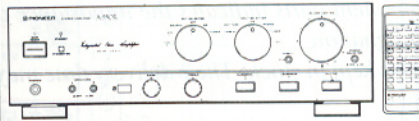


Service Manual



The above illustration shows the model A-550R.

ORDER NO.
ARP2305

STEREO AMPLIFIER

A-550R

A-550R-S

A-450R

A-550R, A-550R-S AND A-450R HAVE THE FOLLOWING :

Type	Model			Power Requirement	Remarks
	A-550R	A-550R-S	A-450R		
HE	○	—	○	AC220V-230V, 240V (Switchable)*	
HEWZ	○	○	○	AC220V-230V, 240V (Switchable)*	

* Change the connection of the power transformer's primary wiring.

- This manual is applicable to the A-550R/HE, HEWZ, A-550R-S/HEWZ, A-450R/HE and HEWZ types.
- The A-550R-S is the same as the A-550R except for color.
- Ce manuel pour le service comprend les explications de réglage en français.
- Este manual de servicio trata del método ajuste escrito en español.

CONTENTS

1. EXPLODED VIEWS, PACKING AND PARTS LIST	2	5. ADJUSTMENT	28
2. SCHEMATIC DIAGRAM	7	5. RÉGLAGE	29
3. P.C.BOARDS CONNECTION DIAGRAM	12	5. AJUSTE	30
4. PCB's PARTS LIST	21	6. PANEL FACILITIES	31
		7. SPECIFICATIONS	33

