CD Stereo Radio Recorder

AZ1200/00/14/17

AZ1205/17

Service
Service
Service

Manual #1861
AZ12001701 / AZ12051701

Service Manual

COMPACT disc DIGITAL AUDIO

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

CLASS 1
LASER PRODUCT

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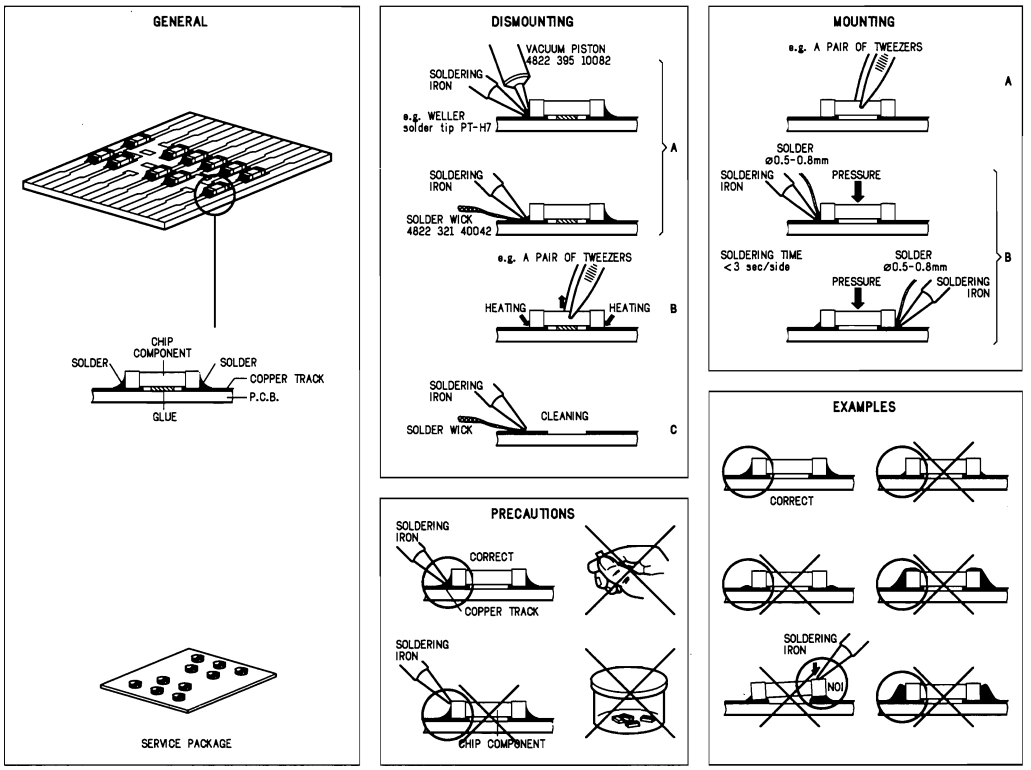
PCS 97 429

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	

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

(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 sikkerhedsafbrydere 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 statiche (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.

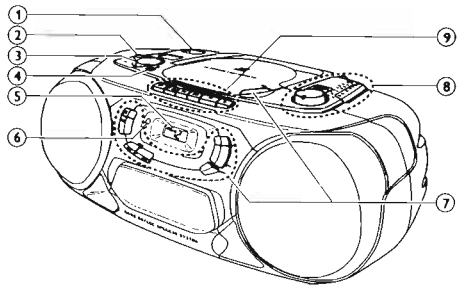
(F) ATTENTION
Les normes de sécurité exigent que l`appareil soit remis à l`état d`origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

(D) WARNUNG
Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften 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.

AZ 1205 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 1205 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

TUNING .....tunes to radio stations

BAND.....selects the wave band

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 1205 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 a current, previous or subsequent track of a CD

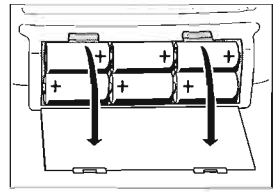
■.....stops CD play and erases the program

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

Note: The TUNER CONTROL *keys on the remote control have no function with this set.*

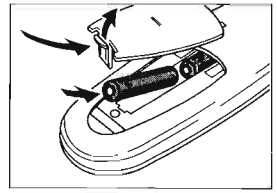
Batteries

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



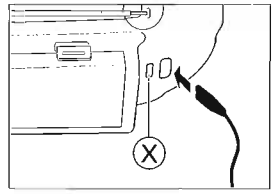
For the remote control (AZ 1205 only)
Open the battery compartment of the remote control and insert 2 batteries, type **R03**, **UM-4** or **AAA**-cells (preferably alkaline).

Remove batteries if they are dead or if the set is not going to be used for a long time.



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

AC power supply



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

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

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

The battery supply will be switched off when the set is connected to the AC power. To change to battery supply, disconnect the AC power cord from the unit's AC MAINS socket.

To disconnect the set from AC power completely, remove the AC power cord from the wall socket.

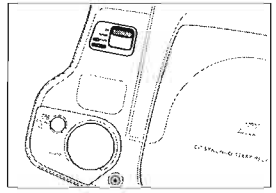
Environmental information

All redundant packing material has been omitted. We have tried to make the packaging easy to separate into three 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, dead batteries and old equipment.

BAND.....selects the wave band

Switching the set on and off

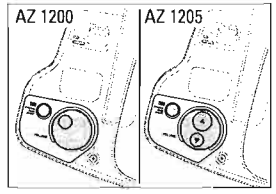


Set the POWER control to the desired sound source: CD, TUNER, or TAPE.

The set is switched off when the POWER control is set to OFF/TAPE and the keys of the tape deck are released.

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

Adjusting volume and sound

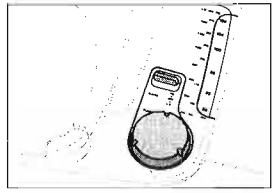


Adjust the volume using the VOLUME control.
→ Display indication: Volume level from 0 to 32 (AZ 1205 only).

Increase and decrease the bass level by pressing DBB.

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

Radio – tuning to radio stations

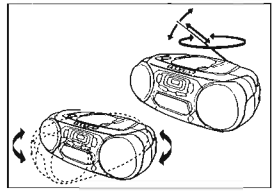


1 Set the POWER control to TUNER.

2 Select the wave band using the BAND selector.

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

Improving RADIO reception

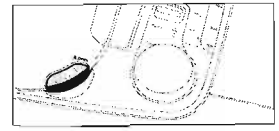


For **FM** stations, pull out the telescopic antenna. To improve the signal, incline and turn the antenna. Reduce its length if the signal is too strong (very close to a transmitter).

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

and old equipment.

Playing a CD

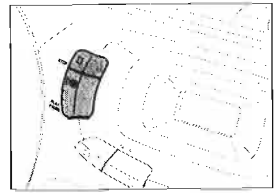


1 Set the POWER control to CD.

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.

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



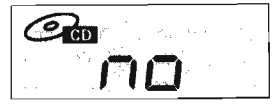
5 Press the STOP □ button to stop CD play.
→ Display indication: the total number of tracks.

You can interrupt CD play by pressing PLAY·PAUSE ▷II. Continue CD play by pressing the button again.
→ Display indication: the current track number flashes.

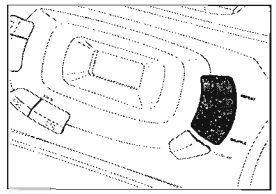
Note: CD play will also stop if:
– you open the CD compartment,
– the end of the CD is reached, or
– you move the POWER *control to* TUNER *or* TAPE.

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

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



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.

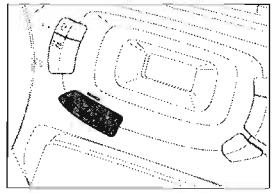
REPEAT – Repeating the entire CD or one track of the CD

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 playback is stopped:
Press PLAY·PAUSE ▷II to start CD play.
→ Display indication: the selected track number.

Searching for a passage during CD play

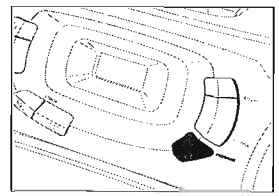
1 Hold down the SEARCH ⏮ or ⏭ button to find a particular passage in a forward or backward direction.
→ CD play continues at a low volume.

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.*

Playing a cassette

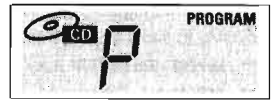
Programming track numbers



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

1 Select the desired track with SEARCH ⏮ or ⏭.

2 As soon as the number of the desired track is displayed, press the PROGRAM button to store the track in the memory.
→ **PROGRAM** appears in the display and *P* lights up briefly. Then, the number of the stored track is shown.



3 Select and store all desired tracks in this way.

You can review your settings by pressing the PROGRAM button for more than 2 seconds.
→ The display shows all stored track numbers in sequence.

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

Playing the program

If you have selected the tracks while playback is stopped, press PLAY·PAUSE ▷II.

If you have selected the tracks during CD play, first press STOP □, then press PLAY·PAUSE ▷II.

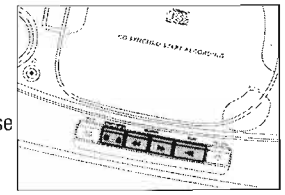
Erasing the program when playback is stopped

From the stop position, press STOP □.
→ *no* 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 *control to* TUNER *or* TAPE.

Recording from the CD player – CD synchro start

Playing a cassette



1 Set the POWER control 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).

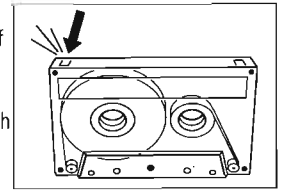
The recording level is set automatically. The controls VOLUME and DBB do not affect the recording.

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.

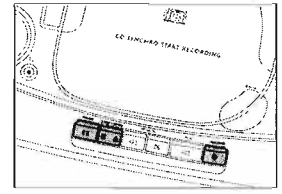
Protecting tapes from accidental erasure

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 opening with a piece of adhesive tape.



Recording from the CD player – CD synchro start



1 Set the POWER control to CD.

2 Insert a CD and, if desired, program the 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 control to TUNER.

2 Tune to the desired radio station (see "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 □△.

WARNING

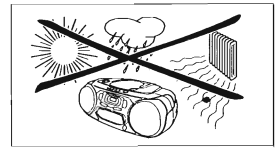
Under no circumstances should you try to repair the set yourself as this will invalidate the warranty.

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

If you are unable to solve a problem by following these hints, consult your dealer or service center.

Problem	Possible cause	Solution
No sound, no power	VOLUME is not adjusted.	Adjust volume.
	Headphones are connected.	Disconnect headphones.
	Power cord is not securely connected.	Connect the power cord properly.
	Batteries are dead.	Insert fresh batteries.
	Batteries are inserted incorrectly.	Insert batteries correctly.
	Trying to change over from AC power to battery supply without removing the power cord.	Remove the power cord from the unit's AC MAINS socket.
No reaction to operation of any keys	Electrostatic discharge.	Disconnect the set from power supply, reconnect after a few seconds.
Poor radio reception	Weak radio signal.	Adjust the antenna for optimum reception.
	Interference caused by electrical equipment like TVs, computers, engines, etc.	Keep the radio away from electrical equipment.
no or E indication	The CD is badly scratched or dirty.	Replace or clean the CD.
	No CD is inserted.	Insert a CD.
	The CD is inserted upside down.	Insert CD with label facing up.
	The laser lens is steamed up.	Wait until the lens has cleared.
The CD skips tracks	The CD is damaged or dirty.	Replace or clean the CD.
	SHUFFLE or **PROGRAM** is active.	Switch off **SHUFFLE** or **PROGRAM**.
Poor cassette sound quality	Dust and dirt on the heads, capstans or pressure rollers.	Clean heads, capstans, and pressure rollers.
	Use of unsuitable cassette types (METAL or CHROME) for recording.	Only use NORMAL type cassettes for recording.
Recording does not work	Cassette tab(s) may be snapped off.	Apply a piece of adhesive tape over the opening.
Remote control does not function properly (AZ 1205 only)	Batteries are inserted incorrectly.	Insert batteries correctly.
	Batteries are dead.	Insert fresh batteries.
	Distance to the set is too large.	Reduce distance.

General maintenance

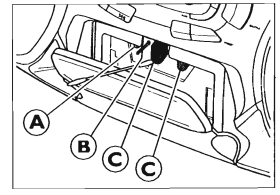


Do not expose the set, batteries, CDs, or tapes to humidity, rain, sand, or excessive heat (caused by heating equipment or direct sunlight).

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

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

Tape deck maintenance



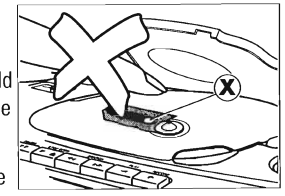
To ensure proper recording and playback quality, clean parts Ⓐ, Ⓑ and Ⓒ after approximately 50 hours of operation. Use a cotton swab slightly moistened with alcohol or head-cleaner fluid.

Press PLAY ◁ and clean the rubber pressure rollers Ⓐ.

Press PAUSE ▯▯ and clean the capstans Ⓑ and the heads Ⓒ.

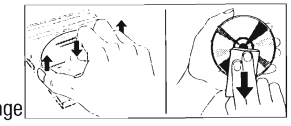
Note: Cleaning of the heads Ⓒ can also be done by playing a cleaning tape once.

CD player and CD handling



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

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



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

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

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

CAUTION

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

SPECIFICATIONS

GENERAL

Mains voltage	-/00/14	:	230V
	-/17	:	120V
Mains frequency	-/00/14	:	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 ± 0.2 MHz
Sensitivity	:	< 22 dBf at 26dB S/N
Selectivity	:	> 20 dB at 300kHz
IF rejection	:	> 50 dB
Image rejection	:	> 20 dB

TUNER - AM SECTION

Tuning range	MW	:	522 - 1607 kHz
	-/17	:	520 - 1730 kHz
	LW	:	148.5 - 284 kHz
Sensitivity	MW	:	< 4000 µV/m at 26dB S/N
	LW	:	< 6000 µV/m at 26dB S/N
Selectivity	MW	:	> 16 dB
	LW	:	> 20 dB
IF rejection	MW	:	> 24 dB
	LW	:	> 26 dB
Image rejection	MW	:	> 28 dB
	LW	:	> 30 dB

AUDIO CASSETTE RECORDER

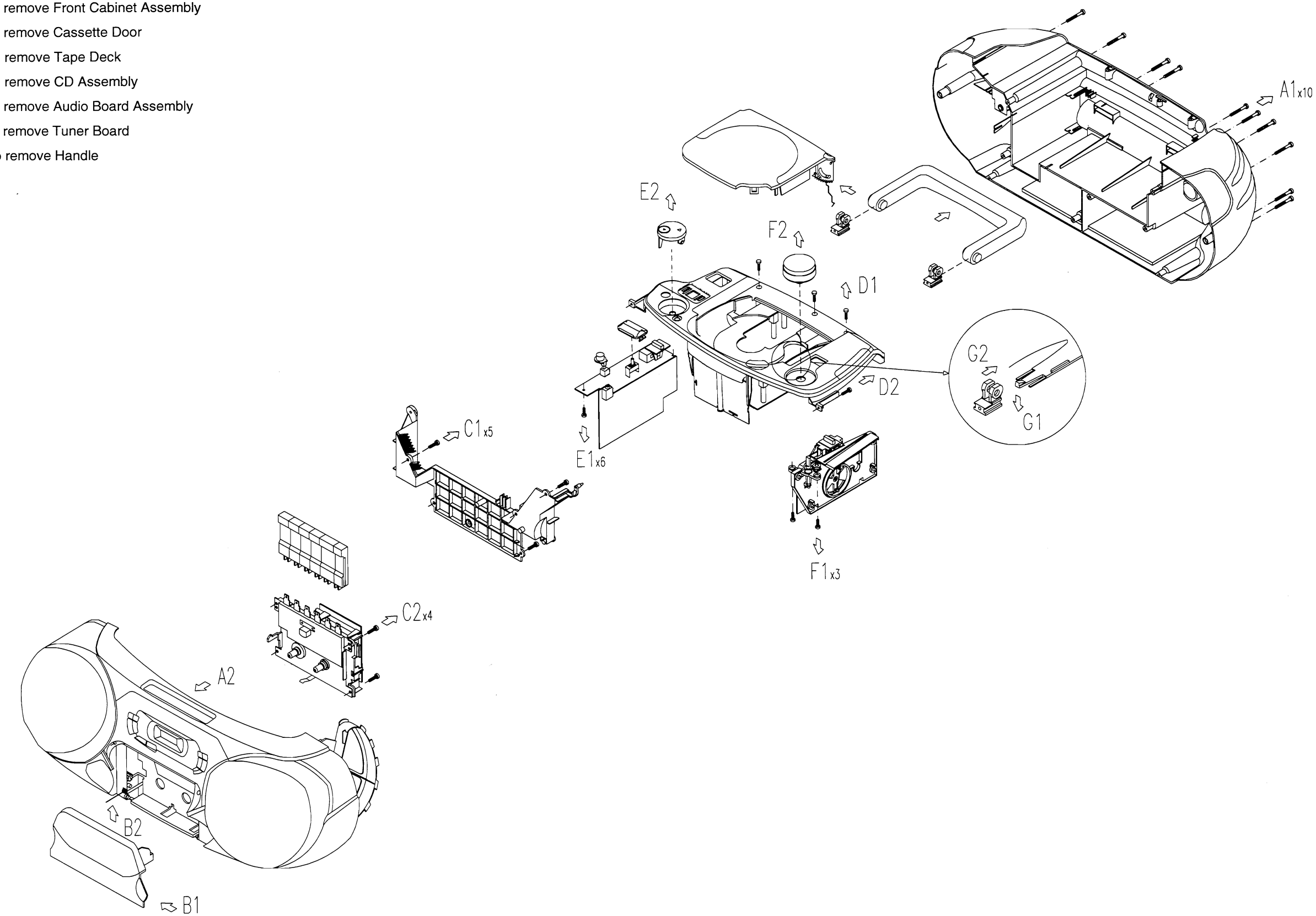
Number of tracks		:	1 stereo
Tape speed		:	4.76 cm/sec ± 3%
Wow & flutter		:	< 0.48 JIS UWTD
Fast wind/rewind C60		:	< 110 sec.
Frequency response	P/B	:	125 - 6300 Hz
S/N ratio		:	≥ 38 dB

