CD Stereo Radio Recorder

AZ1203/00/04/17

AZ1208/00/04/05/17

Service
Service
Service

Manual #1878
AZ1203/AZ1208

Service Manual

COMPACT disc DIGITAL AUDIO

TABLE OF CONTENTS

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

CLASS 1
LASER PRODUCT

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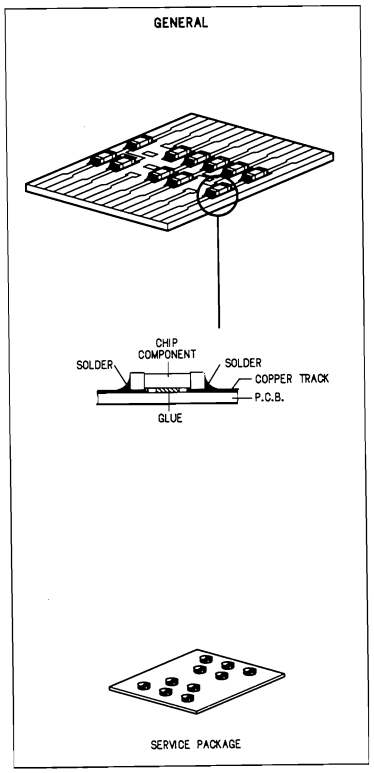
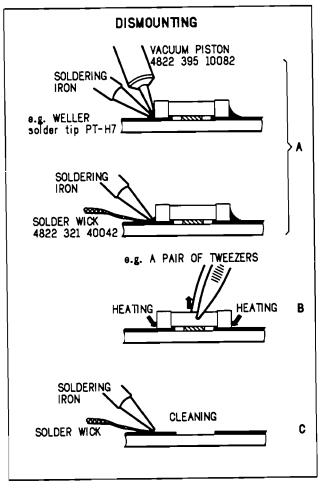
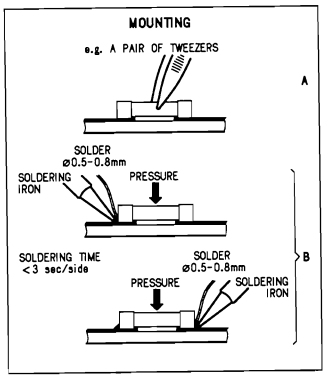
PCS 97 501

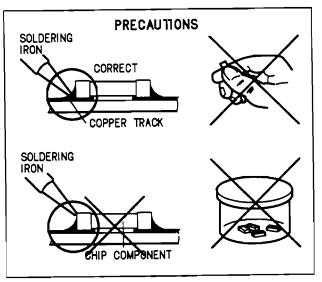
PHILIPS

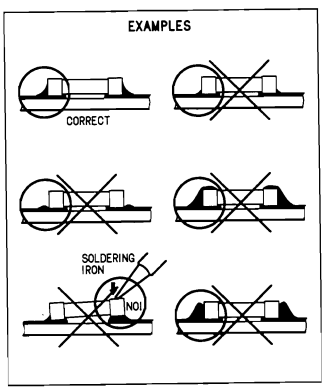
HANDLING CHIP COMPONENTS











ESD

(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 longévite pourrait être considérablement écourtée par le fait qu´aucune précaution nést prise à leur manipulation.
Lors de réparations, s´assurer de bien être relié au même potentiel que la masse de l´appareil et enfileer le bracelet serti d´une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l´on utilise soient également à ce potentiel.

Anti-static table mat large 1200x650x1.25mm
small 600x650x1.25mm
Anti-static wrist band
Connection box (1MOhm)
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

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

(F)
"Pour votre sécurite, ces documents doivent être utilisés par des spécialistes agrées, seuls habilités à réparer votre appareil en panne".

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren.
Sorgen Sie dafür, dab sie im Reparaturfall über ein Puls-armband mit Widerstand mit dem Massepotential des Gerätes verbunden sind.
Halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

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 originial 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 spärren är urkopplad. Betrakta ej strålen.

(DK) Advarsel !

Usynlig laserstråling ved åbning når sikkerhedsafbrvdere er ude af funktion. Undgå udsaettelse for stråling.

(SF) Varoitus !

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

(NL) WAARSCHUWING

Alle IC´s en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen vermindern. Zorg ervoor dat u tijdens reparatie via een polsband met wererstand 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 statische (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparationi occorre quindi essere collegato allo stesso potenziale che quello della massa delápparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(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

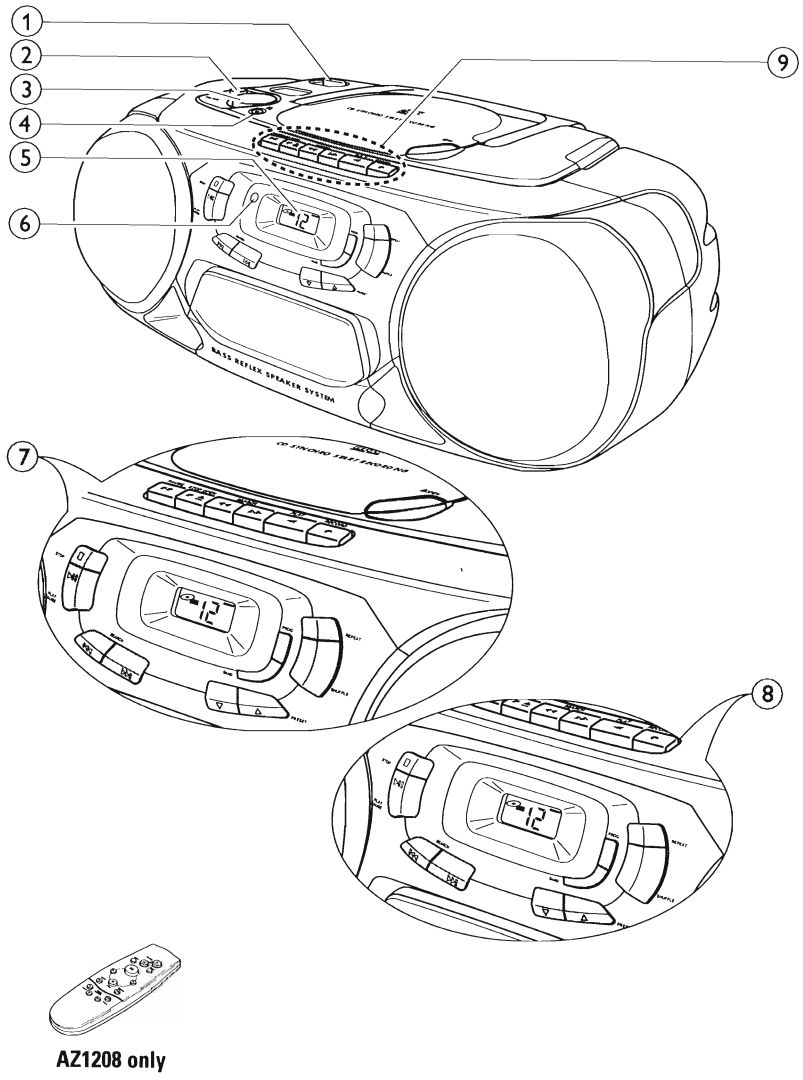
Bei jeder Reparatur sind die geltenden Sicherheitsvor-schriften zu beachten. Der Originaizustand des Gerätes darf nicht verändert werden. Für Reparaturen sind Original-ersatzteile zu verwenden.

(NL) WAARSCHUWING

Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkeliijke 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 orginali e che siano utilizzati i pezzi di ricambiago identici a quelli specificati.



AZ1208 only

BASIC FUNCTIONS

① POWER:
CD, TUNER, TAPE...selects the sound source

② DBB.....enhances the bass

③ VOLUME .....adjusts the volume level

④ 🎧.....3.5mm headphone socket

Note: Connecting the headphones will switch off the speakers.

⑤ Display

⑥ REMOTE SENSOR ..sensor for the infrared remote control (AZ 1208 only)

⑦ CD PLAYER

△ OPEN .....opens the CD compartment

STOP □.....stops CD play and erases the program

PLAY·PAUSE ▷II...starts and interrupts CD play

SEARCH ⏮ ⏭.....skips and searches forward and backward

PROGRAM .....programs track numbers and reviews the program

SHUFFLE .....plays CD tracks in random order

REPEAT .....repeats a track, the entire CD, or the program

⑧ RADIO

SEARCH ⏮ ⏭.....tunes to radio stations

BAND.....selects the wave band

PROGRAM .....programs radio preset stations

PRESET △ ▽.....selects a radio preset station

⑨ CASSETTE RECORDER

PAUSE II.....interrupts recording or playback

STOP·OPEN □△ ...stops the tape and opens the cassette compartment

SEARCH ⏩ .....rewinds the tape

SEARCH ⏪ .....fast forwards the tape

PLAY ◁.....starts playback

RECORD ○ .....starts recording

REMOTE CONTROL (AZ 1208 only)

VOLUME ▼ ▲.....decreases or increases the volume level

SHUFFLE .....plays CD tracks in random order

REPEAT .....repeats a track, the entire CD or the program

▶II.....starts and interrupts CD play

⏮ ⏭.....selects the beginning of the current, a previous or a subsequent track of a CD

■.....stops CD play and erases the program

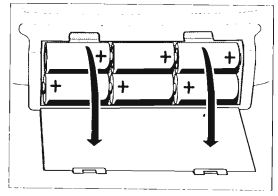
SEARCH ◀◀ ▶▶.....searches backward/forward in a CD track

PRESET ▲ ▼.....selects a radio preset station

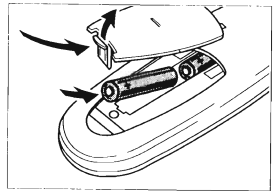
TUNING ⏮ ⏭.....tunes to radio stations

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).



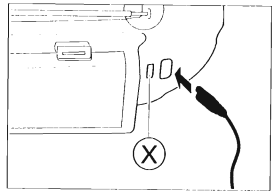
For the remote control (AZ 1208 only)
Open the battery compartment of the remote control and insert 2 batteries, type **R03**, **UM-4** or **AAA**-cells (preferably alkaline).



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 (X), 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.

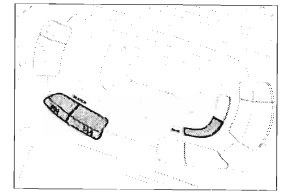
For users in the U.K.: please follow the instructions on page 2.

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.

Tuning to radio stations



1 Set the POWER slider to TUNER.

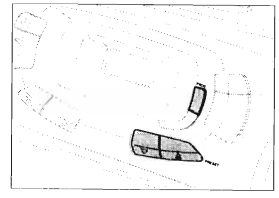
2 Select the wave band by using the BAND selector.
→ Display indication: the selected waveband.

3 Press SEARCH ⏮ or ⏭ for approx. 1 second and then release the button.
→ The radio automatically tunes to a station with sufficient strength. Display indication during automatic tuning: Srch.

4 Repeat this procedure until you find a station you desire.

To tune to a weak transmitter briefly press SEARCH ⏮ or ⏭ as often as necessary for optimum reception, or until the correct frequency is indicated in the display.

Programming radio stations (29 preset stations)



You can store up to 29 radio stations in the memory. When tuning to a preset station, the preset number (1 to 29) is indicated in the display.

1 Set the POWER slider to TUNER.

2 Press PROGRAM to enter the programming mode.
→ During programming, **PROGRAM** flashes on the display.

3 Tune to a desired station with SEARCH ⏮ or ⏭, as described earlier (see "Tuning to radio stations").
→ If the frequency is already stored in the memory, the preset number will be displayed.

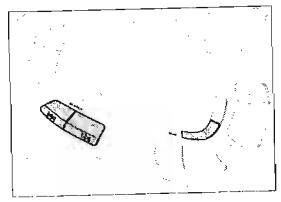
4 Press PRESET ▽ or △ to allocate a number from 1 to 29 to the preset station.

5 Press PROGRAM to confirm the setting.

Tuning to preset stations

Press PRESET ▽ or △ until the desired preset number appears on the display.

Tuning to radio stations



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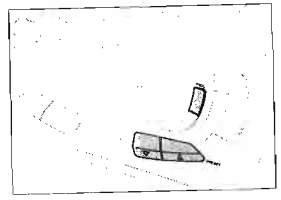

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5 Press PROGRAM to confirm the setting.

Tuning to preset stations

Press PRESET ▽ or △ until the desired preset number appears on the display.

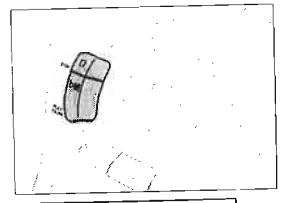
Playing a CD

1 Set the POWER slider to CD.

2 Press ≙ 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 and the total playing time of the CD.

4 Press the PLAY·PAUSE ▷II button to start CD play.
→ Display indication: the current track number.

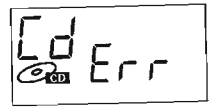


5 Press the STOP □ button to stop CD play.
→ Display indication: the total number of tracks.

You can interrupt CD play by pressing PLAY·PAUSE ▷II. Continue CD play by pressing the button again.
→ Display indication: the time of the actual position flashes.

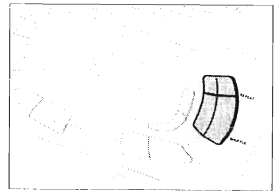
Note: CD play will also stop if:
– you open the CD compartment,
– the end of the CD is reached, or
– you move the POWER *slider to* TUNER *or* TAPE.

If you make a mistake when operating the CD player, or the CD player cannot read the CD, the display shows Cd Err. (See chapter "TROUBLESHOOTING".)



If you press PLAY·PAUSE ▷II and there is no CD inserted the display shows no dISC.

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.

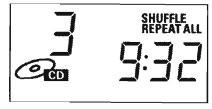
2 Press SHUFFLE again to return to normal CD play.

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

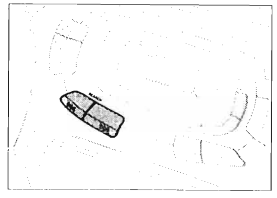
1 Before or during CD play, press REPEAT repeatedly to cause the display to show the different repeating modes.
→ **REPEAT**: the current track is played repeatedly.
→ **REPEAT ALL**: the entire CD or program is played repeatedly.

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.

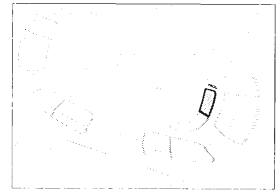
Searching for a passage during CD play

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 the number of the stored track is shown. Then *prog* lights up briefly.

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 *FULL*.

If you press PROGRAM and there is no track selected, the display shows *no SEL*.

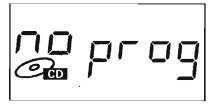
Playing the program

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 ⏯.

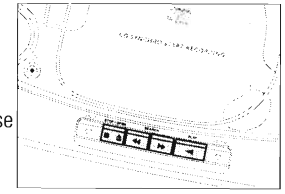
Erasing the program when CD playback is stopped

From the stop position, press STOP ⏹.
→ *no prog* 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.

Playing a cassette



1 Set the POWER slider to TAPE.

2 Press STOP·OPEN □⏏ to open the cassette compartment.

3 Insert a recorded cassette with the open side upwards and close the cassette compartment.

4 Press PLAY ◁ to start playback.

5 Press ▷▷ or ◁◁ to rewind or fast forward the tape.

6 To stop the tape press STOP·OPEN □⏏.

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.

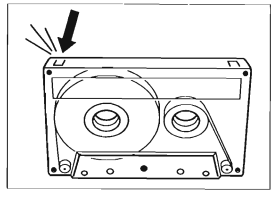
For recording on this set you should use a cassette of the type NORMAL (IEC type I). This deck is not suitable for recording on cassettes of the type CHROME (IEC type II) or METAL (IEC type IV).

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

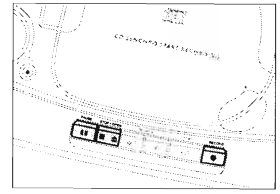
At the very beginning and end of the tape, no recording will take place in the 7 seconds during which the leader tape passes the recorder heads.

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 □⏏ to open the cassette compartment.

4 Insert a blank, unprotected cassette and close the cassette compartment.

5 Press RECORD ○ 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 ▯▯. Press the PAUSE ▯▯ key again to resume recording.

7 To stop recording, press STOP·OPEN □⏏.

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 ⏮ *or* ⏭*);*
– 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 □⏏ to open the cassette compartment.

4 Insert a blank, unprotected cassette and close the cassette compartment.

5 Press RECORD ○ to start recording.

6 For brief interruptions press PAUSE ▯▯. To resume recording press the PAUSE ▯▯ key again.

7 To stop recording, press STOP·OPEN □⏏.

SPECIFICATIONS

GENERAL

Mains voltage	-/00/04/05	:	230V
	-/17	:	120V
Mains frequency	-/00/04/05	:	50 Hz
	-/17	:	60 Hz
Battery	mains	:	9 V (R20 x 6)
	remote	:	1.5V (R03 x 2)
Power consumption		:	10 W
Dimension (W x H x D)		:	470 x 175 x 250 mm
Weight		:	4.2 Kg

AMPLIFIER

Output power	mains	:	2 x 1.6 W
	battery	:	2 x 1.6 W
Speaker impedance		:	2 x 4 ohm
Frequency response		:	100 Hz - 10 kHz (±4dB)

TUNER - FM SECTION

Tuning range	:	87.5 - 108 MHz
IF frequency	:	10.7 MHz ± 0.03 MHz
Sensitivity	:	< 22 dBf at 26dB S/N
Selectivity	:	> 33 dB at 300kHz
IF rejection	:	> 60 dB
Image rejection	:	> 25 dB

TUNER - AM SECTION

Tuning range	MW	:	531 - 1602 kHz
	-/17	:	530 - 1700 kHz
	LW	:	153 - 279 kHz
Sensitivity	MW	:	< 4000 µV/m at 26dB S/N
	LW	:	< 6000 µV/m at 26dB S/N
Selectivity	MW	:	> 18 dB
	LW	:	> 24 dB
IF rejection	MW	:	> 24 dB
	LW	:	> 26 dB
Image rejection	MW	:	> 28 dB
	LW	:	> 30 dB

AUDIO CASSETTE RECORDER

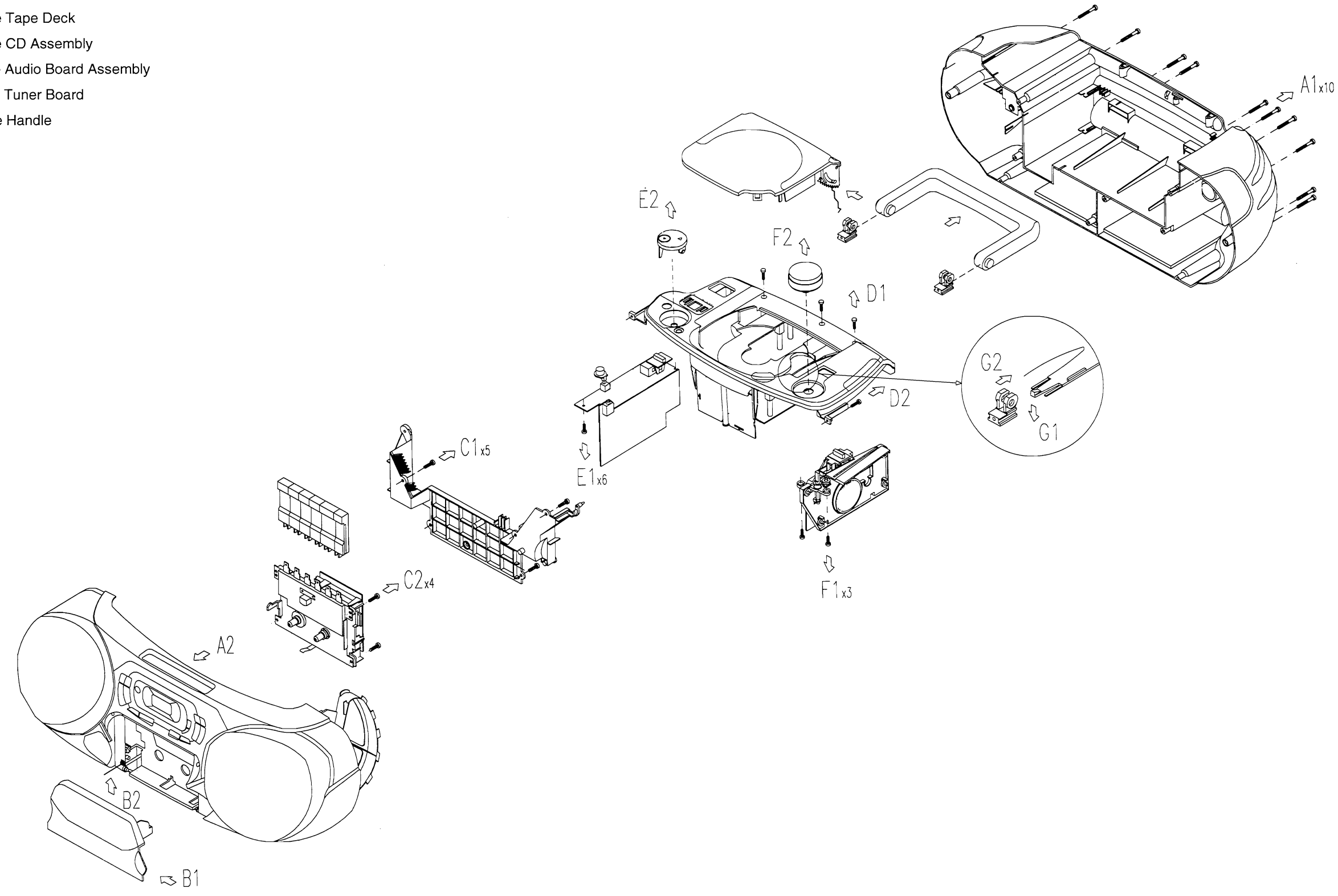
Number of tracks		:	1 stereo
Tape speed		:	4.76 cm/sec ± 3%
Wow & flutter		:	< 0.48 JIS UWTD
Fast wind/rewind C60		:	< 110 sec.
Frequency response	P/B	:	125 - 6300 Hz
S/N ratio		:	≥ 38 dB

COMPACT DISC

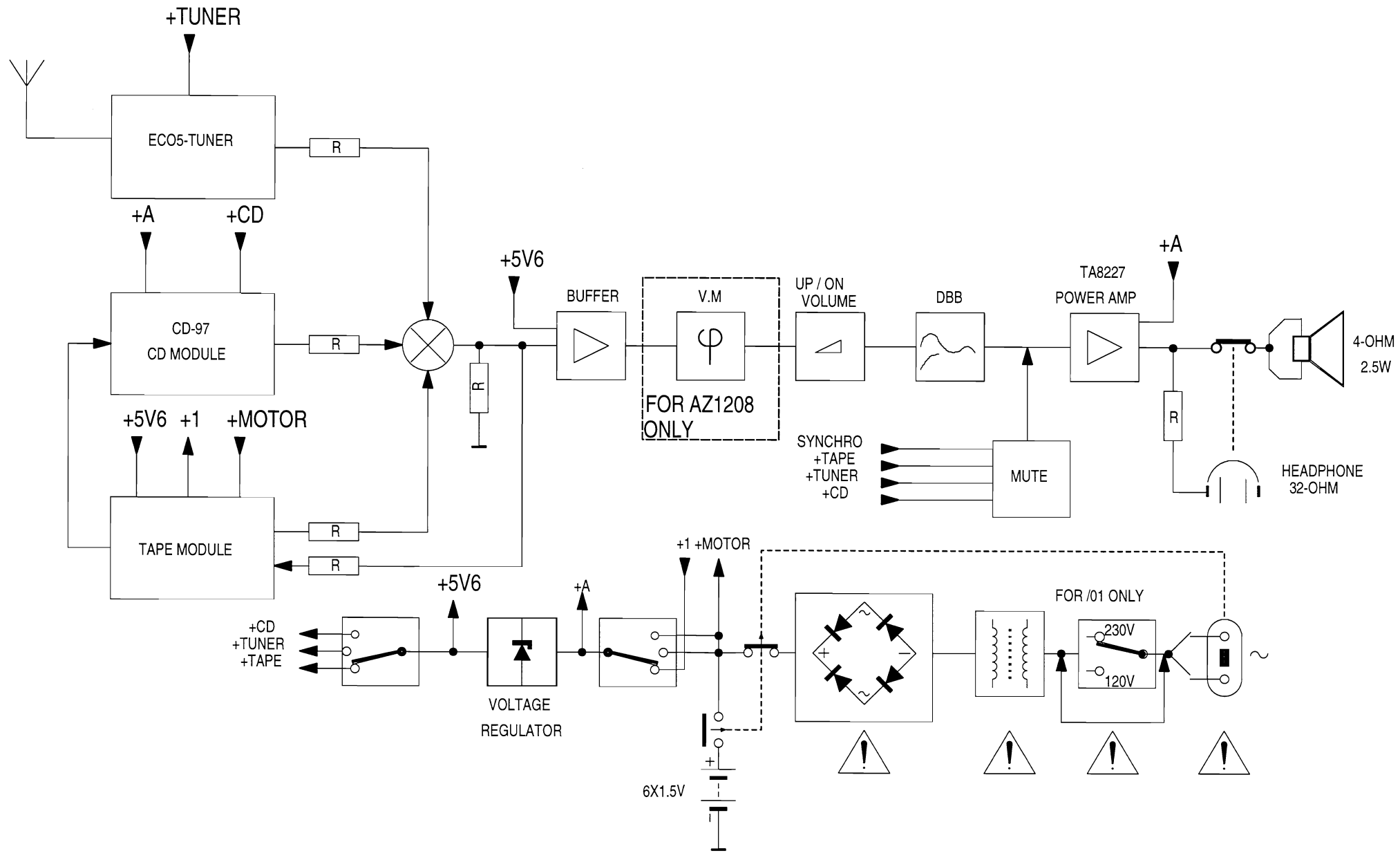
Frequency response		:	100 Hz - 10 kHz
S/N ratio		:	< 60 dB
Channel difference	1 kHz	:	< 3 dB
Channel crosstalk	1 kHz	:	> 26 dB
Laser wavelength		:	780 ± 20 nm
Laser light power		:	< 0.3 mW

