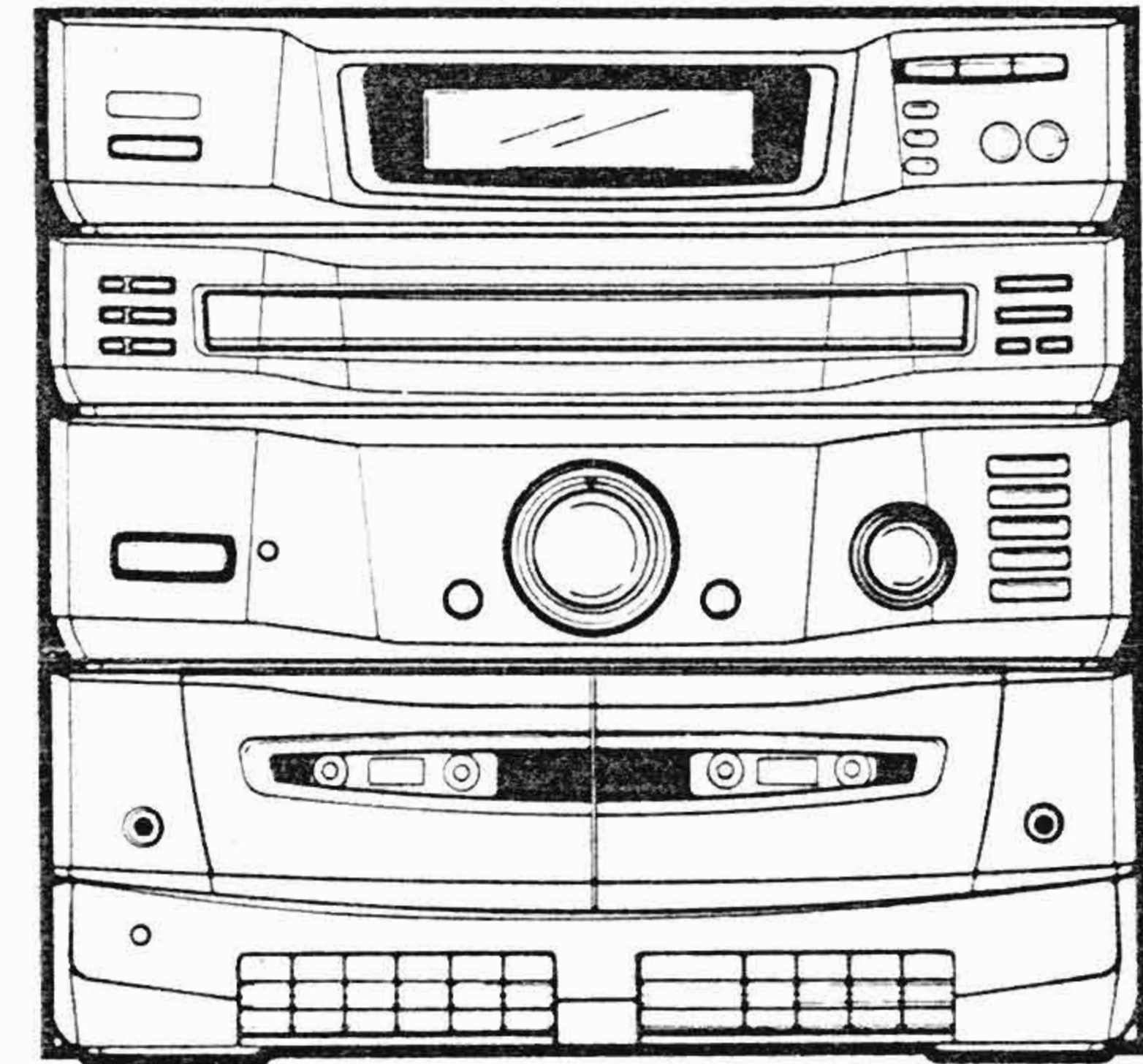




AKAI SERVICE MANUAL

AKAI



MIDI COMPONENT SYSTEM

AC-M77

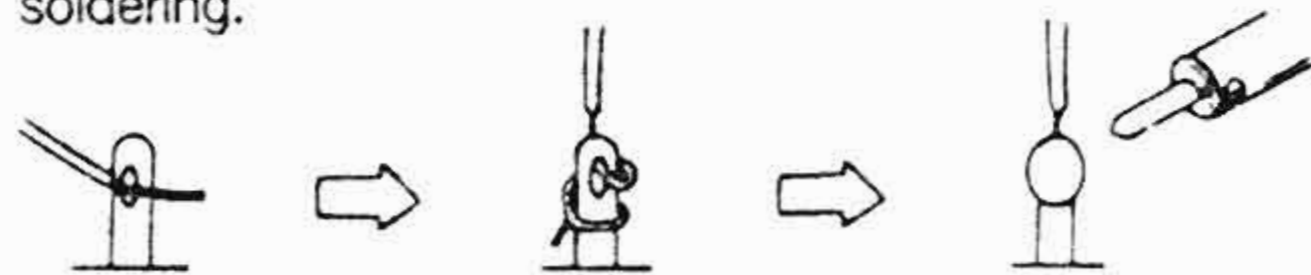
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SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

- Parts identified by the Δ (*) symbol parts are critical for safety. Replace them only with parts whose numbers are specified.
- In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
Examples: RF converters, tuner units, antenna selection switches, RF cables, noise-blocking capacitors, noise-blocking filters, etc.
- Use specified internal wiring. Note especially:
 - Wires covered with PVC tubing
 - Double insulated wires
 - High voltage leads
- Use specified insulating materials for hazardous live parts. Note especially:
 - Insulating Tape
 - PVC tubing
 - Spacers(insulating barriers)
 - Insulating sheets for transistors
 - Plastic screws for fixing micro switches
- When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



- Make sure that wires do not contact heat generating parts (heat sinks, oxide metal film resistors, fusible resistors, etc.).
- Check if replaced wires do not contact sharply edged or pointed parts.
- Also check areas surrounding repaired parts.
- Make sure that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

MAKE YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT

Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) and starter batteries should not be thrown into the garbage can. Please leave them at an appropriate depot. All other household batteries can be thrown out with the household waste.



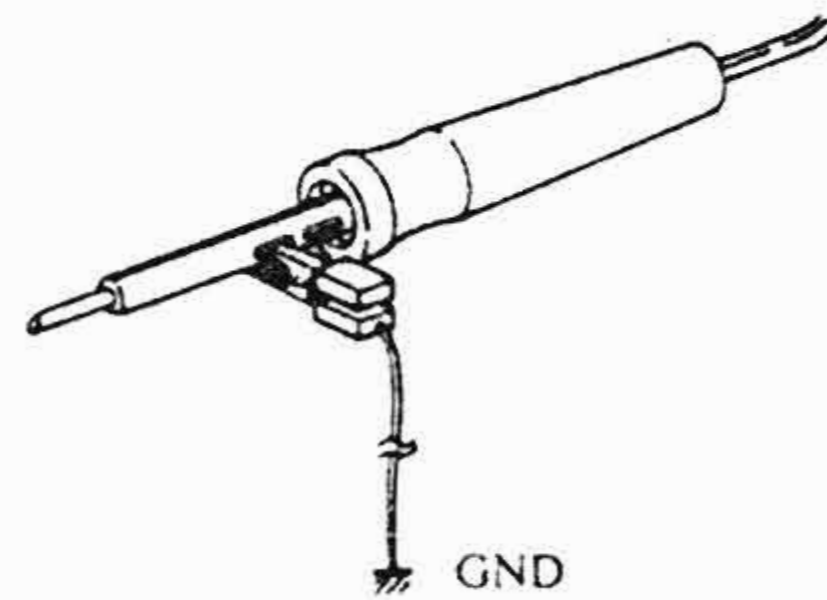
SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to check if exposed parts are acceptably insulated from the supply circuit. The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resistor of 1500 ohms paralleled with a 0.15 μ F capacitor, under the unit's normal working condition.

The leakage-current should be less than 0.5mA rms AC. The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch "ON"(if included). The resistance should be more than 2.2Mohms.

PRECAUTIONS IN REPAIRING

- When repairing or adjusting the unit, please note the following points.
- Do not put excessive pressure on the mechanical part (operation part), including the pick-up block, as extremely high mechanical precision is required in these parts.
 - When the base is removed for repair or adjustment, make sure that there are no metal objects between the P.C board or the mecha parts and the base.
 - The Micro-Computer and the CD signal processing ICs may be damaged by static electricity or leakage from a soldering iron during repairing. While soldering, please take the precautions against leakage as in the illustration.

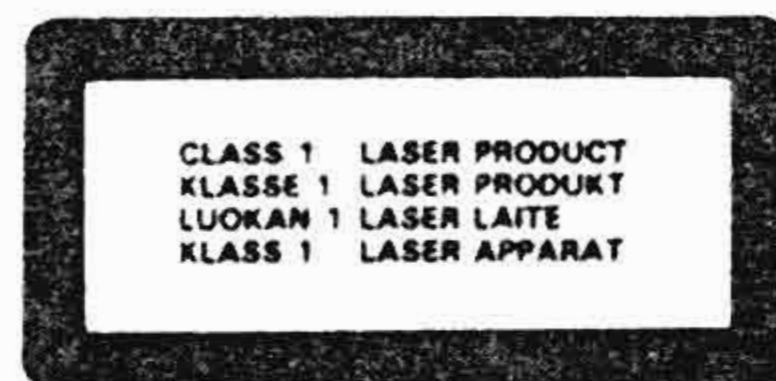


- Do not loosen any screws in the pick-up block. Please refer to NOTE when replacing the pick up block.
- To avoid hazardous invisible Laser Radiation, DO NOT look at the Laser Beam (Objective lens) directly.
- On models for some countries, laser warning labels are affixed on and inside of the unit, as shown below. For your safety, read these labels carefully before repairing or adjusting the unit.

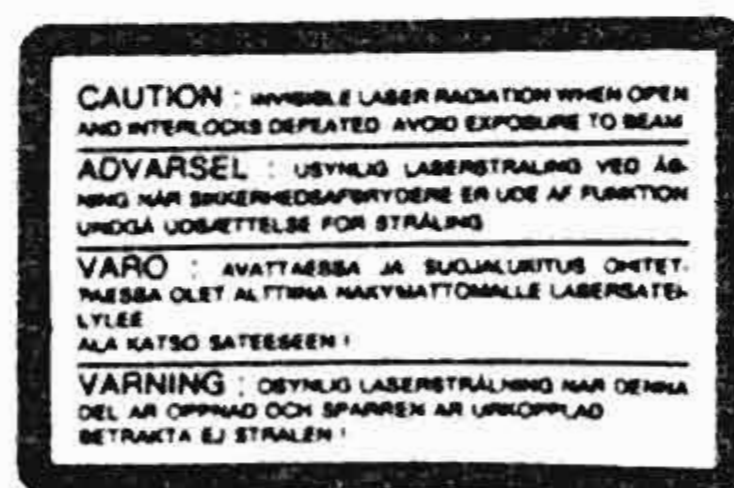
CAUTION

The use of controls or adjustments or the performance of procedures other than those specified herein may result in hazardous radiation.

[EUROPE, SCANDINAVIA, UK and AUSTRALIA]



Label affixed on the rear panel of the unit



Label affixed on the CD MECHA chassis

INFORMATION

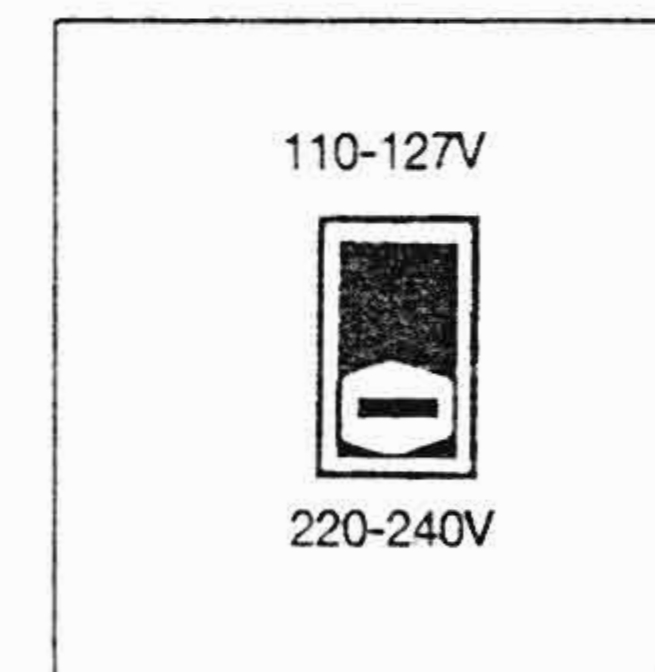
SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

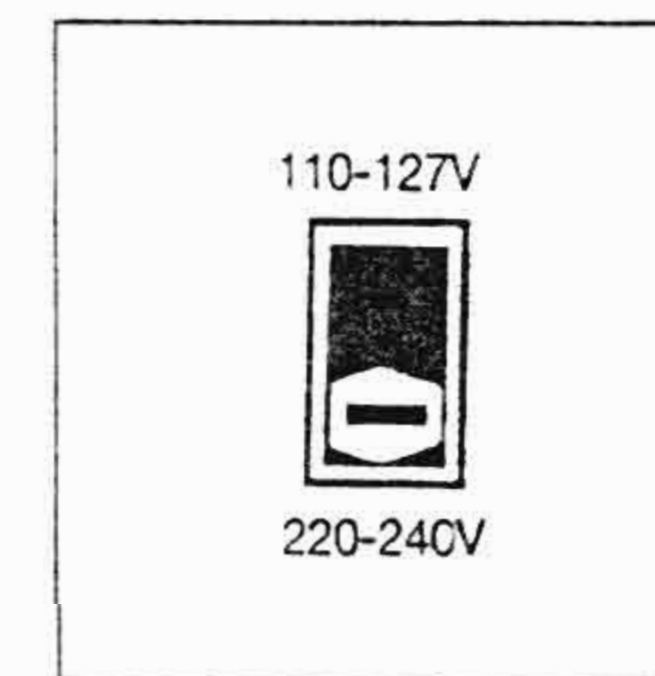
Symbol	Prinncipal Destination
A	USA
B	UK
E	Europe(except, UK)
S	Australia
V	Germany
U	Universal
Y*	Custom version

VOLTAGE CONVERSION ([U] [Y] Model only)

Before connecting the power cord, set the VOLTAGE SELECTOR located on the rear panel of the AC-M77 so that the correct voltage for your area is indicated.



[Y4]



[Us, U8, Y3, Y7]

SPECIFICATIONS

[Tuner Section]

Frequency range	
FM	87.5-108MHz(50KHz step) 87.5-108MHz(100KHz step) [U ₈ / Y ₂ / Y ₄]
MW	531-1602KHz(9KHz step) [E / V / S / B / U ₅ / Y ₁ / Y ₃ / Y ₇] 530-1610KHz(10KHz step) [U ₈ / Y ₂ / Y ₄]
LW	146-281KHz(1KHz step)
SW	3.8-12.5MHz(5KHz step)
Sensitivity	
FM	3μV(IHF, THD 3%) [EXCEPT V] 5μV(IHF, THD 3%) [V]
MW	700μV(IHF, THD 10%)
LW	1500μV(IHF, THD 10%)
SW	30μV(IHF, THD 10%)
S/N ratio(IHF)	
FM	MONO:65dB Stereo:55dB
MW	40dB
LW	30dB
SW	30dB
Total Harmonic distortion(at 1KHz)	
FM	MONO:0.8% Stereo:1.0%
MW	1.0%
LW	1.0%
SW	2.0%
Stereo separation	30dB(at 1KHz)

[CD Section]

Pick up system	3 Beam laser
Sampling frequency	44.1KHz
Error correction system	Cross interleave reed solomon
Number of channels	2 Channel
Frequency response	20Hz~20KHz
S/N ratio	83dB
Wow & flutter	Below measurable limits
Total harmonic distortion	0.07% (at 1KHz)
Channel separation	90dB (at 1KHz)
Dynamic range	85dB (at 1KHz)

[AMPLIFIER Section]

Power output	25W + 25W(6 ohm, 1KHz, 10% THD, EIAJ)
Total harmonic distortion	0.05%(-10dB for RMS)
Input sensitivity	
Phono	5mV/47k ohms
VCR	400mV/47k ohms
S/N ratio	
Phono	60dB
VCR	65dB
Channel separation	55dB

[Deck Section]

Track system	4 track, 2 channel system
Frequency response	100-10,000Hz ± 3dB(Normal tape) 100-12,500Hz ± 3dB(CrO ₂ tape)
Wow & Flutter	0.2%(WRMS)
S/N ratio (CCIR/ARM)	62dB(DOLBY ON, CrO ₂ tape) 50dB(DOLBY OFF, Normal Tape)
Total harmonic distortion	1.0%(Normal tape, at 400Hz)
Channel separation	40dB

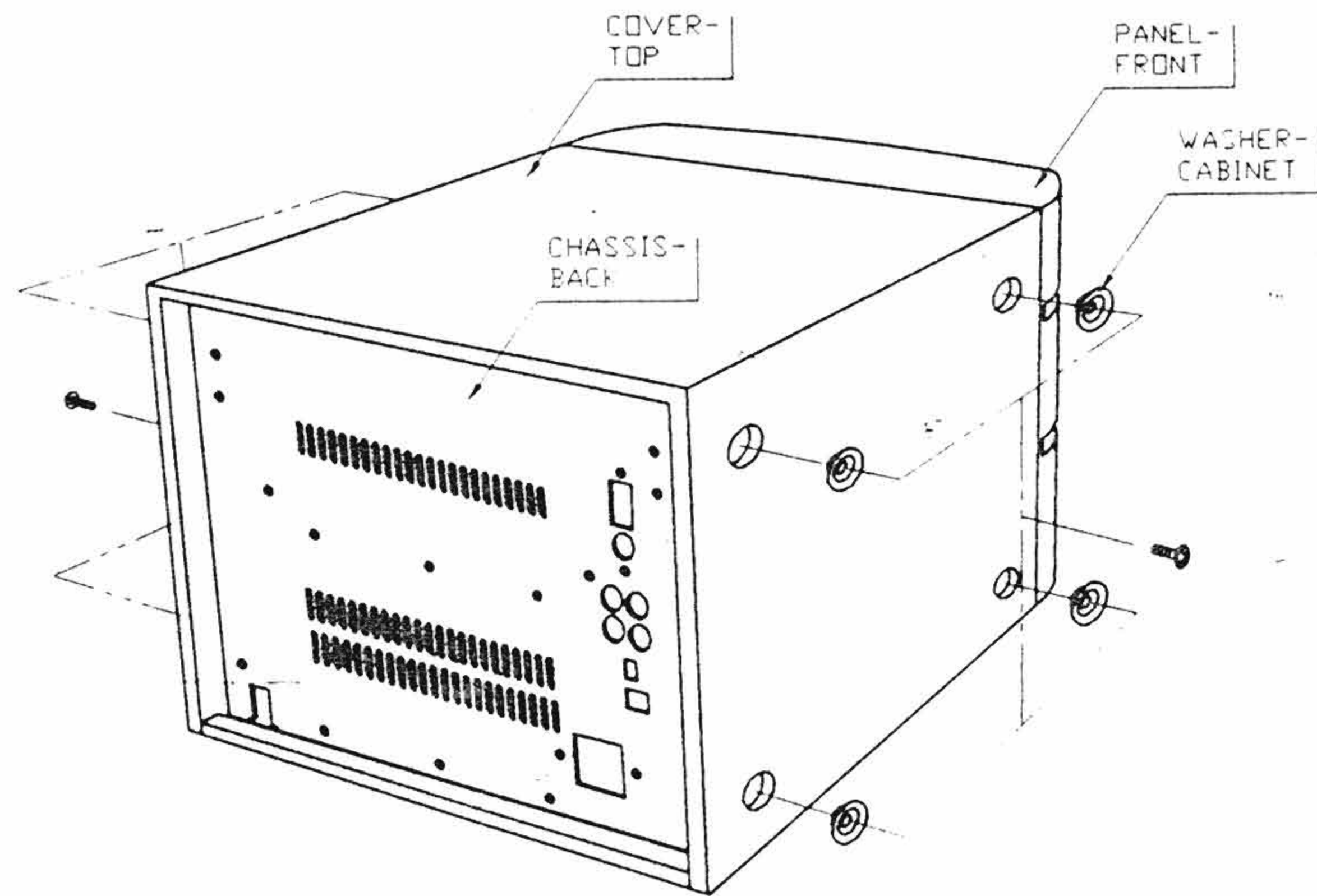
[General]

Power requirement	
E/V	AC 220-230V/50Hz
B	AC 230V/50Hz
S	AC 240V/50Hz
U ₅ /U ₈ /Y ₃ /Y ₄ /Y ₇	AC 110-127V/220-240V, 50/60Hz
Dimension	350(W) × 323(H) × 325(D)mm
Weight	13.3Kg
Power consumption	55W(E / V / S / B / U ₅ / U ₈ / Y ₁ / Y ₂ / Y ₃ / Y ₄ / Y ₇)

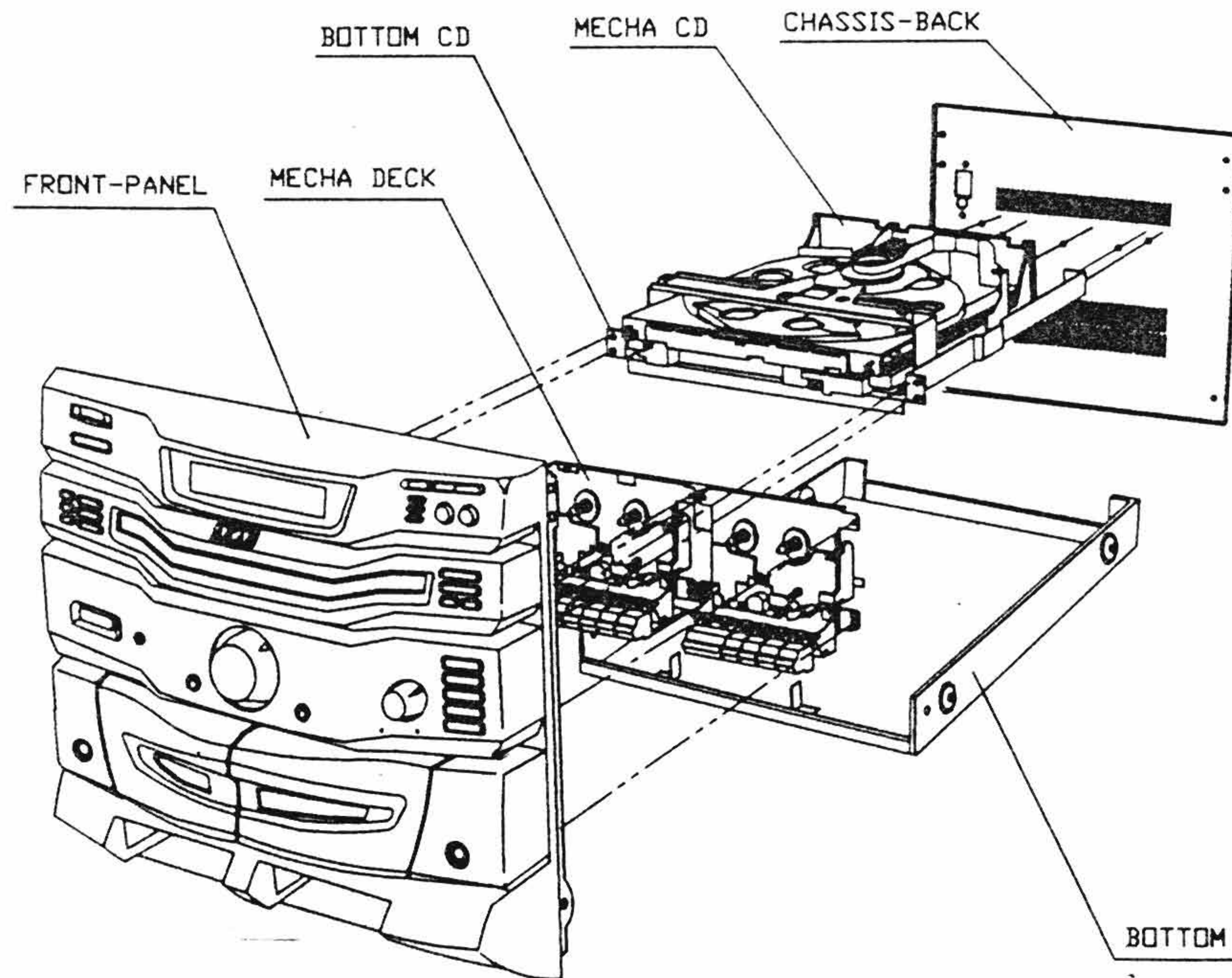
* For improvement purposes, specifications and design are subject to change without notice.

I. DISASSEMBLY

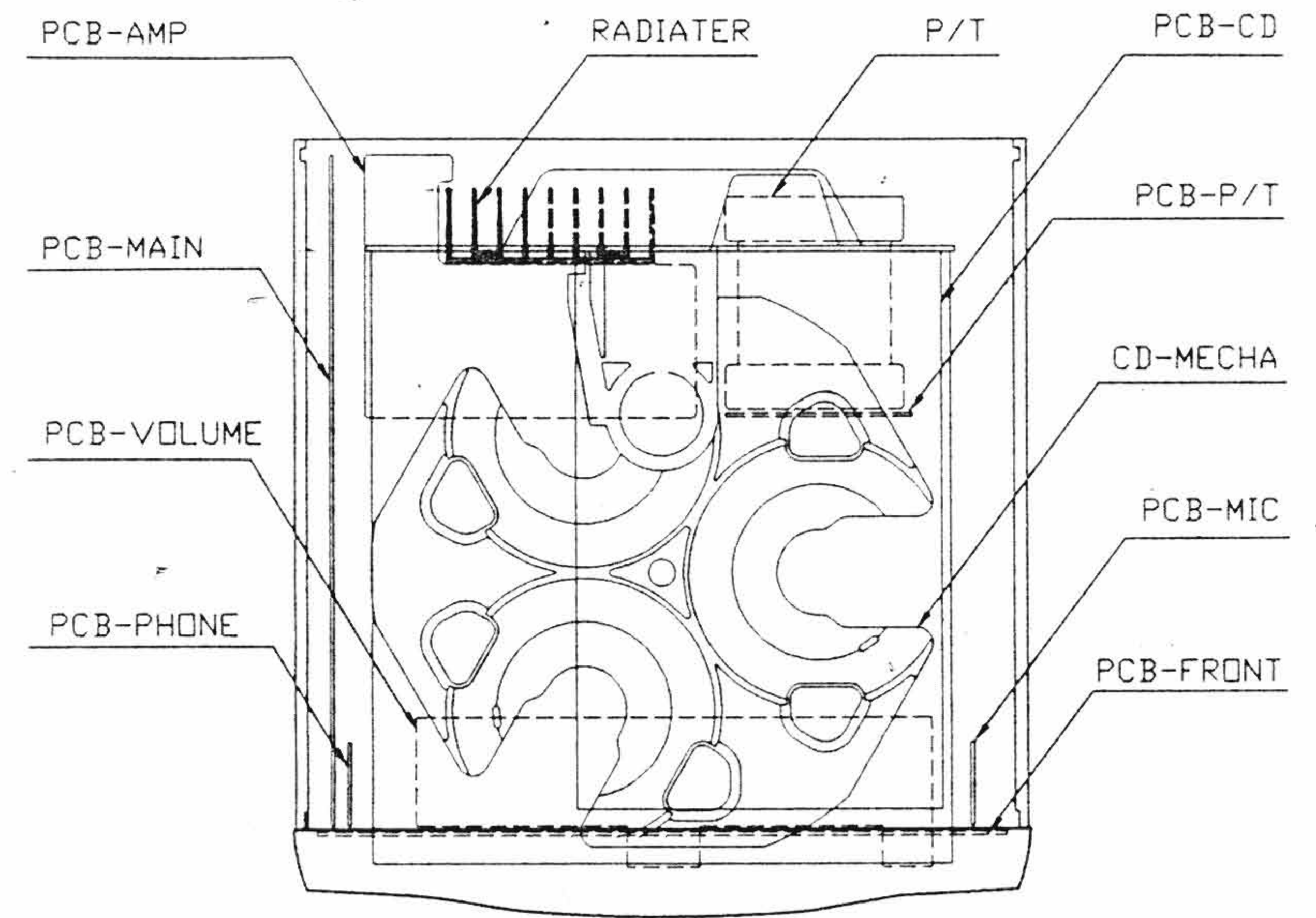
1. REMOVAL OF COVER-TOP



2. REMOVAL OF CD MECHA & CASSETTE DECK MAINTENANCE



II. PRINCIPAL PARTS LOCATION

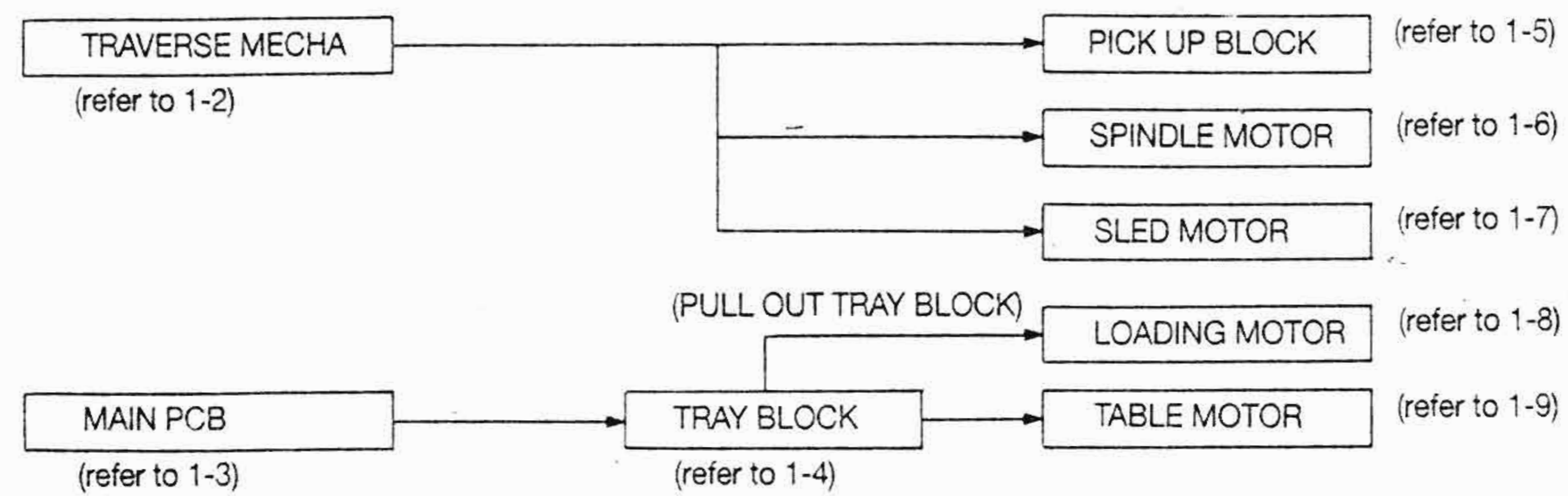


III. REPLACEMENT OF PRINCIPAL MECHANICAL PARTS

1. CDP MECHANISM

1-1. DISMANTLING PROCEDURE OF THE COMPONENTS

When replacement of the mechanical parts is necessary, replace them using the following procedure.



1-2. REMOVAL OF THE TRAVERSE MECHA

- 1) Disconnect the three connectors carefully (two connectors are on the PICK UP PCB and the other is on the MOTOR PCB of the TRAVERSE MECHA.).
- 2) Remove the four retaining screws, then remove the PICK UP UNIT.

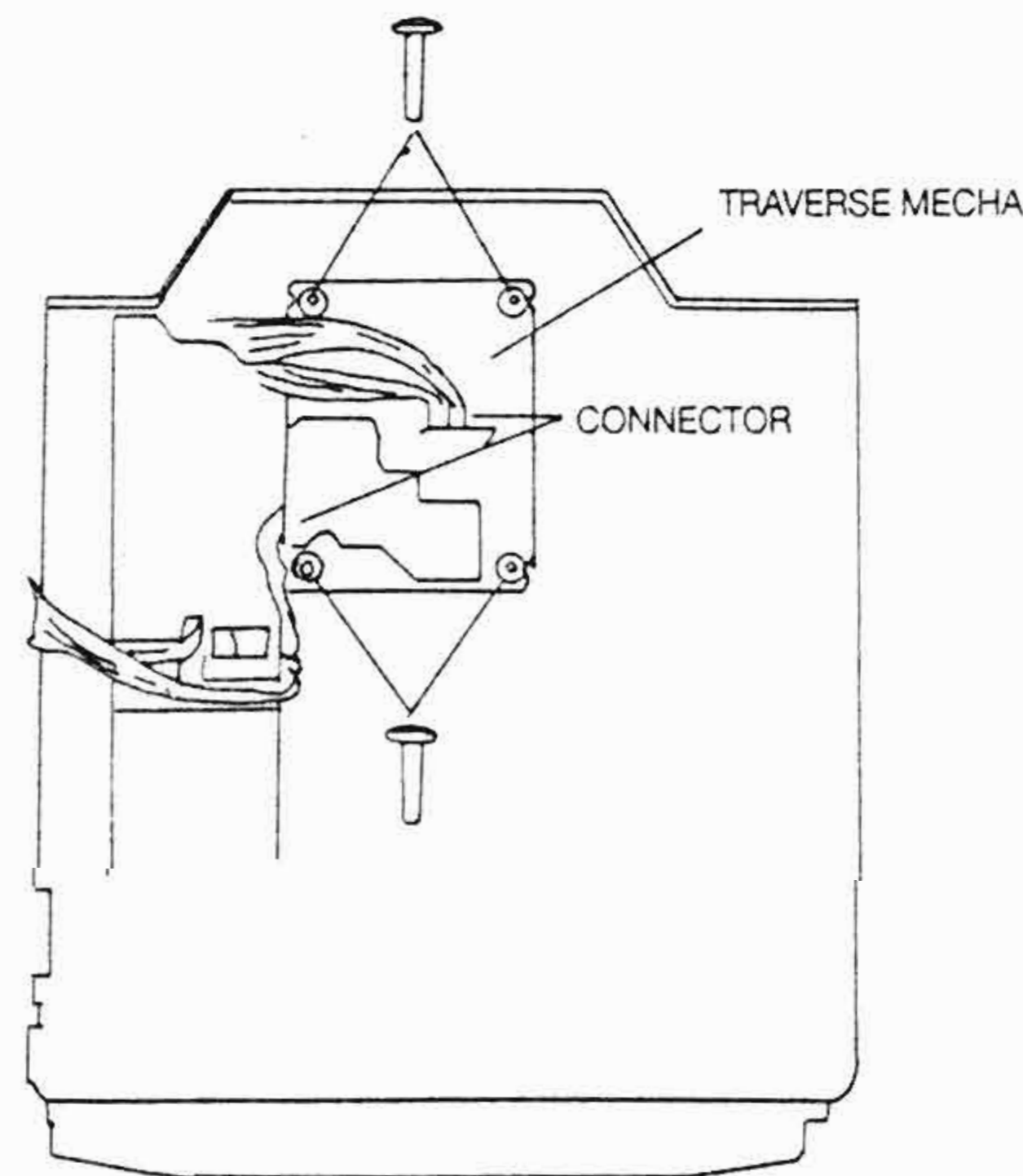


Fig. 1-2

1-3. REMOVAL OF THE MAIN PCB

- 1) Disconnect the P4, P5 and P6 connectors on the MAIN PCB.
- 2) Remove the four retaining screws of the MAIN PCB, then remove the MAIN PCB.