COMPACT DISC

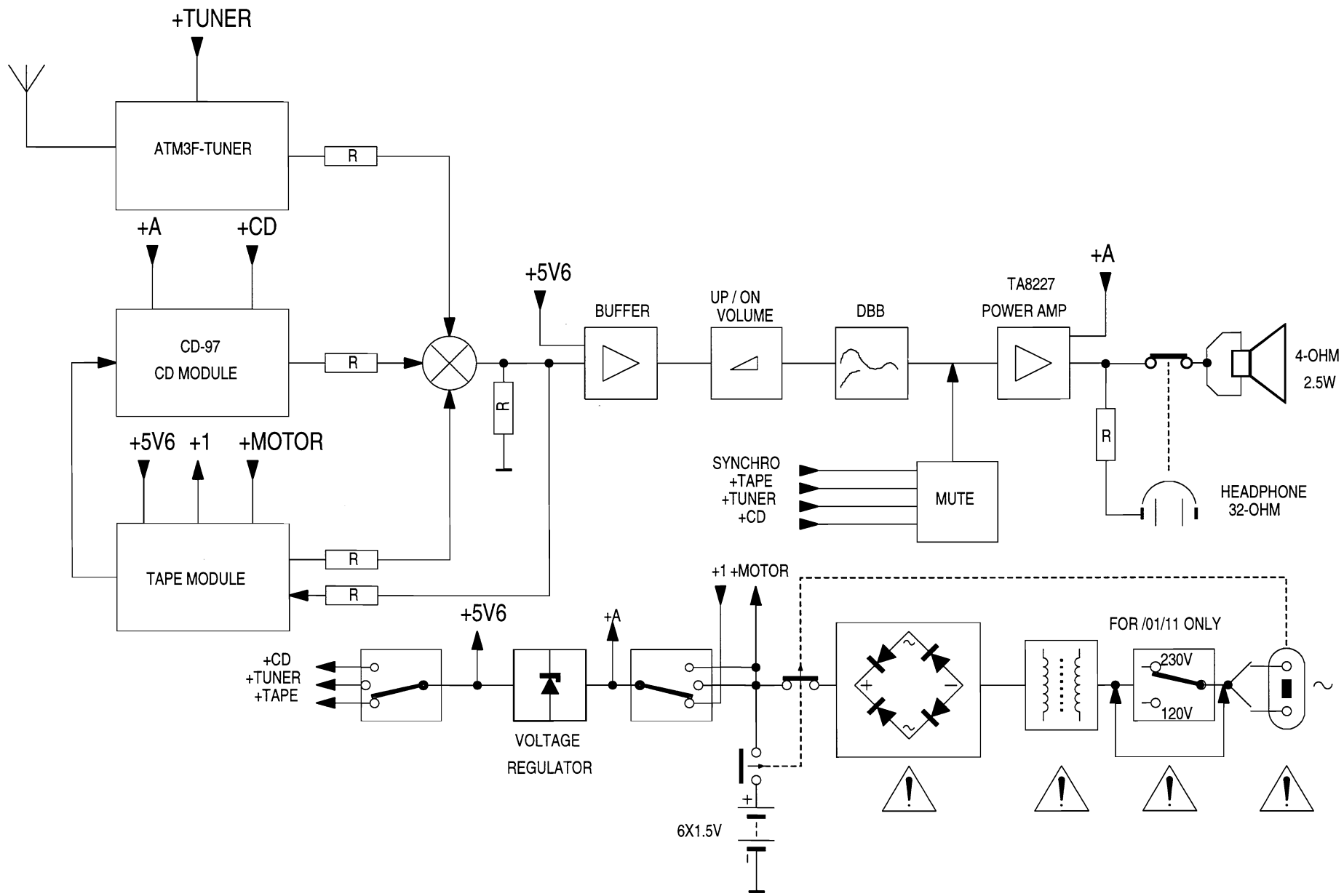
Frequency response		:	100 Hz - 10 kHz
S/N ratio		:	< 60 dB
Channel difference	1 kHz	:	< 3 dB
Channel crosstalk	1 kHz	:	> 26 dB
Laser wavelength		:	780 ± 20 nm
Laser light power		:	< 0.3 mW

DISASSEMBLY DIAGRAM

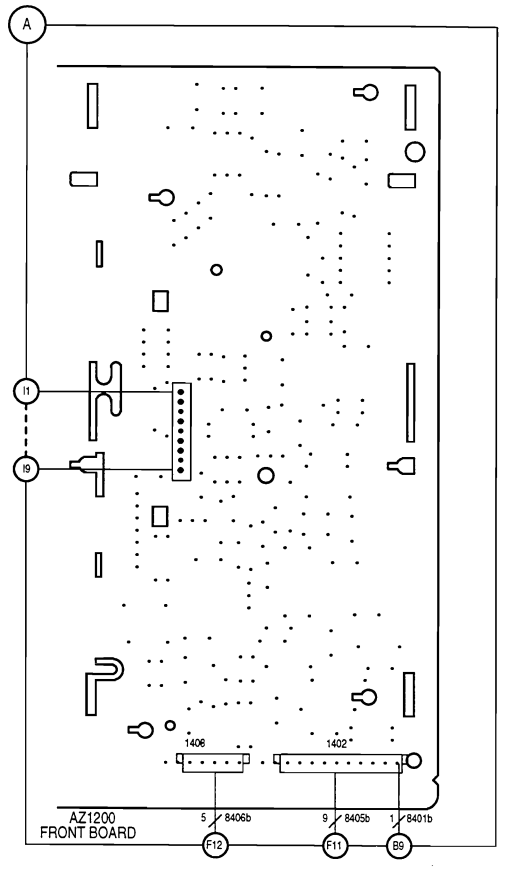
A. To remove Front Cabinet Assembly
B. To remove Cassette Door
C. To remove Tape Deck
D. To remove CD Assembly
E. To remove Audio Board Assembly
F. To remove Tuner Board
G. To remove Handle