DISASSEMBLY DIAGRAM

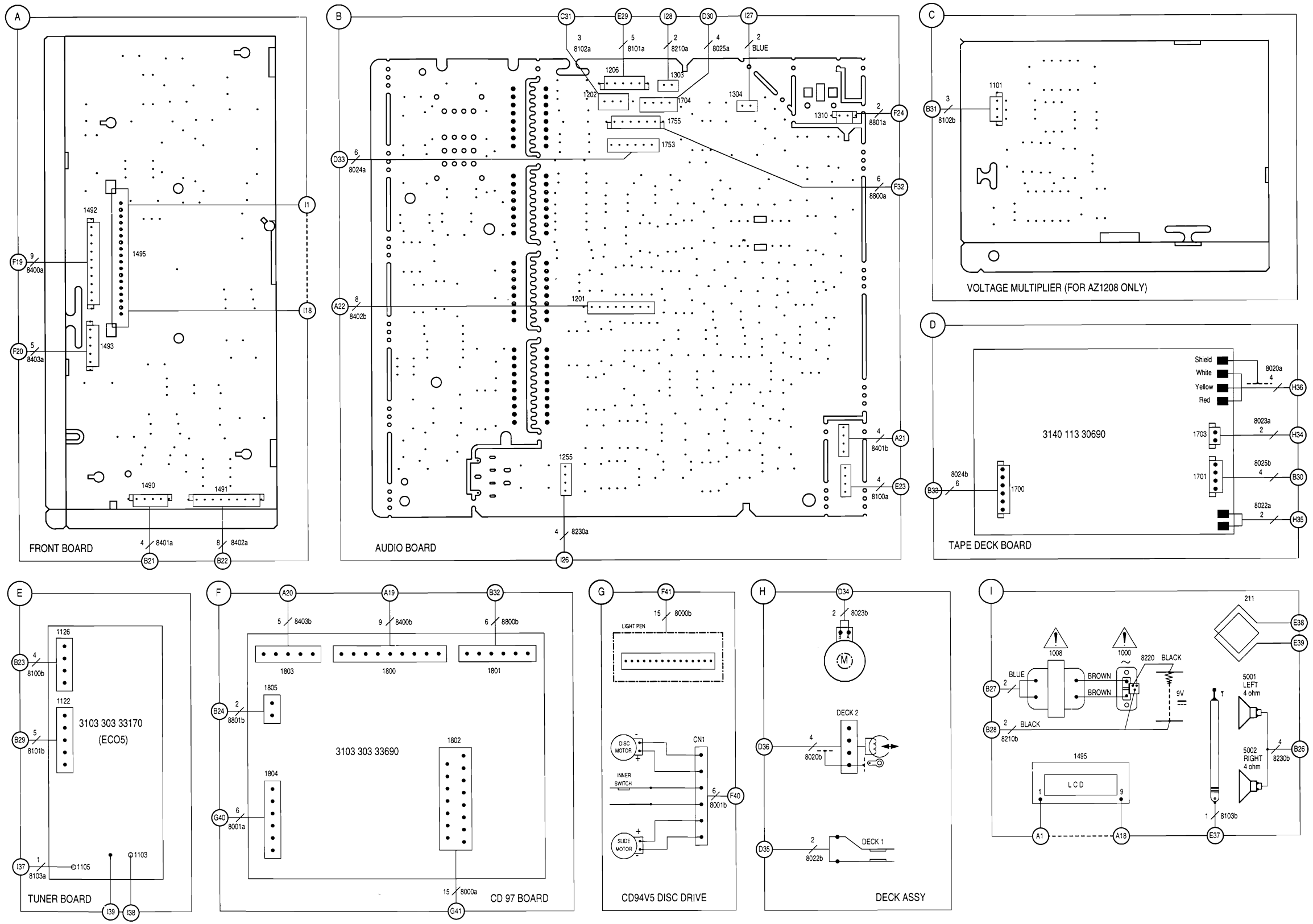
A. To remove Front Cabinet Assembly
B. To remove Cassette Door
C. To remove Tape Deck
D. To remove CD Assembly
E. To remove Audio Board Assembly
F. To remove Tuner Board
G. To remove Handle



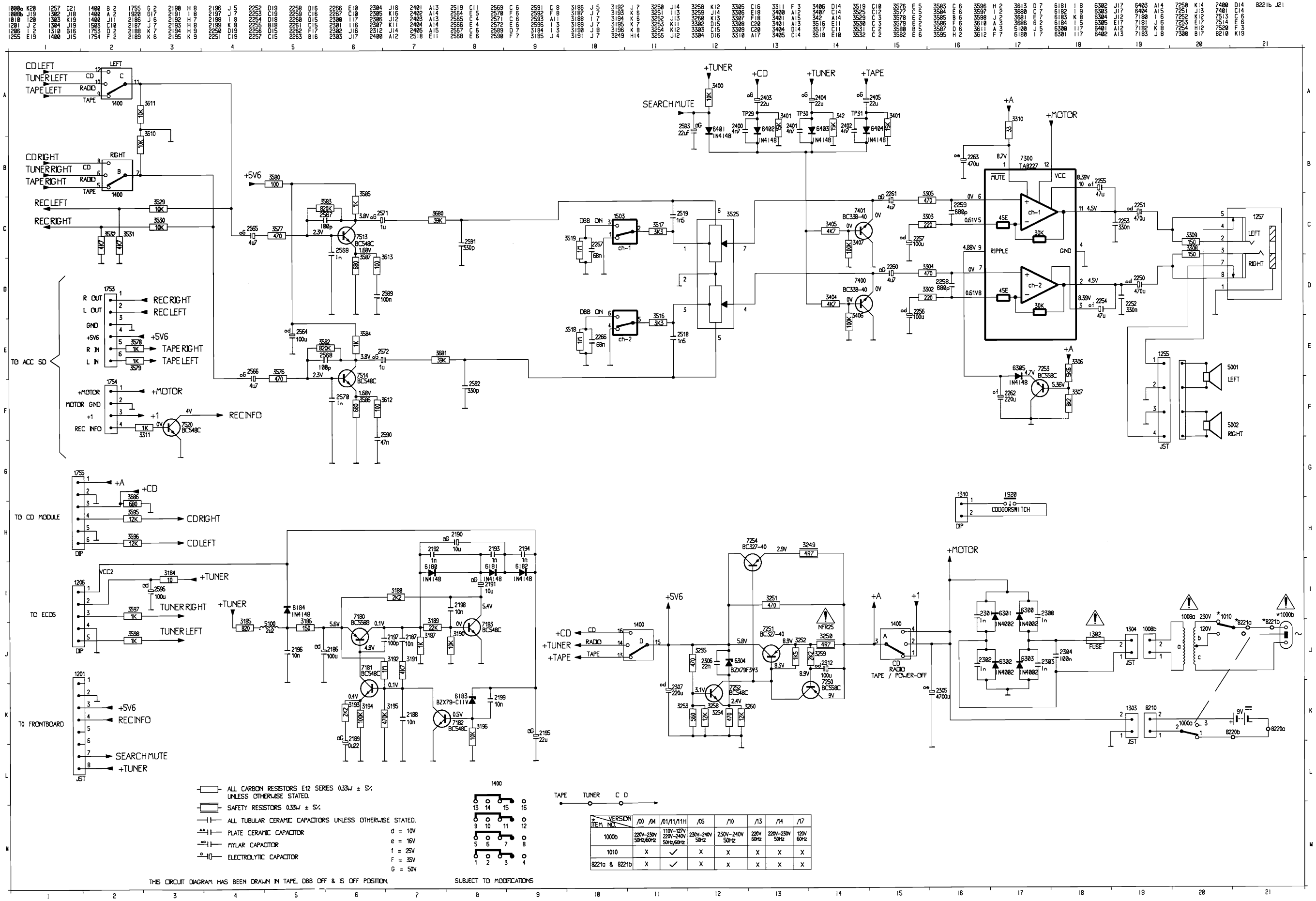
BLOCK DIAGRAM



WIRING DIAGRAM

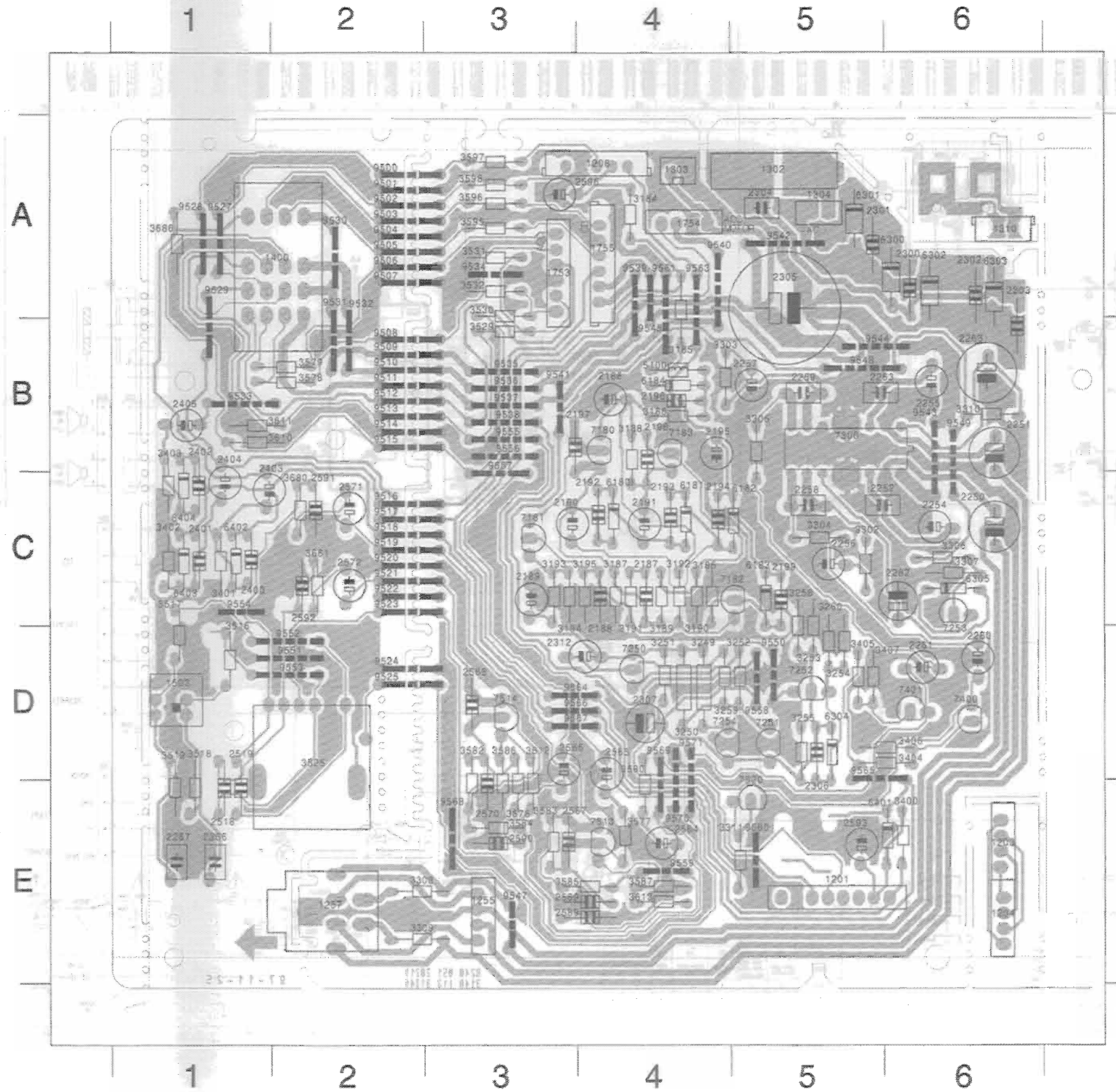


AUDIOBOARD (AZ1203) - CIRCUIT DIAGRAM



ITEM NO. \ VERSION	/00 /04	/01/11/11H	/05	/10	/13	/14	/17
1000b	220V–230V 50Hz,60Hz	110V–127V 220V–240V 50Hz,60Hz	230V–240V 50Hz	250V–240V 50Hz	220V 60Hz	220V–230V 50Hz	120V 60Hz
1010	X	✓	X	X	X	X	X
8221a & 8221b	X	✓	X	X	X	X	X

AUDIOBOARD (AZ1203) - LAYOUT DIAGRAM



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1203	E 6	2570	E 3	3585	E 4	9522	C 2
1204	E 6	2571	C 2	3586	E 3	9523	C 2
1206	A 4	2572	C 2	3587	E 4	9524	D 2
1255	E 3	2589	E 4	3595	A 3	9525	D 2
1257	E 2	2590	E 3	3596	A 3	9527	A 1
1302	A 5	2591	C 2	3597	A 3	9528	A 1
1303	A 4	2592	C 2	3598	A 3	9529	B 1
1304	A 5	2593	E 5	3610	B 1	9530	A 2
1310	A 6	2596	A 3	3611	B 1	9531	B 2
1400	A 2	3184	A 4	3612	E 3	9532	B 2
1503	D 1	3185	A 4	3613	E 4	9533	B 1
1753	A 3	3186	B 4	3680	C 2	9534	A 3
1754	A 4	3187	C 4	3681	C 2	9535	B 3
1755	A 4	3188	B 4	3686	A 1	9536	B 3
2186	B 4	3189	C 4	5100	B 4	9537	B 3
2187	C 4	3190	C 4	6180	C 4	9538	B 3
2188	C 4	3191	C 4	6181	C 4	9539	A 4
2189	C 3	3192	C 4	6182	C 5	9540	A 4
2190	C 3	3193	C 3	6183	C 5	9541	B 3
2191	C 4	3194	C 3	6184	B 4	9542	A 5
2192	C 4	3195	C 4	6300	A 6	9543	B 6
2193	C 4	3196	C 4	6301	A 5	9544	B 5
2194	C 4	3249	D 4	6302	A 6	9545	A 4
2195	B 4	3250	D 4	6303	A 6	9547	E 3
2196	B 4	3251	D 4	6304	D 5	9548	B 5
2197	B 3	3252	D 5	6305	C 6	9549	B 6
2198	B 4	3253	D 5	6401	E 6	9550	D 5
2199	C 5	3254	D 5	6402	C 1	9551	D 2
2250	C 6	3255	D 5	6403	C 1	9552	D 2
2251	B 6	3258	D 5	6404	C 1	9553	D 2
2252	C 5	3259	D 4	7180	B 4	9554	C 1
2253	B 5	3260	D 5	7181	C 3	9555	B 3
2254	C 6	3302	C 5	7182	C 5	9556	B 3
2255	B 6	3303	B 4	7183	B 4	9557	C 3
2256	C 5	3304	C 5	7250	D 4	9558	D 5
2257	B 5	3305	B 5	7251	D 5	9559	E 4
2258	C 5	3306	C 6	7252	D 5	9560	E 5
2259	B 5	3307	C 6	7253	C 6	9561	A 4
2260	D 6	3308	E 2	7254	D 4	9563	A 4
2261	D 6	3309	E 2	7300	B 5	9564	D 3
2262	C 6	3310	B 6	7400	D 6	9565	D 5
2263	B 6	3311	E 5	7401	D 6	9566	D 3
2266	E 1	3400	E 6	7513	E 4	9567	D 3
2267	E 1	3401	C 1	7514	D 3	9568	E 3
2300	A 6	3402	C 1	7520	E 5	9569	E 4
2301	A 5	3403	C 1	9500	A 2	9570	E 4
2302	A 6	3404	D 6	9501	A 2	9571	E 4
2303	B 6	3405	D 5	9502	A 2		
2304	A 5	3406	D 6	9503	A 2		
2305	A 5	3407	D 5	9504	A 2		
2306	D 5	3518	D 1	9505	A 2		
2307	D 4	3517	D 1	9506	A 2		
2312	D 4	3518	E 1	9507	A 2		
2400	C 1	3519	E 1	9508	B 2		
2401	C 1	3525	D 2	9509	B 2		
2402	C 1	3529	B 3	9510	B 2		
2403	C 1	3530	A 3	9511	B 2		
2404	C 1	3531	A 3	9512	B 2		
2405	B 1	3532	A 3	9513	B 2		
2518	E 1	3576	E 3	9514	B 2		
2519	E 1	3577	E 4	9515	B 2		
2564	E 4	3578	B 2	9516	C 2		
2565	D 4	3579	B 2	9517	C 2		
2566	D 3	3580	E 4	9518	C 2		
2567	E 3	3582	E 3	9519	C 2		
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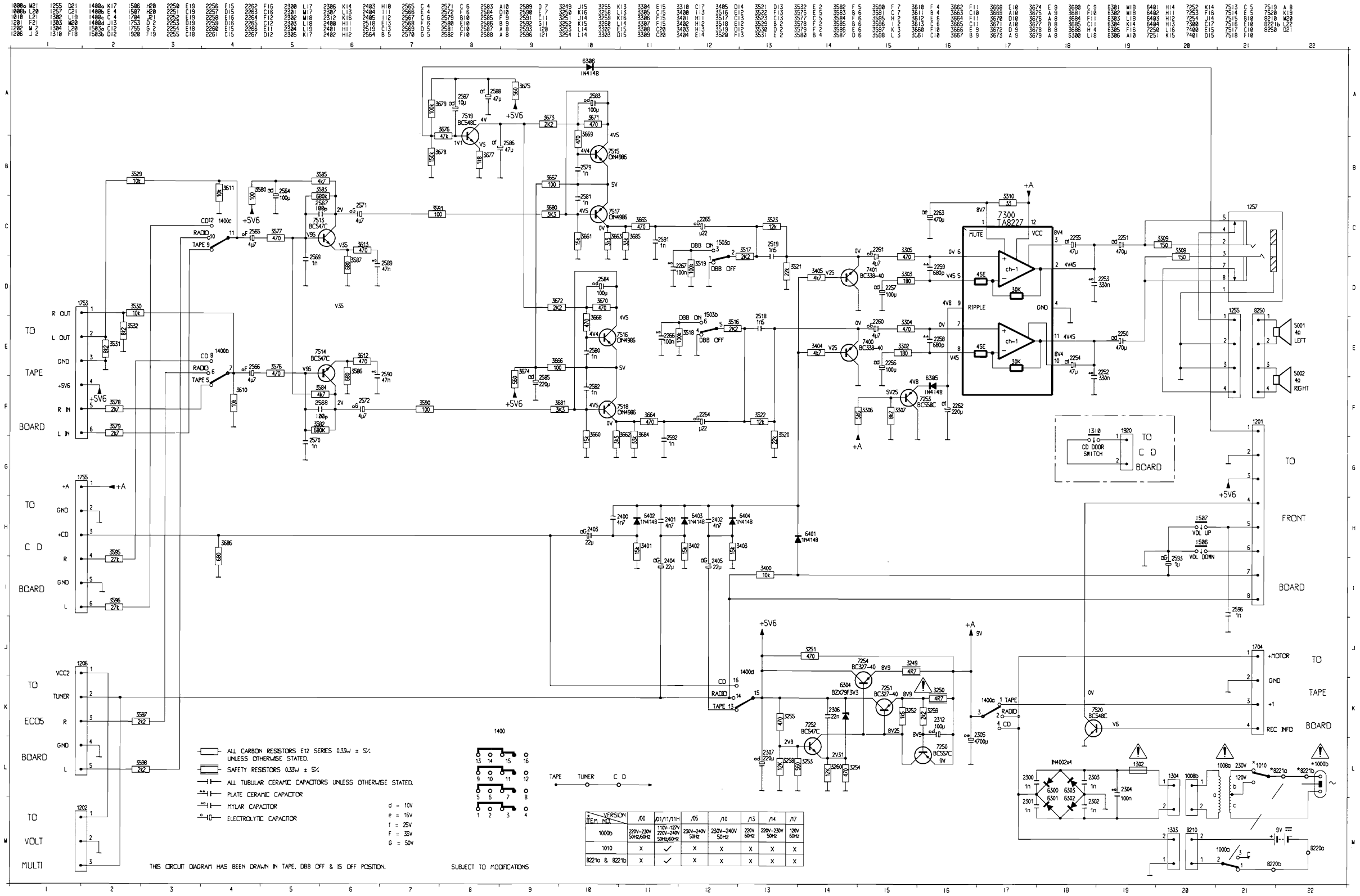
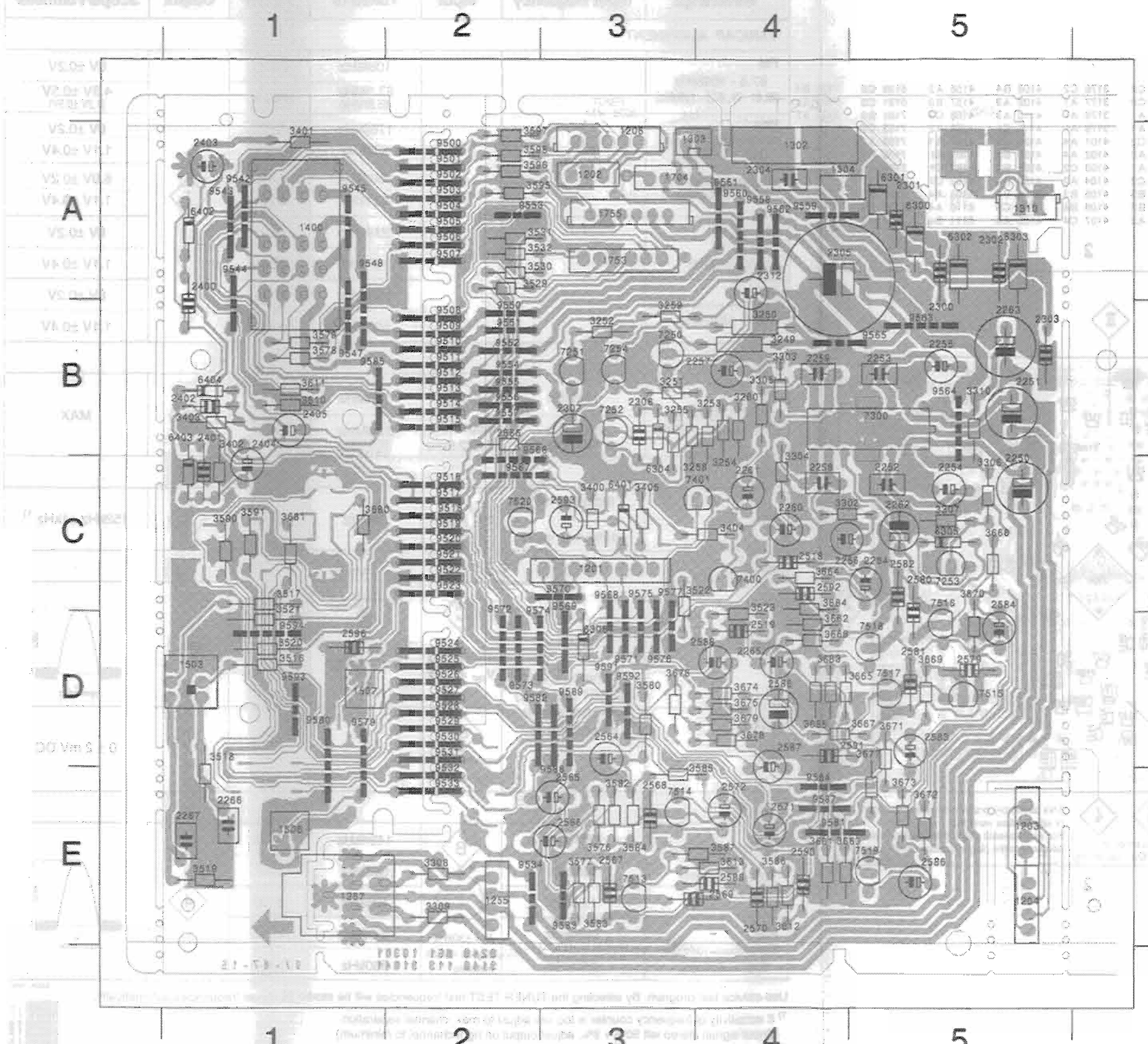
AUDIO BOARD (AZ1208) - CIRCUIT DIAGRAM



AUDIO BOARD (AZ1208) - LAYOUT DIAGRAM



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1202	A 3	2582	C 5	3596	A 2	9505	A 2	9579	D 1
1203	E 5	2583	D 5	3597	A 2	9506	A 2	9580	D 1
1204	E 5	2584	D 5	3598	A 2	9507	A 2	9581	E 4
1206	A 3	2585	D 4	3610	B 1	9508	B 2	9582	D 2
1255	E 2	2586	E 5	3611	B 1	9509	B 2	9583	E 3
1257	E 1	2587	D 4	3612	E 4	9510	B 2	9584	E 4
1302	A 4	2588	D 4	3613	E 4	9511	B 2	9585	B 1
1303	A 3	2589	E 4	3660	E 4	9512	B 2	9587	E 4
1304	A 4	2590	E 4	3661	E 4	9513	B 2	9588	D 3
1310	A 5	2591	D 4	3662	D 4	9514	B 2	9589	D 3
1400	A 1	2592	C 4	3663	D 4	9515	B 2	9591	D 3
1503	D 1	2593	C 3	3664	C 4	9516	C 2	9592	D 3
1506	E 1	2596	D 1	3665	D 4	9517	C 2	9593	D 1
1507	D 1	3249	B 4	3666	D 4	9518	C 2	9594	D 1
1704	A 3	3250	B 4	3667	D 4	9519	C 2		
1753	A 3	3251	B 3	3668	C 5	9520	C 2		
1755	A 3	3252	B 3	3669	D 5	9521	C 2		
2250	C 5	3253	B 4	3670	D 5	9522	C 2		
2251	B 5	3254	B 4	3671	D 5	9523	C 2		
2252	C 5	3255	B 3	3672	E 5	9524	D 2		
2253	B 5	3258	B 3	3673	E 5	9525	D 2		
2254	C 5	3259	B 3	3674	D 4	9526	D 2		
2255	B 5	3260	B 4	3675	D 4	9527	D 2		
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2257	B 4	3303	B 4	3677	E 5	9529	D 2		
2258	C 4	3304	C 4	3678	D 4	9530	D 2		
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2260	C 4	3306	C 5	3680	C 1	9532	E 2		
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2262	C 5	3308	E 2	3684	C 4	9534	E 2		
2263	B 5	3309	E 2	3685	D 4	9542	A 1		
2264	C 5	3310	B 5	3686	B 2	9543	A 1		
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2300	A 5	3403	B 1	6303	A 5	9548	B 1		
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2307	B 3	3520	D 1	6404	B 1	9556	B 2		
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2518	C 4	3576	E 3	7401	C 4	9564	B 5		
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2564	D 3	3578	B 1	7514	E 3	9566	C 2		
2565	E 3	3579	B 1	7515	D 5	9567	C 2		
2566	E 3	3580	D 3	7516	D 5	9568	D 3		
2567	E 3	3582	E 3	7517	D 5	9569	D 3		
2568	E 3	3583	E 3	7518	D 5	9570	C 3		
2569	E 3	3584	E 3	7519	E 5	9571	D 3		
2570	E 4	3585	E 3	7520	C 2	9572	D 2		
2571	E 4	3586	E 4	9500	A 2	9573	D 2		
2572	E 4	3587	E 4	9501	A 2	9574	D 2		
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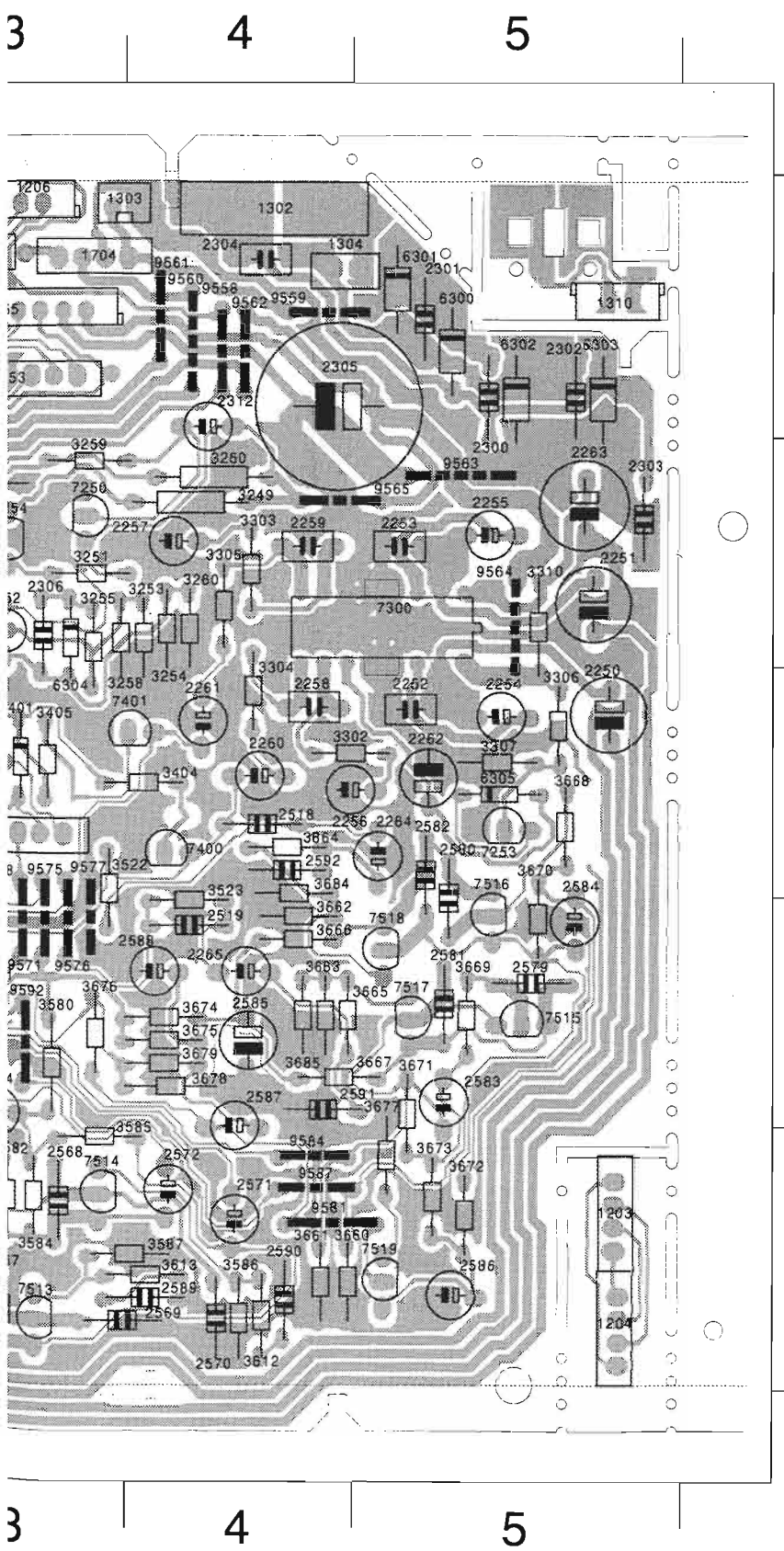