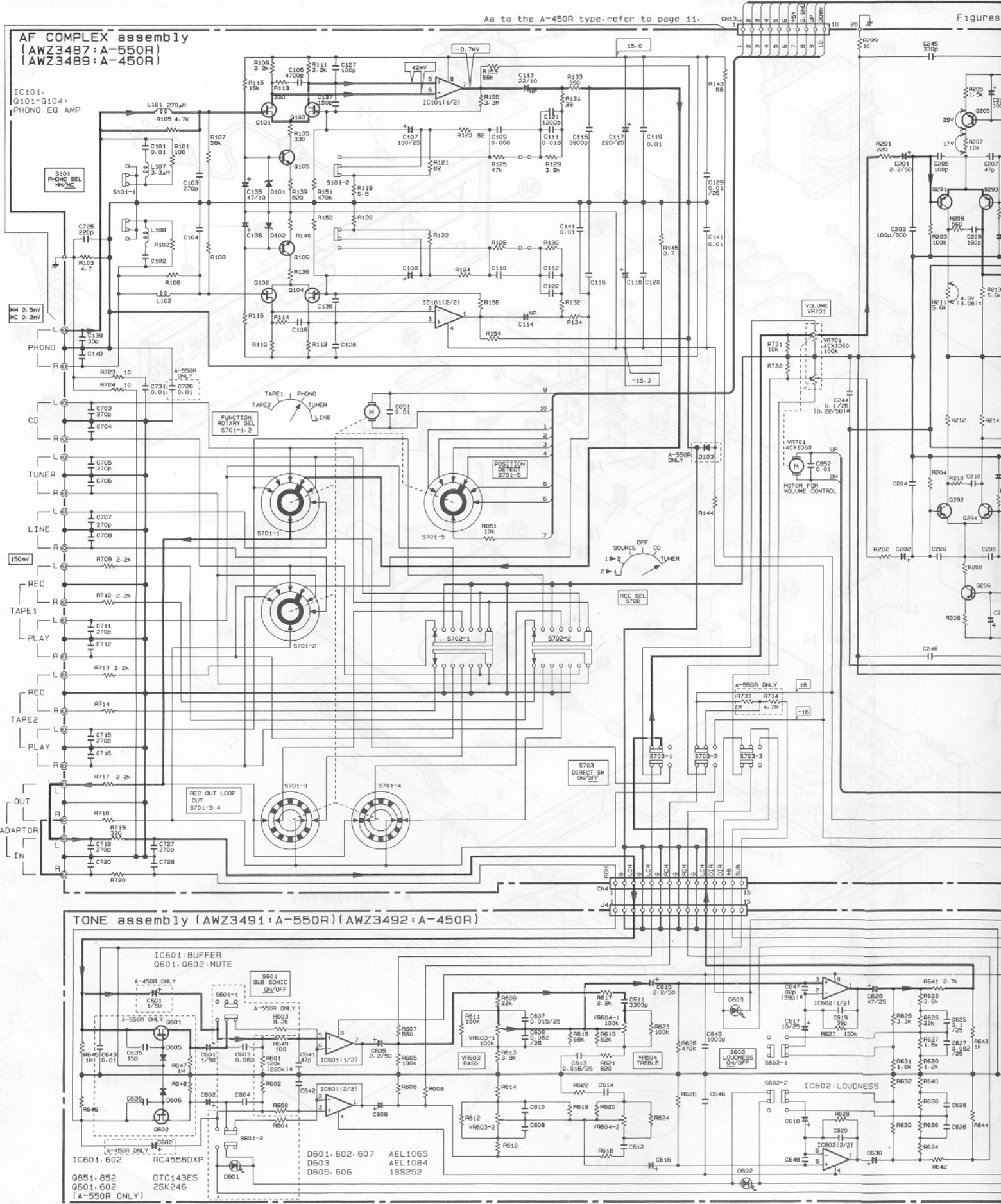
2. SCHEMATIC DIAGRAM

A

B

C

D

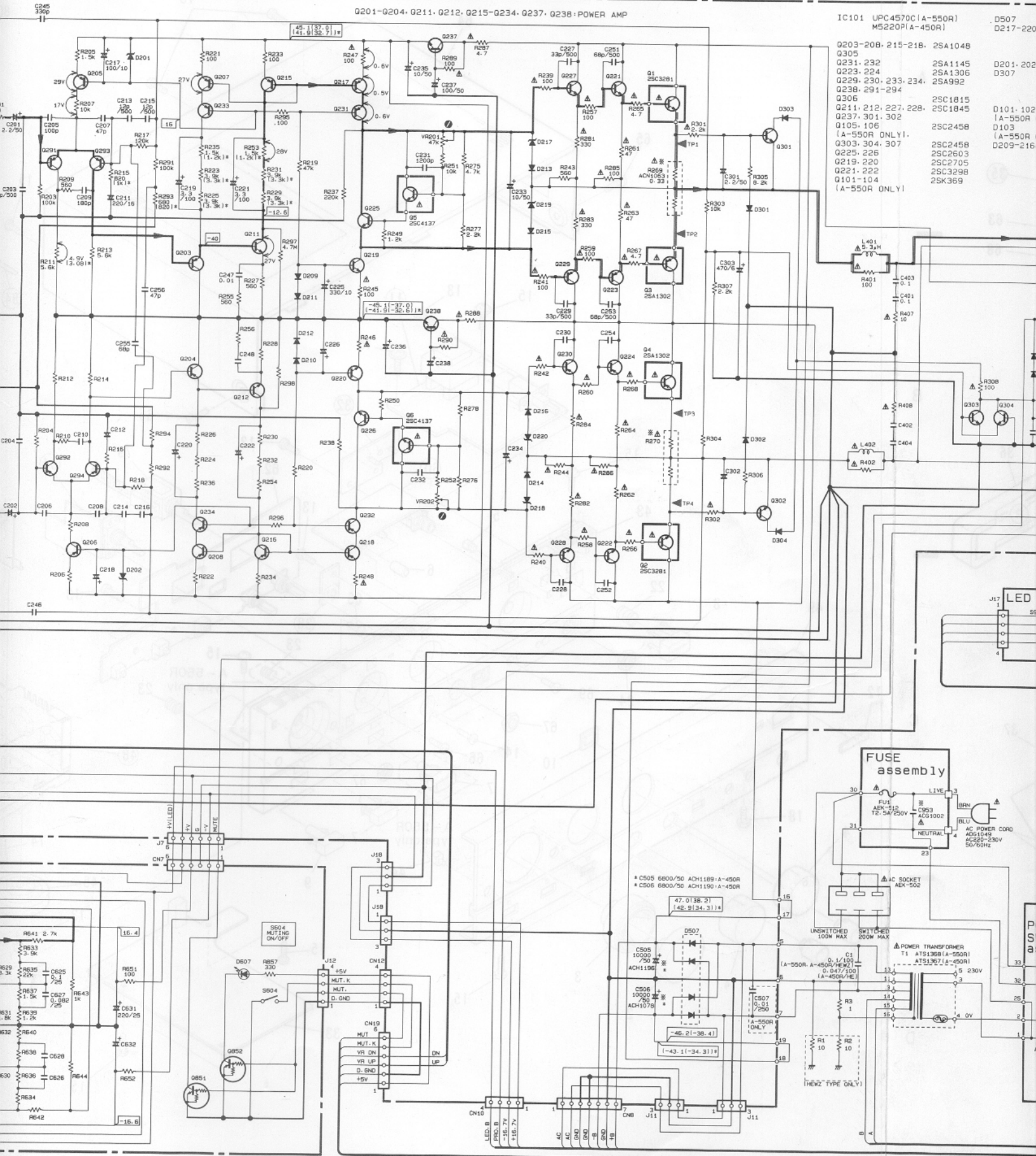


Figures enclosed in () * for A-450R TYPE.