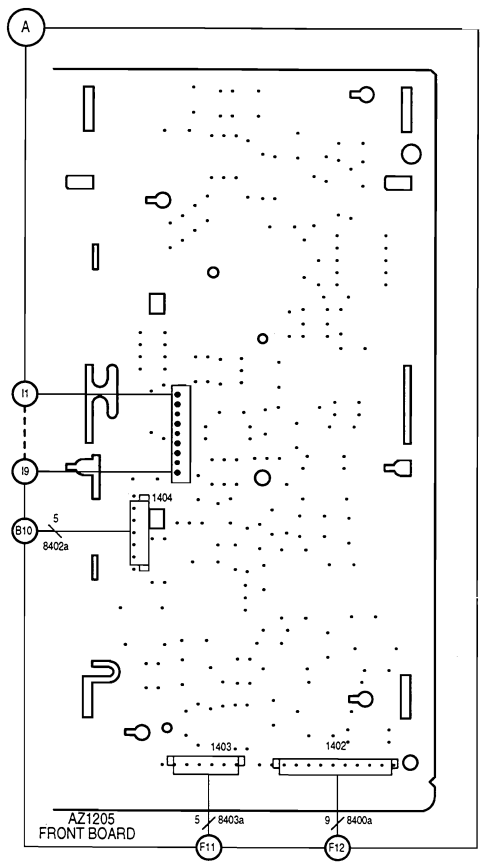


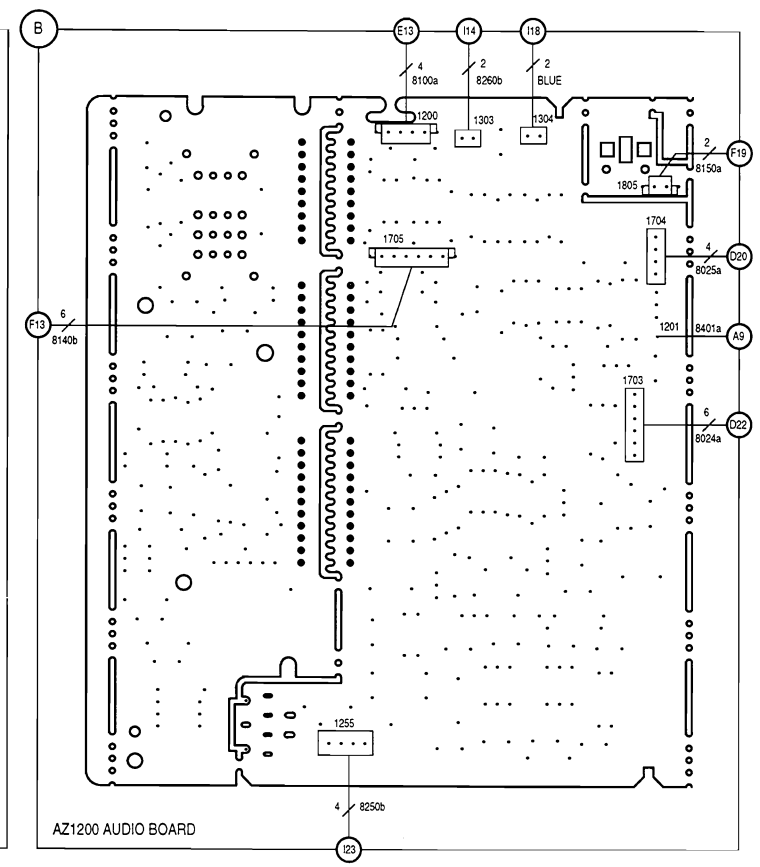
BLOCK DIAGRAM

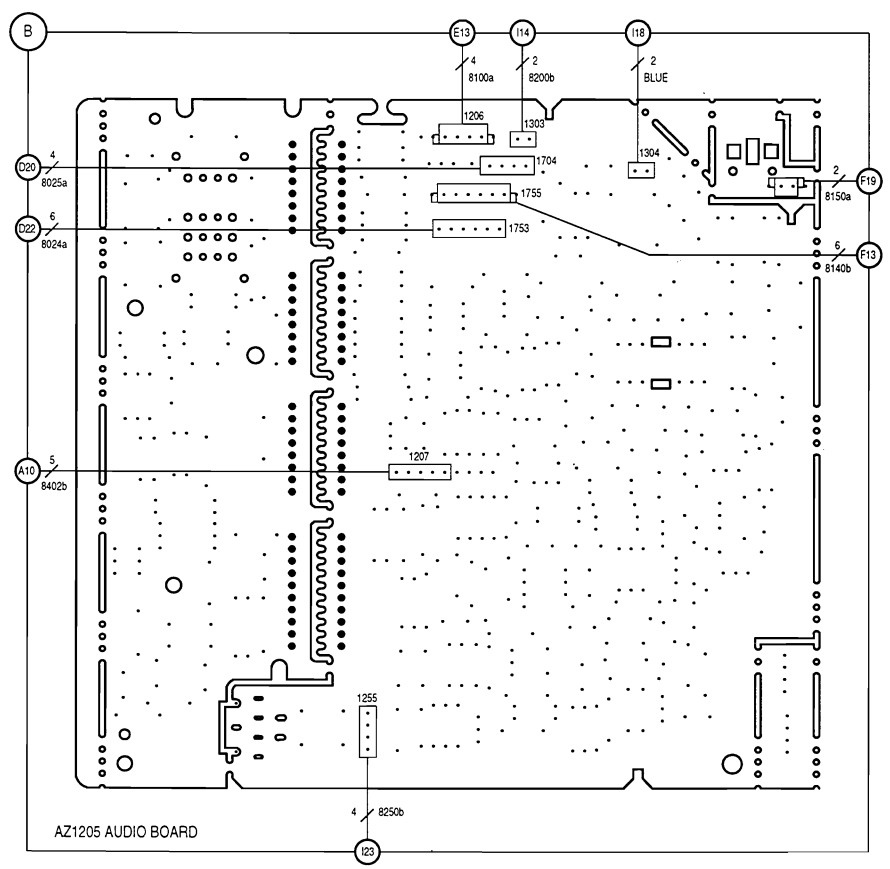


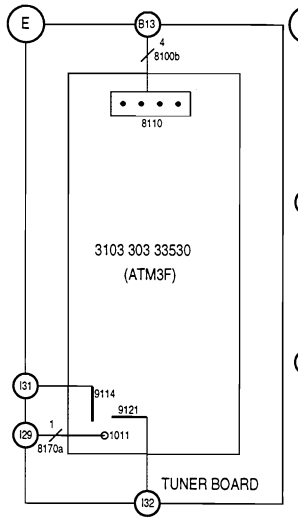
WIRING DIAGRAM

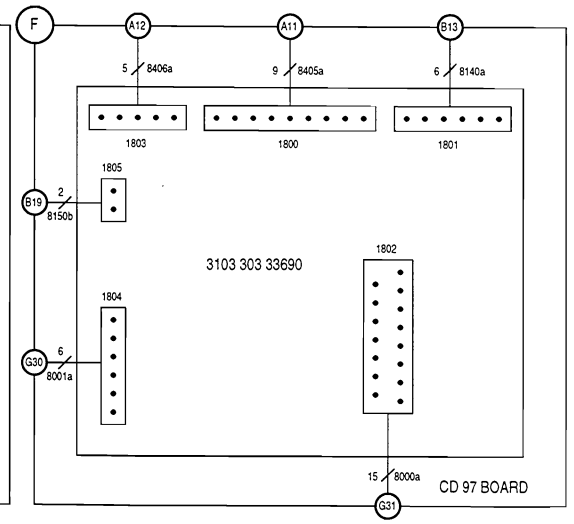


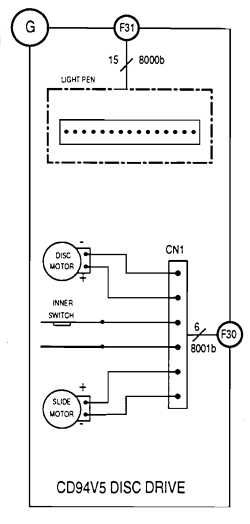


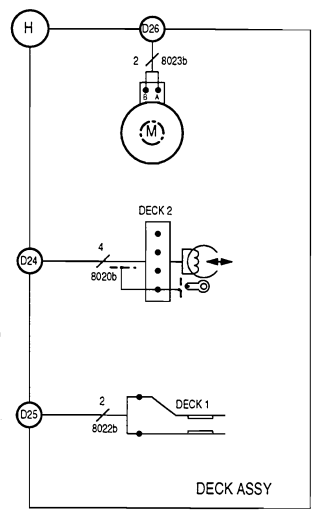


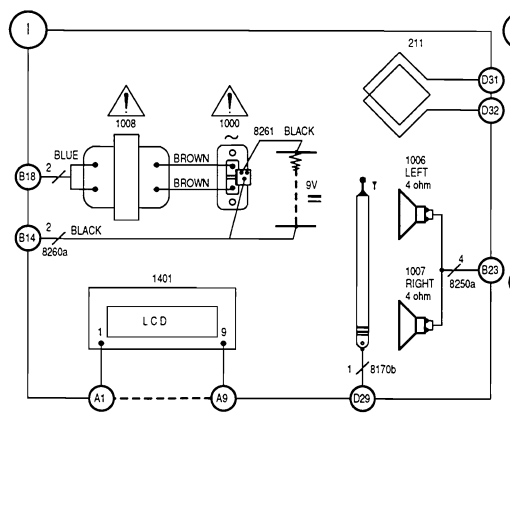


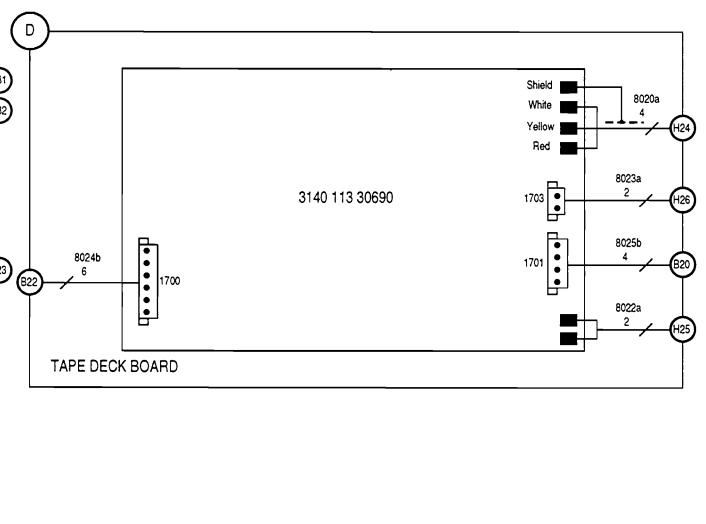




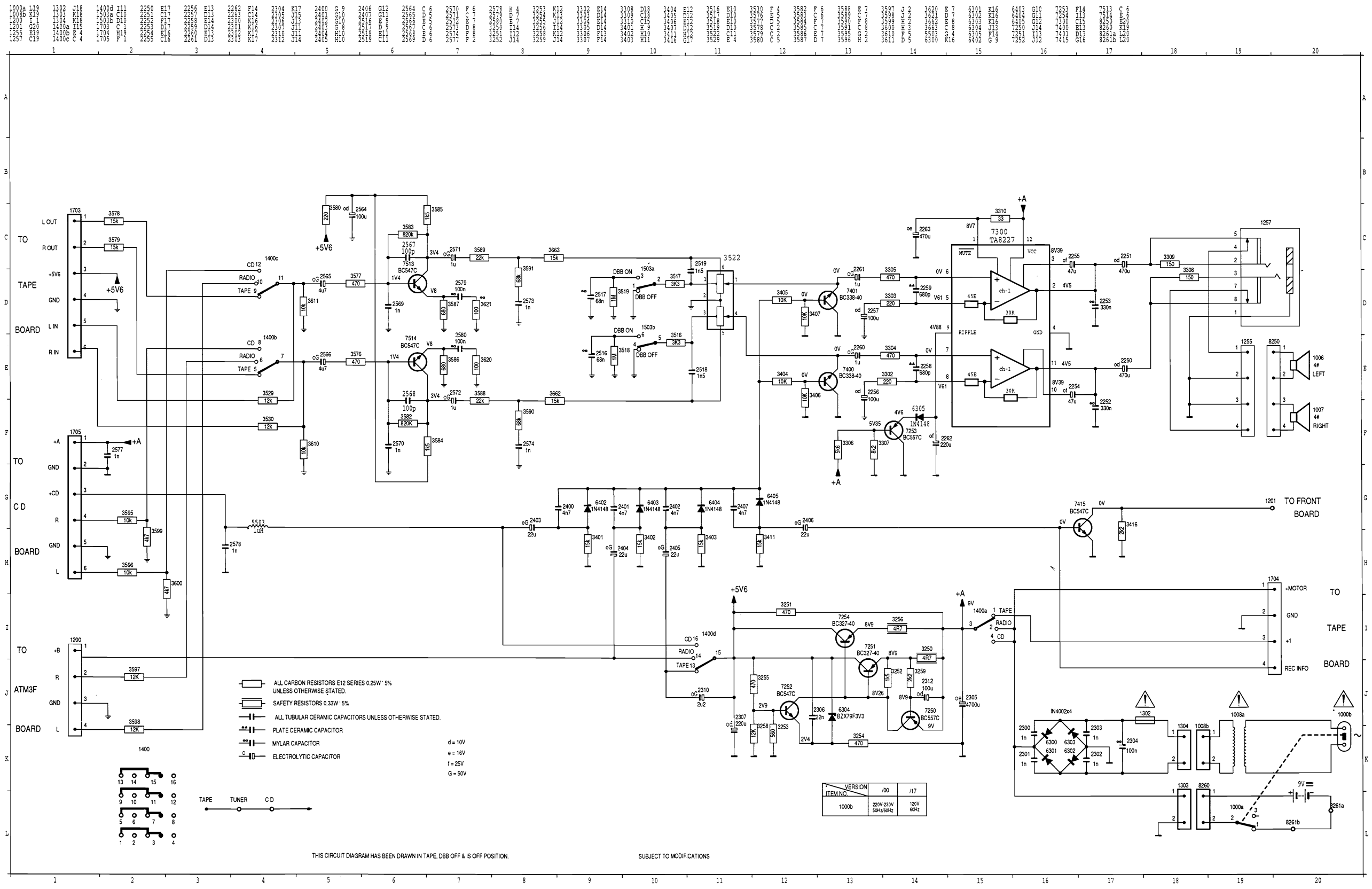




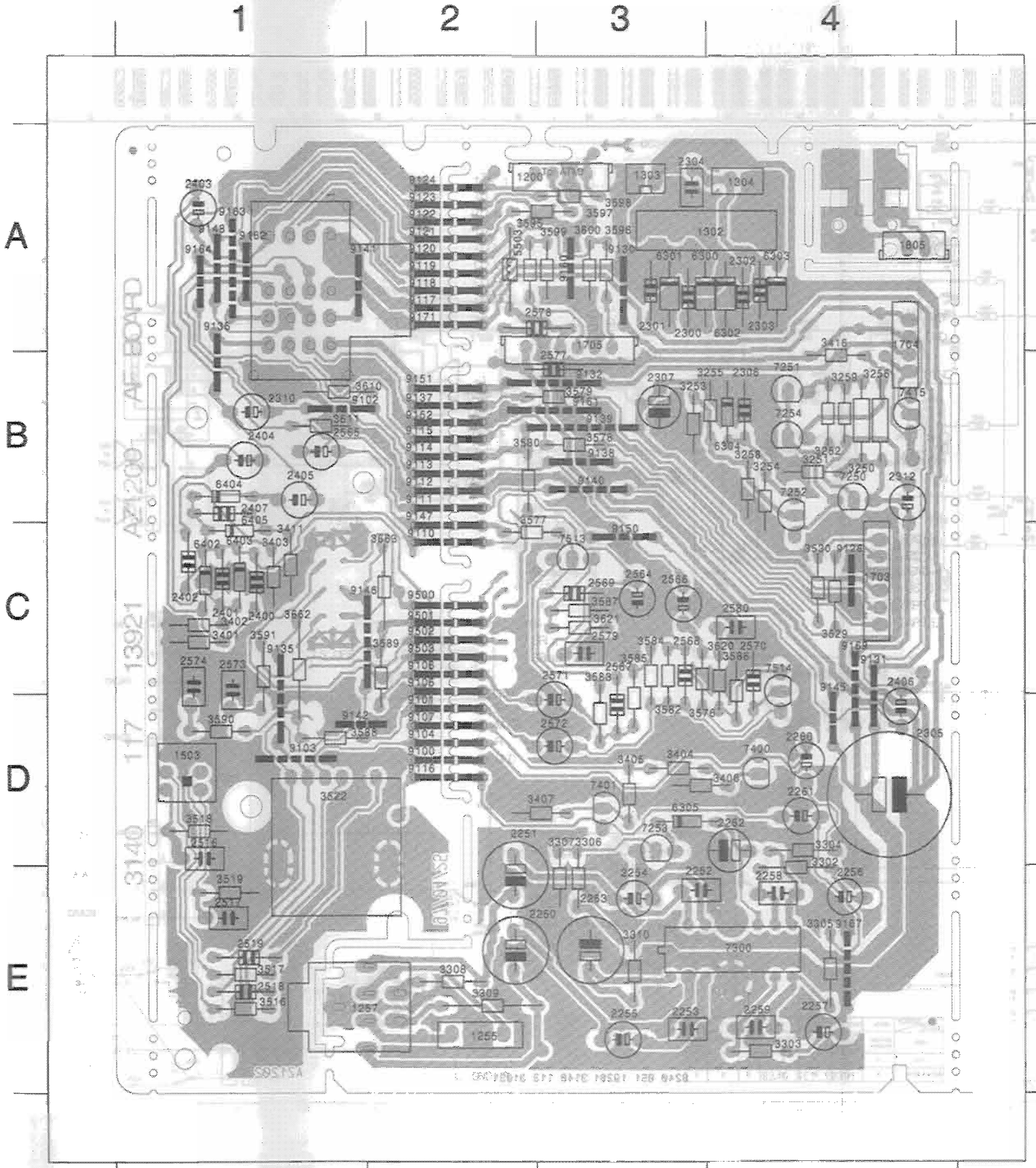




AUDIO BOARD (AZ1200) - CIRCUIT DIAGRAM



AUDIO BOARD (AZ1200) - LAYOUT DIAGRAM



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1200	A 3	3255	B 4	7250	B 4	t 3	E 2
1255	E 2	3256	B 4	7251	B 4	t 4	E 3
1257	E 2	3258	B 4	7252	B 4	t 5	E 2
1302	A 4	3259	B 4	7253	D 3	t 6	E 3
1303	A 3	3302	E 4	7254	B 4	t 7	D 4
1304	A 4	3303	E 4	7300	E 4	t 8	D 4
1503	D 1	3304	E 4	7400	D 4	t 9	B 3
1703	C 4	3305	D 4	7401	D 3	t 10	B 3
1704	A 4	3306	E 3	7415	B 4	t 11	A 4
1705	A 3	3307	E 3	7513	C 3	t 12	A 4
1805	A 4	3308	E 2	7514	C 4	t 13	A 3
2250	E 2	3309	E 2	9100	D 2	t 14	A 2
2251	E 2	3310	E 3	9101	D 2	t 15	A 3
2252	E 3	3401	C 1	9102	B 1	t 16	A 3
2253	E 3	3402	C 1	9103	D 1	t 17	B 2
2254	E 3	3403	C 1	9104	D 2	t 18	B 3
2255	E 3	3404	D 3	9105	C 2	t 19	A 4
2256	E 4	3405	D 3	9106	C 2	t 20	A 4
2257	E 4	3406	D 3	9107	D 2	t 21	B 4
2258	E 4	3407	D 3	9110	C 2	t 22	B 4
2259	E 4	3411	C 1	9111	B 2	t 23	C 2
2260	D 4	3416	B 4	9112	B 2	t 24	C 2
2261	D 4	3516	E 1	9113	B 2	t 25	C 2
2262	D 4	3517	E 1	9114	B 2	t 27	A 1
2263	E 3	3518	D 1	9115	B 2	t 28	A 1
2300	A 3	3519	E 1	9116	D 2		
2301	A 3	3522	D 1	9117	A 2		
2302	A 4	3529	C 4	9118	A 2		
2303	A 4	3530	C 4	9119	A 2		
2304	A 3	3576	C 3	9120	A 2		
2305	D 4	3577	C 2	9121	A 2		
2306	B 4	3578	B 3	9122	A 2		
2307	B 3	3579	B 3	9123	A 2		
2310	B 1	3580	B 2	9124	A 2		
2312	B 4	3582	C 3	9126	C 4		
2400	C 1	3583	D 3	9130	A 3		
2401	C 1	3584	C 3	9131	D 4		
2402	C 1	3585	D 3	9132	B 3		
2403	A 1	3586	C 4	9135	D 1		
2404	B 1	3587	C 3	9136	B 1		
2405	B 1	3588	D 1	9137	B 2		
2406	D 4	3589	C 2	9138	B 3		
2407	B 1	3590	D 1	9139	B 3		
2516	D 1	3591	C 1	9140	B 3		
2517	E 1	3595	A 2	9141	A 1		
2518	E 1	3596	A 3	9142	D 1		
2519	E 1	3597	A 3	9145	D 4		
2564	C 3	3598	A 3	9146	C 2		
2565	B 1	3599	A 3	9147	C 2		
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2567	D 3	3610	B 1	9150	C 3		
2568	C 3	3611	B 1	9151	B 2		
2569	C 3	3620	C 4	9152	B 2		
2570	C 4	3621	C 3	9160	A 3		
2571	D 3	3662	C 1	9161	B 3		
2572	D 3	3663	C 2	9162	A 1		
2573	C 1	5503	A 2	9163	A 1		
2574	C 1	6300	A 3	9164	A 1		
2577	B 3	6301	A 3	9167	E 4		
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2579	C 3	6303	A 4	9171	A 2		
2580	C 4	6304	B 4	9500	C 2		
3250	B 4	6305	D 3	9501	C 2		
3251	B 4	6402	C 1	9502	C 2		
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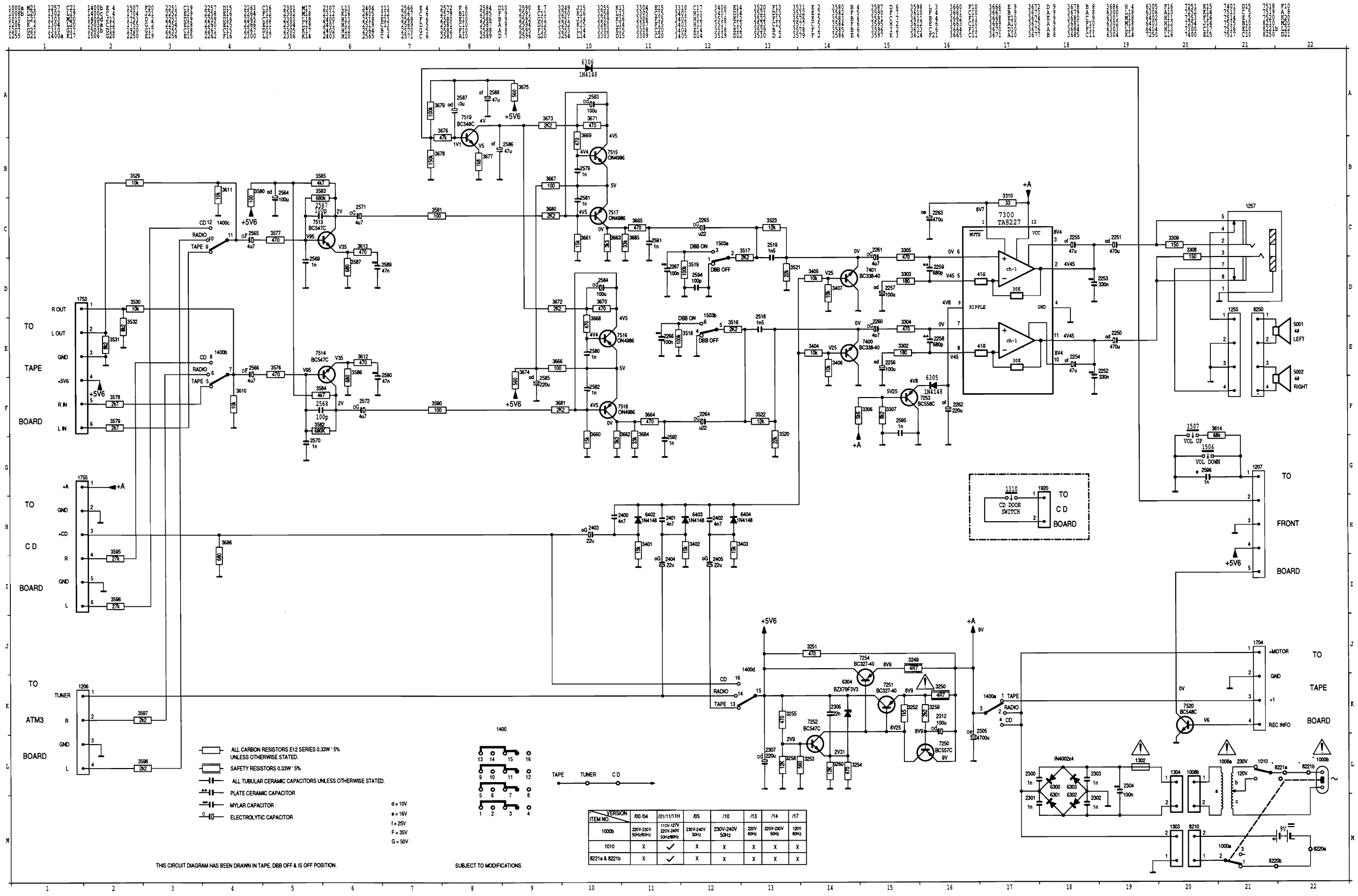
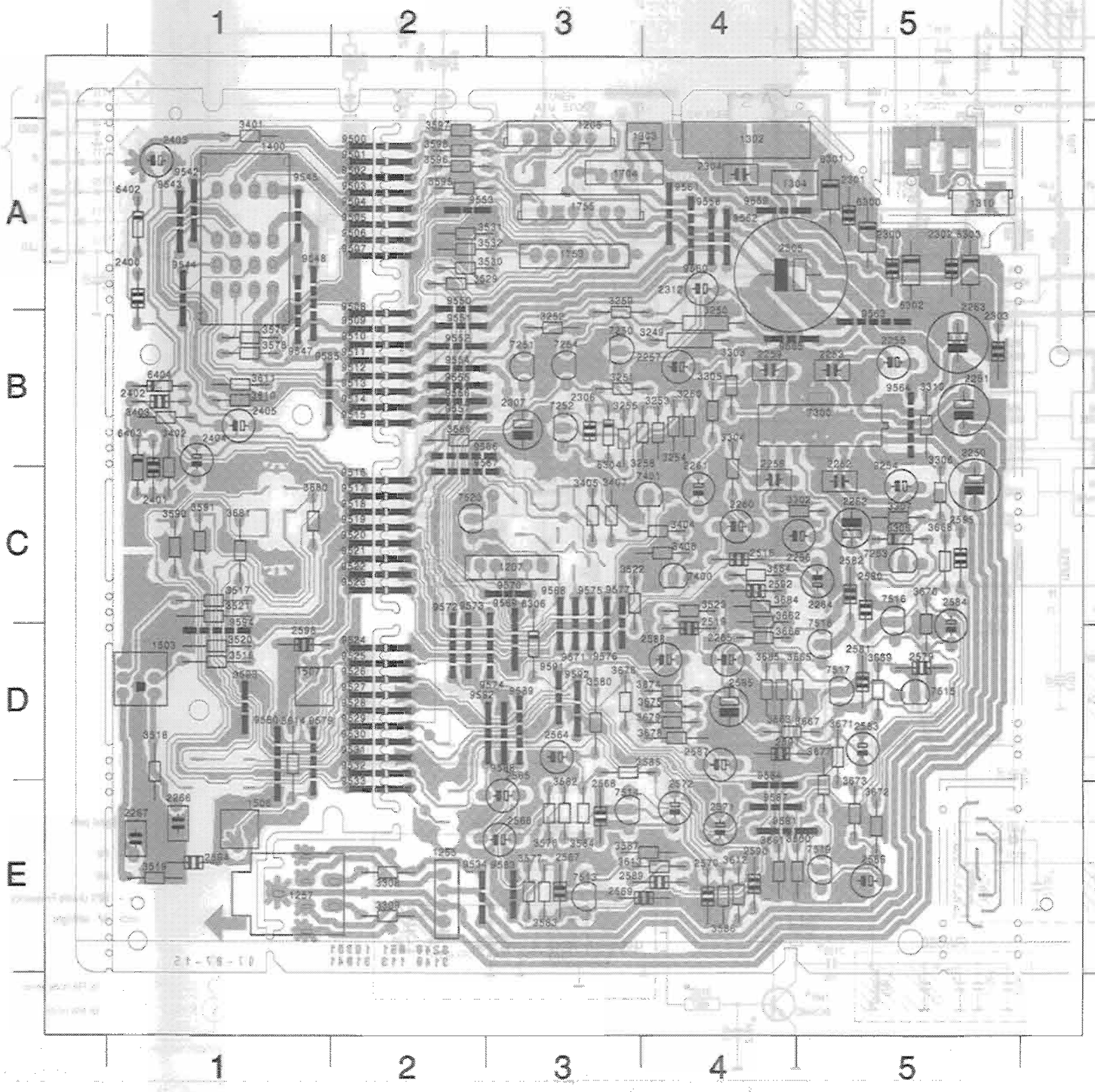
3253	B 3	6404	B 1	t 1	E 2		

AUDIO BOARD (AZ1205) - CIRCUIT DIAGRAM



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

AUDIO BOARD (AZ1205) - LAYOUT DIAGRAM



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1255 E 2	2587 D 4	3611 B 1	9510 B 2	9585 B 1
1257 E 1	2588 D 4	3612 E 4	9511 B 2	9587 E 4
1302 A 4	2589 E 4	3613 E 4	9512 B 2	9588 D 3
1303 A 4	2590 E 4	3614 D 1	9513 B 2	9589 D 3
1304 A 4	2591 D 4	3660 E 5	9514 B 2	9591 D 3
1310 A 5	2592 C 4	3661 E 4	9515 B 2	9592 D 3
1400 A 1	2594 E 1	3662 C 4	9516 C 2	9593 D 1
1503 D 1	2595 C 5	3663 D 4	9517 C 2	9594 D 1
1506 E 1	2596 D 1	3664 C 4	9518 C 2	
1507 D 1	3249 B 4	3665 D 5	9519 C 2	
1704 A 3	3250 B 4	3666 D 4	9520 C 2	
1753 A 3	3251 B 3	3667 D 4	9521 C 2	
1755 A 3	3252 B 3	3668 C 5	9522 C 2	
2250 C 5	3253 B 4	3669 D 5	9523 C 2	
2251 B 5	3254 B 4	3670 C 5	9524 D 2	
2252 C 5	3255 B 3	3671 D 5	9525 D 2	
2253 B 5	3258 B 4	3672 E 5	9526 D 2	
2254 C 5	3259 B 3	3673 E 5	9527 D 2	
2255 B 5	3260 B 4	3674 D 4	9528 D 2	
2256 C 5	3302 C 5	3675 D 4	9529 D 2	
2257 B 4	3303 B 4	3676 D 3	9530 D 2	
2258 C 4	3304 C 4	3677 E 5	9531 D 2	
2259 B 4	3305 B 4	3678 D 4	9532 D 2	
2260 C 4	3306 C 5	3679 D 4	9533 E 2	
2261 C 4	3307 C 5	3680 C 1	9534 E 2	
2262 C 5	3308 E 2	3681 C 1	9542 A 1	
2263 B 5	3309 E 2	3684 C 4	9543 A 1	
2264 C 5	3310 B 5	3685 D 4	9544 A 1	
2265 D 4	3401 A 1	3686 B 2	9545 A 1	
2266 E 1	3402 C 1	6300 A 5	9547 A 1	
2267 E 1	3403 B 1	6301 A 5	9548 A 1	
2300 A 5	3404 C 4	6302 A 5	9550 A 2	
2301 A 5	3405 C 3	6303 A 5	9551 B 2	
2302 A 5	3406 C 4	6304 B 3	9552 B 2	
2303 B 5	3407 C 3	6305 C 5	9553 A 2	
2304 A 4	3516 D 1	6306 D 3	9554 B 2	
2305 A 4	3517 C 1	6402 A 1	9555 B 2	
2306 B 3	3518 D 1	6403 C 1	9556 B 2	
2307 B 3	3519 E 1	6404 B 1	9557 B 2	
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2401 C 1	3522 C 3	7252 B 3	9560 A 4	
2402 B 1	3523 C 4	7253 C 5	9561 A 4	
2403 A 1	3529 A 2	7254 B 3	9562 A 4	
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2564 D 3	3577 E 3	7514 E 3	9567 C 2	
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2580 C 5	3590 C 1	9503 A 2	9577 C 3	
2581 D 5	3591 C 1	9504 A 2	9579 D 1	
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2583 D 5	3596 A 2	9506 A 2	9581 E 4	
2584 D 5	3597 A 2	9507 A 2	9582 D 3	

