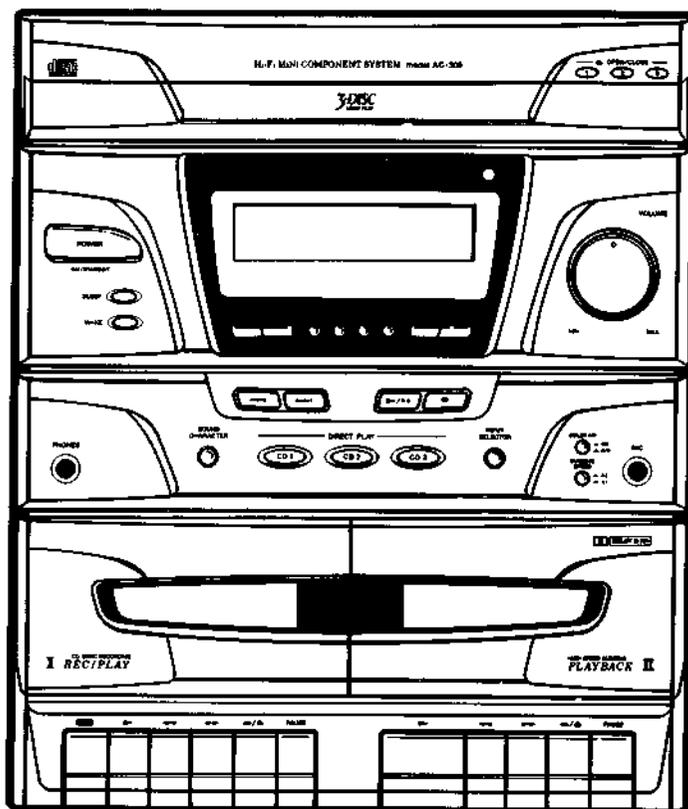


AKAI SERVICE MANUAL



COMPACT
disc
DIGITAL AUDIO

MINI COMPONENT SYSTEM

AC-300

SR-300

CONTENTS

[AC-300]

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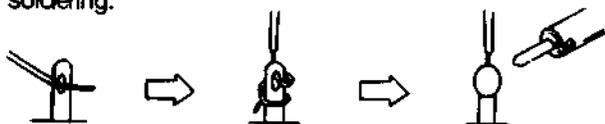
[SR-300]

| | |
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SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts indentified by the Δ (*) symbol parts are critical for safety. Replace them only with parts whose numbers are specified.
2. 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.
3. Use specified internal wiring. Note especially:
 - 1) Wires covered with PVC tubing
 - 2) Double insulated wires
 - 3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
 - 1) Insulating Tape
 - 2) PVC tubing
 - 3) Spacers (insulating barriers)
 - 4) Insulating sheets for transistors
 - 5) Plastic screws for fixing micro switches
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Make sure that wires do not contact heat generating parts (heat sinks, oxide metal film resistors, fusible resistors, etc.).
7. Check if replaced wires do not contact sharply edged or pointed parts.
8. Also check areas surrounding repaired parts.
9. 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.

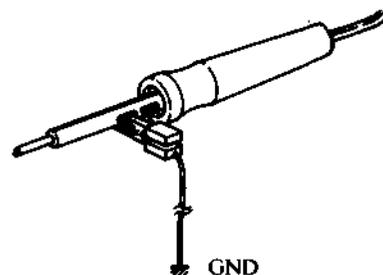
The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resistor of 1500 ohms paralleled with a 0.15 μ F capacitor, under the unit's normal working condition.

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 prong 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.

1. 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.
2. 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.
3. 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.

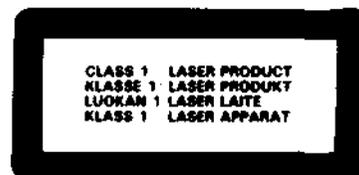


4. Do not loosen any screws in the pick-up block. Please refer to NOTE when replacing the pick up block.
5. To avoid hazardous invisible Laser Radiation, DO NOT look at the Laser Beam (Objective lens) directly.
6. On models for some countries, laser warning labels are affixed on and inside of the unit,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

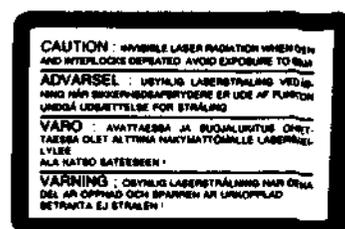
CAUTION

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 BLOCK

INFORMATION

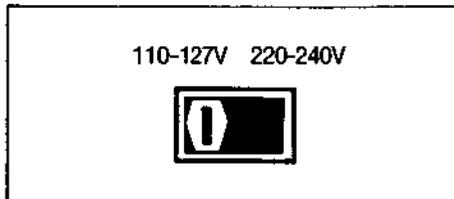
SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

| Symbol | Prinnicipal 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-300 so that the correct voltage for your area is indicated.



[U, Y1, Y2, Y3, Y4, Y7]

SPECIFICATIONS

[Tuner Section]

Frequency range

| | |
|----------|--|
| FM | 87.5-108MHz(50KHz step) |
| MW | 531-1602KHz(9KHz step) |
| | [E / V / S / B / U ₅ / Y ₁ / Y ₃ / Y ₇] |
| | 530-1610KHz(10KHz step) |
| | [U ₆ / Y ₂ / Y ₄] |
| LW | 144-288KHz(1KHz step) |
| SW | 3.8-12.5MHz(5KHz step) |

Sensitivity

| | |
|----------|-----------------------------------|
| FM | 6 μ V(IHF, THD 3%) [EXCEPT V] |
| | 12 μ V(IHF, THD 3%) [V] |
| MW | 1000 μ V(IHF, THD 10%) |
| LW | 3000 μ V(IHF, THD 10%) |
| SW | 17 μ V(IHF, THD 10%) |

S/N ratio(IHF)

| | |
|----------|-------------|
| FM | Mono:65dB |
| | Stereo:60dB |
| MW | 40dB |
| LW | 30dB |
| SW | 40dB |

Total Harmonic distortion(at 1KHz)

| | |
|----------|-------------|
| FM | Mono:1.0% |
| | Stereo:1.5% |
| MW | 1.5% |
| LW | 3.5% |
| SW | 3.5% |

Stereo separation 35dB(at 1KHz)

[AMPLIFIER Section]

Power output 25W+25W(6 ohm, 1KHz, 10% THD, EIAJ)

20W+20W(6 ohm, 1KHz, 1% THD, DIN)

Total harmonic distortion 0.05%(-10dB for RMS)

Input sensitivity

MD/VCR 400mV/47K ohms

S/N ratio

MD/VCR 75dB

Channel separation 55dB

[Deck Section]

| | |
|---------------------------------|-----------------------------|
| Track system | 4 track, 2 channel system |
| Frequency response | 100-10,000Hz \pm 3dB |
| Wow & Flutter | 0.2%(WRMS) |
| S/N ratio | 51dB |
| Total harmonic distortion | 1.0%(Normal tape, at 400Hz) |
| Channel separation | 40dB |

[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 | 90dB |
| Wow & flutter | Below measurable limits |
| Total harmonic distortion | 0.08% (at 1KHz) |
| Channel separation | 80dB (at 1KHz) |
| Dynamic range | 85dB (at 1KHz) |

[General]

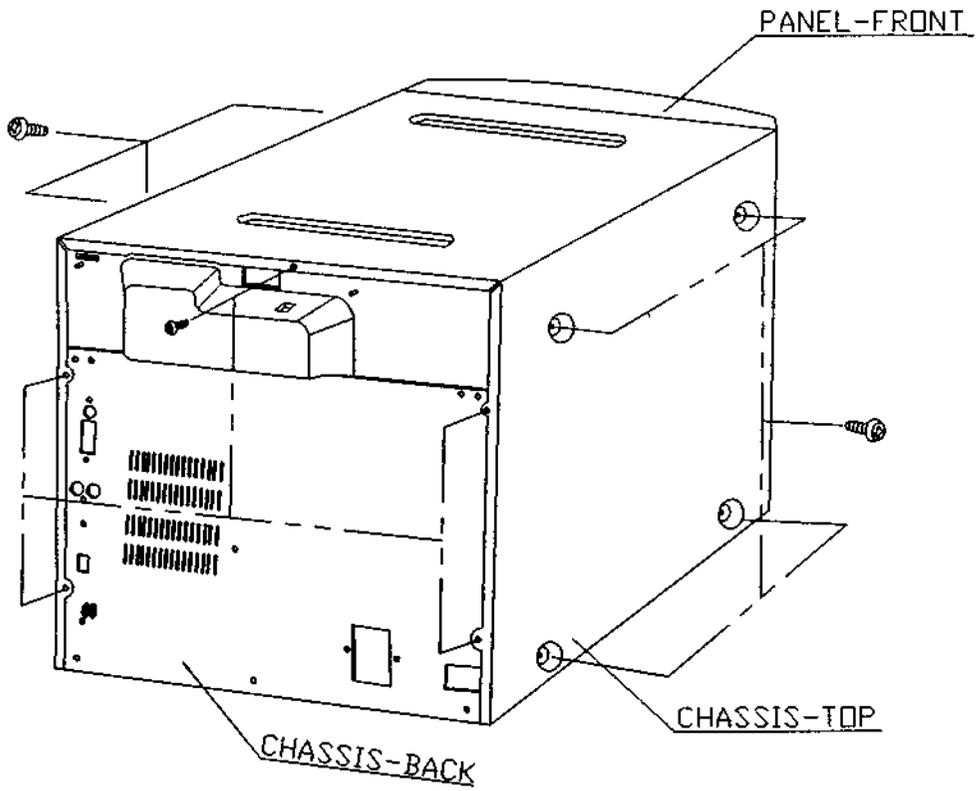
Power requirement

| | |
|--|--------------------------------|
| E/V | AC 220-230V/50Hz |
| B | AC 230V/50Hz |
| S | AC 240V/50Hz |
| U/Y ₁ /Y ₂ /Y ₃ /Y ₄ /Y ₇ | AC 110-127V, 220-240V/50, 60Hz |
| Power consumption | 63W |
| Dimension | 270(W)×320(H)×347(D)mm |
| Weight | 8.9Kg |

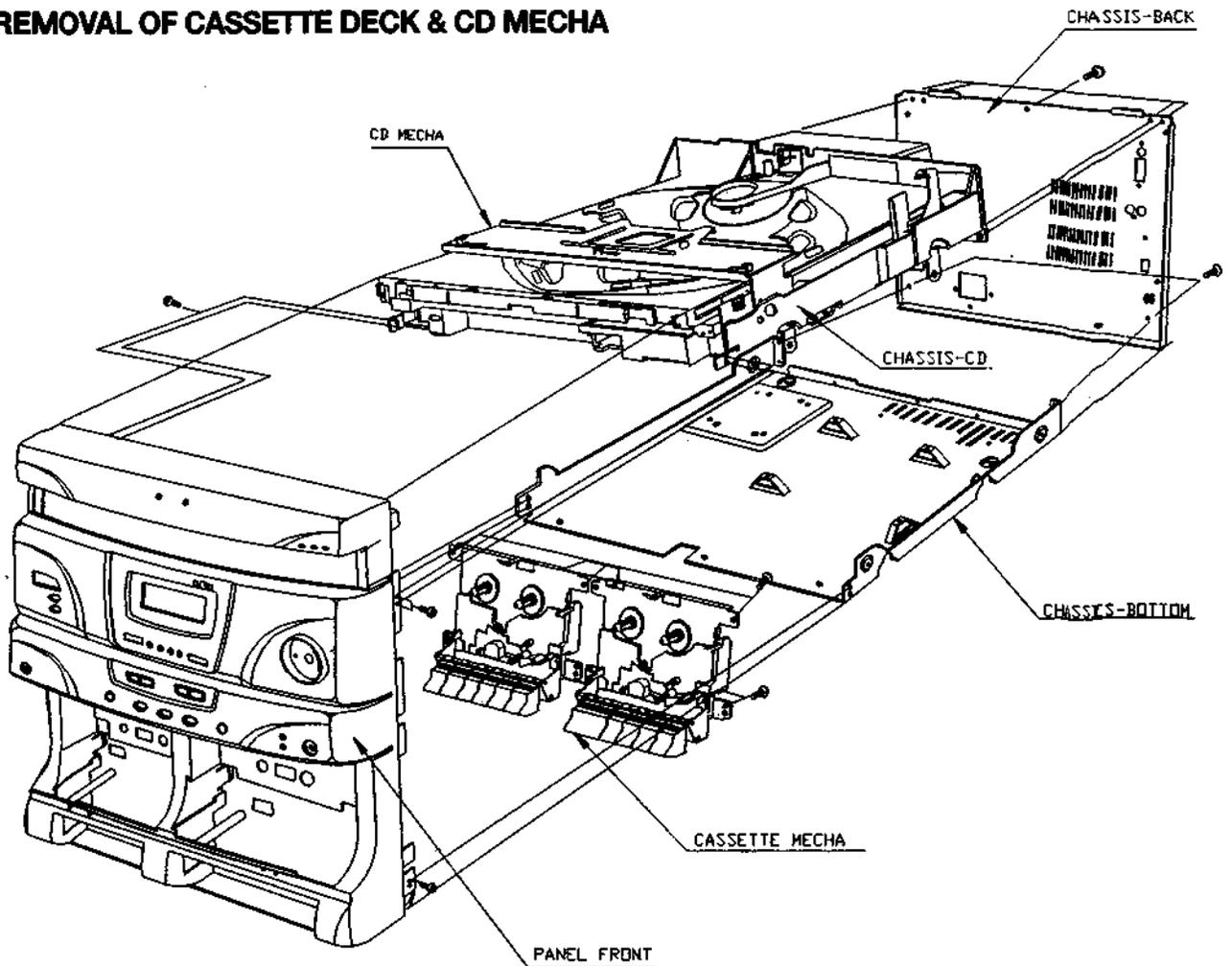
* For improvement purposes, specifications and design are subject to change without notice.

I. DISASSEMBLY

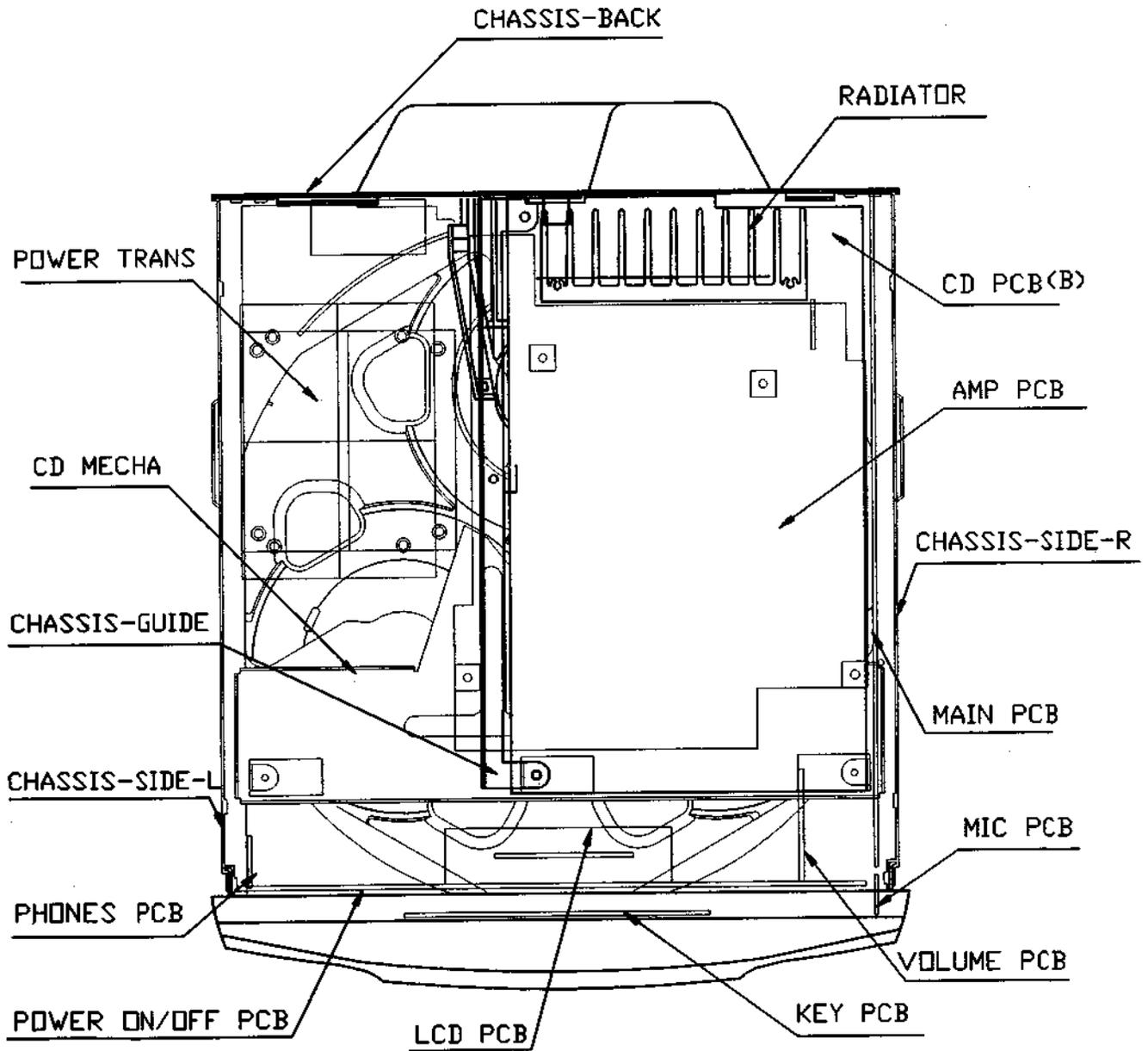
1. REMOVAL OF CHASSIS-TOP



2. REMOVAL OF CASSETTE DECK & CD MECHA



II. PRINCIPAL PARTS LOCATION

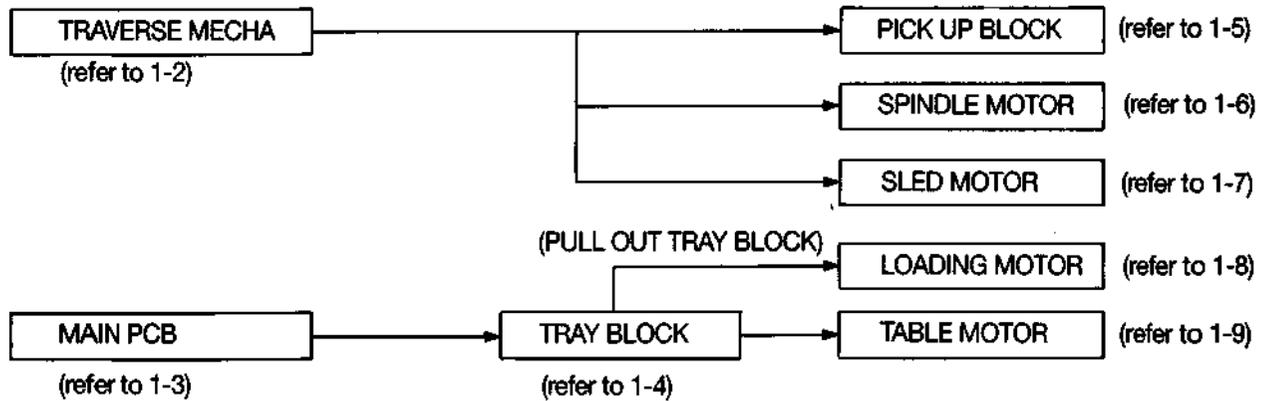


III. REPLACEMENT OF PRINCIPAL MECHANICAL PARTS

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.

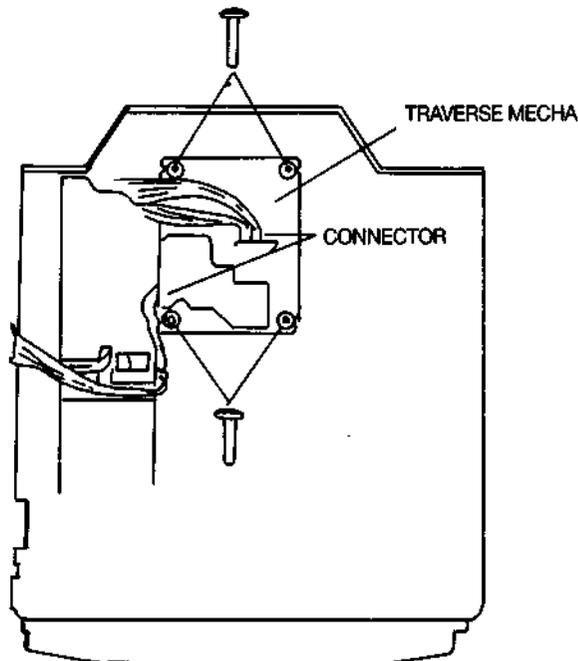


Fig. 1-1

1-3. REMOVAL OF THE CD PCB

- 1) Disconnect the CN612, CN611 and CN608, CN609 connectors on the CD PCB.
- 2) Remove the four retaining screws of the CD PCB, then remove the CD PCB.