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1203	E 5	2583	D 5	3597	A 2	9506	A 2	9580	D 1
1204	E 5	2584	D 5	3598	A 2	9507	A 2	9581	E 4
1206	A 3	2585	D 4	3610	B 1	9508	B 2	9582	D 2
1255	E 2	2586	E 5	3611	B 1	9509	B 2	9583	E 3
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1302	A 4	2588	D 4	3613	E 4	9511	B 2	9585	B 1
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2300	A 5	3403	B 1	6303	A 5	9548	B 1		
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2306	B 3	3519	E 1	6403	C 1	9555	B 2		
2307	B 3	3520	D 1	6404	B 1	9556	B 2		
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2403	A 1	3530	A 2	7254	B 3	9561	A 4		
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2405	B 1	3532	A 2	7400	C 4	9563	B 5		
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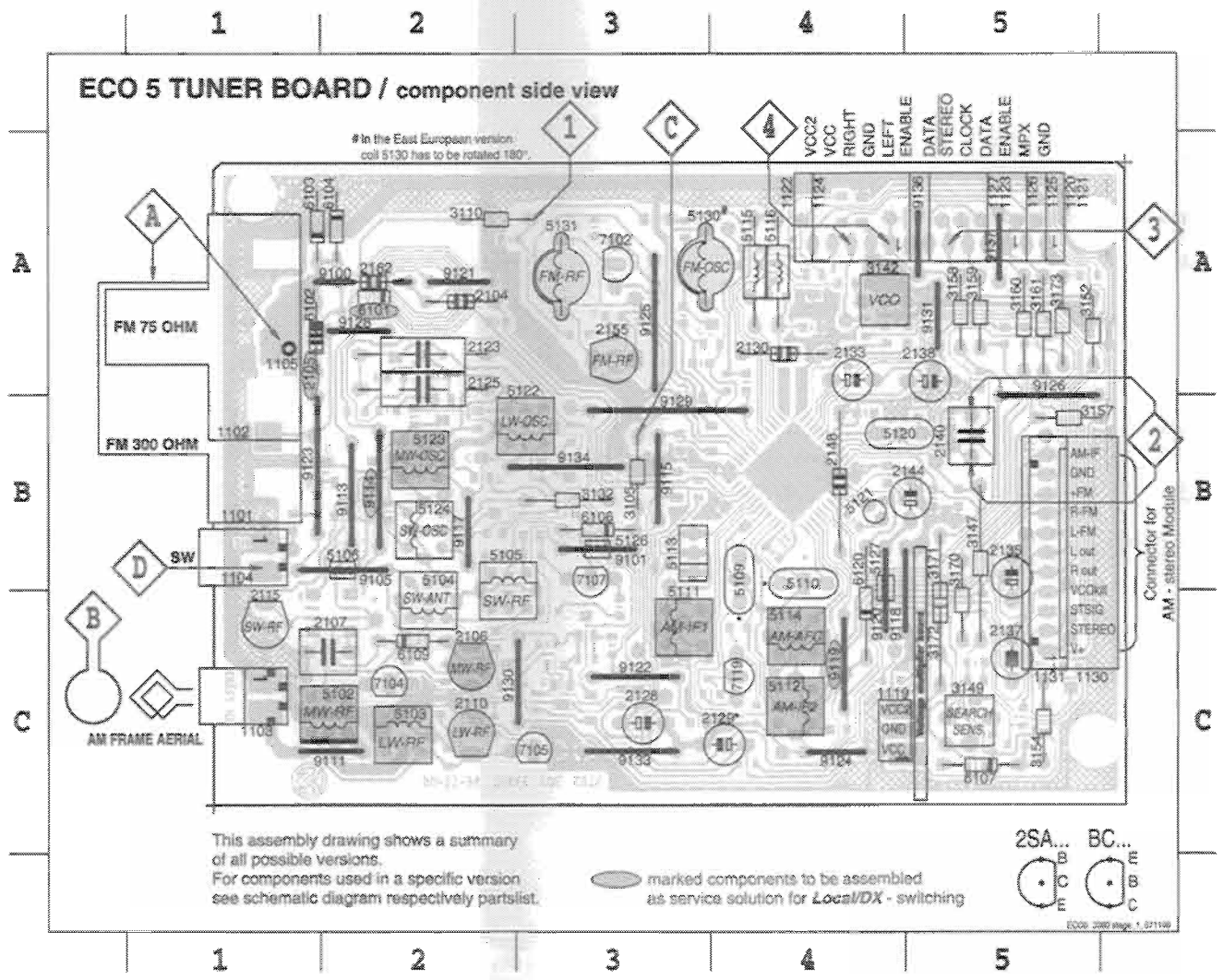
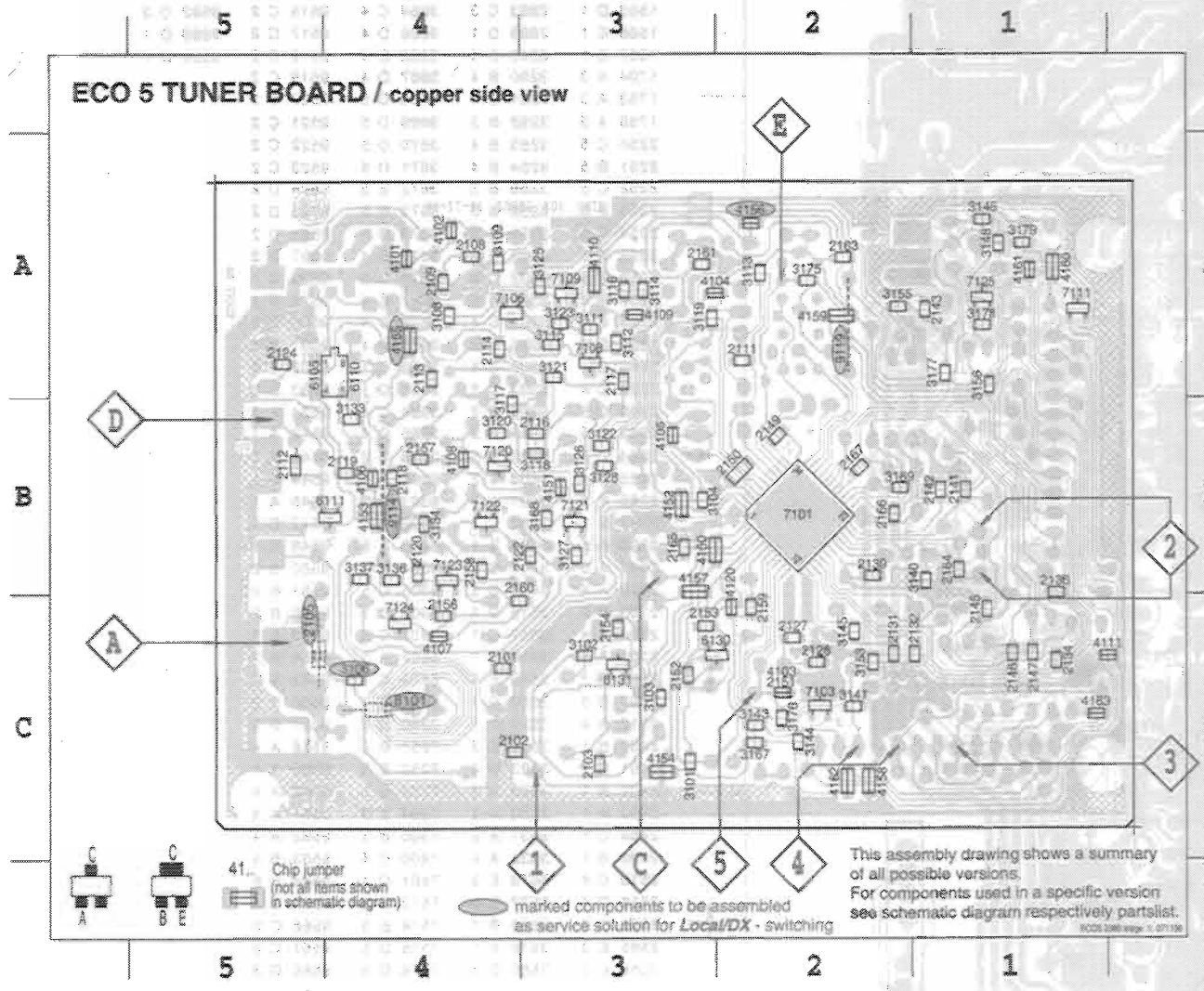
2519	D 4	3577	E 3	7513	E 3	9565	B 4		
2564	D 3	3578	B 1	7514	E 3	9566	C 2		
2565	E 3	3579	B 1	7515	D 5	9567	C 2		
2566	E 3	3580	D 3	7516	D 5	9568	D 3		
2567	E 3	3582	E 3	7517	D 5	9569	D 3		
2568	E 3	3583	E 3	7518	D 5	9570	C 3		
2569	E 3	3584	E 3	7519	E 5	9571	D 3		
2570	E 4	3585	E 3	7520	C 2	9572	D 2		
2571	E 4	3586	E 4	9500	A 2	9573	D 2		
2572	E 4	3587	E 4	9501	A 2	9574	D 2		
2579	D 5	3590	C 1	9502	A 2	9575	D 3		
2580	D 5	3591	C 1	9503	A 2	9576	D 3		

1101 A1	2106 C2	2137 C5	3147 B5	3172 C5	5113 B3	5130 A3	7104 C2	9117 B2	9129 B3		
1102 A1	2107 C2	2138 A5	3149 C5	3173 A5	5114 C4	5131 A3	7105 C3	9118 B4	9130 C3		
1103 C1	2110 C2	2140 B5	3152 A5	5102 C2	5115 A4	6101 A2	7107 B3	9119 C4	9131 A5		
1104 B1	2115 C1	2144 B5	3154 C5	5103 C2	5116 A4	6102 A1	7119 C4	9120 B4	9133 C3		
1105 A1	2123 A2	2148 B4	3157 B5	5104 C2	5120 B4	6103 A1	9100 A2	9121 A2	9134 B3		
1119 C5	2125 A2	2155 A3	3158 A5	5105 B2	5121 B4	6104 A2	9101 B3	9122 C3	9136 A5		
1120 A5	2128 C3	2162 A2	3159 A5	5106 B2	5122 B3	6106 B3	9105 B2	9123 B1	9137 A5		
1130 B5	2129 C4	3105 B3	3160 A5	5109 B4	5123 B2	6107 C5	9111 C2	9124 C4			
1131 B5	2130 A4	3110 A2	3161 A5	5110 B4	5124 B2	6109 C2	9113 B2	9125 A3			
2104 A2	2133 A4	3132 B3	3170 C5	5111 C3	5126 B3	6120 C4	9114 B2	9126 B5			
2105 A1	2135 B5	3142 A4	3171 C5	5112 C4	5127 B4	7102 A3	9115 B3	9128 A2			

2101 C4	2118 B4	2139 B2	2153 C3	2166 B2	3113 A2	3125 A3	3144 C2	3176 C2	4108 B4	4156 A2	6130 C2	7123 B4							
2102 C4	2119 B4	2141 B1	2154 C3	2167 B2	3114 A3	3126 B3	3145 C2	3177 A1	4109 A3	4157 B3	6131 C3	7124 C4							
2103 C3	2120 B4	2142 B1	2156 C4	3101 C3	3115 A3	3127 B3	3146 A1	3178 A1	4110 A3	4158 C2	7101 B2	7125 A1							
2106 A4	2122 B3	2143 A1	2157 B4	3102 C3	3116 A3	3128 B3	3148 A1	3179 A1	4111 C1	4159 A2	7103 C2								
2109 A4	2124 A5	2145 C1	2158 B4	3103 C3	3117 B4	3133 B4	3153 C2	4101 A4	4120 C2	4160 A1	7106 A4								
2111 A2	2126 C2	2146 C1	2159 C2	3104 B3	3118 B3	3134 B4	3155 A2	4102 A4	4150 B2	4161 A1	7108 A3								
2112 B5	2127 C2	2147 C1	2160 C4	3106 C4	3119 A3	3136 B4	3156 A1	4103 C2	4151 B3	4162 C1	7109 A3								
2113 A4	2131 C2	2149 B2	2161 A3	3108 A4	3120 B4	3137 B4	3167 C2	4104 A2	4152 B3	4163 C1	7111 A1								
2114 A4	2132 C1	2150 B2	2163 A2	3109 A4	3121 A3	3140 B1	3168 B3	4105 B3	4153 B4	6105 A4	7120 B4								
2116 B3	2134 C1	2151 C2	2164 B1	3111 A3	3122 B3	3141 C2	3169 B2	4106 B4	4154 C3	6110 A4	7121 B3								
2117 A3	2136 B1	2152 C3	2165 B3	3112 A3	3123 A3	3143 C2	3175 A2	4107 C4	4155 A4	6111 B4	7122 B4								





TUNER ADJUSTMEN

Waverange	Inpu
VARICAP ALIGNMENT	
FM 87.5 - 108MHz (65.81 - 74, 87.5 - 108MHz)	
MW FM/AM-version, 10kHz grid 530 - 1700kHz	
FM/MW-version, 9kHz grid 531 - 1602kHz	
LW 153 - 279kHz	
MW FM/MW/LW- version, 9kHz grid 531 - 1602kHz	
FM RF	
FM 87.5 - 108MHz (65.81 - 74, 87.5 - 108MHz)	
VCO	
FM	98 cont
AM IF	
MW	con IC 71 with gro
AM AFC **MW**	
AM RF [3]	
MW [4] FM/MW/LW- and FM/MW-version (9kHz grid) 531 - 1602kHz	
LW	
MW FM/AM-version, 10kHz grid 530 - 1700kHz	

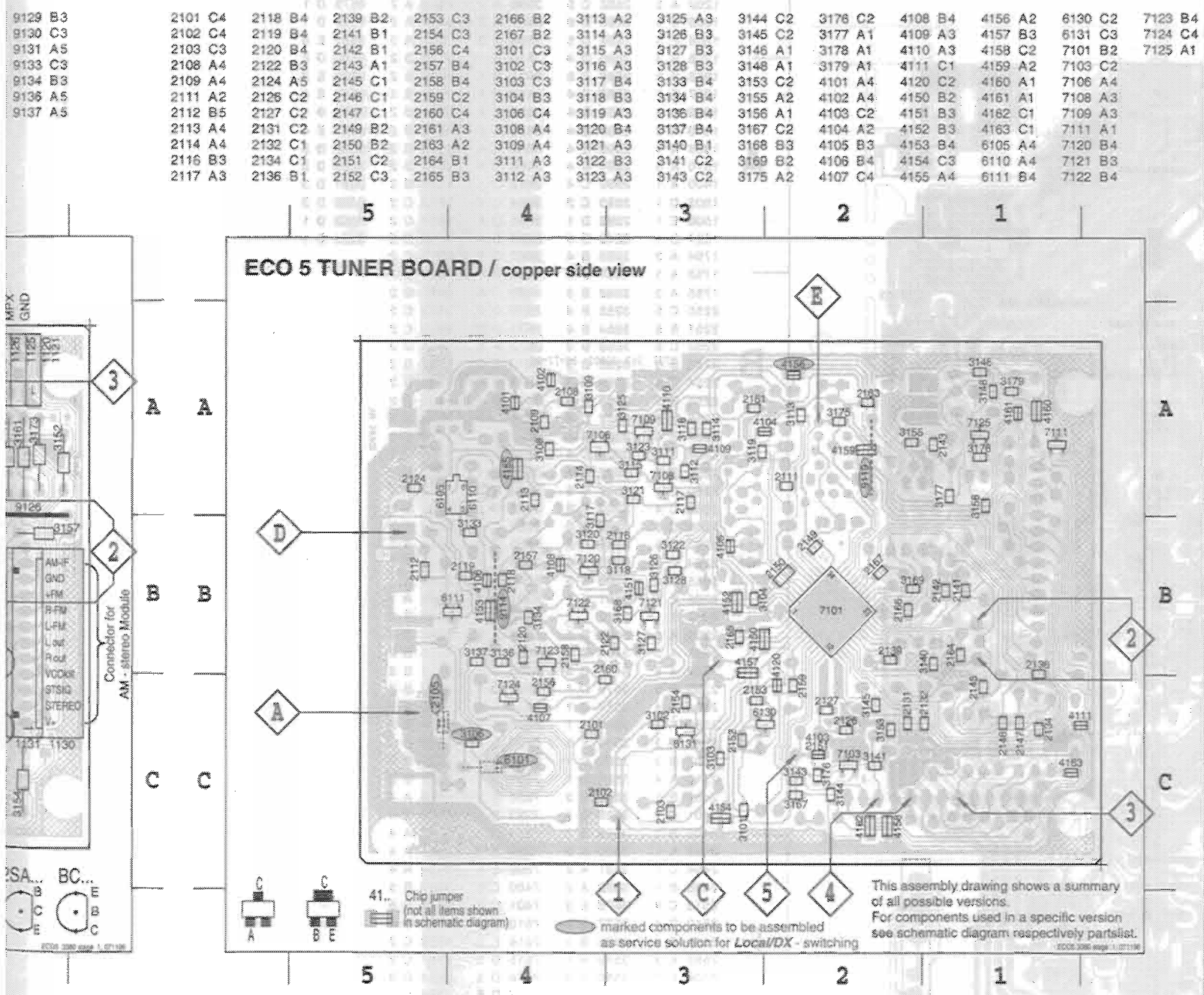
Use service test program. By sele

[1] If sensitivity of frequency count (input signal: stereo left 90% +

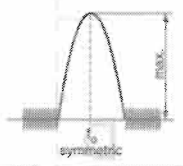
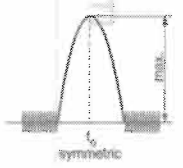
[2] RC network serves for damping

[3] For AM RF adjustments the ori

[4] MW has to be aligned before L



TUNER ADJUSTMENT TABLE (ECO5 FM/MW- and FM/MW/LW - versions with AM-frame aerial)

Waverange	Input frequency	Input	Tuned to	Adjust	Output	Scope/Voltmeter
VARICAP ALIGNMENT						
FM 87.5 - 108MHz (65.81 - 74, 87.5 - 108MHz)			108MHz	5130	1	8V ±0.2V
			87.5MHz (65.81MHz)	check		4.3V ±0.5V (1.2V ±0.5V)
MW FM/AM-version, 10kHz grid 530 - 1700kHz			1700kHz	5123		8V ±0.2V
			530kHz	check		1.1V ±0.4V
FM/MW-version, 9kHz grid 531 - 1602kHz			1602kHz	5123		6.9V ±0.2V
			531kHz	check		1.1V ±0.4V
LW 153 - 279kHz			279kHz	5122		8V ±0.2V
			153kHz	check		1.1V ±0.4V
MW FM/MW/LW- version, 9kHz grid 531 - 1602kHz			1602kHz	5123		8V ±0.2V
			531kHz	check		1.1V ±0.4V
FM RF						
FM 87.5 - 108MHz (65.81 - 74, 87.5 - 108MHz)	108MHz	A	108MHz	2155	4	MAX
	87.5MHz (65.81MHz)	mod=1kHz Δf=±22.5kHz	87.5MHz (65.81MHz)	5131		
VCO						
FM	98MHz, 1mV continuous wave	A	98MHz	3142	3	152kHz ±1kHz [1]
AM IF						
MW	450kHz connect pin 6 of IC 7101 (AM Osc.) with short wire to ground (pin 4)	C Δf=±15kHz V_{RF} = 3mV	IC 7101 36 — 100nF — 220R	5111	4	
			IC 7101 40 — 100nF — 220R (see remark [2])	5112		
AM AFC **MW**		C continuous wave V_{RF} = 10mV		5114	2	0 ± 2 mV DC
AM RF [3]						
MW [4] FM/MW/LW- and FM/MW-version (9kHz grid) 531 - 1602kHz	1494kHz	B Δf = ±30kHz V_{RF} as low as possible	1494kHz	2106	4	
	558kHz		558kHz	5102		
LW	198kHz		198kHz	5103		
MW FM/AM-version, 10kHz grid 530 - 1700kHz	1500kHz		1500kHz	2106		
	560kHz		560kHz	5102		

ECOS. 160497

Use service test program. By selecting the TUNER TEST test frequencies will be stored as preset frequencies automatically.

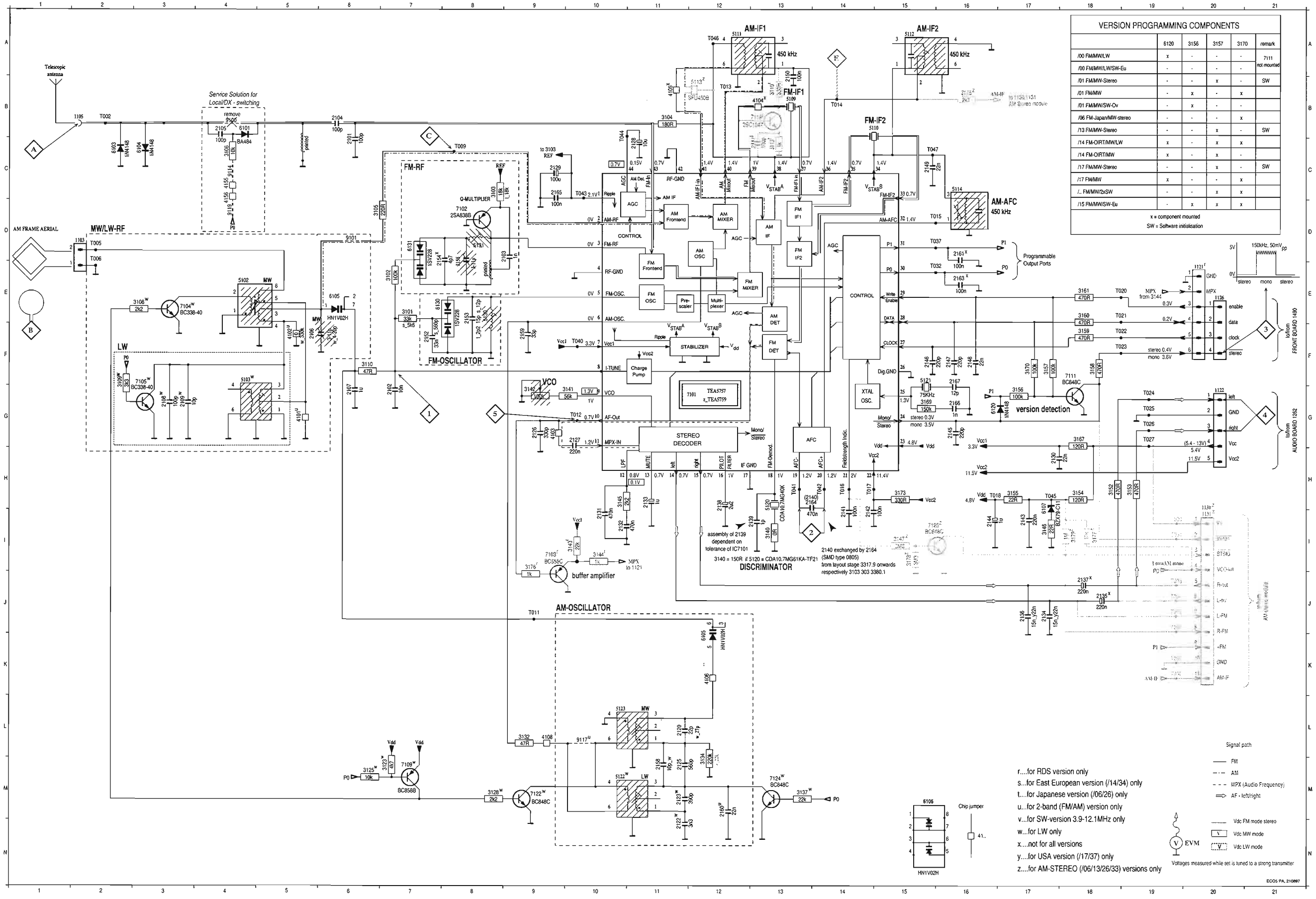
[1] If sensitivity of frequency counter is too low adjust to max. channel separation (input signal: stereo left 90% + 9%, adjust output on right channel to minimum)

[2] RC network serves for damping the IF-filter while adjusting the other one.

[3] For AM RF adjustments the original frame antenna has to be used !

[4] MW has to be aligned before LW.