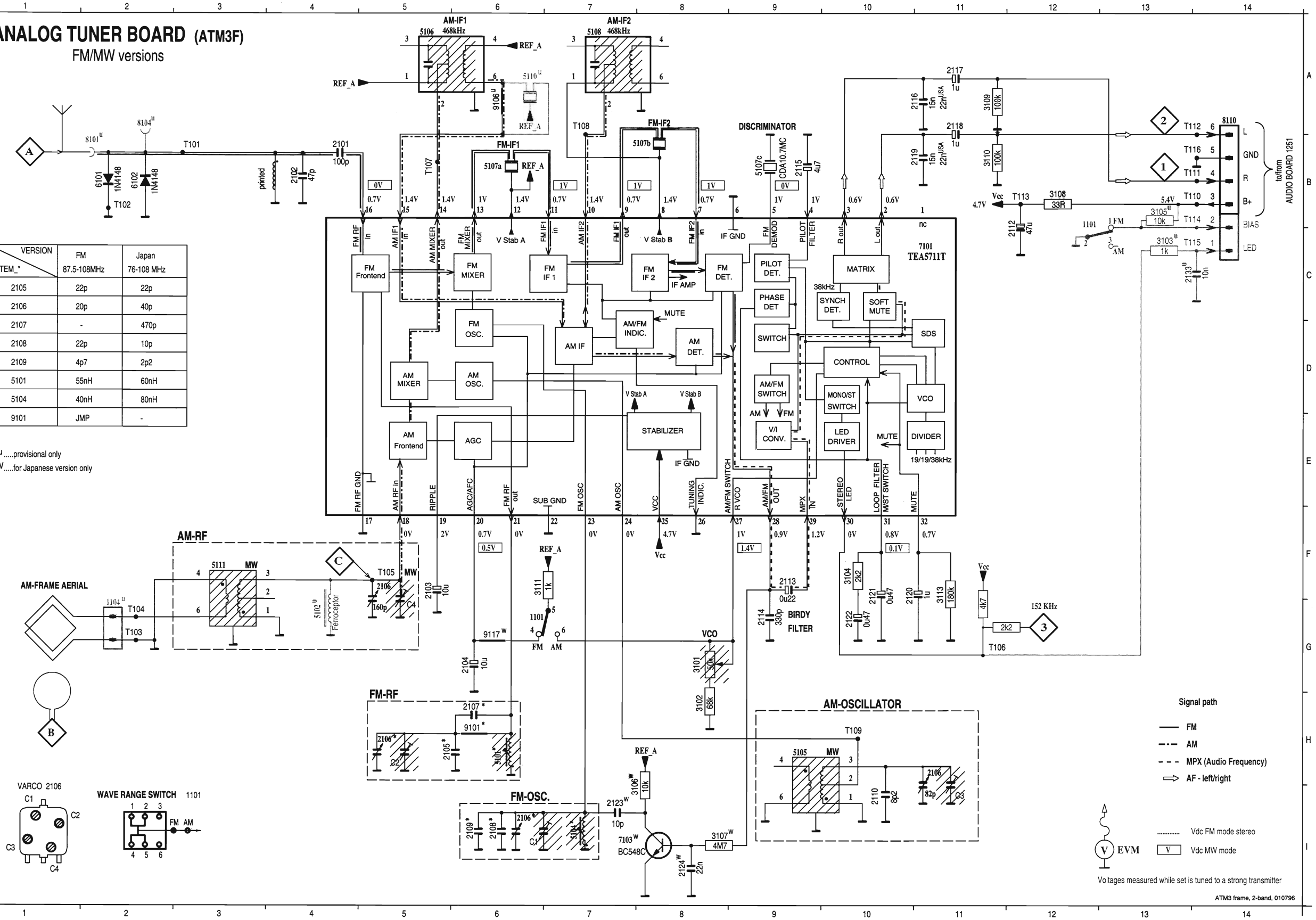
ANALOG TUNER BOARD (ATM3F)

FM/MW versions

ITEM_* \ VERSION	FM 87.5-108MHz	Japan 76-108 MHz
2105	22p	22p
2106	20p	40p
2107	-	470p
2108	22p	10p
2109	4p7	2p2
5101	55nH	60nH
5104	40nH	80nH
9101	JMP	-

u .....provisional only

W.....for Japanese version only



1101 B 1 2106 A 2 2114 B 4 2121 A 4 3103 A 4 3110 B 4 5106 B 3 6101 B 1 9101 B 3 9116 A 4
1104 A 1 2107 B 3 2115 B 4 2122 A 4 3104 A 4 3111 A 1 5107a B 3 6102 B 1 9106 B 3 9117 A 1
2101 B 2 2108 A 3 2116 B 4 2123 A 3 3105 A 4 3113 A 4 5107b B 4 7101 A 3 9108 B 2 9120 A 2
2102 B 2 2109 A 3 2117 B 4 2124 A 3 3106 A 3 5101 B 3 5107c B 4 7103 A 3 9109 B 3 9121 A 1
2103 B 3 2110 A 2 2118 B 4 2133 A 4 3107 A 4 5102 A 2 5108 B 4 8101 B 1 9111 B 1 9122 A 4
2104 B 2 2112 A 4 2119 B 4 3101 A 4 3108 A 4 5104 A 3 5110 B 3 8104 A 1 9113 A 2 9123 A 1
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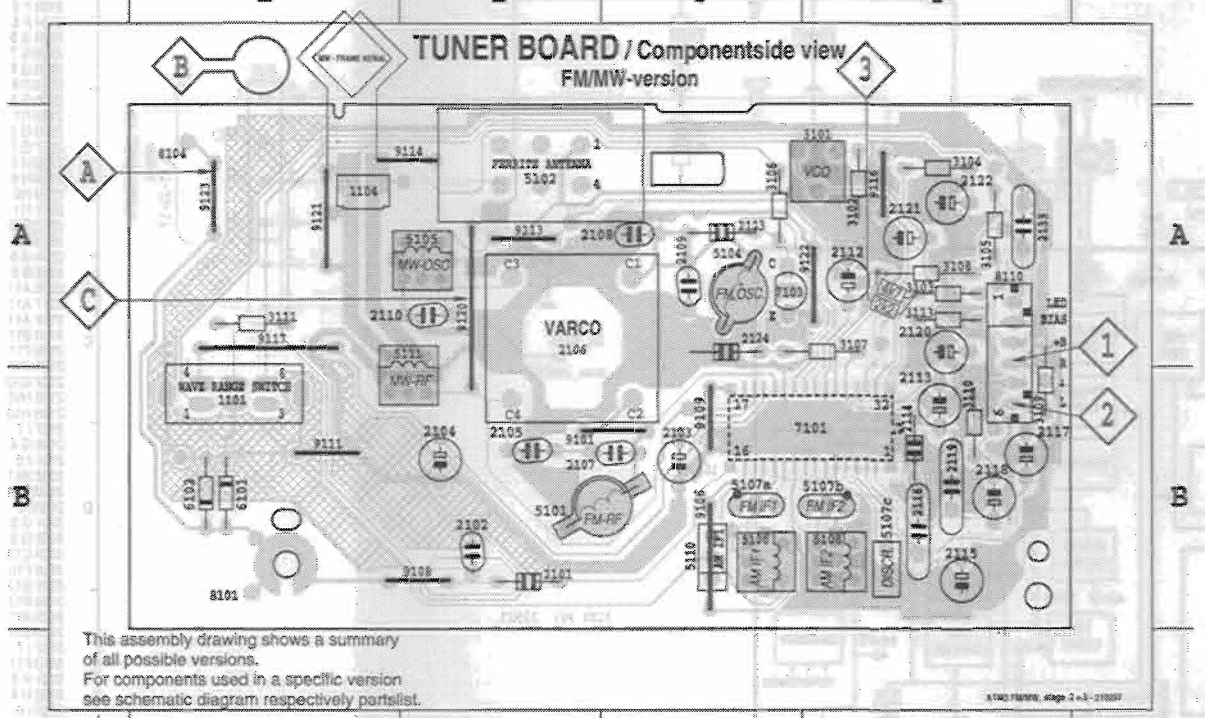
1 2 3 4



1101 B 1 2106 A 2 2114 B 4 2121 A 4 3103 A 4 3110 B 4 5106 B 3 6101 B 1 9101 B 3 9116 A 4
1104 A 1 2107 B 3 2115 B 4 2122 A 4 3104 A 4 3111 A 1 5107a B 3 6102 B 1 9106 B 3 9117 A 1
2101 B 2 2108 A 3 2116 B 4 2123 A 3 3105 A 4 3113 A 4 5107b B 4 7101 A 3 9108 B 2 9120 A 2
2102 B 2 2109 A 3 2117 B 4 2124 A 3 3106 A 3 5101 B 3 5107c B 4 7103 A 3 9109 B 3 9121 A 1
2103 B 3 2110 A 2 2118 B 4 2133 A 4 3107 A 4 5102 A 2 5108 B 4 8101 B 1 9111 B 1 9122 A 4
2104 B 2 2112 A 4 2119 B 4 3101 A 4 3108 A 4 5104 A 3 5110 B 3 8104 A 1 9113 A 2 9123 A 1
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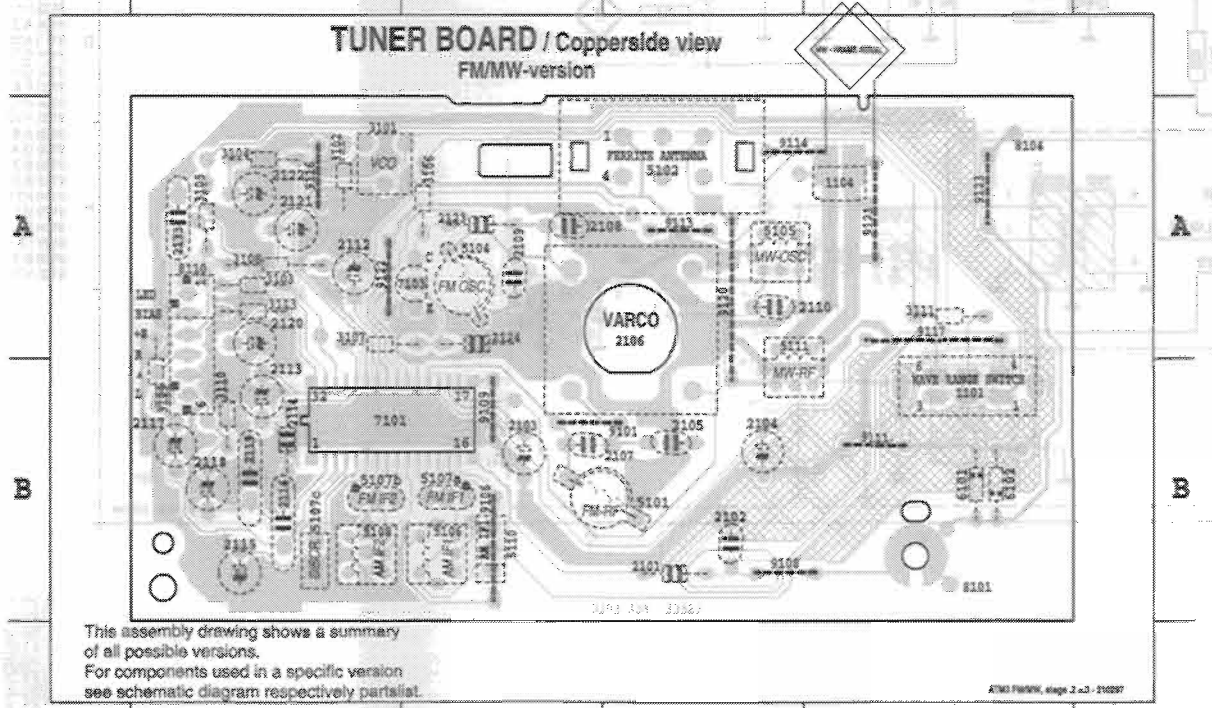
4 3 2 1



4 3 2 1

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

Waverange	Input Frequency	Input	Set tuned to	Adjust	Measure on	Scope / Counter
OSCILLATOR						
FM 87,5 - 108 MHz	87,35 MHz	A Δf = ±500kHz V_{RF} = 100µV	lower band end	5104	1 or 2	
	108,25 MHz		upper band end	2106 C1		
MW 525 - 1607 kHz (530 - 1710 kHz) 1)	512 kHz (520 kHz)	C Δf = ±30kHz V_{RF} = 100µV	lower band end	5105	1 or 2	
	1635 kHz (1730 kHz)		upper band end	2106 C3		
FM - RF						
FM 87,5 - 108 MHz	87,5 MHz	A Δf = ±500kHz V_{RF} = 10µV	87,5 MHz	5101	1 or 2	
	108 MHz		108 MHz	2106 C2		
VCO						
FM	98 MHz	A continuous wave V_{RF} = 1 mV	98 MHz	3101	3 (7101 pin 30, 2k2, 4k7, V_{CC})	152 ±1 kHz
AM - IF						
AM	468 kHz connect pin 24 of IC 7101 (AM Osc) with short wire to ground	C Δf = ±15kHz V_{RF} = 10mV	IC 7101 10, 100nF, 220R IC 7101 14, 100nF, 220R see remark 2)	5106 5108	1 or 2	symmetric
AM -RF						
MW	560 kHz	B Δf = ±30kHz V_{RF} as low as possible	560 kHz	5111	1 or 2	symmetric
	1500 kHz		1500 kHz	2106 C4		

Tuner Adj. ATM3 FM/AM 050796

repeat

1) for USA /17

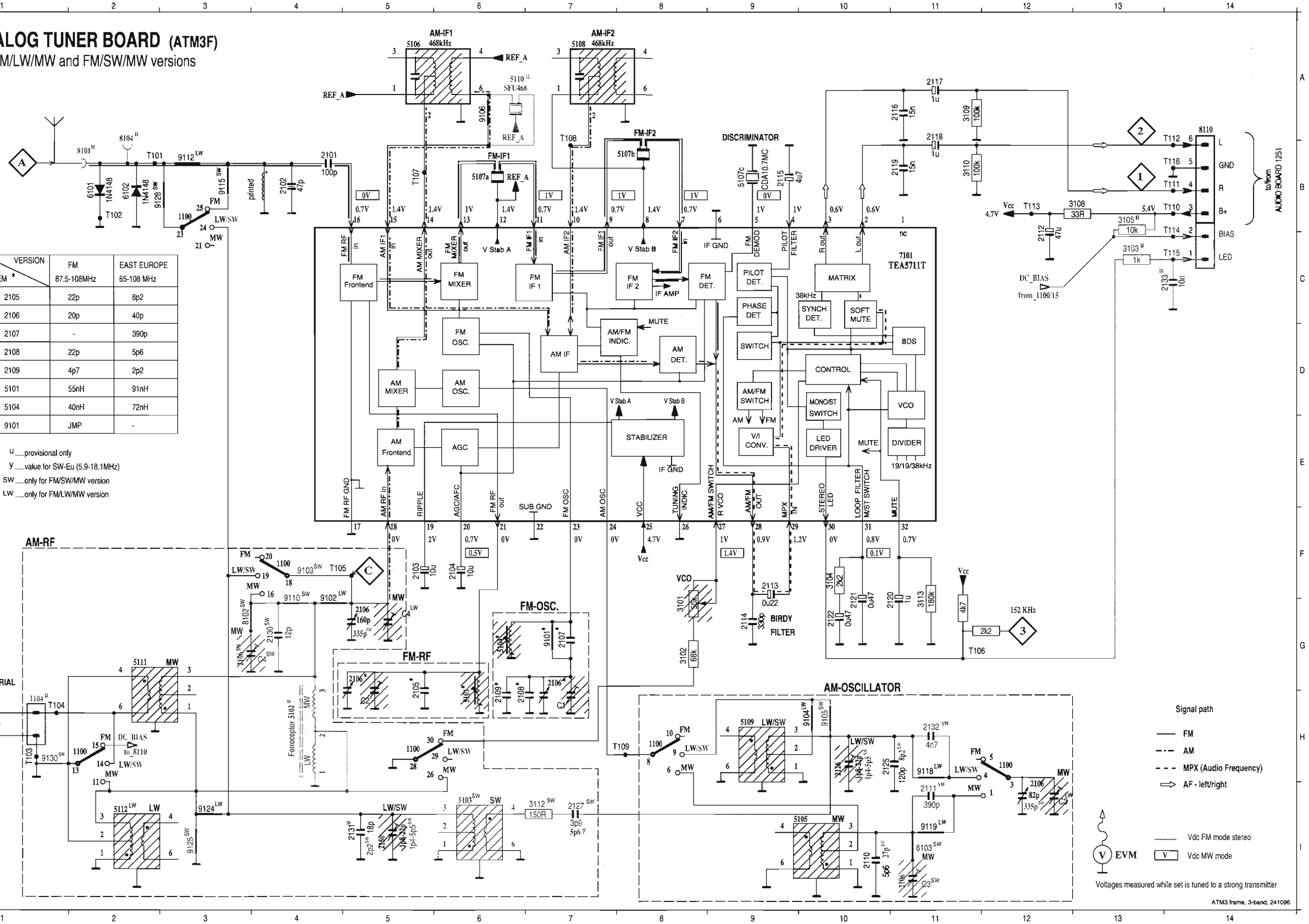
2) RC-network serves for damping the IF-filter while adjusting the other one.

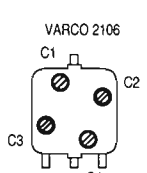
ANALOG TUNER BOARD (ATM3F)

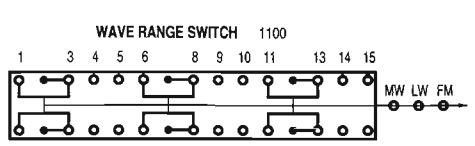
FM/LW/MW and FM/SW/MW versions

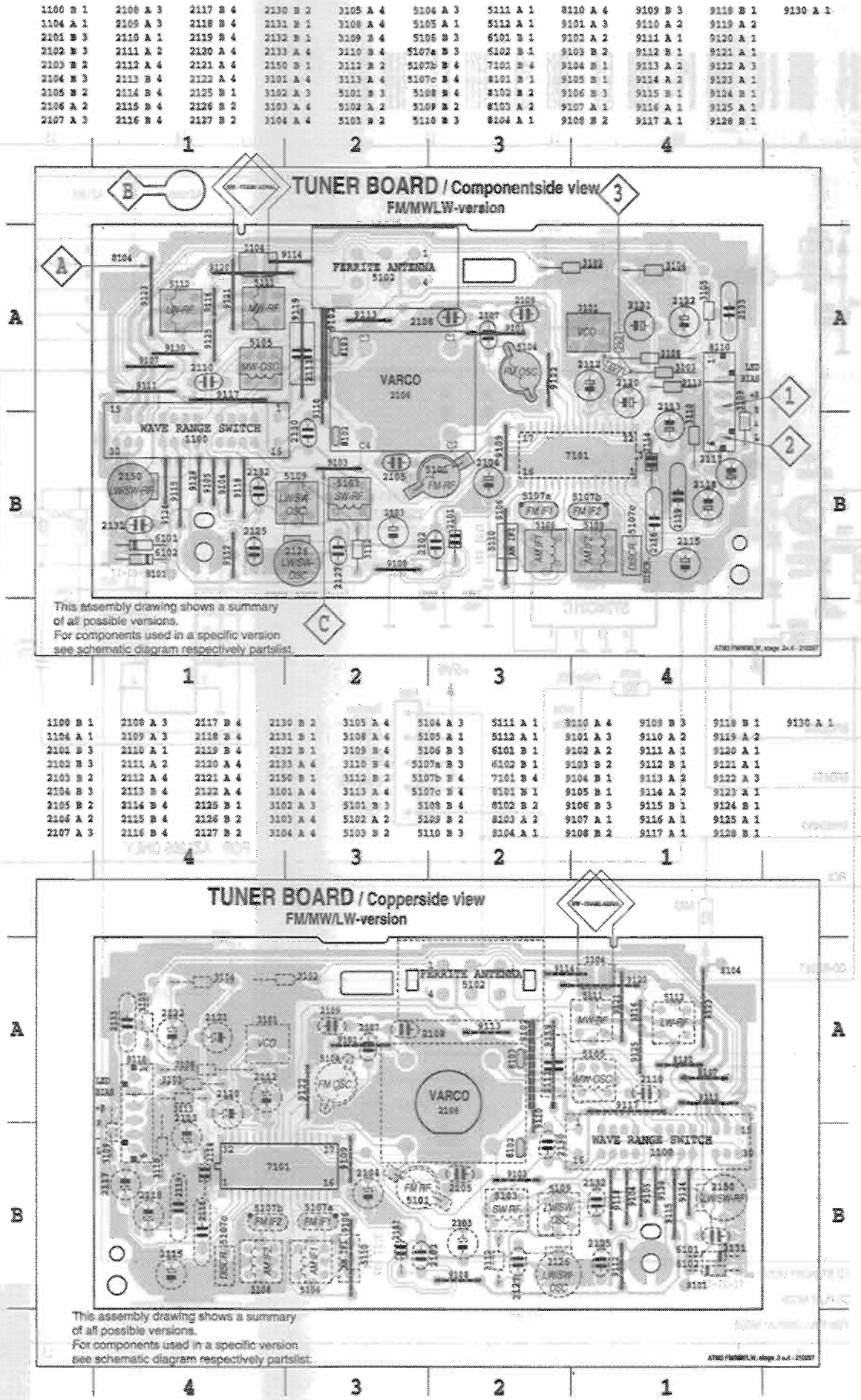
ITEM \ VERSION	FM 87.5-108MHz	EAST EUROPE 65-108 MHz
2105	22p	8p2
2106	20p	40p
2107	-	390p
2108	22p	5p6
2109	4p7	2p2
5101	55nH	91nH
5104	40nH	72nH
9101	JMP	-

u .....provisional only
y .....value for SW-Eu (5.9-18.1MHz)
SW .....only for FM/SW/MW version
LW .....only for FM/LW/MW version









