12K 5% 0,5W |
| 3650 | 4822 111 30893 | 4M7 5% 0,2W |
| 3651 | 4822 116 52245 | 150K 5% 0,5W |
| 3652 | 4822 116 52219 | 330R 5% 0,5W |
| 3653 | 4822 116 52219 | 330R 5% 0,5W |
| 3654 | 4822 116 52289 | 5K6 5% 0,5W |
| 3655 | 4822 116 52289 | 5K6 5% 0,5W |
| 3656 | 4822 116 83864 | 10K 5% 0,5W |
| 3657 | 4822 116 52206 | 120R 5% 0,5W |
| 3658 | 4822 116 52176 | 10R 5% 0,5W |
| 3659 | 4822 116 52291 | 56K 5% 0,5W |



| | | |
|------|----------------|------------------|
| 5630 | 4822 156 20946 | Osc Coil 100 KHz |
|------|----------------|------------------|



| | | |
|------|----------------|--------------|
| 7630 | 4822 130 40959 | Trans BC547B |
| 7700 | 4822 209 32918 | IC AN7318S |

- MISCELLANEOUS -

| | | |
|------|----------------|-------------|
| 1640 | 4822 277 11504 | Push Switch |
|------|----------------|-------------|

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

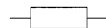
INCREDIBLE SOUND BOARD



| | | | | |
|------|----------------|-------|-----|--------|
| 2550 | 4822 126 11714 | 4,7nF | 20% | |
| 2551 | 4822 126 11714 | 4,7nF | 20% | |
| 2552 | 4822 122 10466 | 220pF | 10% | 50V |
| 2553 | 4822 122 10466 | 220pF | 10% | 50V |
| 2554 | 4822 122 33848 | 47pF | 5% | SL 50V |
| 2555 | 4822 122 33848 | 47pF | 5% | SL 50V |
| 2556 | 4822 122 33848 | 47pF | 5% | SL 50V |
| 2557 | 4822 122 33848 | 47pF | 5% | SL 50V |
| 2558 | 4822 122 33848 | 47pF | 5% | SL 50V |
| 2559 | 4822 122 33848 | 47pF | 5% | SL 50V |
| 2560 | 4822 121 51379 | 82nF | 5% | 63V |
| 2561 | 4822 121 51379 | 82nF | 5% | 63V |
| 2562 | 4822 121 51387 | 10nF | 20% | 16V |
| 2563 | 4822 121 51387 | 10nF | 20% | 16V |
| 2564 | 4822 124 40246 | 4,7μF | 20% | 63V |
| 2565 | 4822 124 40246 | 4,7μF | 20% | 63V |
| 2566 | 4822 126 12339 | 2,2nF | 10% | Y5R |
| 2567 | 4822 126 12339 | 2,2nF | 10% | Y5R |
| 2568 | 4822 124 11958 | 47μF | 20% | 25V |
| 2569 | 4822 124 11958 | 47μF | 20% | 25V |



| | | | | |
|------|----------------|------|----|------|
| 3550 | 4822 116 52234 | 100K | 5% | 0,5W |
| 3551 | 4822 116 52234 | 100K | 5% | 0,5W |
| 3552 | 4822 116 52234 | 100K | 5% | 0,5W |
| 3553 | 4822 116 52234 | 100K | 5% | 0,5W |
| 3554 | 4822 116 83878 | 270K | 5% | 0,5W |
| 3555 | 4822 116 83878 | 270K | 5% | 0,5W |
| 3556 | 4822 116 52234 | 100K | 5% | 0,5W |
| 3557 | 4822 116 52234 | 100K | 5% | 0,5W |
| 3558 | 4822 116 83884 | 47K | 5% | 0,5W |
| 3559 | 4822 116 83884 | 47K | 5% | 0,5W |
| 3560 | 4822 116 52291 | 56K | 5% | 0,5W |
| 3561 | 4822 116 52291 | 56K | 5% | 0,5W |
| 3562 | 4822 116 52245 | 150K | 5% | 0,5W |
| 3563 | 4822 116 52245 | 150K | 5% | 0,5W |
| 3564 | 4822 116 52234 | 100K | 5% | 0,5W |