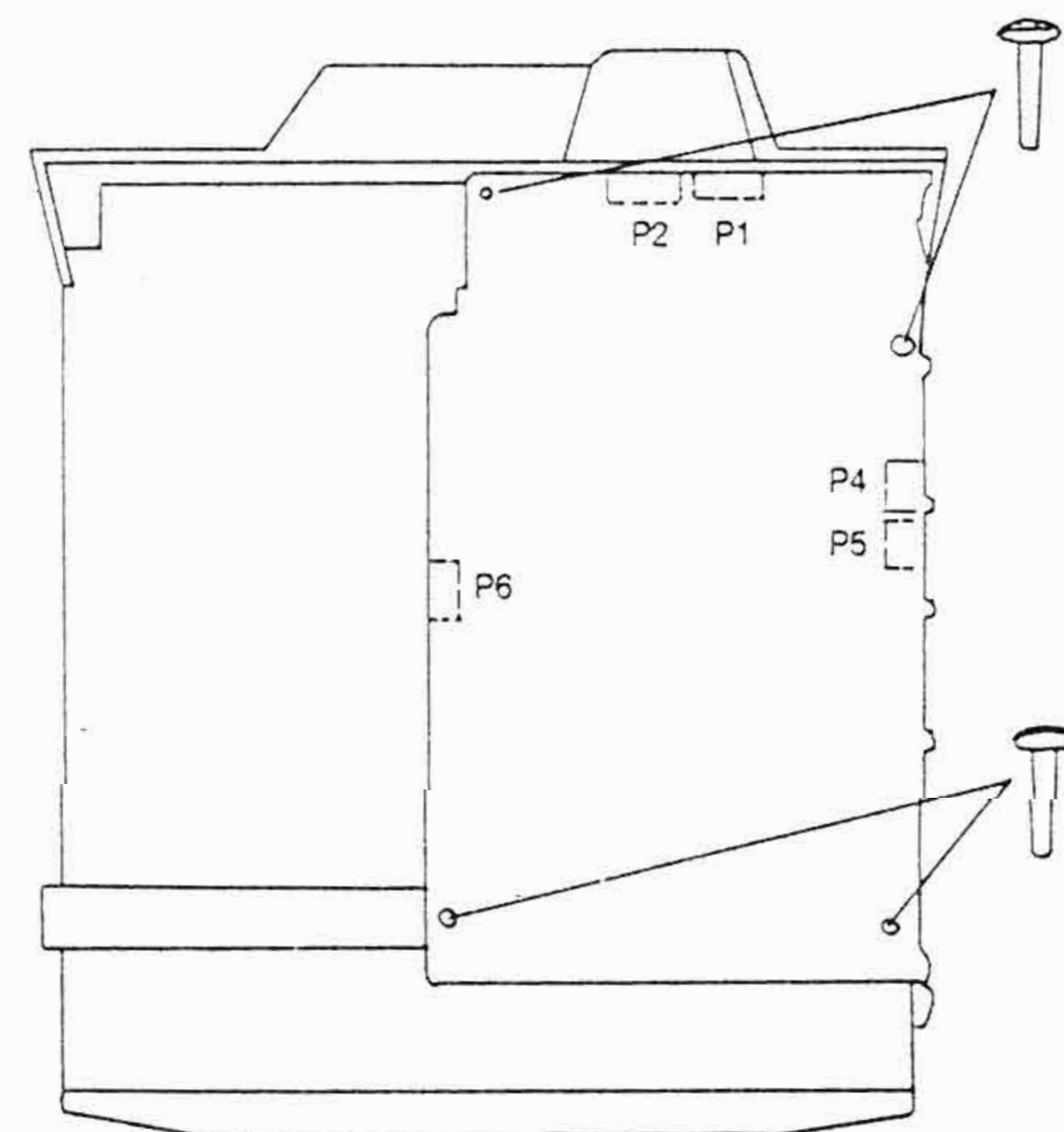


Fig. 1-3

1-4. REMOVAL OF THE TRAY BLOCK

Remove the MAIN PCB.

Slide the GEAR HOLDER RETAINING SCREW in the direction of the arrow and pull out the TRAY BLOCK slowly. Remove the MAIN PCB HOLDER RETAINING SCREWS then remove the MAIN PCB HOLDER and the BRACKETS on both side.

Remove the TRAY BLOCK.

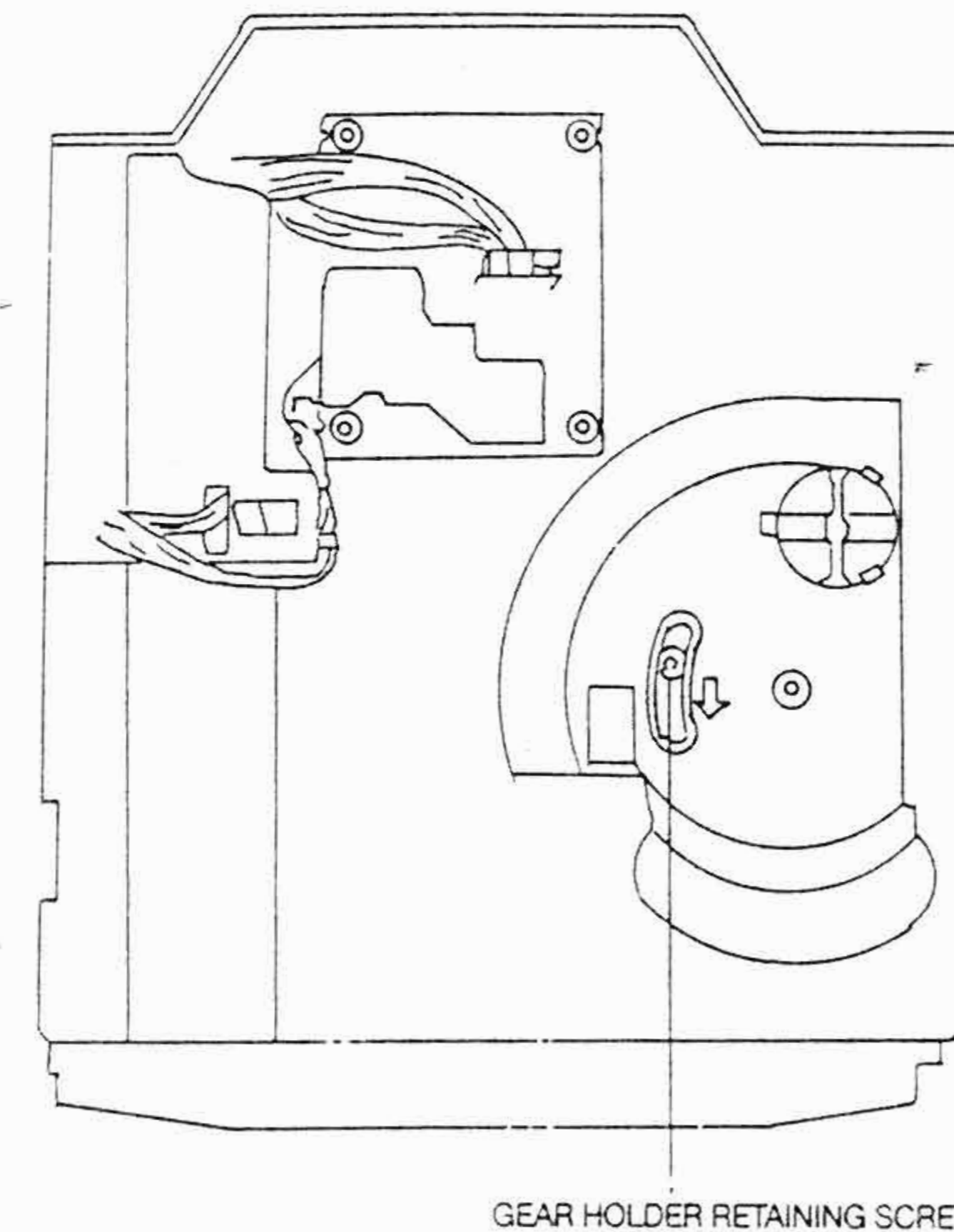


Fig. 1-4

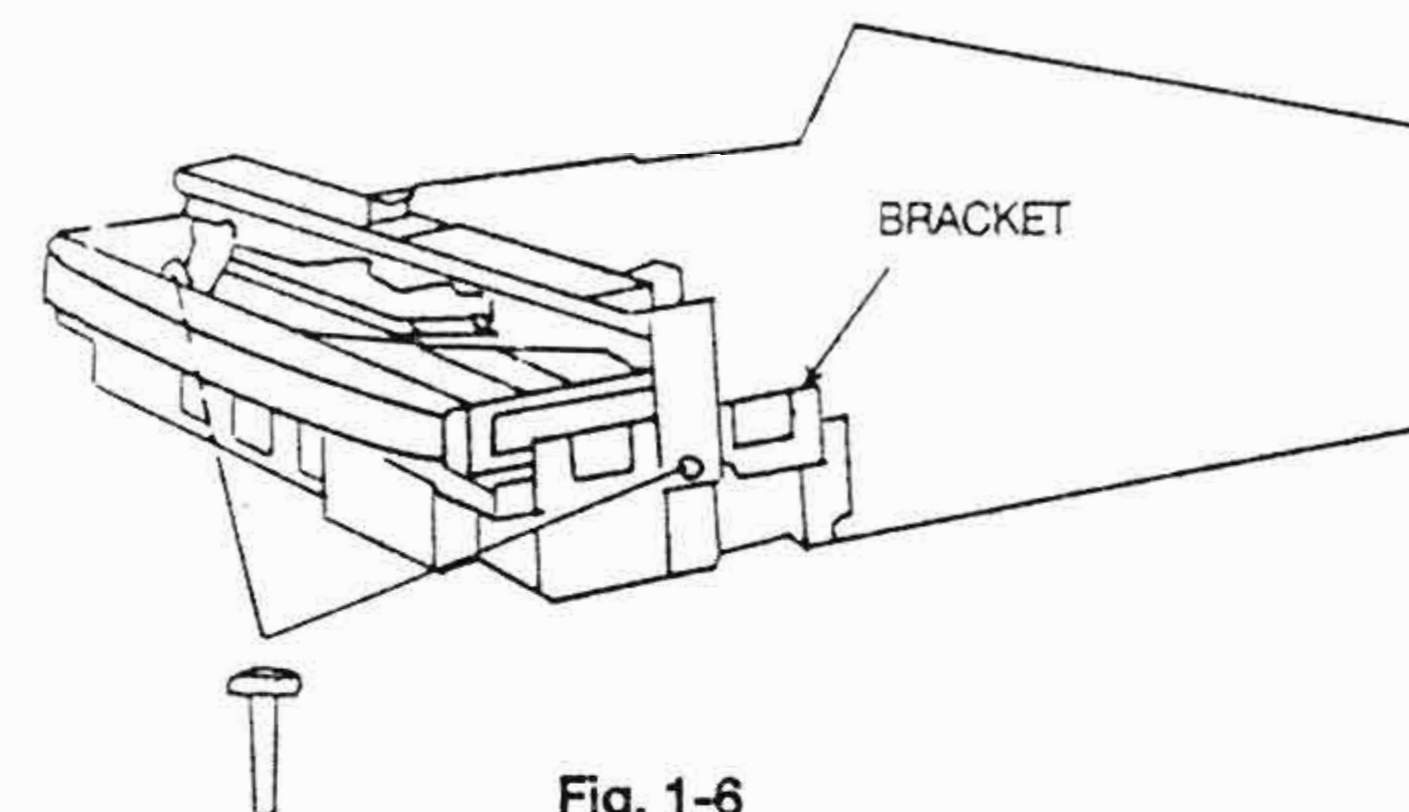


Fig. 1-6

1-5. REPLACEMENT OF THE PICK UP BLOCK

- 1) Remove the TRAVERSE MECHA.
- 2) Push the stopper (A) in the right direction and pull the SLIDE SHAFT in the forward direction to remove the PICK UP BLOCK, then replace the PICK UP BLOCK.
- 3) Reassemble in the reverse order.

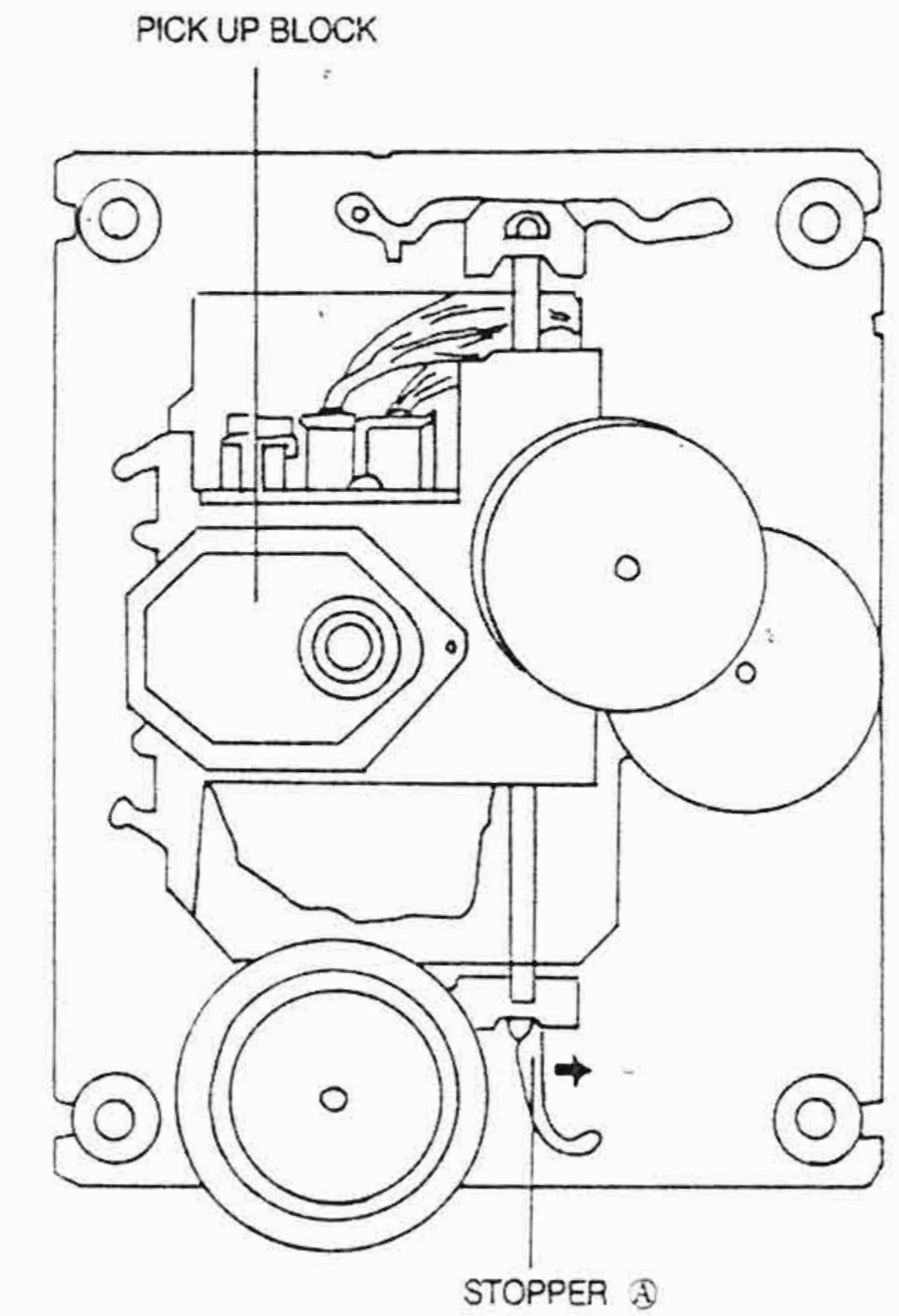


Fig. 1-5

1-6. REPLACEMENT OF THE SPINDLE MOTOR

Replacement of the SPINDLE MOTOR itself is not recommended, because the adjustment of the TURN TABLE height is quite critical and necessitating the use of a special jig.

1-7. REPLACEMENT OF THE SLED MOTOR

- 1) Remove the TRAVERSE MECHA.
- 2) Remove the MOTOR PCB.
- 3) Remove the SLED MOTOR RETAINING (B) SCREWS, then replace the SLED MOTOR.
- 4) Reassemble in the reverse order.

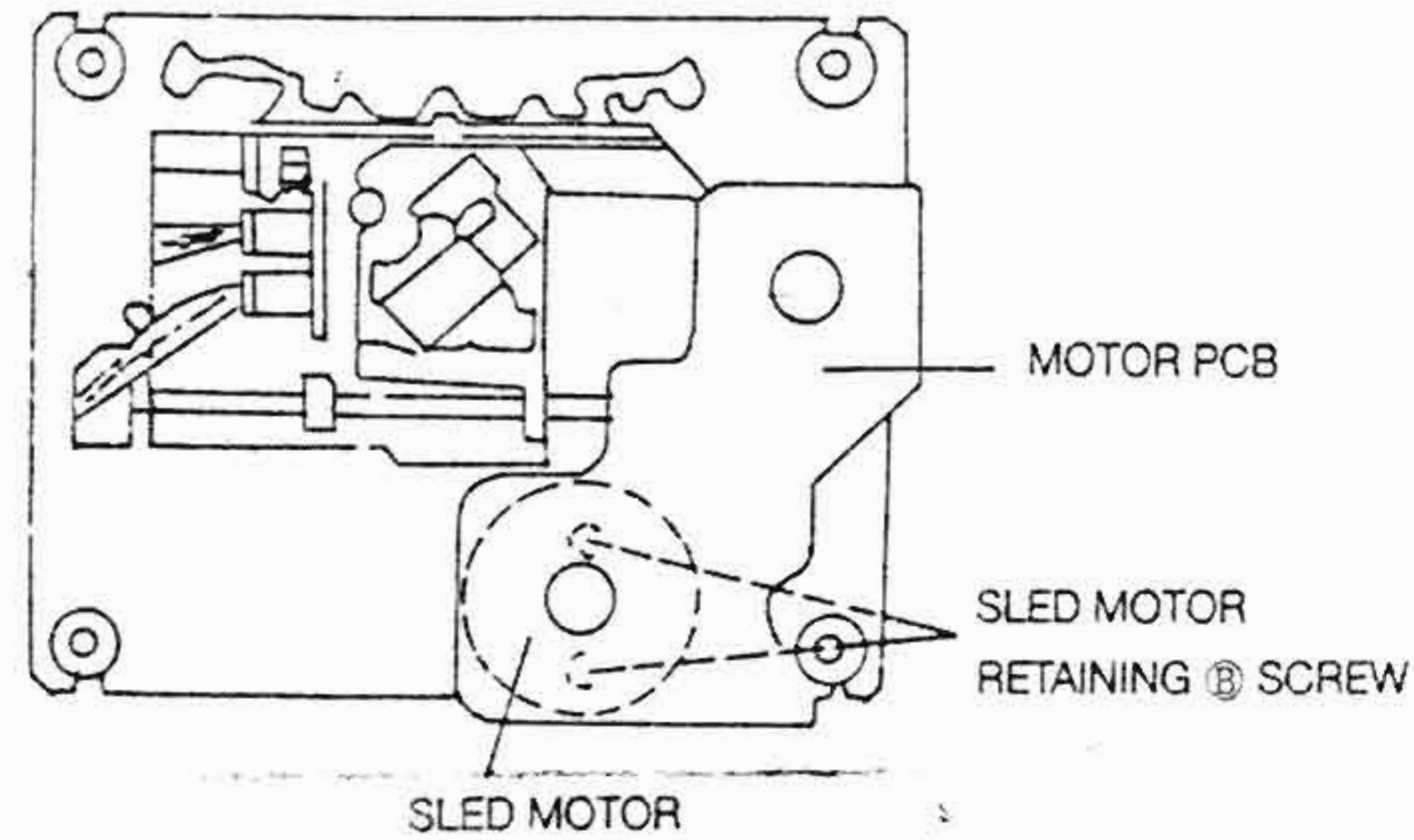


Fig. 1-7

1-8. REPLACEMENT OF THE LOADING MOTOR

- 1) Push the GEAR HOLDER RETAINING SCREW in the direction of the arrow, then pull out the TRAY BLOCK.
- 2) Remove the LOADING BELT and the LOADING MOTOR RETAINING SCREWS.
- 3) Unsolder the lead wires of the LOADING MOTOR with a soldering iron.
- 4) While opening the LOADING MOTOR'S THREE RETAINING HOOKS, remove and replace the LOADING MOTOR.
- 5) Reassemble in the reverse order.

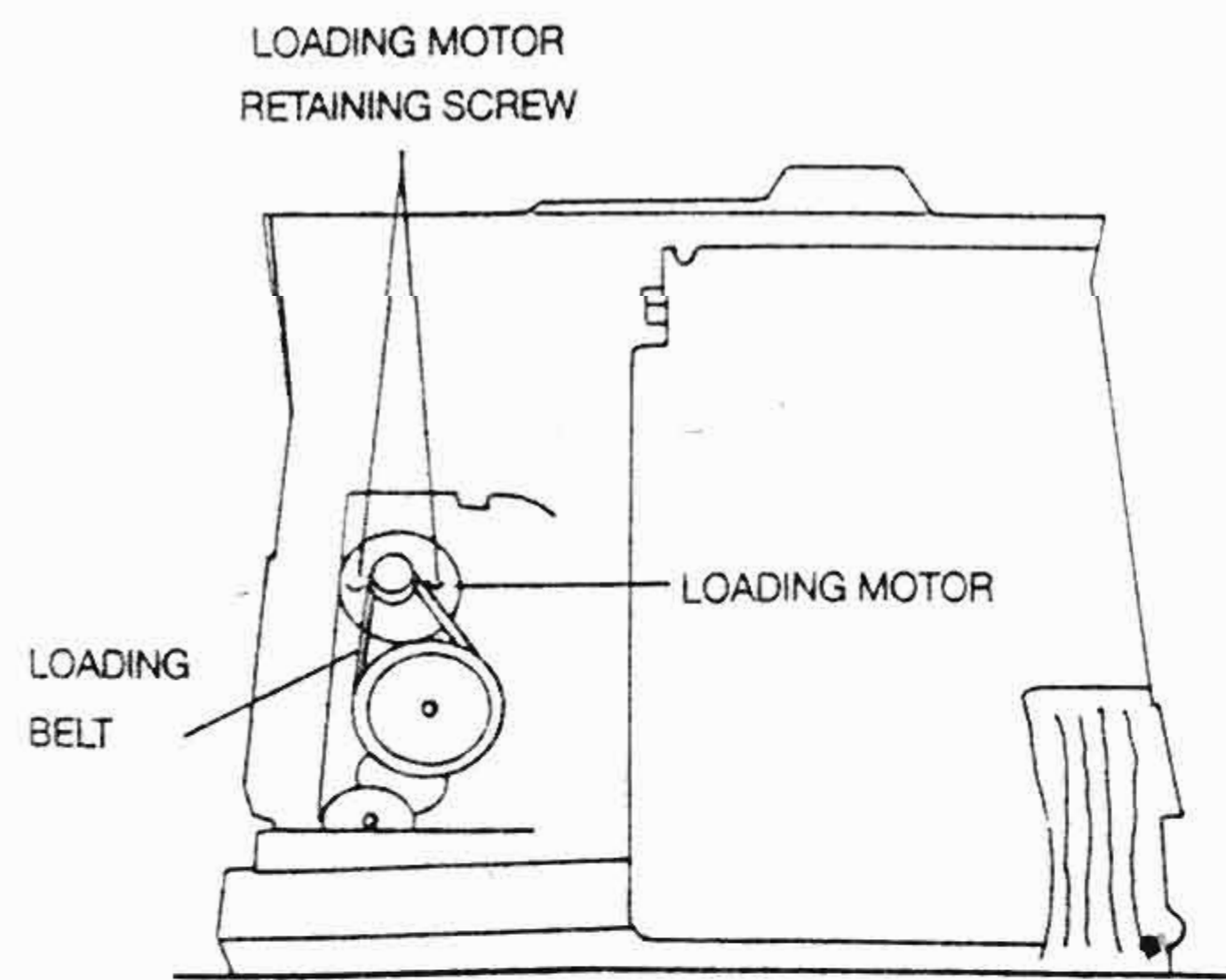


Fig. 1-8

1-9. REPLACEMENT OF THE TABLE MOTOR

- 1) Remove the MAIN PCB.
- 2) Remove the TRAY BLOCK.
- 3) Remove the DISC HOLDER RETAINING SCREW then remove DISC HOLDER.
- 4) Remove the GEAR COVER then remove the TABLE GEAR(B) and GEAR WORM WHEEL TABLE.
- 5) Unsolder the lead wires of the TABLE MOTOR.
- 6) Remove the TABLE MOTOR while opening the TABLE MOTOR RETAINING HOOK, then replace the TABLE MOTOR.
- 7) Reassemble in the reverse order.

NOTE: 1) When reassembling, make sure that the TABLE GEAR (A)'s hole is aligned with the reference hole on the LOADING TRAY.
2) When installing the DISC HOLDER on the LOADING TRAY, make sure to place the DISC HOLDER so that the label "3" is facing upward (label "2" faces right and label "1" faces left accordingly).

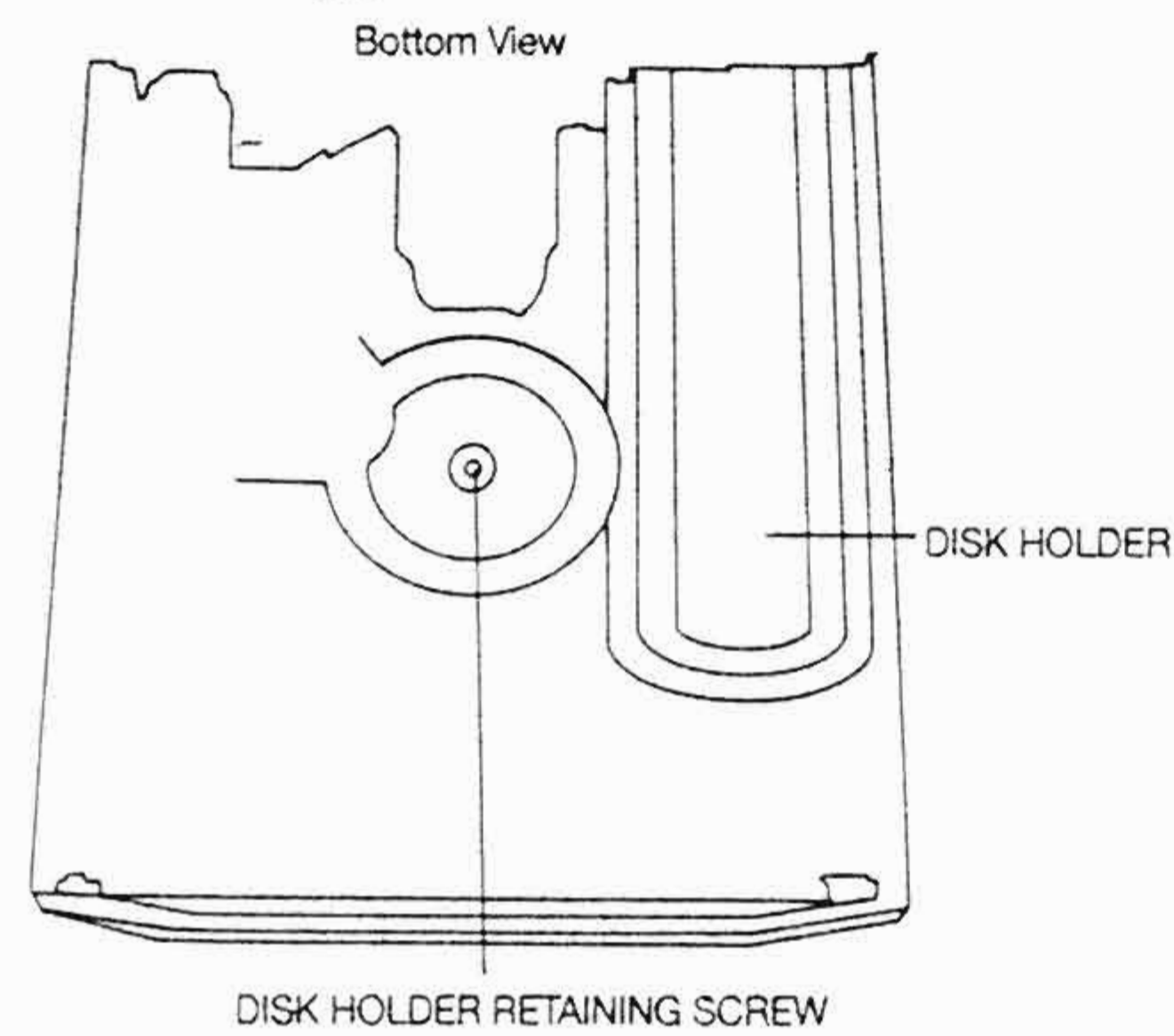


Fig. 1-9

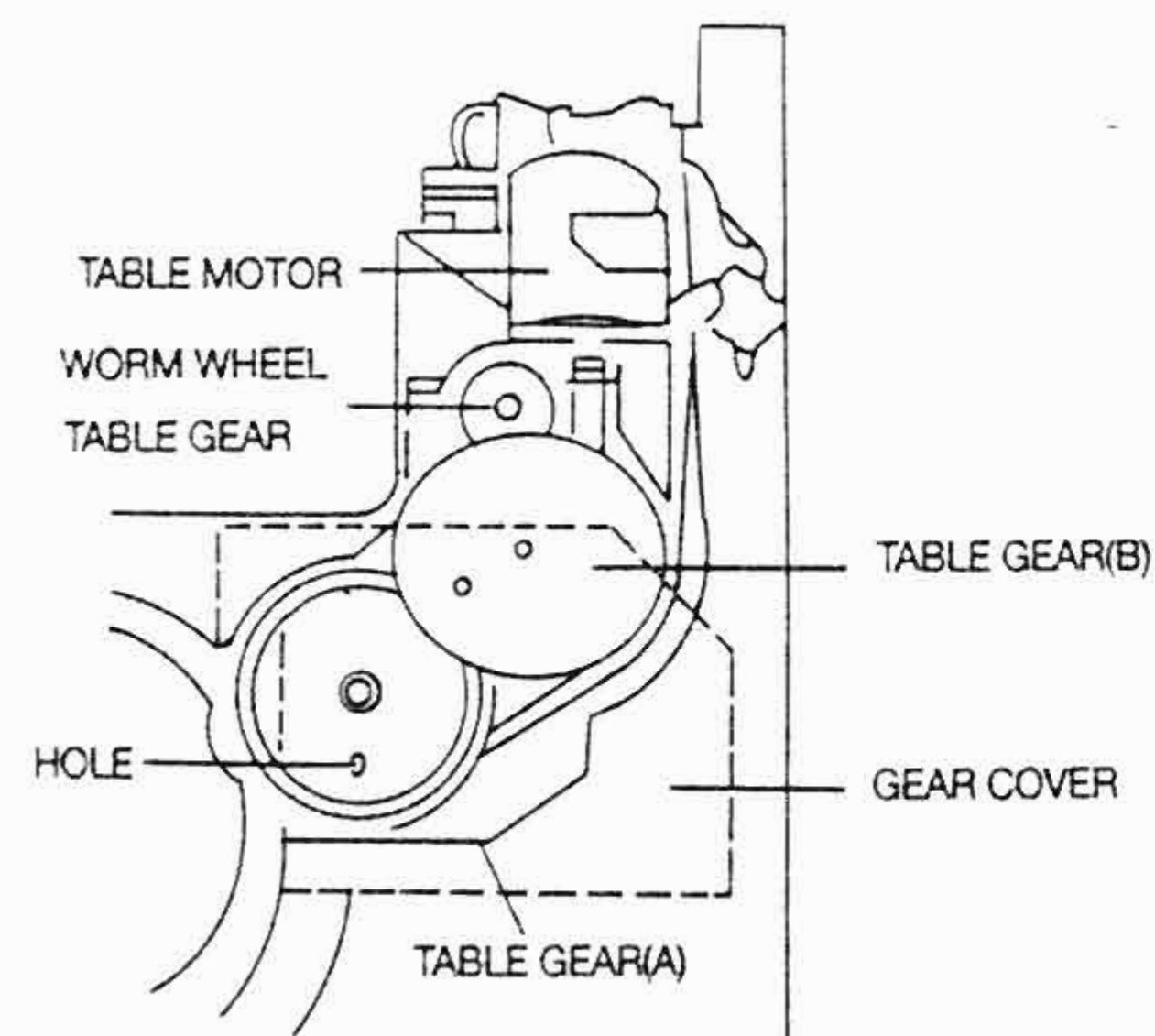


Fig. 1-10

2. CASSETTE DECK MECHANISM

2-1. REPLACEMENT OF THE PINCH ROLLER BLOCK

- 1) Pull the PINCH ROLLER BLOCK upward (↑) while releasing the PINCH ROLLER RETAINING HOOK.
- 2) Reassemble in the reverse order.

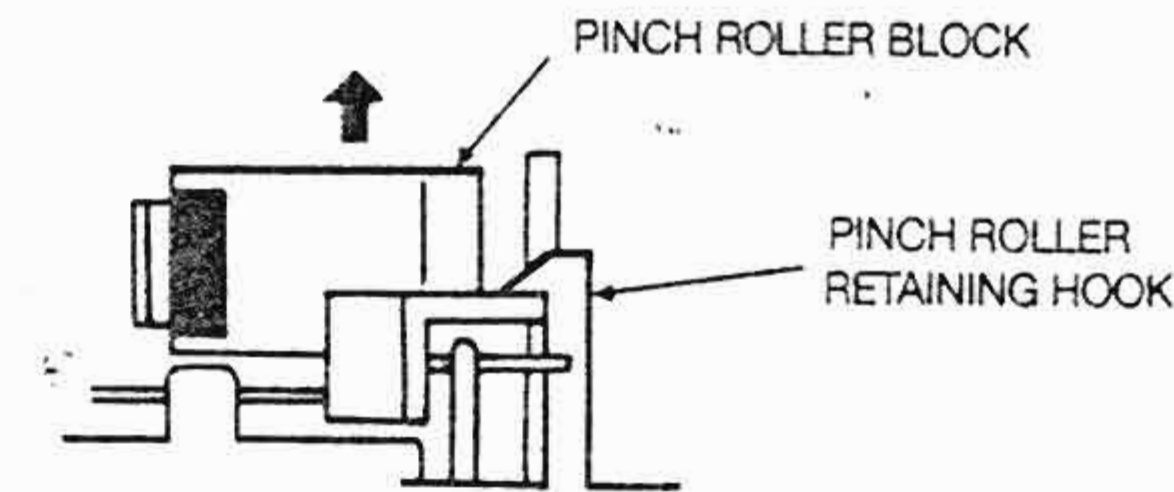


Fig. 2-1

2-2. REPLACEMENT OF THE PB HEAD (TAPE II)

- 1) Pull out the HEAD and disconnect all the lead wires with a soldering iron, then replace the PB HEAD.
- 2) Reassemble in the reverse order. After replacement, head azimuth and PB level adjustment must be performed.