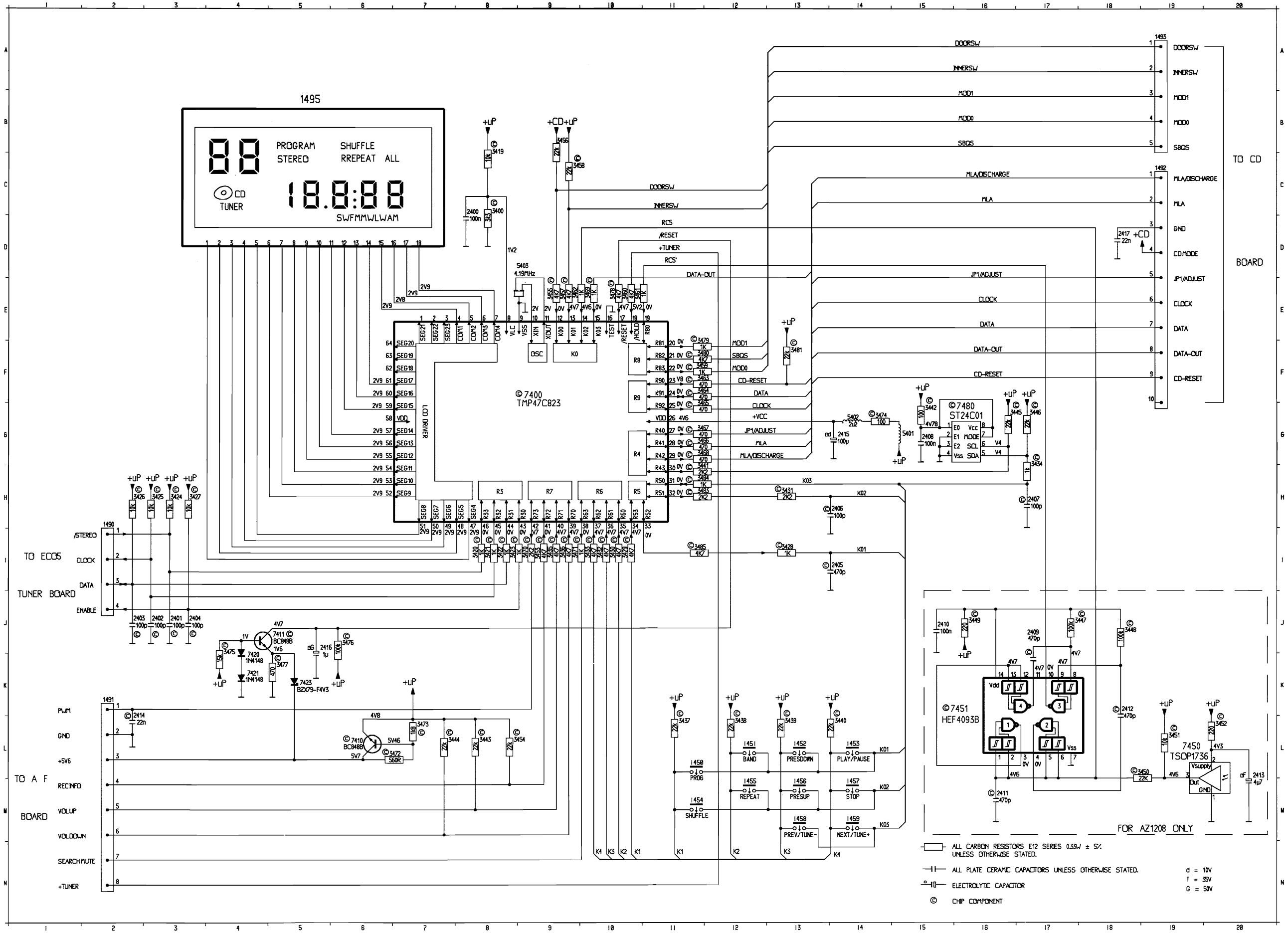
TUNER BOARD ECO5 / PA



VERSION PROGRAMMING COMPONENTS					
	6120	3156	3157	3170	remark
/00 FM/MW/LW	x	-	-	-	7111 not mounted
/00 FM/MW/LW/SW-Eu	-	-	-	-	
/01 FM/MW-Stereo	-	-	x	-	SW
/01 FM/MW	-	x	-	x	
/01 FM/MW/SW-Ov	-	x	-	-	
/06 FM-Japan/MW-stereo	-	-	-	x	
/13 FM/MW-Stereo	-	-	x	-	SW
/14 FM-OIRT/MW/LW	x	-	x	x	
/14 FM-OIRT/MW	x	-	x	-	
/17 FM/MW-Stereo	-	-	x	-	SW
/17 FM/MW	x	-	-	x	
/.. FM/MW/2xSW	-	-	x	x	
/15 FM/MW/SW-Eu	-	x	x	x	

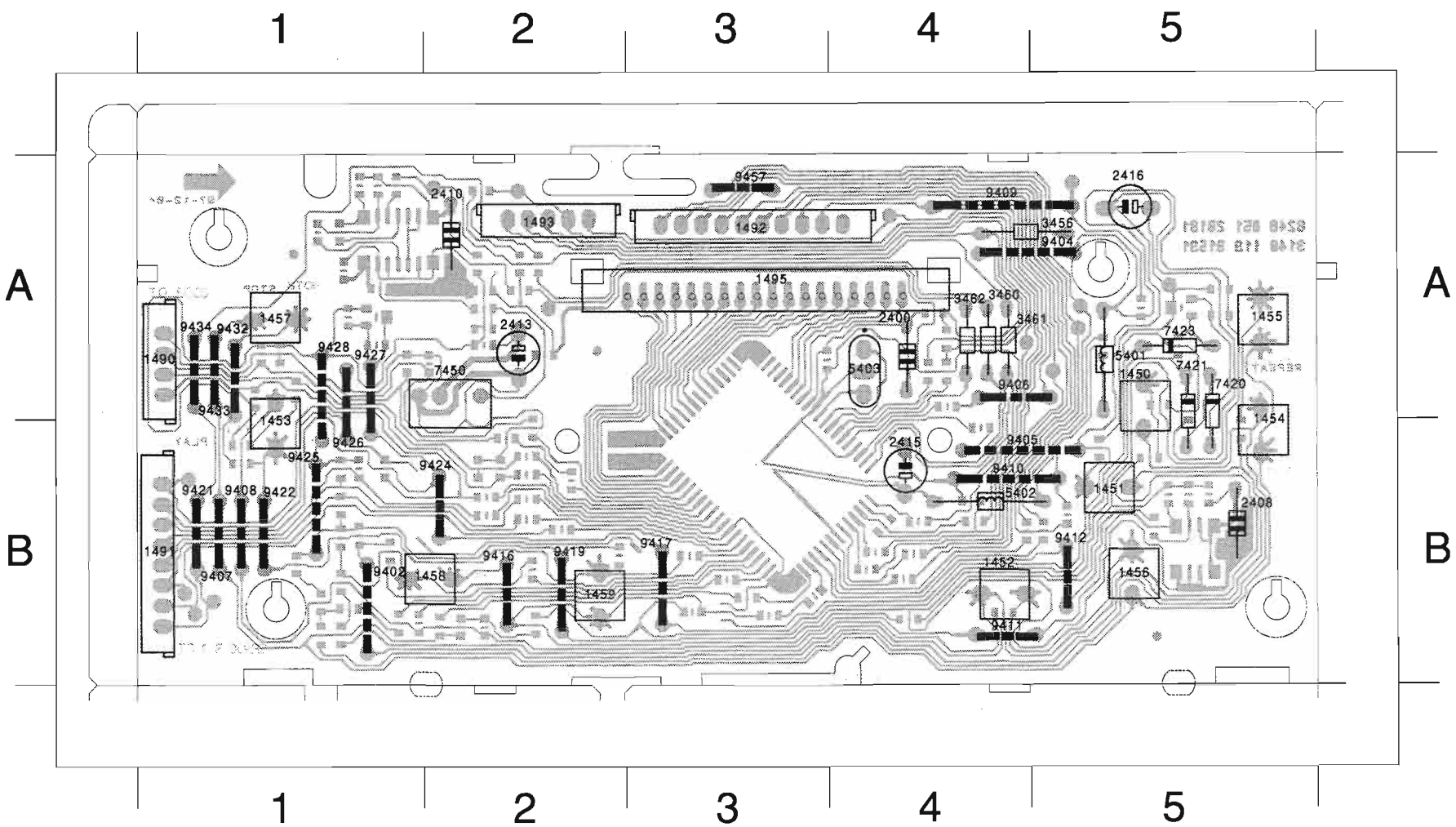
x = component mounted
SW = Software initialisation

FRONT BOARD - CIRCUIT DIAGRAM



FRONT BOARD - LAYOUT DIAGRAM

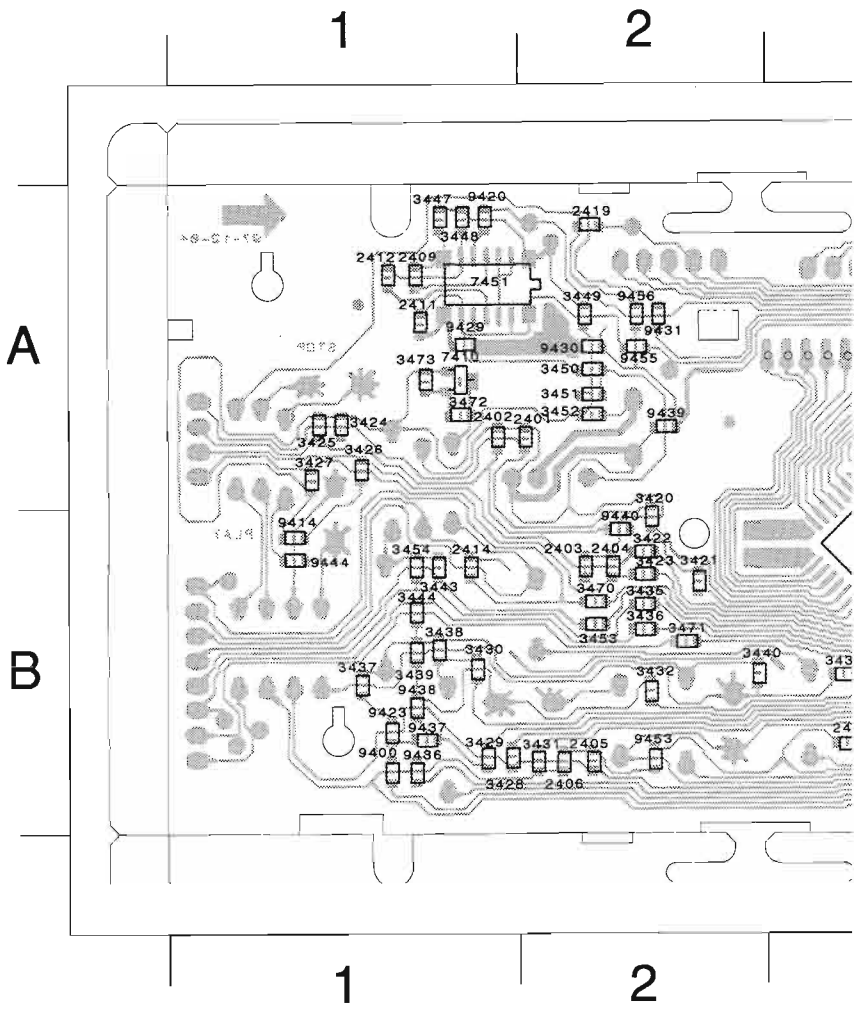
1450 A 5 1454 B 5 1458 B 2 1492 A 3 2408 B 5 2416 A 5 3462 A 4 7420 A 5 9402 B 1 9407 B 1 9411 B 4 9419 B 2 9425 B 1 9432 A 1
1451 B 5 1455 A 5 1459 B 2 1493 A 2 2410 A 2 3456 A 4 5401 A 5 7421 A 5 9404 A 4 9408 B 1 9412 B 5 9421 B 1 9426 A 1 9433 A 1
1452 B 4 1456 B 5 1490 A 1 1495 A 2 2413 A 2 3460 A 4 5402 B 4 7423 A 5 9405 B 4 9409 A 4 9416 B 2 9422 B 1 9427 A 1 9434 A 1
1453 B 1 1457 A 1 1491 B 1 2400 A 4 2415 B 4 3461 A 4 5403 A 4 7450 A 2 9406 A 4 9410 B 4 9417 B 3 9424 B 2 9428 A 1 9457 A 3



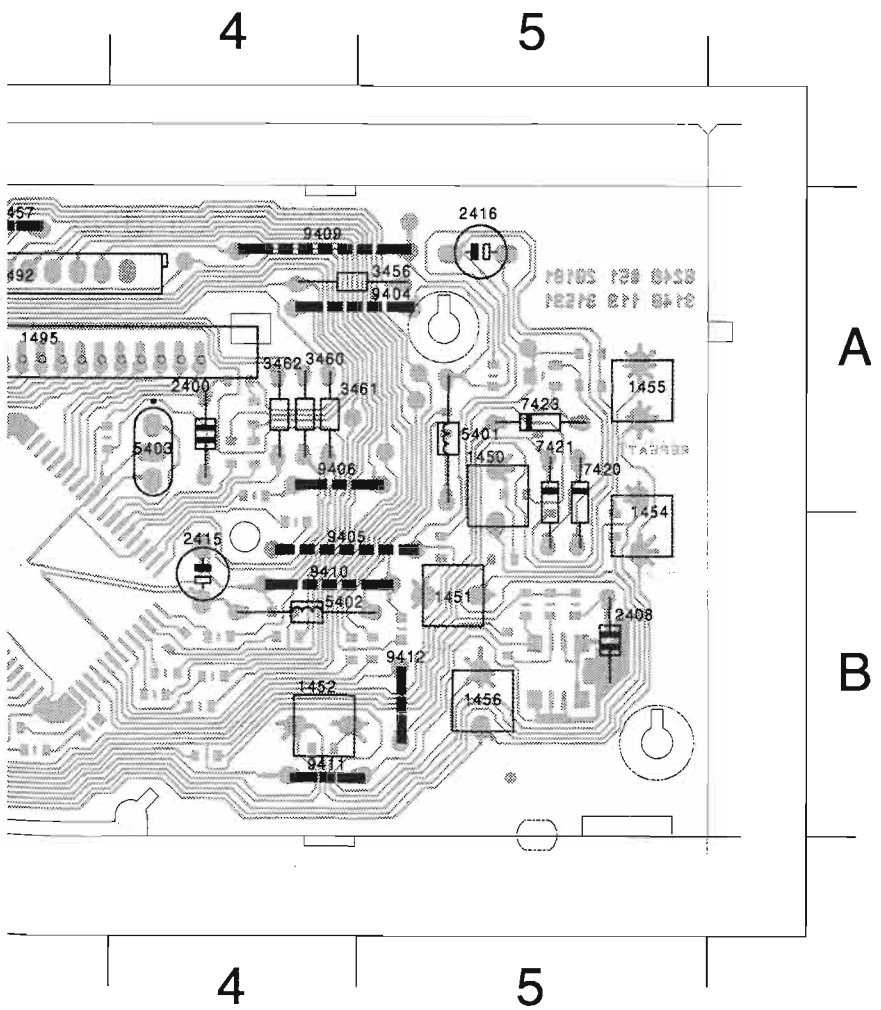
FOR AZ1208 ONLY

2409, 2410, 2411, 2412, 2413, 3447, 3448, 3449, 3450, 3451, 3452, 7450, 7451

2401 A 2 2411 A 1 3420 B 2 3428 B 1 3436 B 2 3444 B 1 3452 A 2
2402 A 1 2412 A 1 3421 B 2 3429 B 1 3437 B 1 3445 B 5 3453 B 2
2403 B 2 2414 B 1 3422 B 2 3430 B 1 3438 B 1 3446 B 5 3454 B 1
2404 B 2 2417 B 5 3423 B 2 3431 B 2 3439 B 1 3447 A 1 3455 A 4
2405 B 2 2418 B 4 3424 A 1 3432 B 2 3440 B 2 3448 A 1 3457 A 4
2406 B 2 2419 A 2 3425 A 1 3433 B 3 3441 B 5 3449 A 2 3458 A 4
2407 B 3 3400 A 3 3426 A 1 3434 B 3 3442 B 5 3450 A 2 3459 B 4
2409 A 1 3419 A 4 3427 A 1 3435 B 2 3443 B 1 3451 A 2 3463 B 4

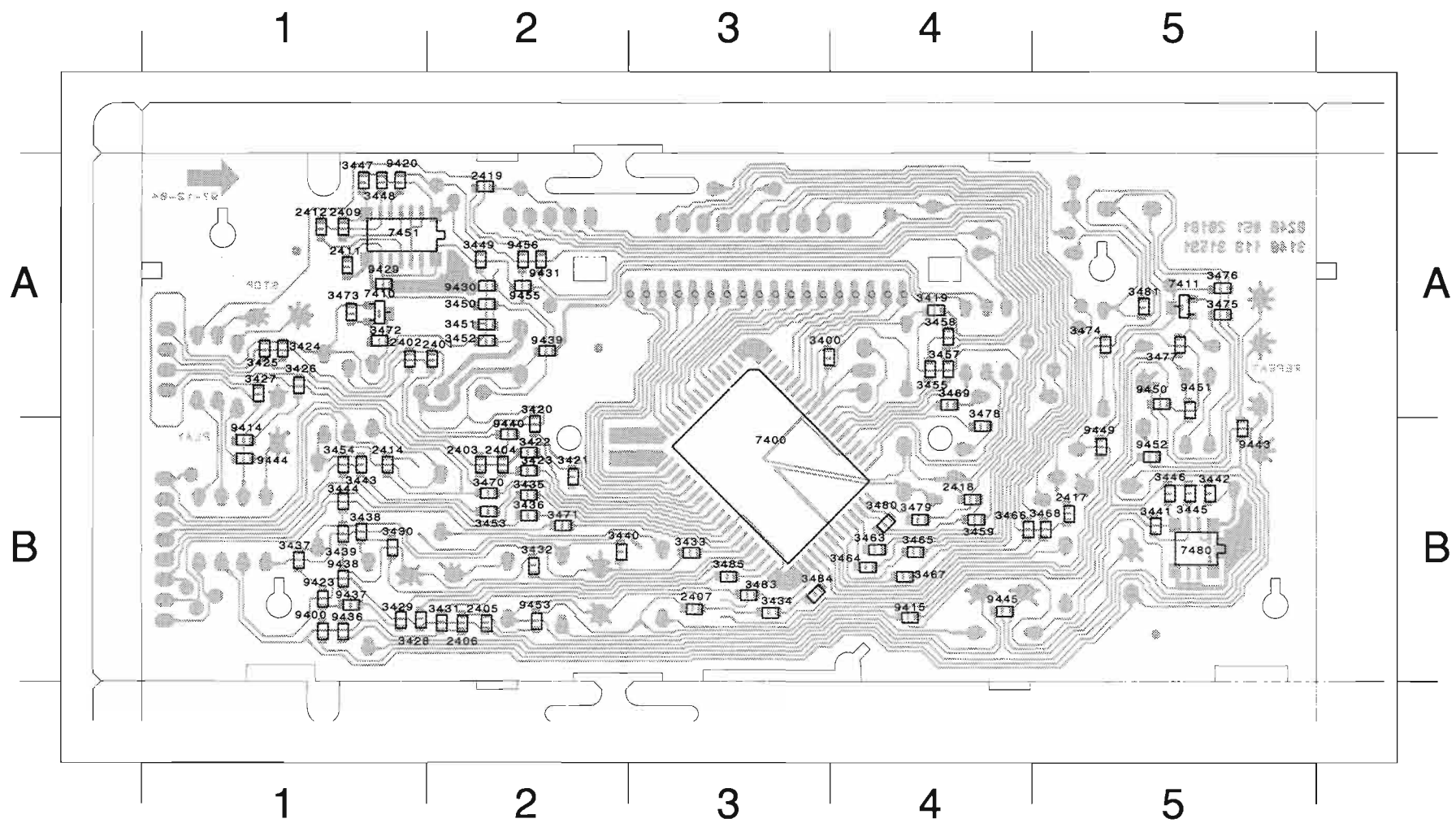


120 A 5 9402 B 1 9407 B 1 9411 B 4 9419 B 2 9425 B 1 9432 A 1
121 A 5 9404 A 4 9408 B 1 9412 B 5 9421 B 1 9426 A 1 9433 A 1
123 A 5 9405 B 4 9409 A 4 9416 B 2 9422 B 1 9427 A 1 9434 A 1
150 A 2 9406 A 4 9410 B 4 9417 B 3 9424 B 2 9428 A 1 9457 A 3



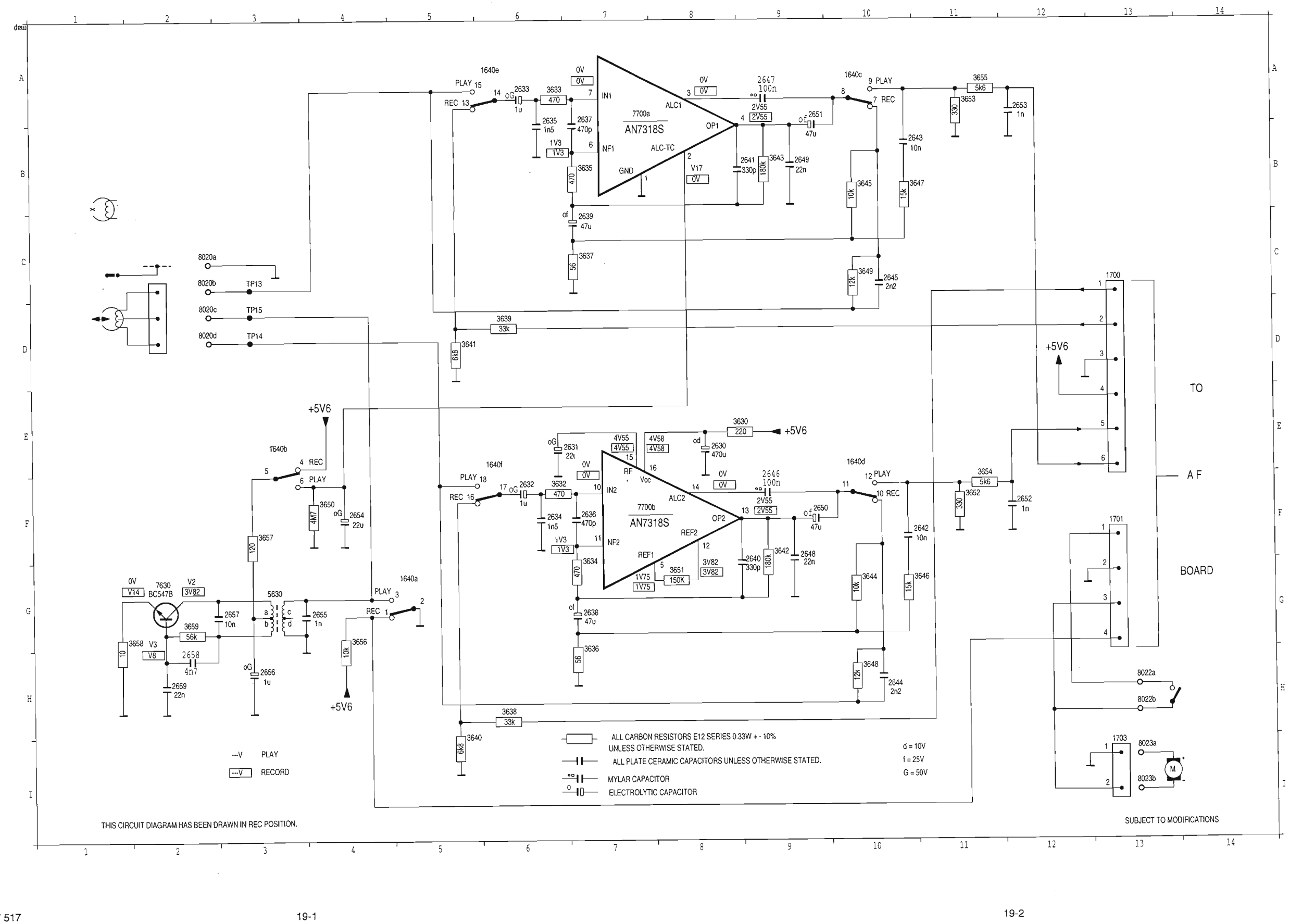
FOR AZ1208 ONLY
2409, 2410, 2411, 2412, 2413, 3447, 3448, 3449, 3450, 3451, 3452, 7450, 7451

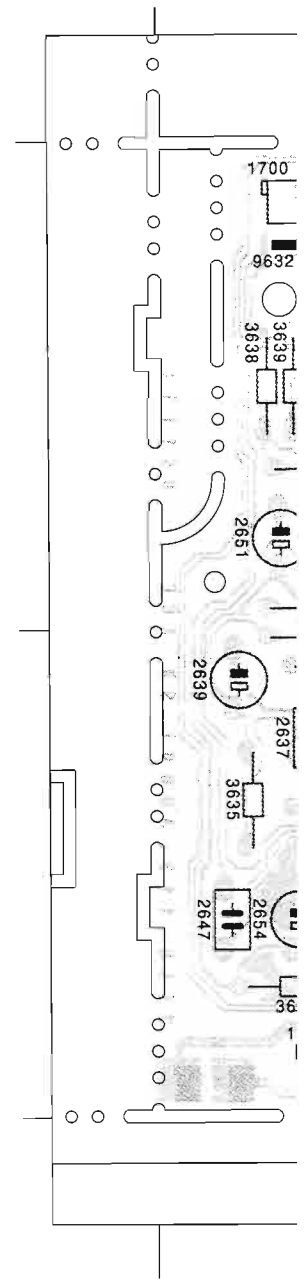
2401 A 2 2411 A 1 3420 B 2 3428 B 1 3436 B 2 3444 B 1 3452 A 2 3464 B 4 3472 A 1 3480 B 4 7451 A 1 9430 A 2 9444 B 1 9456 A 2
2402 A 1 2412 A 1 3421 B 2 3429 B 1 3437 B 1 3445 B 5 3453 B 2 3465 B 4 3473 A 1 3481 A 5 7480 B 5 9431 A 2 9445 B 4
2403 B 2 2414 B 1 3422 B 2 3430 B 1 3438 B 1 3446 B 5 3454 B 1 3466 B 4 3474 A 5 3483 B 3 9400 B 1 9436 B 1 9449 B 5
2404 B 2 2417 B 5 3423 B 2 3431 B 2 3439 B 1 3447 A 1 3455 A 4 3467 B 4 3475 A 5 3484 B 3 9414 B 1 9437 B 1 9450 A 5
2405 B 2 2418 B 4 3424 A 1 3432 B 2 3440 B 2 3448 A 1 3457 A 4 3468 B 5 3476 A 5 3485 B 3 9415 B 4 9438 B 1 9451 A 5
2406 B 2 2419 A 2 3425 A 1 3433 B 3 3441 B 5 3449 A 2 3458 A 4 3469 A 4 3477 A 5 7400 B 3 9420 A 1 9439 A 2 9452 B 5
2407 B 3 3400 A 3 3426 A 1 3434 B 3 3442 B 5 3450 A 2 3459 B 4 3470 B 2 3478 B 4 7410 A 1 9423 B 1 9440 B 2 9453 B 2
2409 A 1 3419 A 4 3427 A 1 3435 B 2 3443 B 1 3451 A 2 3463 B 4 3471 B 2 3479 B 4 7411 A 5 9429 A 1 9443 B 5 9455 A 2