| | | | | |
|------|----------------|------|----|------|
| 3565 | 4822 116 52234 | 100K | 5% | 0,5W |
| 3566 | 4822 116 83863 | 1K | 5% | 0,5W |
| 3567 | 4822 116 83863 | 1K | 5% | 0,5W |
| 3568 | 4822 116 83863 | 1K | 5% | 0,5W |
| 3569 | 4822 116 83863 | 1K | 5% | 0,5W |
| 3570 | 4822 116 52234 | 100K | 5% | 0,5W |
| 3571 | 4822 116 52234 | 100K | 5% | 0,5W |
| 3572 | 4822 116 52256 | 2K2 | 5% | 0,5W |
| 3573 | 4822 116 52256 | 2K2 | 5% | 0,5W |
| 3574 | 4822 116 52222 | 390R | 5% | 0,5W |
| 3575 | 4822 116 52222 | 390R | 5% | 0,5W |
| 3576 | 4822 116 52304 | 82K | 5% | 0,5W |
| 3577 | 4822 116 52304 | 82K | 5% | 0,5W |
| 3578 | 4822 116 52257 | 22K | 5% | 0,5W |
| 3579 | 4822 116 52257 | 22K | 5% | 0,5W |
| 3580 | 4822 116 83864 | 10K | 5% | 0,5W |
| 3581 | 4822 116 83864 | 10K | 5% | 0,5W |
| 3582 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3583 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3584 | 4822 116 52175 | 100K | 5% | 0,5W |



| | | |
|------|----------------|-------------|
| 7550 | 4822 209 63709 | IC LM324DTR |
|------|----------------|-------------|

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

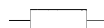


| | | |
|------|----------------|-------------------|
| 2802 | 4822 126 12785 | 47nF +80-20% 50V |
| 2803 | 4822 126 11585 | 47nF +80-20% 50V |
| 2804 | 4822 126 12878 | 1,5nF 10% 16V |
| 2805 | 4822 121 51412 | 560nF 10% 50V |
| 2806 | 4822 122 33519 | 470pF 10% 50V |
| 2807 | 4822 122 33191 | 18pF 5% 50V |
| 2808 | 4822 124 22263 | 220μF 20% 25V |
| 2809 | 4822 124 40242 | 1μF 20% 50V |
| 2810 | 4822 124 40242 | 1μF 20% 50V |
| 2811 | 4822 122 33849 | 150pF 10% 50V |
| 2812 | 4822 122 33849 | 150pF 10% 50V |
| 2813 | 4822 126 12339 | 2,2nF 10% 16V |
| 2814 | 4822 126 13677 | 39pF 5% 50V |
| 2815 | 4822 126 12882 | 100nF 8.2% 50V |
| 2816 | 4822 124 41407 | 0,47μF 20% 50V |
| 2817 | 4822 121 42687 | 3,3nF 10% 50V |
| 2818 | 4822 124 40242 | 1μF 20% 50V |
| 2819 | 5322 121 42386 | 100nF 10% 50V |
| 2820 | 4822 124 40746 | 0,22μF 20% 50V |
| 2821 | 4822 124 41579 | 10μF 20% 50V |
| 2822 | 4822 122 10167 | 22nF 30% 50V |
| 2823 | 4822 124 40246 | 4,7μF 20% 50V |
| 2824 | 4822 124 41407 | 0,47μF 20% 50V |
| 2825 | 4822 122 10462 | 15pF 5% NP0 |
| 2826 | 4822 124 41407 | 0,47μF 20% 50V |
| 2827 | 4822 124 40433 | 47μF 20% 25V |
| 2828 | 4822 124 41579 | 10μF 20% 50V |
| 2829 | 5322 121 42489 | 33nF 10% 50V |
| 2830 | 4822 122 10319 | 82pF 10% 50V |
| 2831 | 4822 121 41856 | 22nF 10% 50V |
| 2832 | 4822 124 41576 | 2,2μF 20% 50V |
| 2833 | 4822 124 40433 | 47μF 20% 25V |
| 2834 | 4822 126 12882 | 100nF +80-20% 50V |
| 2835 | 4822 126 12882 | 100nF +80-20% 50V |
| 2836 | 4822 124 80791 | 470μF 20% 16V |
| 2837 | 4822 126 11585 | 22nF +80-20% 25V |
| 2838 | 4822 126 12882 | 100nF +80-20% 50V |
| 2839 | 4822 126 12882 | 100nF +80-20% 50V |
| 2841 | 4822 122 33195 | 100pF 10% 50V |
| 2842 | 4822 124 40849 | 330μF 20% 16V |