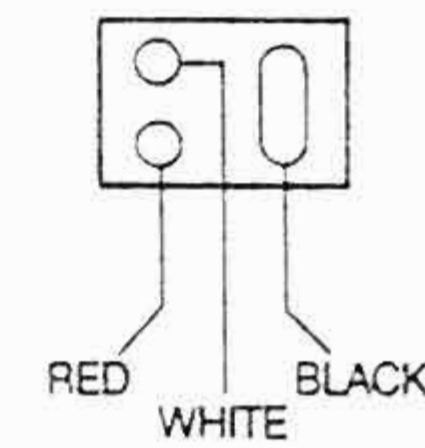


Fig. 2-2

2-3. REPLACEMENT OF THE REC/PB HEAD (TAPE I)

- 1) Pull out the HEAD and disconnect all lead wires with a soldering iron, then replace the REC/PB HEAD.
- 2) Reassemble in the reverse order. After replacement, head azimuth, PB level BIAS current and REC level adjustments must be performed.

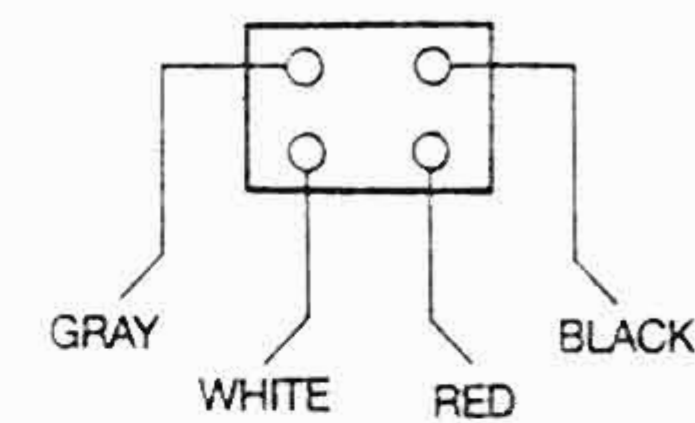


Fig. 2-3

2-4. REPLACEMENT OF THE CAPSTAN MOTOR

- 1) Remove the CAPSTAN MOTOR RETAINING (A) SCREWS, then replace the CAPSTAN MOTOR.
- 2) Reassemble in the reverse order and set the DRIVE BELT. After replacement, tape speed adjustment must be performed.

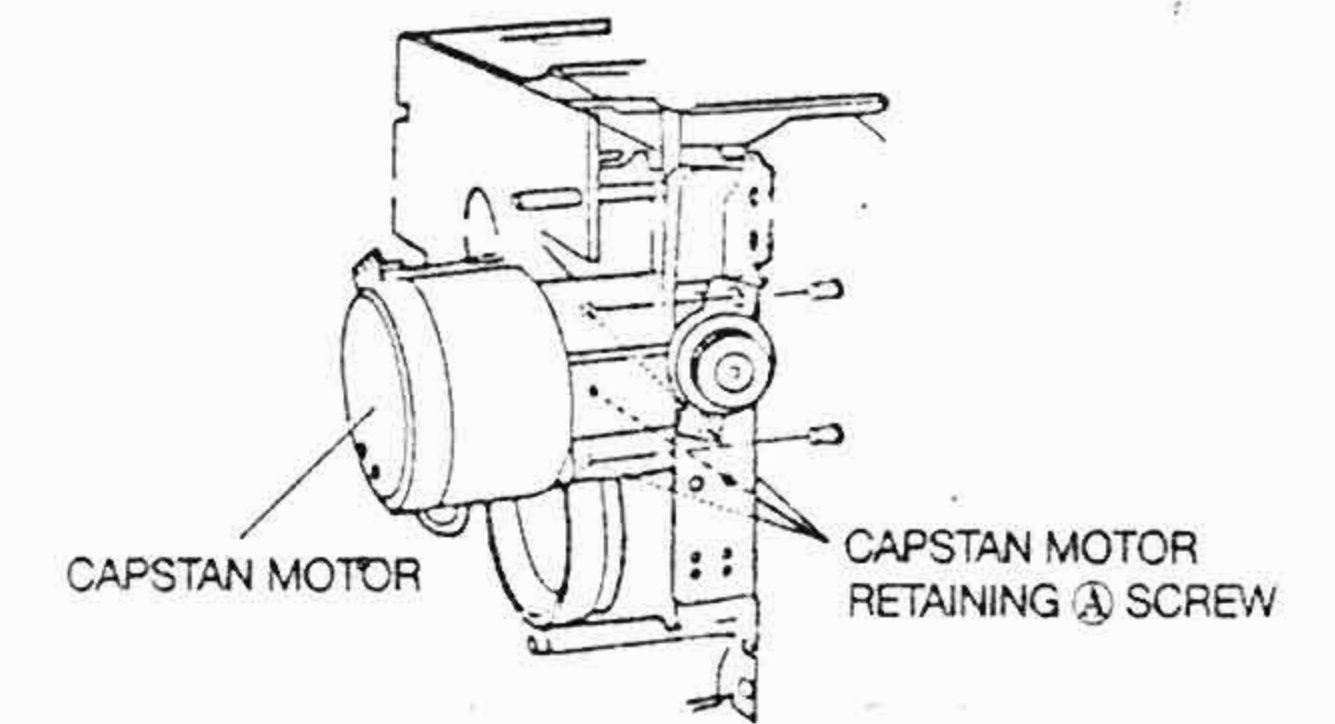


Fig. 2-4

2-5. REPLACEMENT OF THE DRIVE BELT

- 1) Remove the MOTOR RETAINING (B) SCREWS and separate the MECHANISM-A and B. Replace the DRIVE BELT.
- 2) Reassemble in the reverse order. After replacement, confirm the tape speed and if the result is not satisfactory, adjust the tape speed.

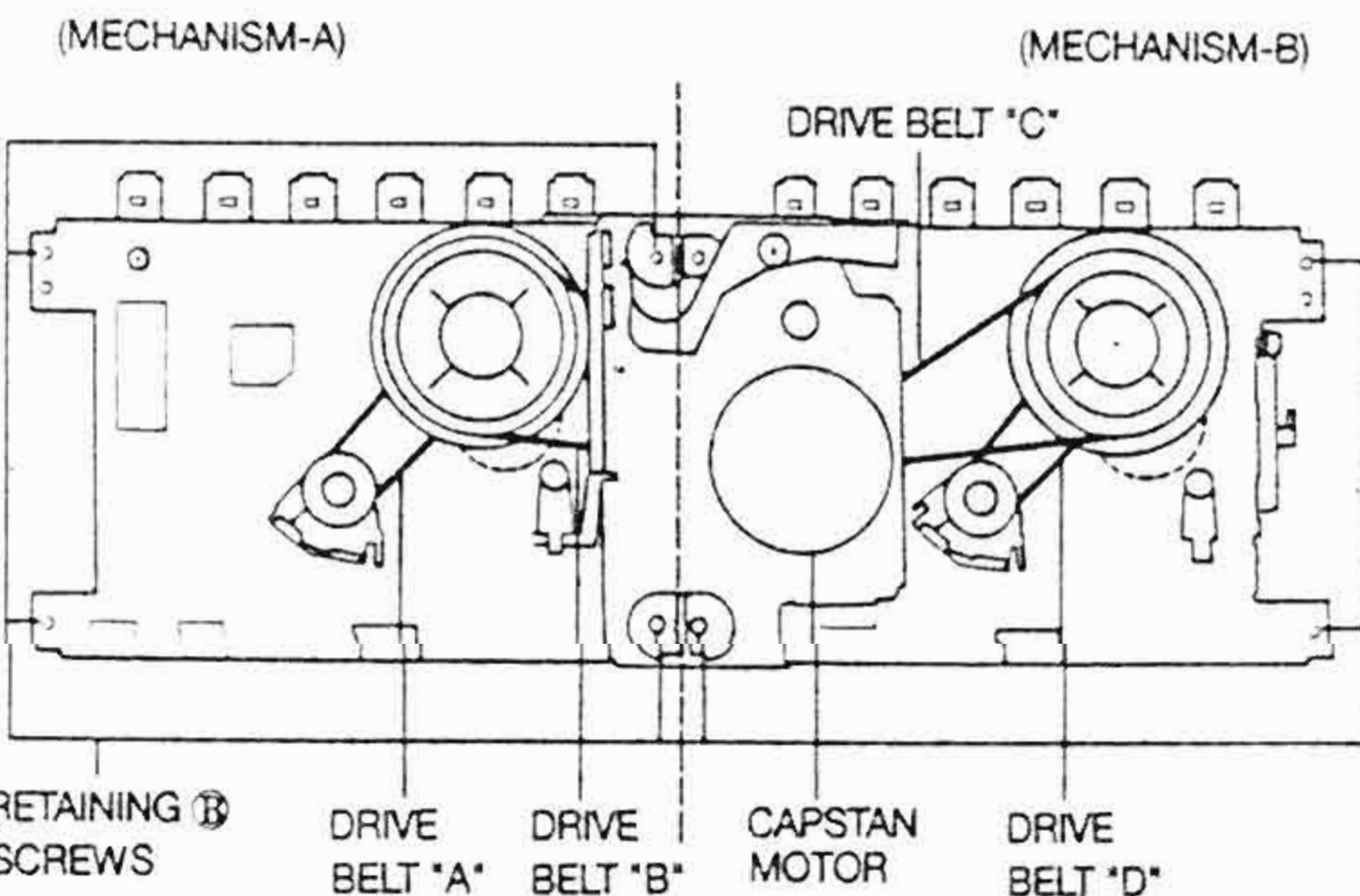


Fig. 2-5

MECHANICAL ADJUSTMENT

2-6. ADJUSTMENT OF THE PB HEAD AND THE REC/PB HEAD AZIMUTH ALIGNMENT (TAPE I & II)

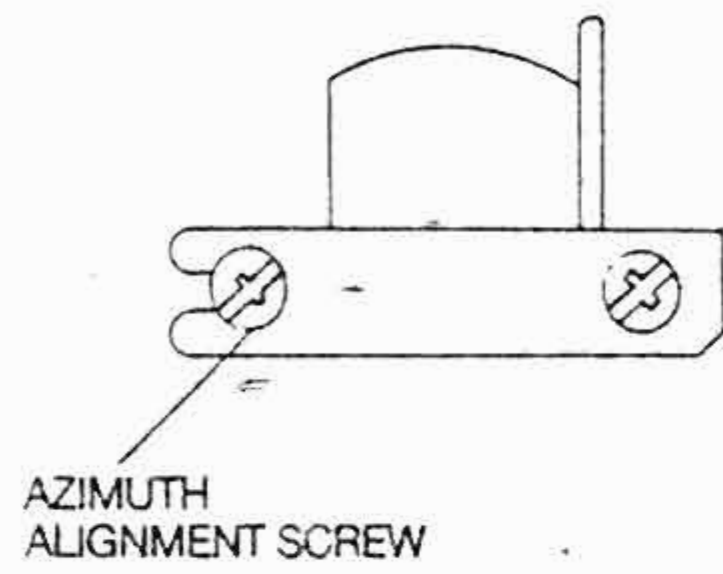
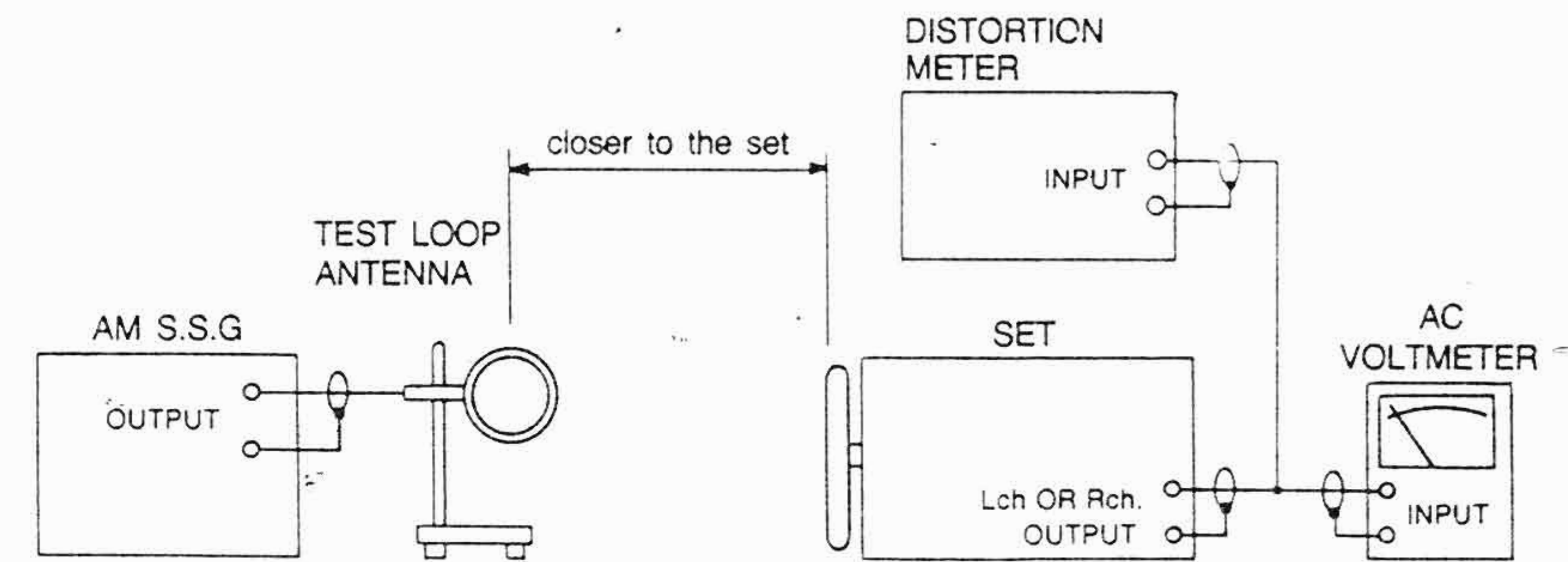


Fig. 2-6

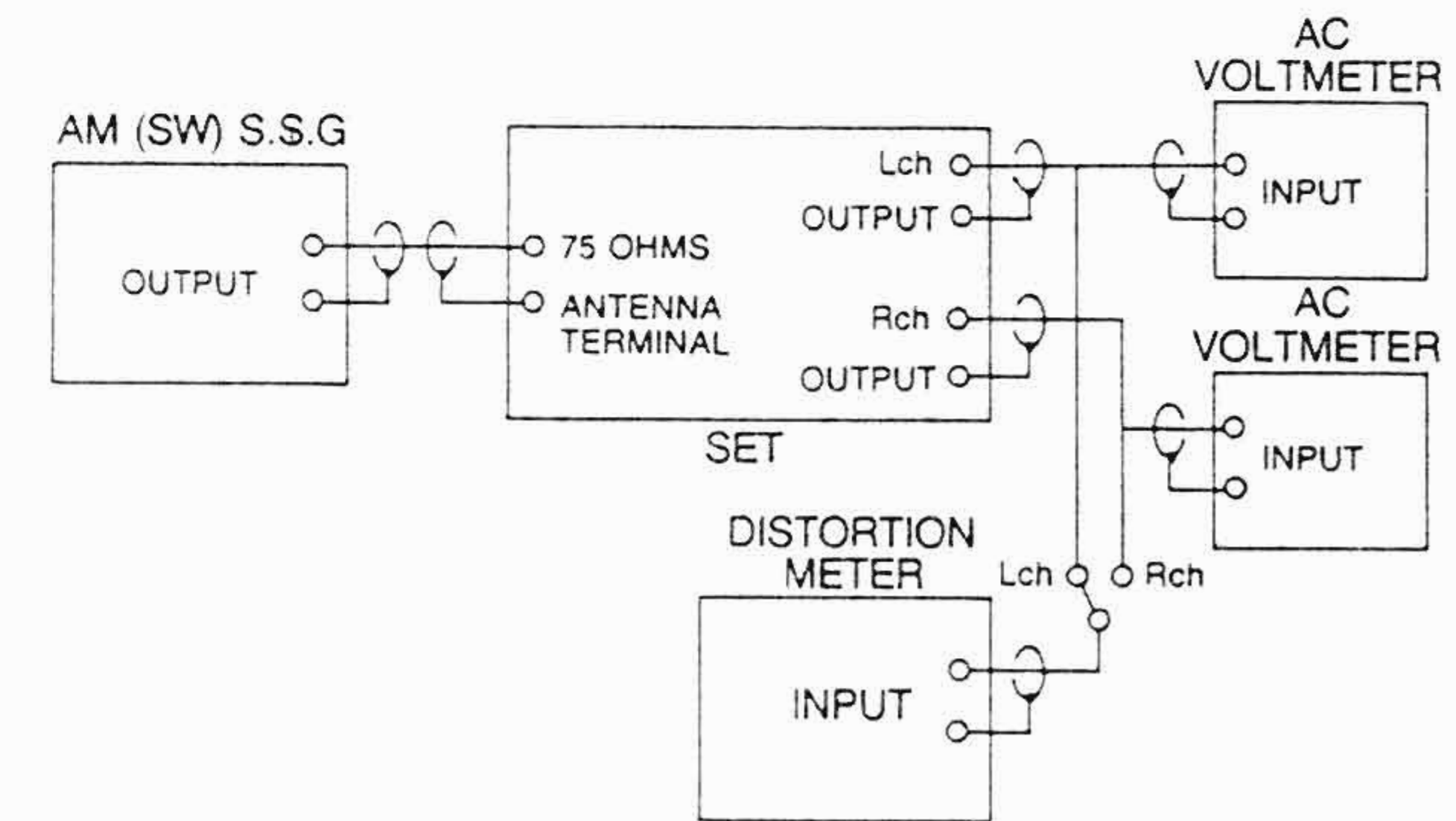
- 1) Connect an AC milli-voltmeter to the TEST POINT TP301 refer to the illustration on page(18) and connect an oscilloscope's input CH-1 and CH-2 to the output of the AC milli-voltmeters.
- 2) Play back the 10KHz(-15dB), HEAD AZIMUTH ALIGNMENT TEST TAPE(MTT-357G) then adjust the PB HEAD AZIMUTH ALIGNMENT SCREW respectively so that the reading on the AC milli-voltmeters are at maximum and waveforms on the oscilloscope are in the same phase.

IV. ADJUSTMENT

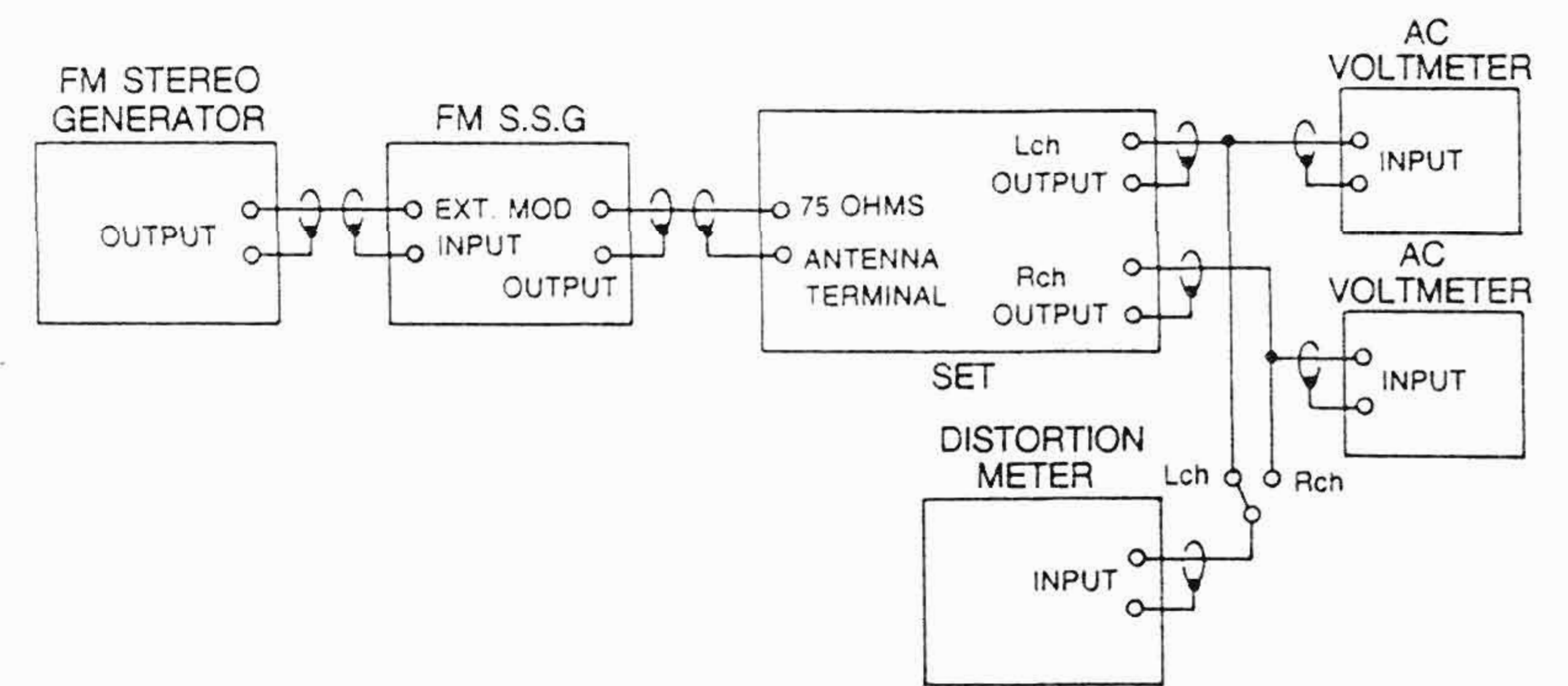
1. TUNER INSTRUMENT CONNECTIONS



Instrument connection for AM (MW, LW) section adjustment



Instrument connection for AM (SW) section adjustment



Instrument connection for FM section adjustment

2. TUNER ELECTRICAL ADJUSTMENT

NOTE: 1. Set the S.S.G. to 1kHz, 75kHz deviation for [U], [S], [B], or [E] model and 1kHz, 40kHz deviation for [V] model during FM section adjustment.
2. Set the S.S.G. to 1kHz, 30% modulation during AM section adjustment.

STEP ADJUSTMENT ITEM

1. S.S.G frequency & output level
2. Set tuning frequency & mode
3. Test point, adjustment part
4. Remark (●) & result (*)

Test Point Adjustment Part

FM

3 DISTORTION

1. 98.0MHz, 60dB μ
2. 98.0MHz(MONO)
3. IFT (Built in FRONT END)
4. ● Connect the distortion meter to LINE OUT (TP201)
* Minimum distortion

4 STEREO SEPARATION

1. 98.0MHz, 60dB μ , MONO
2. 98.0MHz, STEREO
3. TP103, VR104
● Connect a frequency Counter to TP103
* 76kHz + 200Hz
4. 1) SSG 98MHz, 60dB μ (STEREO L or R)
2) Adjust VR103
● Connect AC-Voltmeter to LINE OUT. (TP201)
* Minimum output level for opposite channel.

2 TUNING INDICATOR

1. 98.0MHz, 22dB μ (MONO)
2. 98.0MHz
3. TUNED indicator on the LCD, VR102.
4. * Tuning indicator is lit at 22dB input.

1 CENTER VOLTAGE

1. 98.0MHz, 60dB μ (MONO)
2. 98.0MHz
3. TP101, T103
4. ● Connect the DC Digital Voltmeter to both ends of TP101
* 0 + 20mV

LW (SW)

NOTE:

Frequencies indicated in < > are for the SW BAND model.

1 LW (SW) OSC

1. —
2. 146kHz <3.80MHz>
3. TP102, T106
4. ● Connect the Digital Voltmeter between TP102.
* 1.1 \pm 0.2V

2 LW (SW) SENSITIVITY

1. 160kHz, 70dB μ <4MHz, 30dB μ >
2. 160kHz <4MHz>
3. TP102
4. ● Connect the distortion meter to LINE OUT.
* Minimum distortion & maximum output level
* For best results repeat adjustments several times.

MW

2 MW SENSITIVITY

1. 603kHz, 60dB μ
2. 603kHz
3. T101
4. ● Connect the distortion meter to LINE OUT.
* Minimum distortion & maximum output level
* For best results repeat adjustment several times.

1 MW OSC

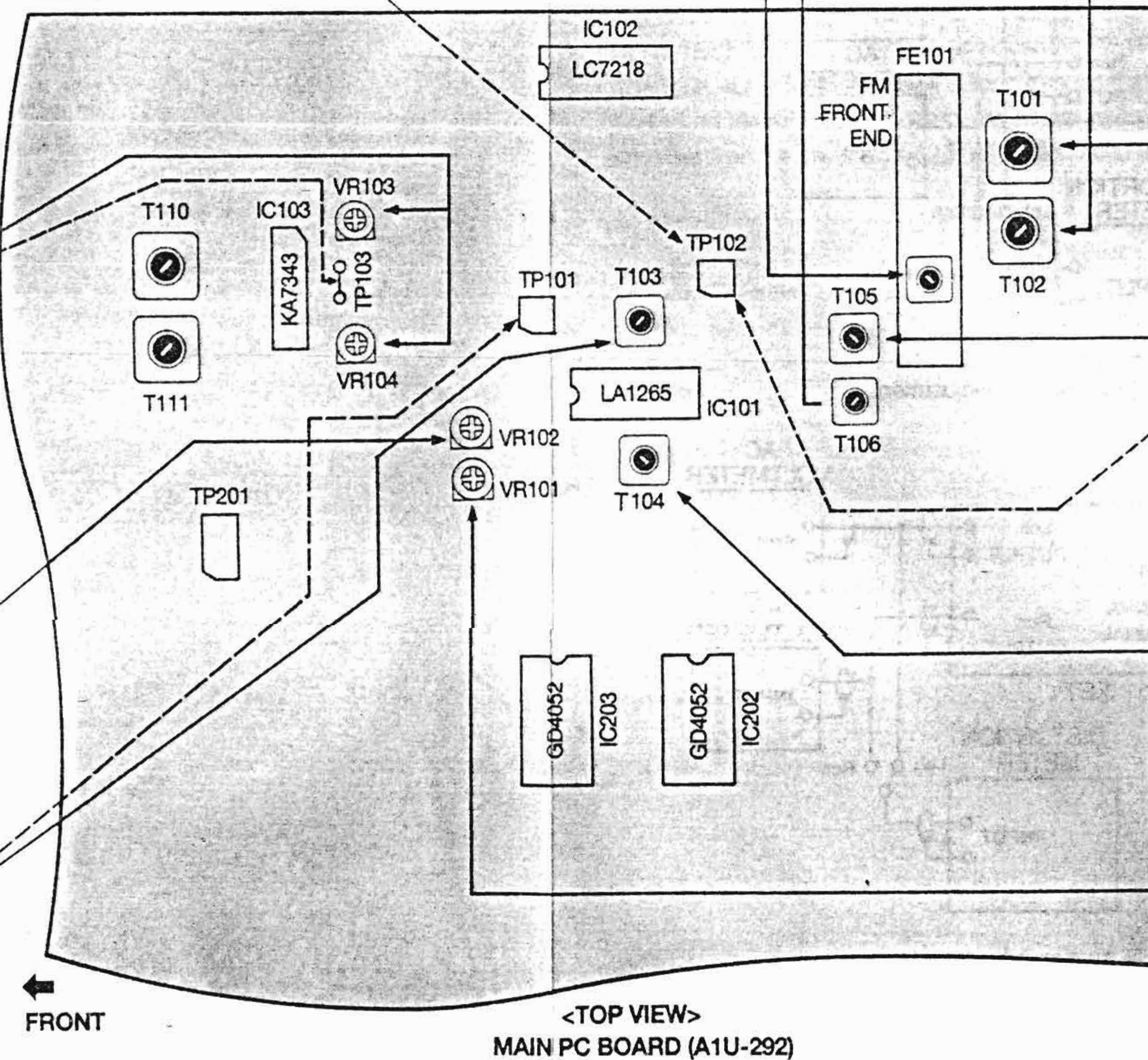
1. —
2. 531kHz
3. TP102, T105
4. ● Connect the DC Digital meter to TP102
* 1.25 + 0.5V

3 MW IF

1. 603kHz, 60dB μ
2. 603kHz
3. T104
4. ● Connect the AC-Voltmeter to LINE OUT.
* Minimum distortion & maximum output level

4 TUNING INDICATOR

1. 999kHz, 64dB μ
2. 999kHz
3. TUNED indicator on the LCD, VR101
4. * Tuning indicator is lit at 64dB μ



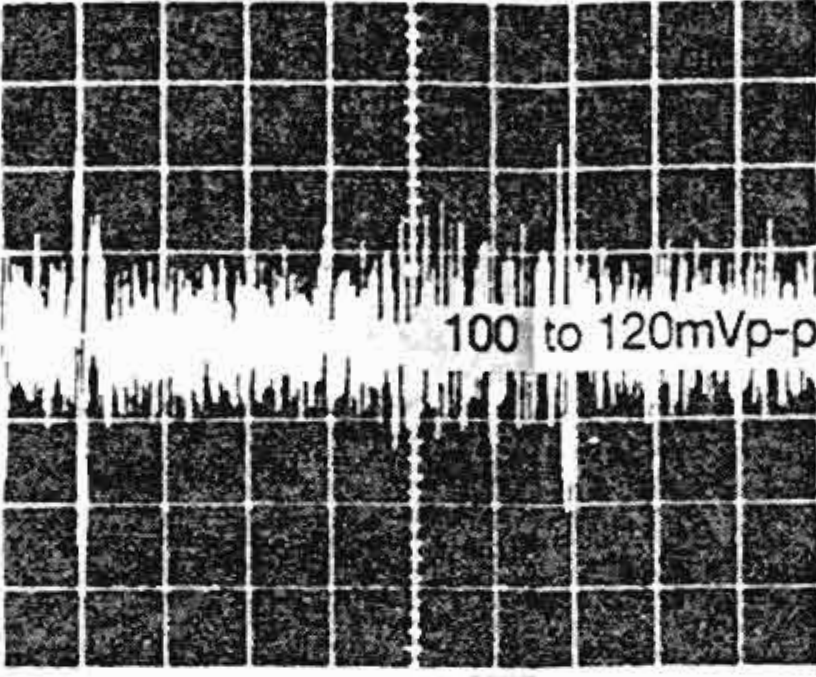
3. CD ELECTRICAL ADJUSTMENT

STEP	ADJUSTMENT
1.	TEST DISC
2.	MODE
3.	TEST POINT and ADJUSTMENT parts.
4.	REMARK(●), RESULT(*)

Test point ADJ. part

3 FOCUS SERVO GAIN

1. Test disc A-BEX TCD-781
2. PLAY
3. TP901(F, G) / VR904
4. ● Connect an oscilloscope to the TP901
* 100 to 120mVp-p

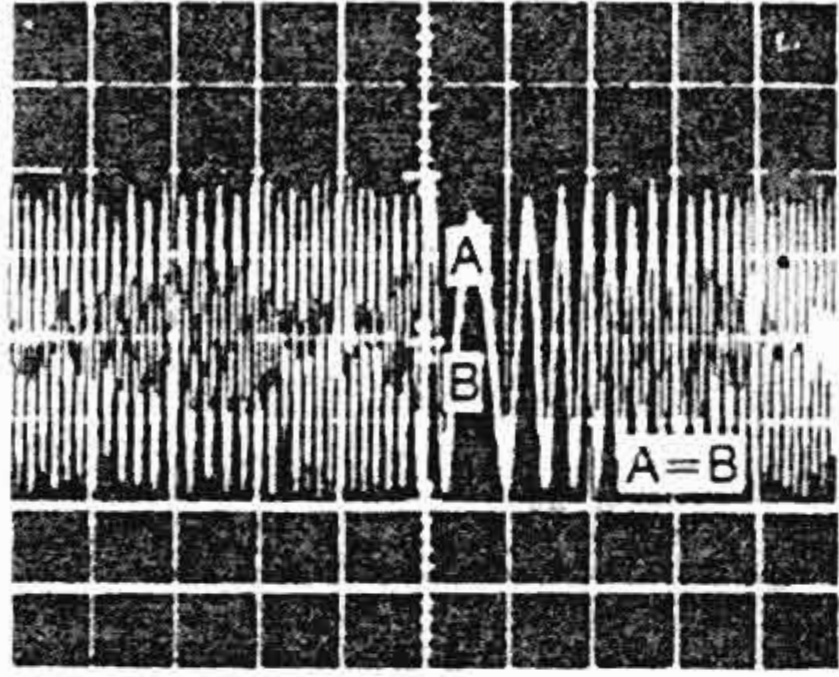


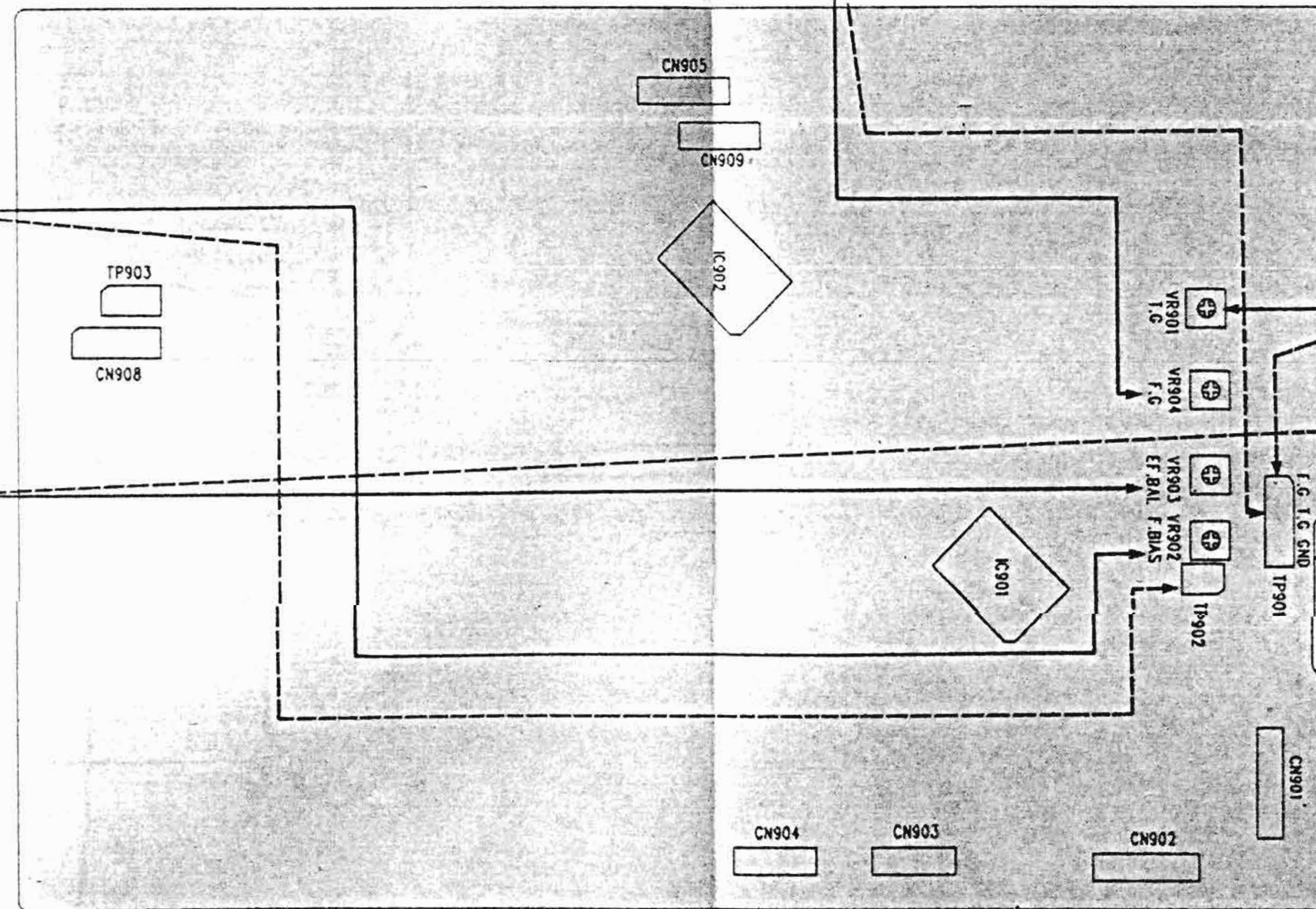
2 FOCUS OFF-SET

1. Test disc A-BEX TCD-781
2. PLAY
3. TP902/VR902
4. ● Connect an oscilloscope to the TP902 and check the LEVEL, then adjust the VR902 so that the oscilloscope AC Level is MAX