TAPE DECK BOARD - CIRCUIT DIAGRAM

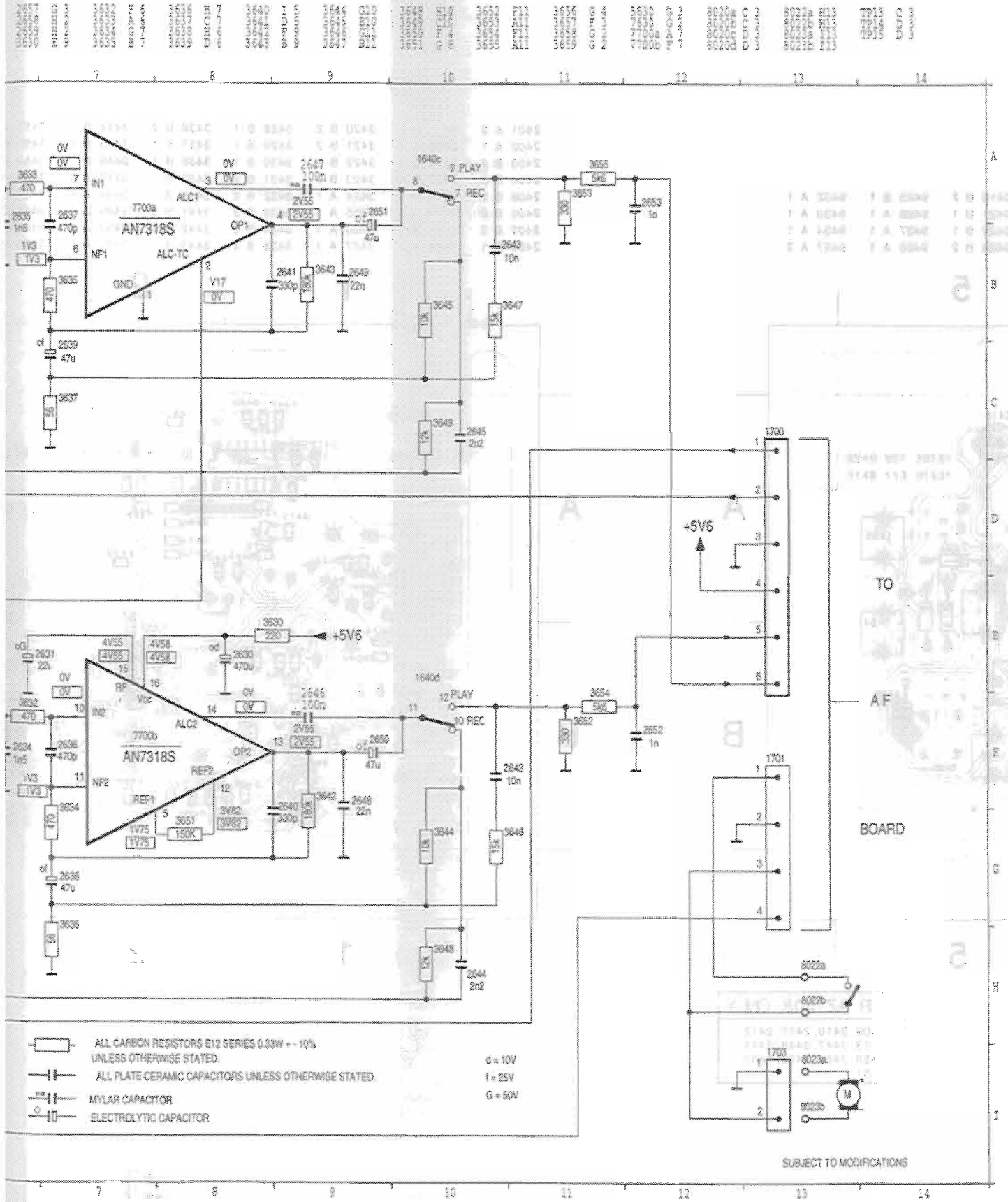
1640a	G 5	1640e	A 6	1703	I13	2633	A 6	2637	A 7	2641	B 9	2645	C10	2649	B 9	2653	A12	2657	G 3	3632	F 6	3636	H 7	3640	I 5	3644	G10	3648	H10	3652	F11	3656	G 4	5630	G 3	8020a	C 3	8022a	H13	TP13	C 3
1640b	E 3	1640f	E 6	2630	H 8	2634	F 6	2638	G 7	2642	F11	2646	F 9	2650	F 9	2654	F 4	2658	H 2	3633	A 6	3637	C 7	3641	D 5	3645	B10	3649	C10	3653	A11	3657	F 3	7630	G 2	8020b	C 3	8022b	H13	TP14	D 3
1640c	A10	1700	C13	2631	H 7	2635	A 6	2639	C 7	2643	B11	2647	A 9	2651	A 9	2655	G 4	2659	H 3	3634	G 7	3638	H 6	3642	B 9	3646	C11	3650	F 4	3654	F11	3658	G 2	7700a	A 7	8020c	D 3	8023a	I13	TP15	D 3
1640d	E10	1701	F13	2632	F 6	2636	F 7	2640	G 9	2644	H10	2648	F 9	2652	F12	2656	H 3	3630	E 9	3635	B 7	3639	D 6	3643	B 9	3647	B11	3651	G 8	3655	A11	3659	G 2	7700b	F 7	8020d	D 3	8023b	I13		

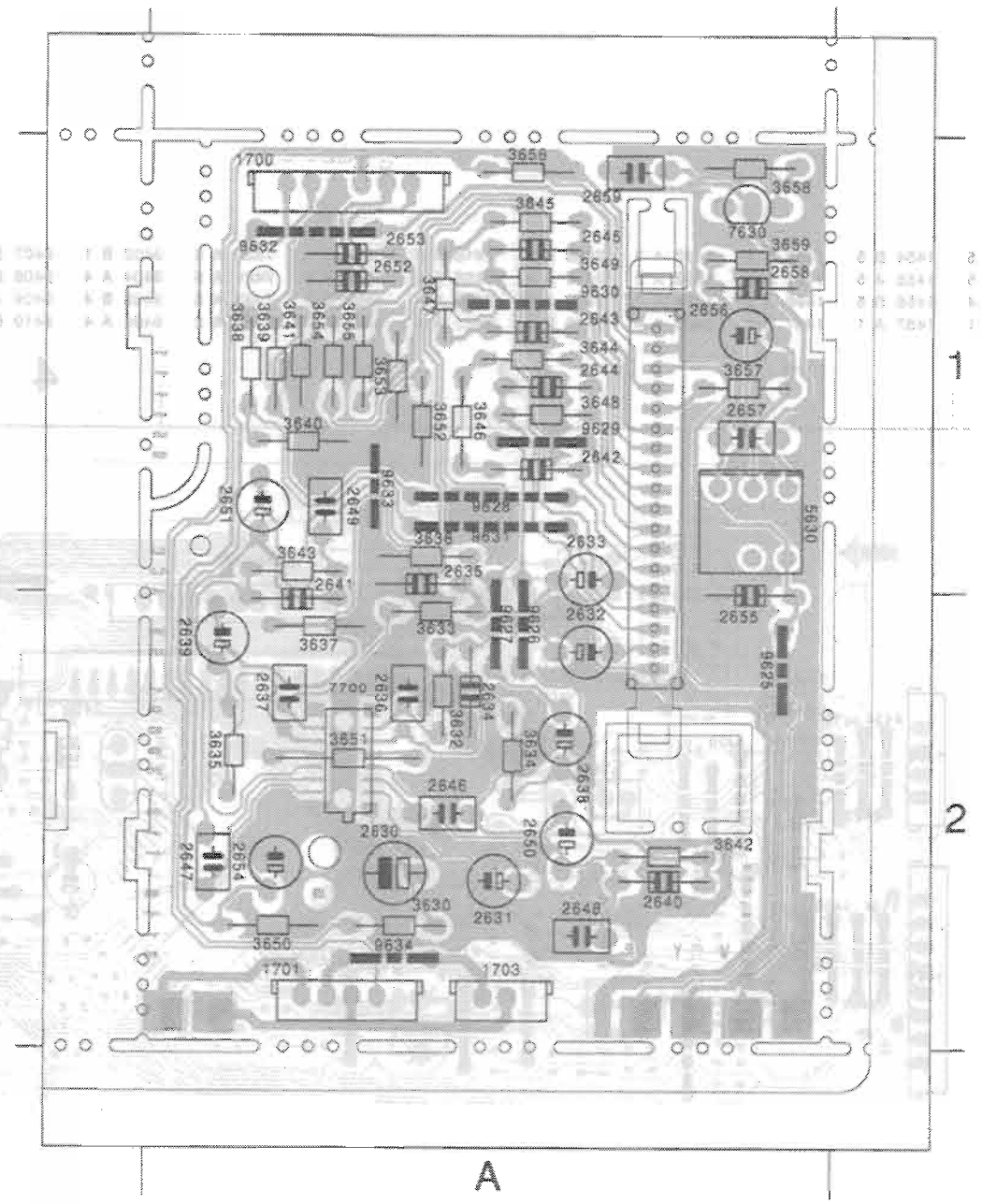




1619	A 1	1629	A 1	1639	A						
1620	A 1	1630	A 1	1640	A						
1621	A 2	1631	A 1	1700	A						
1622	A 2	1632	A 1	1701	A						
1623	A 1	1633	A 1	1703	A						
1624	A 1	1634	A 1	2630	A						
1625	A 1	1635	A 1	2631	A						
1626	A 1	1636	A 1	2632	A						
1627	A 1	1637	A 2	2633	A						
1628	A 1	1638	A 2	2634	A						

TAPE DECK BOARD - LAYOUT DIAGRAM





1619 A 1 1629 A 1 1639 A 2 2635 A 1 2645 A 1 2655 A 2 3636 A 1 3646 A 1 3656 A 1 9628 A 1 PAD4 A 2
1620 A 1 1630 A 1 1640 A 2 2636 A 2 2646 A 2 2656 A 1 3637 A 2 3647 A 1 3657 A 1 9629 A 1 PAD5 A 2
1621 A 2 1631 A 1 1700 A 1 2637 A 2 2647 A 2 2657 A 1 3638 A 1 3648 A 1 3658 A 1 9630 A 1 PAD6 A 2
1622 A 2 1632 A 1 1701 A 2 2638 A 2 2648 A 2 2658 A 1 3639 A 1 3649 A 1 3659 A 1 9631 A 1
1623 A 1 1633 A 1 1703 A 2 2639 A 2 2649 A 1 2659 A 1 3640 A 1 3650 A 2 5630 A 1 9632 A 1
1624 A 1 1634 A 1 2630 A 2 2640 A 2 2650 A 2 3630 A 2 3641 A 1 3651 A 2 7630 A 1 9633 A 1
1625 A 1 1635 A 1 2631 A 2 2641 A 2 2651 A 1 3632 A 2 3642 A 2 3652 A 1 7700 A 2 9635 A 2
1626 A 1 1636 A 1 2632 A 2 2642 A 1 2652 A 1 3633 A 2 3643 A 1 3653 A 1 9625 A 2 PAD1 A 2
1627 A 1 1637 A 2 2633 A 1 2643 A 1 2653 A 1 3634 A 2 3644 A 1 3654 A 1 9626 A 2 PAD2 A 2
1628 A 1 1638 A 2 2634 A 2 2644 A 1 2654 A 2 3635 A 2 3645 A 1 3655 A 1 9627 A 2 PAD3 A 2

CASSETTE ADJUSTMENT

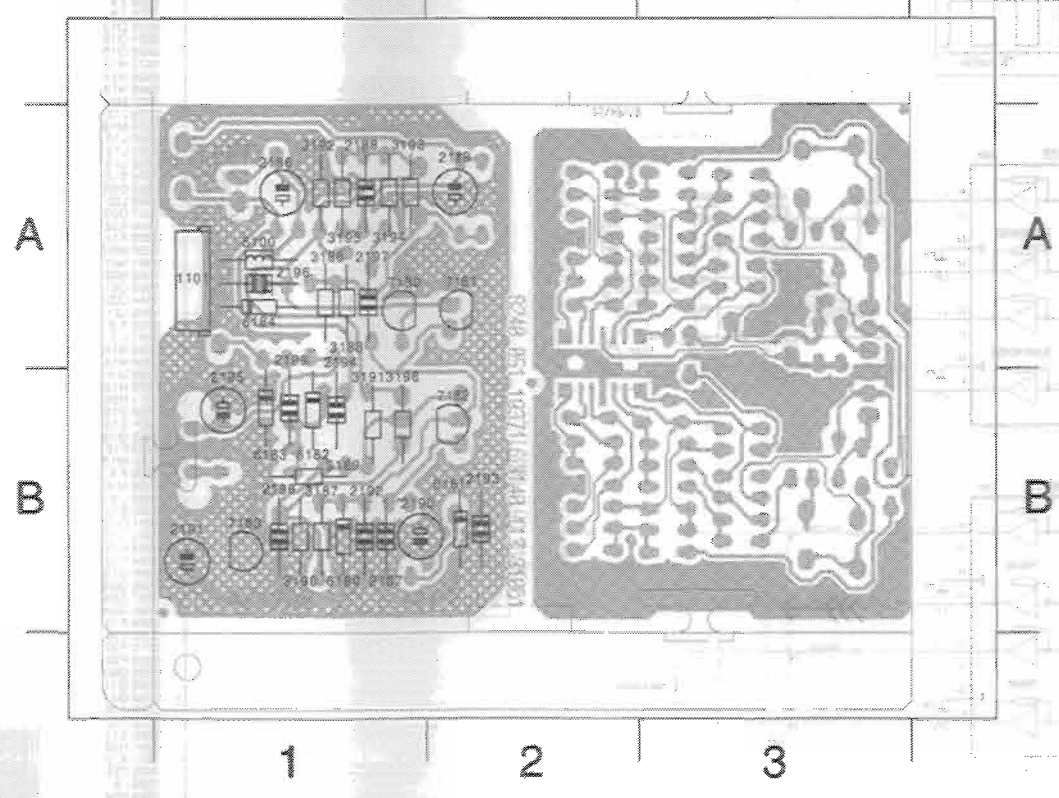
Adjustment	Cassette	SK	Deck 1	Measure on	Read on	Adjust with	Adjust to
Azimuth	10kHz SBC420*	TAPE	Play	H/P Jack	mV meter	Left hand Screw R/P Head	max.
Motor Speed	3150kHz SBC420*	TAPE	Play	H/P Jack	Wow and flutter meter	Preset in motor	**a

* SBC420 : 4822 397 30071

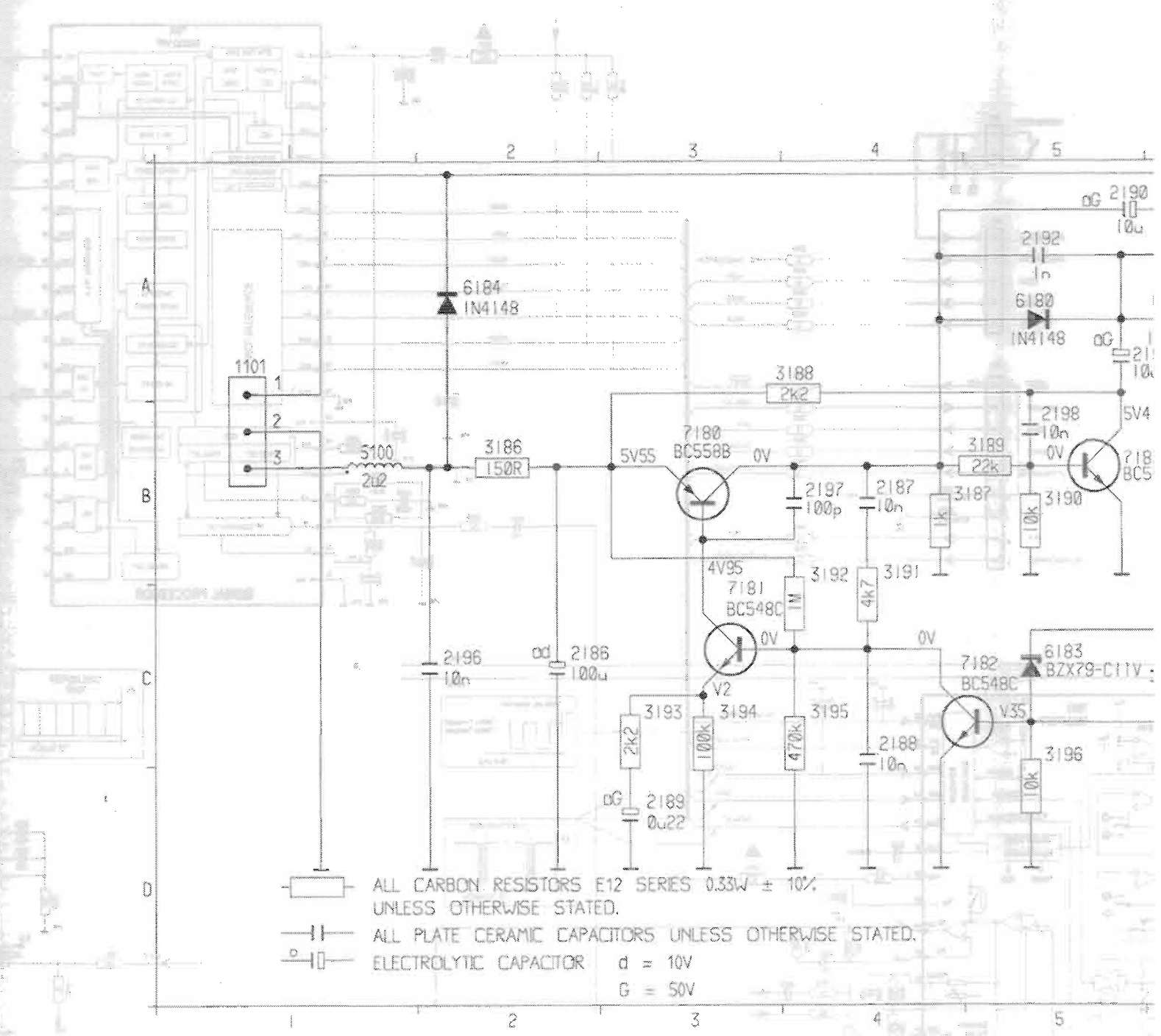
**a The maximum permissible speed deviation is ± 3%.
Morever, the wow and flutter value can be read.

VOLTAGE MULTIPLIER BOARD (For AZ1208 only) - LAYOUT DIAGRAM

1101 A 1	2189 A 2	2193 B 2	2197 A 1	3187 B 1	3191 B 1	3195 A 1	6181 B 2	7180 A 1
2186 A 1	2190 B 1	2194 B 1	2198 B 1	3188 A 1	3192 A 1	3196 B 1	6182 B 1	7181 A 2
2187 B 1	2191 B 1	2195 B 1	2199 B 1	3189 B 1	3193 A 1	5100 A 1	6183 B 1	7182 B 2
2188 A 1	2192 B 1	2196 A 1	3186 A 1	3190 B 1	3194 A 1	6180 B 1	6184 A 1	7183 B 1

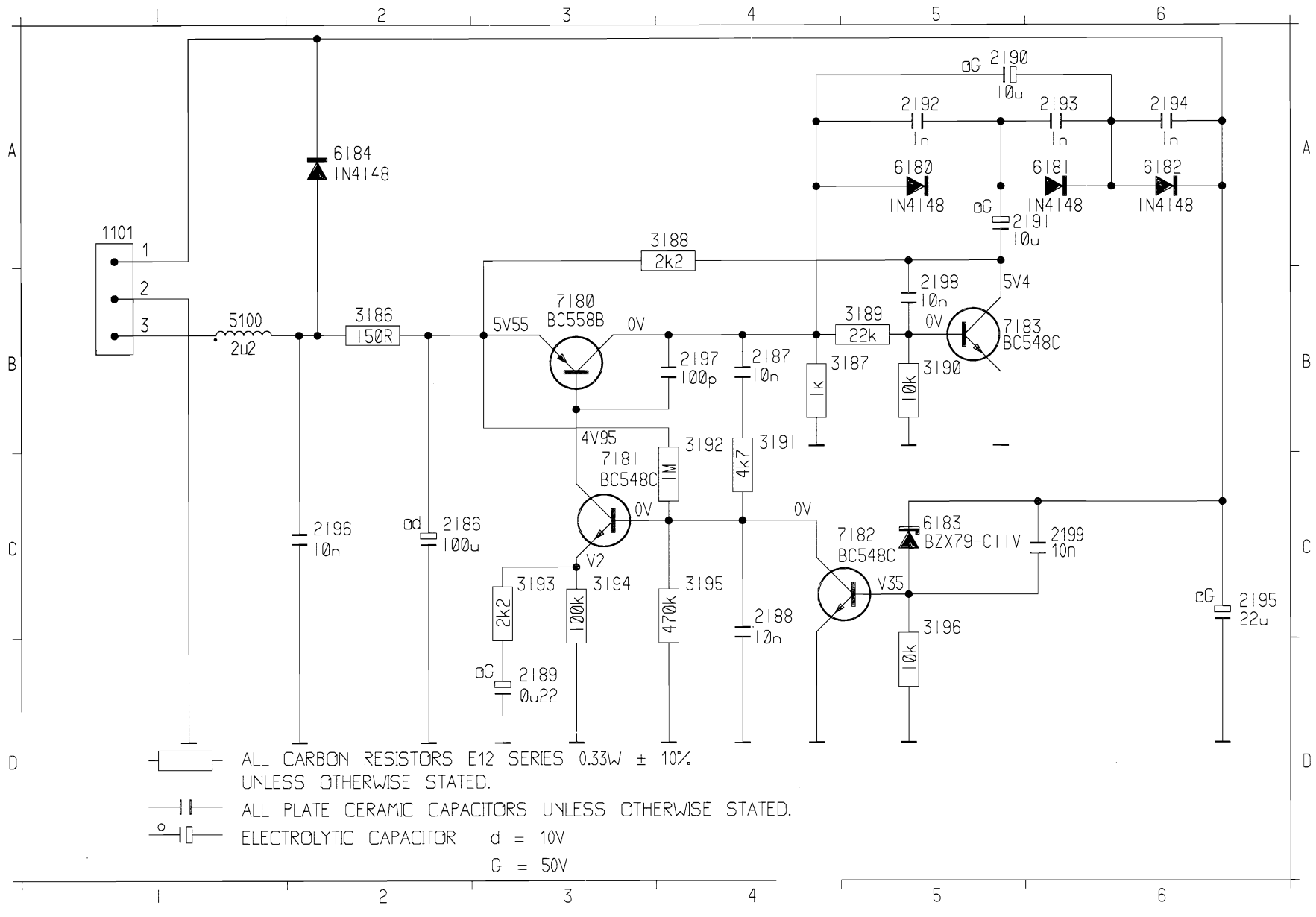


VOLTAGE MULTIPLIER BOARD (For AZ1208 only) - CIRCUIT DIAGRAM

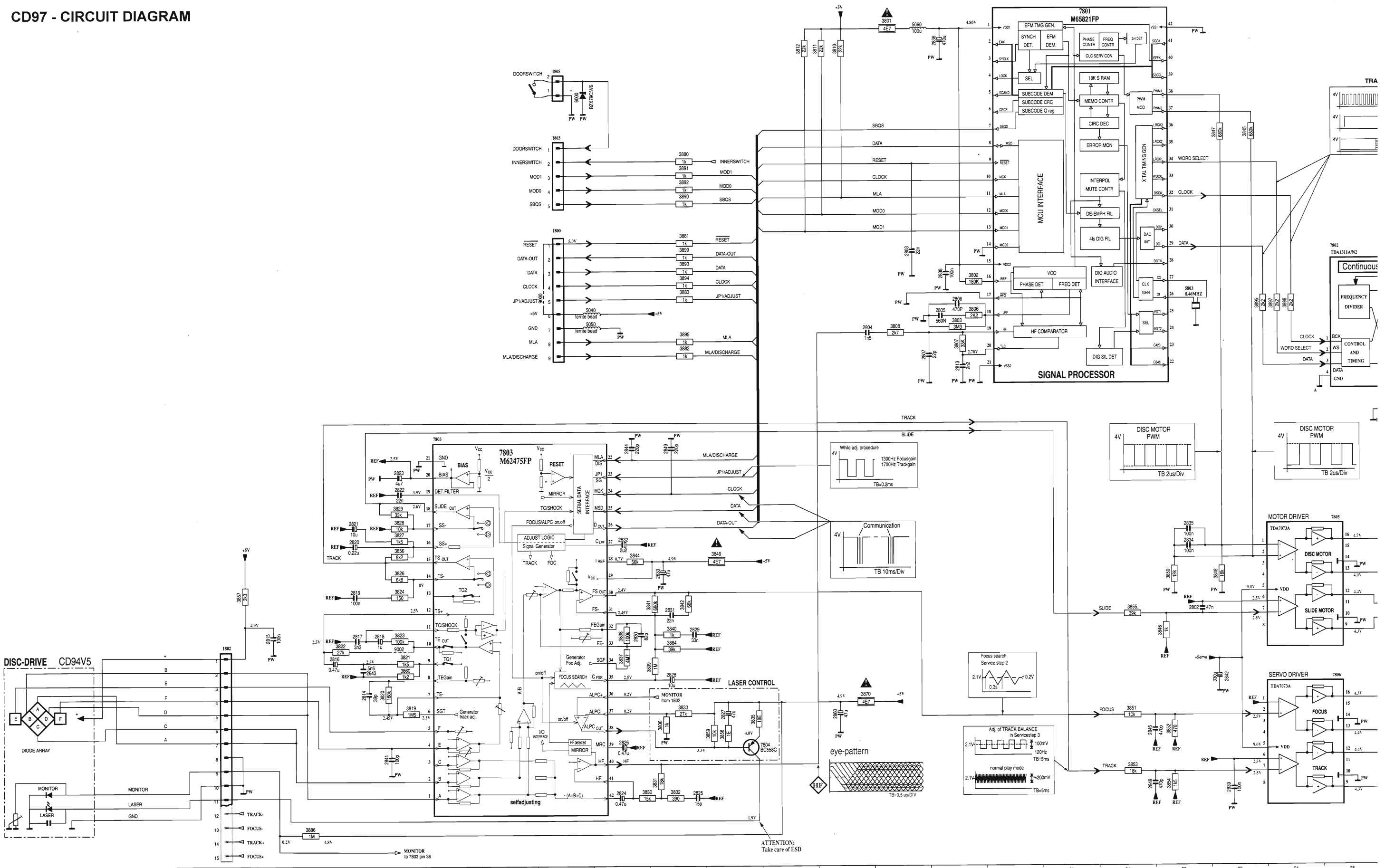


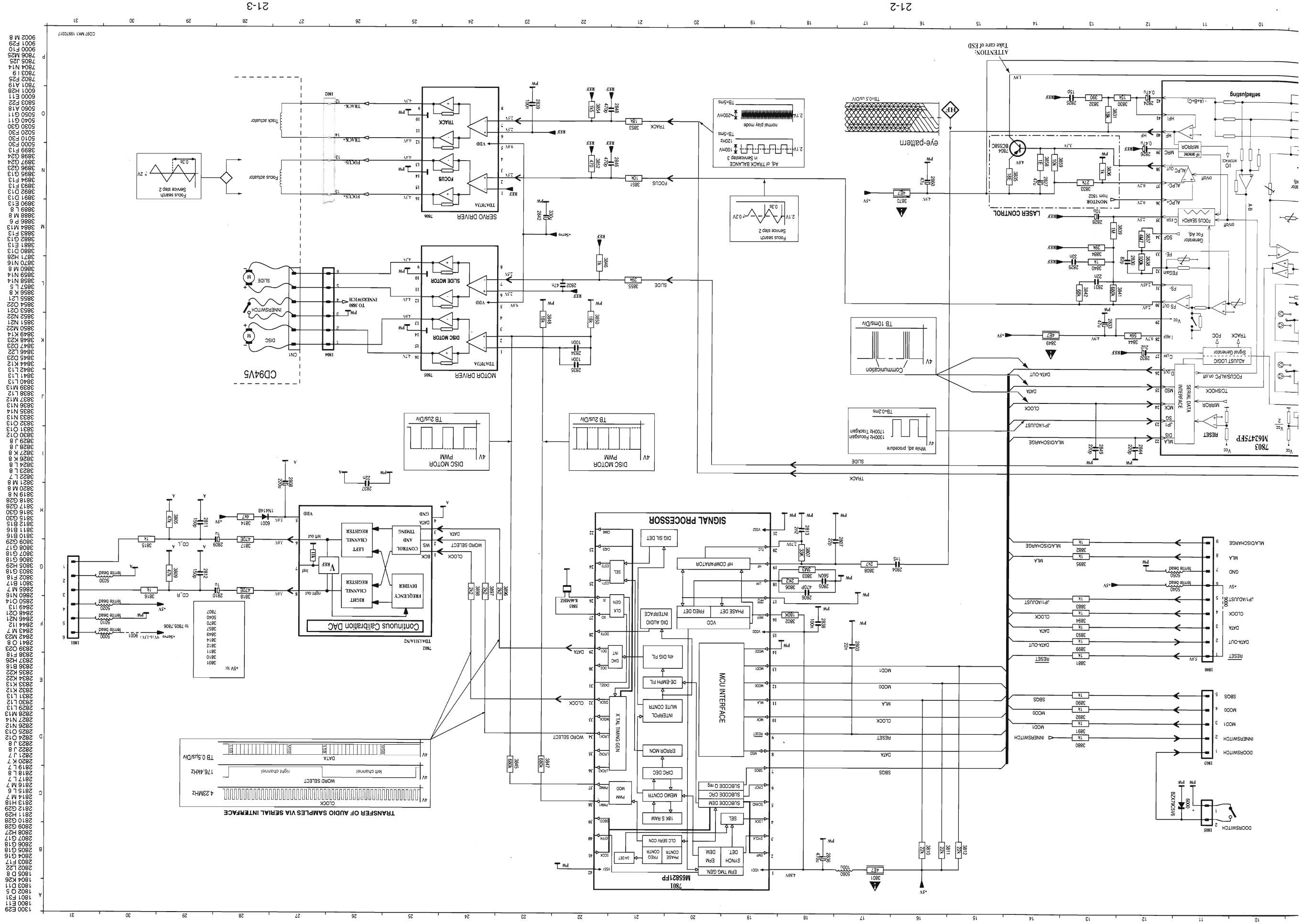
VOLTAGE MULTIPLIER BOARD (For AZ1208 only) - CIRCUIT DIAGRAM