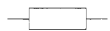
| | | |
|------|----------------|---------------|
| 2843 | 4822 126 13098 | 5,6nF 20% 16V |
| 2844 | 4822 122 10466 | 220pF 10% 50V |
| 2846 | 4822 122 33519 | 470pF 10% 50V |
| 2848 | 4822 122 33519 | 470pF 10% 50V |
| 2849 | 4822 122 10466 | 220pF 10% 50V |

| | | |
|------|----------------|--------------|
| 2860 | 4822 124 40433 | 47μF 20% 25V |
|------|----------------|--------------|



| | | |
|------|----------------|---------------|
| 3801 | 4822 052 10478 | 4R7 5% 0,33W |
| 3802 | 4822 116 52252 | 180K 5% 0,16W |
| 3803 | 4822 111 50499 | 3M3 5% |
| 3805 | 4822 116 83884 | 47K 5% 0,16W |
| 3806 | 4822 116 52256 | 2K2 5% 0,16W |
| 3807 | 4822 116 52271 | 33K 5% 0,16W |
| 3808 | 4822 116 52263 | 2K7 5% 0,16W |
| 3809 | 4822 116 83884 | 47K 5% 0,16W |
| 3810 | 4822 116 52257 | 22K 5% 0,16W |
| 3811 | 4822 116 52257 | 22K 5% 0,16W |
| 3812 | 4822 116 52257 | 22K 5% 0,16W |
| 3815 | 4822 050 11002 | 1K 5% 0,16W |
| 3816 | 4822 050 11002 | 1K 5% 0,16W |
| 3817 | 4822 116 83883 | 470R 5% 0,16W |
| 3818 | 4822 116 83883 | 470R 5% 0,16W |
| 3819 | 4822 117 11825 | 1M5 5% |
| 3820 | 4822 116 52252 | 180K 5% 0,16W |
| 3821 | 4822 116 52243 | 1K5 5% 0,16W |
| 3822 | 4822 116 52264 | 27K 5% 0,16W |
| 3823 | 4822 116 52234 | 100K 5% 0,16W |
| 3824 | 4822 116 83868 | 150R 5% 0,16W |
| 3826 | 4822 116 83961 | 6K8 5% 0,16W |
| 3827 | 4822 116 52243 | 1K5 5% 0,16W |
| 3828 | 4822 116 83864 | 10K 5% 0,16W |
| 3829 | 4822 116 52271 | 33K 5% 0,16W |
| 3830 | 4822 116 52244 | 15K 5% 0,16W |
| 3831 | 4822 116 52251 | 18K 5% 0,16W |
| 3832 | 4822 116 52222 | 390R 5% 0,16W |
| 3833 | 4822 116 52264 | 27K 5% 0,16W |
| 3835 | 4822 116 52184 | 18R 5% 0,16W |

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| 3836 |
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| 3848 |
| 3849 |
| 3850 |
| 3851 |
| 3852 |
| 3853 |
| 3854 |
| 3855 |
| 3856 |
| 3857 |
| 3858 |
| 3859 |
| 3860 |
| 3870 |
| 3871 |
| 3880 |
| 3881 |
| 3882 |
| 3883 |
| 3884 |
| 3886 |
| 3890 |
| 3891 |
| 3892 |
| 3893 |
| 3894 |
| 3895 |
| 3896 |
| 3897 |



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|------|----------------|---------------|
| 3836 | 4822 050 11002 | 1K 5% 0,16W |
| 3837 | 4822 111 30893 | 4M7 5% |
| 3838 | 4822 11652234 | 100K 5% 0,16W |
| 3839 | 4822 116 52235 | 1M 5% 0,16W |
| 3840 | 4822 050 11002 | 1K 5% 0,16W |

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|------|----------------|---------------|
| 3841 | 4822 116 52298 | 680K 5% 0,16W |
| 3842 | 4822 116 52297 | 68K 5% 0,16W |
| 3844 | 4822 116 52291 | 56K 5% 0,16W |
| 3845 | 4822 116 52298 | 680K 5% 0,16W |
| 3846 | 4822 050 11002 | 1K 5% 0,16W |