1 E-F BALANCE

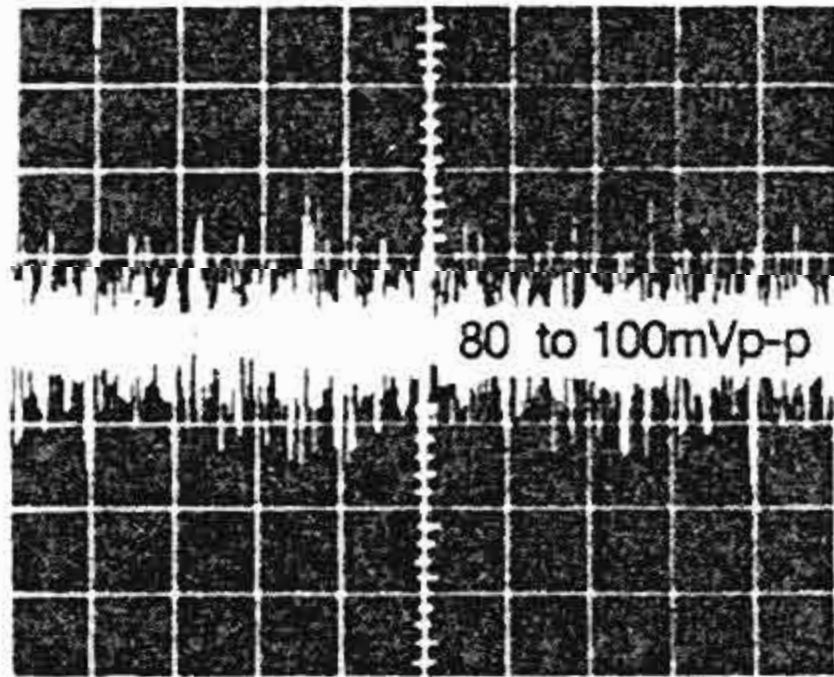
1. Test disc A-BEX TCD-781
2. PLAY
3. TP901/VR903
4. ● Connect an oscilloscope to the TP901.
* A=B





4 TRACKING SERVO GAIN

1. Test disc A-BEX TCD-781
2. PLAY
3. TP901(T, G) / VR901
4. ● Connect an oscilloscope to the TP901
* 100 to 120mVp-p



<TOP VIEW>
CD P.C. BOARD (A2U-143)

4. CASSETTE DECK ELECTRICAL ADJUSTMENT

[PRECAUTIONS BEFORE ADJUSTMENT]

1. Before adjustment, clean and de-magnetize the heads and tape guides.
2. Set the Dolby NR switch off.
3. Use the following recording test tapes.
NORMAL position : TDK AC-224
CrO₂ position : TDK AC-513
4. LINE OUT = TP301

STEP ADJUSTMENT

1. TEST TAPE/INPUT SIGNAL
2. MODE
3. CHECK POINT, ADJUSTMENT PART
4. REMARKS(●) and RESULT(*)

Adjustment Part Test Point

6 BIAS OSC FREQUENCY

1. No signal input, CrO₂ recording test tape. (AC-513)
2. REC
3. TP302, L309
4. ● Connect a frequency counter between TP302 Signal and GND.
* $100 \pm 5\text{KHz}$

8 NORMAL POSITION BIAS

1. 1KHz and 10KHz, 26dBs(LINE OUT) NORMAL recording test tape(AC-224)
2. REC → PLAY
3. LINE OUT, VR308(L), VR307(R)
4. ● Connect an AC milli-voltmeter to LINE OUT.
* Playback levels of 1KHz and 10KHz are equal or within $\pm 1.0\text{dB}$

7 RECORDING LEVEL

1. NORMAL tape(AC-224), AUX, 1KHZ input, -6dBs(LINE OUT)
2. REC → PLAY
3. LINE OUT, VR306(L-ch)/VR305(R-ch)
4. ● Connect an AC milli-voltmeter to LINE OUT.
* -6dBs($\pm 1\text{dB}$)

5 TAPE II PB LEVEL

1. 400Hz test tape(MTT-150)
2. PLAY
3. LINE OUT VR301(L-ch)
4. ● Connect AC milli-voltmeter to LINE OUT.
* 580mV (-2.5dBs)

4 TAPE I PB LEVEL

1. 400Hz test tape(MTT-150)
2. PLAY
3. LINE OUT VR302(L-ch)
4. ● Connect AC milli-voltmeter to LINE OUT.
* 580mV (-2.5dBs)

3 HEAD AZIMUTH ALIGNMENT (TAPE I & II)

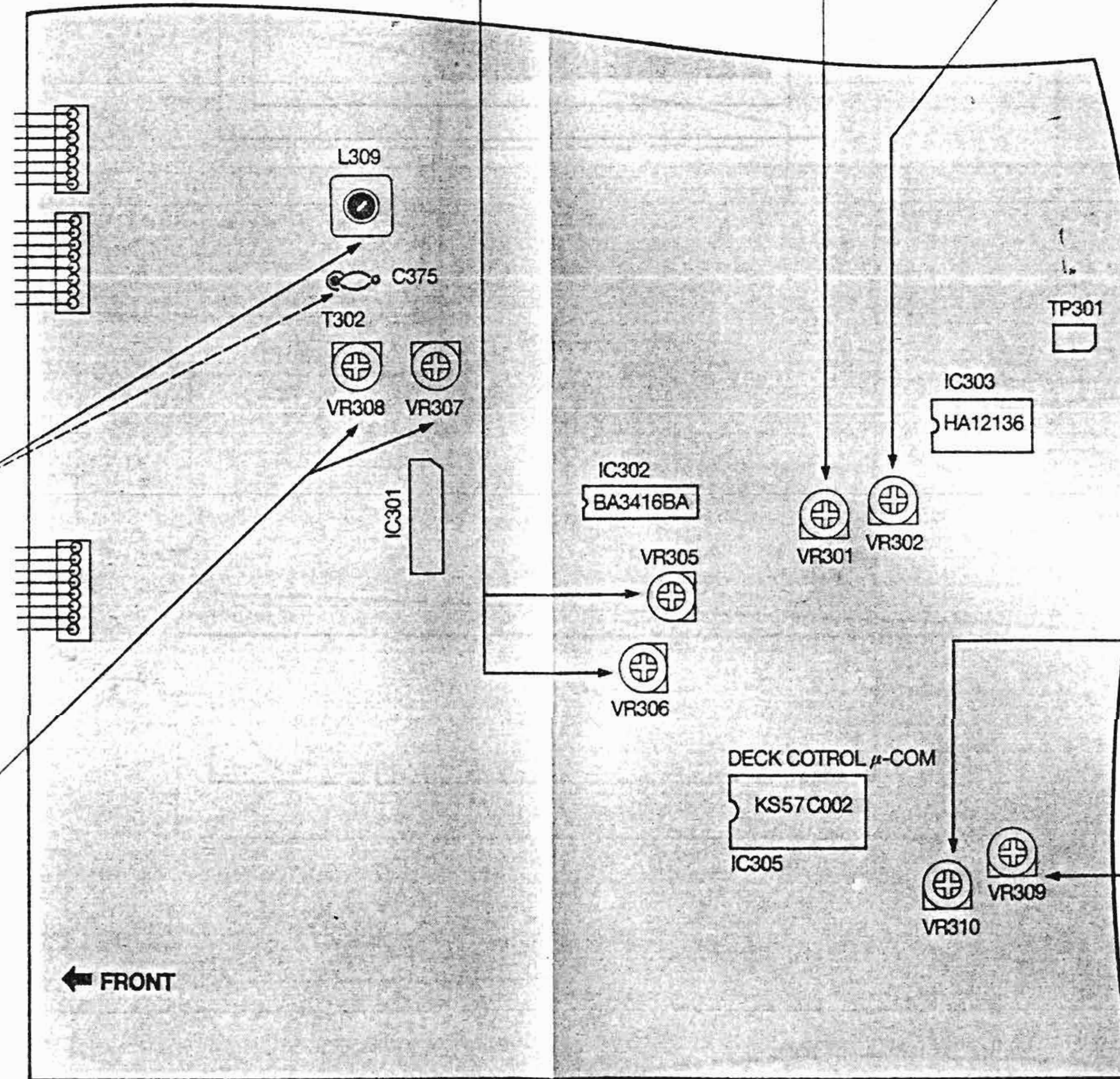
1. 10KHz-15VU test tape (MTT-357G)
2. PLAY
3. LINE OUT, HEAD AZIMUTH ALIGNMENT SCREW (refer to the page 14)
4. ● Connect an AC milli-voltmeter to LINE OUT.
* Maximum output level.

2 TAPE I NORMAL($\times 1$) SPEED

1. 3,000Hz test tape (MTT-111DN)
2. PLAY
3. LINE OUT, VR310
4. ● Connect a frequency counter to LINE OUT
* $3,000 \pm 30\text{Hz}$

1 TAPE I HIGH($\times 2$) SPEED

1. 3,000Hz test tape (MTT-111DN)
2. TAPE I PLAY, TAPE II REC, Dubbing Speed SW ON
3. LINE OUT, VR309
4. ● Connect a frequency counter to LINE OUT
* $6,000 \pm 60\text{Hz}$



<TOP VIEW>

MAIN PC BOARD(A1U-292)

V. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list Part No, Model No. and the description of each part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

[NOTE]

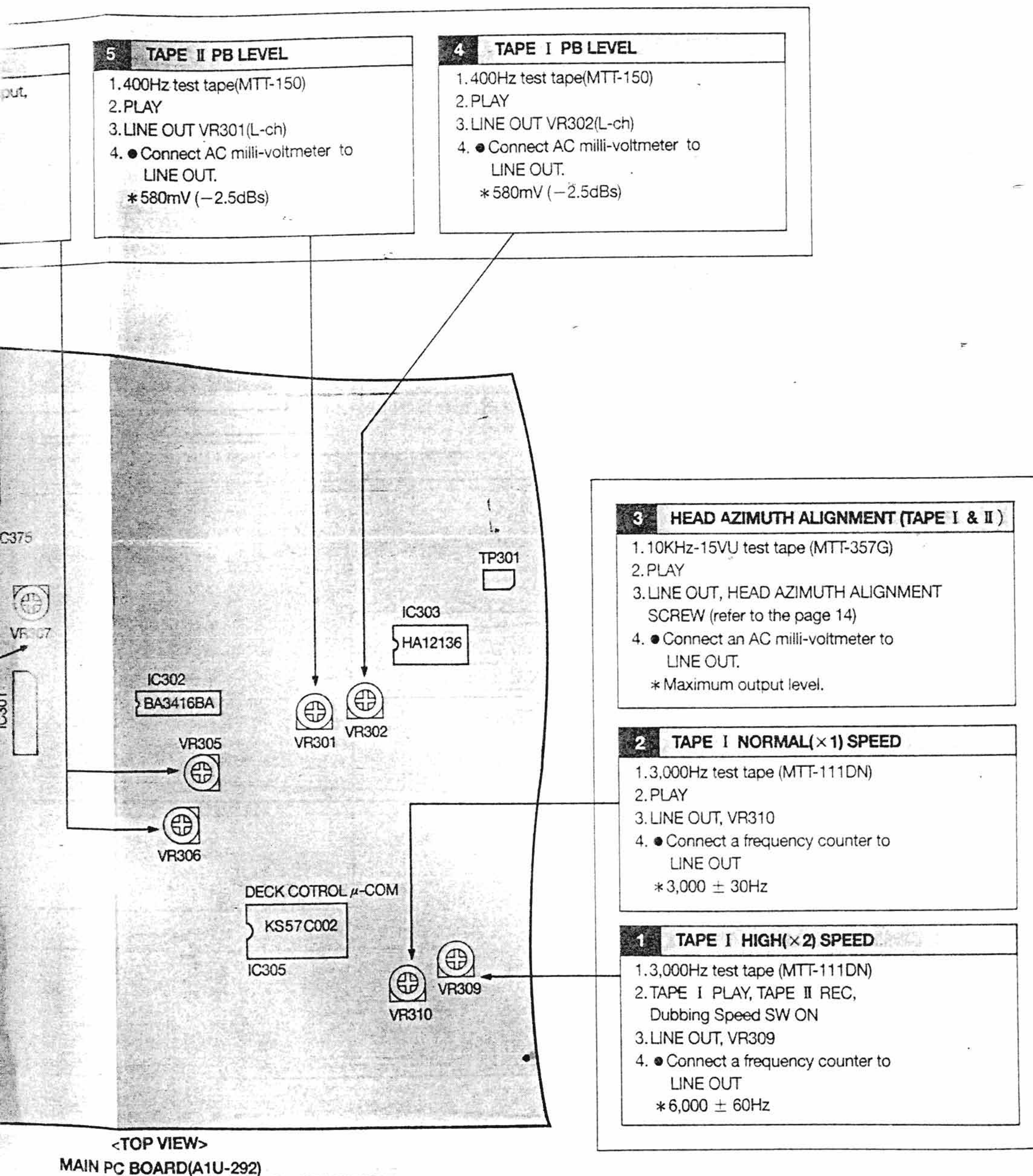
1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.

WARNING

▲(*) INDICATED SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

▲(*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.



1. RECOMMENDED SPARE PARTS

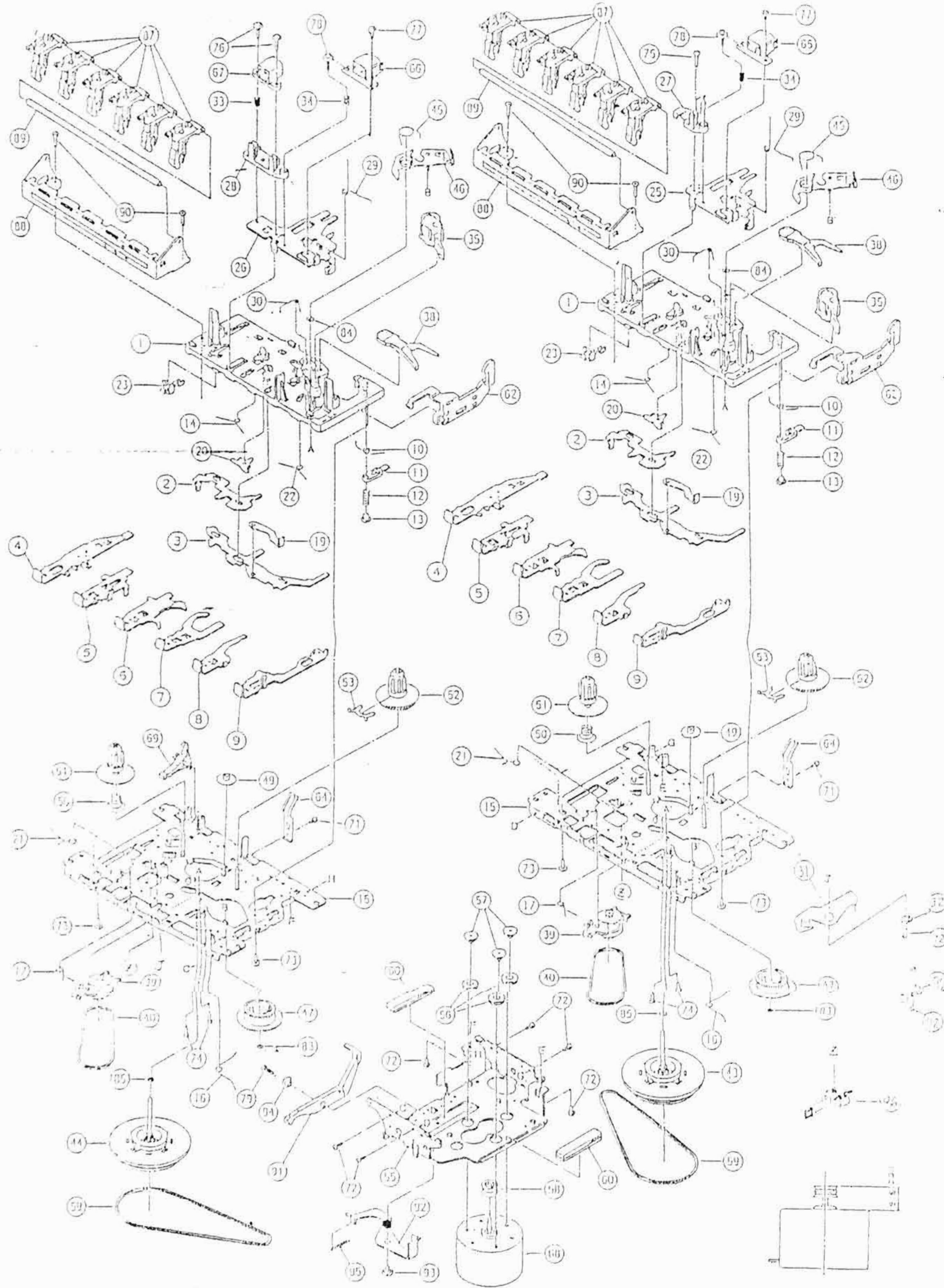
We suggest that you stock the following Recommended Spare Parts items listed below since they can cover most of the routine service.

Ref. No.	Part No.	Description
1	* ACAC-00063-000	CORD-AC [E, V] KKP-419C
2	* ACAC-00064-000	CORD-AC [U, Y1, Y2, Y3, Y4, Y7] KKP-419C WITH TUBE
3	* ACAC-00083-000	CORD-AC [S] KKP-560
4	* ACAC-00094-000	CORD-AC [B] CW3201, YH396-03V
5	BTCE-00050-004	FILTER-CERAMIC SFU 450B
6	* BTCE-00152-107	SFE10.7MJA10H [V]
7	* BTCE-00060-107	FILTER-CERAMIC SFE 10.7MS3G-A[Except V]
8	* CACS-U472M-039	CAPACITOR AC DE7150F 472 MVAI [B]
9	* CACS-U472M-084	CAPACITOR AC SCF2G 472M12BS [E, V, U, Y, S]
10	DDMR-00191-T11	D-RECTIFIER GP20-02A (200V 2A)
11	DDSV-00120-S10	D-WC SVC321SP
12	DDTR-00040-T10	D-RECTIFIER 1N4004(400V 1A)
13	DDTS-00060-S00	D-SILICON 1SS131
14	DDTZ-G027B-S00	D-ZENER MTZ 2.7B
15	DDTZ-G036B-S00	D-ZENER MTZ 3.6B
16	DDTZ-G047B-S00	D-ZENER MTZ 4.7B
17	DDTZ-G056B-S00	D-ZENER MTZ 5.6B
18	DDTZ-G075B-S00	D-ZENER MTZ 7.5B
19	DDTZ-G091B-S00	D-ZENER MTZ 9.1B
20	DDTZ-G100B-S00	D-ZENER MTZ 10B
21	DDTZ-G110B-S00	D-ZENER MTZ 11B
22	DDTZ-G120B-S00	D-ZENER MTZ 12B
23	DDTZ-G130B-S00	D-ZENER MTZ 13B
24	DECA-00186-00P	MECHA CASSETTE TN-21ZSW-1262
25	DPLA-00160-00B	LAMP SL422-012110PP 110mA 12V
26	DPLC-00300-00Z	DISPLAY-LCD OEL-7636-506R022A
27	* FGFB-S1002-137	FUSE GLASS T 800mA/250V
28	ICCM-00170-S00	IC GD4052B
29	ICCM-20380-S10	IC LC7218
30	ICDG-00370-S20	IC μ PD1330HA
31	ICDG-00940-SE0	IC KS9282B
32	ICDG-00950-SE0	IC KA9220B
33	ICHP-00090-S10	IC STK4132 II 20W x 2
34	ICHY-00190-TL0	IC KRM-61M
35	ICLN-00070-SD0	IC KIA7343P
36	ICLN-00220-SI0	IC LA1265
37	ICLN-00540-S00	IC BA3416BL
38	ICLN-00681-SA0	IC HA12136A
39	ICLN-01550-S50	IC AN7337N
40	ICLN-01590-SE0	IC KA9258
41	ICMP-00220-S20	IC UPD6122G-001
42	ICMP-01060-S10	IC LC7522
43	ICMP-01250-SA0	TCM-9502-007 QFP100
44	ICMP-01080-SE0	IC KS57C002-A3
45	ICCM-20500-SB0	IC BU4094

46	ICOP-00120-SE0	IC KA324
47	ICOP-00130-SE0	IC KA4558S
48	ICOP-00131-SE0	IC KA4558C
49	ICRG-00043-SE0	IC KA7805
50	ICRG-00161-SE0	IC KA7809
51	ICRG-00330-SG0	IC NJM7909FA
52	KIAA-00140-E60	COIL-AM IFT AAA-014B
53	KIAO-00240-E20	COIL-AM OSC AAO-024
54	KIAO-00250-E20	COIL-AM OSC AAO-025
55	KIAT-00500-E20	COIL-AM ANT AAT-050
56	KIAT-00510-E60	COIL-LW ANT AAT-051
57	KIBK-00050-E40	COIL-ABK005 2.2 μ H
58	KIFD-00080-E60	COIL-FM IFT AFD-008B
59	KIML-A0010-E60	COIL-FM MPX AMA-001A 19KHz
60	KIRA-00090-E60	COIL REC ARA009A 100KHz
61	KIRK-00150-E60	COIL-REC CHOCK ARK-015A
62	KIRO-00140-E60	COIL-REC OSC ARO014 85KHz
63	KIRP-00050-E60	COIL-REC TRAP ARP005A 100KHz
64	KTAL-00040-072	CRYSTAL HC-49/U 7.2MHz
65	KTAL-00071-169	CRYSTAL HC-491U 16.9344MHz
66	KTAL-00101-003	CRYSTAL KDSIF 32.768KHz-20P
67	KTRE-00030-041	RESONATOR CSA4.19MG 4.19MHz
68	KTRE-00230-050	RESONATOR CST5.00MGW
69	* PTAJ-02440-S10	TRANSFORMER-POWER [U, Y] A74-244S-V
70	* PTAJ-02440-Y1B	TRANSFORMER-POWER [E, V, B] A74-244Y-B
71	* PTAJ-02440-Z1S	TRANSFORMER-POWER [S] A74-244Z-S
72	RCMS-JR22K-410	R-CEMENT 0.22ohm 2W
73	RFUH-HR22J-030	R-FUSIBLE 0.22ohm 1W 5%
74	* RFUM-F560J-120	R-FUSIBLE 56ohm 1/4W 5%
75	* RFUM-G2R2J-130	R-FUSIBLE 2.2ohm 1/2W 5%
76	* RFUM-GR22J-130	R-FUSIBLE 0.22ohm 1/2W 5%
77	* RFUM-GR47J-130	R-FUSIBLE 0.47ohm 1/2W 5%
78	* RFUZ-F470G-001	R-FUSIBLE 47ohm 1/4W G ERD2FC 470P
79	RMOH-H4R7J-030	R-METAL OXIDE 4.7ohm 1W 5%
80	RMOH-H390J-030	R-METAL OXIDE 39ohm 1W 5%
81	SKDC-00020-031	SOCKET-DC D10170011S
82	SKPH-00162-66W	SOCKET-PHONE HTJ064-04A
83	SKPH-00330-66W	SOCKET-PHONE HTJ064-10
84	SWPU-00301-038	SWITCH-PUSH 00220014
85	SKRC-00301-040	SOCKET-RCA JK0400911N
86	SWSL-00128-012	SWITCH-SLIDE 00120050
87	SWTA-00220-060	SWITCH-TACT SKHV10910
88	* SWVS-00080-Z5K	SWITCH-VTG SEL 00220023 250V 5A [U, Y]
89	TEAT-00051-03R	TERMINAL ANTENNA AK1/2-1058A

Ref. No.	Part No.	Description
90	TESP-00010-08P	TERMINAL SPEAKER (WITH SURROUND) AU8-2021
91	TESP-00110-04P	TERMINAL SPEAKER P404204219(AU4-2042-1)
92	TRSD-0008Y-SD0	TR KTD2058-Y
93	TRSB-0006Y-SD0	TR KTB1366-Y
94	TRSK-0001G-S30	FET 2SK246-GR
95	TRSK-0008Y-SD0	FET KTK192 A-Y
96	TRTA-0008G-SD0	TR KTA1266-GR
97	TRTA-0008Y-SD0	TR KTA1266-Y
98	TRTA-0012Y-SD0	TR KTA1273-Y
99	TRTA-0041E-SOS	TR DTA144E-S
100	TRTA-0042E-SOS	TR DTA124E-S
101	TRTA-0043E-SOS	TR DTA114E-S
102	TRTC-0010Y-SD0	TR KTC1923-Y
103	TRTC-0016G-SD0	TR KTC3198-GR
104	TRTC-0039Y-SD0	TR KTC3205-Y
105	TRTC-0062E-SOS	TR DTC114E-S
106	TRTC-0060E-SOS	TR DTC144E-S
107	TRTC-0061E-SOS	TR DTC124E-S
108	TRTC-00200-SD0	TR KTD1302
109	TRTC-0094Y-SD0	TR KTC3199-Y
110	TRTC-0015L-SD0	TR KTC3200-BL
111	TRTC-0016Y-SD0	TR KTC3198-Y
112	TRTC-01060-SD0	TR KTC3203
113	TUFF-00150-001	FRONT-END FE340-A01
114	VFEB-A001B-222	R-SEMI FIXED EVN DXA A03 BE3 2.2Kohm
115	VFEB-A001B-223	R-SEMI FIXED EVN DXA A03 BE4 22Kohm
116	VFEB-A001B-472	R-SEMI FIXED EVN DXA A03 BQ3 4.7Kohm
117	VFEB-A001B-473	R-SEMI FIXED EVN DXA A03 BQ4 47Kohm
118	VFEB-D029B-503	VR-ROTARY RK 11K1160156-50KB
119	VWBD-D013B-104	VR-W/MOTOR RK16812MG 28B 100KB x 2

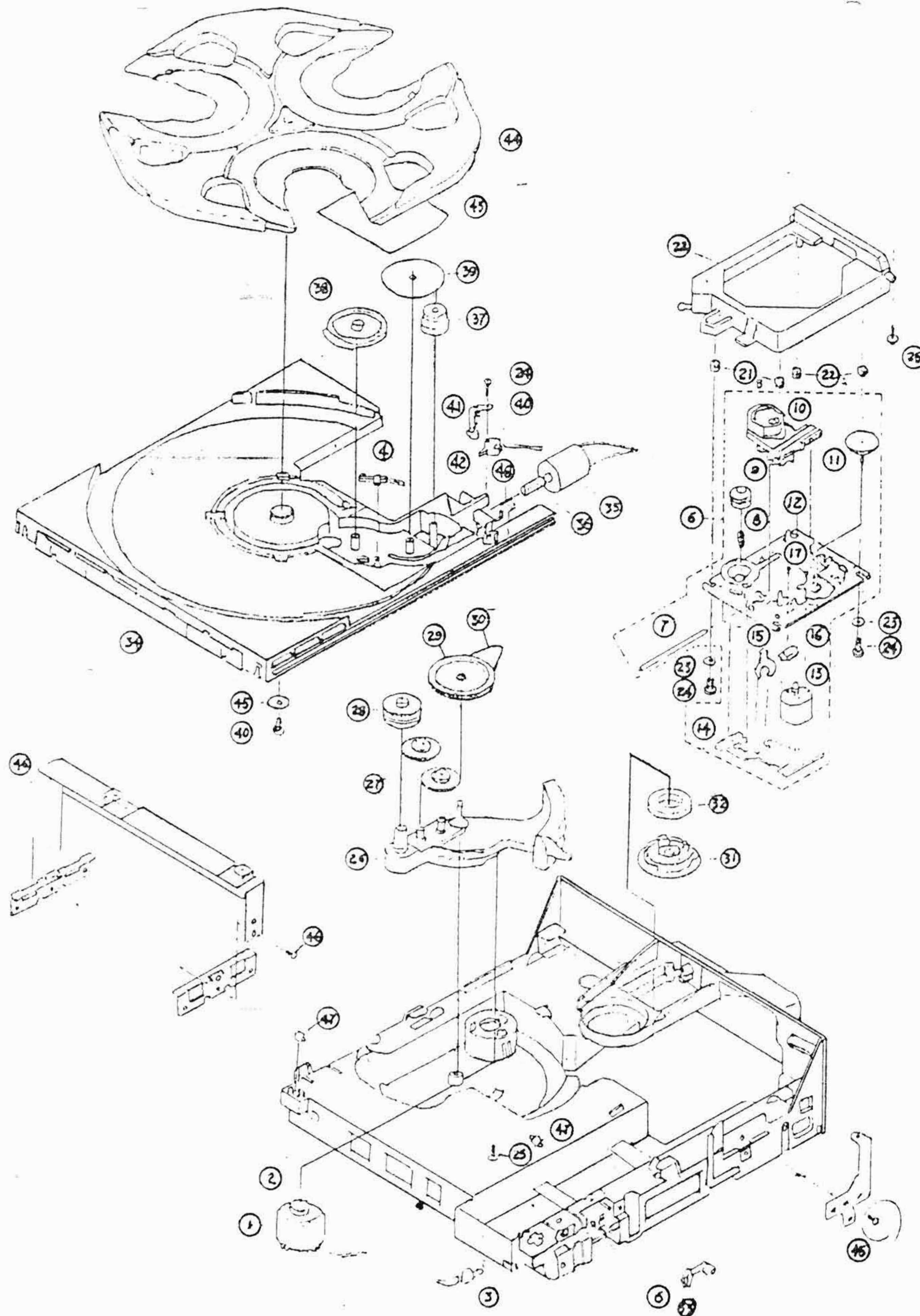
CASSETTE MECHA BLOCK (TN-21ZSW-1262)



2. MECHA BLOCK (TAPE DECK)

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	ADCA-00186-033	BASE ASS'Y	73	ADCA-00186-062	P TAPPING BING . SCREW M2×5
2	ADCA-00186-002	SWITCH ACTUATOR	74	ADCA-00186-063	TAPPING SCREW (FOR CAMERA) M2×45
3	ADCA-00186-003	PUSH BUTTON ACTUATOR	75	ADCA-00186-064	SCREW M2×6
4	ADCA-00186-004	REC BUTTON LEVER	76	ADCA-00186-065	+ - CAP SCREW M2×8
5	ADCA-00186-005	PLAY BUTTON LEVER	77	ADCA-00186-066	+ BIND SCREW M2×3
6	ADCA-00186-006	REW BUTTON LEVER	78	ADCA-00186-067	AZIMUTH SCREW M2×7
7	ADCA-00186-007	FF BUTTON LEVER	79	ADCA-00186-068	C TAPPING SCREW M2×6
8	ADCA-00186-008	STOP BUTTON LEVER	83	ADCA-00186-069	P WASHER CUT 1.2×3.8×0.3
9	ADCA-00186-009	PAUSE BUTTON LEVER	84	ADCA-00186-070	P WASHER CUT 1.45×3.8×0.5
10	ADCA-00186-010	P CONTROL SPRING	85	ADCA-00186-071	P WASHER 2×3.5×0.3
11	ADCA-00186-011	PAUSE LEVER (E)	87	ADCA-00186-072	OPERATION LEVER
12	ADCA-00186-012	PAUSE LEVER SPRING	88	ADCA-00186-073	BUTTON FRAME (S)
13	ADCA-00186-013	PAUSE STOPPER	89	ADCA-00186-074	BUTTON LEVER SHAFT
14	ADCA-00186-014	BUTTON LEVER SPRING (A)	90	ADCA-00186-075	S TAPPING SCREW (FOR CAMERA) M2×8(GUIDE)
15	ADCA-00186-015	CHASSIS ASS'Y	91	ADCA-00186-076	P KICK LEVER (B)
16	ADCA-00186-016	E ACTUATOR SPRING	92	ADCA-00186-077	P KICK LEVER (A)
17	ADCA-00186-017	P.S. LEVER SPRING	93	ADCA-00186-078	PK COLLER SCREW (A)
19	ADCA-00186-018	E KICK LEVER	94	ADCA-00186-079	COLLER (B)
20	ADCA-00186-019	PR STOPPER	95	ADCA-00186-080	P KICK LEVER SPRING
21	ADCA-00186-020	REC BUTTON LEVER SPRING	96	ADCA-00186-081	LEAF SWITCH MSW-17820
22	ADCA-00186-021	BUTTON LEVER SPRING (B)	97	ADCA-00186-082	LEAF SWITCH MSW-1275
23	ADCA-00186-022	LEAF SWITCH MSW-1541T	98	ADCA-00186-083	LEAF SWITCH MSW-1664
25	ADCA-00186-023	HEAD PANEL	99	ADCA-00186-084	CAP TAPPING SCREW 2×5
26	ADCA-00186-024	HEAD PANEL			
27	ADCA-00186-025	HEAD BASE			
28	ADCA-00186-026	HEAD BASE			
29	ADCA-00186-027	PANEL P SPRING			
30	ADCA-00186-028	M CONTROL SPRING			
31	ADCA-00186-029	REC ARM			
32	ADCA-00186-030	P ARM COLLAR			
33	ADCA-00186-031	EH SPRING			
34	ADCA-00186-032	AZIMUTH SPRING			
35	ADCA-00186-033	PINCH ROLLER ARM ASS'Y			
38	ADCA-00186-034	SENSING LEVER			
39	ADCA-00186-035	RF CLUTCH ASS'Y			
40	ADCA-00186-036	RF BELT			
43	ADCA-00186-037	FLYWHEEL ASS'Y			
44	ADCA-00186-038	FLYWHEEL ASS'Y			
45	ADCA-00186-039	GEAR PLATE SPRING			
46	ADCA-00186-040	GEAR PLATE ASS'Y			
47	ADCA-00186-041	CAM GEAR			
49	ADCA-00186-042	FF GEAR			
50	ADCA-00186-043	BACK TENSION SPRING			
51	ADCA-00186-044	SUPPLY REEL ASS'Y			
52	ADCA-00186-045	TAKE UP REEL ASS'Y			
53	ADCA-00186-046	SENSOR			
55	ADCA-00186-047	MOTOR BRACKET			
56	ADCA-00186-048	MOTOR RUBBER			
57	ADCA-00186-049	MOTOR COLLER SCREW			
58	ADCA-00186-050	MOTOR PULLEY			
59	ADCA-00186-051	MAIN BELT			
60	ADCA-00186-052	ANTI VIBRATION FELT MAT			
62	ADCA-00186-053	EJECT SLIDE LEVER			
64	ADCA-00186-054	PACK SPRING			
65	ADCA-00186-055	P HEAD SS15R-AA4N1			
66	ADCA-00186-056	R.P. HEAD SS15R-AA4N1			
67	ADCA-00186-057	E HEAD E-321PL-0201			
68	ADCA-00186-058	MOTOR EG-530YD-2B			
69	ADCA-00186-059	RECORD SAFETY LEVER			
71	ADCA-00186-060	C TAPPING SCREW M2×3			
72	ADCA-00186-061	C TAPPING SCREW M2×4			