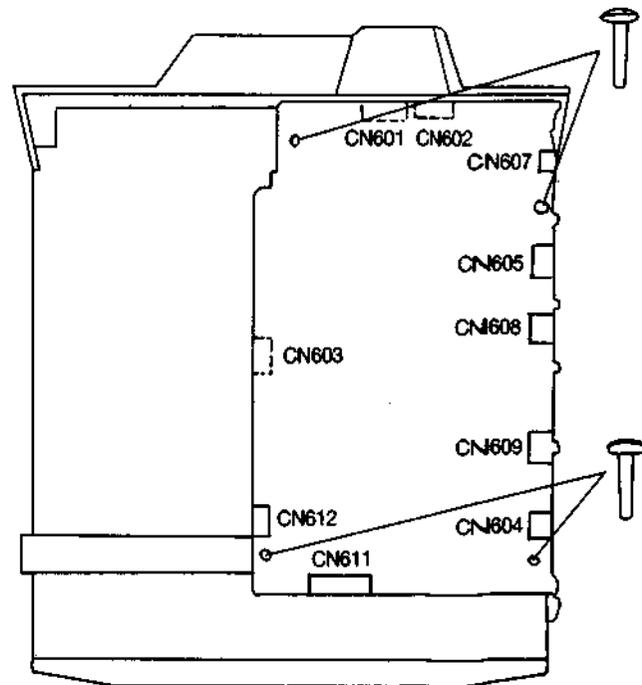


Fig. 1-2

1-4. REMOVAL OF THE TRAY BLOCK

- 1) Remove the CD PCB.
- 2) Slide the GEAR HOLDER RETAINING SCREW in the direction of the arrow and pull out the TRAY BLOCK slowly.
- 3) Remove the CD PCB HOLDER RETAINING SCREWS then remove the CD PCB HOLDER and the BRACKETS on both side.
- 4) Remove the TRAY BLOCK.

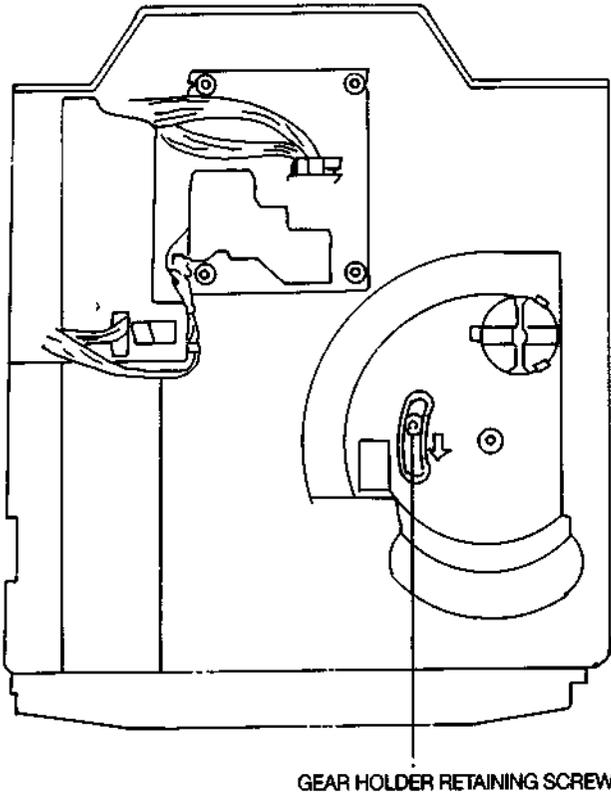


Fig. 1-3

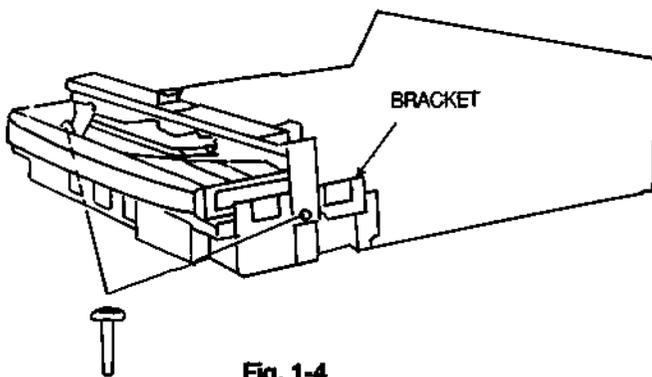


Fig. 1-4

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.

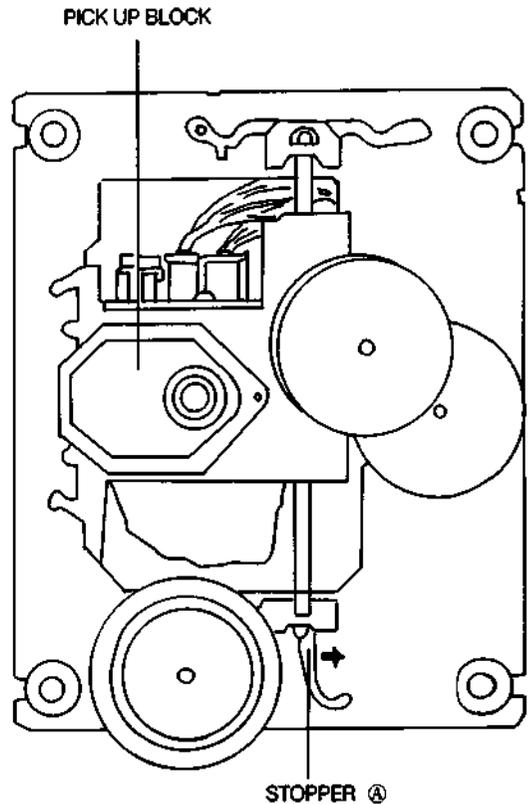


Fig. 1-5

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 Ⓜ SCREWS, then replace the SLED MOTOR.
- 4) Reassemble in the reverse order.

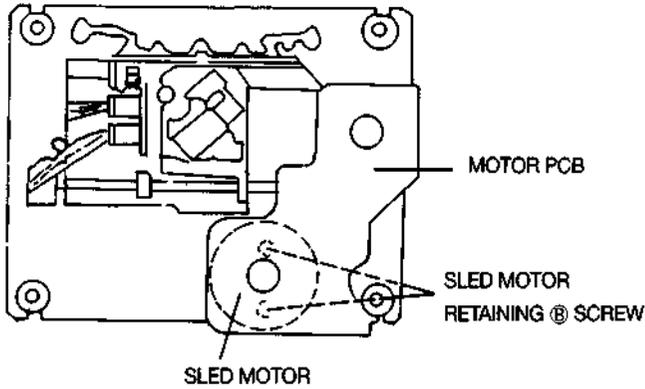


Fig. 1-6

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.

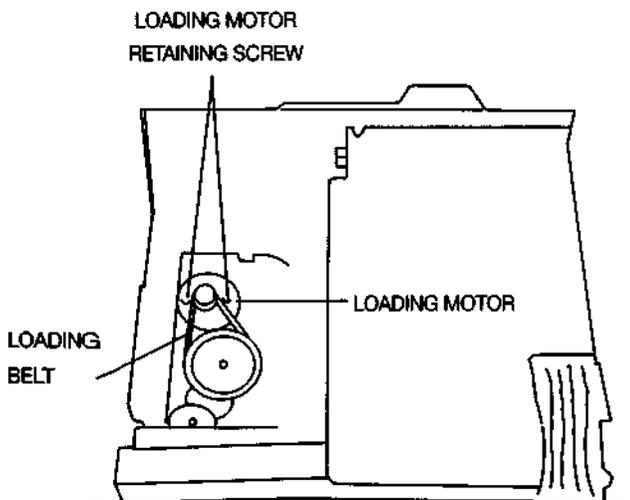


Fig. 1-7

1-9. REPLACEMENT OF THE TABLE MOTOR

- 1) Remove the CD 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).

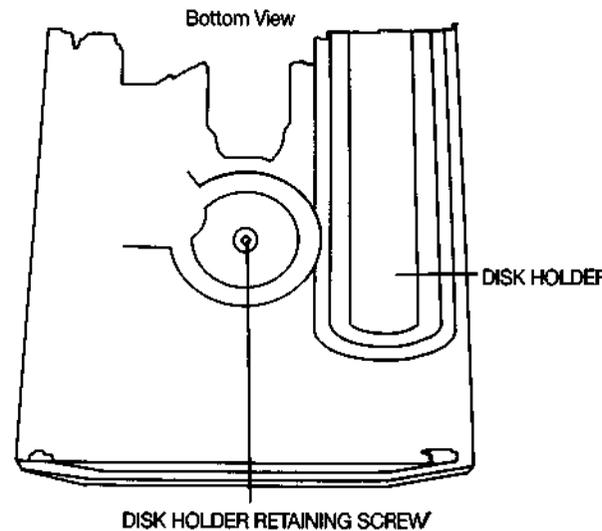


Fig. 1-8

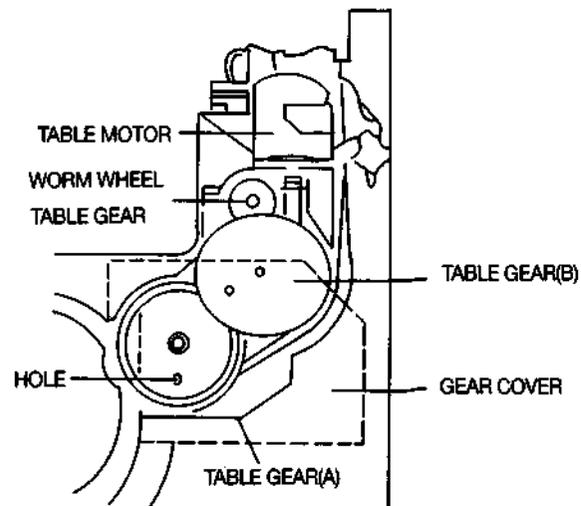


Fig. 1-9

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.

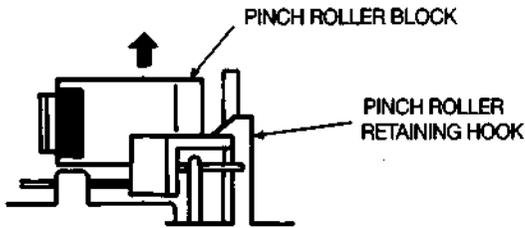


Fig. 2-1

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

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

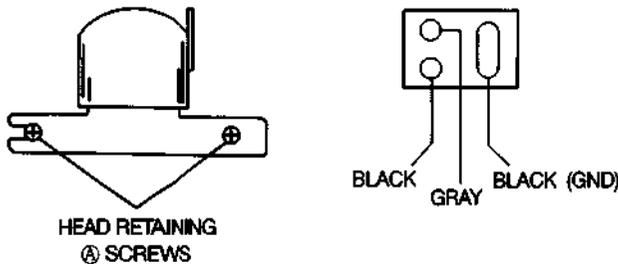


Fig. 2-2

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

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

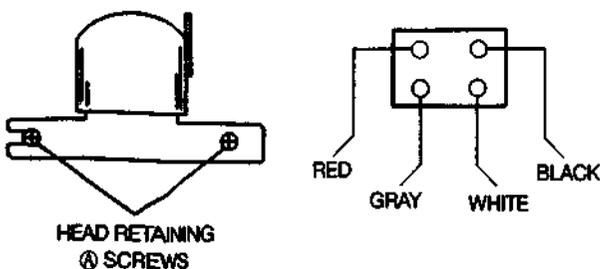


Fig. 2-3

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.

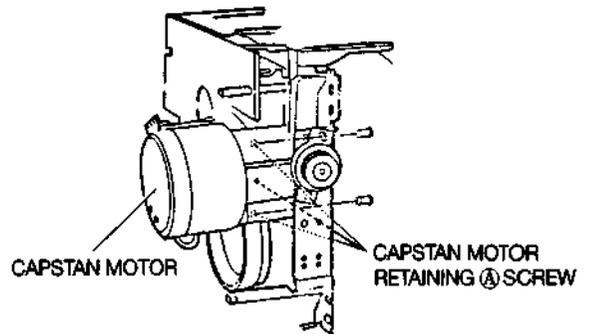


Fig. 2-4

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.

(MECHANISM-A) (MECHANISM-B)

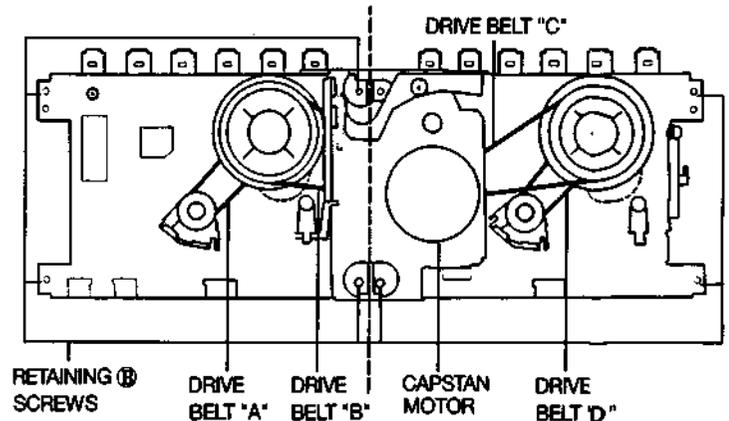


Fig. 2-5

MECHANICAL ADJUSTMENT

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

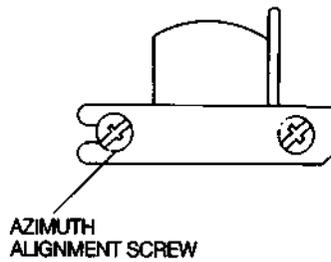
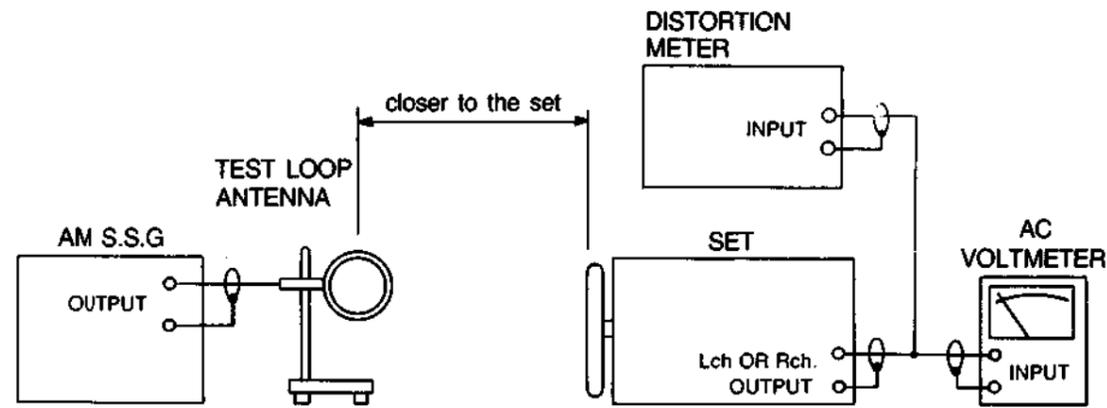


Fig. 2-6

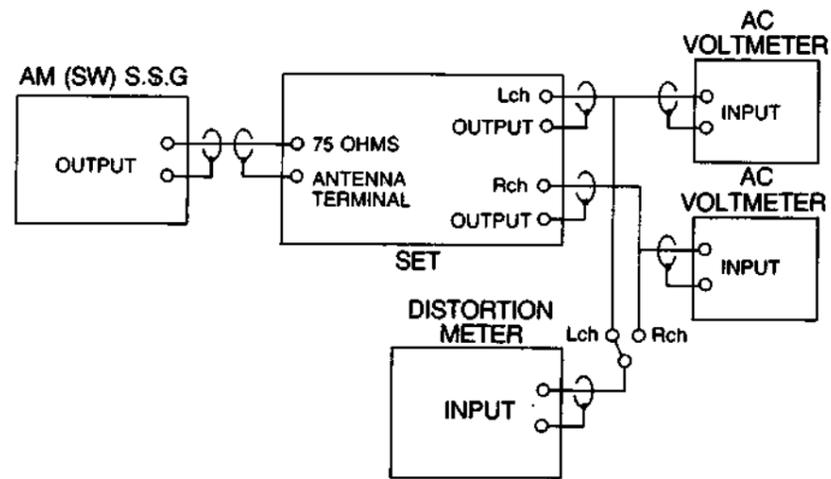
- 1) Connect an AC milli-voltmeter to the TEST POINT TP401 refer to the illustration on page(18) and connect an oscilloscope's input CH-1 and CH-2 to the output of the AC milli-voltmeters.
- 2) Play back the 10KHz(-15dB), HEAD AZIMUTH ALIGNMENT TEST TAPE(MTT-357G) then adjust the PB HEAD AZIMUTH ALIGNMENT 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

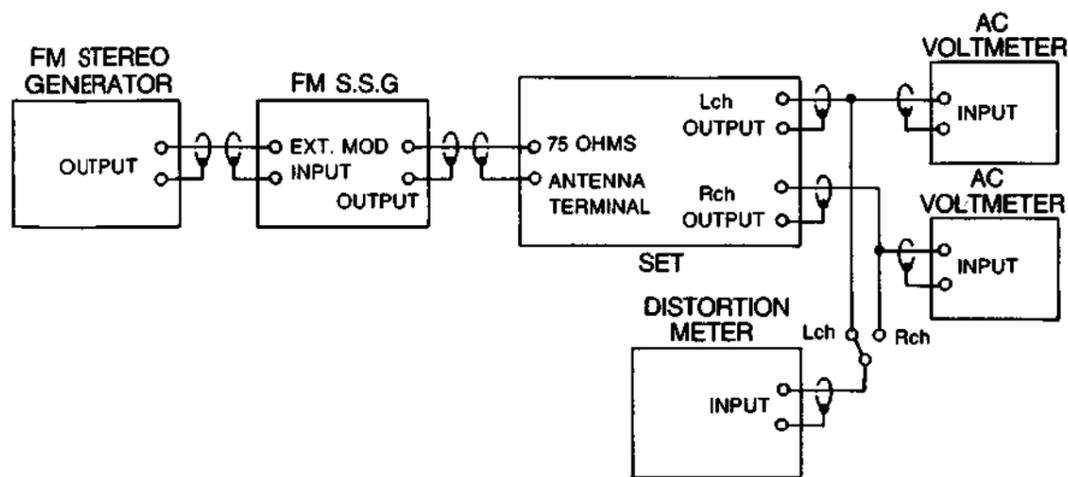
1. TUNER INSTRUMENT CONNECTIONS



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**, **Y**, **V₂** or **E** model, 1KHz, 40KHz deviation for **V** model.

| STEP | ADJUSTMENT |
|------|------------------------------|
| 1. | TEST CONDITIONS |
| 2. | MODE |
| 3. | CHECK POINT, ADJUSTMENT PART |
| 4. | REMARK(●) and RESULT(*) |

* Speaker out Level = Reference 5 watts.