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

Waverange	Input Frequency	Input	Set tuned to	Adjust	Measure on	Scope / Counter
OSCILLATOR						
FM 87,5 - 108 MHz (65 - 108 MHz) [1]	87,35 MHz (64,7 MHz)	A	lower band end	5104	1 or 2	
	108,25 MHz	Δf = ±500kHz V_{RF} = 100µV	upper band end	2106 C1		
MW 525 - 1607 kHz (530 - 1710 kHz) [2]	512 kHz (520 kHz)	C	lower band end	5105	1 or 2	
	1635 kHz (1730 kHz)	Δf = ±30kHz V_{RF} = 100µV	upper band end	2106 C3		
LW [3] 148,5 - 284 kHz	147 kHz		lower band end	5109		
	291 kHz		upper band end	2126		
FM - RF						
FM 87,5 - 108 MHz (65 - 108 MHz) [1]	87,5 MHz (65 MHz)	A	87,5 MHz (65 MHz)	5101	1 or 2	
	108 MHz	Δf = ±500kHz V_{RF} = 10µV	108 MHz	2106 C2		
VCO						
FM	98 MHz	A continuous wave V_{RF} = 1 mV	98 MHz	3101	3 (7101 pin 30, 2k2, 4k7, V_{cc})	152 ±1 kHz
AM - IF						
AM	468 kHz connect pin 24 of IC 7101 (AM Osc) with short wire to ground	C Δf = ±15kHz V_{RF} = 10mV	IC 7101 10, 220R, 100nF	5106	1 or 2	symmetric
			IC 7101 14, 220R, 100nF see remark [4]	5108		
AM -RF						
MW	560 kHz	B	560 kHz	5111	1 or 2	symmetric
	1500 kHz		1500 kHz	2106 C4		
LW [3]	170 kHz	Δf = ±30kHz V_{RF} as low as possible	170 kHz	5112		
	260 kHz		260 kHz	2150		

repeat

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

FRONT BOARD - CIRCUIT DIAGRAM

1401	A 3	1411	H 5	1417	I 6	2444	C14	2466	G 8	3402	C 8	3407	A10	3414	I 5	3443	C12	3452	B 7	3457	B 4	3462	G 3	3467	G 3	3472	H 7	3477	E 8
1402	G14	1412	H 5	2401	B 9	2445	D15	2478	E11	3403	C 9	3408	A11	3415	I 5	3444	C15	3453	B 6	3458	B 4	3463	G 4	3468	G 6	3473	F 8	3478	D10
1403	F 1	1413	I 6	2402	C 8	2446	D15	2491	D12	3404	C 9	3410	H 4	3416	I 6	3445	C15	3454	B 6	3459	B 3	3464	G 4	3469	G 6	3474	F 8	3479	D 8
1404	E12	1415	I 5	2441	D13	2464	H 3	2499	E13	3405	A 8	3411	H 5	3441	C13	3446	C15	3455	B 5	3460	D 2	3465	I 4	3470	G 7	3475	F 8	3480	D 9
1410	H 4	1416	I 5	2443	D12	2465	I 4	3401	A 9	3406	B 8	3412	H 6	3442	C13	3451	B 7	3456	B 5	3461	H 3	3466	G 3	3471	H 7	3476	E 8	3481	E 2

3482	F 2	3492	C11	6402	C 9	7403	A10	9496	I 7
3483	F10	3493	C10	6403	D 9	7441	C12	9497	F13
3484	H 4	5401	C 8	6404	C 9	7491	D11	9499	H13
3485	I 4	5402	A 9	7401	E 5	7813	D14		
3491	C12	5403	A10	7402	C 9	9421	H13		

MODEL NO. / * ITEM NO.	AZ1200	AZ1205
9496	✓	X
9497	✓	X
9421	✓	X
9499	✓	X
3483	✓	✓

ALL CARBON RESISTORS E12 SERIES
0.25W '5% UNLESS OTHERWISE STATED.

ALL TUBULAR CERAMIC CAPACITORS
UNLESS OTHERWISE STATED.

ELECTROLYTIC CAPACITOR

---V CD STANDBY MODE

---V CD PLAY MODE

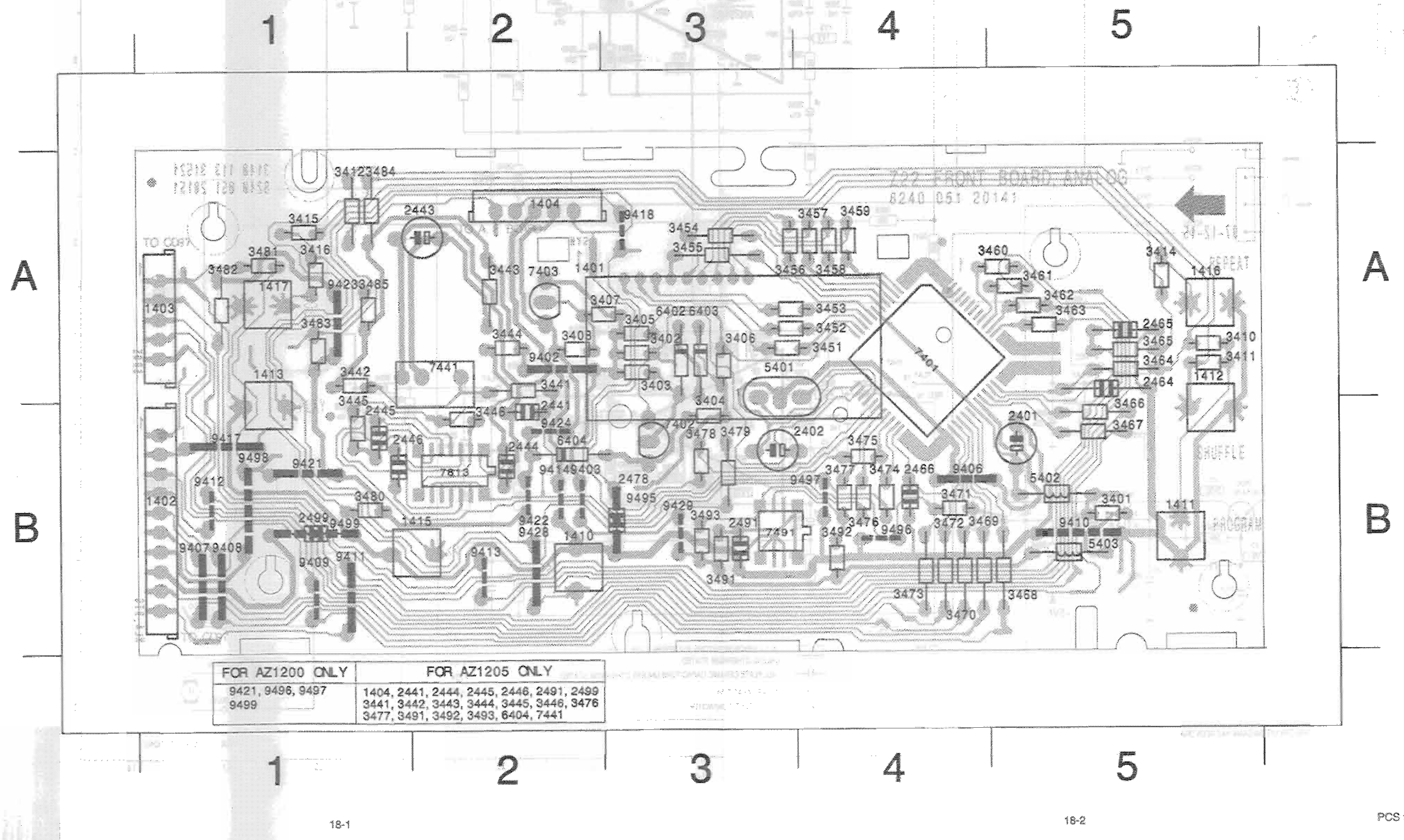
---V FSM FULL DISPLAY MODE

d = 10V
G = 50V

SUBJECT TO MODIFICATIONS.

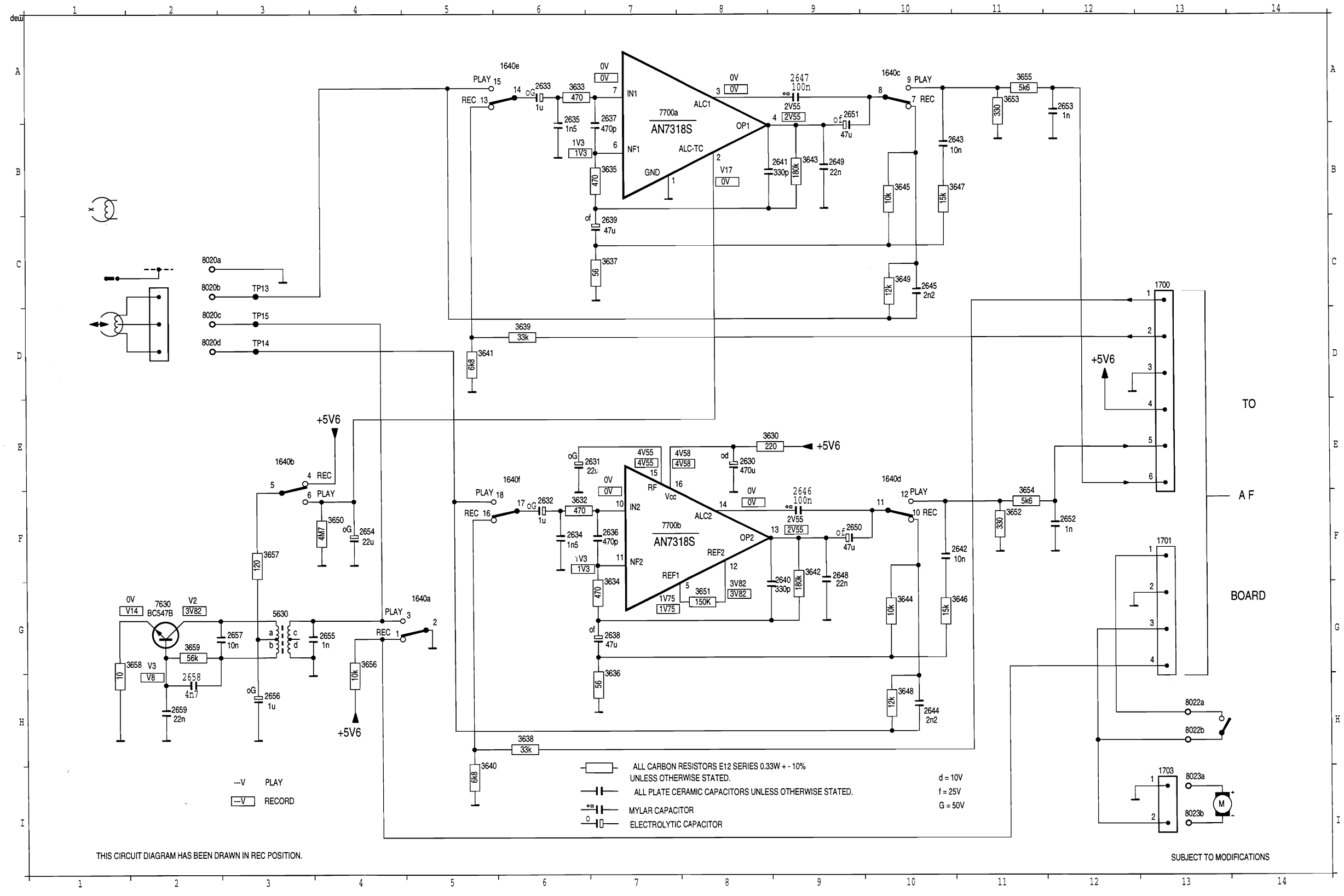
FRONT BOARD - LAYOUT DIAGRAM

1401 A 3	1416 A 5	2464 A 5	3404 B 3	3415 A 1	3452 A 3	3461 A 5	3470 B 4	3479 B 3	3493 B 3	7403 A 2	9409 B 1	9422 B 2	9499 B 1
1402 B 1	1417 A 1	2465 A 5	3405 A 3	3416 A 1	3453 A 3	3462 A 5	3471 B 4	3480 B 1	5401 A 3	7441 A 2	9410 B 5	9423 A 1	
1403 A 1	2401 B 5	2466 B 4	3406 A 3	3441 A 2	3454 A 3	3463 A 5	3472 B 4	3481 A 1	5402 B 5	7491 B 3	9411 B 1	9424 B 2	
1404 A 2	2402 B 3	2478 B 3	3407 A 3	3442 A 1	3455 A 3	3464 A 5	3473 B 4	3482 A 1	5403 B 5	7813 B 2	9412 B 1	9428 B 2	
1410 B 2	2441 B 2	2491 B 3	3408 A 2	3443 A 2	3456 A 3	3465 A 5	3474 B 4	3483 A 1	6402 A 3	9402 A 2	9413 B 2	9429 B 3	
1411 B 5	2443 A 2	2499 B 1	3410 A 5	3444 A 2	3457 A 4	3466 B 5	3475 B 4	3484 A 1	6403 A 3	9403 B 2	9414 B 2	9495 B 3	
1412 B 5	2444 B 2	3401 B 5	3411 A 5	3445 B 1	3458 A 4	3467 B 5	3476 B 4	3485 A 1	6404 B 2	9406 B 4	9417 B 1	9496 B 4	
1413 B 1	2445 B 1	3402 A 3	3412 A 1	3446 B 2	3459 A 4	3468 B 5	3477 B 4	3491 B 3	7401 A 4	9407 B 1	9418 A 3	9497 B 4	
1415 B 2	2446 B 1	3403 A 3	3414 A 5	3451 A 3	3460 A 5	3469 B 4	3478 B 3	3492 B 4	7402 B 3	9408 B 1	9421 B 1	9498 B 1	

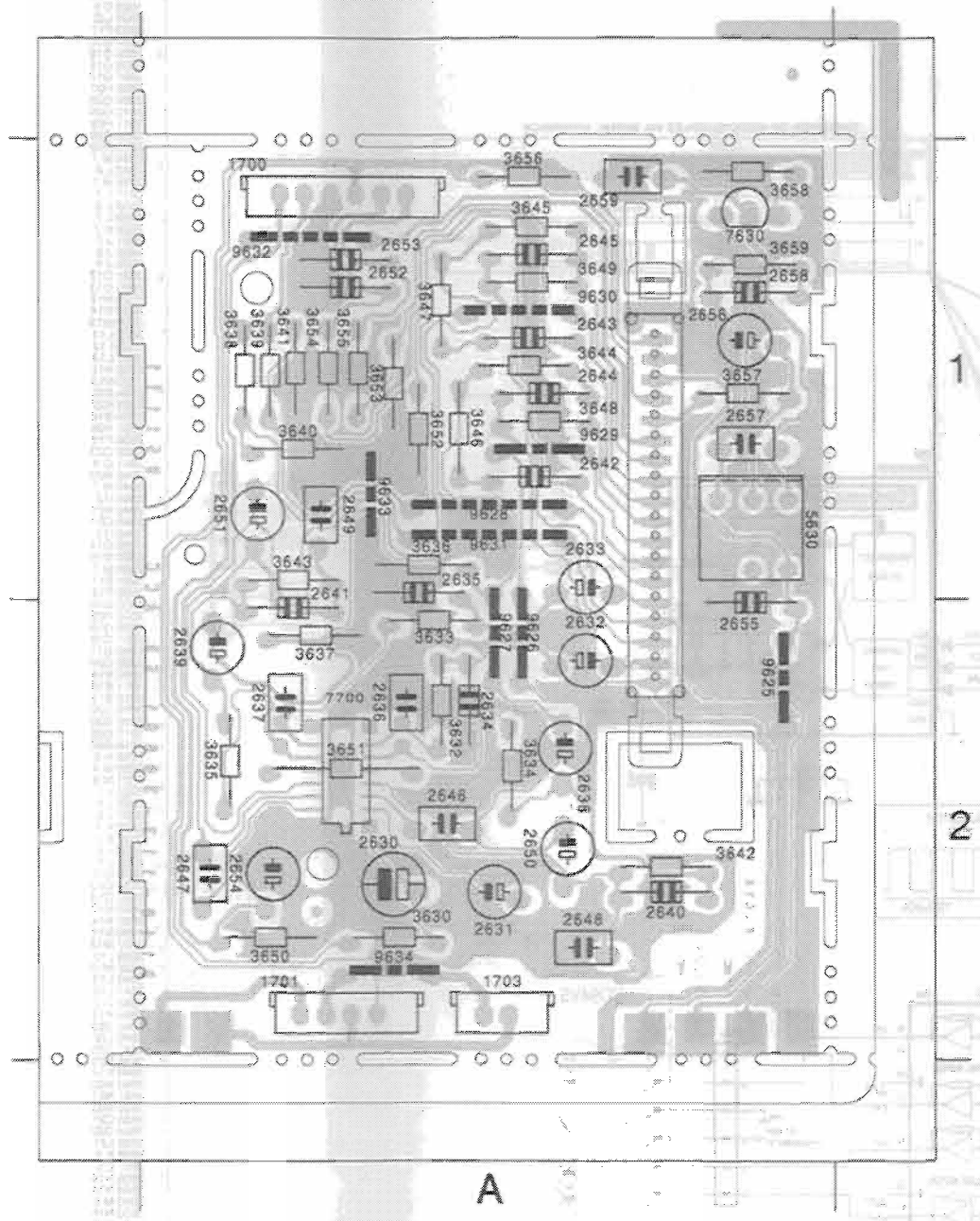


FOR AZ1200 ONLY	FOR AZ1205 ONLY
9421, 9496, 9497 9499	1404, 2441, 2444, 2445, 2446, 2491, 2499 3441, 3442, 3443, 3444, 3445, 3446, 3476 3477, 3491, 3492, 3493, 6404, 7441

TAPE DECK BOARD - CIRCUIT DIAGRAM



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.