CD MECHANISM



3. CD MECHANISM

Ref. No.	Part No.	Description
1	BM-408752M	MOTOR RF-500TB-14415
2	MR-407764M	PULLEY (SG)
3	ES-408755M	SW LEAF LSA-2127E
4	ES-408754M	SW LEAF LSA-1119H ZEA
5	ZS-343082	PT BR26 × 08STL CMT
6	* BB-408757N	MECHA TRAVERSE KSM-2101ABM
7	MS-733198J	SLIDE SHAFT
8	ZG-733199J	SP COMPRESSION
9	MZ-733200J	CENTER RING (LO)
10	* BO-394728J	PICK UP KSS-210A
11	MZ-733201J	GEAR (A)
12	MA-733202J	TURNTABLE CHASSIS ASS'Y (MB)
13	BM-733203J	MOTOR GEAR ASS'Y (MB)
14	EA-733204J	MOTOR P.C BOARD (6P)
15	ES-733205J	SW LEAF
16	EJ-733206J	CONNECTOR 6P
17	ZS-477876	PAN20 × 03STL CMT
18	EW-408749M	WIRE ASS'Y YMC-02 PU1 8P
19	EW-408750M	WIRE ASS'Y YMC-02 PU2 8P
20	EW-408751M	WIRE ASS'Y YMC-02 TRAVERSE 6P
21A	MB-407746M	INSULATOR (SG)
21B	MB-411992M	INSULATOR (B) (SG)
22	MZ-407745M	HOLDER TRAVERSE (SG)
23	ZW-409219M	PW23 × 100 × 100STL BZN(SG)
24	ZS-390395J	BT BID20 × 10STL BZN
25	ZS-407886M	BT PAN30 × 08STL BZN C100(SG)
26	BL-409250M	SG HOLDER GEAR PART
27	MZ-407734J1	GEAR LOADING (B)
28	MZ-407733M	GEAR LOADING (A) (SG)
29	MZ-407763J1	PULLEY GEAR
30	MB-407767M	BELT LOADING (SG)
31	MZ-410907J	CLAMPER (B)
32	MZ-408753J	MAGNET FM30 × 17 × 5.2 2P
33	ML-407765J	LEVER SW LOADING
34	SC-407748M	TRAY LOADING (SG)
35	BM-374198	MOTOR RF-370CA-15370
36	MZ-407740J	WORM TABLE
37	MZ-407739M	GEAR WORM WHEEL TABLE(SG)
38	MZ-407737M	GEAR TABLE (A) (SG)
39	MZ-407738M	GEAR TABLE (B) (SG)
40	ES-408758M	SW LEVER SSCTL-S-R
41	ZG-407741M	SP PLATE HOLDER DISK (SG)
42	ML-407742M	LEVER SW (SG)
43	SZ-407750M	COVER GEAR (SG)
44	MZ-407749M	HOLDER DISK (SG)
45	ZW-396336M	FW30 × 150 × 080STL CMT (SG)
46	ZS-331182	BT BID30 × 08STL BNI
47	MR-407755M	ROLLER
48	MS-411215J	SHAFT WORM

4. P.C BOARD BLOCK

Ref. No.	Part No.	Description
1	PCSU-03130-11B	PCB-SINGLE(MAIN) A1U-292 330x247x1.6t
2	PCSU-03040-11B	PCB-SINGLE (FRONT) A1U-293 330x247x1.6t
3	PCSU-01560-21B	PCB-SINGLE (CD) A2U-143 330x247x1.6t
4	PCSU-01440-25B	PCB-SINGLE (POWER AMP) A2U-144 247x247x1.6t
5	PCSE-02060-41B	PCB-SINGLE (REMOTE) A4E-206 243x150x1.6t

5. MAIN P.C BOARD(A1U-292)

Ref. No.	Part No.	Description
CF103	BTCE-00050-004	FILTER-CERAMIC SFU 450B
CF101	BTCE-0060-107	FILTER-CERAMIC SFE 10.7MS3G-A
D611	DDMR-00191-T11	DIODE-RECTIFIER GP20-02A (200V 2A) DO-16 M
D612		
D613		
D614		
VD101	DDSV-00120-S10	DIODE-VVC SVC321SP A-C AM 8V DO40 S
VD102		
VD103		
D608	DDTR-00040-T10	DIODE-RECTIFIER 1N4004 (400V 1A) DO-41 T
D609		
D610		
D615		
D616		
D617		
D618		
D619		
D620		
D621		
D622		
D623		
D624		
D626		
D101	DDTS-00060-S00	DIODE-SI 1SS131 (90V 0.13A) DO-40 T
D102		
D103		
D104		
D105		
D106		
D301		
D302		
D303		
D304		
D305		
D306		
D307		
D308		
D309		
D310		
D607		
D627		
ZD201	DDTZ-G056B-S00	DIODE ZENER MTZ5.6B 5.45-5.73 DO40 T
ZD202		
ZD203	DDTZ-G075B-S00	DIODE ZENER MTZ7.5B 7.07-7.45 DO40 T

ZD602	DDTZ-G130B-S00	DIODE ZENER MTZ13B 12.55-13.21 DO40 T
ZD603		
ZD604		
IC202	ICCM-00170-SQ0	IC 4CH MUX/DEMUX GD4052B DIP16
IC203		
IC102	ICCM-20380-S10	IC PLL LC7218 DIP24S
IC301	ICDG-00370-S20	IC TAPE SELECTOR μPD1330HA SIP9
IC103	ICLN-00070-SD0	IC PLL FM MPX KIA7343P SIP9
IC101	ICLN-00220-S10	IC FM/AM IF+DET LA1265 DIP22S
IC205	ICCM-20500-SB0	BU4094 DIP16
IC302	ICLN-00540-S00	IC 2CH PRE AMP BA3416BL DIP16
IC303	ICLN-00681-SA0	IC DOLBY B HA12136A DIP16
IC305	ICMP-01080-SE0	IC U-COMPUTER M57D2 KS57C0002-A3 DIP30
IC304	ICOP-00130-SE0	IC DUAL OP AMP KA4558S SIP9
IC201	ICOP-00131-SE0	IC DUAL OP AMP KA4558C DIP8
IC204		
IC602	ICRG-00043-SE0	IC REGULATOR KA7805 5V 3mm TO-220
IC603	ICRG-00330-SG0	IC REGULATOR NJM7909FA -9V 2.2A TO-220
T104	KIAA-00140-E60	COIL-AM IFT AAA-014B
T105	KIAO-00240-E20	COIL-AM OSC AAO024 MW 7mm-CAN
T106	KIAO-00250-E20	COIL-AM OSC AAO025 LW 7mm-CAN
T101	KIAT-00500-E60	COIL-MW ANT AAT-050
T102	KIAT-00510-E60	COIL-LW ANT AAT-051
T103	KIFD-00080-E60	COIL-FM IFT AFD-008B
T109	KIML-A0020-E20	FM MPX FILTER [V]
T110	KIML-A0010-E60	COIL-FM MPX FILTER AMA-001A 19KHz 10mm-CAN
T111		
L303	KIRA-00090-E60	COIL-REC FILTER ARA-009A 100KHz
L304		
L305	KIRK-00150-E60	COIL-REC CHOCK ARK-015A 9.2mH MOLD-SHELD
L306		
L309	KIRO-00140-E60	COIL-REC OSC ARO014 85KHz 10mm-CAN
L301	KIRP-00050-E60	COIL-REC TRAP ARP005A 100KHz 7mm-C
L302		
L307		
L308		
CN306	KNCW-00121-7S9	CONNECTOR-WAFER YFAW025-07T 19.5mm WHT
CN307	KNCW-00121-8S9	CONNECTOR-WAFER YFAW025-08T 19.5mm WHT
CN611		
CN101	KNCW-00121-4S9	CONNECTOR-WAFER YFAW025-04T 19.5mm WHT
CN309	KNCW-00140-ATM	CONNECTOR-WAFER 5267-10A 2.5mm MILK
CN605		
CN204	KNCW-00140-2TM	CONNECTOR-WAFER 5267-02A 2.5mm MILK
CN304		

Ref. No.	Part No.	Description
CN310		
TP101		
TP102		
CN211	KNCW-00140-3TM	CONNECTOR-WAFER 5267-03A 2.5mm MILK
CN301		
TP201		
TP301		
CN302	KNCW-00140-5TM	CONNECTOR-WAFER 5267-05A 2.5mm MILK
CN305		
CN603	KNCW-00140-7TM	CONNECTOR-WAFER 5267-07A 2.5mm MILK
W603		
X101	KTAL-00040-072	CRYSTAL HC-49/U 7.2MHz
CX301	KTRE-00030-041	RESONATOR CSA4.19MG 4.19MHz
LR301	NERX-J0068-223	NETWORK-RESISTOR 07A MHR 22x8 9P 2.54
LR302		
FR401	RFUM-G2R2J-130	RESISTOR-FUSIBLE 2.2ohm 1/2W 5% M
JK602	SKDC-00020-031	SOCKET-DC D10170011S
JK201	SKRC-00401-041	SOCKET-PCA JK0400451N
SW301	SWSL-00128-012	SWITCH-SLIDE 00120050 30V 0.3A
JK101	TEAT-00051-03R	TERMINAL ANTENNA AK1/2-1058A
Q131	TRSK-0001G-S30	FET N-CHANNEL 2SK246-GR TO92
Q111	TRSK-0008Y-SD0	FET N-CHANNEL KTK192A-Y TO92M
Q151	TRTA-0008Y-SD0	TRANSISTOR P-H FREQ KTA1266-Y TO92
Q335		
Q609		
Q611		
Q374	TRTA-0012Y-SD0	TRANSISTOR P-H FREQ KTA1273-Y TO92L
Q121	TRTA-0043E-SOS	TRANSISTOR P-H FREQ DTA114E-S W/RESIST TO92M
Q122		
Q123		
Q342		
Q359		
Q101	TRTC-0010Y-SD0	TRANSISTOR N-H FREQ KTC1923-Y TO92
Q201	TRTC-0016G-SD0	TRANSISTOR N-H FREQ KTC3198-GR TO92
Q202		
Q203		
Q102	TRTC-0016Y-SD0	TRANSISTOR N-H FREQ KTC3198-Y TO92
Q103		
Q112		
Q132		
Q150		
Q153		
Q154		
Q311		
Q314		
Q315		
Q316		
Q317		
Q318		
Q319		
Q325		

Q326		
Q327		
Q328		
Q329		
Q330		
Q331		
Q336		
Q351		
Q353		
Q616		
Q619		
Q339	TRTC-0039Y-SD0	TRANSISTOR N-H FREQ KTC3205-Y TO92L
Q346		
Q337	TRTC-0060E-SOS	TRANSISTOR N-H FREQ DTC144E-S TO92M
Q341	TRTC-0061E-SOS	TRANSISTOR N-H FREQ DTC124E-S TO92M
Q350		
Q354		
Q355		
Q356		
Q357		
Q360		
Q367		
Q368		
Q373		
Q375		
Q613		
Q152	TRTC-0062E-SOS	TRANSISTOR N-H FREQ DTC114E-S W/RESIST TO92M
Q116	TRTC-0094Y-SD0	TRANSISTOR N-H FREQ KTC3199-Y TO92M
Q301		
Q302		
Q303		
Q309		
Q310		
Q358		
Q369		
Q370		
Q371		
Q372		
Q610		
Q612		
Q615		
Q618		
Q114	TRTD-00200-SD0	TRANSISTOR N-L FREQ KTD-1302 TO92
Q115		
Q312		
Q313		
Q322		
Q323		
Q340		
Q345		
Q361		
FE101	* TUFF-00150-001	FRONT-END FE340-A01 12V [EXCEPT-V]
	* TUFF-00120-00D	FRONT-END FE415-G11 FTZ [M]
VR101	VFEB-A001B-103	RESISTOR-SEMI FIXED EVN DXA A03 B14 10Kohm
VR301		
VR302		
VR307	VFEB-A001B-104	RESISTOR-SEMI FIXED EVN DXA A03 B15 100Kohm
VR308		

Ref. No.	Part No.	Description
VR309	VFEB-A001B-222	RESISTOR-SEMI FIXED
VR310		EVN DXA A03 BE3 2.2Kohm
VR103	VFEB-A001B-472	RESISTOR-SEMI FIXED
VR104		EVN DXA A03 BQ3 4.7Kohm
VR102	VFEB-A001B-473	RESISTOR-SEMI FIXED
VR305		EVN DXA A03 BQ4 47Kohm
VR306		

6. FRONT P.C BOARD (A1U-304A)

Ref. No.	Part No.	Description
D516	DDTR-00040-T10	DIODE-RECTIFIER
D518		1N4004 (400V 1A) DO-41 T
D519		
D505	DDTS-00060-S00	DIODE-SI
D506		1SS131 (90V 0.13A) DO-40 T
D507		
D508		
D509		
D510		
D511		
D512		
D513		
D514		
D517		
D520		
D521		
D524		
D801		
D802		
ZD803	DDTZ-G056B-S00	DIODE ZENER
		MTZ5.6B 5.45-5.73 DO40 T
ZD801	DDTZ-G075B-S00	DIODE ZENER
ZD802		MTZ7.5B 7.07-7.45 DO40 T
LCD501	DPLC-00300-00Z	DISPLAY-LCD
		OEL-7636-506R 022A
LD501	DPLT-00272-MG3	LED
LD502		SLR-342MGF02 GRN R3.1 D TP
LD503		
LD504		
LD505		
LD506		
LD507		
LD508		
LD509		
LD510		
LD512	DPLT-00562-VC3	LED
		SLR-305VCA47 RED R3.2 N TP
IC503	ICCM-20500-SB0	IC CMOS
IC504		BU4094B DIP16
IC502	ICHY-00190-TL0	IC REMOTE RECEIVE KRM-61M
IC802	ICLN-01550-S50	IC 7BAND EQ
IC803		AN7337N DIP20
IC801	ICMP-01060-S10	IC EQ VOLUME
		LC7522
IC501	ICMP-01250-SA0	IC U-COMPUTER
		TCM-9502-007 QFP100
IC804	ICOP-00120-SE0	IC DUAL OP AMP
		KA324 DIP14
CN510	KNCW-00121-7S9	CONNECTOR-WAFER
		YFAW025-07T 19.5mm WHT
CN511	KNCW-00121-8S9	CONNECTOR-WAFER
		YFAW025-08T 19.5mm WHT

CN512	KNCW-00140-2TM	CONNECTOR-WAFER
		5267-02A 2.5mm MILK
CN504	KNCW-00390-7B9	CONNECTOR WAFER
CN508		42140-2007 2.5mm 7P
CN505	KNCW-00390-8B9	CONNECTOR WAFER
CN506		42140-2008 2.5mm 8P
CN507		
CN501	KNCW-00390-9B9	CONNECTOR WAFER
		42140-2009 2.5mm 9P
CN502	KNCW-00821-BS0	2.5MM FFC CONNECTOR
CN503		6216-011-100 (SIDE)
X502	KTAL-00101-003	CRYSTAL
		KDSIF 32.768KHz-20P
X501	KTRE-00230-050	RESONATOR
		CST5.00MGW 5MHz
NR801	NERX-J0047-105	NETWORK-RESISTOR
NR802		RGLD7-105J 1M X 7 P2.54
NR501	NERX-J0074-103	NETWORK-RESISTOR
NR502		EXB-F5E103J 10K X 4 5P
R535	RMOH-H390J-030	RESISTOR-METAL OXIDE
		39ohm 1W 5% H
SW524	SWPU-00301-038	SWITCH-PUSH
SW525		00220014 1K(2C2P)
SW501	SWTA-00220-060	SWITCH-TACT
SW503		SKHV10910 12V 50mA
SW504		
SW505		
SW506		
SW507		
SW508		
SW509		
SW510		
SW511		
SW512		
SW513		
SW514		
SW515		
SW516		
SW517		
SW518		
SW519		
SW520		
SW521		
SW522		
SW523		
Q506	TRTA-0008G-SD0	TRANSISTOR P-H FREQ
Q507		KTA1266-GR TO92
Q513		
Q515		
Q520		
Q508	TRTA-0042E-SOS	TRANSISTOR P-H FREQ
		DTA124E-S TO92M
Q804	TRTA-0043E-SOS	TRANSISTOR P-H FREQ
		DTA114E-S W/RESIST TO92M
Q801	TRTC-0015L-SD0	TRANSISTOR N-H FREQ
Q806		KTC3200-BL TO92
Q802	TRTC-0016Y-SD0	TRANSISTOR N-H FREQ
Q803		KTC3198-Y TO92
Q807		
Q808		
Q518	TRTC-0039Y-SD0	TRANSISTOR N-H FREQ
		KTC3205-Y TO92L

Ref. No.	Part No.	Description
Q511	TRTC-0061E-SOS	TRANSISTOR N-H FREQ
Q512		DTC124E-S TO92M
Q514		
Q501	TRTC-0062E-SOS	TRANSISTOR N-H FREQ
Q502		DTC114E-S W/RESIST TO92M
Q503		
Q504		
Q505		
Q521		
Q805		
Q516	TRTC-01060-SD0	TRANSISTOR N-H FREQ
Q517		KTC3203 TO92
Q509	TRTD-00200-SD0	TRANSISTOR N-L FREQ
Q510		KTD-1302 TO92
VR502	VRAE-D029B-503	VR-ROTARY
		RK11K1160156-50KB
VR501	VWBD-D013B-104	VR-W/MOTOR
		RK16812MG 28B 100KB X 2

7. LAMP P.C BOARD (A1U-304E)

Ref. No.	Part No.	Description
LP501	DPLA-00160-00B	LAMP
LP502		SL422-012110PP 110mA 12V
LP503		
CN509	KNCW-00260-2S9	CONNECTOR-WAFER
		5268-02A 2.5mm WHT

8. MIC P.C BOARD (A1U-304D)

Ref. No.	Part No.	Description
JK501	SKPH-00330-66W	SOCKET-PHONE
		HTJ064-101 W/NUT WASHER

9. HEADPHONE P.C BOARD (A1U-304C)

Ref. No.	Part No.	Description
JK502	SKPH-00162-66W	SOCKET-PHONE
		HTJ064-04A W/NUT WASHER

10. VR LED P.C BOARD (A1U-304F)

Ref. No.	Part No.	Description
LD516	DPLT-00562-MC3	LED
		SLR-305MCA47 GRN R3.2 N TP

11. REC LED P.C BOARD (A1U-304G)

Ref. No.	Part No.	Description
LD515	DPLT-00562-VC3	LED
		SLR-305VCA47 RED R3.2 N TP

12. CD P.C BOARD (A2U-156)

Ref. No.	Part No.	Description
D901	DDTS-00060-S00	DIODE-SI
		1SS131 (90V 0.13A) DO-40 T
ZD905	DDTZ-G027B-S00	D-ZENER
		MTZ2.7B 2.69-2.91 DO40T
ZD901	DDTZ-G036B-S00	DIODE ZENER
		MTZ3.6B 3.60-3.845 DO40 T
ZD907	DDTZ-G047B-S00	D-ZENER
		MTZ4.7B 4.55-4.80 DO40T

ZD902	DDTZ-G056B-S00	DIODE ZENER
		MTZ5.6B 5.45-5.73 DO40 T
ZD904	DDTZ-G075B-S00	DIODE ZENER
		MTZ7.5B 7.07-7.45
ZD903	DDTZ-G110B-S00	DIODE ZENER
		MTZ10B DO40 T
IC902	ICDG-00940-SE0	IC D.S.P+D.A.C (CDP)
		KS-9282B QFP80
IC901	ICDG-00950-SE0	IC RF+SERVO (CDP)
		KA-9220B QFP80
IC903	ICLN-01590-SE0	IC MOTOR CONTROL CDP
		KA-9258 HSOP28
IC904	ICOP-00130-SE0	IC DUAL OP AMP
IC905		KA4558S SIP9
Q909		
TP902	KNCW-00140-2TM	CONNECTOR-WAFER
		5267-02A 2.5mm MILK
TP903	KNCW-00140-3TM	CONNECTOR-WAFER
		5267-03A 2.5mm MILK
TP901	KNCW-00140-5TM	CONNECTOR-WAFER
CN908		5267-05A 2.5mm MILK
WF904	KNCW-00240-6T2	CONNECTOR-WAFER
		53014-06 2.0mm RED
WF903	KNCW-00240-6T9	CONNECTOR-WAFER
		53014-06 2.0mm WHT
WF901	KNCW-00240-8T2	CONNECTOR-WAFER
		53014-08 2.0mm RED
WF902	KNCW-00240-8T9	CONNECTOR-WAFER
		53014-08 2.0mm WHT
WF906	KNCW-00820-BT0	2.5MM FFC CONNECTOR
WF907		6216-011-000 (TOP)
XT901	KTAL-00071-169	CRYSTAL
		HC49/U 16.9344MHz
FR901	RFUM-GR22J-130	RESISTOR-FUSIBLE
FR902		0.22ohm 1/2W 5% M
FR903	RFUM-GR47J-130	RESISTOR-FUSIBLE
		0.47ohm 1/2W 5% M
Q909	TRSD-0008Y-SD0	TRANSISTOR N-L FREQ
		KTD2058-Y TO220AB
Q901	TRTA-0008Y-SD0	TRANSISTOR P-H FREQ
Q903		KTA1266-Y TO92
Q914		
Q908		
Q905	TRTC-0016G-SD0	TRANSISTOR N-H FREQ
Q910		KTC3198-GR TO92
Q911		
Q915	TRTC-0060E-SOS	TRANSISTOR N-H FREQ
		DTC144E-S TO92M
Q904	TRTC-0062E-SOS	TRANSISTOR N-H FREQ
Q906		DTC114E-S W/RESIST TO92M
Q907		
Q917		
Q918		
Q902	TRTC-0094Y-SD0	TRANSISTOR N-H FREQ
		KTC3199-Y TO92M
Q912	TRTD-00200-SD0	TRANSISTOR N-L FREQ
Q913		KTD-1302 TO92
VR901	VFEB-A001B-223	RESISTOR-SEMI FIXED
VR902		EVN DXA A03 BE4 22Kohm
VR903		
VR904		

13. POWER AMP P.C BOARD (A2U-144)

Ref. No.	Part No.	Description
C658	CACS-U472M-084	CAPACITOR AC [E, V, S, U, Y] SCF2G472M12BS M 400V S
	CACS-U472M-039	CAPACITOR AC DE7150F 472 MVAI [B]
D601	DDTS-00030-S00	DIODE-SI
D602		1S2471 (80V 0.12A) DO-40 T
D603		
D604		
D605		
D606		
ZD601	DDTZ-G120B-S00	DIODE ZENER MTZ12B 12.03 DO40 T
IC601	ICHP-00090-S10	IC HYBRID POWER STK4132 II 20W X2 SIP18
L601	KIBK-00050-E40	COIL-AUDIO CHOCK ABK005 2.2μH
L602		
CN610	KNCW-00140-2TM	CONNECTOR-WAFER 5267-02A 2.5mm MILK
CN601	KNCW-00140-3TM	CONNECTOR-WAFER 5267-03A 2.5mm MILK
CN602	KNCW-00140-6TM	CONNECTOR-WAFER 5267-06A 2.5mm MILK
CN603	KNCW-00140-7TM	CONNECTOR-WAFER 5267-07A 2.5mm MILK
CN604	KNCW-00680-2T9	CONNECTOR-WAFER YW396-03AV 2P 7.92mm WHT
R614	RCMS-JR22K-410	RESISTOR-CEMENT 0.22ohm 2W 10% S
R626		
FR603	RFUH-HR22J-030	RESISTOR-FUSIBLE 0.22ohm 1W 5% H
FR604		
FR602	RFUM-F560J-120	RESISTOR-FUSIBLE 56ohm 1/4W 5% M
FR605	RFUM-GR22J-130	RESISTOR-FUSIBLE 0.22ohm 1/2W 5% M
FR606		
FR607		
FR608		
FR601	RFUZ-F470G-001	RESISTOR-FUSIBLE 47ohm 1/4W G ERD2FC470P
R628	RMOH-H4R7J-030	RESISTOR-METAL OXIDE 4.7ohm 1W 5% H
R629		
R630		
R631		
JK601	TESP-00110-04P	TERMINAL SPEAKER P40420421P (AU4-2042-1)
Q608	TRSB-0006Y-SD0	TRANSISTOR P-L FREQ KTB1366-Y TO220IS
Q614	TRSD-0008Y-SD0	TRANSISTOR N-L FREQ KTD2058-Y TO220AB
Q617		
Q601	TRTA-0041E-SOS	TRANSISTOR P-H FREQ DTA144E-S W/RESIST TO92M
Q605		
Q604	TRTC-0062E-SOS	TRANSISTOR N-H FREQ DTC114E-S W/RESIST TO92M
Q606		
Q607	TRTD-00200-SD0	TRANSISTOR N-L FREQ KTD-1302 TO92

14. VOLTAGE SELECTOR P.C BOARD (A2U-146C)

[U, Y version only]

Ref. No.	Part No.	Description
F601	FGFB-S8001-137	FUSE GLASS 800mA 250V FST0034, 3116
F602		

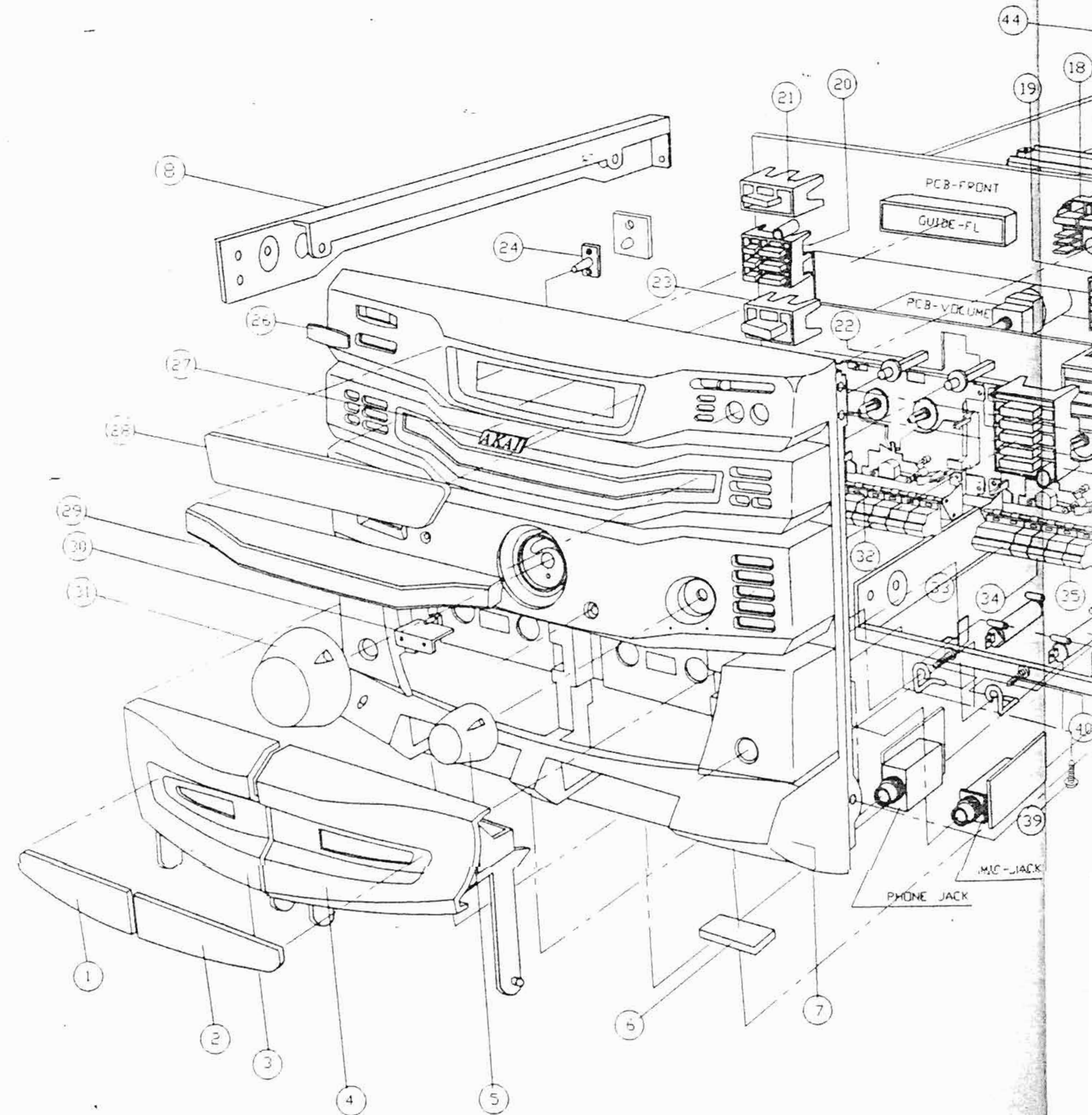
CN604	KNCW-00680-4T9	CONNECTOR-WAFER YW396-07AV 4P 7.92mm WHT
SW601	SWVS-00080-Z5K	SWITH-VOLTAGE SEL 00220023 250V 5A KS

15. REMOTE P.C BOARD (A4E-206)

Ref. No.	Part No.	Description
D001	DDTS-00060-S00	DIODE-SI
D002		1SS131 (90V 0.13A) DO-40 T
D003		
ID001	DPIR-00021-005	DOT-IR LED KLN105B-B
IC001	ICMP-00220-S20	IC UCOMPUTER UPD6122G-001 SOP24
CX001	KTRE-00060-004	RESONATOR CSB455E 455KHz
Q001	TRTC-0016Y-SD0	TRANSISTOR N-H FREQ KTC3198-Y TO92