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|------|----------------|---------------|
| 3847 | 4822 116 52298 | 680K 5% 0,16W |
| 3848 | 4822 116 52251 | 18K 5% 0,16W |
| 3849 | 4822 052 10478 | 4R7 5% |
| 3850 | 4822 116 52251 | 18K 5% 0,16W |
| 3851 | 4822 116 52244 | 15K 5% 0,16W |

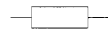
| | | |
|------|----------------|---------------|
| 3852 | 4822 116 83883 | 470R 5% 0,16W |
| 3853 | 4822 116 52251 | 18K 5% 0,16W |
| 3854 | 4822 116 52243 | 1K5 5% 0,16W |
| 3855 | 4822 116 83882 | 29K 5% 0,16W |
| 3856 | 4822 116 52303 | 8K2 5% 0,16W |

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|------|----------------|--------------|
| 3857 | 4822 116 52269 | 3K3 5% 0,16W |
| 3858 | 4822 116 80176 | 1R 5% 0,16W |
| 3859 | 4822 116 83864 | 10K 5% 0,16W |
| 3860 | 4822 116 52207 | 1K2 5% 0,16W |
| 3870 | 4822 052 10478 | 4R7 5% |

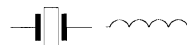
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|------|----------------|-------------|
| 3871 | 4822 116 52283 | 4K7 5% 0,5W |
| 3880 | 4822 050 11002 | 1K 5% 0,16W |
| 3881 | 4822 050 11002 | 1K 5% 0,16W |
| 3882 | 4822 050 11002 | 1K 5% 0,16W |
| 3883 | 4822 050 11002 | 1K 5% 0,16W |

| | | |
|------|----------------|--------------|
| 3884 | 4822 116 83882 | 39K 5% 0,16W |
| 3886 | 4822 116 52235 | 1M 5% 0,16W |
| 3890 | 4822 050 11002 | 1K 5% 0,16W |
| 3891 | 4822 050 11002 | 1K 5% 0,16W |
| 3892 | 4822 050 11002 | 1K 5% 0,16W |

| | | |
|------|----------------|--------------|
| 3893 | 4822 050 11002 | 1K 5% 0,16W |
| 3894 | 4822 050 11002 | 1K 5% 0,16W |
| 3895 | 4822 050 11002 | 1K 5% 0,16W |
| 3896 | 4822 116 52256 | 2K2 5% 0,16W |
| 3897 | 4822 116 52256 | 2K2 5% 0,16W |



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|------|----------------|--------------|
| 3898 | 4822 116 52256 | 2K2 5% 0,16W |
| 3899 | 4822 050 11002 | 1K 5% 0,16W |

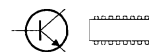


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|------|----------------|----------------|
| 5000 | 4822 526 10494 | Ind Fxd 100MHz |
| 5010 | 4822 526 10494 | Ind Fxd 100MHz |
| 5020 | 4822 526 10494 | Ind Fxd 100MHz |
| 5030 | 4822 526 10494 | Ind Fxd 100MHz |
| 5040 | 4822 526 10494 | Ind Fxd 100MHz |

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|------|----------------|----------------|
| 5050 | 4822 526 10494 | Ind Fxd 100MHz |
| 5060 | 4822 157 50964 | Coil 100µH 15% |
| 5803 | 4822 242 73557 | Filter 8MHz467 |



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|------|----------------|--------------|
| 6001 | 4822 130 30621 | Diode 1N4148 |
|------|----------------|--------------|



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|------|----------------|--------------|
| 7801 | 4822 209 13703 | IC M65821FP |
| 7802 | 4822 209 32421 | IC TDA1311A |
| 7803 | 4822 209 90496 | IC M62475FP |
| 7804 | 5322 130 60068 | Trans BC558C |
| 7805 | 4822 209 32852 | IC TDA7073A |
| 7806 | 4822 209 32852 | IC TDA7073A |

- MISCELLANEOUS -

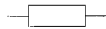
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|------|----------------|-----------|
| 1802 | 4822 265 10925 | Connector |
| 8000 | 4822 265 10926 | Connector |