Test Point Adjustment Part

FM

| 3 | DISTORTION(STEREO) |
|----|--|
| 1. | 98.0MHz, 60dB μ (STEREO L or R channel only) |
| 2. | 98.0MHz |
| 3. | IFT (FRONT END) / (FE201) |
| 4. | ● Connect the distortion meter to SPEAKER OUT. * Minimum Distortion |

| 1 | CENTER VOLTAGE |
|----|---|
| 1. | 98.0MHz, 60dB μ (MONO) |
| 2. | 98.0MHz PRESET 3ch |
| 3. | T206 |
| 4. | ● Connect the DC Digital Voltmeter to ends of R252 and GND * $\pm 50mV$ for "0" VOLT |

| 2 | TUNING LED |
|----|-------------------------------------|
| 1. | 98.0MHz, 20dB μ (MONO) |
| 2. | 98.0MHz(MONO, preset-3ch) |
| 3. | "TUNED" on the LC display/SV202 |
| 4. | * "TUNED" on the LC display is lit. |

| 4 | STEREO SEPARATION |
|----|---|
| 1. | 98.0MHz, 60dB μ (STEREO L or R channel only) |
| 2. | 98.0MHz, PRESET 3ch |
| 3. | SV201 |
| 4. | ● Connect the AC milli-volmeter to SPEAKER OUT. * Minimum output level for opposite channel. |

LW <SW>

NOTE: 1. Set the S.S.G to 1KHz 30% modulation on each adjustment.
2. Frequencies indicated in < > are for the SW model.

| 1 | LW <SW> OSC |
|----|---|
| 1. | Set the S.S.G to 1KHz 30% modulation |
| 2. | 144KHz <3.8MHz> (preset 11ch) <11ch> |
| 3. | T204 |
| 4. | ● Connect the Digital DC Voltmeter between JW35 and GND. * $1.0V \pm 0.1V$ |

| 2 | LW <SW> SENSITIVITY |
|----|---|
| 1. | Low-160KHz, 70dB μ <4MHz, 35dB μ > High-260KHz, 70dB μ <12MHz, 35dB μ > |
| 2. | Low-160KHz PRESET 12ch <4MHz> High-260KHz PRESET 14ch <12MHz> |
| 3. | T202 |
| 4. | ● Connect the AC milli-Voltmeter to SPEAKER OUT. * Maximum output level and minimum distortion * For best result, repeat Low a High adjustment several times. |

AM

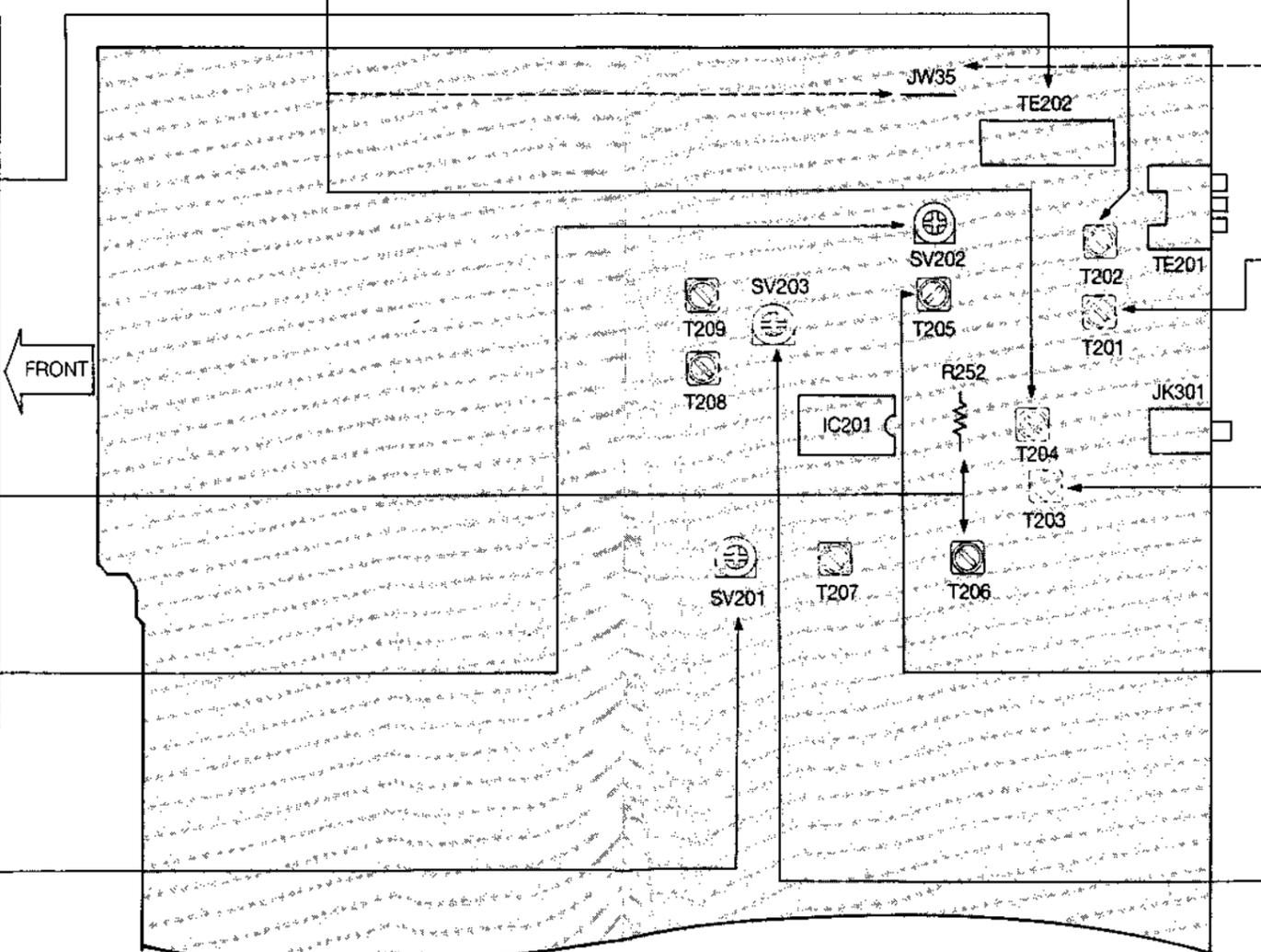
NOTE: Set the S.S.G to 1KHz 30% modulation on each adjustment.

| 2 | AM(MW) SENSITIVITY |
|----|--|
| 1. | 603KHz, 60dB μ (LOW) or 1,404KHz, 60dB μ |
| 2. | 603KHz(LOW), (PRESET 9ch) |
| 3. | T201 |
| 4. | ● Connect the AC milli-Voltmeter to SPEAKER OUT. * Maximum output level & minimum distortion * For best result, repeat Low a High adjustments several times. |

| 1 | AM(MW) OSC |
|----|--|
| 1. | Set the S.S.G to 1KHz 30% modulation |
| 2. | 531KHz(PRESET 6ch) |
| 3. | T203 |
| 4. | ● Connect the Digital DC Voltmeter to between JW35 and GND. * $1.0V \pm 0.1V$ |

| 3 | AM IF |
|----|--|
| 1. | 603KHz, 60dB μ |
| 2. | 603KHz |
| 3. | T205 |
| 4. | ● Connect the milli-Voltmeter to SPEAKER OUT. * Maximum output level. |

| 4 | TUNING LED |
|----|------------------------------------|
| 1. | 603KHz, 60dB μ |
| 2. | 603KHz |
| 3. | "TUNED" on the LC display/SV201 |
| 4. | * "TUNED" on the LC display is lit |



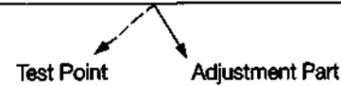
<BOTTOM VIEW>
MAIN P.C BOARD (A1U-309)

3. CD ELECTRICAL ADJUSTMENT

* Test mode can be selected the following method

1. While pressing the TUNING DOWN key and skip-(▶▶)
2. Insert the AC Cord.

| STEP | ADJUSTMENT |
|------|----------------------------------|
| 1. | TEST DISC |
| 2. | MODE or TEST mode |
| 3. | TEST POINT and ADJUSTMENT parts. |
| 4. | REMARK(●) and RESULT(*) |

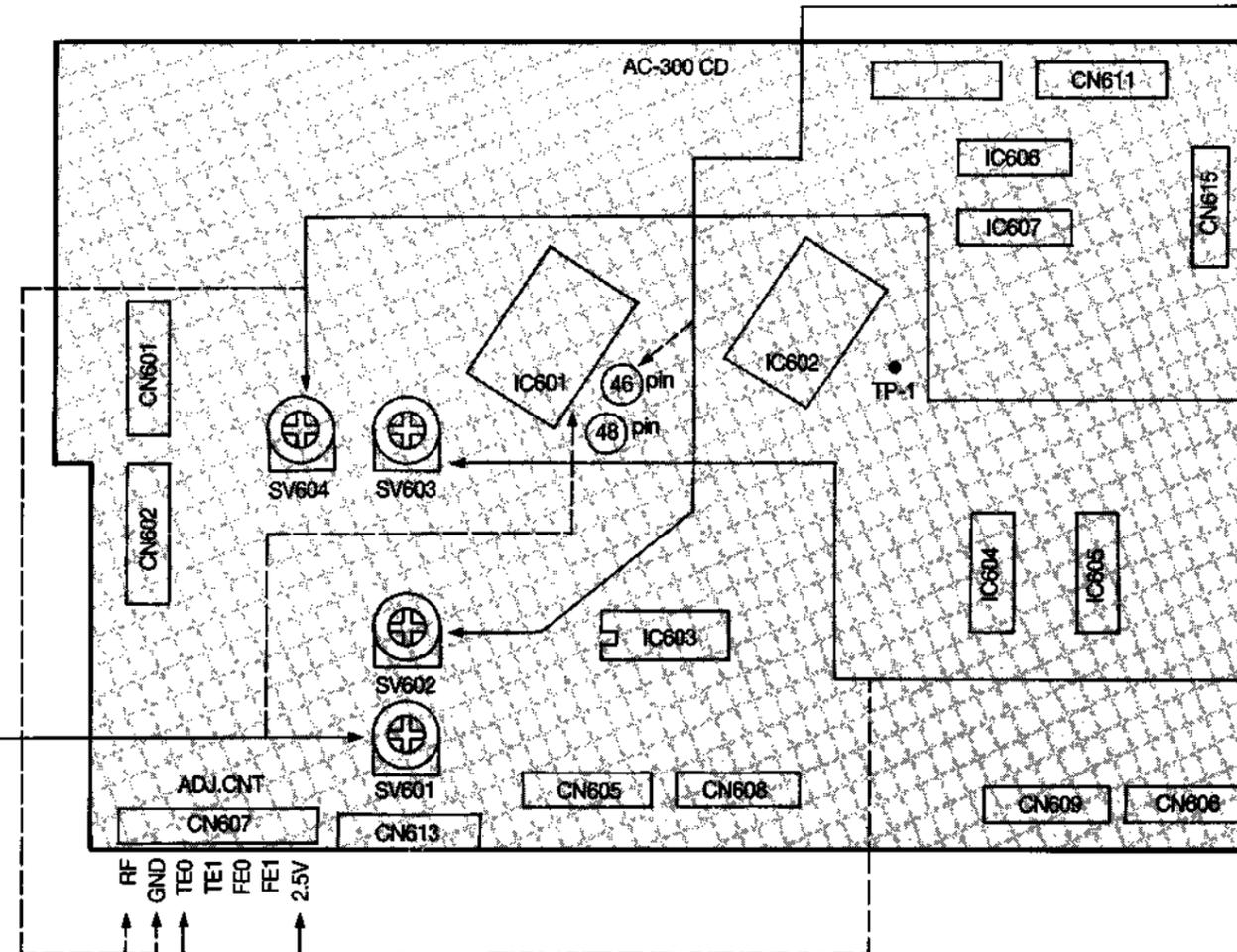


| TEST MODE | HOW TO SET EACH MODE | ●FUNCTION | MUSIC CALENDER |
|-----------|-----------------------------|-------------------------------|----------------|
| 1 | Press the PLAY/PAUSE button | ●FOCUS SERVO is on. | 1 |
| 2 | Press the PLAY/PAUSE button | ●CLV-S SERVO is on. | 2 |
| 3 | Press the PLAY/PAUSE button | ●TRACKING SERVO is on. | 3 |
| 4 | Press the PLAY/PAUSE button | ●CLV-A and SLED SERVO are on. | 4 |
| 5 | Press the PLAY/PAUSE button | ●ANTI SHOCK is on. | 5 |

* After the TEST MODE5, press the STOP button to stop the disc.

4 TRACKING SERVO GAIN

1. Test disc A-BEX TCD-781
2. Test mode 3
3. IC601 48pin/SV601
4. ● Connect an oscilloscope to the IC601 48pin.
* 180mV



3 FOCUS SERVO GAIN

1. Test disc A-BEX TCD-781
2. Test mode 3
3. IC601 46pin/SV602
4. ● Connect an oscilloscope to the IC601 46pin
* 50mV

1 FOCUS BIAS

1. Test disc A-BEX TCD-781
2. Test mode 2 and 1
3. CN607(1, 2pin)/SV604
4. ● Connect an oscilloscope to the RF and GND press STOP button and adjust the RF signal to maximum
* 1.2V p-p

2 E-F BALANCE

1. Test disc A-BEX TCD-781
2. Test mode 3
3. CN607(3, 7pin)/SV603
4. ● Connect an oscilloscope to the TE0 or TE1 and 2.5V(CN607 7pin)
● Short CN613 while adjusting SV603 then remove it after the adjustment
* A=B

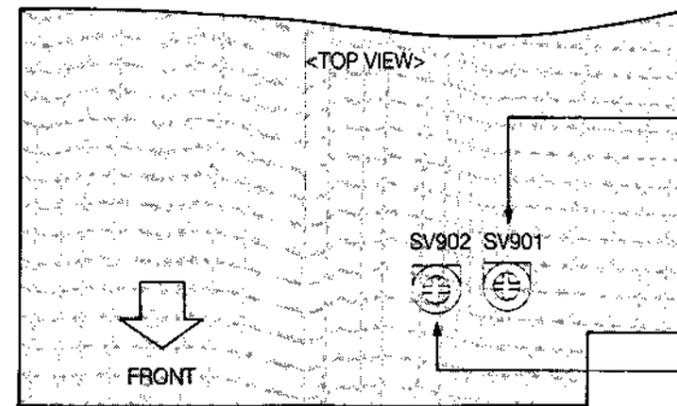
4. CASSETTE DECK ELECTRICAL ADJUSTMENT

[PRECAUTIONS BEFORE ADJUSTMENT]

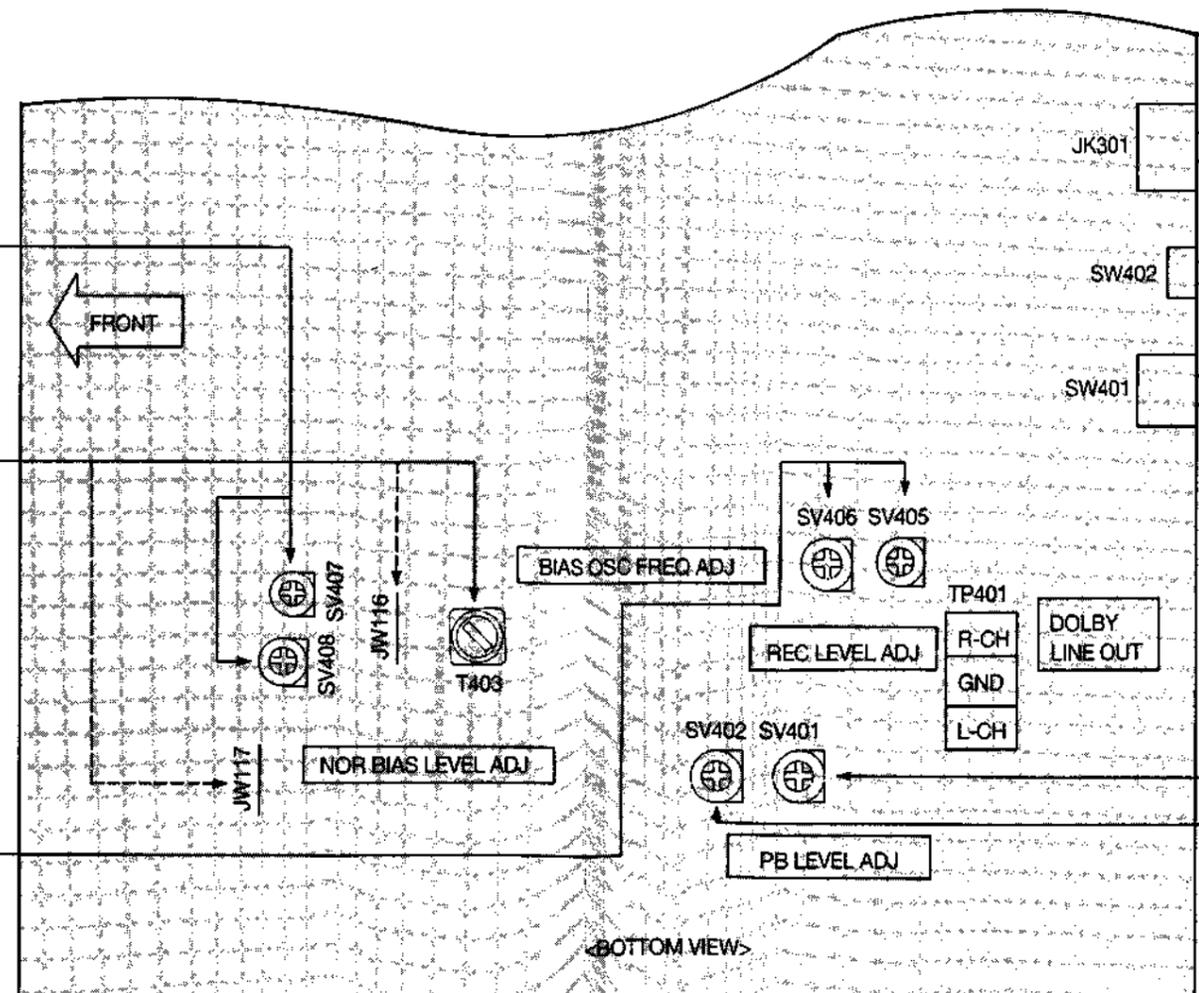
1. Before adjustment, clean and de-magnetize the heads and tape guides.
2. Set the Dolby NR switch off.
3. Use the following recording test tapes.
NORMAL position : TDK AC-224
CrO₂ position : TDK AC-513
4. DOLBY LINE OUT = TP401

| STEP | ADJUSTMENT |
|------|-----------------------------|
| 1. | TEST TAPE/TEST CONDITION |
| 2. | MODE |
| 3. | CHECK POINT/ADJUSTMENT PART |
| 4. | REMARK(●) and RESULT(*) |

Test Point Adjustment Part



AMP POWER P.C BOARD (A2U-151A)



MAIN P.C BOARD (A1U-309)

8 NORMAL POSITION BIAS

1. 1KHz and 10KHz, -26dBs(DOLBY OUT) NORMAL recording test tape(AC-224)
2. REC → PLAY(REC input 1KHz and, 10KHz at the function MD/VCR)
3. DOLBY OUT/SV407(R-CH), SV408(L-CH)
4. ● Connect an AC milli-voltmeter between DOLBY OUT(TP401)
* Playback levels of 1KHz and 10KHz are equal or within +/-1.0dB

6 BIAS OSC FREQUENCY

1. No input signal, CrO₂ recording test tape. (AC-513)
2. REC(at setting BEAT CUT SW 2)
3. JW116/T403(REC OSC COIL)
4. ● Connect a frequency counter between JW116 signal and JW117 GND.
* 100KHz ± 5KHz

7 RECORDING LEVEL

1. NORMAL tape(AC-224), input signal 1KHz at the function MD/VCR, -6dBs for DOLBY LEVEL
2. REC → PLAY
3. DOLBY OUT(TP401)/SV405(R-CH), SV406(L-CH)
4. ● Connect an AC milli-voltmeter to DOLBY OUT(TP401)
* -6dBs ± 1dBs DOLBY LEVEL

1 TAPE I HIGH (X2) SPEED

1. 3,000Hz test tape (MTT-111DN)
2. TAPE I :play, TAPE I :REC and HIGH DUBBING
3. DOLBY OUT(TP401)/SV901
4. ● Connect a frequency counter to DOLBY OUT(TP401)
* 6000Hz ± 60Hz

2 TAPE I NORMAL(X1) SPEED

1. 3,000Hz test tape(MTT-111DN)
2. PLAY
3. DOLBY OUT(TP401)/SV902
4. ● Connect an AC milli-voltmeter to DOLBY OUT(TP401)
* 3000Hz ± 30Hz

3 HEAD AZIMUTH ALIGNMENT(TAPE I & II)

1. 10KHz test tape(MTT-357G)
2. PLAY
3. DOLBY OUT(TP401)/AZIMUTH ALIGNMENT SCREW
4. ● Connect an AC milli-voltmeter to DOLBY OUT(TP401)
* Maximum output level.

4 TAPE I PB LEVEL

1. 400Hz test tape(MTT-150)
2. PLAY
3. DOLBY OUT(TP401)/SV402(L-ch)
4. ● Connect an AC milli-voltmeter to DOLBY OUT(TP401)
* 580mV

5 TAPE I PB LEVEL

1. 400Hz test tape(MTT-150)
2. PLAY
3. DOLBY OUT(TP401)/SV401(L-ch)
4. ● Connect an AC milli-voltmeter to DOLBY OUT(TP401)
* 580mV

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.