EXPLODED VIEW

16. FINAL ASSEMBLY



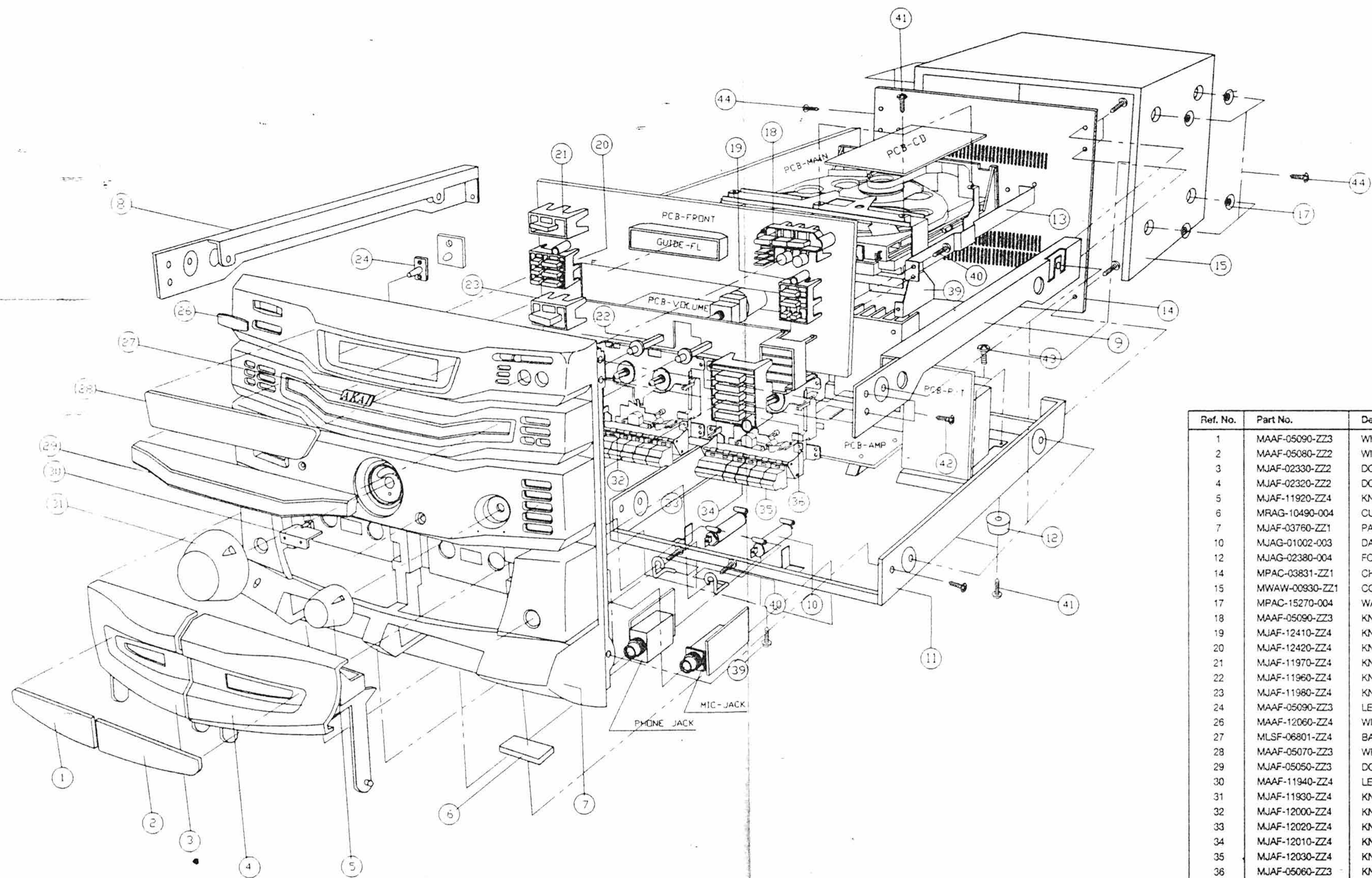
EXPLODED VIEW

16. FINAL ASSEMBLY

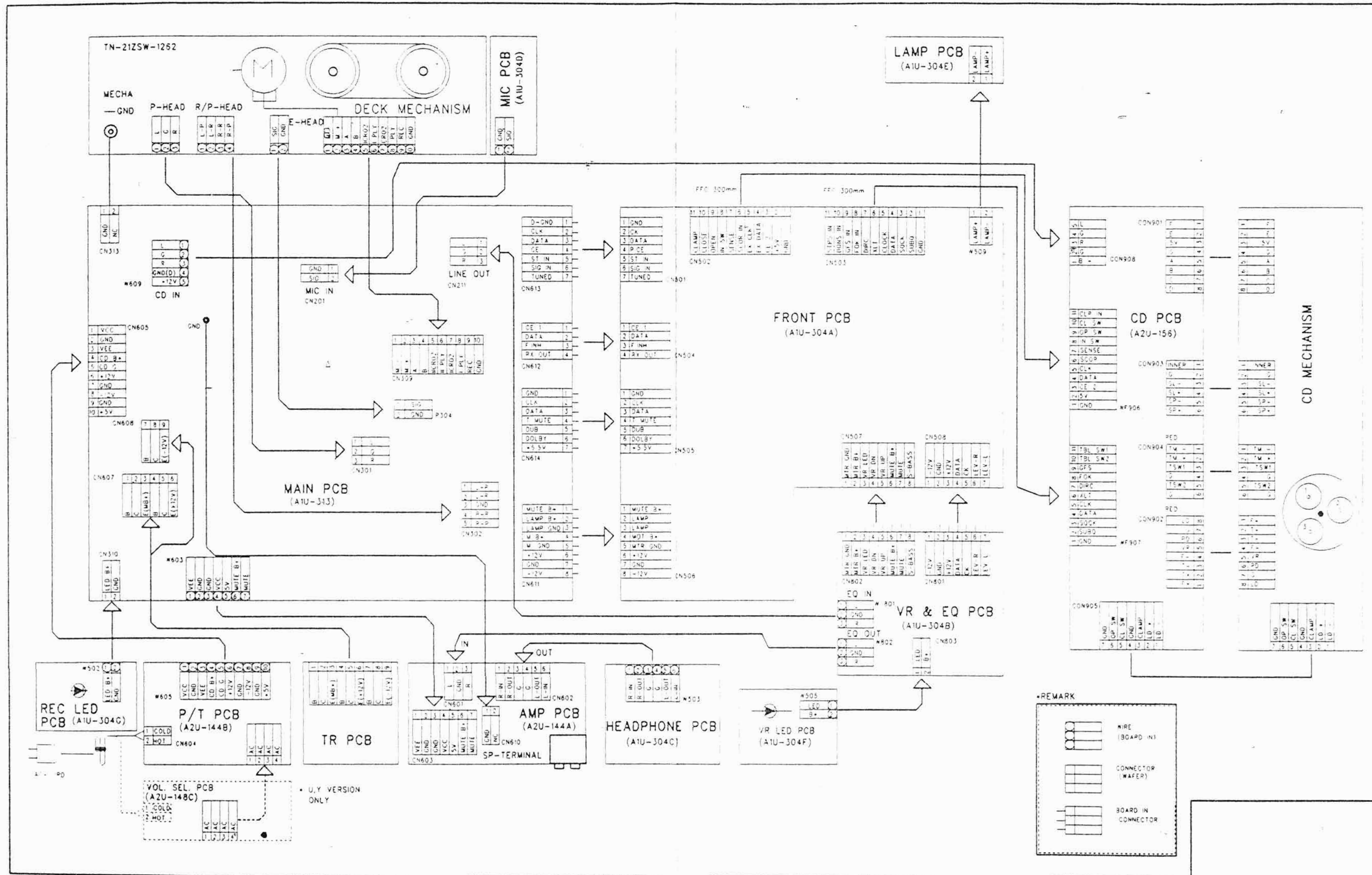
R-WAFER
4P 7.92mm WHT
PAGE SEL
OV 5A KS

0.13A) DO-40 T

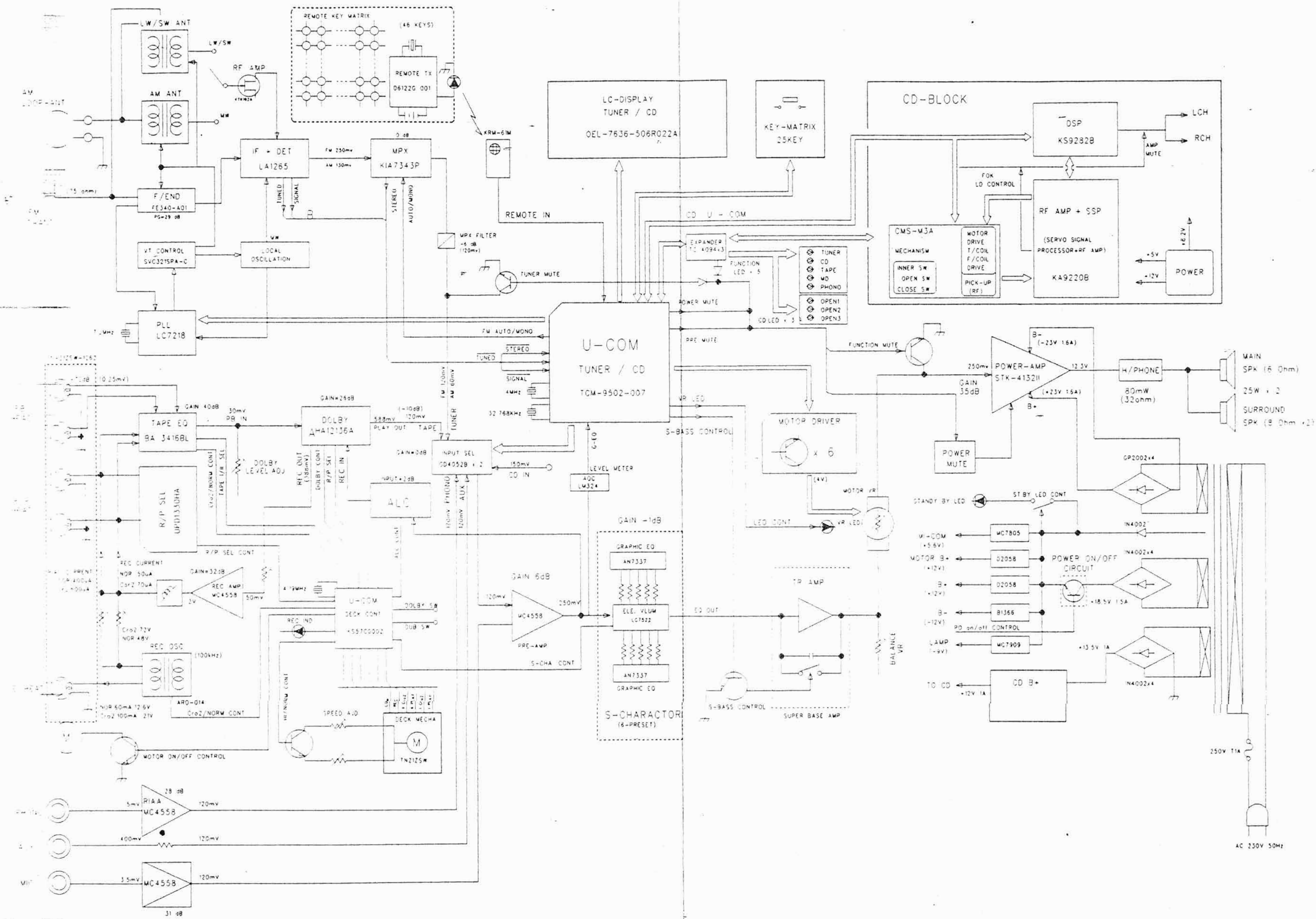
TER
01 SOP24
5KHz
R N-H FREQ
O92

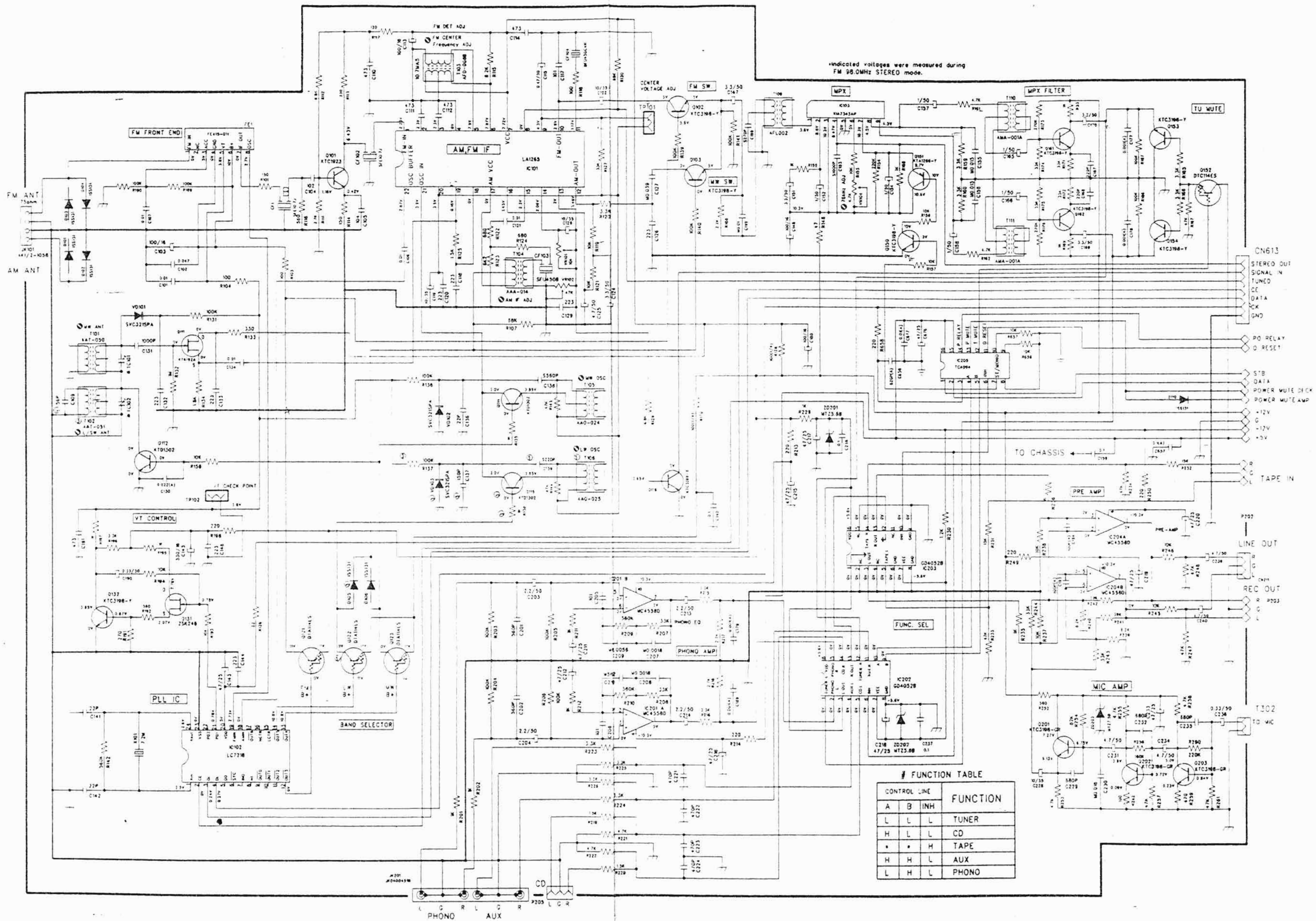


Ref. No.	Part No.	Description
1	MAAF-05090-ZZ3	WINDOW-DECK-L
2	MAAF-05080-ZZ2	WINDOW-DECK-R
3	MJAF-02330-ZZ2	DOOR-DECK-L
4	MJAF-02320-ZZ2	DOOR-DECK-R
5	MJAF-11920-ZZ4	KNOB-BALANCE
6	MRAG-10490-004	CUSHION-FOOT
7	MJAF-03760-ZZ1	PANEL-FRONT
10	MJAG-01002-003	DAMPER-AIR
12	MJAG-02380-004	FOOT-TK
14	MPAC-03831-ZZ1	CHASSIS-BACK
15	MWAW-00930-ZZ1	COVER-TOP
17	MPAC-15270-004	WASHER-CABINET
18	MAAF-05090-ZZ3	KNOB-CHANNEL
19	MJAF-12410-ZZ4	KNOB-PL/ST
20	MJAF-12420-ZZ4	KNOB-OP/CL
21	MJAF-11970-ZZ4	KNOB-CHARACTER
22	MJAF-11960-ZZ4	KNOB-PUSH
23	MJAF-11980-ZZ4	KNOB-POWER
24	MAAF-05090-ZZ3	LENS-REC
26	MAAF-12060-ZZ4	WINDOW-SENSOR
27	MLSF-06801-ZZ4	BADGE
28	MAAF-05070-ZZ3	WINDOW-LCD
29	MJAF-05050-ZZ3	DOOR-CD
30	MAAF-11940-ZZ4	LENS-VOLUME
31	MJAF-11930-ZZ4	KNOB-VOLUME
32	MJAF-12000-ZZ4	KNOB-DECK-A
33	MJAF-12020-ZZ4	KNOB-DECK-C
34	MJAF-12010-ZZ4	KNOB-DECK-B
35	MJAF-12030-ZZ4	KNOB-DECK-D
36	MJAF-05060-ZZ3	KNOB-FUNCTION
39	XSTF-30080-ZY4	SCREW-TAPPING
40	XSTB-30100-ZY4	SCREW-TAPPING
41	XSTB-30080-ZY4	SCREW-TAPPING
42	XSWW-30080-ZY1	SCREW-TAPPING
43	XSTB-40080-ZY8	SCREW-TAPPING
44	XSTB-40100-ZB4	SCREW-TAPPING

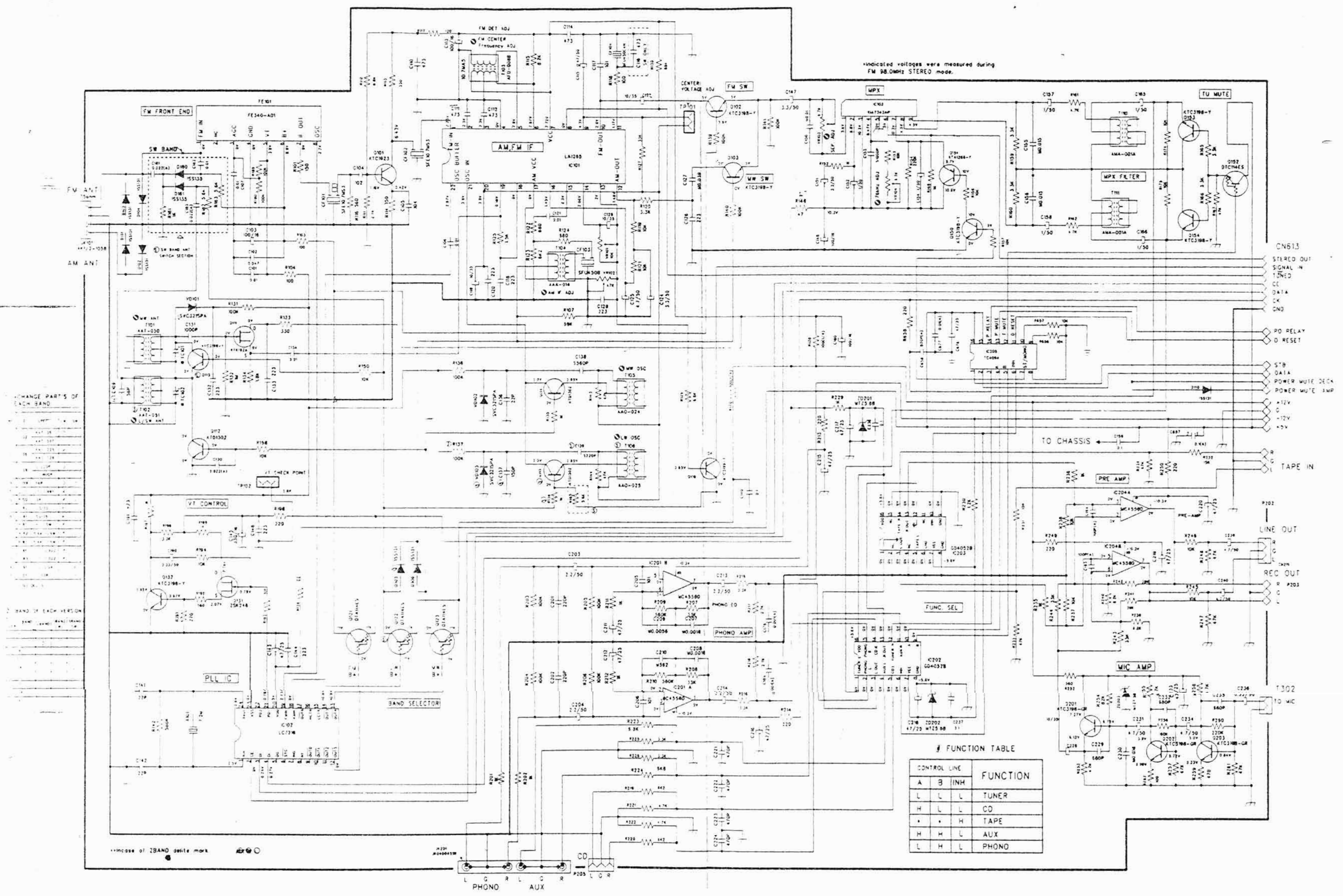


VII. BLOCK DIAGRAM





SCHEMATIC DIAGRAM/TUNER, FUNCTION



CN613
STEREO OUT
SIGNAL IN
TUNED
CD
DATA
CK
CND

PO RELAY
D RESET

STB
DATA
POWER MUTE DECK
POWER MUTE AMP
+12V
0
-12V
+5V

TAPE IN

LINE OUT

REC OUT

P203

1302

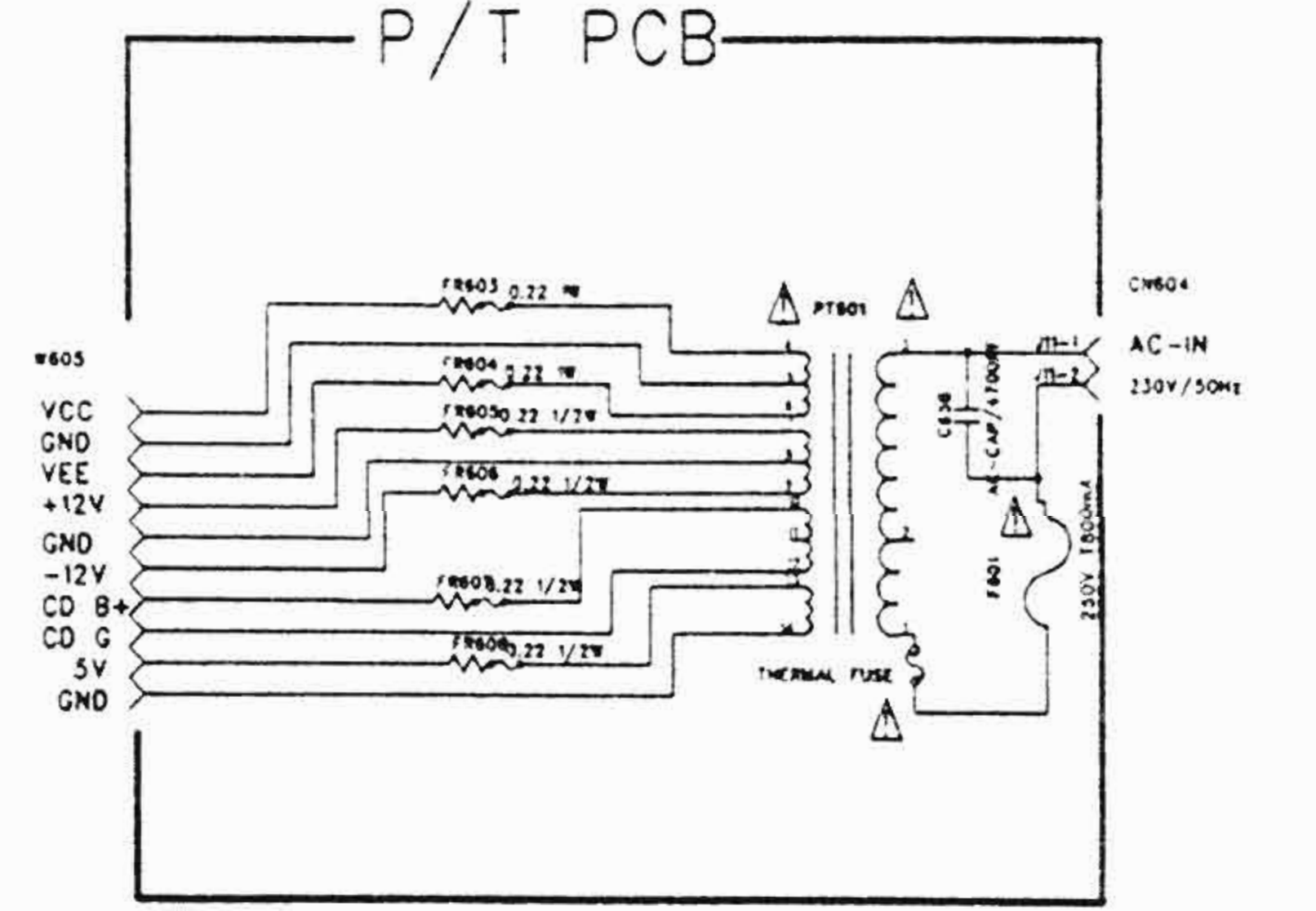
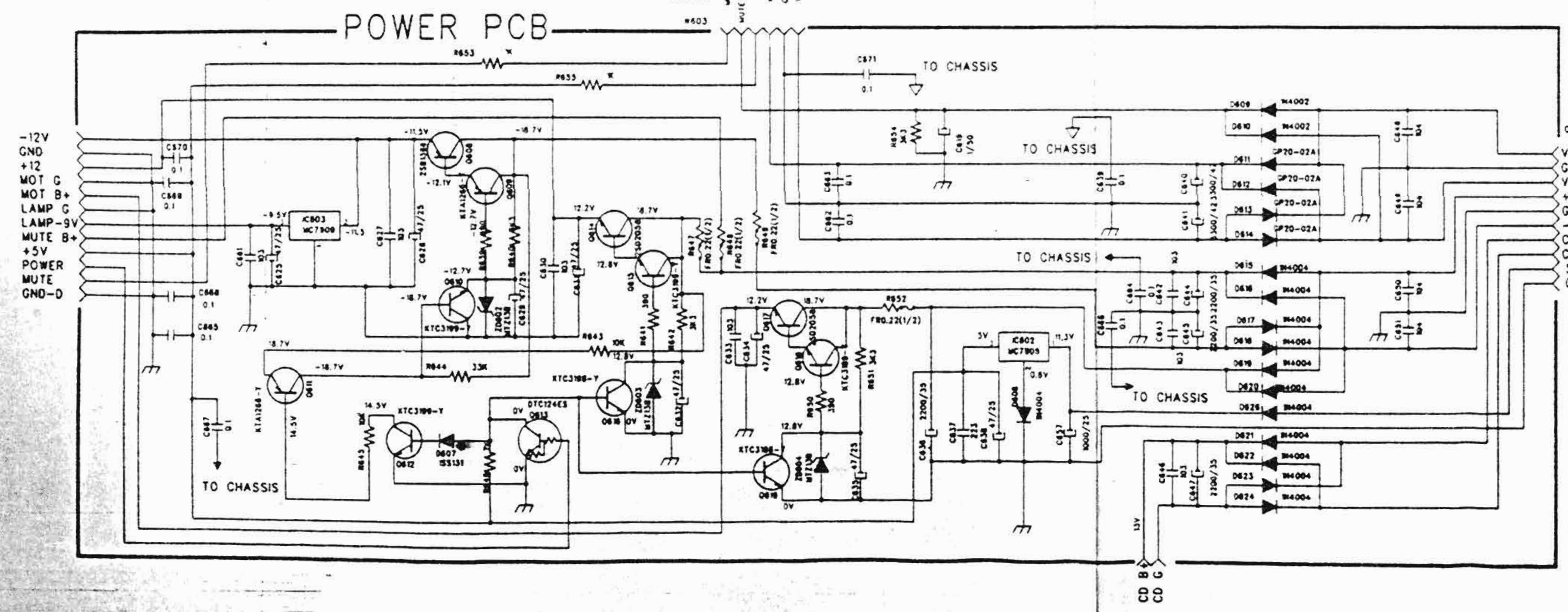
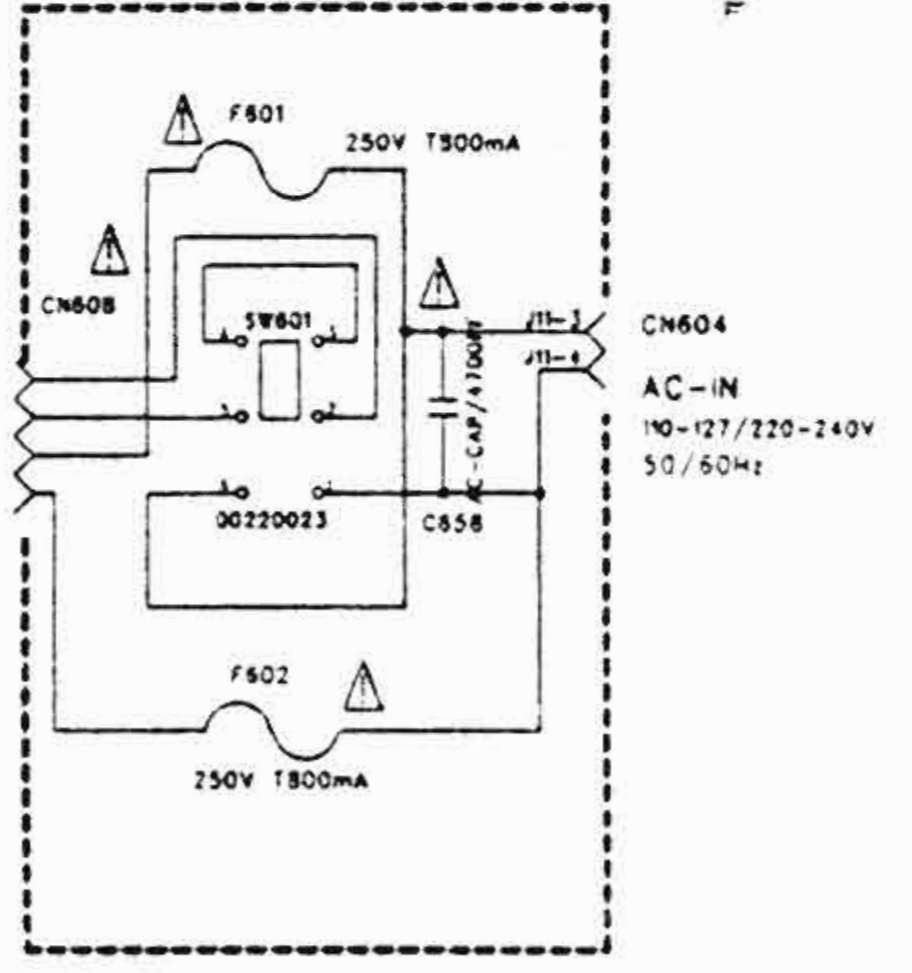
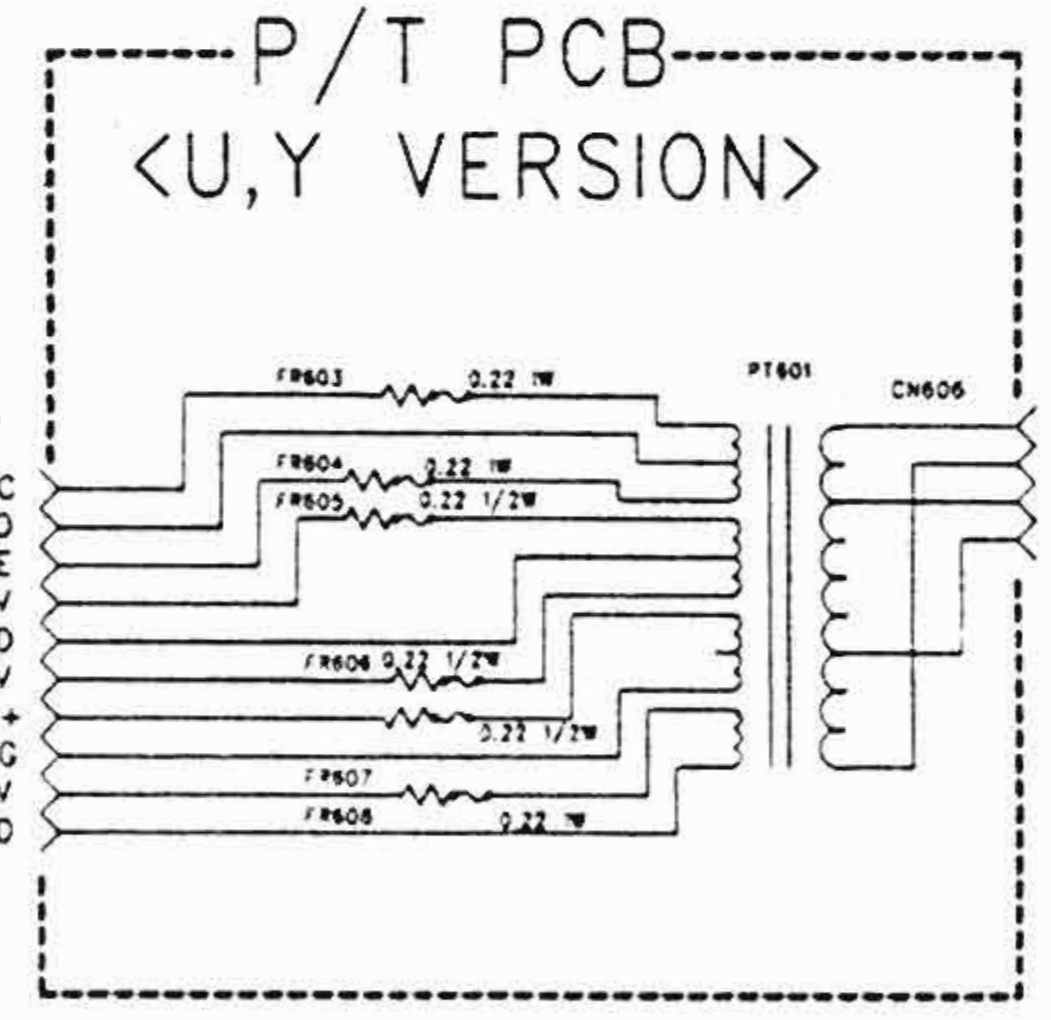
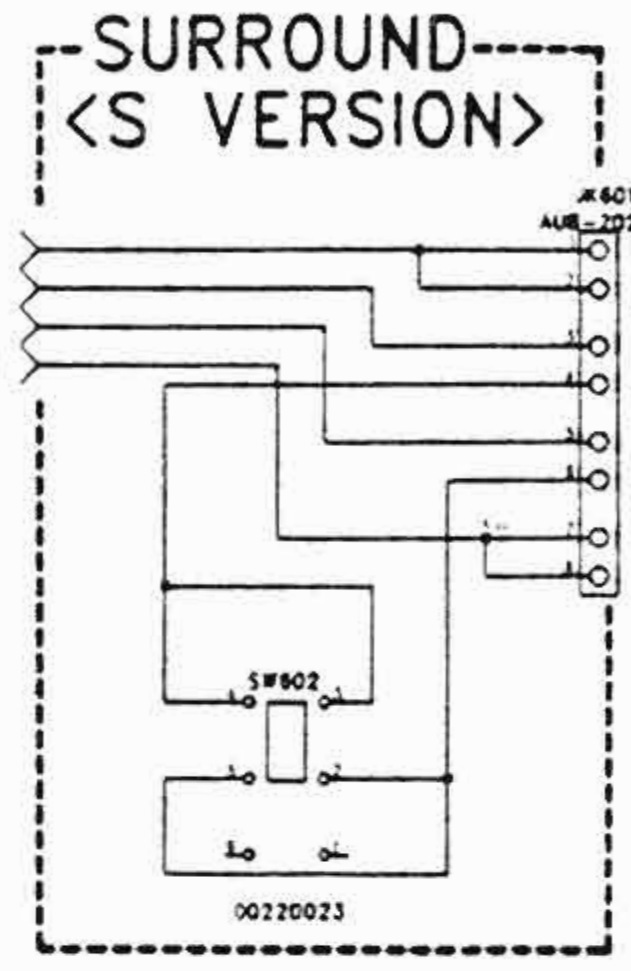
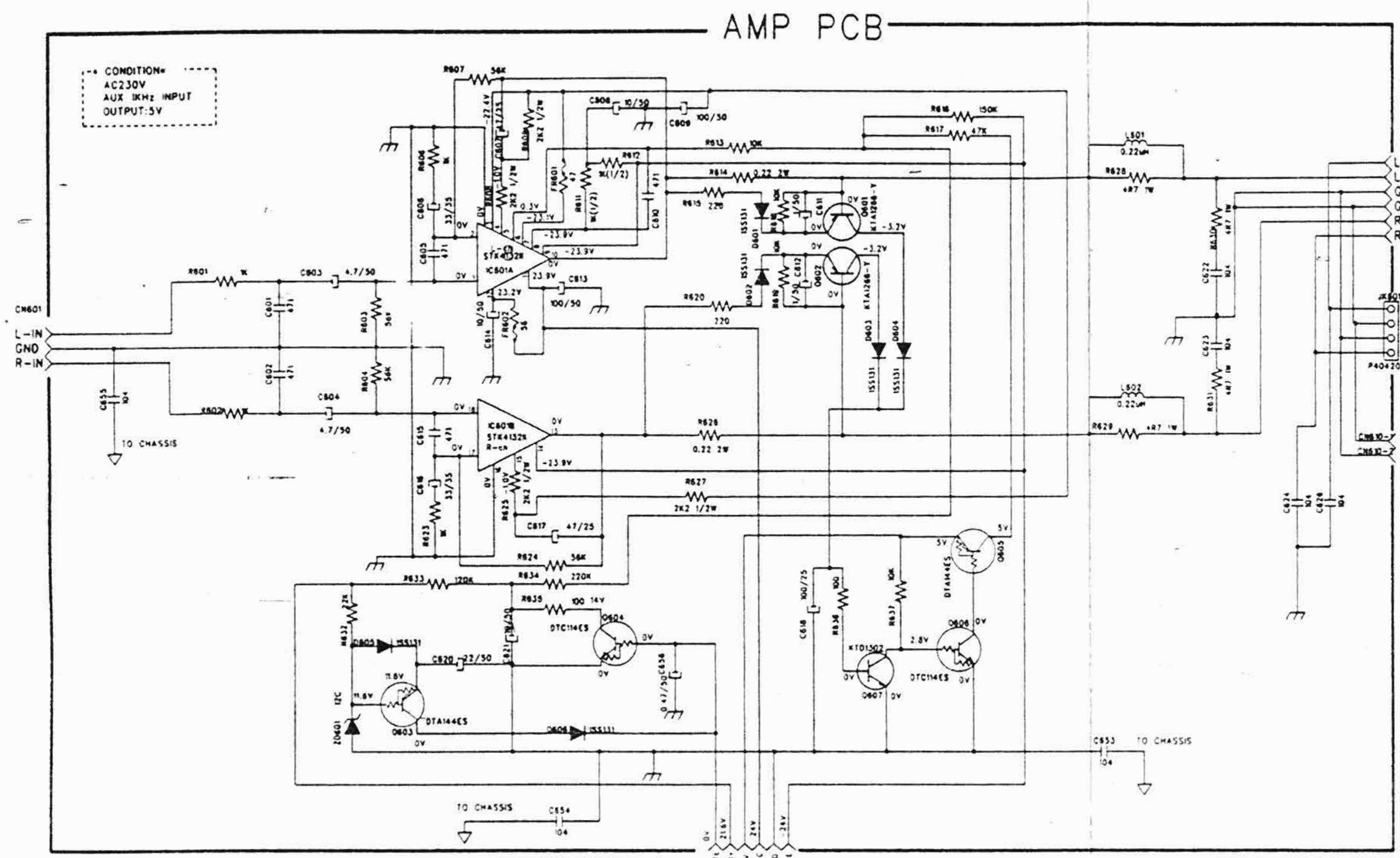
TO MIC