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

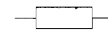
FRONT BOARD



| | | | | |
|------|----------------|-------|-----|-----|
| 2401 | 4822 124 11959 | 100μF | 20% | 10V |
| 2402 | 4822 124 40242 | 1μF | 20% | 63V |
| 2464 | 4822 122 10466 | 220pF | 10% | 50V |
| 2465 | 4822 122 10466 | 220pF | 10% | 50V |

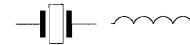


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|------|----------------|------|----|------|
| 3401 | 4822 116 52175 | 100R | 5% | 0,5W |
| 3402 | 4822 116 52234 | 100K | 5% | 0,5W |
| 3403 | 4822 116 52244 | 15K | 5% | 0,5W |
| 3404 | 4822 116 83883 | 470R | 5% | 0,5W |
| 3405 | 4822 116 52238 | 12K | 5% | 0,5W |
| 3406 | 4822 116 52276 | 3K9 | 5% | 0,5W |
| 3407 | 4822 116 52243 | 1K5 | 5% | 0,5W |
| 3408 | 4822 116 52226 | 560R | 5% | 0,5W |
| 3410 | 4822 116 83961 | 6K8 | 5% | 0,5W |
| 3411 | 4822 116 52238 | 12K | 5% | 0,5W |
| 3412 | 4822 116 52257 | 22K | 5% | 0,5W |
| 3414 | 4822 116 83961 | 6K8 | 5% | 0,5W |
| 3415 | 4822 116 52238 | 12K | 5% | 0,5W |
| 3416 | 4822 116 52257 | 22K | 5% | 0,5W |
| 3451 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3452 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3453 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3454 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3455 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3456 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3457 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3458 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3459 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3460 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3461 | 4822 116 52269 | 3K3 | 5% | 0,5W |
| 3462 | 4822 116 52243 | 1K5 | 5% | 0,5W |
| 3463 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3464 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3465 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3466 | 4822 116 52243 | 1K5 | 5% | 0,5W |
| 3467 | 4822 116 52243 | 1K5 | 5% | 0,5W |
| 3468 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3469 | 4822 116 52231 | 820R | 5% | 0,5W |
| 3470 | 4822 116 52231 | 820R | 5% | 0,5W |
| 3471 | 4822 116 52283 | 4K7 | 5% | 0,5W |



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|------|----------------|------|----|------|
| 3472 | 4822 116 52231 | 820R | 5% | 0,5W |
| 3473 | 4822 116 52269 | 3K3 | 5% | 0,5W |
| 3474 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3475 | 4822 116 52283 | 4K7 | 5% | 0,5W |
| 3479 | 4822 116 52283 | 4K7 | 5% | 0,5W |

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|------|----------------|-----|----|------|
| 3480 | 4822 116 52257 | 22K | 5% | 0,5W |
| 3481 | 4822 116 52257 | 22K | 5% | 0,5W |
| 3482 | 4822 116 52257 | 22K | 5% | 0,5W |
| 3483 | 4822 116 52257 | 22K | 5% | 0,5W |
| 3484 | 4822 116 52264 | 27K | 5% | 0,5W |
| 3485 | 4822 116 52264 | 27K | 5% | 0,5W |



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|------|----------------|--------------------|
| 5401 | 4822 242 73769 | Filter CST4,19MGW |
| 5402 | 4822 156 21721 | Inductor 2,2μH 10% |
| 5403 | 4822 157 52333 | Inductor 100μH 10% |



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|------|----------------|------------------|
| 6402 | 4822 130 30621 | Diode 1N4148 |
| 6403 | 4822 130 30621 | Diode 1N4148 |
| 6404 | 4822 130 31554 | Diode BZX79-B4V3 |



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|------|----------------|---------------|
| 7401 | 4822 209 15568 | IC TMP47C422F |
| 7402 | 4822 130 44503 | Trans BC547C |
| 7403 | 4822 130 40959 | Trans BC547B |

- MISCELLANEOUS -

| | | |
|------|----------------|-------------|
| 1401 | 4822 135 00124 | LCD Display |
| 1410 | 4822 276 13114 | Tact Switch |
| 1411 | 4822 276 13114 | Tact Switch |
| 1412 | 4822 276 13114 | Tact Switch |
| 1413 | 4822 276 13114 | Tact Switch |
| 1415 | 4822 276 13114 | Tact Switch |
| 1416 | 4822 276 13114 | Tact Switch |
| 1417 | 4822 276 13114 | Tact Switch |