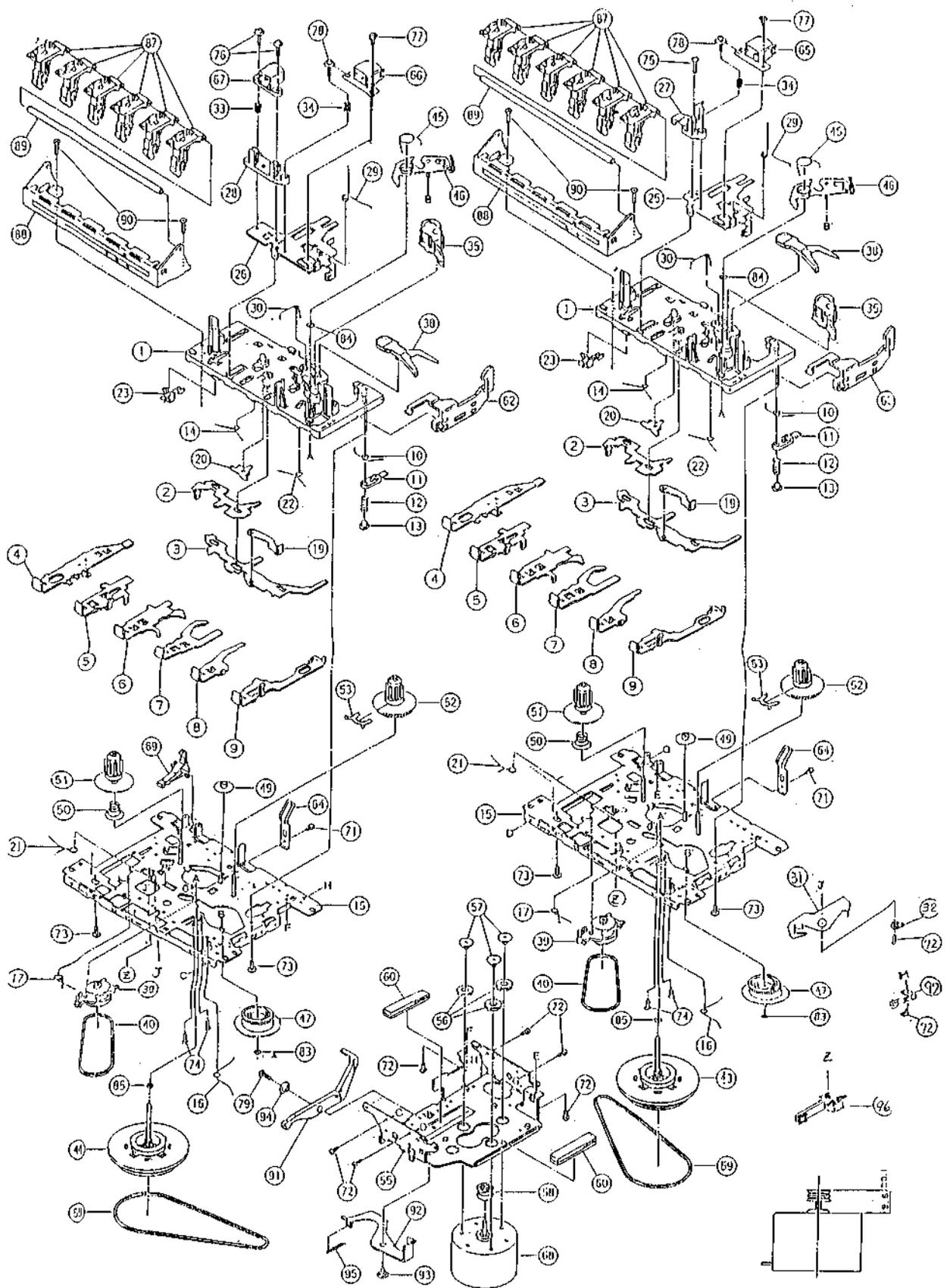
AVERTISSEMENT

▲(*) 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

| Ref. No. | Part No. | Description |
|----------------|------------------|--|
| | * KDAC-0230F-6N8 | CORD-AC [E, V, U, Y] KKP419C KLCE-2F 0.75 CE |
| | * KDAC-0270E-4FB | CORD-AC(B) CW3201(5A)H03VVH2F 2 × 0.75 |
| | * KDAC-0220F-2VA | CORD-AC(S) KKP-560 KLCE-2F 0.75CE |
| 3CDP- MECHA | A2MC-E1000-01K | 3CAP MECHA ASS'Y CDM-941F |
| DECK- MECHA | DECA-00186-00D | MECHA CASSETTE TN-21ZSW-1262 |
| F902 | * FGFB-S2002-137 | FUSE GLASS 2A 250V FST034.3120 T |
| F903 | | |
| F901 | * FGFB-S8001-137 | FUSE GLASS 800mA 250V FST034.3116 T |
| LCD | LLA3-06900-B10 | CARD CABLE KF2B 31/90 P6 S4 B3 |
| CDP | LLA3-07331-E10 | CARD CABLE KF2B 11/330 P7 S4 B3 |
| CDP | LLA3-07421-E10 | CARD CABLE KF2B 18/420 P7 S4 B3 |
| | * PTAJ-02340-Y4V | TRANSFORMER-POWER (E, V, B) A74-234Y-V 74 × 42 230V Y |
| | * PTAJ-02340-Z4A | TRANSFORMER-POWER (S) A74-234Z-A 74 × 42 240V |
| | * PTAJ-02340-S4P | TRANSFORMER-POWER (U, Y) A74-234S-P 74 × 42 120V/230V |
| | DDTR-00040-T10 | DIODE-RECTIFIER 1N4004 (400V 1A) DO-41T |
| | DDTS-00060-S00 | DIODE-SI 1SS131 (90V 0.13A) DO-40T |
| | TRTA-0042E-SOS | TRANSISTOR P-H FREQ DTA124E-S TO92M |
| | TRTC-0061E-SOS | TRANSISTOR N-H FREQ DTC124E-S TO92M |
| | * SWVS-00090-S5K | SWITCH-VOLTAGE SEL [U, Y] ESD-26604A 250V 5A |

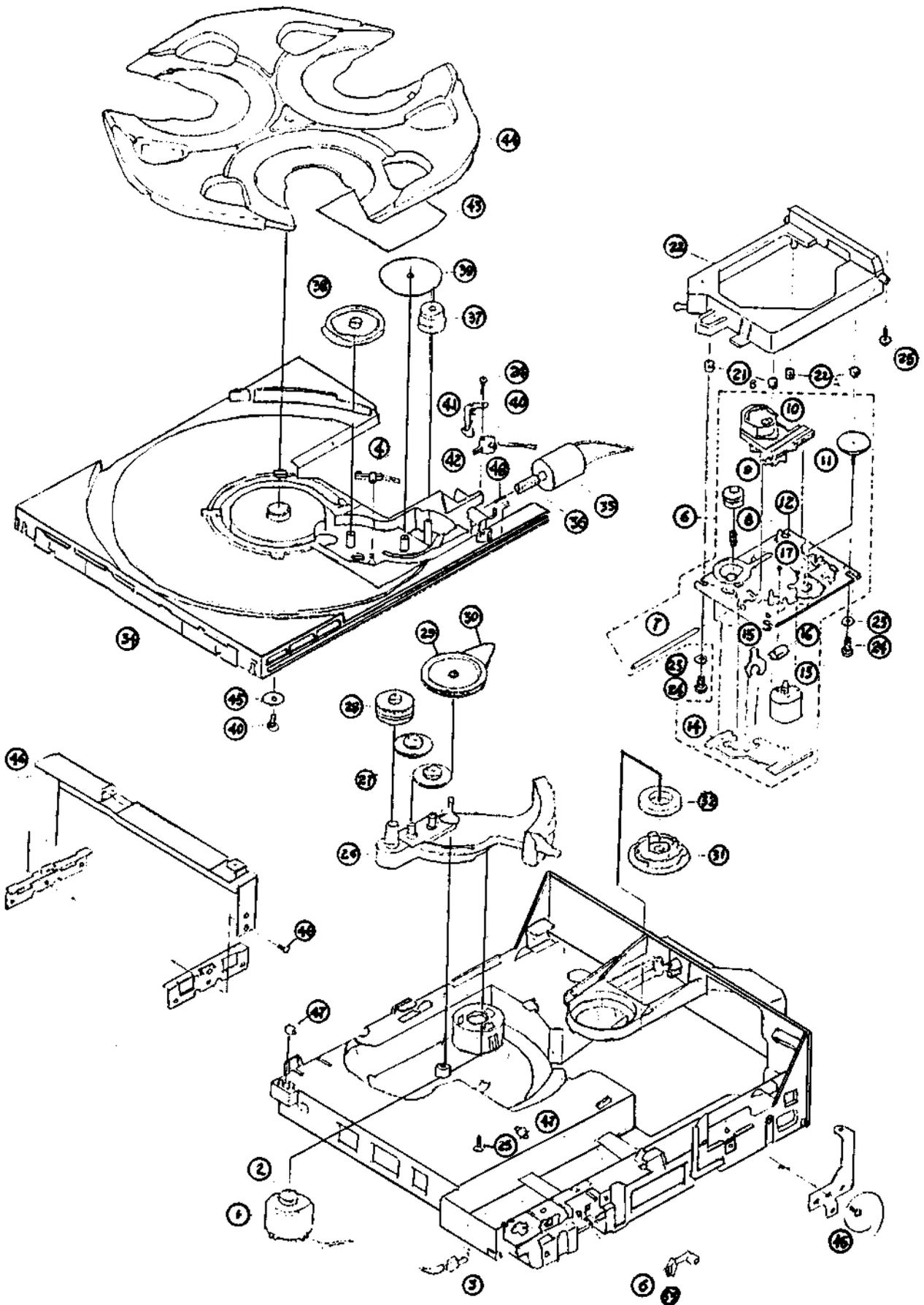
CASSETTE MECHA BLOCK (TN-21ZSW-1262)



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 |
|----------|----------------|-------------------------------|
| * | A2MC-E1000-01K | 3CDP MECHA ASS'Y CDM-941F |
| 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 PC 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) |
| 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 |

NOTE:

Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

4. ASS'Y REMOTE P.C BOARD(A4E-213)

| Ref. No. | Part No. | Description |
|----------------|----------------|--|
| LED1 | DPIR-00021-005 | DOT-IR LED KLN105B-B |
| IC1 | ICMP-00961-SE0 | IC REMOTE CONTROL KS51810-77 |
| X1 | KTRE-00060-004 | RESONATOR CSB455E 455KHZ |
| PCB- REMOTE | PCPE-02130-41B | PCB-PRINTED (CARBON) A4E-213 243×150×1.6t |
| Q1 | TRTC-0016G-SD0 | TRANSISTOR N-H FREQ KTC3198-GR TO92 |

5. ASS'Y FRONT P.C BOARD (A2U-153A~F)

| Ref. No. | Part No. | Description |
|----------|-------------------------|---|
| IC103 | ICCM-20360-T90 | IC VOLTAGE DETECTOR S80721AN TO-90 |
| IC101 | ICMP-01220-SA0 | IC UCOMPUTER HD6433814A47F (TCM-9502-06) |
| P19 | KNCH-00450-5BM | CONNECTOR-HOUSING |
| P20 | TKC-A05P-C1 2mm 5P MILK | CONNECTOR-WAFER |
| J19A | KNCW-00850-5B0 | CONNECTOR-WAFER |
| J19B | TKC-A05X-B1 2mm 5P BLK | CONNECTOR-WAFER |
| P21B | KNCW-00860-BS0 | CONNECTOR-WAFER CFF1311-0101 1.25 SIDE BLK |
| P21A | KNCW-00860-GS0 | CONNECTOR-WAFER CFF1318-0101 1.25 SIDE BLK |
| P22 | KNCW-00860-VS0 | CONNECTOR-WAFER CFF1331-0101 1.25 SIDE BLK |
| X101 | KTAL-00101-003 | CRYSTAL KDSIF 32.768KHZ-20P |
| X102 | KTRE-00160-060 | RESONATOR CST6.00MGW 6.00MHZ |
| PC-FRONT | PCSU-01530-21B | PCB-SINGLE A2U-153 330×247×1.6t |
| R151 | RMOE-H391J-020 | RESISTOR-METAL OXIDE 1W ERG(X)1SJ391E 390ohm T |
| R152 | JK101 | SKPH-00350-360 |
| JK101 | SKPH-00350-360 | SOCKET-PHONE LGY6501-06 |
| JK102 | SKPH-00360-360 | SOCKET-PHONE HTJ035-10A |
| SW101 | SWPU-00301-038 | SWITCH-PUSH |
| SW102 | 00220014 1K(2C2P) | |
| Q102 | TRTC-0016G-SD0 | TRANSISTOR N-H FREQ KTC3198-GR TO92 |

6. ASS'Y MAIN P.C BOARD (A1U-309A~D)

| Ref. No. | Part No. | Description |
|----------|----------------|--|
| CF203 | BTCE-00050-004 | FILTER-CERAMIC SFU 450B |
| CF201 | BTCE-00060-107 | FILTER-CERAMIC [E, B, V ₂ , S, A, U, Y] SFE 10.7MS3G-A |
| CF202 | BTCE-00152-107 | FILTER-CERAMIC [V ₁] SFE 10.7MJA10H-A |
| CF204 | BTCE-00311-004 | FILTER-CERAMIC CSB456F18 |
| G267 | CENT-JR33M-C10 | CAPACITOR E/LOW LEAK 0.33μF M 50V 5×11 T |
| C222 | CFST-0221J-CJ0 | CAPACITOR F/STYROL 220PF J 125V 5.5×12 T |

| | | |
|--------|----------------|--------------------------|
| C402 | CFST-0331J-CJ0 | CAPACITOR F/STYROL |
| C404 | | 330PF J 125V 5.5×12 T |
| C219 | CFST-0471J-CJ0 | CAPACITOR F/STYROL |
| C455 | | 470PF J 125V 5.5×12 T |
| C456 | | |
| C372 | CFST-0911J-CJ0 | CAPACITOR F/STYROL |
| C373 | | 910PF J 125V 5.5×12 T |
| D207 | DDSV-0003B-S30 | DIODE-VVC |
| D208 | | 1SV149B AM 8V DIP2 S |
| D209 | | |
| D210 | | |
| D211 | DDTZ-G051B-S00 | DIODE ZENER |
| | | MTZ5.1B 4.94-5.2 DO40 T |
| D301 | DDTZ-G082C-S00 | DIODE ZENER |
| D302 | | MTZ8.2C 8.03-8.45 DO40 T |
| D217 | DDTZ-G091B-S00 | DIODE ZENER |
| | | MTZ9.1B 9.01 DO40 T |
| LP101 | DPLA-00160-00B | LAMP |
| LP102 | | SL422-012110PP 110mA 12V |
| LP103 | | |
| LCD101 | DPLC-00270-00Z | DISPLAY-LCD |
| | | OEL-7613-506R022A |
| LD201 | DPLT-00452-YC5 | DOT-LED |
| | | AL-151YC YEL R5 N |
| IC406 | ICCM-00020-SQ0 | IC QUAD NAND GATE |
| | | GD4011B DIP14 |
| IC303 | ICCM-00170-SQ0 | IC 4CH MUX/DEMUX |
| | | GD4052B DIP16 |
| IC202 | ICCM-20380-S10 | IC PLL |
| | | LC7218 DIP24S |
| IC306 | ICCM-20390-SG0 | IC ELECTRONIC VOLUME |
| | | NJU7305 SDIP28 |
| IC405 | ICDG-00370-S20 | IC TAPE SELECTOR |
| | | PC1330HA SIP9 |
| IC102 | ICHY-00210-SG0 | IC REMOTE RECEIV |
| | | NJH41H380-L UNIT4 |
| IC401 | ICLN-00540-S00 | IC 2CH PRE AMP |
| | | BA3416BL DIP16 |
| IC402 | ICLN-00681-SA0 | IC DOLBY B |
| | | HA12136A DIP16 |
| IC304 | ICLN-01550-S50 | IC 7BAND EQ |
| IC305 | | AN7337N DIP20 |
| IC201 | ICLN-01640-S10 | IC AM/FM IF MPX |
| | | LA1851N DIP30 |
| IC302 | ICOP-00131-SE0 | IC DUAL OP AMP |
| IC312 | | KA4558C DIP8 |
| IC404 | | |
| IC403 | ICRG-00240-SE0 | IC REGULATOR |
| | | MC78L05 5V TO-92 |
| T206 | IFFD-00140-E60 | IFT-FM DET |
| | | AFD014 7.4mm-CAN |
| T205 | KIAA-00140-ED0 | COIL-AM IFT |
| | | AAA-014B |
| T203 | KIAO-00240-E20 | COIL-AM OSC |
| | | AAO024 MW 7mm-CAN |
| T204 | KIAO-00250-E20 | COIL-AM OSC [E, V, B] |
| | | AAO025 LW 7mm-CAN |
| | KIAO-00260-E20 | COIL-AM OSC [U, Y] |
| | | AAO026 7mm-CAN |
| T202 | KIAT-00301-E20 | COIL-AM ANT [E, V, B] |
| | | AAT030-1 LW 10mm-CAN |
| | KIAT-00370-E20 | COIL-AM ANT [U, Y] |
| | | AAT037 SW 10mm-CAN |

| Ref. No. | Part No. | Description |
|----------|----------------|---|
| T201 | KIAT-00351-E20 | COIL-AM ANT AAT035-1 MW 10mm-CAN |
| T208 | KIML-A0010-E60 | COIL-FM MPX FILTER |
| T209 | | AMA-001A 19KHz 10mm-CAN |
| L402 | KIRK-00200-E50 | COIL-REC CHOCK |
| L404 | | ARK-020 3.9mH MOLD SHIELD |
| L401 | KIRK-00210-E50 | COIL-REC CHOCK |
| L403 | | ARK-021 8.2mH MOLD SHIELD |
| T403 | KIRO-00140-E60 | COIL-REC OSC AR0014 85KHz 10mm-CAN |
| T401 | KIRP-00050-E60 | COIL-REC TRAP |
| T402 | | ARP005A 100KHz 7mm-C |
| T404 | | |
| T405 | | |
| X201 | KTAL-00041-072 | CRYSTAL HC-49/U 7.200000MHz |
| JK301 | SKRC-00290-020 | SOCKET-RCA JK0200440N 2P |
| Q226 | TRSK-0001G-S30 | FET N-CHANNEL 2SK246-GR TO92 |
| Q206 | TRTA-0008G-SD0 | TRANSISTOR P-H FREQ KTA1266-GR TO92 |
| Q207 | | |
| Q208 | | |
| Q218 | TRTA-0009Y-SD0 | TRANSISTOR P-H FREQ KTA1271-Y TO92 |
| Q219 | | |
| Q430 | TRTC-0008Y-SD0 | TRANSISTOR N-H FREQ KTC2120-Y TO92 |
| Q201 | TRTC-0010Y-SD0 | TRANSISTOR N-H FREQ KTC1923-Y TO92 |
| Q204 | TRTC-0016G-SD0 | TRANSISTOR N-H FREQ KTC3198-GR TO92 |
| Q205 | | |
| Q225 | | |
| Q216 | TRTC-0039Y-SD0 | TRANSISTOR N-H FREQ KTC3205-Y TO92L |
| Q429 | | |
| Q202 | TRTC-0094Y-SD0 | TRANSISTOR N-H FREQ KTC3199-Y TO92M |
| Q203 | | |
| Q401 | | |
| Q402 | | |
| Q403 | | |
| Q404 | | |
| Q419 | | |
| Q420 | | |
| Q421 | | |
| Q422 | | |
| Q423 | | |
| Q424 | | |
| Q425 | | |
| Q451 | | |
| Q452 | | |
| Q220 | TRTC-01060-SD0 | TRANSISTOR N-H FREQ KTC3203 TO92 |
| Q221 | | |
| Q209 | TRTD-00200-SD0 | TRANSISTOR N-L FREQ KTD-1302 TO92 |
| Q210 | | |
| Q213 | | |
| Q223 | | |
| Q224 | | |
| Q417 | | |
| Q418 | | |
| Q432 | | |
| Q433 | | |
| FE201 | TUFF-00150-001 | FRONT-END [E, B, S, A, U, Y] FE340-A01 12V |

| | | |
|-------|----------------|--|
| | TUFF-00120-00D | FRONT-END [M] FE415G11 |
| SV401 | VFEB-A001B-103 | RESISTOR-SEMI FIXED EVN DXA A03 B14 10Kohm |
| SV402 | | |
| SV407 | VFEB-A001B-104 | RESISTOR-SEMI FIXED EVN DXA A03 B15 100Kohm |
| SV408 | | |
| SV202 | VFEB-A001B-223 | RESISTOR-SEMI FIXED EVN DXA A03 BE4 22Kohm |
| SV405 | | |
| SV406 | | |
| SV201 | VFEB-A001B-472 | RESISTOR-SEMI FIXED EVN DXA A03 BQ3 4.7Kohm |
| SV203 | | |
| VR201 | VWBD-D013B-104 | VR-W/MOTOR RK16812MG28B14B 100KB x 2 |