CHANGE PARTS OF EACH BAND

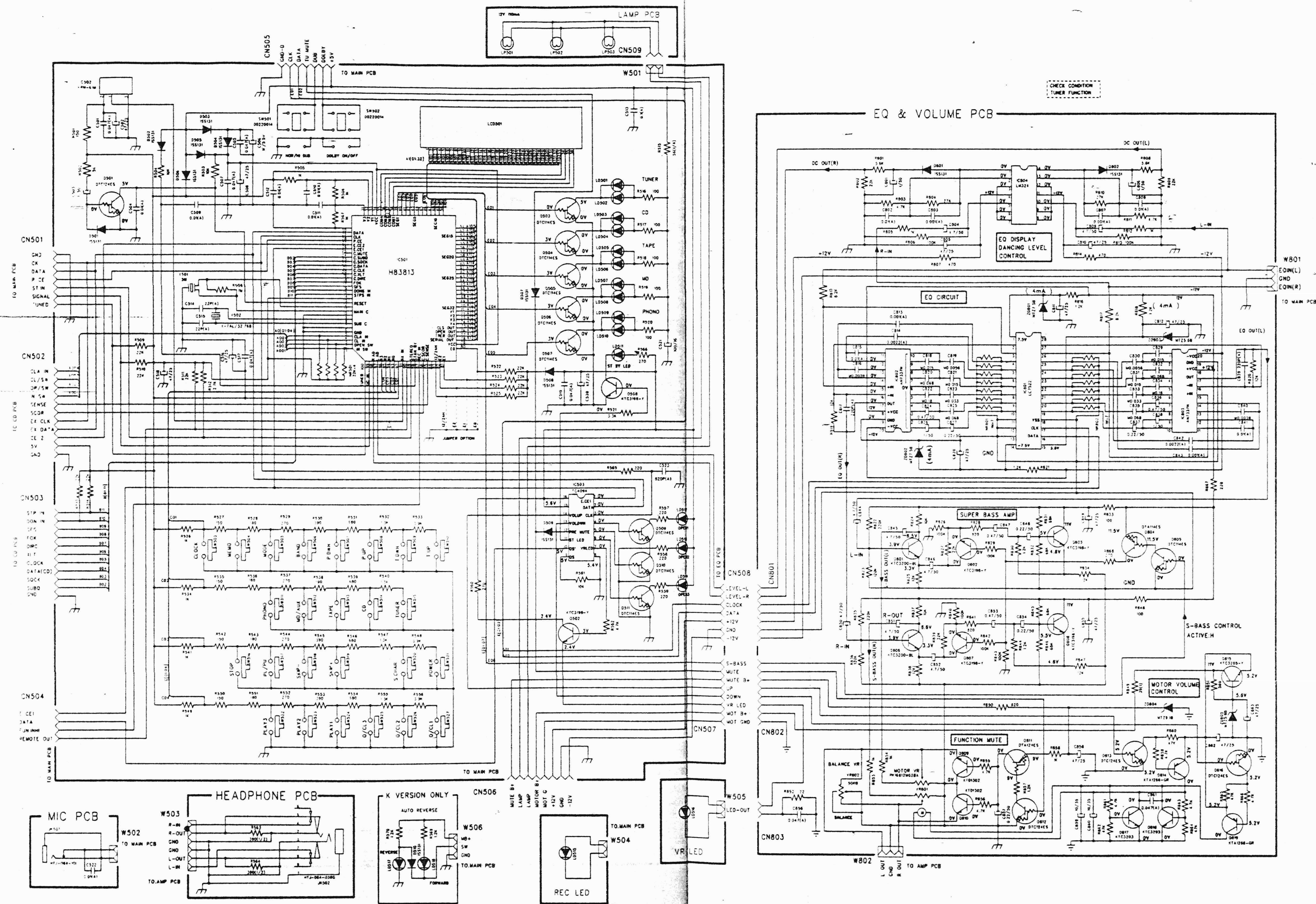
BAND	RESISTOR	CAPACITOR
FM	R101	C101
	R102	C102
AM	R103	C103
	R104	C104
CD	R105	C105
	R106	C106
TAPE	R107	C107
	R108	C108
AUX	R109	C109
	R110	C110
PHONO	R111	C111
	R112	C112

increase of 2BAND detile mark

VERSION	VOLTAGE	P/T NO.
E. B. V	230V / 50Hz	A74-244Y-B
S	240V / 50Hz	A74-244Z-S
Y7, U5	115 / 230V, 50/60Hz	A74-244S-V
KOREA	220V / 60Hz	A74-244V-K

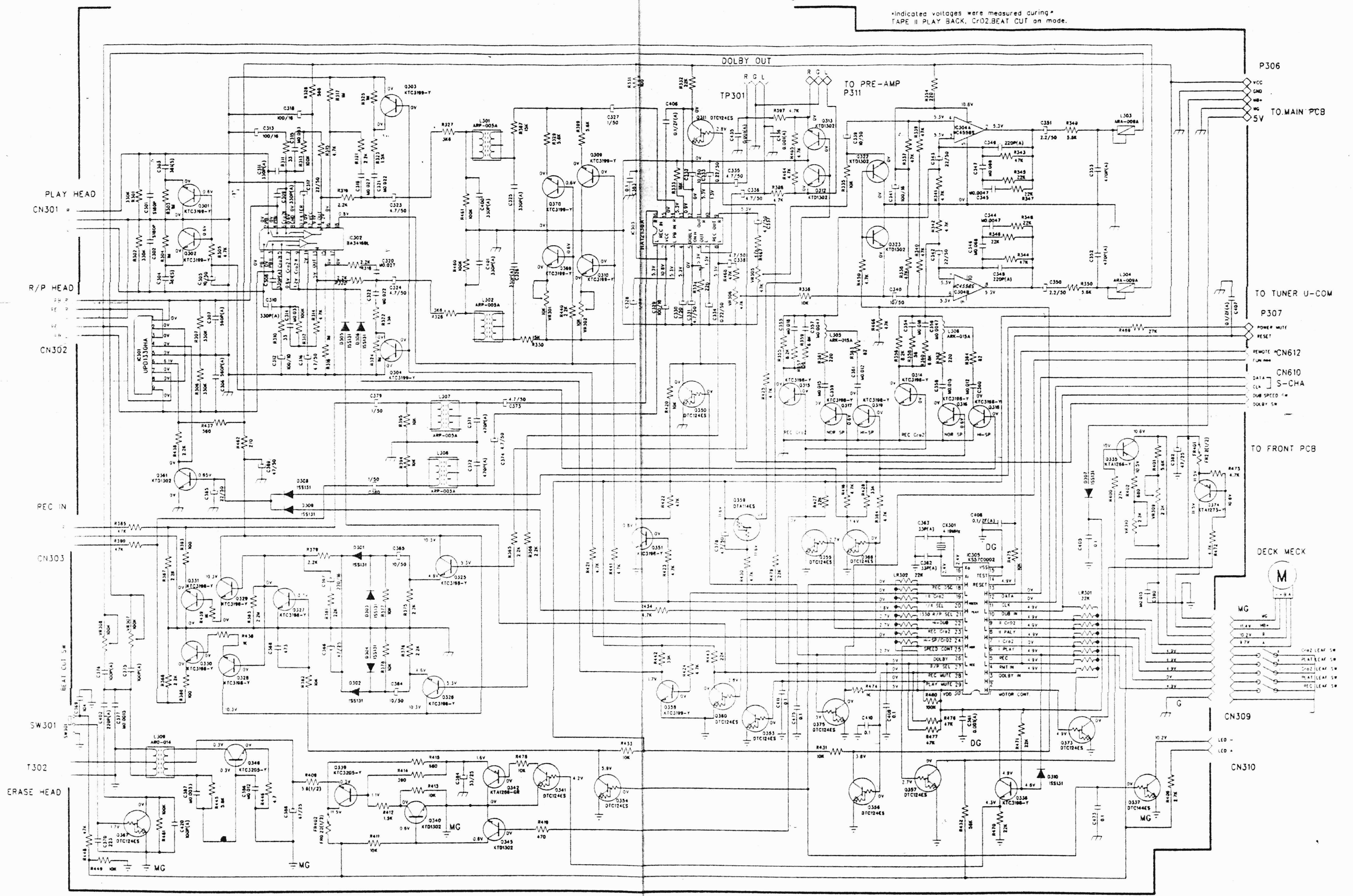


SCHEMATIC DIAGRAM/FRONT

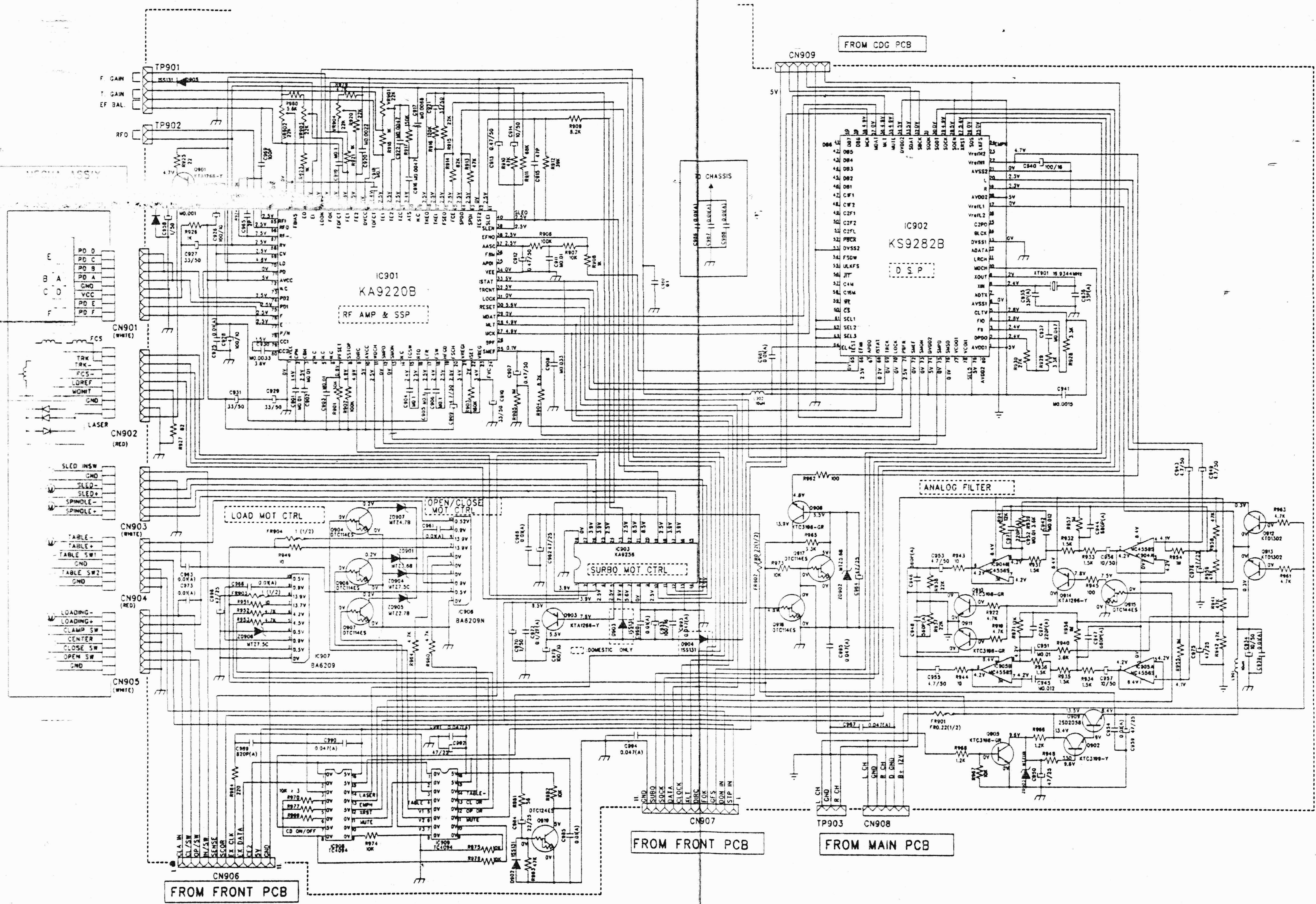


SCHEMATIC DIAGRAM/DECK SECTION

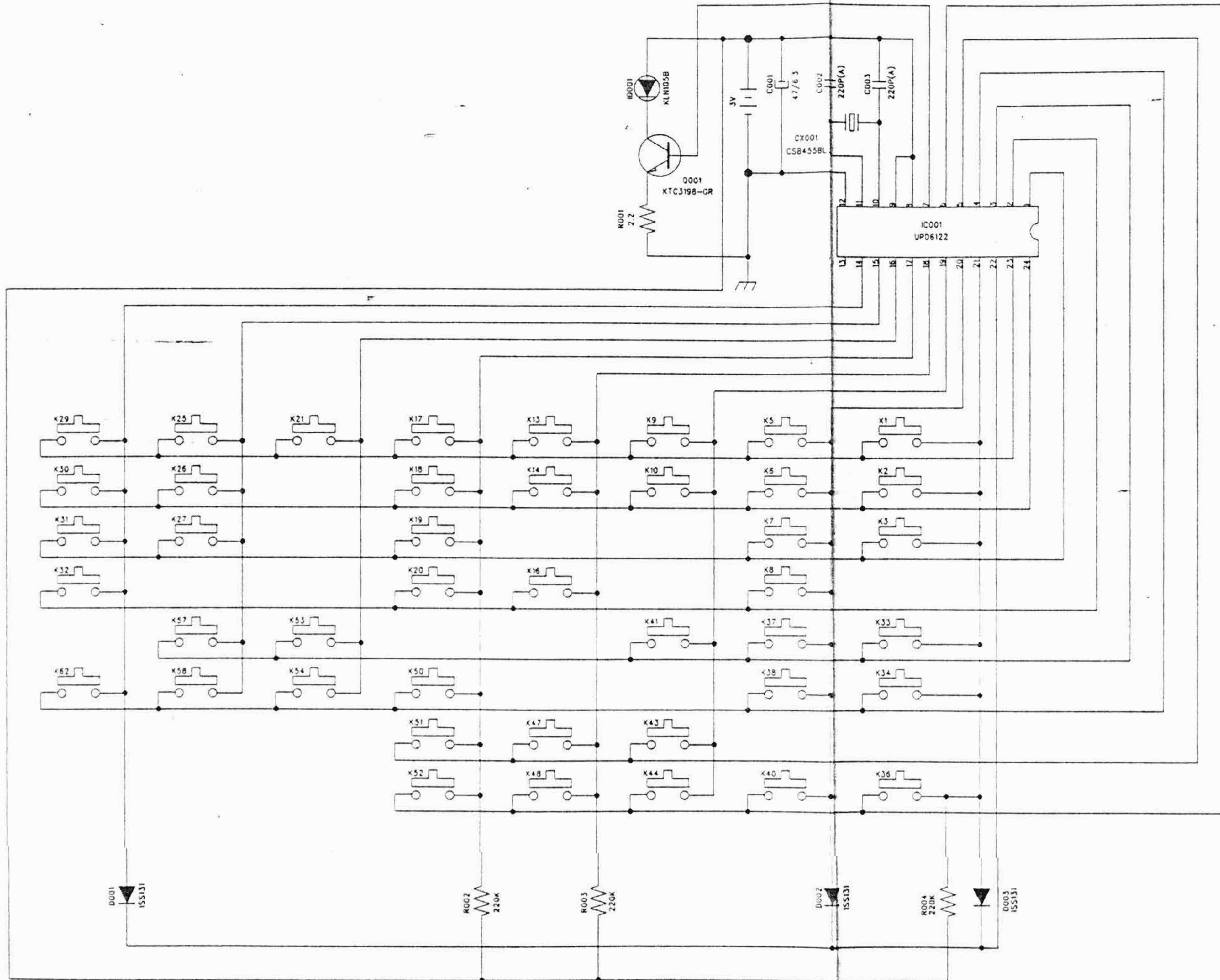
*Indicated voltages were measured during
TAPE II PLAY BACK, CRO2, BEAT CUT on.



SCHEMATIC DIAGRAM/CD

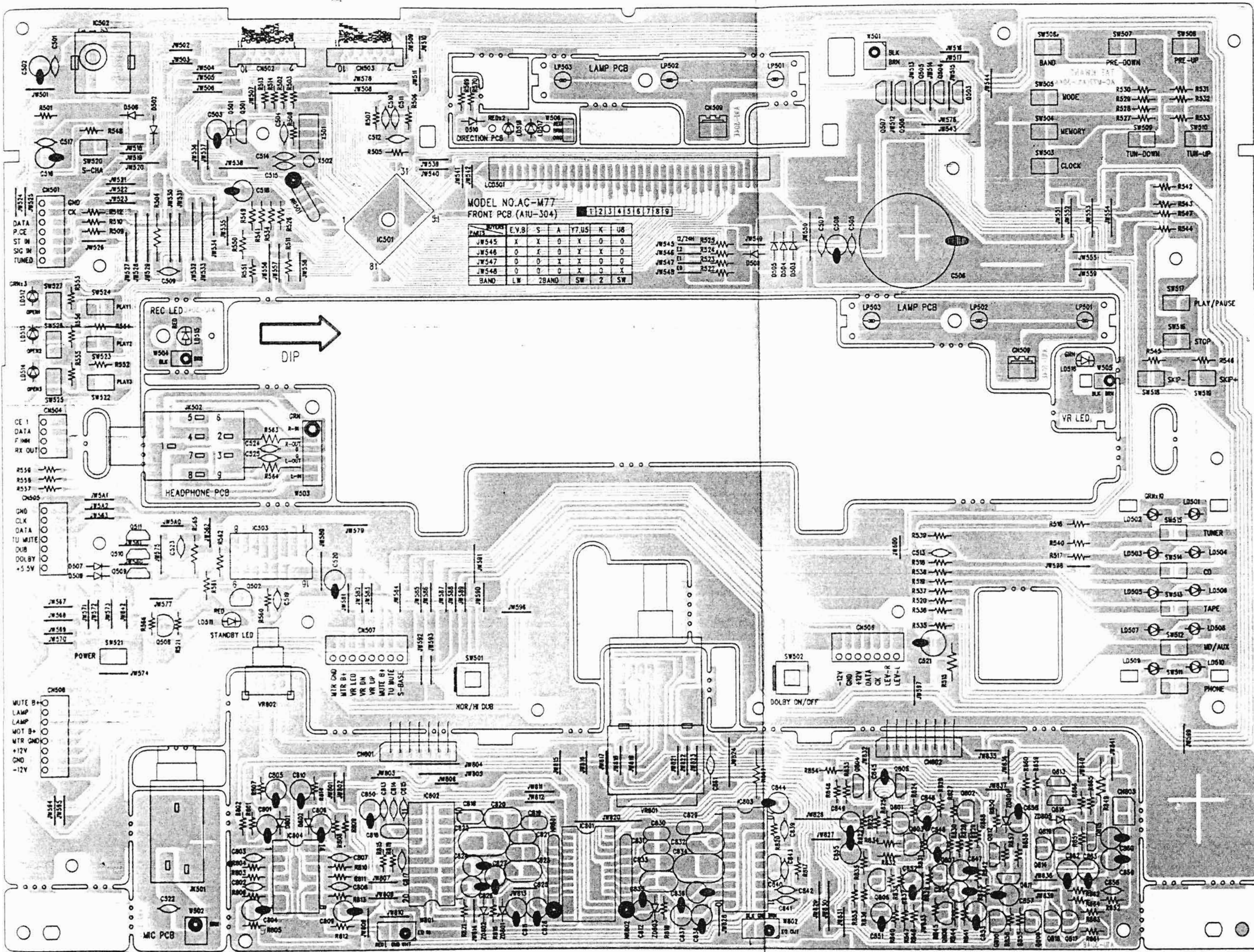


SCHEMATIC DIAGRAM/REMOTE



KEY NO	FUNCTION	KEY NO	FUNCTION
K1	CD STOP	K33	PRESET #1
K2	TUNER	K34	POP
K3	PRESET #6	K35	
K4		K36	PRESET #9
K5	TAPE	K37	PRESET #2
K6	CD PLAY/PAUSE	K38	PRESET #0
K7	PRESET #+10	K39	
K8	FLAT	K40	VOCAL
K9	VOLUME DOWN	K41	SLEEP
K10	PHONO	K42	
K11		K43	VOLUME UP
K12		K44	S-BASS
K13	CD <<	K45	
K14	CD REPEAT	K46	
K15		K47	CD TIME
K16	CD INTRO SCAN	K48	CD RANDOM
K17	POWER MUTE	K49	
K18	AUX/VCR	K50	WAKE
K19	DISC 1	K51	CD <>
K20	DISC 2	K52	DISC 3
K21	CD >>	K53	PRESET #7
K22		K54	CLASSIC
K23		K55	
K24		K56	
K25	POWER ON/OFF	K57	PRESET #8
K26	CD	K58	BGM
K27	JAZZ	K59	
K28		K60	
K29	CD <<	K61	
K30	CD PROGRAM	K62	PRESET #3
K31	PRESET #5	K63	
K32	PRESET #4	K64	

IX. PCB LAYOUT/FRONT



MODEL NO. AC-M77
FRONT PCB (AU-304)

REV.	1	2	3	4	5	6	7	8	9
JW545	X	X	0	X	0	0	0	0	0
JW546	0	X	0	X	X	0	0	0	0
JW547	0	0	X	X	0	0	0	0	0
JW548	0	0	0	X	0	X	0	X	0
BAND	LW	2BAND	SW	2	SW				

NOTES

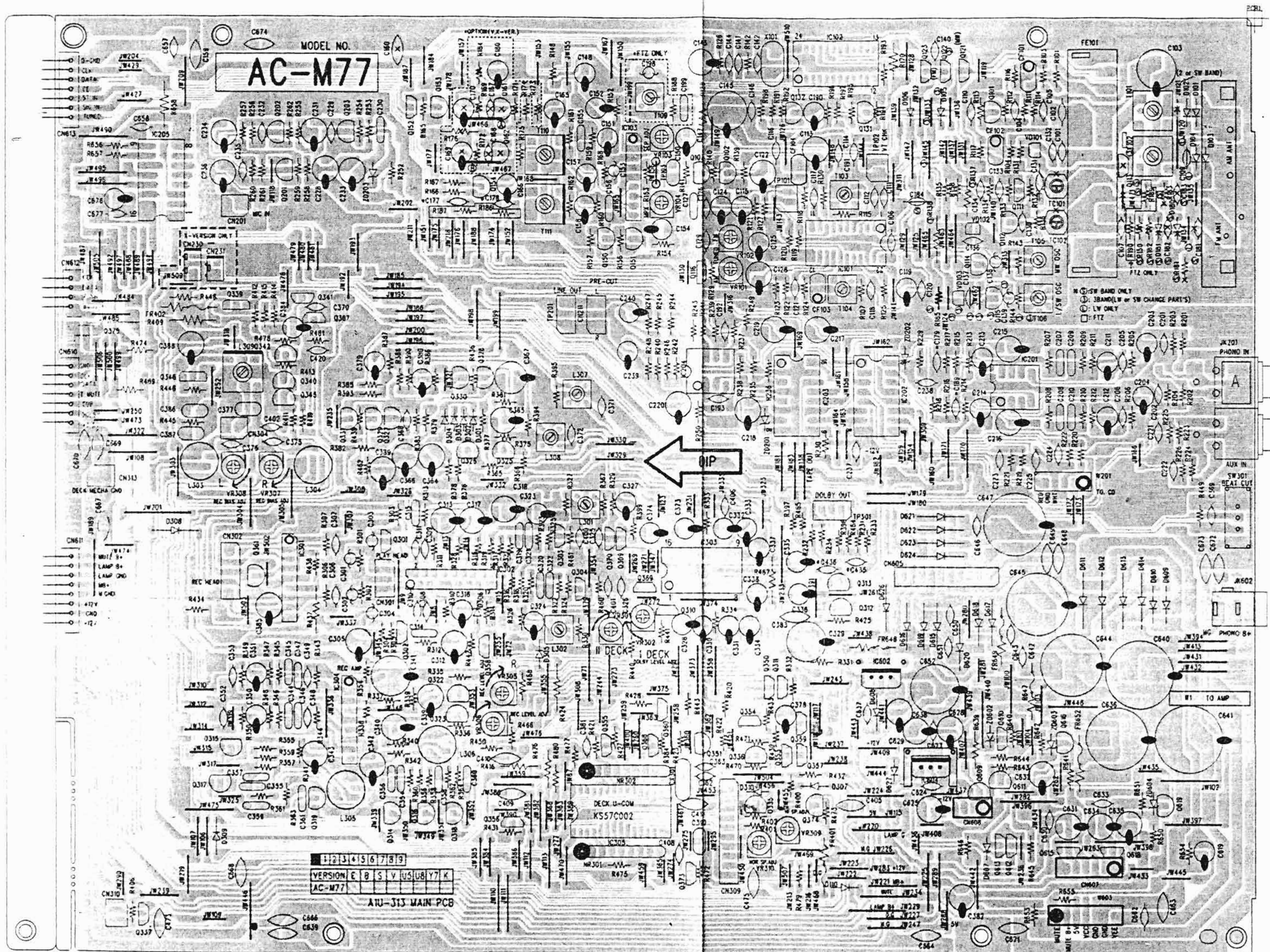
- BAND OF EACH VERSION**

BAND	VER.	E	S	B	Y7	Y4	Y3	U5	U8	K	V1	V2
2BAND		0	0	0	0	0	0	0	0	0	0	0
3BAND(LW)		0	0	0	0	0	0	0	0	0	0	0
3BAND(SW)		0	0	0	0	0	0	0	0	0	0	0
- JUMPER OPTION**

LOC.	VER.	E	S	B	Y7	Y4	Y3	U5	U8	K	V1	V2
JW545		X	X	X	X	0	0	X	0	X	X	X
JW546		0	X	0	X	X	0	X	0	X	0	0
JW547		0	0	X	X	X	0	X	0	0	0	0
JW548		0	0	X	X	0	X	X	0	0	0	0
- REMARK (Insert only K,V1,V2 Versions)**

LOCATION	SPECIFICATION	K	V1	V2
C524	C/C 0.022	X	0	0
C525	C/C 0.022	X	0	0
R802		0	0	0
R809		0	0	0
- DIRECTION PCB INSERT K-VERSION**

LOCATION	SPECIFICATION	K	V1	V2
R569,R570	1K2 (1/5W)			
D510	ISS131			
LD517,LD518	SLR-34VC3			
W506	JP #30 TWIST 500mm			



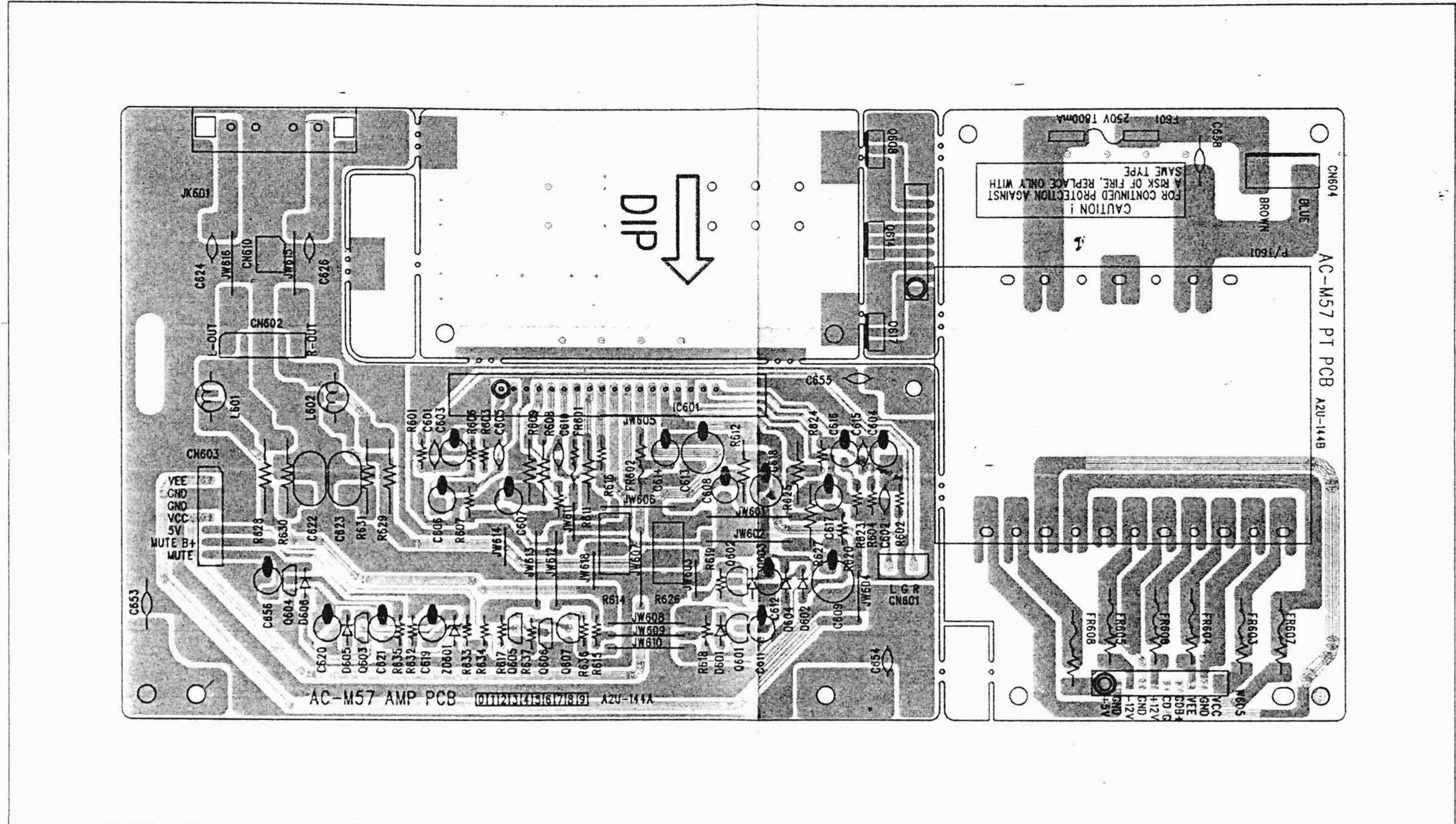
1. CHANGE PART'S OF EACH BAND

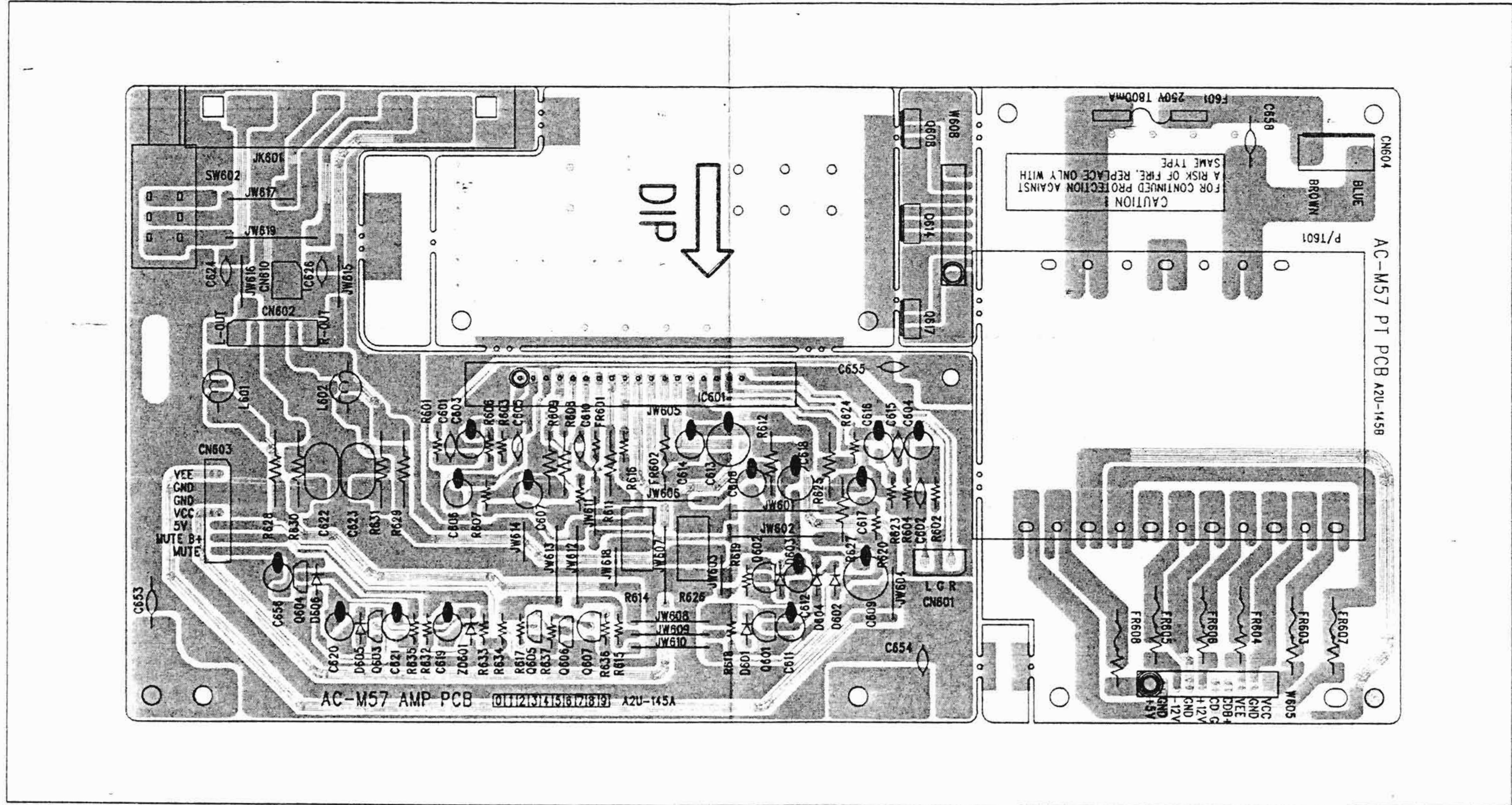
NO	LOC.	SPECIFICATION	2BAND	LW	SW
1	T02	AAT-051	x	o	o
		AAT-037	x	o	o
2	T06	AAT-025	x	o	o
		AAT-026	x	o	o
3	C19	S 220P	x	o	o
		S 1800P	x	o	o
4	C09	56P	x	o	x
5	Q13	KTC3199-Y	x	x	o
6	R150	10K 1/5W	x	x	o
7	D180	155135	x	x	o
8	D181	155135	x	x	o
9	R181	1K 1/5W	x	x	o
10	R182	5K6 1/5W	x	x	o
11	R183	-	x	x	o
12	C181	C/C 0.022	x	x	o
13	C183	-	x	x	o
14	JW121	JUMPER	o	x	o
15	C137	150P	x	o	x
16	R185	5K6 1/5W	x	x	o
17	C182	0.001	x	x	o
18	C186	473	x	x	o
19	CF104	8FU450C4M	o	o	x