	Adjust to
d	max.
d	**a

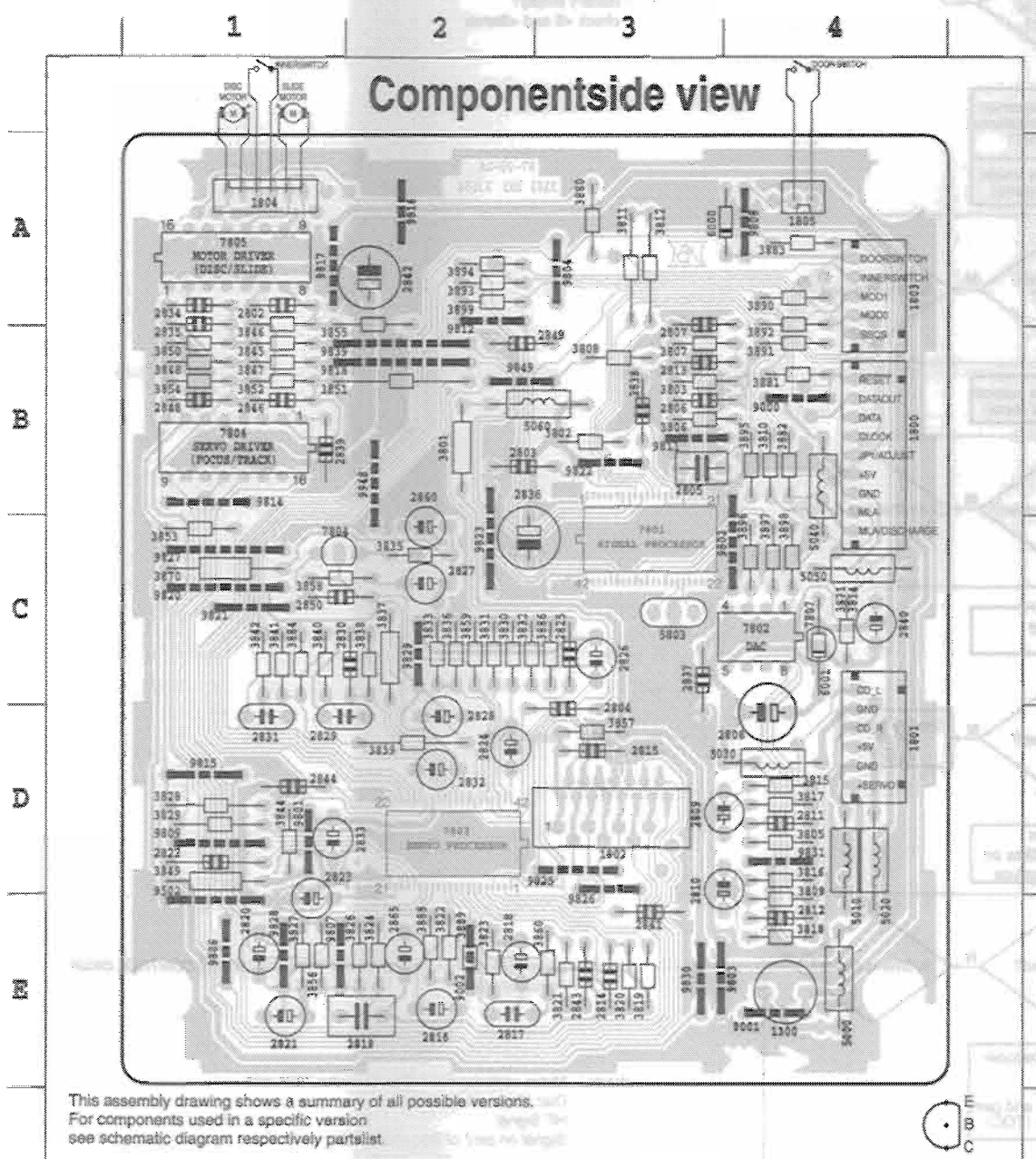


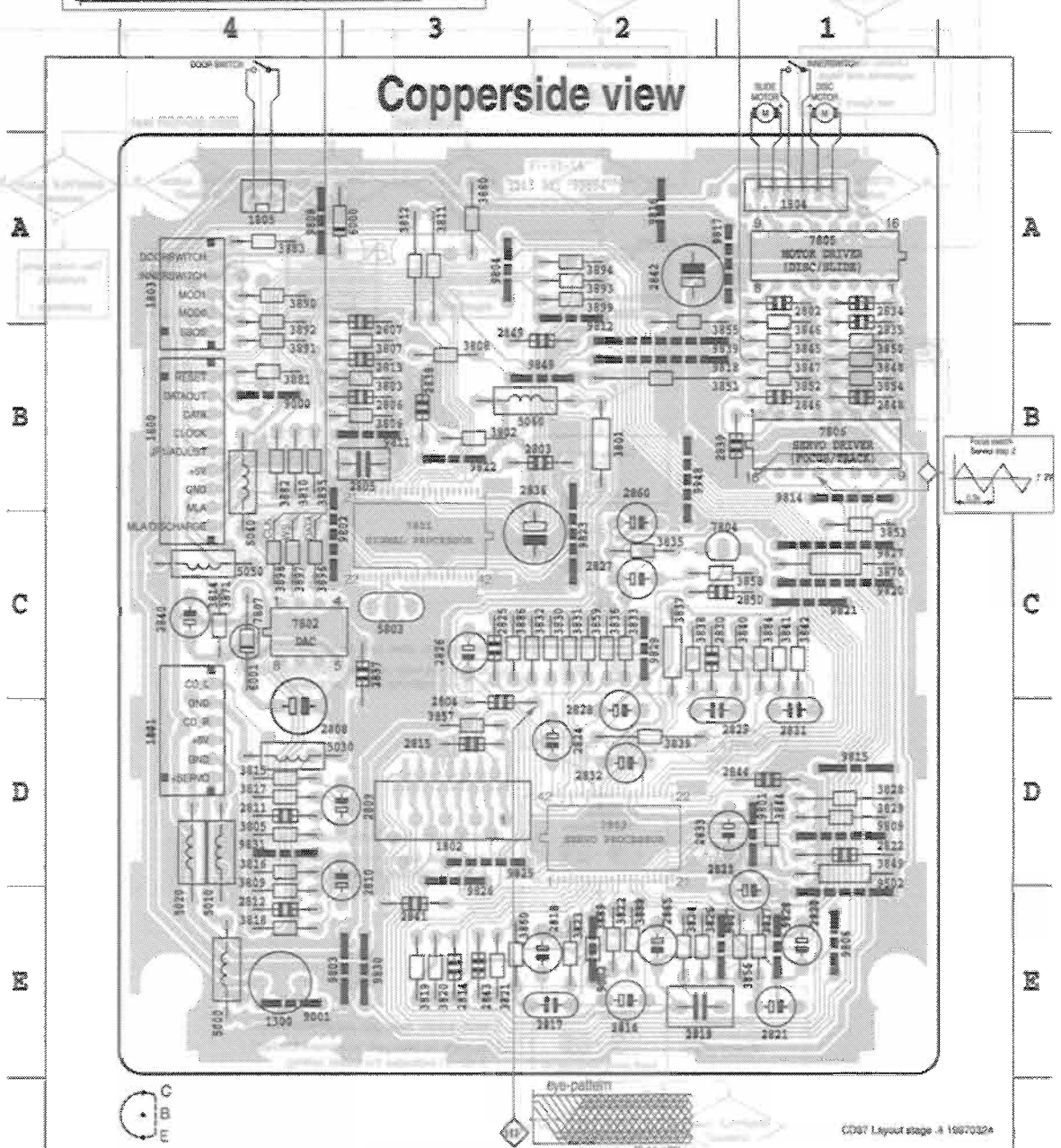
CD97 - CIRCUIT DIAGRAM

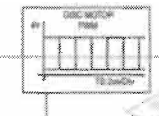



21-2
21-3
CD97 MK1 19970317
ATTENTION:
Take care of ESD
7803
M62475FP
RESET
SERIAL DATA INTERFACE
FOCUS/ALPC on/off
TO/SHOCK
DATA-OUT
DATA
CLOCK
MIRROR
JP1/ADJUST
M-A/DISCHARGE
LASER CONTROL
MONITOR
ALPC+
ALPC-
ALPC OUT
MIRROR
HF
HF1
FOCUS SERACH
Generator
Foc Adj.
FEGain
FE
FS-
FS OUT
TRACK
FOC
Signal Generator
ADJUST LOGIC
eye-pattern
Communication
TB 10ms/DIV
TB 2us/DIV
TB 0.5us/DIV
TB40.2ms
TB-5ms
TB-0.5 us/DIV
Focus search
Servo step 2
Adj. of TRACK BALANCE
Servo step 3
normal play mode
Focus actuator
Track actuator
SERVO DRIVER
TDA7372A
7806
MOTOR DRIVER
DISC MOTOR
SLIDE MOTOR
SLIDE
DISC
INNERSWITCH
TO 3880
CN1
CD94V5
Continuous Calibration DAC
TDA1311A/N2
7802
FREQUENCY DIVIDER
CONTROL AND TIMING
CHANNEL REGISTER
LEFT
RIGHT
Vref
Iref
Iopt
Tracking actuator
SIGNAL PROCESSOR
M65821FP
7801
MCU INTERFACE
X TAL TIMING GEN
DE-EMPH FIL
4b DIG FIL
DIG AUDIO INTERFACE
PHASE DET
FREQ DET
VCO
HF COMPARATOR
DIG SIL DET
ERROR MON
CIRC DEC
MEMO CONTR
18K S RAM
SUBCODE Q reg
SUBCODE CRC
SUBCODE DEM
SYNC DET
EFM
DEM
EFM TMG GEN
WORD SELECT
CLOCK
DATA
4.23MHz
176.4kHz
Left channel
right channel
TRANSFER OF AUDIO SAMPLES VIA SERIAL INTERFACE
DOORSWITCH
INNERSWITCH
SBOS
MOD1
MOD0
MLA
MLA/DISCHARGE
RESET
DATA-OUT
JP1/ADJUST
CLOCK
DATA
GND
+5V
Remote board
BZX79C5V6
5080
5060
5040
5030
5020
5010
5000
4900
4800
4700
4600
4500
4400
4300
4200
4100
4000
3900
3800
3700
3600
3500
3400
3300
3200
3100
3000
2900
2800
2700
2600
2500
2400
2300
2200
2100
2000
1900
1800
1700
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100

CD97 - LAYOUT DIAGRAM







1300	E 4	3807	B 3	3891	D 4		
1800	B 4	3808	B 3	3892	A 4		
1801	D 4	3809	E 4	3893	A 2		
1802	D 3	3810	B 4	3894	A 2		
1803	A 4	3811	A 3	3895	B 4		
1804	A 1	3812	A 3	3896	C 4		
1805	A 4	3814	C 4	3897	C 4		
2802	A 1	3815	D 4	3898	C 4		
2803	B 2	3816	D 4	3899	A 2		
2804	D 3	3817	D 4	5000	E 4		
2805	B 3	3818	E 4	5010	D 4		
2806	B 3	3819	E 3	5020	D 4		
2807	A 3	3820	E 3	5030	D 4		
2808	D 4	3821	E 3	5040	B 4		
2809	D 4	3822	E 2	5050	C 4		
2810	D 4	3823	E 2	5060	B 3		
2811	D 4	3824	E 2	5803	C 3		
2812	E 4	3826	E 2	6000	A 4		
2813	B 3	3827	E 1	6001	C 4		
2814	E 3	3828	D 1	7802	C 4		
2815	D 3	3829	D 1	7804	C 1		
2816	E 2	3830	C 2	7805	A 1		
2817	E 2	3831	C 2	7806	B 1		
2818	E 2	3832	C 2	7807	C 4		
2819	E 2	3833	C 2	9000	B 4		
2820	E 1	3835	C 2	9001	E 4		
2821	E 1	3836	C 2	9002	E 2		
2822	D 1	3837	C 2	9502	E 1		
2823	E 1	3838	C 2	9801	D 1		
2824	D 2	3839	D 2	9802	C 4		
2825	C 3	3840	C 1	9803	E 3		
2826	C 3	3841	C 1	9804	A 3		
2827	C 2	3842	C 1	9806	E 1		
2828	D 2	3844	D 1	9807	E 1		
2829	D 1	3845	B 1	9808	A 4		
2830	C 2	3846	A 1	9809	D 1		
2831	D 1	3847	B 1	9811	B 3		
2832	D 2	3848	B 1	9812	A 2		
2833	D 1	3849	D 1	9814	B 1		
2834	A 1	3850	B 1	9815	D 1		
2835	A 1	3851	B 2	9816	A 2		
2836	C 2	3852	B 1	9817	A 1		
2837	C 3	3853	C 1	9818	B 2		
2838	B 3	3854	B 1	9820	C 1		
2839	B 1	3855	A 2	9821	C 1		
2840	C 4	3856	E 1	9822	B 3		
2841	E 3	3857	D 3	9823	C 2		
2842	A 2	3858	C 1	9825	D 3		
2843	E 3	3859	C 2	9826	D 3		
2844	D 1	3860	E 3	9827	C 1		
2846	B 1	3870	C 1	9828	E 1		
2848	B 1	3871	C 4	9829	C 2		
2849	B 2	3880	A 3	9830	E 3		
2850	C 1	3881	B 4	9831	D 4		
2860	C 2	3882	B 4	9839	B 2		
2865	E 2	3883	A 4	9849	B 2		
3801	B 2	3884	C 1	9948	B 2		
3802	B 3	3886	C 3	7801	C 3		
3803	B 3	3888	E 2	7803	D 2		
3805	D 4	3889	E 2				
3806	B 3	3890	A 4				

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

CD97 Layout stage A 19970324

CD - SERVICE TESTPROGRAM

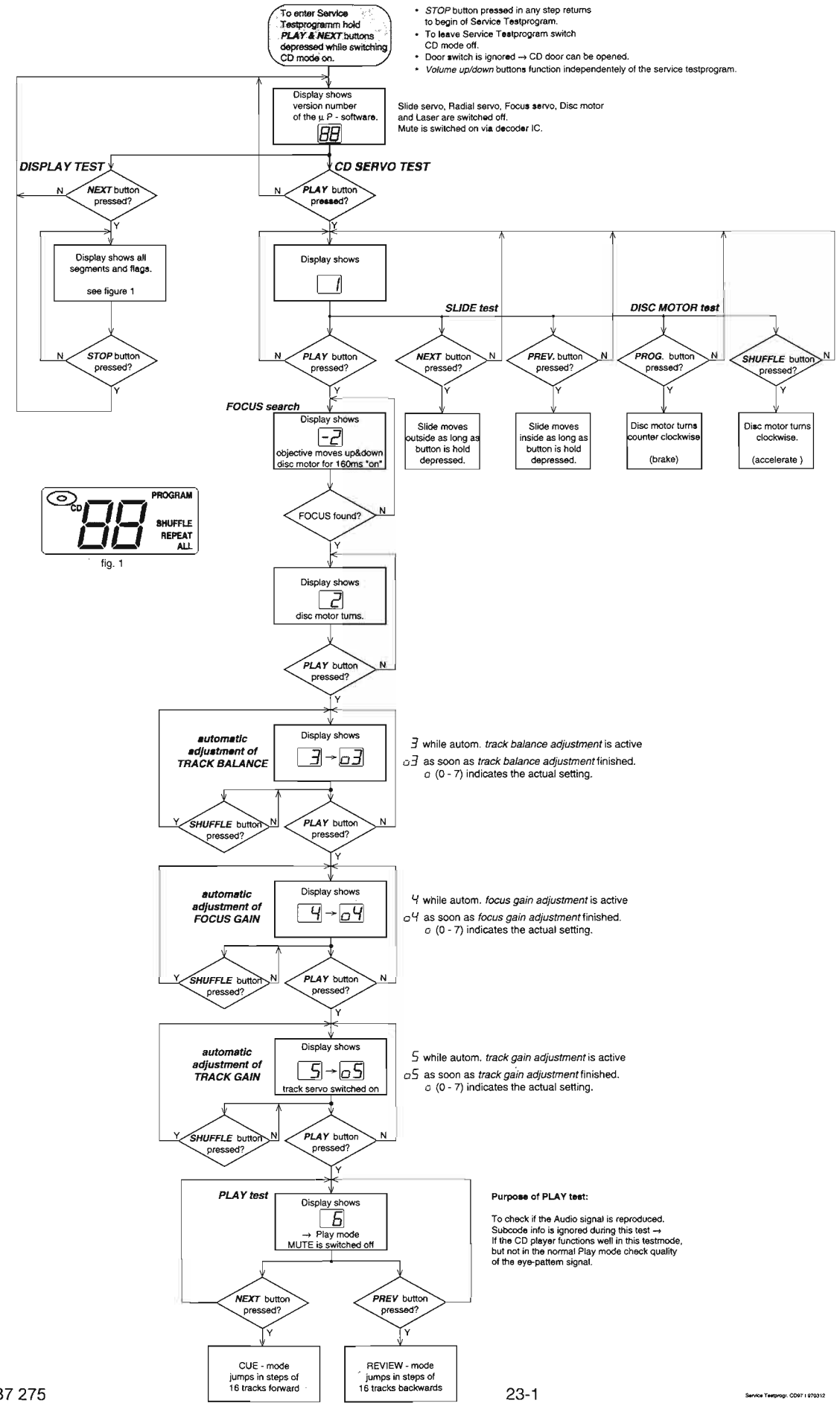
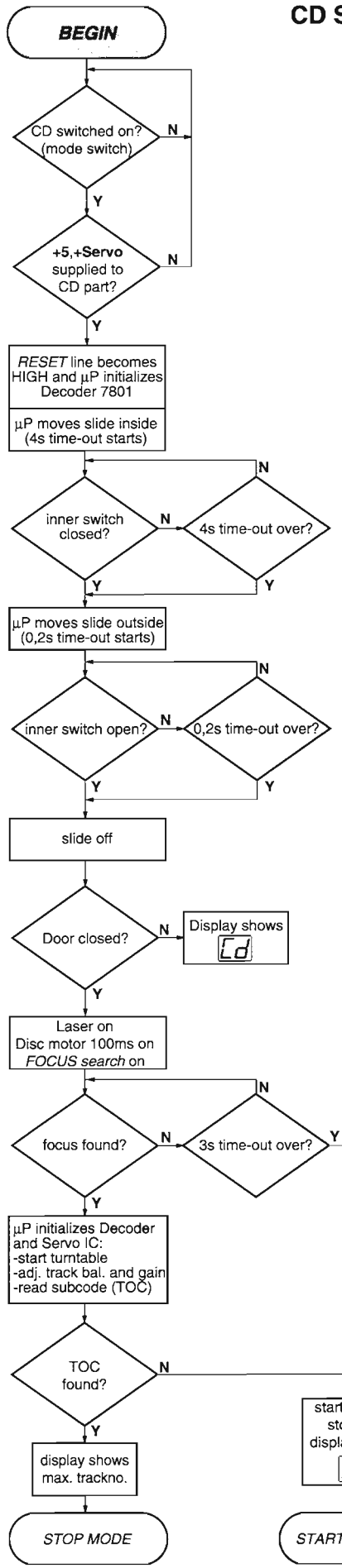


fig. 1

CD STARTUP - PROCEDURE



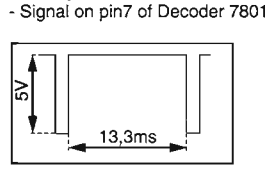
Remark: To check focus servo, slide servo, track servo and turntable use service test program

..... - 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

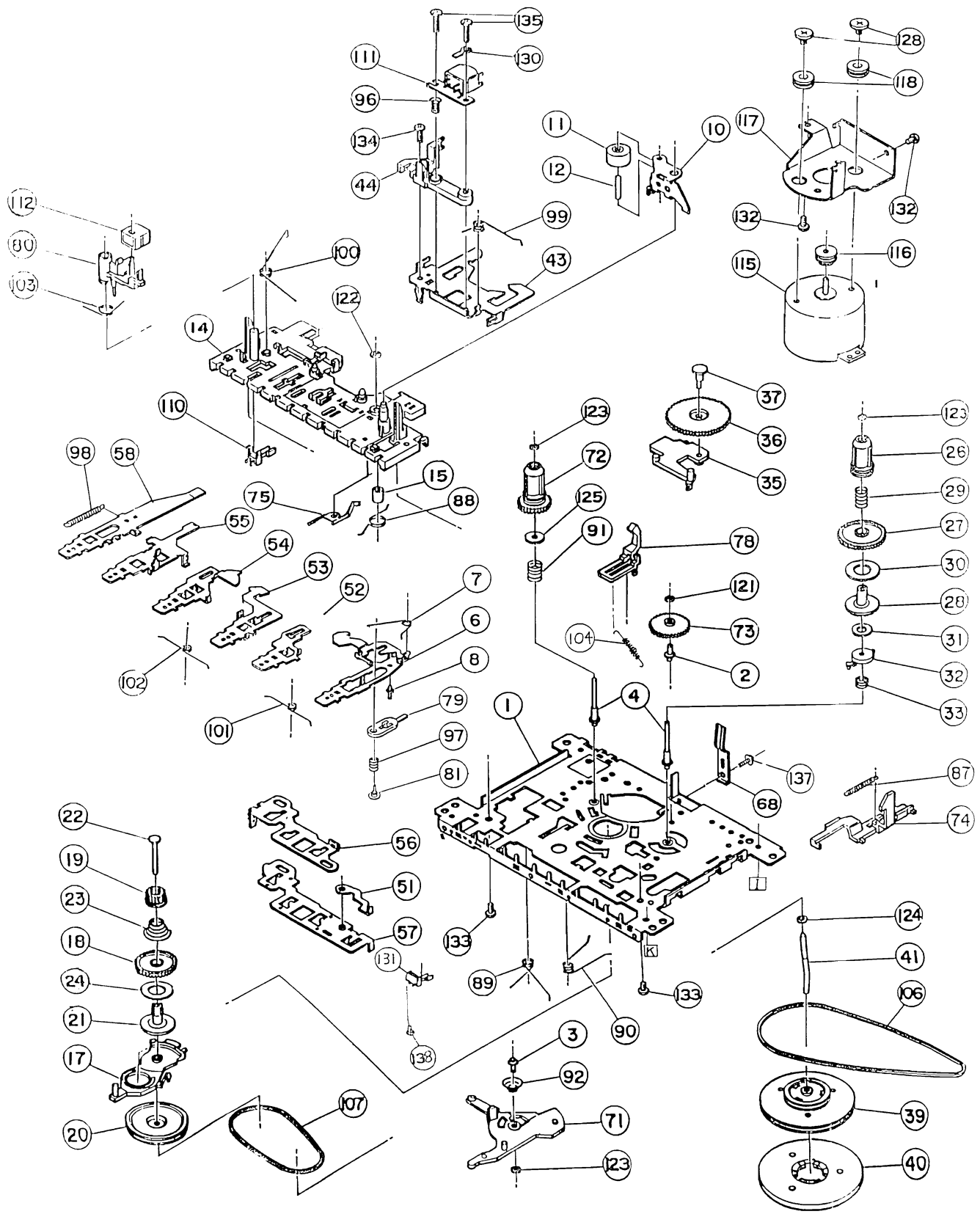
SERVO PROCESSOR M62475FP

Pin	*Name*	*Direction*	*Description*
1-3	A, B, C	Diode array → Servo processor	Current input (central photo diode signal input)
4-5	E, F	Diode array → Servo processor	Current input (satellite photo diode signal input)
6	SGT	Servo processor → Track servo	Signal generator output to track servo, sends 1700Hz for adjustment procedure
7	TE -	-	Inverting input of trackerror amplifier
8	TEGain	-	Gain control pin of track error amplifier
9	TG1	-	Track Gain 1 - switch: controls the gain of the track servo amplifier
10	TE out	-	Track Error amplifier output
11	TC/Shock	-	Track Cross/Shock detector input
12	TS +	-	Non inverting input of track servo amplifier
13	TG2	not connected	Track Gain 2 - switch: controls the gain of the track servo amplifier
14	TS -	-	Inverting input of track servo amplifier
15	TS out	Servo processor → Servo driver	Output of track servo amplifier
16	SS +	-	Non inverting input of slide servo amplifier
17	SS -	-	Inverting input of slide servo amplifier
18	Slide out	Servo processor → Motor driver	Output of slide servo amplifier
19	DETFIL	-	Pin for connection of DETection FILter capacitor of *ADJUST LOGIC*
20	BIAS	Servo processor → external electronic	Reference Voltage output Vcc/2 of internal BIAS-generator
21	GND	-	Ground connection pin (negative supply)
22	MLA/DIS	µP → Servo processor	Serial interface Microprocessor LAtch control / DIScharge control for adjustment
23	JP1/SG	µP → Servo processor	Serial interface Jump control line / Signal Generator input line for adjustment
24	MCK	µP → Servo processor	Serial interface Clock input line
25	MSD	µP → Servo processor	Serial interface Data input line
26	Dout	Servo processor → µP	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	Servo processor → Servo driver	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	Servo processor → Focus servo	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	Servo processor → Laser driver	Output of Automatic laser Power Control amplifier
39	MRC	-	Connection pin for capacitor of Mirror detector
40	HF	Servo processor → Decoder	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	not connected	Emphasis flag output
3	SYCLK	not connected	Frame synchronize output
4	LOCK	not connected	Low disc rotation detect output
5	SCAND	not connected	Subcode sync signal detection
6	CRCF	not connected	Subcode Q CRC check flag output
7	SBQS	Signal processor → µP	Interrupt signal to read out subcode Q data
8	MSD	µP ↔ Signal processor	Data line
9	RESET	Reset circuit → Signal processor	System reset
10	MCK	µP → Signal processor	Clock input
11	MLA	µP → Signal processor	Latch clock input
12-14	MODx	µP → Signal processor	Mode setting inputs (0,1,2)
15	VDD2	-	+supply for data slicer and VCO
16	IREF	-	Current reference
17	HFD	Signal processor → µP	HF signal detect
18	LPF	-	PLL loop filter
19	HF	Servo processor → Signal processor	HF signal input
20	TLC	-	Output from slice level control
21	VSS2	-	Ground
22	C846	not connected	8,4672MHz clock output
23	C423	Signal processor → µP	4,2336MHz clock outout
24	EST2	not connected	Error monitor output2
25	EST1	not connected	Error monitor output1
26	XI	X-Tal → Signal processor	Crystal oscillator input
27	XO	Signal processor → X-Tal	Crystal oscillator output
28	DOTX	not connected	Output of digital interface
29	DO1	Signal processor → DAC	Serial data output to DAC
30	DO2	not connected	Serial data output to Dual DAC
31	CKSEL	not connected	Crystal selector input. H=8MHz, L=16MHz
32	DSCK	Signal processor → DAC	Data shift clock
33	WDCK	Signal processor → DAC	Word clock
34	LRCK1	Signal processor → DAC	Left/Right clock
35-36	not used		Left/Right clock
37	PWM1	Signal processor → Motor driver	Disc motor driving (Pulse Width Modulation) output1
38	PWM2	Signal processor → Motor driver	Disc motor driving (Pulse Width Modulation) output2
39-41	not used		
42	VSS1	GND	Digital system ground