7. ASS'Y-AMP P.C BOARD (A2U-151A~C)

| Ref. No. | Part No. | Description |
|----------|------------------|--|
| L903 | * BTAL-00010-025 | FILTER-AC LINE FKOB160MH02 2A |
| D907 | DDTZ-G130B-S00 | DIODE ZENER MTZ13B 12.55-13.21 DO40 T |
| D911 | DD4B-00240-T10 | DIODE-BRIDGE BL4-06 250V 3A BRIDGE |
| IC901 | ICHP-00090-S10 | IC HYBRID AMP-POWER STK4132 II 20W x 2 SIP18 |
| IC908 | ICRG-00043-SE0 | IC REGULATOR KA7805 5V 3mm TO-220 |
| IC906 | ICRG-00218-SE0 | IC REGULATOR KA7812 12V 3mm TO-220 |
| IC907 | ICRG-00240-SE0 | IC REGULATOR MC78L05 5V TO-92 |
| IC902 | ICRG-00310-SD0 | IC REGULATOR KIA78L12 TO-92 |
| IC904 | | |
| IC905 | ICRG-00330-SG0 | IC REGULATOR NUM7909FA -9V 2.2A TO-220 |
| IC903 | ICRG-00440-SG0 | IC REGULATOR NUM7912FA TO-220 |
| PCB-AMP | PCSU-01510-25B | PCB-SINGLE A2U-151 330 x 197 x 1.6t |
| R918 | RCMS-JR22K-410 | RESISTOR-CEMENT 0.22ohm 2W 10% S |
| R927 | | |
| FR902 | RFUE-F470J-010 | RESISTOR-FUSIBLE 47ohm 1/4W ERQ14AJ470E T |
| FR901 | RFUE-F560J-010 | RESISTOR-FUSIBLE 56ohm 1/4W ERQ14AJ560E T |
| FR903 | RFUM-F1R0J-120 | RESISTOR-FUSIBLE 1.0ohm 1/4W 5% M |
| FR904 | | |
| FR905 | | |
| FR907 | RFUM-G1R0J-130 | RESISTOR-FUSIBLE 1ohm 1/2W 5% M |
| FR908 | | |
| FR906 | RFUZ-A2R2K-001 | RESISTOR-FUSIBLE 2.2ohm 1/6W K ERQ16NK2R2E |
| R921 | RMOE-H4R7J-020 | RESISTOR-METAL OXIDE 1W ERG(X) 1SJR47E 4.7ohm T |
| R922 | | |
| R925 | | |
| R926 | | |
| Q917 | TRSA-0023Y-SD0 | TRANSISTOR P-H FREQ KTA1658-Y TO220IS |
| Q911 | TRSD-0008Y-SD0 | TRANSISTOR N-L FREQ KTD2058-Y TO220AB |
| Q920 | | |
| Q903 | TRTA-0008G-SD0 | TRANSISTOR P-H FREQ KTA1266-GR TO92 |
| Q904 | | |
| Q912 | | |

| Ref. No. | Part No. | Description |
|----------|----------------|---|
| Q816 | | |
| Q922 | | |
| Q919 | TRTA-0009Y-SD0 | TRANSISTOR P-H FREQ KTA1271-Y TO92 |
| Q907 | TRTA-0056T-SOS | TRANSISTOR P-H FREQ DTA114T-S W/RESIST TO92M |
| Q906 | TRTC-0034Y-SOS | TRANSISTOR N-H FREQ DTC114Y-S TO92 |
| Q923 | TRTC-0060E-SOS | TRANSISTOR N-H FREQ DTC144E-S TO92M |
| Q905 | TRTD-00200-SD0 | TRANSISTOR N-L FREQ KTD-1302 TO92 |

8. ASS'Y-CD P.C BOARD (A2U-155)

| Ref. No. | Part No. | Description |
|----------|----------------|--|
| D606 | DDTR-00040-T10 | DIODE-RECTIFIER 1N4004(400V 1A) DO-41 T |
| D601 | DDTS-00060-SO0 | DIODE-SI 1SS131 (90V 0.13A) DO-40 T |
| D605 | | |
| D608 | DDTZ-G022B-SO0 | DIODE ZENER MTZ2.2B 2.22-2.41 DO40 T |
| D609 | DDTZ-G030B-SO0 | DIODE ZENER MTZ3.0B 3.010-3.220 DO40 T |
| D610 | DDTZ-G043B-SO0 | DIODE ZENER MTZ4.3B 4.17-4.43 DO40 T |
| D602 | DDTZ-G056B-SO0 | DIODE ZENER MTZ5.6B 5.45-5.73 DO40 T |
| D611 | DDTZ-G062B-SO0 | DIODE ZENER MTZ6.2B 5.96-6.27 DO40 T |
| D607 | DDTZ-G068B-SO0 | DIODE ZENER MTZ6.8B 6.49-6.83 DO40 T |
| IC606 | ICDG-00340-SO0 | IC MOTOR DRIVER BA6209 DIP10H |
| IC607 | | |
| IC602 | ICDG-00940-SE0 | IC D.S.P + D.A.C (CDP) KS-9282B QFP80 |
| IC601 | ICDG-00950-SE0 | IC RF + SERVO (CDP) KA-9220B QFP80 |
| IC603 | ICLN-01590-SE0 | IC MOTOR CONTROL CDP KA-9258D HSOP28 |
| IC604 | ICOP-00130-SE0 | IC DUAL OP AMP KA4558S SIP9 |
| IC605 | | |
| X1 | KTAL-00074-169 | CRYSTAL HC-49/U 16.9344MHz |
| PCB-CDP | PCSU-01550-21B | PCB-SINGLE A2U-155 330 x 247 x 1.6t |
| Q602 | TRSA-0023Y-SD0 | TRANSISTOR P-H FREQ KTA1658-Y TO220IS |
| Q614 | | |
| Q601 | TRTA-0008G-SD0 | TRANSISTOR P-H FREQ KTA1266-GR TO92 |
| Q604 | | |
| Q603 | TRTC-0016G-SD0 | TRANSISTOR N-H FREQ KTC3198-GR TO92 |
| Q608 | TRTC-0016Y-SD0 | TRANSISTOR N-H FREQ KTC3198-Y TO92 |
| Q609 | | |
| Q605 | TRTC-0034Y-SOS | TRANSISTOR N-H FREQ DTC114Y-S TO92 |
| Q607 | | |
| Q611 | | |
| Q615 | | |
| Q616 | | |
| Q617 | | |

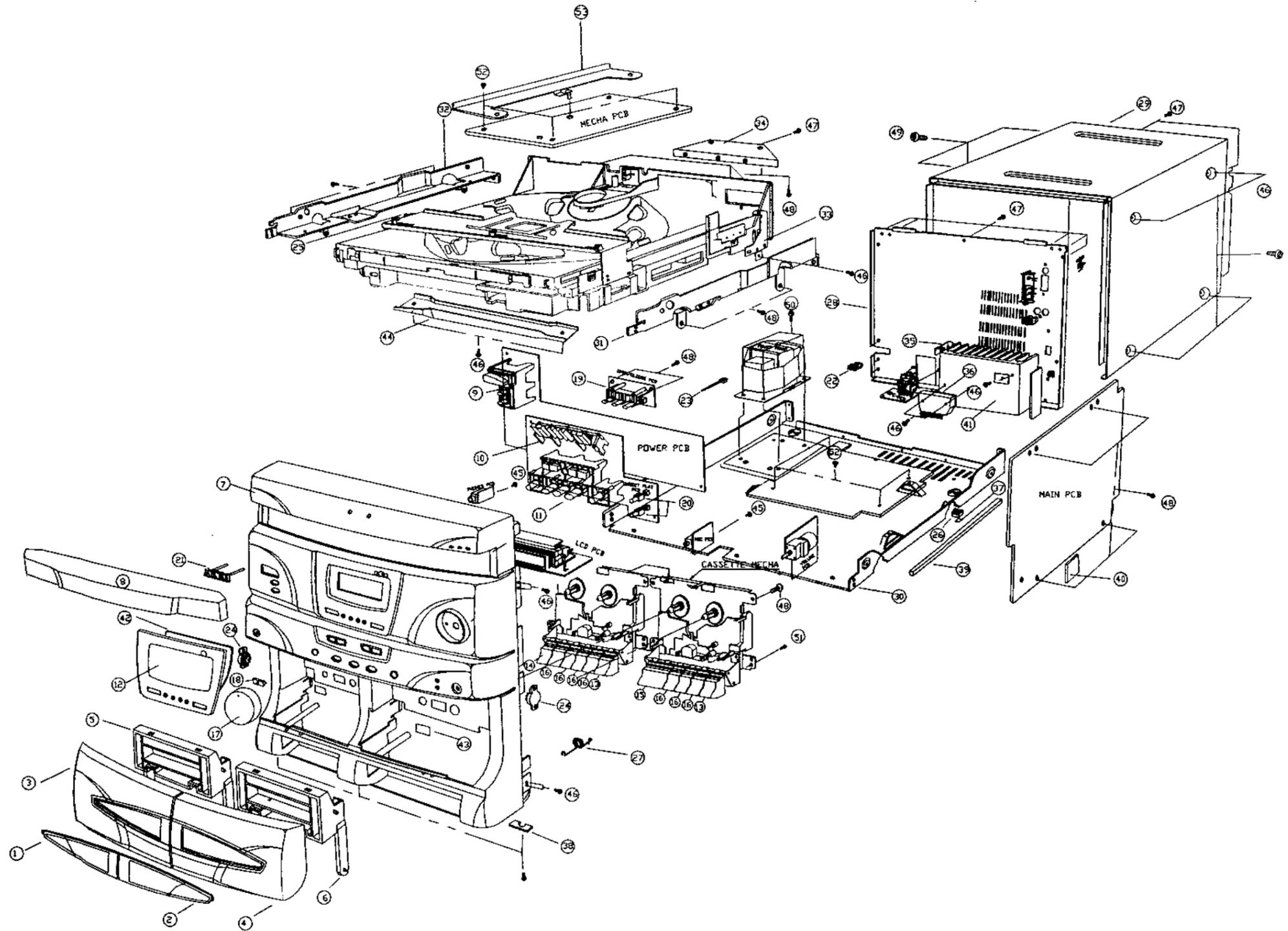
| | | |
|-------|----------------|---|
| Q618 | | |
| Q612 | TRTD-00200-SD0 | TRANSISTOR N-L FREQ KTD-1302 TO92 |
| Q613 | | |
| SV601 | VFEB-A001B-223 | RESISTOR-SEMI FIXED EVN DXA A03 BE4 22Kohm |
| SV602 | | |
| SV603 | | |
| SV604 | | |

9. ASS'Y-VTG SELECTOR P.C BOARD (A4G-221)

| Ref. No. | Part No. | Description |
|----------|----------------|-----------------------|
| PCB-VTG | PCSG-02210-45B | PCB-SINGLE A4G-221 |

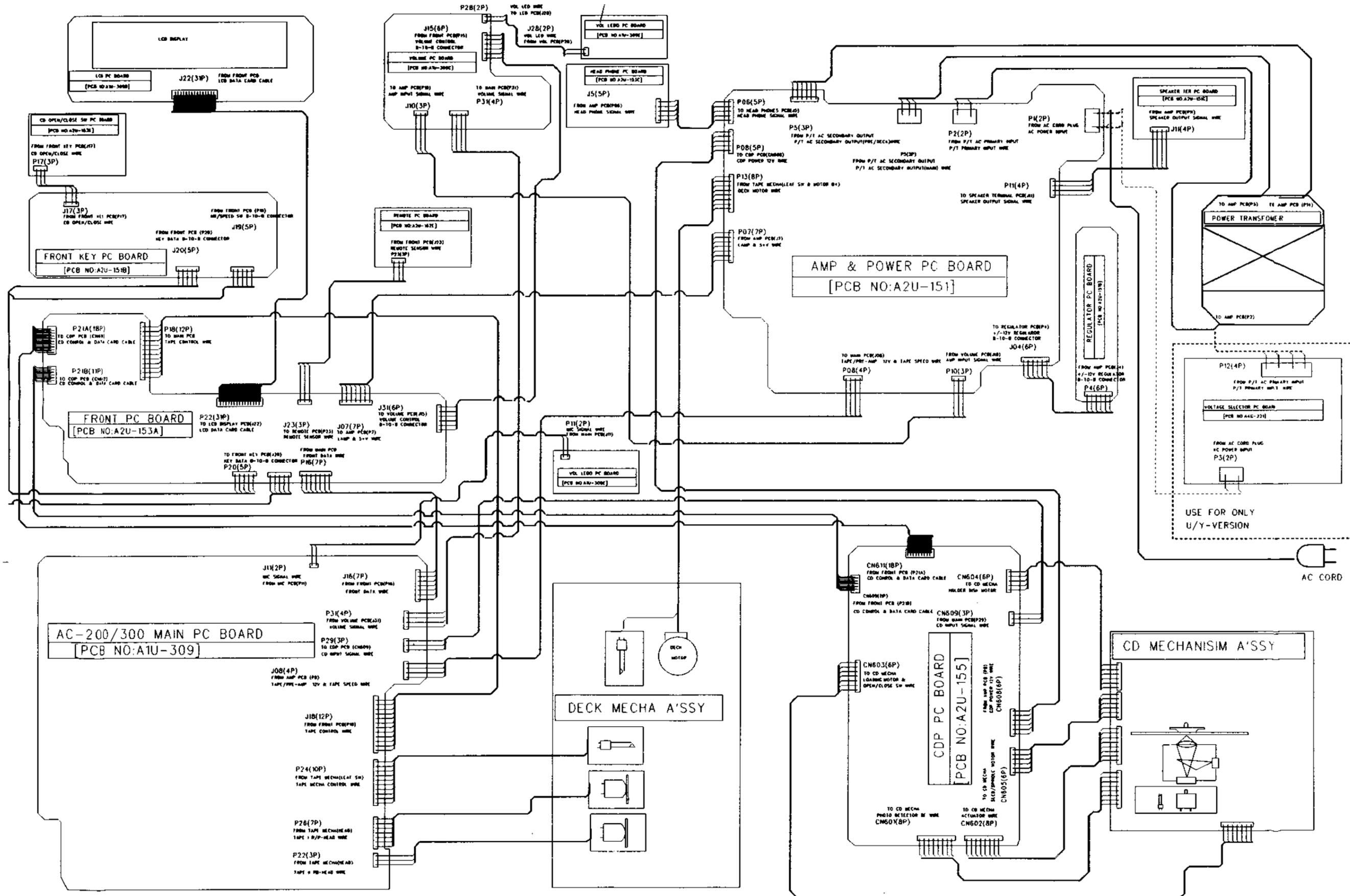
EXPLODED VIEW

10. FINAL ASSEMBLY

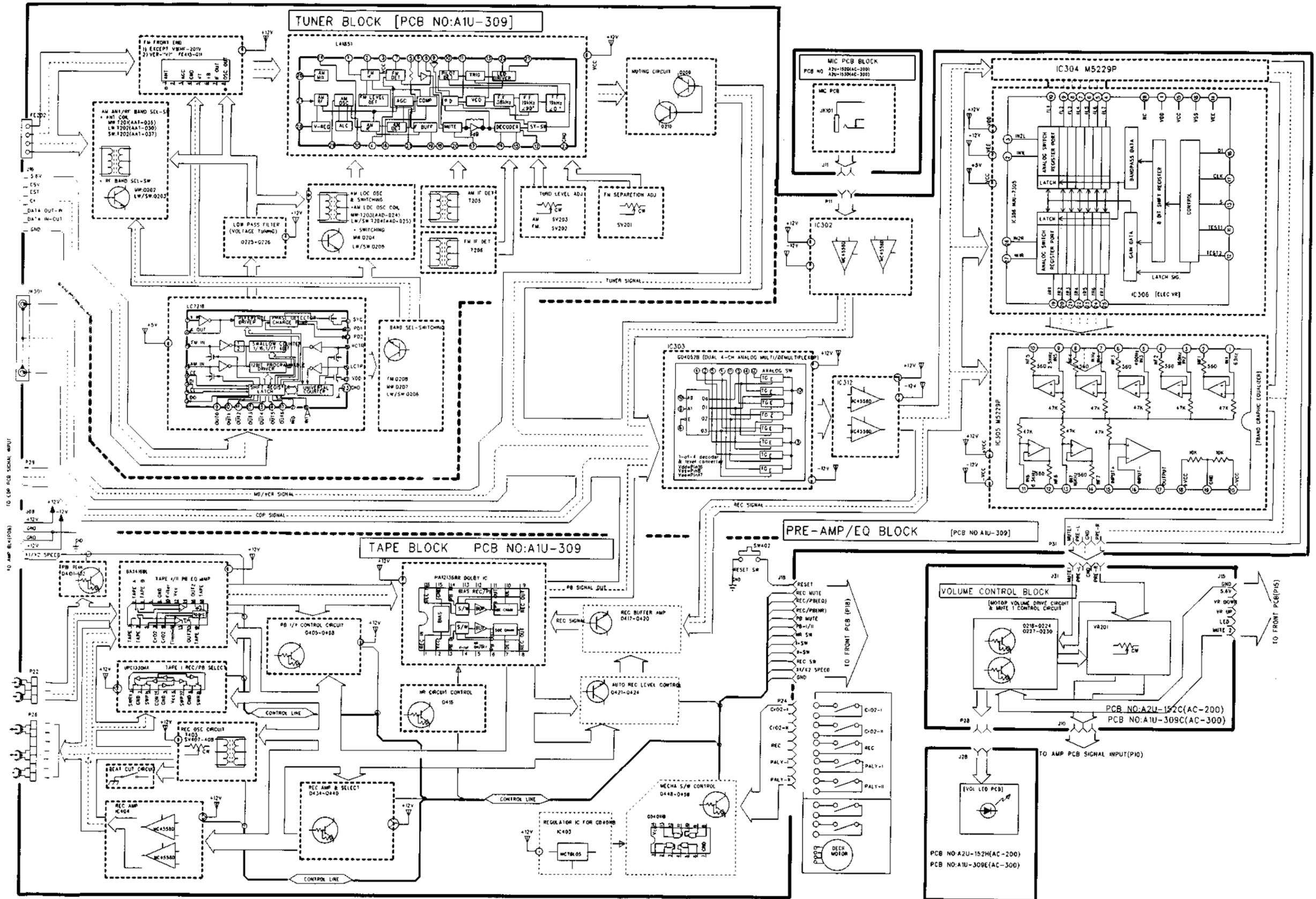


| Ref. No. | Part No. | Description |
|----------|-----------------|-------------------|
| 1 | MJAF-05370-ZZ3 | WINDOW-DOOR-L |
| 2 | MJAF-05380-ZZ3 | WINDOW-DOOR-R |
| 3 | MJAF-02400-ZZ2 | CAP-DOOR-L |
| 4 | MJAF-02410-ZZ2 | CAP-DOOR-R |
| 5 | MJAF-002420-002 | FRAME-DOOR-L |
| 6 | MJAF-002421-002 | FRAME-DOOR-R |
| 7 | MJAF-03640-ZZ1 | PANEL-FRONT |
| 8 | MJAF-05270-ZZ3 | DOOR-3CD |
| 9 | MJAF-05280-ZZ3 | KNOB-POWER |
| 10 | MJAF-05290-ZZ3 | KNOB-TUNING |
| 11 | MJAF-05300-ZZ3 | KNOB-FUNCTION |
| 12 | MJAF-05310-ZZ3 | WINDOW-LCD |
| 13 | MJAF-12170-ZZ4 | KNOB-DECK-PAUSE |
| 14 | MJAF-12180-ZZ4 | KNOB-DECK-REC |
| 15 | MJAF-12190-ZZ4 | KNOB-DECK-PLAY(A) |
| 16 | MJAF-12200-ZZ4 | KNOB-DECK-REW |
| 17 | MJAF-12230-ZZ4 | KNOB-VOLUME |
| 18 | MJAF-12260-ZZ4 | LENS-VOLUME |
| 19 | MJAF-12230-ZZ4 | KNOB-EJECT-CD |
| 20 | MJAF-12340-ZZ4 | KNOB-PUSH |
| 21 | MJAF-12580-ZZ4 | BADGE-AKAI |
| 22 | MJAG-00281-003 | BUSH-CORD |
| 23 | MJAG-04540-004 | CABLE-TIE-L80 |
| 24 | MJAG-08110-004 | DAMPER-GEAR |
| 25 | MJAG-09730-004 | FLAT-CLAMP |
| 26 | MJAG-10140-004 | FOOT-B |
| 27 | MMAC-13360-004 | SPRING-DECK-DOOR |
| 28 | MPAC-03270-ZZ2 | CHASSIS-BACK |
| 29 | MPAC-03650-ZZ1 | COVER-TOP |
| 36 | MRAG-07450-004 | RUBBER-IC-L |
| 37 | MRAG-10150-004 | CUSHION-FOOT-B |
| 38 | MRAG-10810-004 | CUSHION-FOOT |
| 39 | MRAG-10830-004 | CUSHION-SIDE |
| 40 | MRAG-11020-004 | CUSHION-PCB |
| 42 | MAAF-12320-ZZ4 | PLATE-LCD |
| 43 | MGAF-04940-ZZ4 | REFLECTOR-TAPE |
| 45 | MMTC-12181-004 | SCREW-TAPPING |
| 46 | XSTB-30080-ZY4 | SCREW-TAPPING |
| 47 | XSTB-30100-ZB4 | SCREW-TAPPING |
| 48 | XSTB-30100-ZY4 | SCREW-TAPPING |
| 49 | XSTB-40080-ZB4 | SCREW-TAPPING |
| 50 | XSTB-40080-ZY8 | SCREW-TAPPING |
| 51 | XSTF-30100-ZY4 | SCREW-TAPPING |
| 52 | XSTW-30080-ZY4 | SCREW-TAPPING |