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

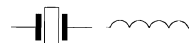
ATM 3



| | | |
|------|------------------|----------------------|
| 2101 | 4822 122 33195 | 100pF 10% 50V |
| 2102 | 4822 126 12812 | 47pF 5% 50V |
| 2103 | 4822 124 40248 | 10µF 20% 63V |
| 2104 | 4822 124 40248 | 10µF 20% 63V |
| 2105 | 4822 126 12112 | 22pF 5% N220 50V |
| 2106 | 4822 125 50681 | Var Capacitor |
| 2108 | 4822 122 32147 | 22pF 2% N470 100V |
| 2109 | 4822 122 31821 | 3,3pF 0,25% 100V |
| 2110 | 4822 126 12284 | 5,6pF 0,5% N1500 50V |
| 2110 | 4822 126 12229 | 8,2pF N750 50V |
| 2112 | 4822 124 41397 | 47µF 20% 25V |
| 2113 | 4822 126 13581 | 0.22µF 20% 50V |
| 2114 | 4822 126 12787 | 330pF 10% Y5V 50V |
| 2115 | 4822 124 40246 | 4,7µF 20% 63V |
| 2116 | 4822 126 12077 | 15nF 10% 25V |
| 2116 | 4822 126 12147 | 22nF 10% Y5R 25V |
| 2117 | 4822 124 40242 | 1µF 20% 63V |
| 2118 | 4822 124 40242 | 1µF 20% 63V |
| 2119 | 4822 126 12077 | 15nF 10% 25V |
| 2119 | 4822 126 12147 | 22nF 10% Y5R 25V |
| 2120 | 4822 124 40242 | 1µF 20% 63V |
| 2121 | 4822 124 40239 | 0,47µF 20% 63V |
| 2122 | 4822 124 40239 | 0,47µF 20% 63V |
| 2125 | β 4822 126 12826 | 120pF 50% N750 50V |
| 2126 | β 4822 125 50045 | 1p8-22p 250V |
| 2150 | β 4822 125 50045 | 1p8-22p 250V |



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|------|------------------|--------------|
| 3101 | 4822 100 20167 | 50K 30% 0,1W |
| 3102 | 4822 116 52297 | 68K 5% 0,5W |
| 3104 | 4822 116 52256 | 2K2 5% 0,5W |
| 3108 | 4822 116 52191 | 33R 5% 0,5W |
| 3108 | 4822 116 52195 | 47R 5% 0,5W |
| 3109 | 4822 116 52234 | 100K 5% 0,5W |
| 3110 | 4822 116 52234 | 100K 5% 0,5W |
| 3111 | α 4822 116 83863 | 1K 5% 0,5W |
| 3113 | 4822 116 52252 | 180K 5% 0,5W |



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|------|------------------|---------------------|
| 5101 | 4822 157 70513 | FM-RF Coil |
| 5101 | 4822 157 53789 | FM-RF Coil |
| 5104 | 4822 156 30947 | FM-Osc Coil |
| 5105 | 4822 157 71145 | Coil 270µH |
| 5106 | 4822 157 70499 | AM-IF Filter 468KHz |
| 5107 | 4822 242 81154 | Filter KMFC5058-Z |
| 5108 | 4822 156 11146 | AM-IF Filter 468KHz |
| 5109 | β 4822 157 71144 | Coil 280µH |
| 5111 | 4822 156 21738 | Coil F7BRS-12645X |
| 5112 | β 4822 156 21739 | Coil F126ANS-8402Y |



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|------|----------------|--------------|
| 6101 | 4822 130 30621 | Diode 1N4148 |
| 6102 | 4822 130 30621 | Diode 1N4148 |



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|------|----------------|----------------|
| 7101 | 4822 209 32746 | IC TEA5711T/N2 |
|------|----------------|----------------|

- MISCELLANEOUS -

| | | |
|------|------------------|-----------------|
| 1100 | β 4822 277 30933 | Switch FM/LW/MW |
| 1101 | α 4822 277 21698 | Switch FM/AM |

α for FM/MW only
β for FM/MW/LW only

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