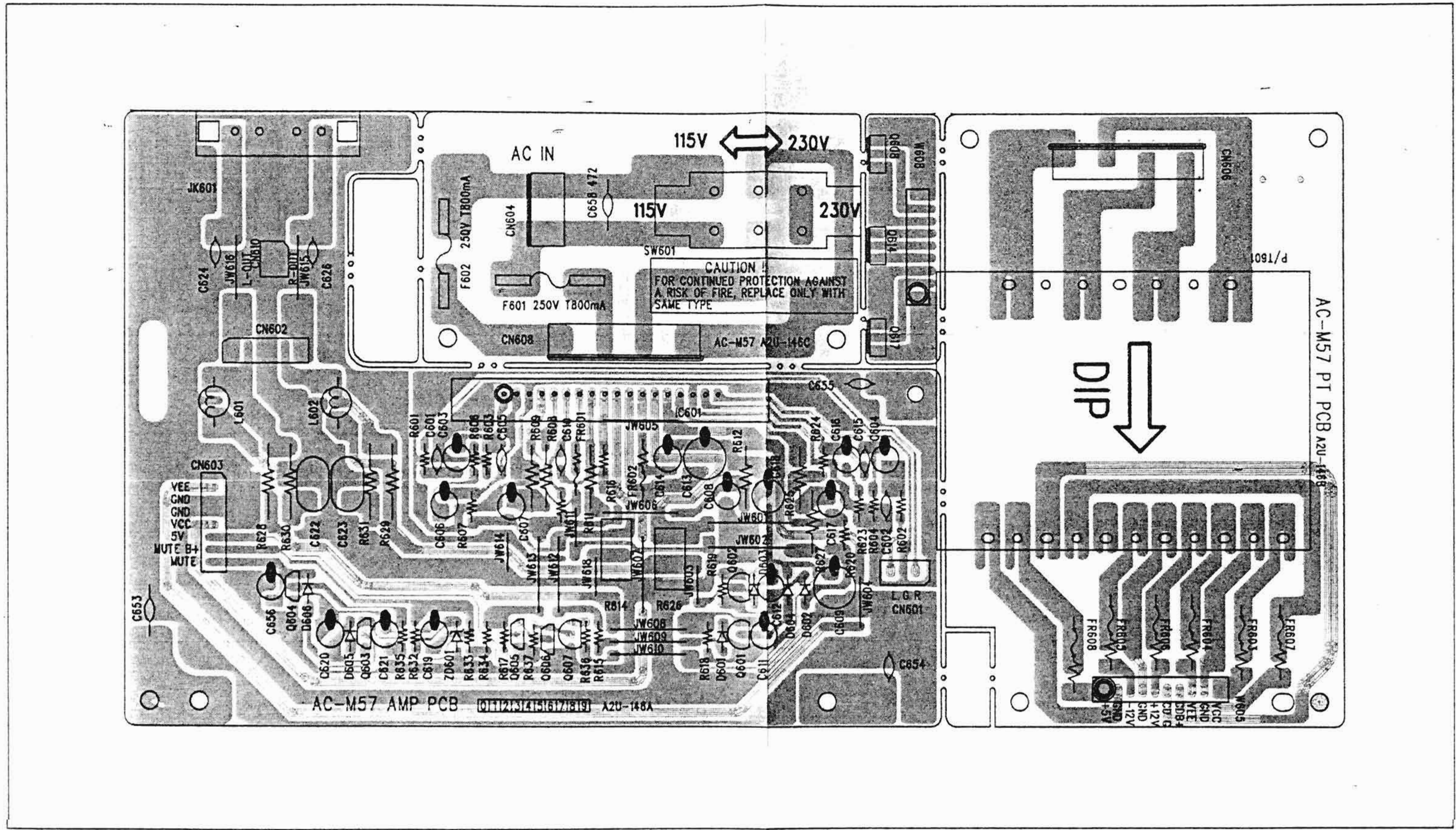
2. REMARK**
 o SW BAND ONLY
 x 2BAND OR SW CHANGE PART'S
 o LW ONLY
 x 1/2" INSERT, 2BAND AND SW BAND
 x 1/2" LW ONLY
 x SW BAND ONLY
 2 BAND DELITE, INDICATED PART'S "1"

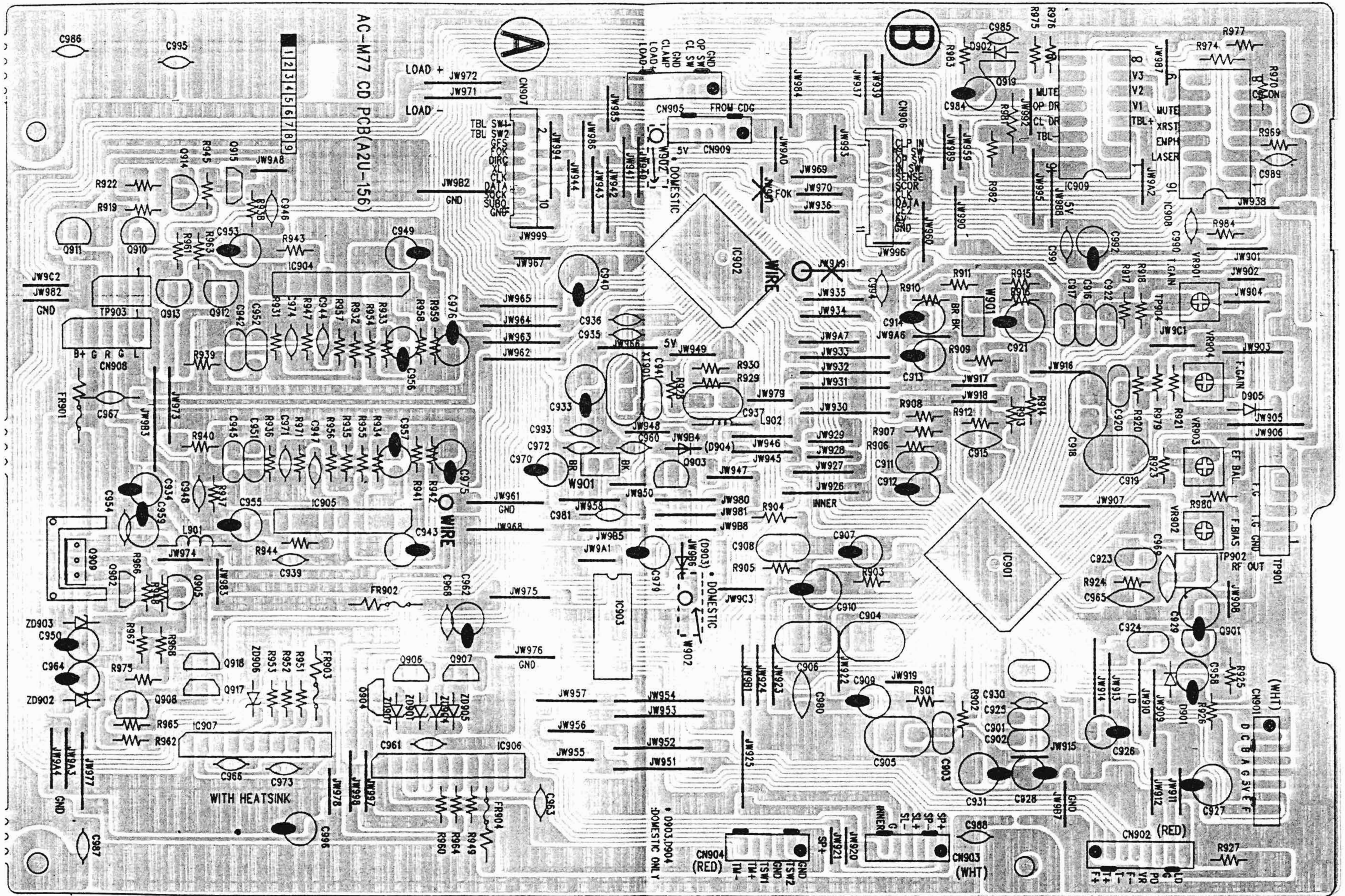
3. BAND OF EACH VERSION

BAND	2BAND	ER	E	S	B	V	U	8	Y	7	4	1	U	8	1	K
2BAND	o	o														
2BAND(LW)	o	o														
2BAND(SW)	o	o														

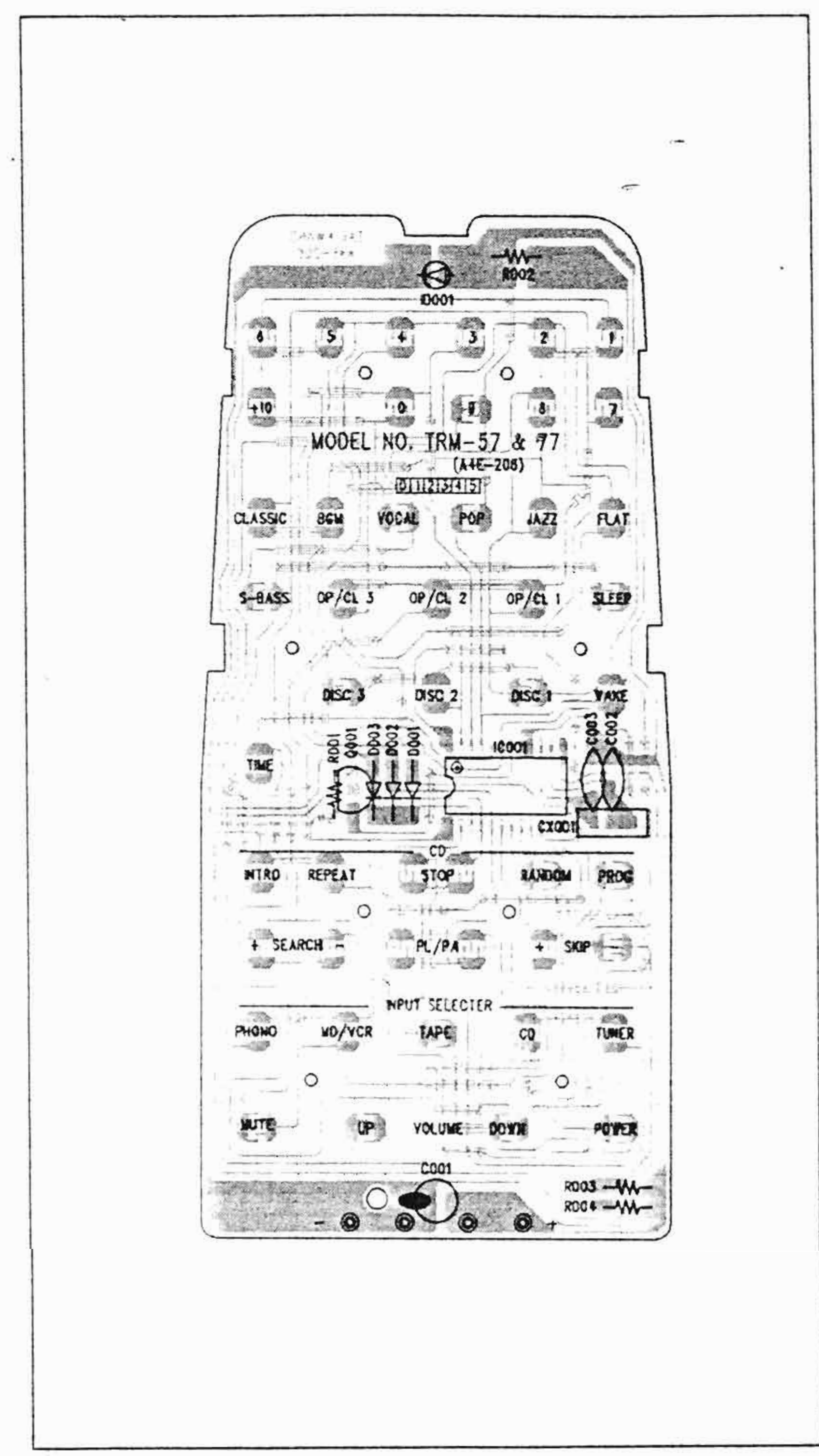
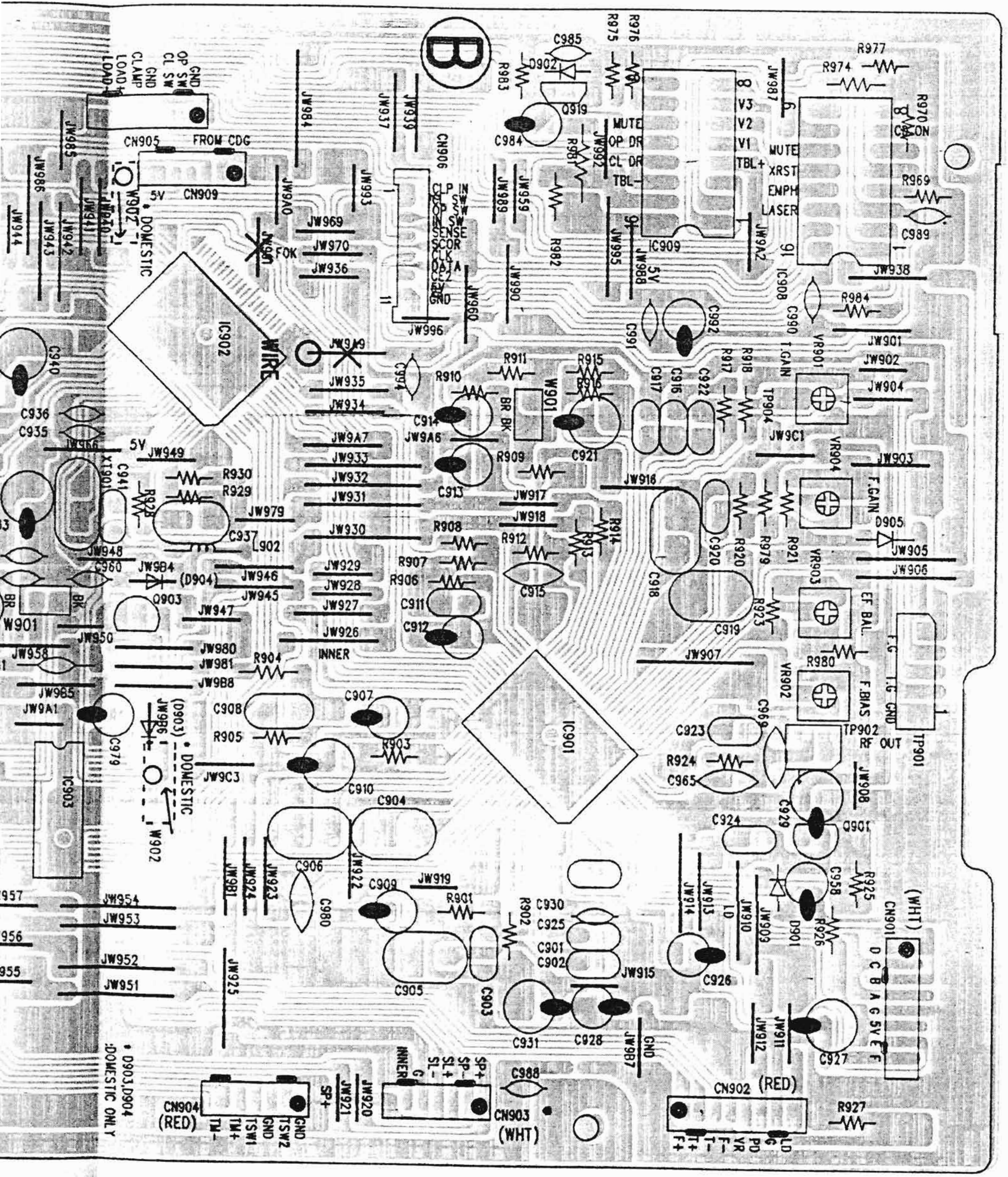








PCB LAYOUT/REMOTE



X. INFORMATION OF ICs MI-COM

TAPE CONTROL μ -COM KS57C0002 PORT ASSIGNMENT

PIN	P.NAME	I/O	INT	ACT	END	PULL	DESCRIPTION	REMARK
1	P0.0	OUT	L	H	L	PU	MOTOR CONTROL	H:MOTOR ON
2	P0.1	OUT	L	H	L	PU	SUPER BASS CONT	H:SUPER BASS ON
3	P0.2	IN	L	H	L	NC	DOLBY ON/OFF SW	H:DOLBY NR ON
4	P1.0	IN	H	L	H	NC	REMOTE IN (TU/CD μ -COM)	DATA IN
5	P1.1	IN	H	L	H	NC	REC SW (DECK MECHA)	L:REC SW ON
6	P2.0	IN	H	L	H	NC	1 PLAY SW (DECK MECHA)	L:1 PLAY SW ON
7	P2.1	IN	H	L	H	NC	1 CrO ₂ SW (DECK MECHA)	L:1 CrO ₂ SW ON
8	P2.2	IN	H	L	H	NC	2 PLAY SW (DECK MECHA)	L:2 PLAY SW ON
9	P2.3	IN	H	L	H	NC	2 CrO ₂ SW (DECK MECHA)	L:2 CrO ₂ SW ON
10	P3.0	IN	H	L	H	NC	HI-SPEED CONTROL SW	L:HI-SPEED SW ON
11	P3.1	OUT	L	H	L	PU	CLK	To EQ IC (LC7552)
12	P3.2	OUT	L	H	L	PU	DATA	TO SYSTEM μ -COM
13	RESET	IN	H	L	H	—	RESET	GND
14	TEST	—	—	—	—	—	TEST IN	GND
15	VSS	—	—	—	—	—	GROUND	4.19MHz OSC
16	Xout	—	—	—	—	—	OSC CLK OUT	4.19MHz OSC
17	Xin	—	—	—	—	—	OSC CLK IN	To EQ IC (LC7552)
18	P4.0	OUT	L	H	L	NC	REC OSC CONTROL	H:REC OSC ON
19	P4.1	OUT	H	L	H	NC	1,2 CrO ₂ SW (BA34126)	L:1 or 2 CrO ₂
20	P4.2	OUT	L	H	L	NC	1,2 PLAY SEL (BA3416)	H:2 PLAY
21	P4.3	OUT	L	H	L	NC	R/P SEL (μ PC1330)	H:PLAY
22	P5.0	OUT	H	L	H	NC	HI-SPEED DUBBING	L:HI-SPEED
23	P5.1	OUT	H	L	H	NC	REC CrO ₂	L:REC CrO ₂
24	P5.2	OUT	L	H	L	NC	HI-DUB & CrO ₂	L:HI-SPEED & CrO ₂
25	P5.3	OUT	H	L	H	NC	SPEED CONTROL	L:HI-SPEED
26	P6.0	OUT	H	L	H	PU	DOLBY ON/OFF (HA12136)	L:DOLBY ON
27	P6.1	OUT	H	L	H	PU	DOLBY R/P SEL (HA12136)	L:REC
28	P6.2	OUT	L	H	L	PU	REC MUTE	H:MUTE OFF
29	P6.3	OUT	H	L	H	PU	PLAY MUTE	L:MUTE OFF
30	VDD	B+	—	—	—	—		5V

REMARK

I/O: IN/OUT PORT
 INT: INITIALIZE (AFTER RESET)
 ACT: ACTIVE STATUS
 END: END STATUS
 PULL: PULL UP RESISTOR

H83813/14 PORT ASSIGNMENT (SYSTEM CONTROLLER)

PIN	PORT NAME	I/O	TP	OP	RS	IN	AC	DT	DESCRIPTION	REMARK
1	RC0/AN8	I	C	ED	HZ	H	H	LV	PICK UP SW	L:IN MOST
2	RC1/AN9	I	C	ED	HZ	H	H	LV	LOADER OPEN SW	L:CLOSED
3	RC2/AN10	I	C	ED	HZ	H	H	LV	LOADER CLOSE SW	L:OPEN
4	RC3/AN11	I	C	ED	HZ	H	H	LV	DISC CLAMP SW	L:CLAMPED
5	AVss	—	—	—	—	—	—	—	GROUND	
6	TEST	I	C	—	—	—	—	—		
7	CL2	O	C	—	—	—	—	—	SUB CLOCK	
8	CL1	I	C	—	—	—	—	—	SUB CLOCK	
9	Vss	—	—	—	—	—	—	—	GROUND	
10	OSC1	I	C	—	—	—	—	—	SYSTEM CLOCK(5MHz)	
11	OSC2	O	C	—	—	—	—	—	SYSTEM CLOCK	
12	RESET	I	C	EU	HZ	—	L	LV	RESET	L:RESET
13	MD0	I	C	—	—	—	—	—		
14	P20/MRQ4	I	C	EU	HZ	L	H	LV	TERRET SEARCH SW	L → H:STOP
15	P21	I	C	EU	HZ	L	H	LV	DISC NO. SEARCH SW	H:NO
16	P22	I	C	—	HZ	L	H	LV	GFS IN	H:GFS OK
17	P23	I	C	—	HZ	L	H	LV	FOK IN	H:FOCUS OK
18	P24	O	C	—	HZ	L	L	—	DIRECT CONTROL	L:JUMP
19	P25	O	C	—	HZ	L	L	—	CONTROL DATA LATCH	L:LACH
20	P26	O	C	—	HZ	L	H	—	CLOCK OUT	
21	P27	O	C	—	HZ	L	H	—	DATA OUT	
22	P30/SCK1	O	C	—	HZ	L	H	—	SQCK OUT	
23	P31/SI1	I	C	—	HZ	L	H	—	SUBQ IN	
24	P32/SO1	O	C	—	HZ	H	H	—	DIGITAL MUTE	H:MUTE ON
25	P33	O	C	—	HZ	L	H	—	EXPANDER1 DATA LATCH	H:LACH
26	P34	O	C	—	HZ	L	H	—	EXPANDER 2 DATA LATCH	H:LACH
27	P35	O	C	—	HZ	L	H	—	PLL(LC7218) DATA LATCH	H:LACH
28	P36	O	C	—	HZ	L	H	—	CLOCK OUT	
29	P37	O	C	—	HZ	L	H	—	DATA OUT	
30	Vss	O	C	—	—	—	—	—		
31	V3	O	C	—	—	—	—	—		
32	V2	O	C	—	—	—	—	—		
33	V1	O	C	—	—	—	—	—		
34	Vcc	—	—	—	—	—	—	—	Vcc	
35	PA3/COM4	O	C	—	—	—	—	—	LCD COMMON OUTPUT	
36	PA2/COM3	O	C	—	—	—	—	—	LCD COMMON OUTPUT	
37	PA1/COM2	O	C	—	—	—	—	—	LCD COMMON OUTPUT	
38	PA0/COM1	O	C	—	—	—	—	—	LCD COMMON OUTPUT	
39	P50/SEG1	O	C	—	L	L	H	—	TU LED DRIVE	H:FORWARD
40	P51/SEG2	O	C	—	L	L	H	—	CD LED DRIVE	H:FORWARD

PIN	PORT NAME	I/O	TP	OP	RS	IN	AC	DT	DESCRIPTION	REMARK
41	P52/SEG2	O	C	—	L	L	H	—	TAPE LED DRIVE	H:FORWARD
42	P53/SEG4	O	C	—	L	L	H	—	MD LED DRIVE	H:FORWARD
43	P54/SEG5	O	C	—	L	L	H	—	PHONO LED DRIVE	H:CLOSE
44	P55/SEG6	O	C	—	L	L	H	—	NC	H:OPEN
45	P56/SEG7	O	C	—	L	L	H	—	NC	H:REVERSE
46	P57/SEG8	O	C	—	L	L	H	—	SUPER BASS ON/OFF	H:ON
47	P60/SEG9	O	C	—	L	L	H	—	LCD CONTROL SEG OUT	
48	P61/SEG10	O	C	—	L	L	H	—	LCD CONTROL SEG OUT	
49	P62/SEG11	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
50	P63/SEG12	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
51	P64/SEG13	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	L:IN MOST
52	P65/SEG14	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	L:CLOSED
53	P65/SEG15	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	L:OPEN
54	P67/SEG16	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	L:CLAMPED
55	P70/SEG17	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
56	P71	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
57	P72	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
58	P73	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
59	P74	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
60	P75	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
61	P76	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
62	P77	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	L:RESET
63	P80	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
64	P81	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	L → H:STOP
65	P82	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	H:NO
66	P83	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	H:GFS OK
67	P84	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	H:FOCUS OK
68	P85	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	L:JUMP
69	P86	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	L:LACH
70	P87	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
71	P90	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
72	P91	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
73	P92	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
74	P93	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
75	P94	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
76	P95	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
77	P96	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
78	P97	O	C	—	—	—	—	—	LCD CONTROL SEG OUT	
79	Vcc	—	—	—	—	—	—	—	Vss	
80	P10/TMOW	I	C	EU	HZ	L	H	LV	SEL0 IN(OPTION TABLE)	

PIN	PORT NAME	I/O	TP	OP	RS	IN	AC	DT	DESCRIPTION	REMARK
81	P11/TMOFL	I	C	EU	HZ	L	H	LV	SEL1 IN(OPTION TABLE)	
82	P12/TMOFH	I	C	EU	HZ	L	H	LV	SEL2 IN(OPTION TABLE)	
83	P13/TMIG	I	C	EU	HZ	L	H	LV	12/24 IN(OPTION TABLE)	
84	P14	I	C	EU	HZ	L	H	LV	DECK PLAY IN	L → H:PLAY
85	P15/IRQ1	I	C	—	HZ	H	L	EG	CD SENSE IN	H → L:SENSE
86	P16/IRQ2	I	C	—	HZ	L	H	EG	CD SCOR IN	PULSE
87	P17/IRQ3	O	C	—	HZ	L	H	LV	DECK REC IN	H:REC
88	P40/SCK3	I	C	EU	HZ	H	L	LV	STANDBY IN	L:STOP
89	P41/RXD	I	C	EU	HZ	H	L	LV	FM STEREO IN	L:STEREO
90	P42/TXD	O	C	EU	HZ	L	—	LV	SERIAL CODE OUT	PULSE
91	P43/IRQ0	I	—	EU	HZ	H	L	EG	REMOCON IN	
92	AVcc	—	—	—	HZ	—	—	—		
93	PB0/AN0	I	C	—	HZ	—	—	LV	KEY RETURN IN	
94	PB1/AN1	I	C	—	HZ	—	—	LV	KEY RETURN IN	
95	PB2/AN2	I	C	—	HZ	—	—	LV	KEY RETURN IN	
96	PB3/AN3	I	C	—	HZ	—	—	LV	KEY RETURN IN	
97	PB4/AN4	I	C	—	HZ	—	—	LV	L CH LEVEL METER AD IN	
98	PB5/AN5	I	C	—	HZ	—	—	LV	R CH LEVEL METER AD IN	
99	PB6/AN6	I	C	EU	HZ	H	L	LV	SIGNAL IN	L:SIGNAL
100	PB7/AN7	I	C	EU	HZ	H	L	LV	TUNED IN	L:TUNED

REMARK

I/O: IN/OUT-PORT USE

TP: CMOS, N/P MOS OPEN DRAIN

OP: IN/EX-TERNAL PULL UP/DOWN LEVEL/EDGE/OTHER

RS: RESET

IN: INITIALIZE

AC: ACTIVE

HZ: HIGH IMPEDANCE

ABBREVIATIONS

AMPLIFIER

ABBREVIATION	EXPLANATION
A	Analog
AC	Alternating Current
AMP	AMPlifier
CD	Compact Disc
COM	COMmon
D	Digital
D/A	Digital to Analog
DAC	Digital to Analog Converter
DAT	Digital Audio Tape recorder
DC	Direct Current
GND	GrouND
L	Left
LED	Light Emitting Diode
MC	Moving Coil
MM	Moving Magnet
PCB	Printed Circuit Board
R	Right
REG	REGulator
REC	RECORD
TR	TRansistor
SW	SWitch
V.AMP	Voltage AMPlifier
V.DIS	Video DISC
VR	Variable Resistance
VTR	Video Tape Recorder

TUNER

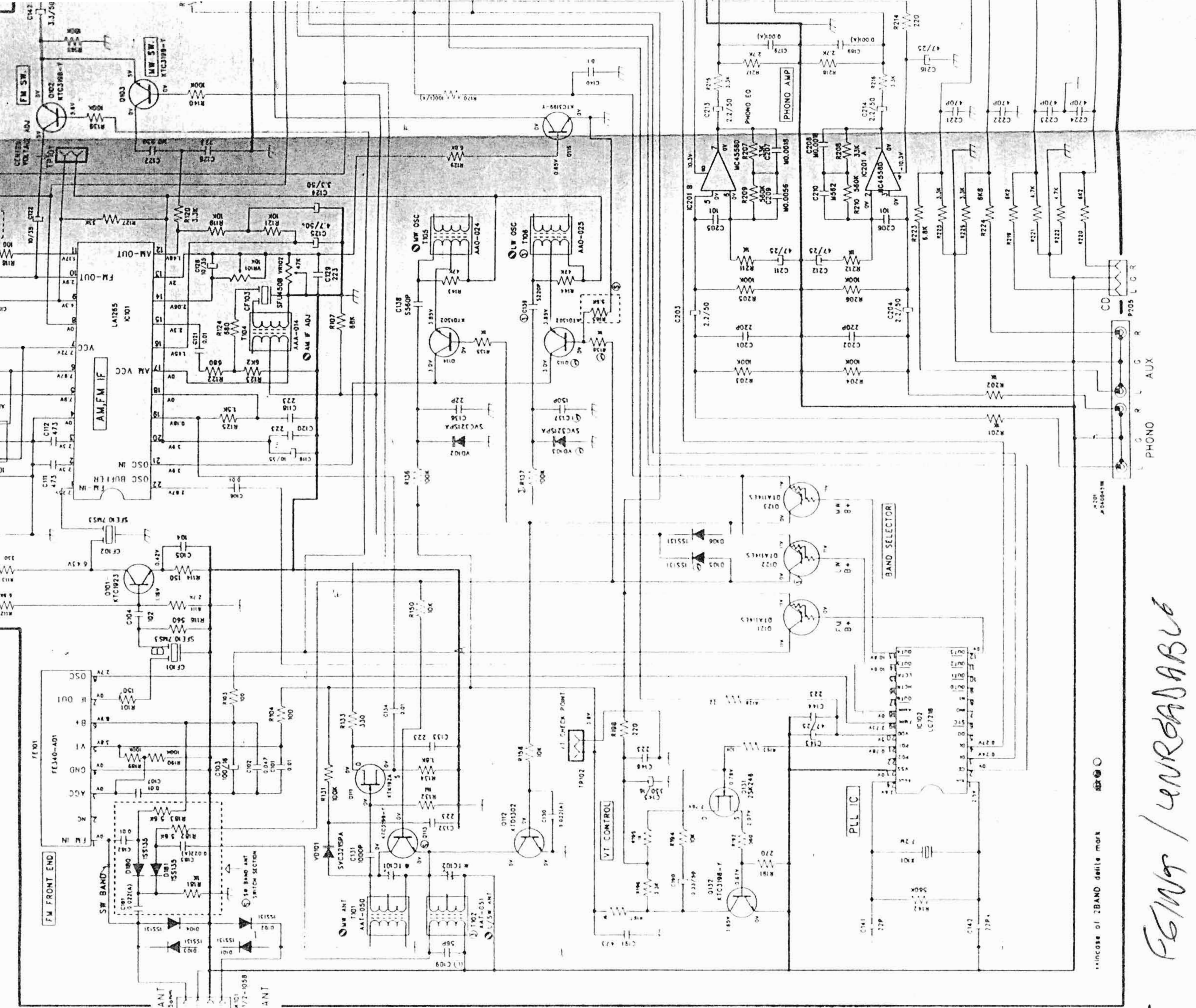
ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AFC	Auto Frequency Control	MEMO	MEMOry
AGC	Auto Gain Control	MI-COM	MICro-COMputer
ALC	Auto Level Control	MIN	MINimum
AM	Amplitude Modulation	MIX	MIXing
AMP	AMPlifier	MPX	MultipleX
ANT	ANTenna	MW	Medium Wave(frequency)
BATT	BATTery	NC	No Connection
BLK	BLock	NFB	Negative Feed Back
BUFF	BUFFer	OSC	OSCillator
COMP	COMParator	PCB	Printed Circuit Board
DET	DETECT(DETector)	PLL	Phase Locked Loop
FLD	FLuorescent Display	Q.D	Quadrature Detector
FM	Frequency Modulation	Rch	Right channel
FREQ	FREQUENCY	REF	REFerence
GND	GrouND	REG	REGulator
H	High	RF	Radio Frequency
HPF	High Pass Filter	SEG	SEGment
IF	Intermediate Frequency	SELE	SELEctor
IHF	Institut of High Fidelity	SENS	SENSitivity
IND	INDicator	SIG	SIGnal
I/O	In/Out	S/N	Signal to Noise Ratio
JW	Jumper Wire	SSG	Standard Signal Generator
L	Low	STD	STANdard
LCD	Liquid Crystal Display	SW	SWitch : Short Wave(frequency)
Lch	Left channel	THD	Total Harmonic Distortion
LED	Light Emitting Diode	TP	Test Point
LPF	Low Pass Filter	VCO	Voltage Controlled Oscillator
LW	Long Wave(Frequency)	VR	Variable Resistor
		X'TAL	Crystal

CASSETTE

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AC	Alternating Current	MIN	MINute
A/D	Analog/Digital	MML	Maximum Modulation Level
AF	Auto Fader	MOL	Maximum Output Level
AMP	AMPlifier	MPX	Multi Plex
AR	Anti Recording	NC	Not Connected (No Connection)
AT BIAS	Auto Turning BIAS	NFB	Negative Feed Back
ATT	ATTenuator	NORM	NORMal
BAL	BALance	NR	Noise Reduction
BEF	Band Elimination Filter	OSC	OSCillator (OSCillation)
BSS	Blank Search System	P	Pulse
CAP M	CAPstan Motor	PB	Play Back
CH	CHannel	QMSS	Quick Memory Search System
COMP	COMParator	QR	Quick Reverse
CONT	CONTinuanance	R CH	Right CHannel
CRLP	Computer Recording Level Processing	REC	RECORD(Recording)
CS	Chip Select	REV	REVerse
D/A	Digital/Analog	ROT	ROTation
DC	Direct Current	REW	REWind
DET	DETECTOR	SEC	SECond
DISCRI	DISCRIminator	SELE	SELEctor
DUB	DUBbing	SENS	SENSitivity
EQ	EQualizer	SEPP	Single Ended Push Pull
FF(or F.FWD)	Fast Foward	SIG	SIGnal
FLD	FLUoresent Display	SPECT	SPECTrum
FREQ	FREQuency	STD	STANdard
FWD	ForWard	SW	SWitch
GND	GrouND	SYSCON	SYStem CONtrol
H	High	TP	Test Point
HPF	High Pass Filter	TRIG	TRIGa
IND	INDicator	VCA	Voltage Control Attenuator
IPLS	Instant Program Location System	VOL	VOLume
L	Low	VOLT	VOLTage
L CH	Left CHannel	VR	Variable Resistor
LED	Light Emitting Diode	X'TAL	crysTAL
MEMO	MEMOry	X1	Normal speed
MICOM	MICROCOMputer	X2	Double speed

COMPACT DISC

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
A-D	Analog to Digital (Converter)	Mb	Mega Bits
ADC	Analog to Digital (Converter)	MDA	Motor Drive Amplifier
BCD	Binary Code Decimal	MFM	Modified Frequency Modulation
BPI	Bits per Inch	MM	Mono-stable Multivibrator
CD	Compact Disc	M2FM	Modified Modified Frequency Modulation
CIRC	Cross Interleaving & Reed Solomon Coding	MOD2	Modulo 2(Addition)
CLV	Constant Linear Velocity	MP	Microprocessor
CP	Clock Pulses	MSB	Most Significant Bit
CRCC	Cyclic Redundancy Check Codes	NA	Numerical Aperture
D Level	Decision Level	NRZ	Non Return to Zero
D-A	Digital to Analog (Converter)	NRZ-I	Non Return to Zero Inverted
DAC	Digital to Analog (Converter)	P	Parity Data
DAD	Digital Audio Disc	PAM	Pulse Amplitude Modulation
DEM	Dynamic Element Matching	PCM	Pulse Code Modulation
DPD	Differential Phase Detection	PD	Phase Detector
DSV	Digital Sum Value	PE	Phase Encode
EFM	Eight to fourteen Modulation	PLL	Phase Locked Loop
EX-OR	Exclusive OR	PNM	Pulse Number Modulation
FCI	Flux Changes per Inch	PPM	Pulse Phase Modulation
FIR	Finite Impulse Response	PWM	Pulse Width Modulation
FP	Front Pulse	Q	Parity Data
FPG	Front Pulse Gate	R, R1, R2, etc	Data for Right Channel
F	Frequency of Sampling	RAM	Random Access Memory
GF	Galois Field	RPG	Rear Pulse Gate
H & V (Parity)	Horizontal & Vertical	SCOOP	Self Coupled Optical Pick-up
IIR	Infinite Impulse Response	S & H	Sample & Hold
KB	Kilo Bits	S/N	Signal to Noise Ratio
L, L1, L2, etc.	Data for Left Channel	SSG	Standard Signal Generator
LPF	Low Pass Filter	SYSCON	SYStem CONtrol
LSB	Least Significant Bit		



ADVANCE PARTS OF EACH BAND

2 BAND OF EACH VERSION

REPEAT AS FEM/UNREADABLE