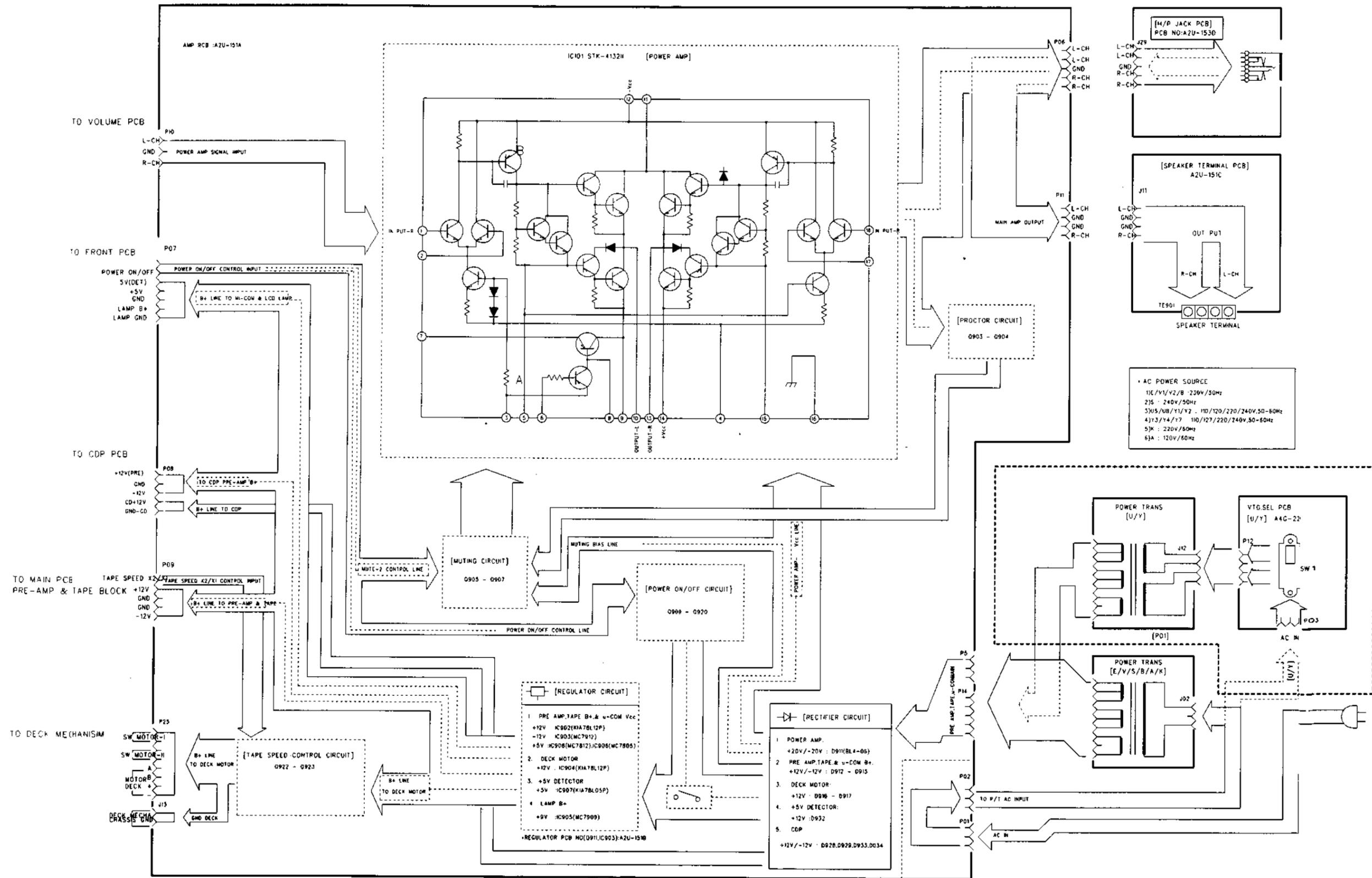
VI. WIRING DIAGRAM



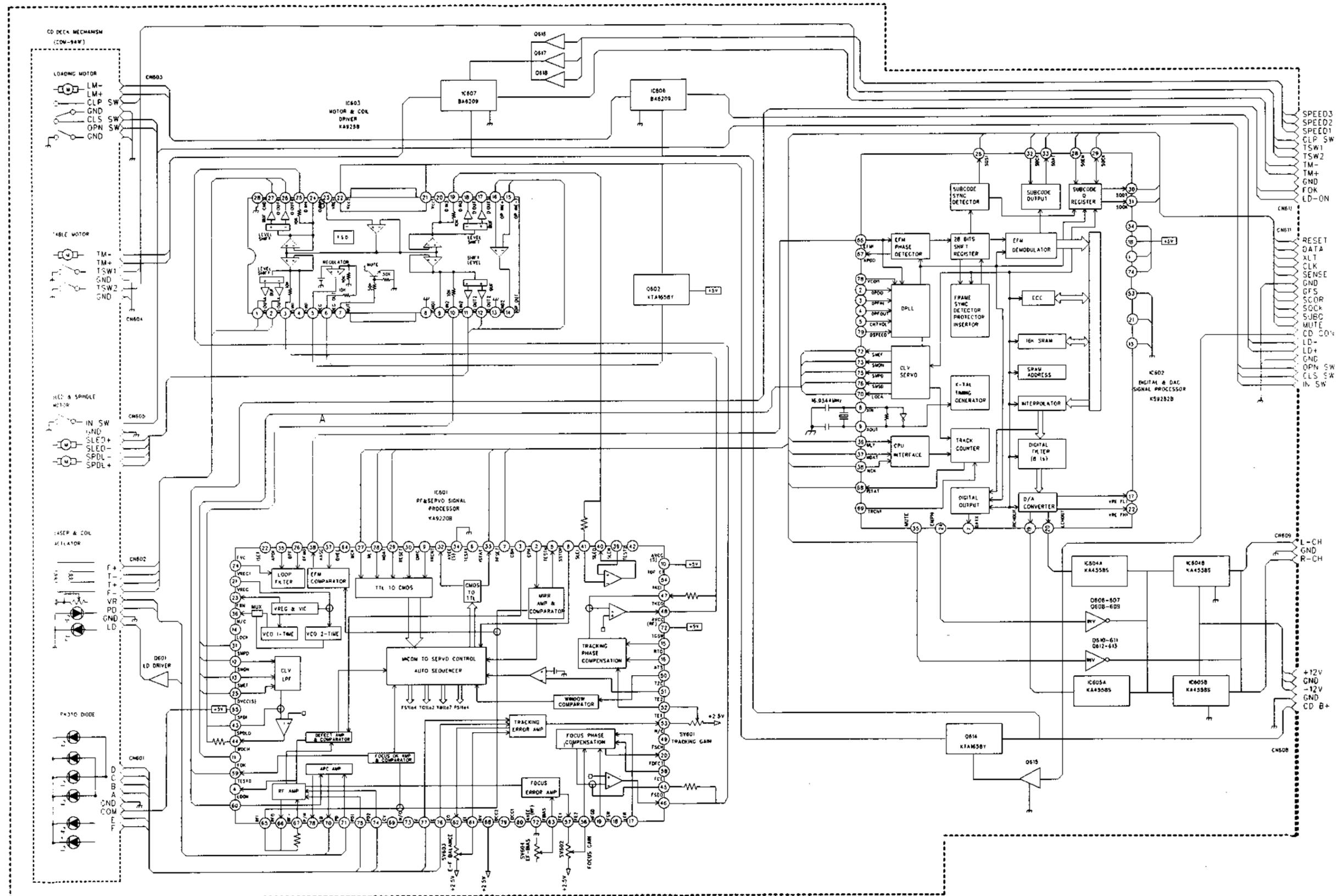
BLOCK DIAGRAM/MAIN



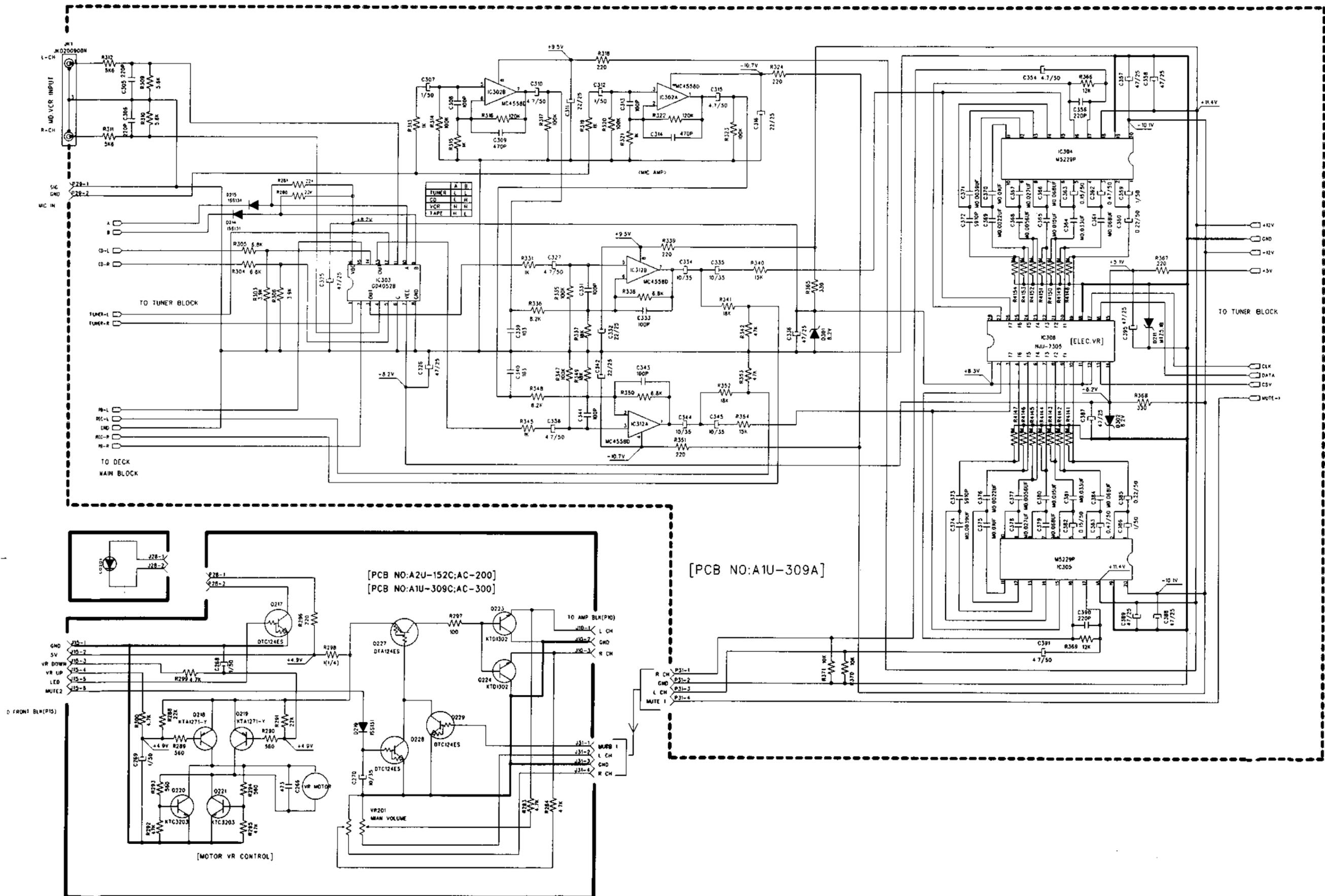
BLOCK DIAGRAM/POWER AMP



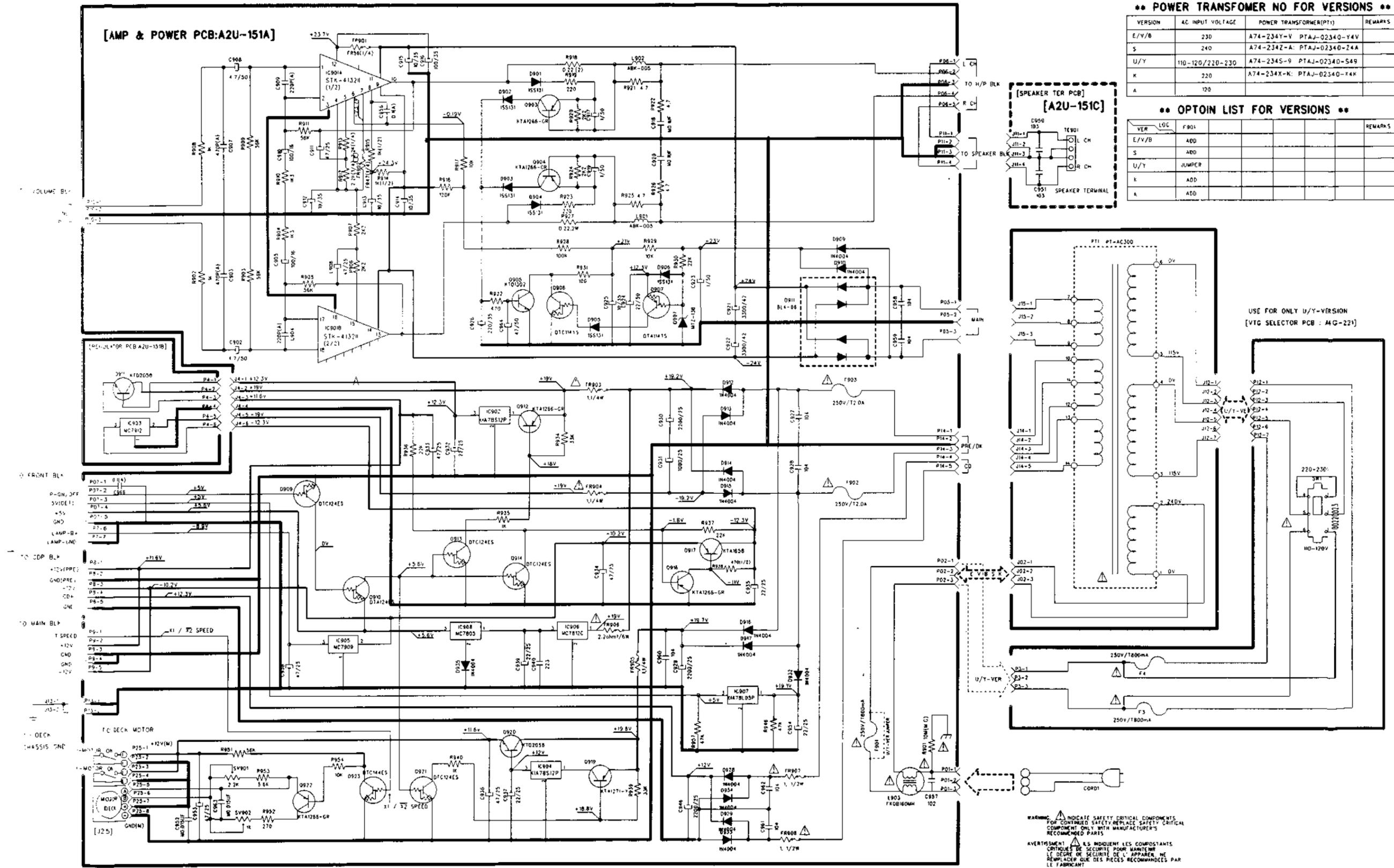
BLOCK DIAGRAM/CD



SCHEMATIC DIAGRAM/FUNCTION/G-EQ



SCHEMATIC DIAGRAM/POWER AMP



**** POWER TRANSFORMER NO FOR VERSIONS ****

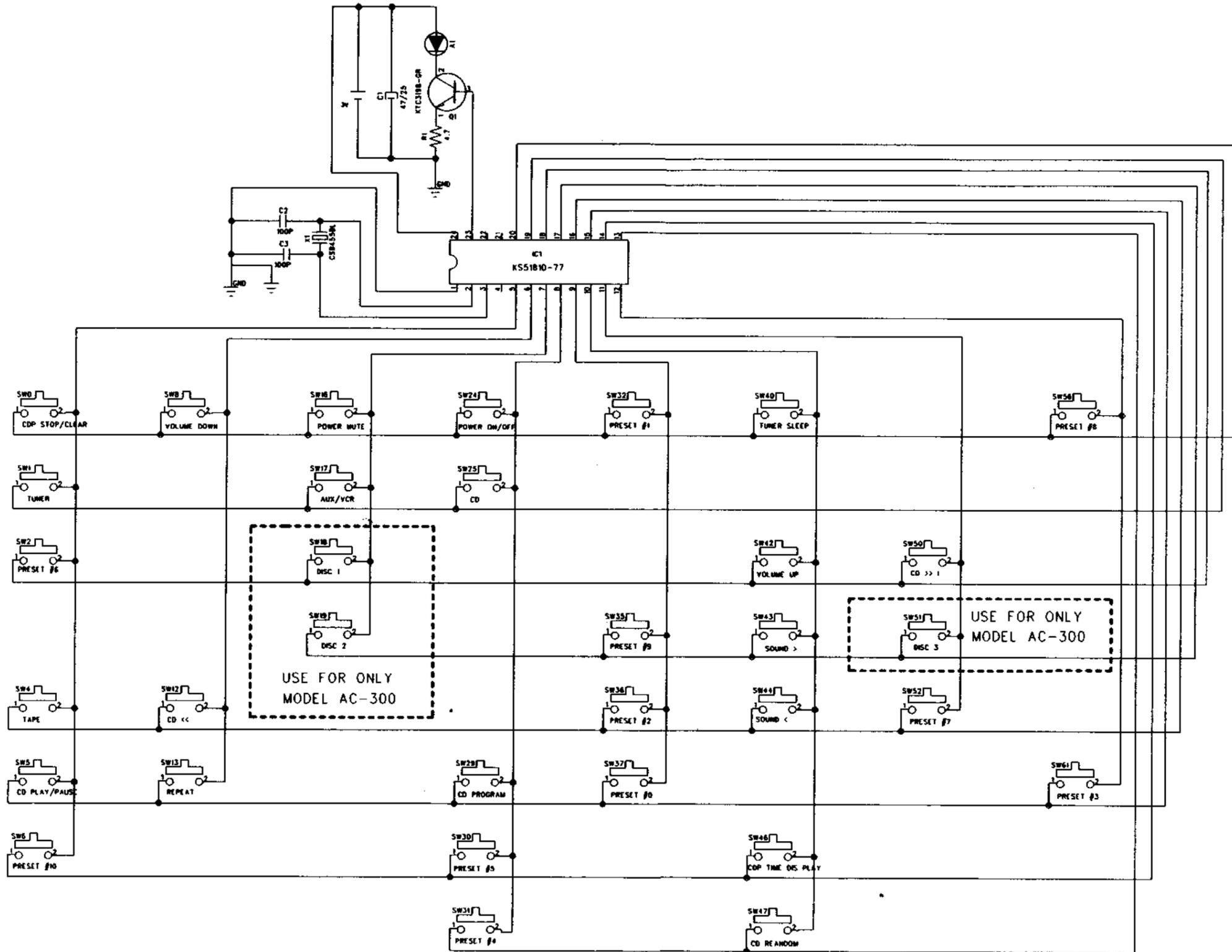
| VERSION | AC INPUT VOLTAGE | POWER TRANSFORMER(PT1) | REMARKS |
|---------|------------------|----------------------------|---------|
| E/Y/B | 230 | A74-234Y-V PTAJ-02340-Y4V | |
| S | 240 | A74-234Z-A: PTAJ-02340-24A | |
| U/Y | 110-120/210-230 | A74-234S-9 PTAJ-02340-549 | |
| K | 220 | A74-234X-K: PTAJ-02340-Y4K | |
| A | 120 | | |