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

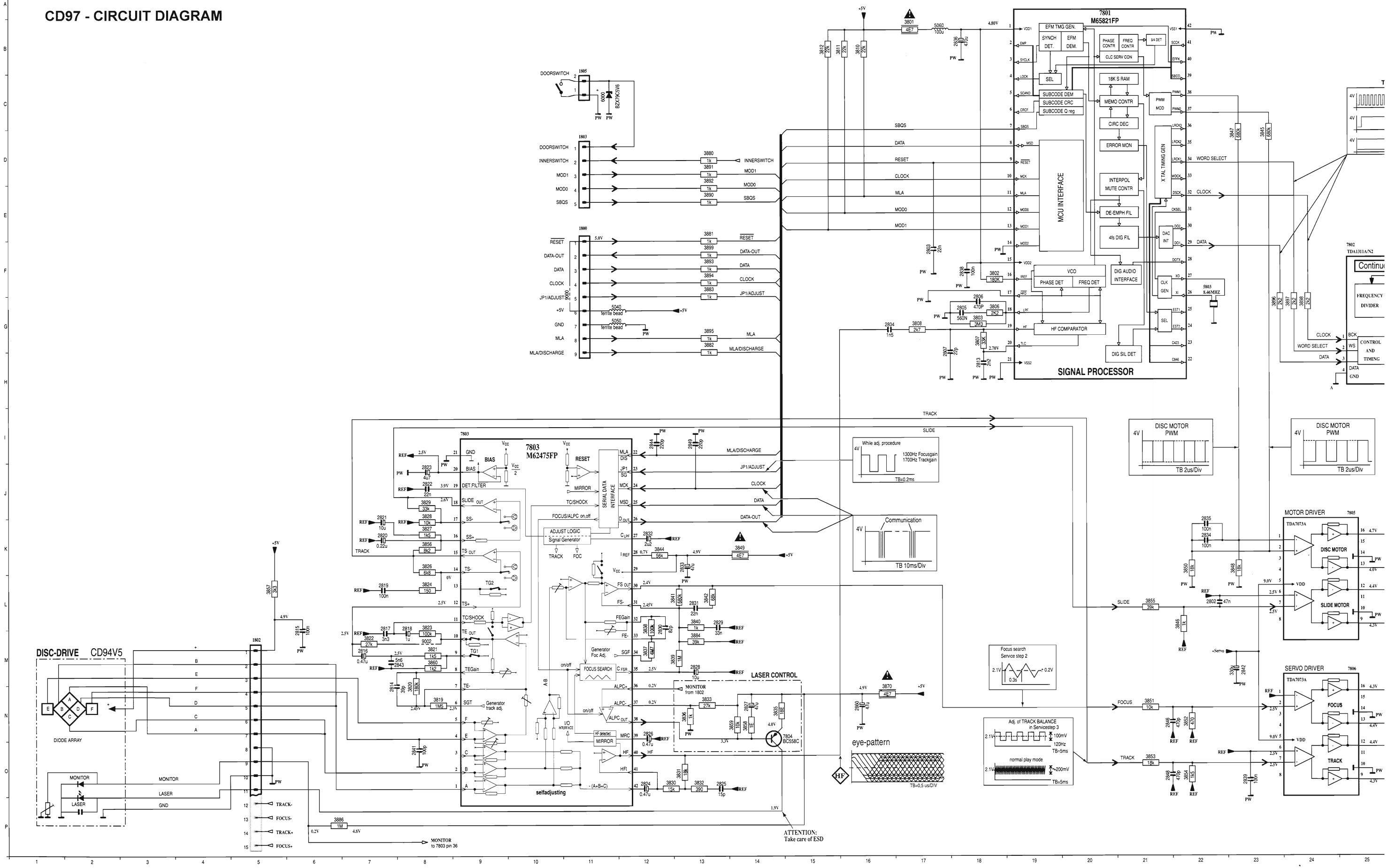
**a The maximum permissible speed deviation is ± 3%.
Morever, the wow and flutter value can be read.

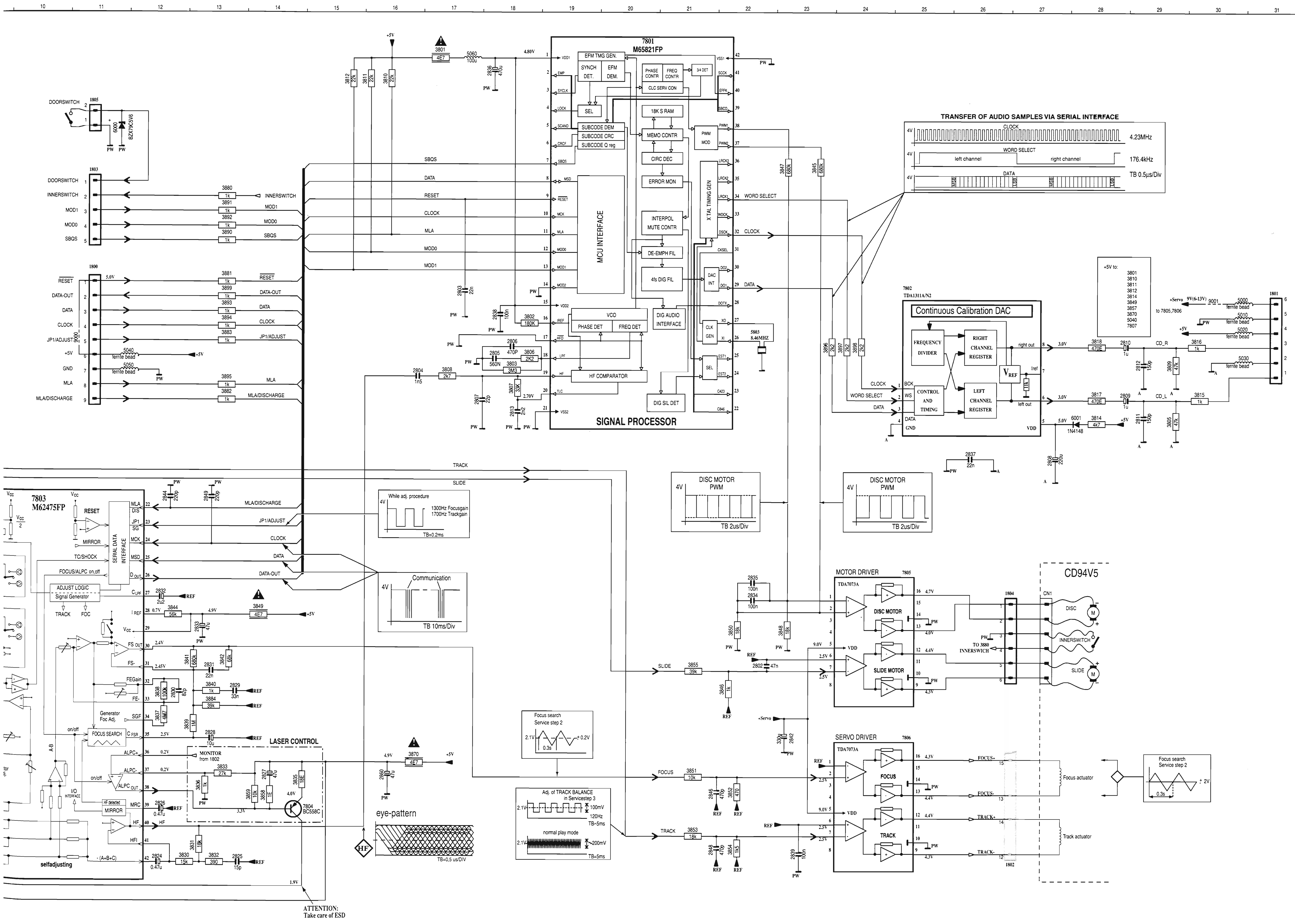
1

2

PAD4 A 2
PAD5 A 2
PAD6 A 2

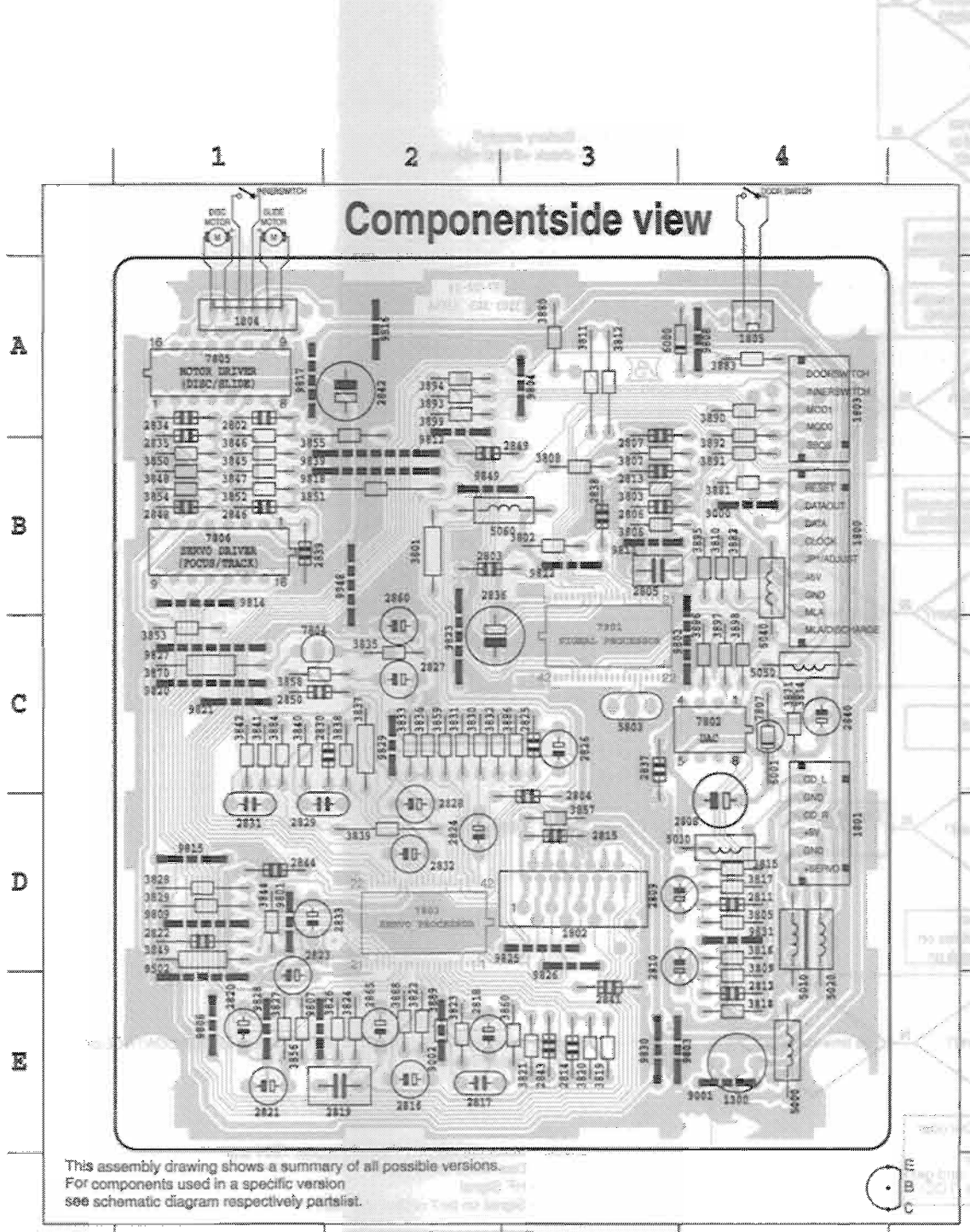
CD97 - CIRCUIT DIAGRAM



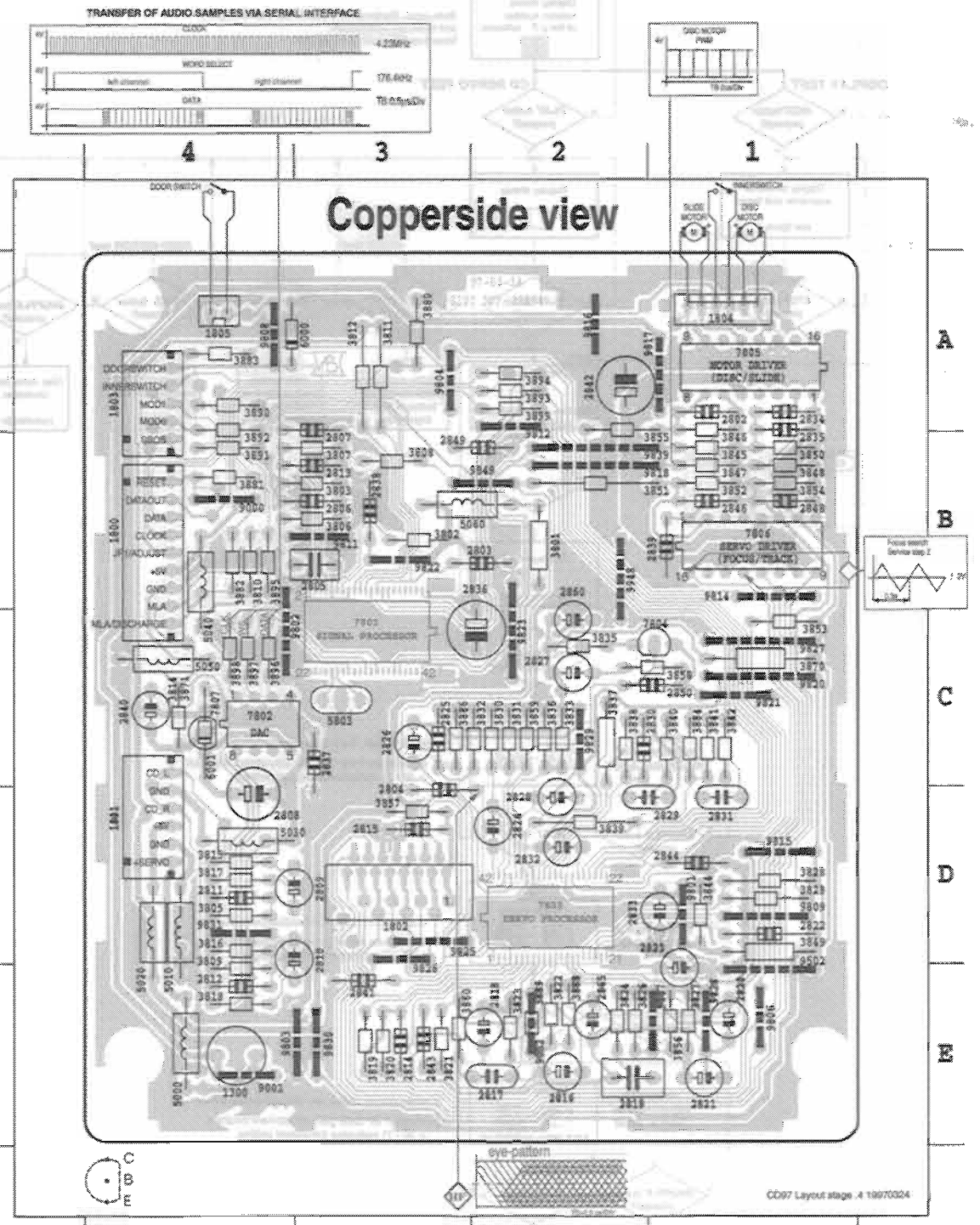


1300	E29
1800	E11
1801	F31
1802	Q 5
1803	D11
1804	K26
1805	D 8
2802	L22
2803	F17
2804	G16
2805	G18
2806	G18
2807	G17
2808	H27
2809	G28
2810	G28
2811	H29
2812	G29
2813	H18
2814	M 7
2815	L 6
2816	M 7
2817	L 7
2818	L 8
2819	L 7
2820	K 7
2821	J 7
2822	J 8
2823	J 8
2824	O12
2825	O13
2826	N12
2827	N14
2828	M13
2829	L13
2830	L12
2831	L13
2832	K12
2833	K13
2834	K22
2835	K22
2836	B18
2837	H26
2838	F18
2839	O23
2841	O 8
2842	M23
2843	M 7
2844	I12
2846	N21
2848	O21
2849	I13
2850	O14
2860	N16
2865	M 7
3801	B17
3802	F18
3803	G18
3805	H29
3806	G18
3807	G18
3808	G17
3809	G29
3810	B16
3811	B16
3812	B15
3815	G30
3816	G30
3817	G28
3818	G28
3819	N 8
3820	M 8
3821	M 8
3822	L 7
3823	L 8
3824	L 8
3826	K 8
3827	K 8
3828	J 8
3829	J 8
3830	O12
3831	O13
3832	O13
3833	N13
3835	N14
3836	N13
3837	M12
3838	L12
3839	M13
3840	L13
3841	L13
3842	L13
3844	K12
3845	D23
3846	L22
3847	D23
3848	K23
3849	K14
3850	M22
3851	N21
3852	N22
3853	O21
3854	O22
3855	L21
3856	K 8
3857	L 5
3858	N14
3859	N14
3860	M 8
3870	N16
3871	H28
3880	D13
3881	E13
3882	G13
3883	F13
3884	M13
3886	P 6
3888	M 8
3889	L 8
3890	E13
3891	D13
3892	D13
3893	F13
3894	F13
3895	G13
3896	G23
3897	G24
3898	G24
3899	F13
5000	F30
5010	F30
5020	F30
5030	G30
5040	G11
5050	G11
5060	A18
5803	F22
6000	E11
6001	H28
7801	A19
7802	F25
7803	I 9
7804	N14
7805	J25
7806	M25
9000	F10
9001	F29
9002	M 8

CD97 - LAYOUT DIAGRAM



1300	E 4	3807	B 3	3891	B 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	E 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		