EXPLODED VIEW DIAGRAM - TAPE DECK



EXPLODED VIEW DIAGRAM - CABINET

401	4822 459 04988	Front Panel
402	4822 381 10515	Front Panel Lens (AZ1203)
402	4822 381 11981	Front Panel Lens (AZ1208)
403	4822 450 10524	Window LCD
404	4822 450 10523	Cassette Door Lens (Not for AZ1203/17)
404	4822 450 10522	Cassette Door Lens (For AZ1203/17)
404	4822 450 10519	Cassette Door Lens (Not for AZ1208/17)
404	4822 450 10518	Cassette Door Lens (For AZ1208/17)
406	4822 443 10964	Cassette Door
407	4822 492 42709	Spring Door
408	4822 459 04987	Front Cabinet Assy
411	4822 410 11848	Button Set Play
413	4822 402 61508	LCD Bracket (DIG)
414	4822 410 11239	Cassette Knob
416	4822 492 11061	Spring Recording
417	4822 402 10126	Lever Recording
418	4822 410 11847	Button Set Shuffle
419	4822 691 10612	Tape Deck Mechanism
422	4822 402 10784	Sound Box Bracket
428	4822 529 10387	Damper Rubber (40 DEG)
429	4822 410 11124	Knob DBB
432	4822 410 11123	Knob Mode
434	4822 402 10723	Lever Eject
436	4822 492 11058	Spring Eject
437	4822 418 18550	Tray CD
438	4822 410 11132	Knob Volume (AZ1203)
438	4822 410 11383	Knob Volume (AZ1208)
439	4822 410 11128	Knob Open
441	4822 535 60096	Disc
443	4822 532 12798	Pressure Ring Assy
444	4822 443 10654	CD Door
447	4822 464 10351	Frame Tuning
453	4822 529 10386	Damper Rubber (30 DEG)
454	4822 691 10654	CD Drive
456	4822 529 10322	Damper Assy

459	4822 402 10724	Bracket Handle
461	4822 498 10644	Handle
462	4822 492 11642	Spring CD
463	4822 426 10473	Cabinet Rear
464	4822 265 20318	Socket Main (Not for -/17)
464	4822 265 20706	Socket Main (For -/17)
466	4822 492 51733	Spring Compression
467	4822 492 51961	Spring Compression
468	4822 290 80313	Contact Plate
469	4822 443 10655	Battery Door
471	4822 303 14038	Telescopic Aerial
472	4822 219 10353	RC0786/04 (AZ1208 only)
	4822 321 10249	Mains Cord (For -/00/04)
	4822 321 10886	Mains Cord (For -/05)
	4822 321 10882	Mains Cord (For -/17)
	4822 736 16134	Instr Manual (For -/00/04/05)
	4822 736 16133	Instr Manual (For -/17)

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

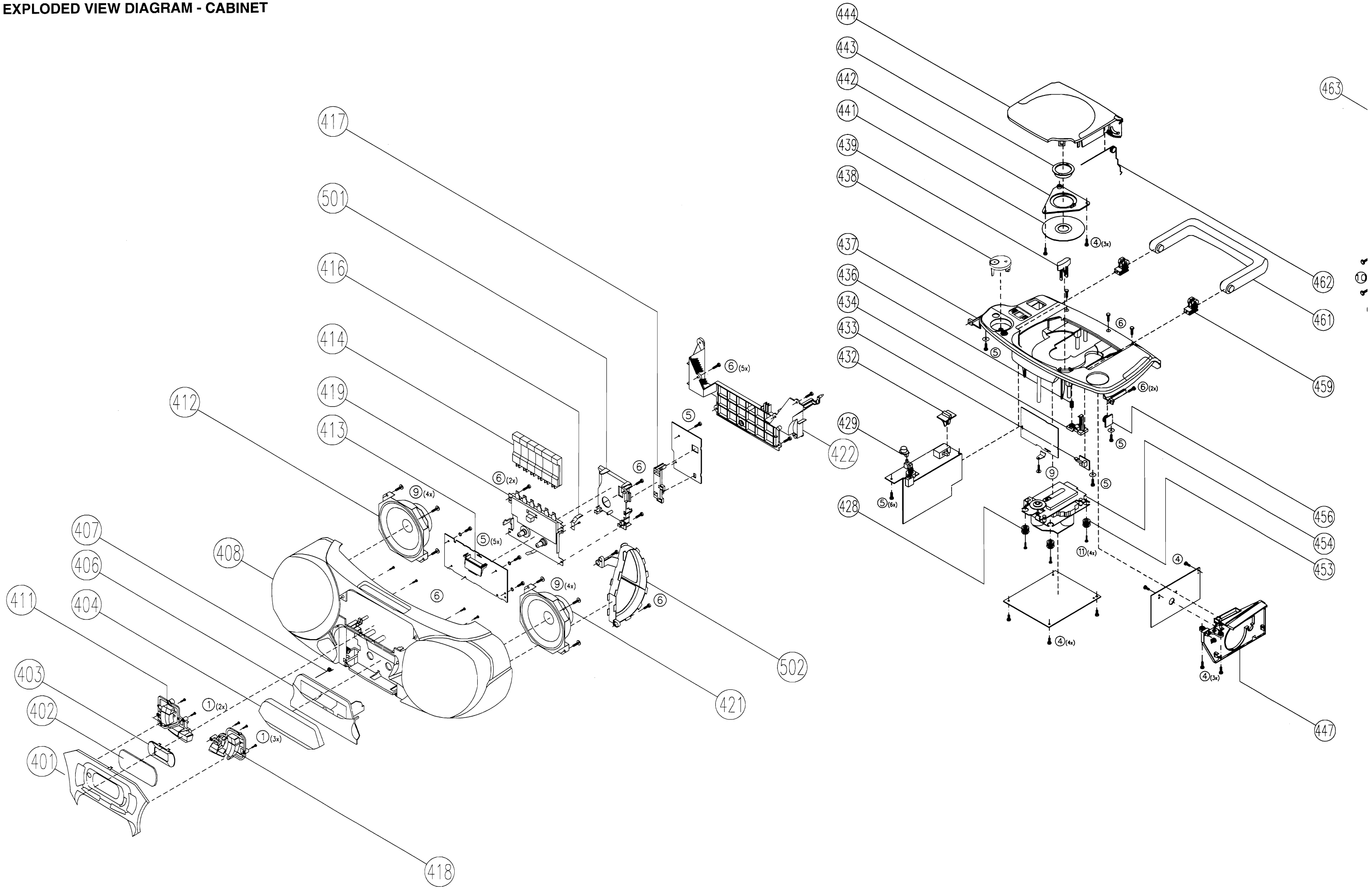
EXPLODED VIEW DIAGRAM - TAPE DECK

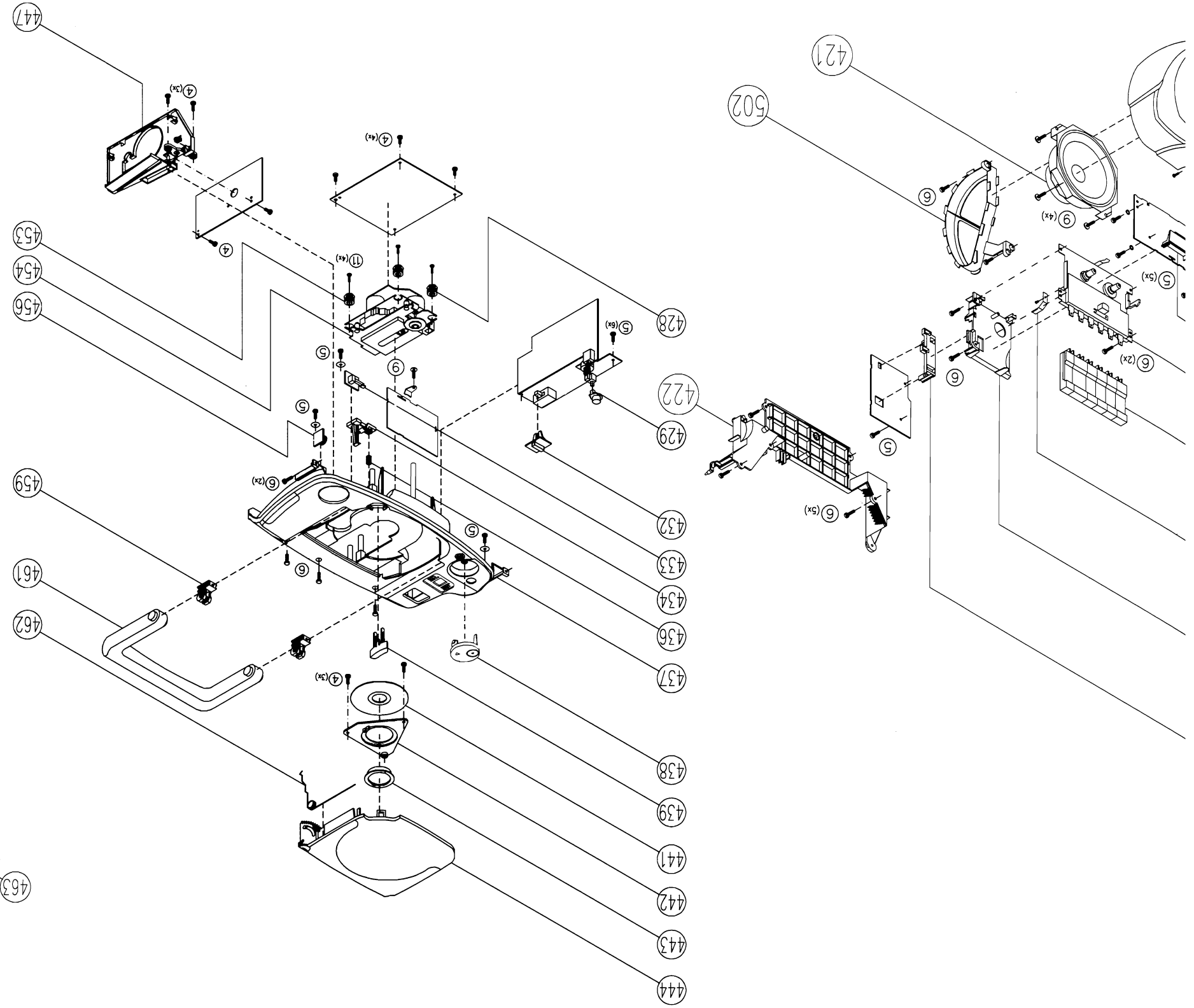
10	4822 528 70849	Pinch Roller Arm (B)
11	4822 528 70695	Pinch Roller Assy
74	4822 403 70968	Eject Hook (A)
106	4822 358 31325	Main Belt 45.2 x 1.2
107	4822 358 31124	Sub Belt 44.7 x 1.2

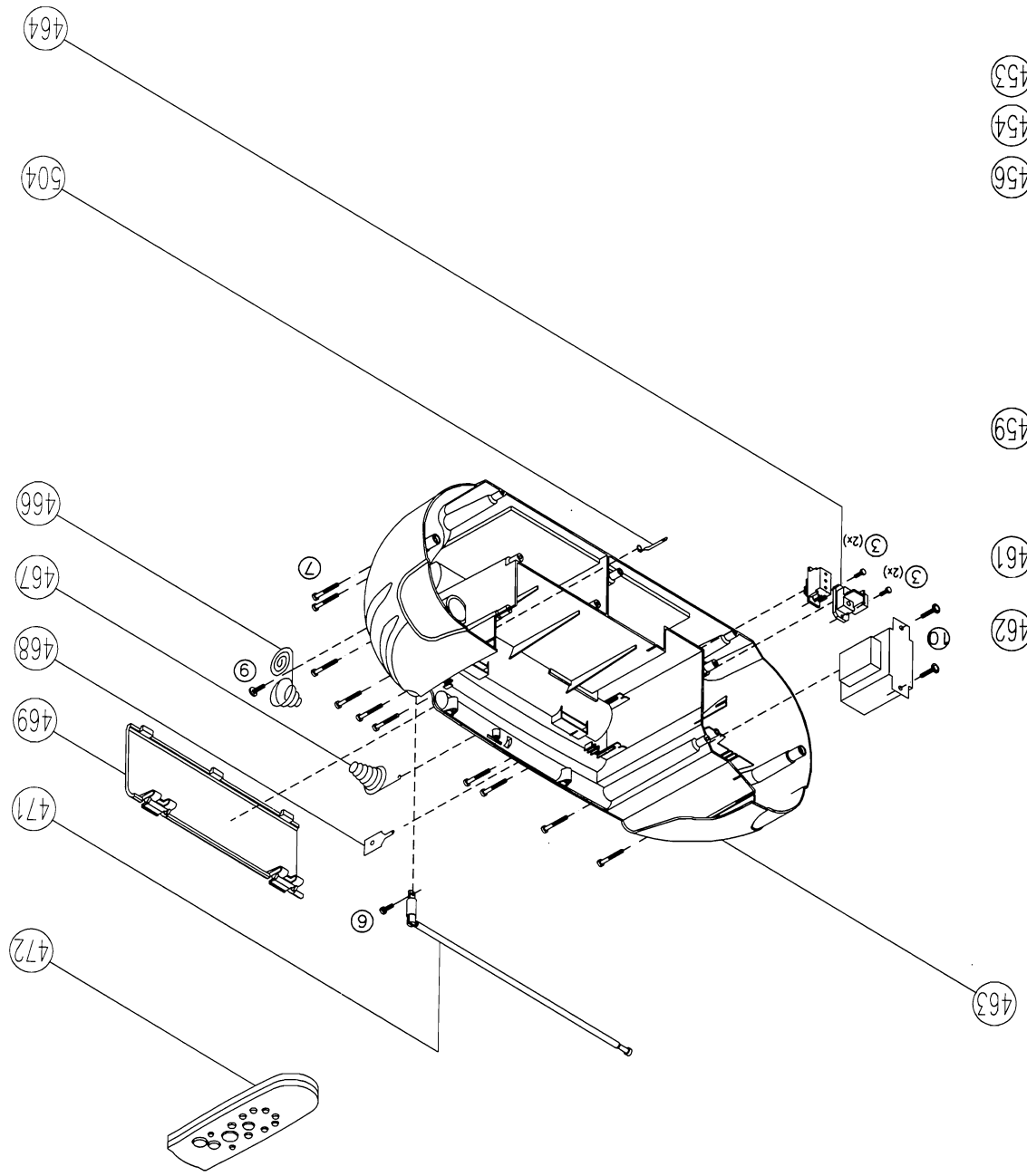
110	4822 278 90721	Leaf Switch
111	4822 249 30218	MS18R-AKONI
112	4822 249 40306	E. Head
115	4822 361 21656	Motor EG-530AD-9B
116	4822 528 81497	Motor Pulley

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 2.6x10

AUDIO BOARD

2186		4822 124 11959	100µF	20% 10V
2187		4822 121 51387	10nF	20% 16V
2188		4822 121 51387	10nF	20% 16V
2189		4822 126 13581	0.22µF	20% 50V
2190		4822 124 40248	10µF	20% 63V
2191		4822 124 40248	10µF	20% 63V
2192		4822 122 33197	1nF	10% 50V
2193		4822 122 33197	1nF	10% 50V
2194		4822 122 33197	1nF	10% 50V
2195		4822 124 81151	22µF	50V
2196		4822 121 51387	1µF	20% 63V
2197		4822 122 33195	100pF	10% 50V
2198		4822 121 51387	10nF	20% 16V
2199		4822 121 51387	10nF	20% 16V
2250		4822 124 80195	470µF	20% 10V
2251		4822 124 80195	470µF	20% 10V
2252		5322 121 42661	330nF	5% 63V
2253		5322 121 42661	330nF	5% 63V
2254	*	4822 124 11958	47µF	20% 25V
2254	#	4822 124 40433	47µF	20% 25V
2255	*	4822 124 11958	47µF	20% 25V
2255	#	4822 124 40433	47µF	20% 25V
2256	*	4822 124 11959	100µF	20% 10V
2256	#	4822 124 42446	100µF	20% 10V
2257	*	4822 124 11959	100µF	20% 10V
2257	#	4822 124 42446	100µF	20% 10V
2258		5322 122 32052	600pF	10% 100V
2259		5322 122 32052	600pF	10% 100V
2260		4822 124 40246	4.7µF	20% 63V
2261		4822 124 40246	4.7µF	20% 63V
2262		4822 124 80144	220µF	20% 25V
2263		4822 124 11909	470µF	20% 25V
2264		4822 126 13581	0.22µF	20% 50V
2265		4822 126 13581	0.22µF	20% 50V
2266	*	4822 121 10684	68nF	10% 50V
2266	#	5322 121 42386	100nF	5% 63V
2267	*	4822 121 10684	68nF	10% 50V
2267	#	5322 121 42386	100nF	5% 63V
2300		4822 122 33197	1nF	10% 50V
2301		4822 122 33197	1nF	10% 50V

2302		4822 122 33197	1nF	10% 50V
2303		4822 122 33197	1nF	10% 50V
2304		5322 121 42386	100nF	5% 63V
2305		4822 124 12012	4700µF	20% 25V
2306		4822 126 11585	22nF	+80-20% Y5V 25V
2307	*	4822 124 11972	220µF	20% 10V
2307	#	4822 124 12068	220µF	20% 10V
2312	*	4822 124 11959	100µF	20% 10V
2312	#	4822 124 42446	100µF	20% 10V
2400		4822 126 11714	4.7nF	20%
2401		4822 126 11714	4.7nF	20%
2402		4822 126 11714	4.7nF	20%
2403		4822 124 81151	22µF	50V
2404		4822 124 81151	22µF	50V
2405		4822 124 81151	22µF	50V
2518		4822 126 12878	1.5nF	10% 16V
2519		4822 126 12878	1.5nF	10% 16V
2564	*	4822 124 11959	100µF	20% 10V
2564	#	4822 124 42446	100µF	20% 10V
2565	#	4822 124 22726	4.7µF	35V
2565	*	4822 124 40246	100nF	5% 63V
2566	#	4822 124 22726	4.7µF	35V
2566	*	4822 124 40246	100nF	5% 63V
2567		4822 122 33195	100pF	10% 50V
2568		4822 122 33195	100pF	10% 50V
2569		4822 122 33197	1nF	10% 50V
2570		4822 122 33197	1nF	10% 50V
2571	*	4822 124 40242	1µF	20% 63V
2571	#	4822 124 40246	4.7µF	20% 63V
2572	*	4822 124 40242	1µF	20% 63V
2572	#	4822 124 40246	4.7µF	20% 63V
2579		4822 122 33197	1nF	10% 50V
2580		4822 122 33197	1nF	10% 50V
2581		4822 122 33197	1nF	10% 50V
2582		4822 122 33197	1nF	10% 50V
2583		4822 124 42446	100µF	20% 10V
2584		4822 124 42446	100µF	20% 10V
2585		4822 124 12068	220µF	20% 10V
2586		4822 124 40433	47µF	20% 25V
2587		4822 124 40248	10µF	20% 63V

AUDIO BOARD

2593		4822 124 81151	22µF	50V
2594		4822 122 33195	100pF	10% 50V
2595		4822 122 33197	1nF	10% 50V
2596		4822 121 51387	10nF	20% 16V
2596		4822 124 11959	100µF	20% 10V
2588		4822 124 40433	47µF	20% 25V
2589	#	4822 126 12785	47nF	Y5VTUB 50V
2589	*	4822 126 12882	100nF	+80-20% 50V
2590	#	4822 126 12785	47nF	Y5VTUB 50V
2590	*	4822 126 12882	100nF	+80-20% 50V
2591	*	4822 126 12787	330pF	10% Y5V 50V
2591	#	4822 122 33197	1nF	10% 50V
2592	*	4822 126 12787	330pF	10% Y5V 50V
2592	#	4822 122 33197	1nF	10% 50V
2593	#	4822 124 40242	1µF	20% 63V

3184		4822 116 52176	10R	5% 0.5W
3185		4822 116 52231	820R	5% 0.5W
3186		4822 116 83868	150R	5% 0.5W
3187		4822 050 21002	10K	1% 0.6W
3188		4822 116 52256	2K2	5% 0.5W
3189		4822 116 52257	22K	5% 0.5W
3190		4822 116 83864	10K	5% 0.5W
3191		4822 116 52283	4K7	5% 0.5W
3192		4822 116 52235	1M	5% 0.5W
3193		4822 116 52256	2K2	5% 0.5W
3194		4822 116 52234	100K	5% 0.5W
3195		4822 116 52285	470K	5% 0.5W
3196		4822 116 83864	10K	5% 0.5W
3249		4822 052 10478	4K7	5% 0.33W
3249		4822 052 10478	4K7	5% 0.33W
3250		4822 052 10478	4K7	5% 0.33W
3250		4822 052 10478	4K7	5% 0.33W
3251		4822 116 83883	470R	5% 0.5W
3252		4822 116 52243	1K5	5% 0.5W
3253		4822 116 52226	560R	5% 0.5W

3254		4822 116 83883	470R	5% 0.5W
3255		4822 116 83883	470R	5% 0.5W
3258		4822 116 52238	12K	5% 0.5W
3259		4822 116 52256	2K2	5% 0.5W
3260		4822 116 52238	12K	5% 0.5W
3302	#	4822 116 52206	120R	5% 0.5W
3302	*	4822 116 83872	220R	5% 0.5W
3303	#	4822 116 52206	120R	5% 0.5W
3303	*	4822 116 83872	220R	5% 0.5W
3304		4822 116 83883	470R	5% 0.5W
3305		4822 116 83883	470R	5% 0.5W
3306		4822 116 52289	5K6	5% 0.5W
3307		4822 116 52303	8K2	5% 0.5W
3308		4822 116 83868	150R	5% 0.5W
3309		4822 116 83868	150R	5% 0.5W
3310		4822 116 52191	33R	5% 0.5W
3311		4822 050 21002	1K	1% 0.6W
3400		4822 116 83864	10K	5% 0.5W
3401		4822 116 52244	15K	5% 0.5W
3402		4822 116 52244	15K	5% 0.5W
3403		4822 116 52244	15K	5% 0.5W
3404	#	4822 116 52283	4K7	5% 0.5W
3404	*	4822 116 83864	10K	5% 0.5W
3405	#	4822 116 52283	4K7	5% 0.5W
3405	*	4822 116 83864	10K	5% 0.5W
3406	#	4822 116 83864	10K	5% 0.5W
3406	*	4822 116 52234	100K	5% 0.5W
3407	#	4822 116 83864	10K	5% 0.5W
3407	*	4822 116 52234	100K	5% 0.5W
3516	#	4822 116 52256	2K2	5% 0.5W
3516	*	4822 116 52269	3K3	5% 0.5W
3517	#	4822 116 52256	2K2	5% 0.5W
3517	*	4822 116 52269	3K3	5% 0.5W
3518	#	4822 116 52234	100K	5% 0.5W
3518	*	4822 116 52235	1M	5% 0.5W
3519	#	4822 116 52234	100K	5% 0.5W
3519	*	4822 116 52235	1M	5% 0.5W
3520		4822 116 52257	22K	5% 0.5W
3521		4822 116 52257	22K	5% 0.5W
3522		4822 116 52238	12K	5% 0.5W

AUDIO BOARD

3523		4822 116 5223	
3525		4822 102 1044	
3529		4822 116 838(	
3530		4822 116 838(	
3531		4822 116 523(	
3531		4822 116 522(	
3532		4822 116 523(	
3532		4822 116 522(	
3576		4822 116 838(	
3577		4822 116 838(	
3578	*	4822 050 210(	
3578	#	4822 116 522(	
3579	*	4822 050 210(	
3579	#	4822 116 522(	
3580		4822 116 521	
3582	#	4822 116 522	
3582	*	4822 116 523(	
3583	#	4822 116 522	
3583	*	4822 116 523(	
3584	*	4822 050 210(	
3584	#	4822 116 522(	
3585	*	4822 050 210(	
3585	#	4822 116 522(	
3586		4822 116 522	
3587		4822 116 522	
3590		4822 116 521	
3591		4822 116 521	
3595	*	4822 116 522	
3595	#	4822 116 522(	
3596	*	4822 116 522	
3596	#	4822 116 522(	
3597	*	4822 050 210(	
3597	#	4822 116 522	
3598	*	4822 050 210(	
3598	#	4822 116 522	
3610		4822 116 838(	
3611		4822 116 838(	
3612	*	4822 116 521	
3612	#	4822 116 838	
3613	*	4822 116 521	

2593		4822 124 81151	22µF	50V
2594		4822 122 33195	100pF	10% 50V
2595		4822 122 33197	1nF	10% 50V
2596		4822 121 51387	10nF	20% 16V
2596		4822 124 11959	100µF	20% 10V
2588		4822 124 40433	47µF	20% 25V
2589	#	4822 126 12785	47nF	Y5VTUB 50V
2589	*	4822 126 12882	100nF	+80-20% 50V
2590	#	4822 126 12785	47nF	Y5VTUB 50V
2590	*	4822 126 12882	100nF	+80-20% 50V
2591	*	4822 126 12787	330pF	10% Y5V 50V
2591	#	4822 122 33197	1nF	10% 50V
2592	*	4822 126 12787	330pF	10% Y5V 50V
2592	#	4822 122 33197	1nF	10% 50V
2593	#	4822 124 40242	1µF	20% 63V

3184		4822 116 52176	10R	5% 0.5W
3185		4822 116 52231	820R	5% 0.5W
3186		4822 116 83868	150R	5% 0.5W
3187		4822 050 21002	10K	1% 0.6W
3188		4822 116 52256	2K2	5% 0.5W
3189		4822 116 52257	22K	5% 0.5W
3190		4822 116 83864	10K	5% 0.5W
3191		4822 116 52283	4K7	5% 0.5W
3192		4822 116 52235	1M	5% 0.5W
3193		4822 116 52256	2K2	5% 0.5W
3194		4822 116 52234	100K	5% 0.5W
3195		4822 116 52285	470K	5% 0.5W
3196		4822 116 83864	10K	5% 0.5W
3249		4822 052 10478	4K7	5% 0.33W
3249		4822 052 10478	4K7	5% 0.33W
3250		4822 052 10478	4K7	5% 0.33W
3250		4822 052 10478	4K7	5% 0.33W
3251		4822 116 83883	470R	5% 0.5W
3252		4822 116 52243	1K5	5% 0.5W
3253		4822 116 52226	560R	5% 0.5W

3254		4822 116 83883	470R	5% 0.5W
3255		4822 116 83883	470R	5% 0.5W
3258		4822 116 52238	12K	5% 0.5W
3259		4822 116 52256	2K2	5% 0.5W
3260		4822 116 52238	12K	5% 0.5W
3302	#	4822 116 52206	120R	5% 0.5W
3302	*	4822 116 83872	220R	5% 0.5W
3303	#	4822 116 52206	120R	5% 0.5W
3303	*	4822 116 83872	220R	5% 0.5W
3304		4822 116 83883	470R	5% 0.5W
3305		4822 116 83883	470R	5% 0.5W
3306		4822 116 52289	5K6	5% 0.5W
3307		4822 116 52303	8K2	5% 0.5W
3308		4822 116 83868	150R	5% 0.5W
3309		4822 116 83868	150R	5% 0.5W
3310		4822 116 52191	33R	5% 0.5W
3311		4822 050 21002	1K	1% 0.6W
3400		4822 116 83864	10K	5% 0.5W
3401		4822 116 52244	15K	5% 0.5W
3402		4822 116 52244	15K	5% 0.5W
3403		4822 116 52244	15K	5% 0.5W
3404	#	4822 116 52283	4K7	5% 0.5W
3404	*	4822 116 83864	10K	5% 0.5W
3405	#	4822 116 52283	4K7	5% 0.5W
3405	*	4822 116 83864	10K	5% 0.5W
3406	#	4822 116 83864	10K	5% 0.5W
3406	*	4822 116 52234	100K	5% 0.5W
3407	#	4822 116 83864	10K	5% 0.5W
3407	*	4822 116 52234	100K	5% 0.5W
3516	#	4822 116 52256	2K2	5% 0.5W
3516	*	4822 116 52269	3K3	5% 0.5W
3517	#	4822 116 52256	2K2	5% 0.5W
3517	*	4822 116 52269	3K3	5% 0.5W
3518	#	4822 116 52234	100K	5% 0.5W
3518	*	4822 116 52235	1M	5% 0.5W
3519	#	4822 116 52234	100K	5% 0.5W
3519	*	4822 116 52235	1M	5% 0.5W
3520		4822 116 52257	22K	5% 0.5W
3521		4822 116 52257	22K	5% 0.5W
3522		4822 116 52238	12K	5% 0.5W