**** OPTIOIN LIST FOR VERSIONS ****

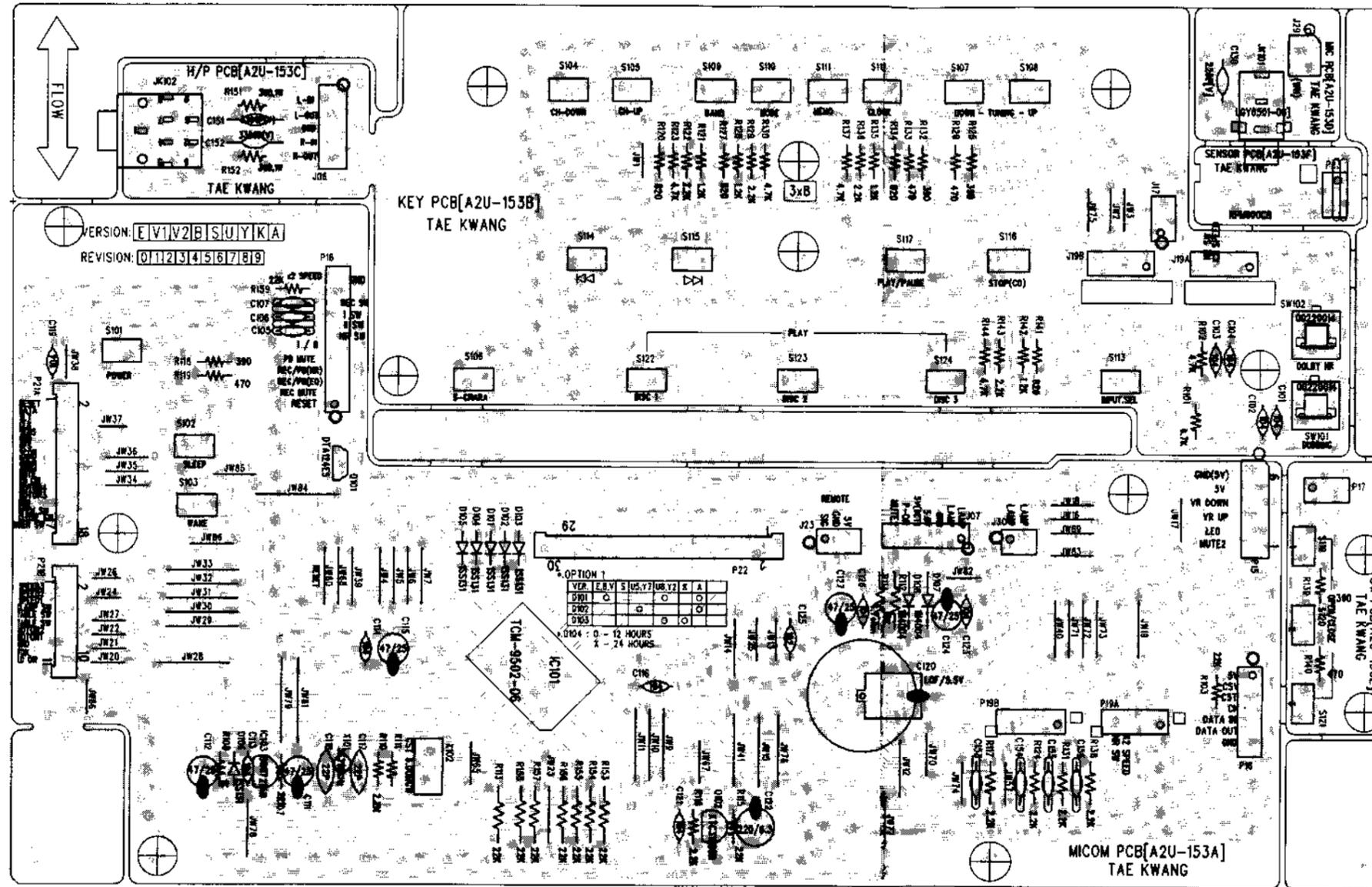
| VER | LOC | F901 | | | | REMARKS |
|-------|-----|--------|--|--|--|---------|
| E/Y/B | | ADD | | | | |
| S | | ADD | | | | |
| U/Y | | JUMPER | | | | |
| K | | ADD | | | | |
| A | | ADD | | | | |

SCHEMATIC DIAGRAM/REMOTE

RC-S200/RC-S300



IX. PCB LAYOUT/FRONT



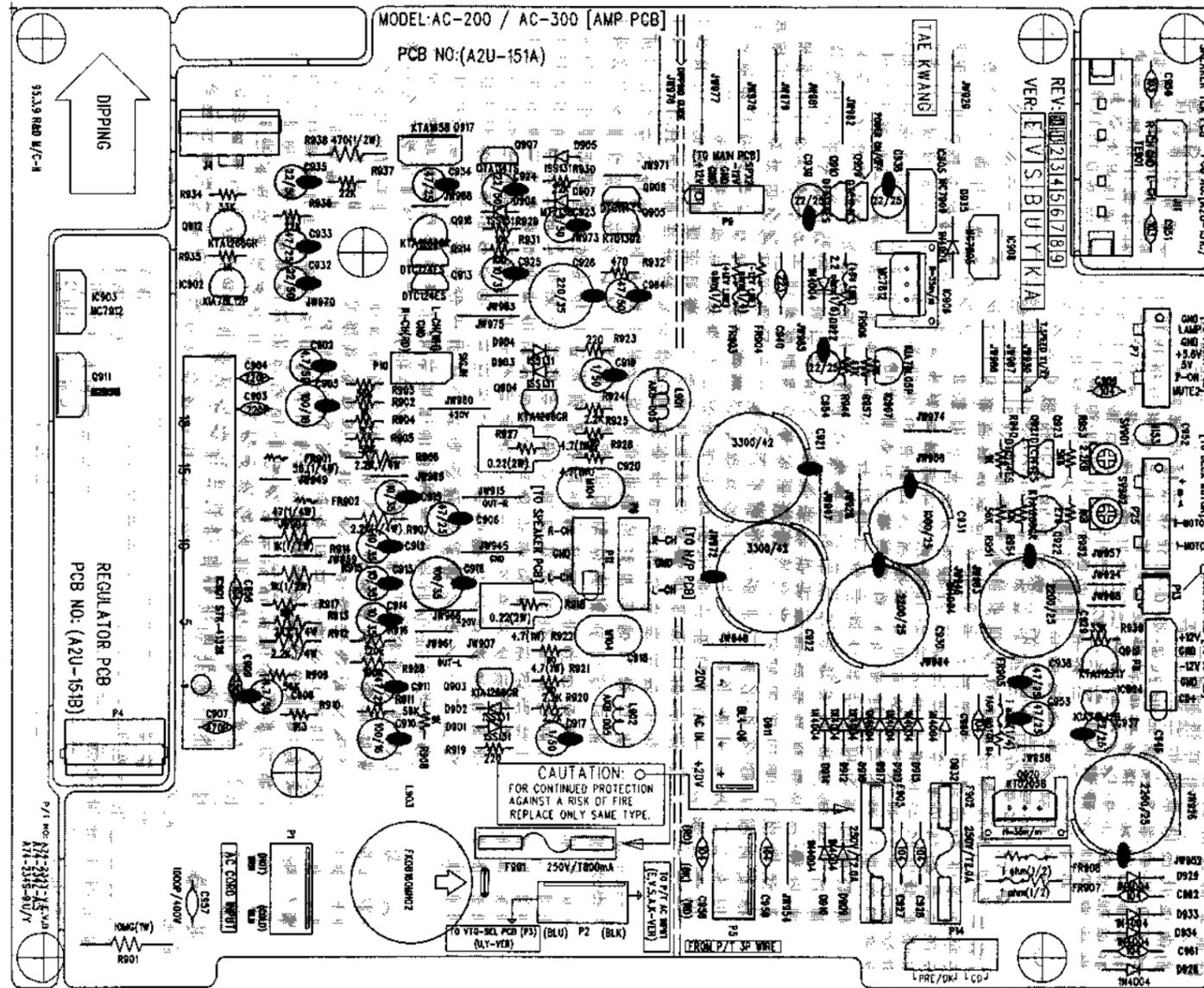
** OPTION LIST FOR VERSION **

| VER | E,B,V | S | U5,Y7 | U8,Y2 | K | A |
|------|-------|---|-------|-------|---|---|
| D101 | ○ | | | ○ | | ○ |
| D102 | | | ○ | | | ○ |
| D103 | | | | ○ | ○ | |
| D104 | | | | | | |

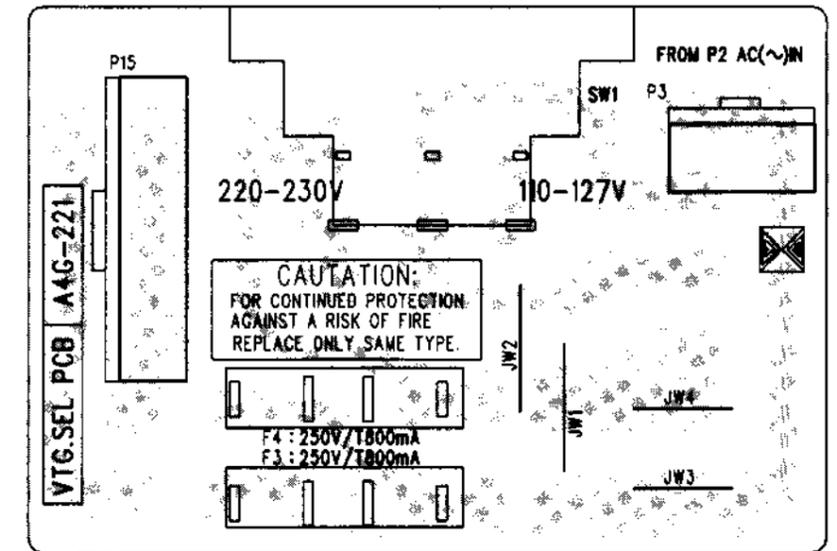
ADD: 12 HOURS DISPLAY CLOCK
 DEL: 24 HOURS DISPLAY CLOCK

PCB LAYOUT/POWER SUPPLY

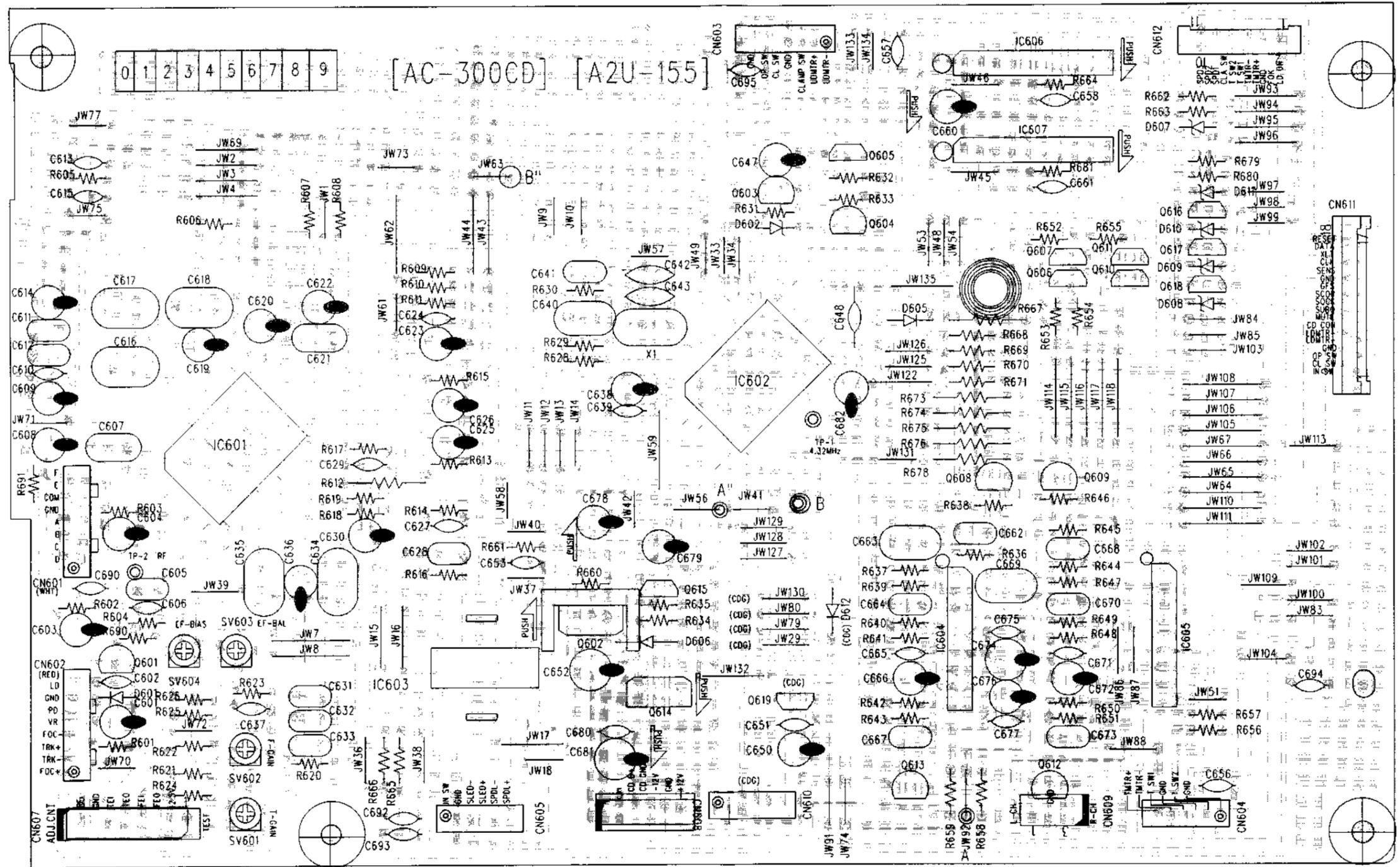
1. AMP P.C BOARD (A2U-151A~C)



2. VOLTAGE SELECTOR P.C BOARD (A4G-221) (USE FOR ONLY U, Y VERSION)



| VER | E, V | B | S | U, Y | A | K |
|--------|------|---|---|--------|---|---|
| LOC NO | 0 | 0 | 0 | JUMPER | 0 | 0 |
| F901 | | | | | | |



X. INFORMATION OF ICs MI-COM

1. SYSTEM CONTROL MI-COM

H8/3813-FP 100A(IC101)

| Pin | I/O | PIN NAME | Function |
|-----|-----|-------------|-------------------------------------|
| 1 | IN | CLOSE SW | CDP |
| 2 | IN | OPEN SW | CDP |
| 3 | IN | FOK | CDP |
| 4 | IN | GFS | CDP |
| 5 | | AVss | GND |
| 6 | | TEST | TEST MODE |
| 7 | IN | X1 | Sub Clock (32.768KHz) |
| 8 | OUT | X2 | Sub Clock (32.768KHz) |
| 9 | | Vss | GND |
| 10 | OUT | OSC1 | Main Clock (6.0MHz) |
| 11 | IN | OSC2 | Main Clock (6.0MHz) |
| 12 | IN | RESET | System Reset Input L:RESET |
| 13 | | MODE | |
| 14 | IN | SCOR | CDP |
| 15 | OUT | DATA | CDP |
| 16 | OUT | XLT | CDP |
| 17 | OUT | CLK | CDP |
| 18 | OUT | DE-EMP | CDP |
| 19 | IN | SENS | CDP |
| 20 | OUT | CD MUTE | CDP H:MUTE ON |
| 21 | IN | LD ON | CDP |
| 22 | IN | SQCK | CDP |
| 23 | IN | SUBQ | CDP |
| 24 | IN | XRST | CDP |
| 25 | OUT | LD+ (OPMTR) | CDP |
| 26 | OUT | LD- (CLMTR) | CDP |
| 27 | OUT | T/T LD+ | CDP |
| 28 | OUT | T/T LD- | CDP |
| 29 | OUT | CD ON/OFF | CDP ON/OFF H:ON |
| 30 | | Vss | GND |
| 31 | IN | V3 | LCD Bias |
| 32 | IN | V2 | LCD Bias |
| 33 | IN | V1 | LCD Bias |
| 34 | | Vcc | +5V |
| 35 | OUT | LCD COM4 | LCD Common |
| 36 | OUT | LCD COM3 | LCD Common |
| 37 | OUT | LCD COM2 | LCD Common |
| 38 | OUT | LCD COM1 | LCD Common |
| 39 | IN | REC | DECK REC Leaf Switch Input Active:L |
| 40 | IN | DECK I | DECK I Leaf Switch Input Active:L |

| Pin | I/O | PIN NAME | Function |
|-----|-----|------------|-----------------------------------|
| 41 | IN | DECK | DECK Leaf Switch Input Active:L |
| 42 | OUT | TAPE / | TAPE / Select Output H:TAPE |
| 43 | OUT | PB MUTE | TAPE Play Mute Output L:Mute On |
| 44 | OUT | REC/PB(NR) | TAPE REC/PB Select Output L:REC |
| 45 | OUT | REC/PB(EQ) | TAPE REC/PB Select Output L:REC |
| 46 | OUT | REC MUTE | TAPE REC MUTE Output L:Mute On |
| 47 | OUT | POWER LED | POWER LED ON/OFF Output H:On |
| 48 | OUT | VR-UP | Remote VR UP Output |
| 49 | OUT | VR-DOWN | Remote VR DOWN Output |
| 50 | IN | OPTION | TUNER BAND, HOUR Select Option |
| 51 | OUT | LCD SEG | LCD Segement Output |
| 52 | OUT | LCD SEG | LCD Segement Output |
| 53 | OUT | LCD SEG | LCD Segement Output |
| 54 | OUT | LCD SEG | LCD Segement Output |
| 55 | OUT | LCD SEG | LCD Segement Output |
| 56 | OUT | LCD SEG | LCD Segement Output |
| 57 | OUT | LCD SEG | LCD Segement Output |
| 58 | OUT | LCD SEG | LCD Segement Output |
| 59 | OUT | LCD SEG | LCD Segement Output |
| 60 | OUT | LCD SEG | LCD Segement Output |
| 61 | OUT | LCD SEG | LCD Segement Output |
| 62 | OUT | LCD SEG | LCD Segement Output |
| 63 | OUT | LCD SEG | LCD Segement Output |
| 64 | OUT | LCD SEG | LCD Segement Output |
| 65 | OUT | LCD SEG | LCD Segement Output |
| 66 | OUT | LCD SEG | LCD Segement Output |
| 67 | OUT | LCD SEG | LCD Segement Output |
| 68 | OUT | LCD SEG | LCD Segement Output |
| 69 | OUT | LCD SEG | LCD Segement Output |
| 70 | OUT | LCD SEG | LCD Segement Output |
| 71 | OUT | LCD SEG | LCD Segement Output |
| 72 | OUT | LCD SEG | LCD Segement Output |
| 73 | OUT | LCD SEG | LCD Segement Output |
| 74 | OUT | LCD SEG | LCD Segement Output |
| 75 | OUT | LCD SEG | LCD Segement Output |
| 76 | OUT | LCD SEG | LCD Segement Output |
| 77 | OUT | LCD SEG | LCD Segement Output |
| 78 | | N.C | |
| 79 | | Vcc | +5V |
| 80 | OUT | Mute2 | Power ON/OFF Output L:ON |

| Pin | I/O | PIN NAME | Function |
|-----|-----|----------------|-------------------------------------|
| 81 | OUT | SPEED 1 | 1MECHA PLAY Output (3CDP) H:ON |
| 82 | OUT | SPEED 2 | 2MECHA PLAY Output (3CDP) H:ON |
| 83 | OUT | SPEED 3 | 3MECHA PLAY Output (3CDP) H:ON |
| 84 | OUT | P=ON | PRE Mute Output H:ON |
| 85 | IN | REMOTE INPUT | Remote Data Input |
| 86 | OUT | CSV | NJU-7305 Data Output |
| 87 | OUT | CST | LC-7218 Data Output |
| 88 | OUT | OK | NJU-7305, LC-7218 Clock Data Output |
| 89 | IN | DATA IN | LC-7218 Data Input |
| 90 | OUT | DATA OUT | NJU-7305, LC-7218 Output |
| 91 | IN | POWER OFF DET. | POWER OFF DET. Input |
| 92 | | AVcc | GND |
| 93 | IN | KEY INPUT. 1 | Tact Switch Input |
| 94 | IN | KEY INPUT. 2 | Tact Switch Input |
| 95 | IN | KEY INPUT. 3 | Tact Switch Input |
| 96 | IN | KEY INPUT. 4 | Tact Switch Input |
| 97 | IN | T/T SW | CDP Active:L |
| 98 | IN | T/T SW | CDP Active:L |
| 99 | IN | INNER SW | CDP (LIMIT) Active:L |
| 100 | IN | CLAM SW | CDP Active:L |