CD - SERVICE TESTPROGRAM

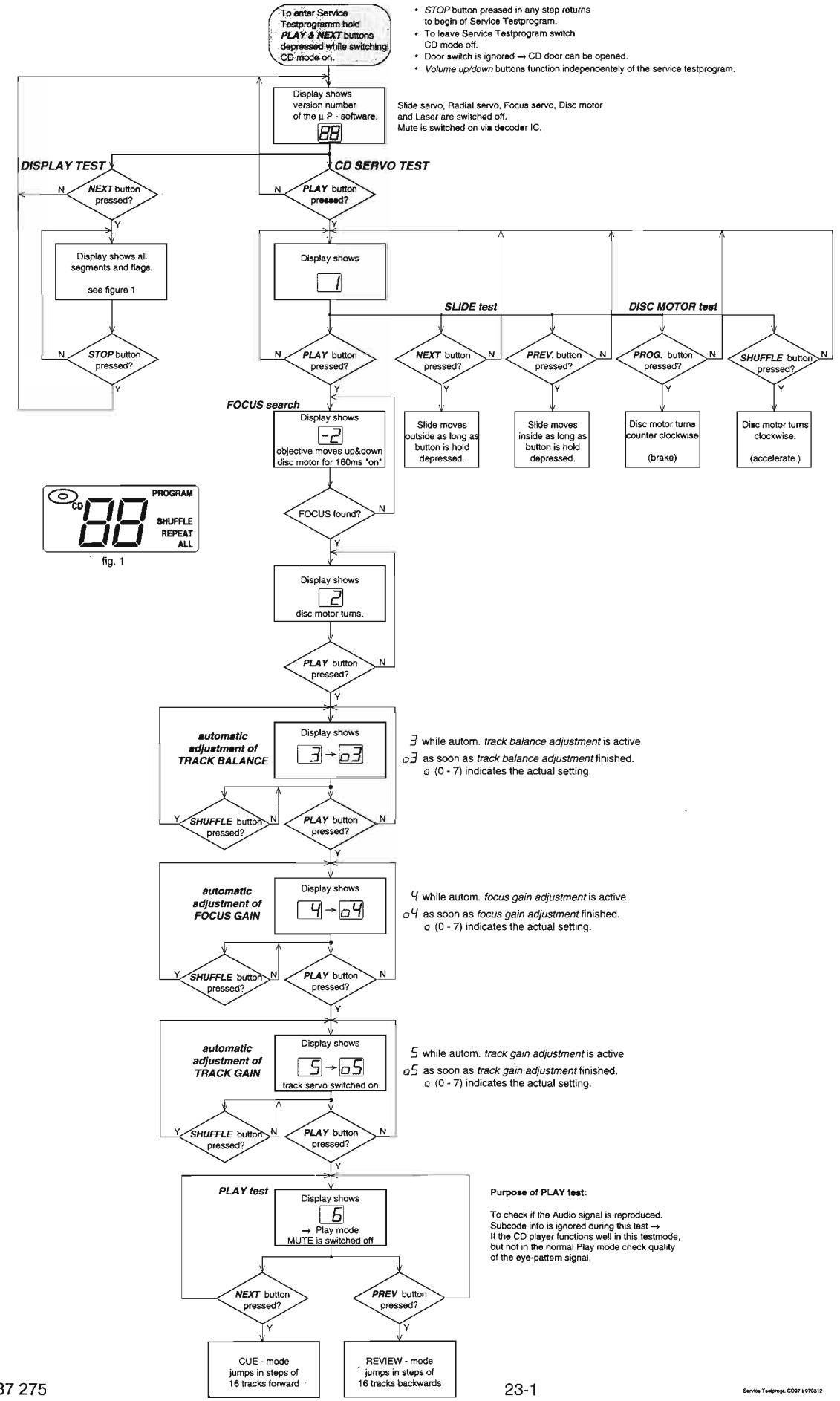
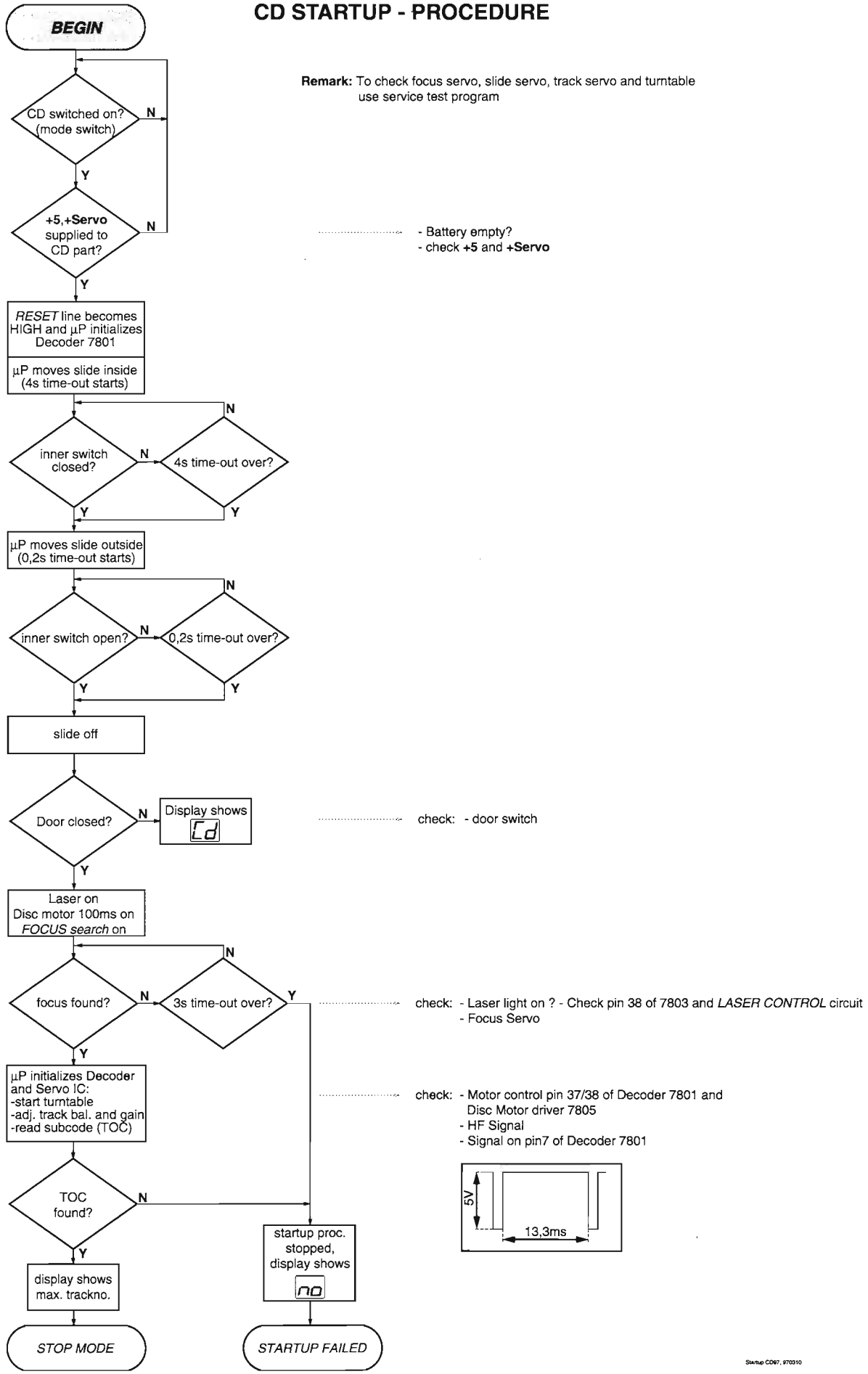


fig. 1

CD STARTUP - PROCEDURE

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



Abbreviations and Pin-descriptions of CD ICs

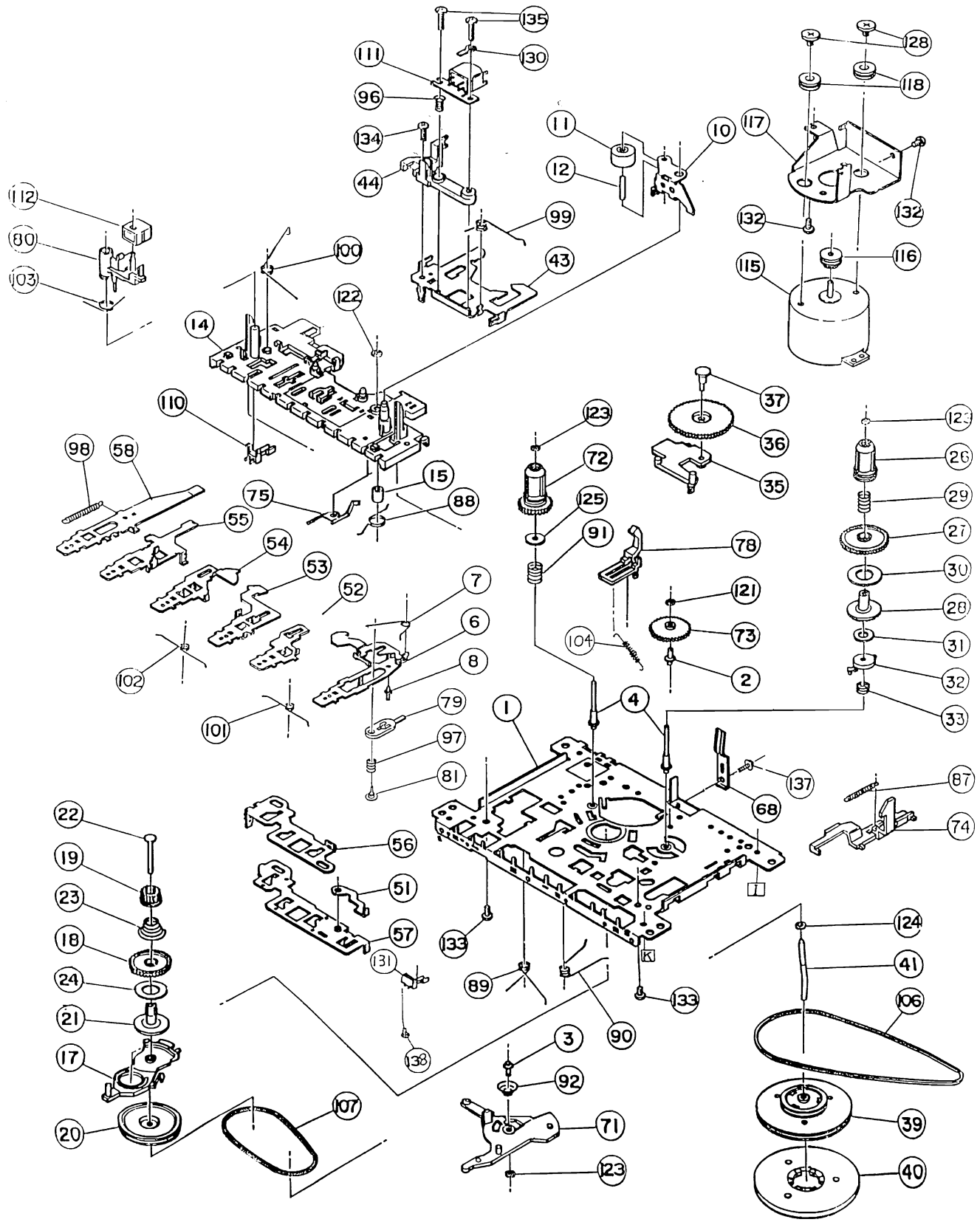
SERVO PROCESSOR M62475FP

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 04986	Front Panel
402	4822 381 10515	Front Panel Lens (AZ1200)
402	4822 381 11981	Front Panel Lens (AZ1205/17)
403	4822 450 10517	Window LCD
404	4822 450 10516	Cassette Door Lens (AZ1200/00/14)
404	4822 450 10525	Cassette Door Lens (AZ1200/17)
404	4822 450 10521	Cassette Door Lens (AZ1205/17)
406	4822 443 10964	Cassette Door
407	4822 492 42709	Spring Door
408	4822 459 04987	Front Cabinet Assy
411	4822 410 11845	Button Set Play
413	4822 402 11066	LCD Bracket (DIG)
414	4822 410 11239	Cassette Knob
416	4822 492 11061	Spring Recording
417	4822 402 10126	Lever Recording
418	4822 410 11844	Button Set Shuffle
422	4822 402 10784	Sound Box Bracket
428	4822 529 10387	Damper Rubber (40 DEG)
429	4822 410 11124	Knob DBB
432	4822 410 11590	Knob Mode
434	4822 402 10723	Lever Eject
436	4822 492 11058	Spring Eject
437	4822 418 10349	Tray CD (AZ1200/00) (AZ1205/17)
437	4822 418 10353	Tray CD (AZ1200/14)
437	4822 418 10352	Tray CD (AZ1200/17)
438	4822 410 11132	Knob Volume (AZ1200)
438	4822 410 11383	Knob Volume (AZ1205)
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 10294	Frame Tuning
448	4822 492 40854	Torsion Spring
449	4822 528 40208	Drum
451	4822 528 80907	Pulley Pom
452	4822 528 10322	Pointer
453	4822 529 10386	Damper Rubber (30 DEG)
454	4822 691 10654	CD Drive
456	4822 529 10322	Damper Assy
457	4822 402 10363	Tuning Lens (For -/00)
457	4822 402 11982	Tuning Lens (For -/14)
457	4822 402 10359	Tuning Lens (For -/17)
458	4822 402 11126	Tuning Knob
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 10355	RC0786/04 (AZ1205 only)
	4822 321 10249	Mains Cord (For -/00/14)
	4822 321 10882	Mains Cord (For -/17)
	4822 736 16131	Instr Manual (For -/00)
	4822 736 16135	Instr Manual (For -/14)
	4822 736 16132	Instr Manual (For -/14)

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

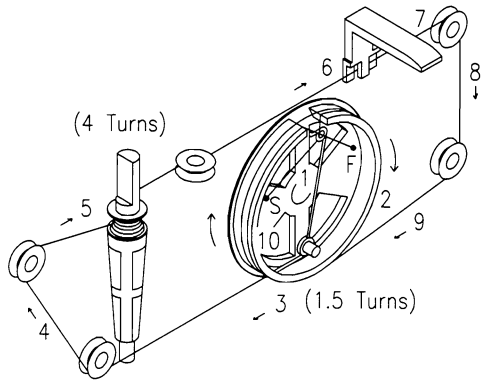
EXPLODED VIEW DIAGRAM - TAPE DECK

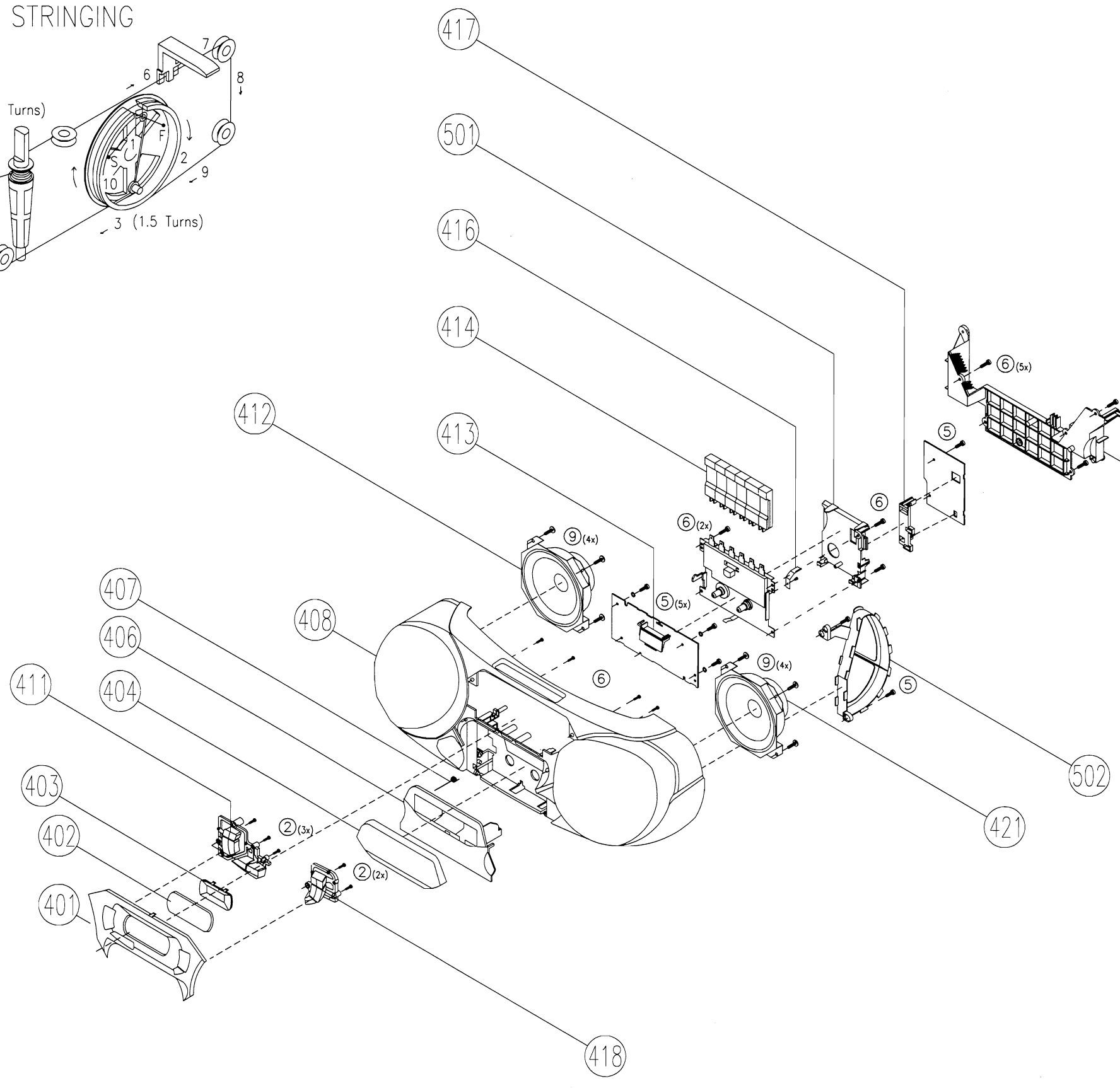
10	4822 528 70849	Pinch Roller Arm (B)
11	4822 528 70695	Pinch Roller Assy
74	4822 403 70968	Eject Hook (A)
106	4822 358 31325	Main Belt 45.2 x 1.2
107	4822 358 31124	Sub Belt 44.7 x 1.2
110	4822 278 90721	Leaf Switch
111	4822 249 30218	MS18R-AKONI
112	4822 249 40306	E. Head
115	4822 361 21656	Motor EG-530AD-9B
116	4822 528 81497	Motor Pulley
	4822 691 10612	Tape Deck Mechanism

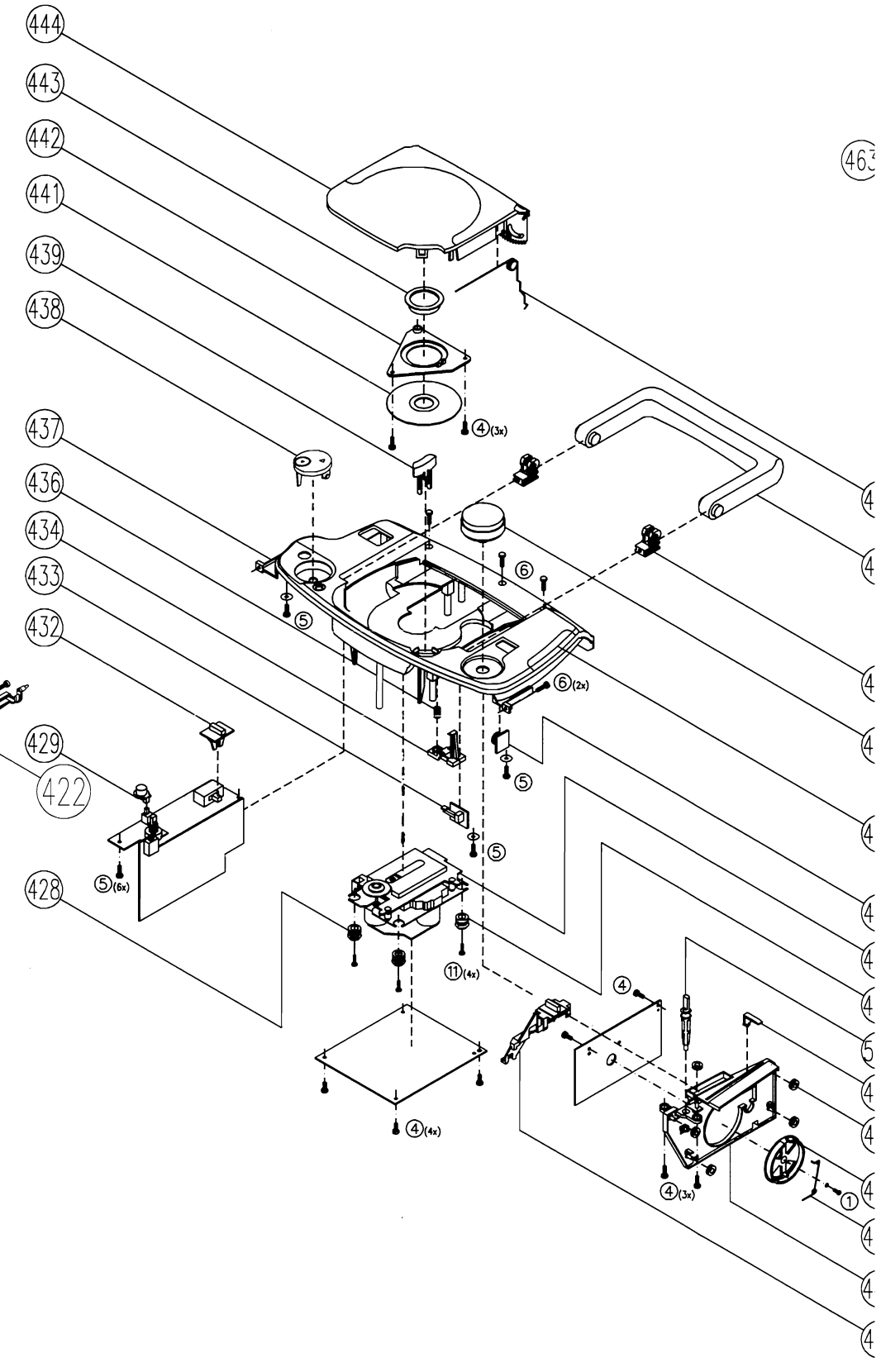
Note : Only those parts mentioned in the list are normal service parts.