3523		4822 116 52238	12K	5% 0.5W
3525		4822 102 10447	50K	BX2
3529		4822 116 83864	10K	5% 0.5W
3530		4822 116 83864	10K	5% 0.5W
3531		4822 116 52303	8K2	5% 0.5W
3531		4822 116 52283	4K7	5% 0.5W
3532		4822 116 52303	8K2	5% 0.5W
3532		4822 116 52283	4K7	5% 0.5W
3576		4822 116 83883	470R	5% 0.5W
3577		4822 116 83883	470R	5% 0.5W
3578	*	4822 050 21002	1K	1% 0.6W
3578	#	4822 116 52263	2K7	5% 0.5W
3579	*	4822 050 21002	1K	1% 0.6W
3579	#	4822 116 52263	2K7	5% 0.5W
3580		4822 116 52175	100R	5% 0.5W
3582	#	4822 116 52298	680K	5% 0.5W
3582	*	4822 116 52305	820K	5% 0.5W
3583	#	4822 116 52298	680K	5% 0.5W
3583	*	4822 116 52305	820K	5% 0.5W
3584	*	4822 050 21002	1K	1% 0.6W
3584	#	4822 116 52283	4K7	5% 0.5W
3585	*	4822 050 21002	1K	1% 0.6W
3585	#	4822 116 52283	4K7	5% 0.5W
3586		4822 116 52228	680R	5% 0.5W
3587		4822 116 52228	680R	5% 0.5W
3590		4822 116 52175	100R	5% 0.5W
3591		4822 116 52175	100R	5% 0.5W
3595	*	4822 116 52238	12K	5% 0.5W
3595	#	4822 116 52264	27K	5% 0.5W
3596	*	4822 116 52238	12K	5% 0.5W
3596	#	4822 116 52264	27K	5% 0.5W
3597	*	4822 050 21002	1K	1% 0.6W
3597	#	4822 116 52256	2K2	5% 0.5W
3598	*	4822 050 21002	1K	1% 0.6W
3598	#	4822 116 52256	2K2	5% 0.5W
3610		4822 116 83864	10K	5% 0.5W
3611		4822 116 83864	10K	5% 0.5W
3612	*	4822 116 52175	100R	5% 0.5W
3612	#	4822 116 83883	470R	5% 0.5W
3613	*	4822 116 52175	100R	5% 0.5W

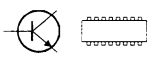
3613	#	4822 116 83883	470R	5% 0.5W
3660		4822 116 52244	15K	5% 0.5W
3661		4822 116 52244	15K	5% 0.5W
3662		4822 116 52269	3K3	5% 0.5W
3663		4822 116 52269	3K3	5% 0.5W
3664		4822 116 83883	470R	5% 0.5W
3665		4822 116 83883	470R	5% 0.5W
3666		4822 116 52175	100R	5% 0.5W
3667		4822 116 52175	100R	5% 0.5W
3668		4822 116 83883	470R	5% 0.5W
3669		4822 116 83883	470R	5% 0.5W
3670		4822 116 83883	470R	5% 0.5W
3671		4822 116 83883	470R	5% 0.5W
3672		4822 116 52256	2K2	5% 0.5W
3673		4822 116 52256	2K2	5% 0.5W
3674		4822 116 52226	560R	5% 0.5W
3675		4822 116 52226	560R	5% 0.5W
3676		4822 116 83884	47K	5% 0.5W
3677		4822 116 52249	1K8	5% 0.5W
3678		4822 116 52245	150K	5% 0.5W
3679		4822 116 52234	100K	5% 0.5W
3680	#	4822 116 52276	3K9	5% 0.5W
3680	*	4822 116 83882	39K	5% 0.5W
3681	#	4822 116 52276	3K9	5% 0.5W
3681	*	4822 116 83882	39K	5% 0.5W
3684		4822 116 52271	33K	5% 0.5W
3685		4822 116 52271	33K	5% 0.5W
3686		4822 116 52228	680R	5% 0.5W

5100	4822 157 51195	Coil	LAL02TB2R2J

6180	4822 130 30621	Diode	1N4148
6181	4822 130 30621	Diode	1N4148
6182	4822 130 30621	Diode	1N4148
6183	4822 130 34488	Diode	BZX79-B11
6184	4822 130 30621	Diode	1N4148

AUDIO BOARD

6300	4822 130 31878	Diode	1N4003G
6301	4822 130 31878	Diode	1N4003G
6302	4822 130 31878	Diode	1N4003G
6303	4822 130 31878	Diode	1N4003G
6304	5322 130 31504	Diode	BZX79-B3V3
6305	4822 130 30621	Diode	1N4148
6306	4822 130 30621	Diode	1N4148
6402	4822 130 30621	Diode	1N4148
6402	4822 130 30621	Diode	1N4148
6403	4822 130 30621	Diode	1N4148
6404	4822 130 30621	Diode	1N4148



7180	4822 130 44568	Trans	BC557B
7181	4822 130 44503	Trans	BC547C
7182	4822 130 44503	Trans	BC547C
7183	4822 130 44503	Trans	BC547C
7250	4822 130 42231	Trans	BC557C
7251	4822 130 41327	Trans	BC327-40
7252	4822 130 44503	Trans	BC547C
7253	4822 130 42231	Trans	BC547C
7254	4822 130 41327	Trans	BC327-40
7300	4822 209 31544	IC	TA8227P
7400	5322 130 44779	Trans	BC338-40
7401	5322 130 44779	Trans	BC338-40
7513	4822 130 44503	Trans	BC547C
7514	4822 130 44503	Trans	BC547C
7515	4822 130 44568	Trans	BC557B
7516	4822 130 44568	Trans	BC557B
7517	4822 130 44568	Trans	BC557B
7518	4822 130 44568	Trans	BC557B
7519	4822 130 44503	Trans	BC557C
7520	4822 130 44503	Trans	BC557C

- MISCELLANEOUS -

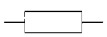
1008	⚠	4822 146 10825	Transf (For -/00/04/05)
1008	⚠	4822 146 10822	Transf (For -/17)
1257		4822 267 31468	Headphone Socket
1302	⚠	4822 070 32002	Fuse 2A (For -/00/04/05)
1302	⚠	5322 253 30116	Fuse 2A (For -/17)
1400		4822 277 30689	Slide Switch
1503		4822 276 12648	Push Switch
1506		4822 276 13114	Tact Switch
1507		4822 276 13114	Tact Switch
1920		4822 276 13625	Push Switch
5001		4822 240 10248	Loudspeaker 6W
5002		4822 240 10248	Loudspeaker 6W

* For AZ1203 only
\# For AZ1208 only

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

VOLTAGE MULTIPLIER BOARD

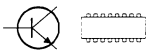
2186	4822 124 42446	100µF	20%	10V
2187	4822 121 51387	10nF	20%	16V
2188	4822 121 51387	10nF	20%	16V
2189	4822 126 13581	0.22µF	20%	50V
2190	4822 124 40248	10µF	20%	63V
2191	4822 124 40248	10µF	20%	63V
2192	4822 122 33197	1nF	10%	50V
2193	4822 122 33197	1nF	10%	50V
2194	4822 122 33197	1nF	10%	50V
2195	4822 124 81151	22µF	50V	
2196	4822 121 51387	10nF	20%	16V
2197	4822 122 33195	100pF	10%	50V
2198	4822 121 51387	10nF	20%	16V
2199	4822 121 51387	10nF	20%	16V



3186	4822 116 83868	150R	5%	0.5W
3187	4822 050 21002	1K	1%	0.6W
3188	4822 116 52256	2K2	5%	0.5W
3189	4822 116 52257	22K	5%	0.5W
3190	4822 116 83864	10K	5%	0.5W
3191	4822 116 52283	4K7	5%	0.5W
3192	4822 116 52235	1M	5%	0.5W
3193	4822 116 52256	2K2	5%	0.5W
3194	4822 116 52234	100K	5%	0.5W
3195	4822 116 52285	470K	5%	0.5W
3196	4822 116 83864	10K	5%	0.5W

5100	4822 157 11477	Coil	LAL02TB2R2J

6180	4822 130 30621	Diode	1N4148
6181	4822 130 30621	Diode	1N4148
6182	4822 130 30621	Diode	1N4148
6183	4822 130 34488	Diode	BZX79-B11
6184	4822 130 30621	Diode	1N4148



7180	4822 130 44568	Trans	BC547B
7181	4822 130 44503	Trans	BC547C
7182	4822 130 44503	Trans	BC547C
7183	4822 130 44503	Trans	BC547C

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

CD 97

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

CD 97

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

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

6001	4822 130 30621	Diode 1N4148

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 -

1802	4822 265 10925	Connector
8000	4822 265 10926	Connector

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

FRONT BOARD

2400	4822 126 12882	100nF	+80-20%	50V	
2401	5322 122 32531	100pF	10%	50V	
2402	5322 122 32531	100pF	10%	50V	
2403	5322 122 32531	100pF	10%	50V	
2404	5322 122 32531	100pF	10%	50V	
2405	5322 122 32268	470pF	10%	50V	
2406	5322 122 32531	100pF	10%	50V	
2407	5322 122 32531	100pF	10%	50V	
2408	4822 126 12882	100nF	+80-20%	50V	
2409	5322 122 32268	470pF	10%	50V	
2410	4822 126 12882	100nF	+80-20%	50V	
2411	5322 122 32268	470pF	10%	50V	
2412	5322 122 32268	470pF	10%	50V	
2413	4822 124 22726	4.7µF	35V		
2414	5322 122 32654	22nF	10%	63V	
2415	4822 124 42446	100µF	20%	10V	
2416	4822 124 22651	1µF	20%	50V	
2417	5322 122 32654	22nF	10%	63V	
2419	5322 122 32268	470pF	10%	50V	

3400	4822 051 20332	3K3	5%	0.1W
3419	4822 117 11846	10K	5%	1/16W
3420	4822 051 20102	1K	5%	0.1W
3421	4822 051 20102	1K	5%	0.1W
3422	4822 051 20102	1K	5%	0.1W
3423	4822 051 20102	1K	5%	0.1W
3424	4822 117 11846	10K	5%	1/16W
3425	4822 117 11846	10K	5%	1/16W
3426	4822 117 11846	10K	5%	1/16W
3427	4822 117 11846	10K	5%	1/16W
3428	4822 051 20102	1K	5%	0.1W
3429	4822 051 20472	4K7	5%	0.1W
3430	4822 051 20472	4K7	5%	0.1W
3431	4822 117 11449	2K2	1%	0.1W
3432	4822 051 20472	4K7	5%	0.1W
3433	4822 051 20472	4K7	5%	0.1W
3434	4822 051 20102	1K	5%	0.1W
3435	4822 051 20472	4K7	5%	0.1W
3436	4822 051 20472	4K7	5%	0.1W
3437	4822 051 20223	22K	5%	0.1W
3438	4822 051 20223	22K	5%	0.1W
3439	4822 051 20223	22K	5%	0.1W
3440	4822 051 20223	22K	5%	0.1W
3441	4822 117 11449	2K2	1%	0.1W
3442	4822 051 20101	100R	5%	0.1W
3443	4822 051 20223	22K	5%	0.1W
3444	4822 051 20223	22K	5%	0.1W
3445	4822 051 20223	22K	5%	0.1W
3446	4822 051 20223	22K	5%	0.1W
3447	4822 051 20104	100K	5%	0.1W
3448	4822 051 20104	100K	5%	0.1W
3449	4822 117 11503	220R	1%	0.1W
3450	4822 051 20223	22K	5%	0.1W
3451	4822 117 11846	10K	5%	1/16W
3452	4822 117 11503	220R	1%	0.1W
3453	4822 051 20472	4K7	5%	0.1W
3454	4822 051 20223	22K	5%	0.1W
3455	4822 051 20472	4K7	5%	0.1W
3456	4822 116 52257	22K	5%	0.5W
3457	4822 051 20472	4K7	5%	0.1W
3458	4822 051 20223	22K	5%	0.1W
3459	4822 051 20102	1K	5%	0.1W
3460	4822 116 52283	4K7	5%	0.5W
3461	4822 050 21002	1K	1%	0.6W
3462	4822 050 21002	1K	1%	0.6W
3463	4822 051 20471	470R	5%	0.1W
3464	4822 051 20471	470R	5%	0.1W
3465	4822 051 20471	470R	5%	0.1W
3466	4822 051 20471	470R	5%	0.1W
3467	4822 051 20471	470R	5%	0.1W
3468	4822 051 20471	470R	5%	0.1W
3469	4822 051 20102	1K	5%	0.1W
3470	4822 117 11449	2K2	1%	0.1W
3471	4822 051 20102	1K	5%	0.1W
3472	4822 051 20561	560R	5%	0.1W
3473	4822 051 20182	1K8	5%	0.1W
3474	4822 051 20101	100R	5%	0.1W
3475	4822 051 20153	15K	5%	0.1W
3476	4822 051 20104	100K	5%	0.1W
3477	4822 051 20471	470R	5%	0.1W

FRONT BOARD

3478	4822 051 20472	4K7	5%	0.1W
3479	4822 051 20102	1K	5%	0.1W
3480	4822 051 20472	4K7	5%	0.1W
3481	4822 051 20223	22K	5%	0.1W
3483	4822 117 11449	2K2	1%	0.1W
3484	4822 051 20102	1K	5%	0.1W
3485	4822 051 20472	4K7	5%	0.1W
9400	4822 051 20008	Jumper		
9414	4822 051 20008	Jumper		
9415	4822 051 20008	Jumper		
9420	4822 051 20008	Jumper		
9423	4822 051 20008	Jumper		
9429	4822 051 20008	Jumper		
9430	4822 051 20008	Jumper		
9431	4822 051 20008	Jumper		
9436	4822 051 20008	Jumper		
9437	4822 051 20008	Jumper		
9438	4822 051 20008	Jumper		
9439	4822 051 20008	Jumper		
9440	4822 051 20008	Jumper		
9441	4822 051 20008	Jumper		
9443	4822 051 20008	Jumper		
9444	4822 051 20008	Jumper		
9445	4822 051 20008	Jumper		
9449	4822 051 20008	Jumper		
9450	4822 051 20008	Jumper		
9451	4822 051 20008	Jumper		
9452	4822 051 20008	Jumper		
9453	4822 051 20008	Jumper		
9454	4822 051 20008	Jumper		
9455	4822 051 20008	Jumper		
9456	4822 051 20008	Jumper		

5401	4822 157 52333	Inductor 100µH
5402	4822 157 11477	Inductor LAL02TB2R2J
5403	4822 242 73769	Filter CST4,19MGW

7420	4822 130 30621	Diode 1N4148
7421	4822 130 30621	Diode 1N4148
7423	4822 130 31554	Diode BZX79-B4V3

7400	4822 209 15839	IC TMP47C823F
7410	4822 130 60511	Trans BC847B
7411	4822 130 60511	Trans BC847B
7451	5322 209 11147	IC HEF4093BT
7480	4822 209 13156	IC ST24C01M6

- MISCELLANEOUS -

1450	4822 276 13114	Tact Switch
1451	4822 276 13114	Tact Switch
1452	4822 276 13114	Tact Switch
1453	4822 276 13114	Tact Switch
1454	4822 276 13114	Tact Switch
1455	4822 276 13114	Tact Switch
1456	4822 276 13114	Tact Switch
1457	4822 276 13114	Tact Switch
1458	4822 276 13114	Tact Switch
1459	4822 276 13114	Tact Switch
1495	4822 135 00214	LCD DISPLAY
7450	4822 218 11745	Sensor TSOP1736

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

FRONT BOARD

2400	4822 126 12882	100nF	+80-20%	50V	
2401	5322 122 32531	100pF	10%	50V	
2402	5322 122 32531	100pF	10%	50V	
2403	5322 122 32531	100pF	10%	50V	
2404	5322 122 32531	100pF	10%	50V	
2405	5322 122 32268	470pF	10%	50V	
2406	5322 122 32531	100pF	10%	50V	
2407	5322 122 32531	100pF	10%	50V	
2408	4822 126 12882	100nF	+80-20%	50V	
2409	5322 122 32268	470pF	10%	50V	
2410	4822 126 12882	100nF	+80-20%	50V	
2411	5322 122 32268	470pF	10%	50V	
2412	5322 122 32268	470pF	10%	50V	
2413	4822 124 22726	4.7µF	35V		
2414	5322 122 32654	22nF	10%	63V	
2415	4822 124 42446	100µF	20%	10V	
2416	4822 124 22651	1µF	20%	50V	
2417	5322 122 32654	22nF	10%	63V	
2419	5322 122 32268	470pF	10%	50V	

3400	4822 051 20332	3K3	5%	0.1W
3419	4822 117 11846	10K	5%	1/16W
3420	4822 051 20102	1K	5%	0.1W
3421	4822 051 20102	1K	5%	0.1W
3422	4822 051 20102	1K	5%	0.1W
3423	4822 051 20102	1K	5%	0.1W
3424	4822 117 11846	10K	5%	1/16W
3425	4822 117 11846	10K	5%	1/16W
3426	4822 117 11846	10K	5%	1/16W
3427	4822 117 11846	10K	5%	1/16W
3428	4822 051 20102	1K	5%	0.1W
3429	4822 051 20472	4K7	5%	0.1W
3430	4822 051 20472	4K7	5%	0.1W
3431	4822 117 11449	2K2	1%	0.1W
3432	4822 051 20472	4K7	5%	0.1W
3433	4822 051 20472	4K7	5%	0.1W
3434	4822 051 20102	1K	5%	0.1W
3435	4822 051 20472	4K7	5%	0.1W
3436	4822 051 20472	4K7	5%	0.1W
3437	4822 051 20223	22K	5%	0.1W
3438	4822 051 20223	22K	5%	0.1W
3439	4822 051 20223	22K	5%	0.1W
3440	4822 051 20223	22K	5%	0.1W
3441	4822 117 11449	2K2	1%	0.1W
3442	4822 051 20101	100R	5%	0.1W
3443	4822 051 20223	22K	5%	0.1W
3444	4822 051 20223	22K	5%	0.1W
3445	4822 051 20223	22K	5%	0.1W
3446	4822 051 20223	22K	5%	0.1W
3447	4822 051 20104	100K	5%	0.1W
3448	4822 051 20104	100K	5%	0.1W
3449	4822 117 11503	220R	1%	0.1W
3450	4822 051 20223	22K	5%	0.1W
3451	4822 117 11846	10K	5%	1/16W
3452	4822 117 11503	220R	1%	0.1W
3453	4822 051 20472	4K7	5%	0.1W
3454	4822 051 20223	22K	5%	0.1W
3455	4822 051 20472	4K7	5%	0.1W
3456	4822 116 52257	22K	5%	0.5W
3457	4822 051 20472	4K7	5%	0.1W
3458	4822 051 20223	22K	5%	0.1W
3459	4822 051 20102	1K	5%	0.1W
3460	4822 116 52283	4K7	5%	0.5W
3461	4822 050 21002	1K	1%	0.6W
3462	4822 050 21002	1K	1%	0.6W
3463	4822 051 20471	470R	5%	0.1W
3464	4822 051 20471	470R	5%	0.1W
3465	4822 051 20471	470R	5%	0.1W
3466	4822 051 20471	470R	5%	0.1W
3467	4822 051 20471	470R	5%	0.1W
3468	4822 051 20471	470R	5%	0.1W
3469	4822 051 20102	1K	5%	0.1W
3470	4822 117 11449	2K2	1%	0.1W
3471	4822 051 20102	1K	5%	0.1W
3472	4822 051 20561	560R	5%	0.1W
3473	4822 051 20182	1K8	5%	0.1W
3474	4822 051 20101	100R	5%	0.1W
3475	4822 051 20153	15K	5%	0.1W
3476	4822 051 20104	100K	5%	0.1W
3477	4822 051 20471	470R	5%	0.1W

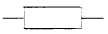
ECO5 TUNER BOARD

2101	5322 122 32531	100pF 5% NP0 50V
2102	4822 122 33177	10nF 20% X7R 50V
2103	5322 122 34123	1nF 10% X7R 50V
2104	4822 122 33195	100pF 10% 50V
2106	4822 125 50355	Var Cap 4-20pF
2106	4822 125 60101	Var Cap 3-11pF
2107	4822 121 51319	1µF 10% 63V
2108	5322 122 32531	100pF 5% NP0 50V
2109	5322 122 32448	10pF 5% 50V
2120	5322 122 31946	27pF 5% NP0 63V
2120	5322 122 32658	22pF 5% 50V
2122	4822 122 33891	3,3nF 10% X7R 63V
2123	4822 121 51254	390pF 1% 400V
2125	4822 121 51381	560pF 5% 400V
2126	5322 122 31863	330pF 5% NP0 50V
2127	4822 122 32927	220nF +80-20% 50V
2127	4822 126 13473	220nF +80-20% 50V
2128	4822 124 41579	10µF 20% 50V
2129	4822 124 41584	100µF 20% 10V
2130	4822 126 11585	22nF +80-20% 25V
2131	4822 122 33325	470nF 16V
2131	4822 126 13482	470nF 80/20% 16V
2132	4822 122 33325	470nF 16V
2132	4822 126 13482	470nF 80/20% 16V
2133	4822 124 40242	1µF 20% 63V
2134	4822 122 33128	15nF 10% X7R 63V
2134	5322 122 32654	22nF 10% X7R 63V
2135	4822 124 40746	0,22µF 20% 63V
2136	4822 122 33128	15nF 10% X7R 63V
2136	5322 122 32654	22nF 10% X7R 63V
2137	4822 124 40746	0,22µF 20% 63V
2138	4822 124 41576	2,2µF 20% 50V
2139	5322 122 32447	1pF 5% 50V
2140	4822 121 51252	470nF 5% 63V
2141	4822 122 31947	100nF 20%Y5V 63V
2141	4822 126 10002	100nF 20% Y5V 25V
2142	4822 122 31947	100nF 20%Y5V 63V
2142	4822 126 10002	100nF 20% Y5V 25V
2143	4822 122 32927	220nF +80-20% 50V
2143	4822 126 13473	220nF +80-20% 50V

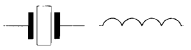
2144	4822 124 40242	1µF 20% 63V
2145	4822 122 33575	220pF 5% NPO 50V
2146	4822 122 33575	220pF 5% NPO 50V
2147	4822 122 33575	220pF 5% NPO 50V
2148	4822 126 11585	22nF +80-20% 25V
2149	5322 122 32654	22nF 10% X7R 63V
2150	4822 122 31947	100nF 20% Y5V 63V
2152	4822 122 33342	33nF 10% X7R 63V
2153	4822 122 32504	15pF 2% NP0 63V
2155	4822 125 60101	Var Cap 3-11pF
2158	5322 122 32448	10pF 5% 50V
2159	5322 122 32659	33pF 5% 50V
2160	5322 122 32654	22nF 10% X7R 63V
2161	4822 122 31947	100nF 20% Y5V 63V
2161	4822 126 10002	100nF 20% Y5V 25V
2163	4822 122 31947	100nF 20% Y5V 63V
2163	4822 126 10002	100nF 20% Y5V 25V
2164	4822 126 13482	470nF 80/20% 16V
2165	4822 122 31947	100nF 20%Y5V 63V
2165	4822 126 10002	100nF 20% Y5V 25V
2166	5322 122 34123	1nF 10% X7R 50V
2167	4822 122 32139	12pF 2% NP0 63V

3101	4822 051 20333	33K 5% 0,1W
3102	4822 051 20104	100K 5% 0,1W
3103	4822 117 10965	18K 1% 0,1W
3104	4822 117 11448	180R 1% 0,1W
3105	4822 116 83872	220R 5% 0,5W
3108	4822 117 11449	2K2 1% 0,1W
3109	4822 051 20332	3K3 5% 0,1W
3110	4822 116 52195	47R 5% 0,5W
3123	4822 051 20472	4K7 5% 0,1W
3125	4822 117 10833	10K 1% 0,1W
3128	4822 117 11449	2K2 1% 0,1W
3132	4822 116 52195	47R 5% 0,5W
3134	4822 051 20224	220K 5% 0,1W
3137	4822 051 20223	22K 5% 0,1W
3140	4822 051 20008	Jumper

ECO5 TUNER BOARD



3140	4822 117 10353	150R 1% 0,1W
3141	4822 051 20563	56K 5% 0,1W
3142	4822 100 11163	100K 30% 0,1W
3145	4822 117 11449	2K2 1% 0,1W
3146	4822 051 20229	22R 5% 0,1W
3152	4822 116 83883	470R 5% 0,5W
3153	4822 051 20471	470R 5% 0,1W
3154	4822 116 52206	120R 5% 0,5W
3155	4822 051 20229	22R 5% 0,1W
3156	4822 051 20104	100K 5% 0,1W
3158	4822 116 83883	470R 5% 0,5W
3159	4822 116 83883	470R 5% 0,5W
3160	4822 116 83883	470R 5% 0,5W
3161	4822 116 83883	470R 5% 0,5W
3167	4822 051 20121	120R 5% 0,1W
3169	4822 051 20154	150K 5% 0,1W
3170	4822 116 52234	100K 5% 0,5W
3173	4822 116 52219	330R 5% 0,5W
4101	4822 051 20008	Jumper
4102	4822 051 20008	Jumper
4102	4822 051 20334	330K 5% 0,1W
4103	4822 051 20008	Jumper
4104	4822 051 20008	Jumper
4105	4822 051 20008	Jumper
4106	4822 051 20008	Jumper
4108	4822 051 20008	Jumper
4111	4822 051 20008	Jumper
4120	4822 051 20008	Jumper
4150	4822 051 10008	0R 5% 0,25W
4151	4822 051 20008	Jumper
4152	4822 051 10008	0R 5% 0,25W
4153	4822 051 10008	0R 5% 0,25W
4154	4822 051 10008	0R 5% 0,25W
4155	4822 051 10008	0R 5% 0,25W
4156	4822 051 20008	Jumper
4157	4822 051 10008	0R 5% 0,25W
4158	4822 051 10008	0R 5% 0,25W
4159	4822 051 10008	0R 5% 0,25W
4163	4822 051 20008	Jumper



5102	4822 157 71634	MW Coil
5103	4822 157 71635	LW Coil
5109	4822 242 70665	Filter SFE10,7MS3-A
5110	4822 242 70665	Filter SFE10,7MS3-A
5111	4822 158 60511	Coil AM-1F
5112	4822 157 70302	Coil F7MCS-12216N
5114	4822 157 70302	Coil F7MCS-12216N
5120	4822 242 82065	Filter CDA10.7MG40KA
5120	4822 242 10251	CDA10,7MG61K-A-TF21
5121	4822 242 10261	Crystal 75KHz
5122	4822 157 60517	Coil 110,00 µH 8%
5123	4822 157 60517	Coil 110,00 µH 8%
5130	4822 156 30947	RF Coil
5131	4822 156 30947	RF Coil

6103	4822 130 30621	Diode 1N4148
6104	4822 130 30621	Diode 1N4148
6105	4822 130 83075	Diode HN1V02H-B
6107	4822 130 34488	Diode BZX79-B11
6120	4822 130 30621	Diode 1N4148
6130	4822 130 82833	Diode 1SV228
6131	4822 130 82833	Diode 1SV228

7101	4822 209 90924	IC TEA5757H/V1
7102	4822 130 60093	Trans 2SA838B
7104	5322 130 44779	Trans BC338-40
7105	5322 130 44779	Trans BC338-40
7109	5322 130 41983	Trans BC858B
7111	5322 130 42136	Trans BC848C
7122	5322 130 42136	Trans BC848C
7124	5322 130 42136	Trans BC848C

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.