IC901 KA9220B (RF + 1SSP FOR CDP)

| Pin No. | Port Name | Description |
|---------|-----------|---|
| 1 | AVEE(R) | Analog negative power supply input pin for RF part |
| 2 | CPH | Capacitor connection pin of mirror hold. |
| 3 | CBH | Capacitor connection pin of defect bottom-hold |
| 4 | NC | |
| 5 | NC | |
| 6 | NC | |
| 7 | PFSET | Peak frequency setting pin for focus, tracking compensation and f_c (cut off frequency) of CLV LPF. |
| 8 | SSTOP | Check the position pin of pick-up whether inside or not. |
| 9 | NC | |
| 10 | AVCC(S) | Analog positive power supply input pin for SERVO part. |
| 11 | WDCH | Auto-sequencer clock-input pin (Normal speed=88.2KHz, Double speed=176.4KHz) |
| 12 | SMPD | Connection pin of DSP SMPD |
| 13 | SMON | Connection pin of DSP SMON, spindle servo ON at "H" |
| 14 | NC | |
| 15 | TGSW | Providing time constant to change the high frequency tracking gain |
| 16 | RTG | Capacitor connection pin to switch the tracking gain of high frequency |
| 17 | LFR | Capacitor connection pin to perform rising low bandwidth of focus servo loop |
| 18 | FSW | High frequency gain of focus servo loop can be changed by FS3 switch ON or OFF |
| 19 | HFGD | Reducing high frequency gain with capacitor connected between pin 18 and pin 19. |
| 20 | FSCH | Time constant external pin to generate focus search waveform. |
| 21 | VREGI | External regulator voltage input pin for VCO |
| 22 | ISET | Determining the peak value of focus search, track jump and SLED kick |
| 23 | VREG | 3.5V Regulator output pin |
| 24 | NC | |
| 25 | SMEF | Providing an external LPF time constant of CLV SERVO Loop |
| 26 | NC | |
| 27 | MCK | Clock input pin from micom |
| 28 | MLT | Latch input pin from micom |
| 29 | MDAT | Data input pin from micom |
| 30 | RESET | Reset input pin from micom, reset at "L" |
| 31 | LOCK | Pin for operation of the sled runaway prevention function at "L" |
| 32 | TRCNT | Track count output pin |
| 33 | ISTAT | Internal status output pin |
| 34 | AVEE(S) | Analog negative power supply input pin for SERVO part |
| 35 | NC | |
| 36 | NC | |
| 37 | AASC | Auto-Asymmetry control input pin |
| 38 | EFMO | EFM comparator output pin |
| 39 | SLEN | Non-inverting input pin of SLED SERVO amplifier |

| Pin No. | Port Name | Description |
|---------|-----------|--|
| 40 | SLEO | Output pin of SLED SERVO amplifier |
| 41 | SLEI | Inverting input pin of SLED SERVO amplifier |
| 42 | TEST2 | Test input pin to change speed mode Normal speed = "H", Double speed = "L" |
| 43 | SPDI | Inverting input pin of spindle servo amplifier |
| 44 | SPDLO | Spindle servo amplifier output pin |
| 45 | FCE | Inverting input pin of focus servo amplifier. |
| 46 | FSEO | Output pin of focus servo amplifier |
| 47 | TKEI | Non-inverting input pin of tracking servo amplifier |
| 48 | TKEO | Output pin of tracking servo amplifier |
| 49 | NC | |
| 50 | ATS | Anti-shock input pin |
| 51 | TZC | Tracking Zero Crossing input pin |
| 52 | TE2 | Tracking Error Servo input pin |
| 53 | TE1 | Output pin of tracking Error Amplifier |
| 54 | TDFCT | Capacitor Connection pin for Defect Compensation of tracking servo |
| 55 | DVCC(S) | Digital positive power supply input pin for servo part |
| 56 | FE2 | Focus error servo input pin |
| 57 | FE1 | Output pin of focus error Amplifier |
| 58 | FDFCT | Capacitor connection pin for defect compensation of focus servo |
| 59 | FOK | Output pin of Focus ok comparator. |
| 60 | LDON | Laser diode ON/OFF control pin |
| 61 | EI | Feedback input pin of E I-V amplifier |
| 62 | EO | Output pin of E I-V Amplifier |
| 63 | FBIAS | Bias pin of non-inverting input of focus error amplifier |
| 64 | DVEE(S) | Digital negative power supply input pin for servo part |
| 65 | RFI | Output Signal of RF summing amplifier is inputted through capacitor |
| 66 | RFO | Output pin of RF summing amplifier |
| 67 | RF- | Inverting input pin of RF summing amplifier |
| 68 | RV | Output pin of $(AVCC + AVEE)/2$ Voltage |
| 69 | CV | Bias input pin of Center Voltage buffer |
| 70 | LD | Output pin of APC amplifier |
| 71 | PD | Input pin of APC amplifier |
| 72 | AVCC(R) | Analog positive power supply input pin for RF part |
| 73 | NC | |
| 74 | PD2 | Inverting input pin of RF-I-V AMP2 |
| 75 | PD1 | Inverting input pin of RF-I-V AMP1 |
| 76 | F | Inverting input pin of F I-V AMP |
| 77 | E | Inverting input pin of E I-V AMP |
| 78 | NC | |
| 79 | DCC2 | Defect bottom-hold output is inputted through capacitor |
| 80 | DCC1 | Output pin of defect bottom-hold |

3902 KS9282B (DSP + 1DAC(16BIT) FOR CDP)

| Pin No. | Port Name | I/O | Description |
|---------|-----------|-----|--|
| 1 | AVDD1 | | Analog Vcc1 |
| 2 | DPDO | O | Charge pump output for master PLL |
| 3 | DPFIN | I | Filter input for master PLL |
| 4 | DPFOUT | O | Filter output master PLL |
| 5 | CNTVOL | I | VCO control voltage for master PLL |
| 6 | AVSS1 | | Analog Ground 1 |
| 7 | NC | | |
| 8 | XIN | I | X-tal oscillator input |
| 9 | XOUT | O | X-tal oscillator output |
| 10 | WDCH | O | Word clock of 48 bit/SLOT(Normal speed = 88.2KHz, Double speed = 176.4KHz) |
| 11 | NC | | |
| 12 | NC | | |
| 13 | DVSS1 | | Digital Ground 1 |
| 14 | NC | | |
| 15 | NC | | |
| 16 | NC | | |
| 17 | VREFL1 | I | Input terminal 1 of reference voltage "L" (GND Connection) |
| 18 | AVDD2 | | Analog VCC2 |
| 19 | RCHOUT | O | Right-Channel audio output through D/A Converter |
| 20 | LCHOUT | O | Left-Channel audio output through D/A Converter |
| 21 | AVSS2 | | Analog Ground2 |
| 22 | VREFH1 | I | Input terminal 1 of reference voltage "H" (Vdd connection) |
| 23 | NC | | |
| 24 | NC | | |
| 25 | LKFS | O | The Lock Status output of frame sync |
| 26 | SOS1 | O | Output of subcode sync signal(S0 + S1) |
| 27 | RESET | I | System reset at "L" |
| 28 | SQEN | I | SQCK I/O Control("L":internal CK, "H":external CK) |
| 29 | SQCK | I/O | Clock for output Subcode-Q data |
| 30 | SQDT | O | Serial output of Subcode-Q data |
| 31 | NC | | |
| 32 | SBCK | I | CLOCK for output subcode-Q data |
| 33 | SDAT | O | Subcode serial data output |
| 34 | DVcc1 | | Digital Vcc1 |
| 35 | MUTE | I | Mute control Input("H":Mute ON) |
| 36 | MLT | I | Latch Signal Input from Micom |
| 37 | MDAT | I | Serial data Input from Micom |
| 38 | MCK | I | Serial Clock Input from Micom |
| 39 | NC | | |
| 40 | NC | | |

| Pin No. | Port Name | I/O | Description |
|---------|-----------|-----|---|
| 41 | NC | | |
| 42 | NC | | |
| 43 | NC | | |
| 44 | NC | | |
| 45 | NC | | |
| 46 | NC | | |
| 47 | NC | | |
| 48 | NC | | |
| 49 | NC | | |
| 50 | NC | | |
| 51 | NC | | |
| 52 | NC | | |
| 53 | DVss2 | | Digital Ground 2 |
| 54 | NC | | |
| 55 | NC | | |
| 56 | NC | | |
| 57 | NC | | |
| 58 | NC | | |
| 59 | NC | | |
| 60 | NC | | |
| 61 | SEL1 | I | GND |
| 62 | SEL2 | I | GND |
| 63 | SEL3 | I | GND |
| 64 | SEL4 | I | GND |
| 65 | TEST | I | Test Terminal(L = Normal operating state) GND |
| 66 | EFMI | I | EFM Signal input |
| 67 | NC | | |
| 68 | ISTAT | O | The internal status output |
| 69 | TRCNT | I | Tracking counter input signal |
| 70 | LOCK | O | Output signal of LKFS Condition sampled PBFR/16(If LKFS is "H", Lock is "H" If the LKFS is sampled "L" at least 8 times by PBFR/16, Lock is : "L") |
| 71 | PBFR | O | Write frame clock (Lock: 7.35KHz) |
| 72 | SMEF | O | LPF time constant control of the spindle servo error signal |
| 73 | SMON | O | ON/OFF control signal for spindle servo |
| 74 | DVbb2 | | Digital Vcc2 |
| 75 | SMPD | O | Spindle Motor drive(Rough control in the CLV-S mode Phase control in the CLV-P mode) |
| 76 | SMSD | O | Spindle Motor drive(Velocity control in the CLV-P mode) |
| 77 | NC | | |
| 78 | NC | | |
| 79 | DSPEED | I | Double speed mode control(H:Normal Speed, L:Double Speed) |
| 80 | NC | | |

ABBREVIATIONS

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 Emiting Diode | TP | Test Point |
| LPF | Low Pass Filter | VCO | Voltage Controlled Oscillator |
| LW | Long Wave(Frequency) | VR | Variable Resistor |
| | | X'TAL | Crystal |

COMPACT DISC

| ABBREVIATION | EXPLANATION | ABBREVIATION | EXPLANATION |
|---|--|--|--|
| A-D | Analog to Digital (Converter) | Mb | Mega Bits |
| ADC | Analog to Digital (Converter) | MDA | Mortor Drive Amplifier |
| BCD | Binary Code Decimal | MFM | Modified Frequency Modulation |
| BPI | Bits per Inch | MM | Mono-stable Multivibrator |
| CD | Compact Disc | M ₂ FM | 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-1 | 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, R ₁ , R ₂ , etc | Data for Right Channel |
| F | Frequency of Sampling | RAM | Random Access Memory |
| GF | Galois Field | RPG | Rear Pulse Gate |
| H & V (Parity) | Horizonal & 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, L ¹ , L ² , etc. | Data for Left Channel | SSG | Standard Signal Generator |
| LPF | Low Pass Filter | SYSCON | SYSTEM CONTROL |
| LSB | Least Significant Bit | | |

ASSETTE

| 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 | CONTinuance | R CH | Right CHannel |
| CRLP | Computer Recording Level Processing | REC | RECOrd(RECOding) |
| 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 | FLuorescent 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 Emiting Diode | X'TAL | crystAL |
| MEMO | MEMOry | X1 | Normal speed |
| MICOM | MicroCOMputer | X2 | Dubble speed |

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.DISC | Video DISC |
| VR | Variable Resistance |
| VTR | Video Tape Recorder |

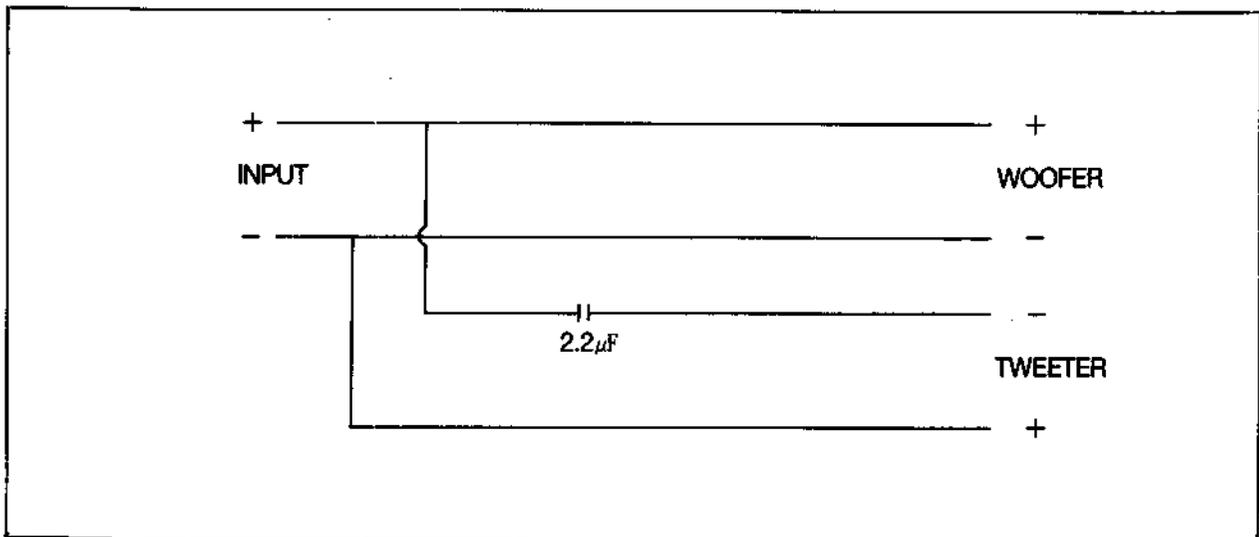
I. SPECIFICATION

Model No: SR-300

| | |
|---------------------------|---|
| Type | 2Way Bass Reflex |
| Component | Woofer : TAU-13W03004 130mm Tweeter : CT-57F02(B) 57mm |
| Rated Power Input | 25W |
| Maximum Power Input | 50W |
| Rated Impedance | 6 Ω |
| Dimension | 174(W) \times 320(H) \times 237(D)mm |
| Weight | 2.8Kg |

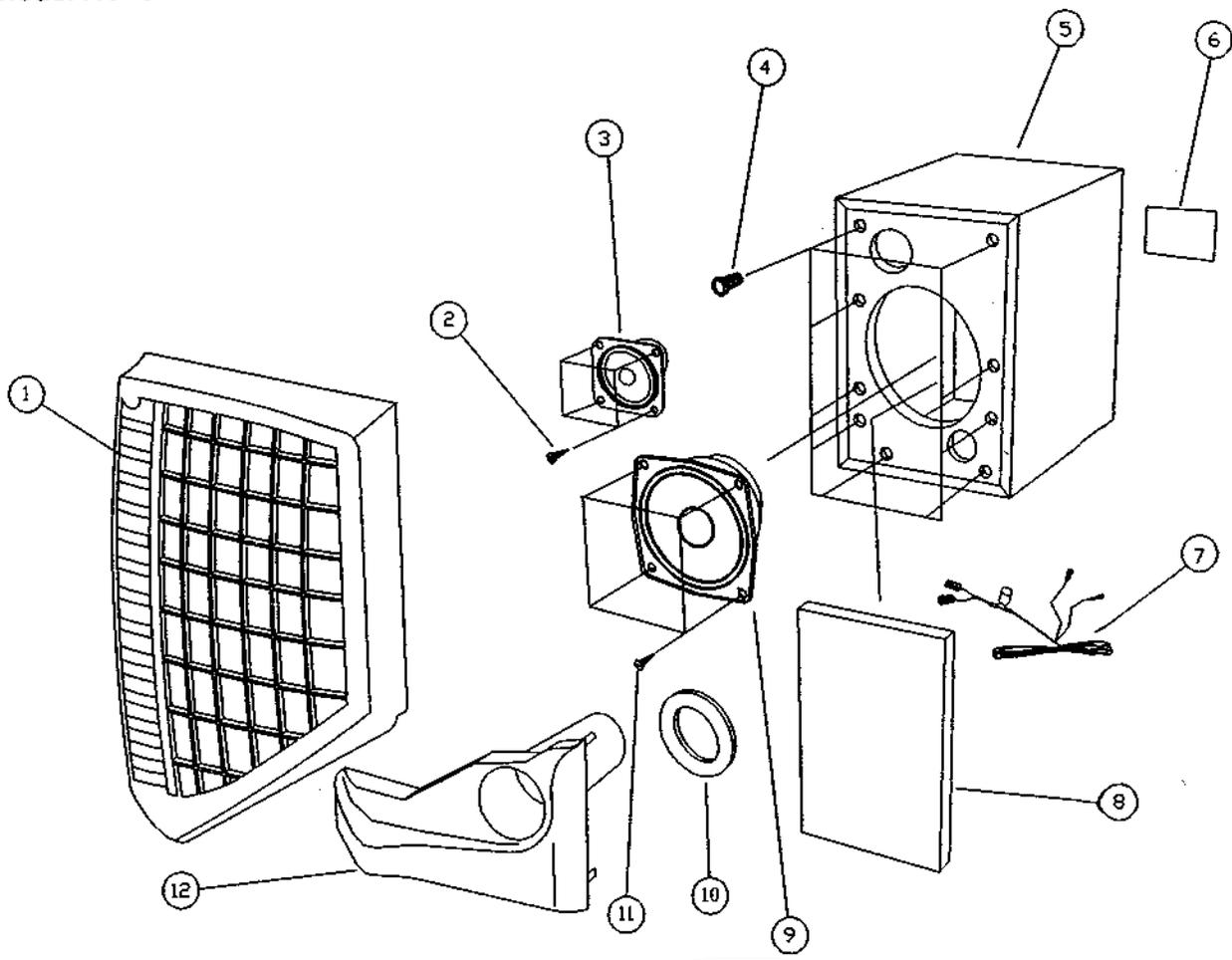
II. SCHEMATIC DIAGRAM

Model No: SR-300



III. PARTS LIST

Model No: SR-300



| Ref. No | Part No. | Part Name | Description |
|---------|----------------|-----------------|-----------------------|
| 1(L) | MJSG-00270-001 | NET FRAME (L) | |
| 1(R) | MJSG-00271-001 | NET FRAME (R) | |
| 2 | XSWB-40150-ZB1 | SCREW WOOD | BH 4 × 15 FE-ZB |
| 3 | SPKT-00621-A70 | SPEAKER TWEETER | CT-57F02(B) |
| 4 | MJSG-00470-004 | TAPER HOOK | |
| 6(L) | YLSP-EC000-01B | BACK LABEL (L) | |
| 6(R) | YLSP-EC100-01B | BACK LABEL (R) | |
| 7 | WSD2-24A9A-261 | WIRE SP CORD(D) | D-20/0.12, 2P, L=1900 |
| 9 | A2UW-EM000-01J | SPEAKER WOOFER | TAU-13W03104 |
| 10 | MMSG-07150-004 | CUSHION DUCT | |
| 11 | XSWB-30120-ZB1 | SCREW WOOD | BH 3 × 12 FE-ZB |
| 12(L) | MJSF-00550-ZZ1 | COVER (L) | |
| 12(R) | MJSF-00551-ZZ1 | COVER (R) | |

AKAI