EXPLODED VIEW DIAGRAM - CABINET

DIAL STRINGING





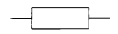


SCREW LIST :

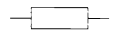
①	M 2.6x6
②	Torx 2x8
③	Torx 2.5x10
④	Torx 3x8
⑤	Torx 3x10
⑥	Torx 3x12
⑦	Torx 3x25
⑧	Torx P/W 3x10
⑨	Torx P/W 3x12
⑩	Torx P/W 3x16
⑪	Plus P/W 2.6x10

AZ 1205 only

AUDIO BOARD



3254		4822 116 83883	470R	5%	0.5W
3255		4822 116 83883	470R	5%	0.5W
3256	*	4822 052 10478	4R7	5%	0.33W
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 83872	220R	5%	0.5W
3302	#	4822 116 52206	120R	5%	0.5W
3303	*	4822 116 83872	220R	5%	0.5W
3303	#	4822 116 52206	120R	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	33E	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
3405		4822 116 83864	10K	5%	0.5W
3406		4822 116 83864	10K	5%	0.5W
3407		4822 116 83864	10K	5%	0.5W
3411	*	4822 116 52244	15K	5%	0.5W
3416	*	4822 116 52304	82K	5%	0.5W
3516	*	4822 116 52269	3K3	5%	0.5W
3516	#	4822 116 52256	2K2	5%	0.5W
3517	*	4822 116 52269	3K3	5%	0.5W
3517	#	4822 116 52256	2K2	5%	0.5W
3518	*	4822 116 52235	1M	5%	0.5W
3518	#	4822 116 52234	100K	5%	0.5W
3519	*	4822 116 52235	1M	5%	0.5W
3519	#	4822 116 52234	100K	5%	0.5W
3520	#	4822 116 52257	22K	5%	0.5W
3521	#	4822 116 52257	22K	5%	0.5W
3522	*	4822 102 10447	50K	BX2	
3522	#	4822 116 52238	12K	5%	0.5W
3523	#	4822 116 52238	12K	5%	0.5W
3529	*	4822 116 52238	12K	5%	0.5W
3529	#	4822 116 83864	10K	5%	0.5W
3530	*	4822 116 52238	12K	5%	0.5W
3530	#	4822 116 83864	10K	5%	0.5W
3531	*	4822 116 52303	8K2	5%	0.5W
3532	#	4822 116 52303	8K2	5%	0.5W
3576		4822 116 83883	470R	5%	0.5W

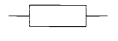


3577		4822 116 83883	470R	5%	0.5W
3578	*	4822 116 52244	15K	5%	0.5W
3578	#	4822 116 52263	2K7	5%	0.5W
3579	*	4822 116 52244	15K	5%	0.5W
3579	#	4822 116 52263	2K7	5%	0.5W
3580	*	4822 116 83872	220R	5%	0.5W
3580	#	4822 116 52175	100R	5%	0.5W
3582	*	4822 116 52305	820K	5%	0.5W
3582	#	4822 116 52298	680K	5%	0.5W
3583	*	4822 116 52305	820K	5%	0.5W
3583	#	4822 116 52298	680K	5%	0.5W
3584	*	4822 116 52243	1K5	5%	0.5W
3584	#	4822 116 52283	4K7	5%	0.5W
3585	*	4822 116 52243	1K5	5%	0.5W
3585	#	4822 116 52283	4K7	5%	0.5W
3586		4822 116 52228	680R	5%	0.5W
3587		4822 116 52228	680R	5%	0.5W
3588	*	4822 116 52257	22K	5%	0.5W
3589	*	4822 116 52257	22K	5%	0.5W
3590	*	4822 116 52297	68K	5%	0.5W
3590	#	4822 116 52175	100R	5%	0.5W
3591	*	4822 116 52297	68K	5%	0.5W
3591	#	4822 116 52175	100R	5%	0.5W
3595	*	4822 116 83864	10K	5%	0.5W
3595	#	4822 116 52264	27K	5%	0.5W
3596	*	4822 116 83864	10K	5%	0.5W
3596	#	4822 116 52264	27K	5%	0.5W
3597	*	4822 116 52238	12K	5%	0.5W
3597	#	4822 116 52256	2K2	5%	0.5W
3598	*	4822 116 52238	12K	5%	0.5W
3598	#	4822 116 52256	2K2	5%	0.5W
3599	*	4822 116 52283	4K7	5%	0.5W
3600	#	4822 116 52283	4K7	5%	0.5W
3610		4822 116 83864	10K	5%	0.5W
3611		4822 116 83864	10K	5%	0.5W
3612	#	4822 116 83883	470R	5%	0.5W
3613	#	4822 116 83883	470R	5%	0.5W
3614	#	4822 116 52297	68K	5%	0.5W
3620	#	4822 116 52175	100R	5%	0.5W
3621		4822 116 52175	100R	5%	0.5W
3660		4822 116 52244	15K	5%	0.5W
3661		4822 116 52244	15K	5%	0.5W
3662	*	4822 116 52244	15K	5%	0.5W
3662	#	4822 116 52269	3K3	5%	0.5W
3663	*	4822 116 52244	15K	5%	0.5W

AUDIO BOARD

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 40433	47µF	20%	25V
2255		4822 124 40433	47µF	20%	25V
2256		4822 124 42446	100µF	20%	10V
2257		4822 124 42446	100µF	20%	10V
2258		5322 122 32052	680pF	10%	100V
2259		5322 122 32052	680pF	10%	100V
2260	*	4822 124 40242	1µF	20%	63V
2260	#	4822 124 40246	4.7µF	20%	63V
2261	*	4822 124 40242	1µF	20%	63V
2261	#	4822 124 40246	4.7µF	20%	63V
2262		4822 124 80144	220µF	20%	25V
2263	*	4822 124 12011	470µF	20%	16V
2263	#	4822 124 11909	470µF	20%	25V
2264	#	4822 126 13581	0.22µF	20%	50V
2265	#	4822 126 13581	0.22µF	20%	50V
2266	#	5322 121 42386	100nF	5%	63V
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 12068	220µF	20%	10V
2310	*	4822 124 41576	2.2µF	20%	50V
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	
2406	*	4822 124 81151	22µF	50V	
2407	*	4822 126 11714	4.7nF	20%	
2516	*	4822 121 10684	68nF	10%	50V
2517	*	4822 121 10684	68nF	10%	50V
2518		4822 126 12878	1.5nF	10%	16V
2519		4822 126 12878	1.5nF	10%	16V
2564		4822 124 42446	100µF	20%	10V
2565	*	4822 124 40246	4.7µF	20%	63V

2565	#	4822 124 22726	4.7µF		35V
2566	*	4822 124 40246	4.7µF	20%	63V
2566	#	4822 124 22726	4.7µF		35V
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
2573		4822 121 43897	1nF	5%	400V
2574		4822 121 43897	1nF	5%	400V
2577		4822 122 33197	1nF	10%	50V
2578		4822 122 33197	1nF	10%	50V
2579	*	5322 121 42386	100nF	5%	63V
2579	#	4822 122 33197	1nF	10%	50V
2580	*	5322 121 42386	100nF	5%	63V
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
2588	#	4822 124 40433	47µF	20%	25V
2589	#	4822 126 12785	47nF	Y5V	50V
2590	#	4822 126 12785	47nF	Y5V	50V
2591	#	4822 122 33197	1nF	10%	50V
2592	#	4822 122 33197	1nF	10%	50V
2594	#	4822 122 33195	100pF	10%	50V
2595	#	4822 122 33197	1nF	10%	50V
2596	#	4822 121 51387	10nF	20%	16V



3249	#	4822 052 10478	4R7	5%	0.33W
3250		4822 052 10478	4R7	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

AUDIO BOARD

3663	#	4822 116 5226	
3664	#	4822 116 8388	
3665	#	4822 116 8388	
3666	#	4822 116 5217	
3667	#	4822 116 5217	
3668	#	4822 116 8388	
3669	#	4822 116 8388	
3670	#	4822 116 8388	
3671	#	4822 116 8388	
3672	#	4822 116 5225	
3673	#	4822 116 5225	
3674	#	4822 116 5222	
3675	#	4822 116 5222	
3676	#	4822 116 8388	
3677	#	4822 116 5224	
3678	#	4822 116 5224	
3679	#	4822 116 5223	
3680	#	4822 116 5227	
3681	#	4822 116 5227	
3684	#	4822 116 5227	
3685	#	4822 116 5227	
3686	#	4822 116 5222	

5503	*	4822 157 5119	

6300		4822 130 3187	
6301		4822 130 3187	
6302		4822 130 3187	
6303		4822 130 3187	
6304		5322 130 3150	
6305		4822 130 3062	
6306	#	4822 130 3062	
6402		4822 130 3062	
6402		4822 130 3062	
6403		4822 130 3062	
6404		4822 130 3062	
6405	*	4822 130 3062	

AUDIO BOARD

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 40433	47µF	20%	25V
2255		4822 124 40433	47µF	20%	25V
2256		4822 124 42446	100µF	20%	10V
2257		4822 124 42446	100µF	20%	10V
2258		5322 122 32052	680pF	10%	100V
2259		5322 122 32052	680pF	10%	100V
2260	*	4822 124 40242	1µF	20%	63V
2260	#	4822 124 40246	4.7µF	20%	63V
2261	*	4822 124 40242	1µF	20%	63V
2261	#	4822 124 40246	4.7µF	20%	63V
2262		4822 124 80144	220µF	20%	25V
2263	*	4822 124 12011	470µF	20%	16V
2263	#	4822 124 11909	470µF	20%	25V
2264	#	4822 126 13581	0.22µF	20%	50V
2265	#	4822 126 13581	0.22µF	20%	50V
2266	#	5322 121 42386	100nF	5%	63V
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 12068	220µF	20%	10V
2310	*	4822 124 41576	2.2µF	20%	50V
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	
2406	*	4822 124 81151	22µF	50V	
2407	*	4822 126 11714	4.7nF	20%	
2516	*	4822 121 10684	68nF	10%	50V
2517	*	4822 121 10684	68nF	10%	50V
2518		4822 126 12878	1.5nF	10%	16V
2519		4822 126 12878	1.5nF	10%	16V
2564		4822 124 42446	100µF	20%	10V
2565	*	4822 124 40246	4.7µF	20%	63V

2565	#	4822 124 22726	4.7µF		35V
2566	*	4822 124 40246	4.7µF	20%	63V
2566	#	4822 124 22726	4.7µF		35V
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
2573		4822 121 43897	1nF	5%	400V
2574		4822 121 43897	1nF	5%	400V
2577		4822 122 33197	1nF	10%	50V
2578		4822 122 33197	1nF	10%	50V
2579	*	5322 121 42386	100nF	5%	63V
2579	#	4822 122 33197	1nF	10%	50V
2580	*	5322 121 42386	100nF	5%	63V
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
2588	#	4822 124 40433	47µF	20%	25V
2589	#	4822 126 12785	47nF	Y5V	50V
2590	#	4822 126 12785	47nF	Y5V	50V
2591	#	4822 122 33197	1nF	10%	50V
2592	#	4822 122 33197	1nF	10%	50V
2594	#	4822 122 33195	100pF	10%	50V
2595	#	4822 122 33197	1nF	10%	50V
2596	#	4822 121 51387	10nF	20%	16V

3249	#	4822 052 10478	4R7	5%	0.33W
3250		4822 052 10478	4R7	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

AUDIO BOARD

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
3681	#	4822 116 52276	3K9	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

5503	*	4822 157 51195	Coil	1µH	20%

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
6405	*	4822 130 30621	Diode 1N4148

7250		4822 130 42231	Trans BC557C
7251		4822 130 41327	Trans BC327-40
7252		4822 130 44503	Trans BC557C
7253		4822 130 42231	Trans BC557C
7254		4822 130 41327	Trans BC327-40
7300		4822 209 31544	IC TA8227P
7400		5322 130 44779	Trans BC327-40
7401		5322 130 44779	Trans BC327-40
7415		4822 130 44503	Trans BC547C
7513		4822 130 44503	Trans BC547C
7514		4822 130 44503	Trans BC557C
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 -

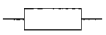
1006		4822 146 10822	Loudspeaker 6W
1007		4822 146 10822	Loudspeaker 6W
1008	⚠	4822 146 10825	Transf (For -/00/14)
1008	⚠	4822 146 10822	Transf (For -/17)
1257		4822 267 31468	Headphone Socket
1257		4822 267 31468	Headphone Socket
1302	⚠	4822 070 32002	Fuse 2A (Not for -/00/14)
1302	⚠	5322 253 30116	Fuse 2A (For -/17)
1400		4822 277 30689	Slide Switch
1400		4822 277 30689	Slide Switch
1503		4822 276 12648	Push Switch
1503		4822 276 12648	Push Switch
1506	#	4822 276 13114	Tact Switch
1507	#	4822 276 13114	Tact Switch
1800	*	4822 276 13625	Push Switch
1920	*	4822 276 13625	Push Switch

* For AZ1200 only
\# For AZ1205/17 only

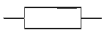
Note : Only those parts mentioned in the list are normal service parts.

FRONT BOARD

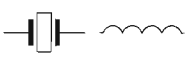
2401		4822 124 42446	100µF	20%	10V
2402		4822 124 40242	1µF	20%	63V
2441	#	4822 122 33519	470pF	10%	50V
2443	#	4822 124 22726	4.7µF	35V	
2444	#	4822 121 51387	10nF	20%	16V
2445	#	4822 122 33519	470pF	10%	50V
2446	#	4822 122 33519	470pF	10%	50V
2464		4822 122 10466	220pF	10%	50V
2465		4822 122 10466	220pF	10%	50V
2466		4822 122 33197	1nF	10%	50V
2478	#	4822 122 10466	220pF	10%	50V
2491	#	4822 126 12882	100nF	+80-20%	50V
2499	#	4822 121 51387	10nF	20%	16V



3401		4822 116 52175	100R	5%	0.5W
3402		4822 116 52234	100K	5%	0.5W
3403		4822 116 52244	15K	5%	0.05W
3404		4822 116 83883	470R	5%	0.5W
3405		4822 116 52238	12K	5%	0.5W
3406		4822 116 52276	3K9	5%	0.5W
3407		4822 116 52243	1K5	5%	0.5W
3408		4822 116 52226	560R	5%	0.5W
3410		4822 116 83961	6K8	5%	
3411		4822 116 52238	12K	5%	0.5W
3412		4822 116 52257	22K	5%	0.5W
3414		4822 116 83961	6K8	5%	
3415		4822 116 52238	12K	5%	0.5W
3416		4822 116 52257	22K	5%	0.5W
3441	#	4822 116 52257	22K	5%	0.5W
3442	#	4822 116 83864	10K	5%	0.5W
3443	#	4822 116 83872	220R	5%	0.5W
3444	#	4822 116 83872	220R	5%	0.5W
3445	#	4822 116 52234	100K	5%	0.5W
3446	#	4822 116 52234	100K	5%	0.5W
3451		4822 116 52283	4K7	5%	0.5W
3452		4822 116 52283	4K7	5%	0.5W
3453		4822 116 52283	4K7	5%	0.5W
3454		4822 116 52283	4K7	5%	0.5W
3455		4822 116 52283	4K7	5%	0.5W



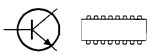
3456		4822 116 52283	4K7	5%	0.5W
3457		4822 116 52283	4K7	5%	0.5W
3458		4822 116 52283	4K7	5%	0.5W
3459		4822 116 52283	4K7	5%	0.5W
3460		4822 116 52283	4K7	5%	0.5W
3461		4822 116 52269	3K3	5%	0.5W
3462		4822 116 52243	1K5	5%	0,5W
3463		4822 116 52283	4K7	5%	0.5W
3464		4822 116 52283	4K7	5%	0.5W
3465		4822 116 52283	4K7	5%	0.5W
3466		4822 116 52243	1K5	5%	0.5W
3467		4822 116 52243	1K5	5%	0.5W
3468		4822 116 52283	4K7	5%	0.5W
3469		4822 116 52231	820R	5%	0.5W
3470		4822 116 52231	820R	5%	0.5W
3471		4822 116 52283	4K7	5%	0.5W
3472		4822 116 52231	820R	5%	0.5W
3473		4822 116 52269	3K3	5%	0.5W
3474		4822 116 52283	4K7	5%	0.5W
3475		4822 116 52283	4K7	5%	0.5W
3476	#	4822 116 52283	4K7	5%	0.5W
3477	#	4822 116 52283	4K7	5%	0.5W
3478	#	4822 116 52269	4K7	5%	0.5W
3479		4822 116 52283	4K7	5%	0.5W
3480		4822 116 52257	22K	5%	0.5W
3481		4822 116 52257	22K	5%	0.5W
3482		4822 116 52257	22K	5%	0.5W
3483		4822 116 52257	22K	5%	0.5W
3484		4822 116 52264	27K	5%	0.5W
3485		4822 116 52264	27K	5%	0.5W
3491	#	4822 116 52175	100R	5%	0.5W
3492	#	4822 116 52257	22K	5%	0.5W
3493	#	4822 116 52257	22K	5%	0.5W



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

FRONT BOARD

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



7401		4822 209 15568	IC TMP47C422F
7402		4822 130 44503	Trans BC547C
7403		4822 130 40959	Trans BC547B
7491	#	4822 209 13156	IC ST24C01M6
7813	#	5322 209 11147	IC HEF4093BT

- MISCELLANEOUS -

1401	4822 135 00212	LCD DISPLAY
1410	4822 276 13114	Tact Switch
1411	4822 276 13114	Tact Switch
1412	4822 276 13114	Tact Switch
1413	4822 276 13114	Tact Switch
1415	4822 276 13114	Tact Switch
1416	4822 276 13114	Tact Switch
1417	4822 276 13114	Tact Switch

* For AZ1200 only
\# For AZ1205/17 only

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

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

2843	4822 126 13098	5,6nF 20% 16V
2844	4822 122 10466	220pF 10% 50V
2846	4822 122 33519	470pF 10% 50V
2848	4822 122 33519	470pF 10% 50V
2849	4822 122 10466	220pF 10% 50V
2860	4822 124 40433	47µF 20% 25V

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

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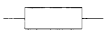
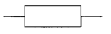
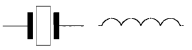
CD 97



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

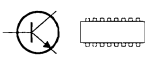


3898	4822 116 52256	2K2 5% 0,16W
3899	4822 050 11002	1K 5% 0,16W



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

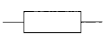
- MISCELLANEOUS -

1802	4822 265 10925	Connector
8000	4822 265 10926	Connector

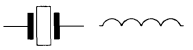
Note : Only those parts mentioned in the list are normal service parts.

ATM 3

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



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



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

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

7101		4822 209 32746	IC TEA5711T/N2

- MISCELLANEOUS -

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

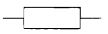
α for FM/MW only
β for FM/MW/LW only

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

TAPE DECK BOARD

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.