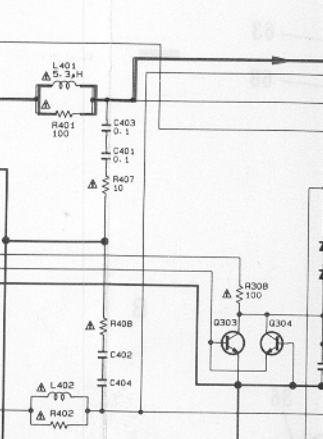
Q201-Q204, Q211, Q212, Q215-Q234, Q237, Q238: POWER AMP

IC101 UPC4570C (A-550R)
MS220P(A-450R)

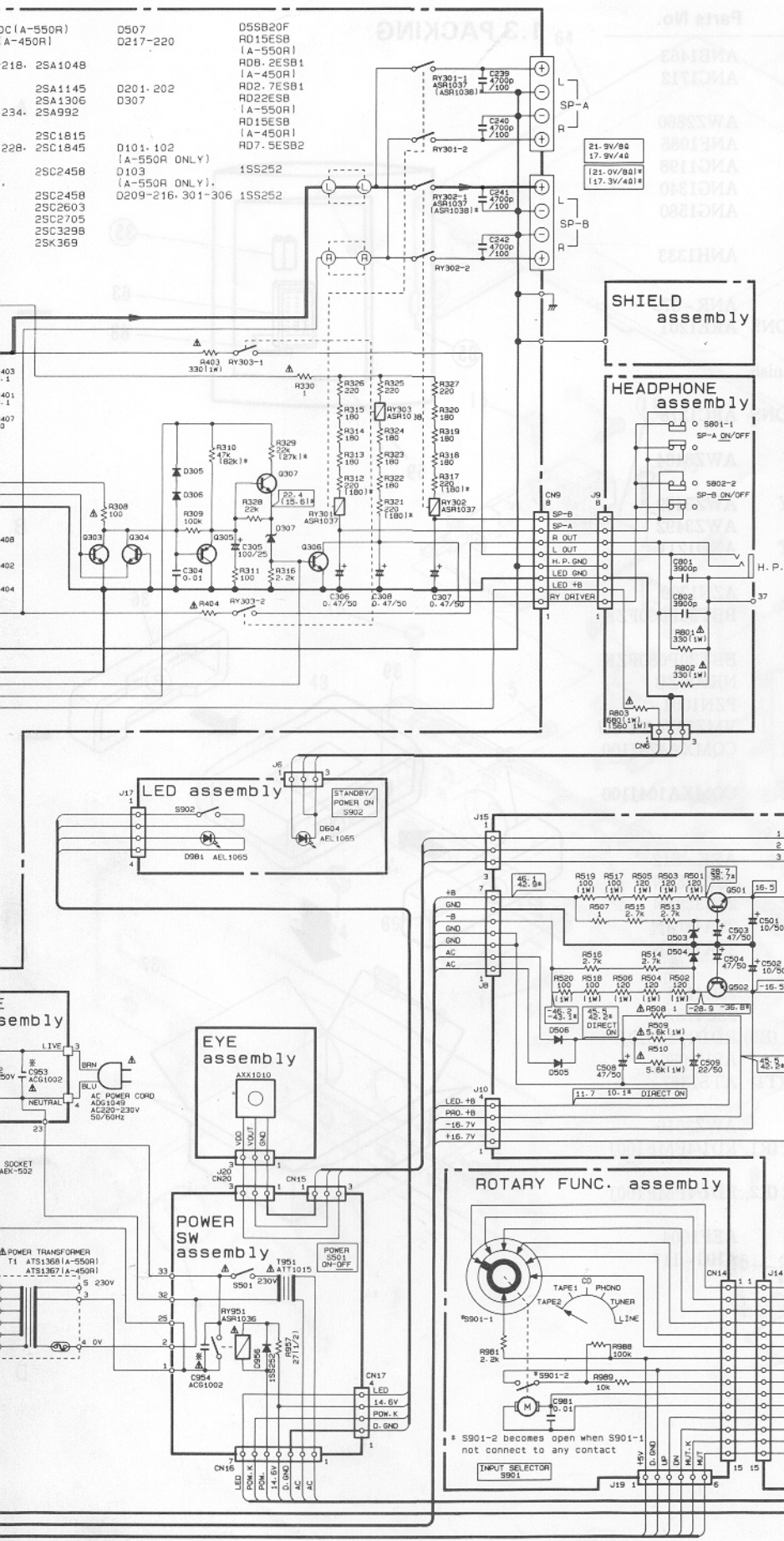
D507
D217-220



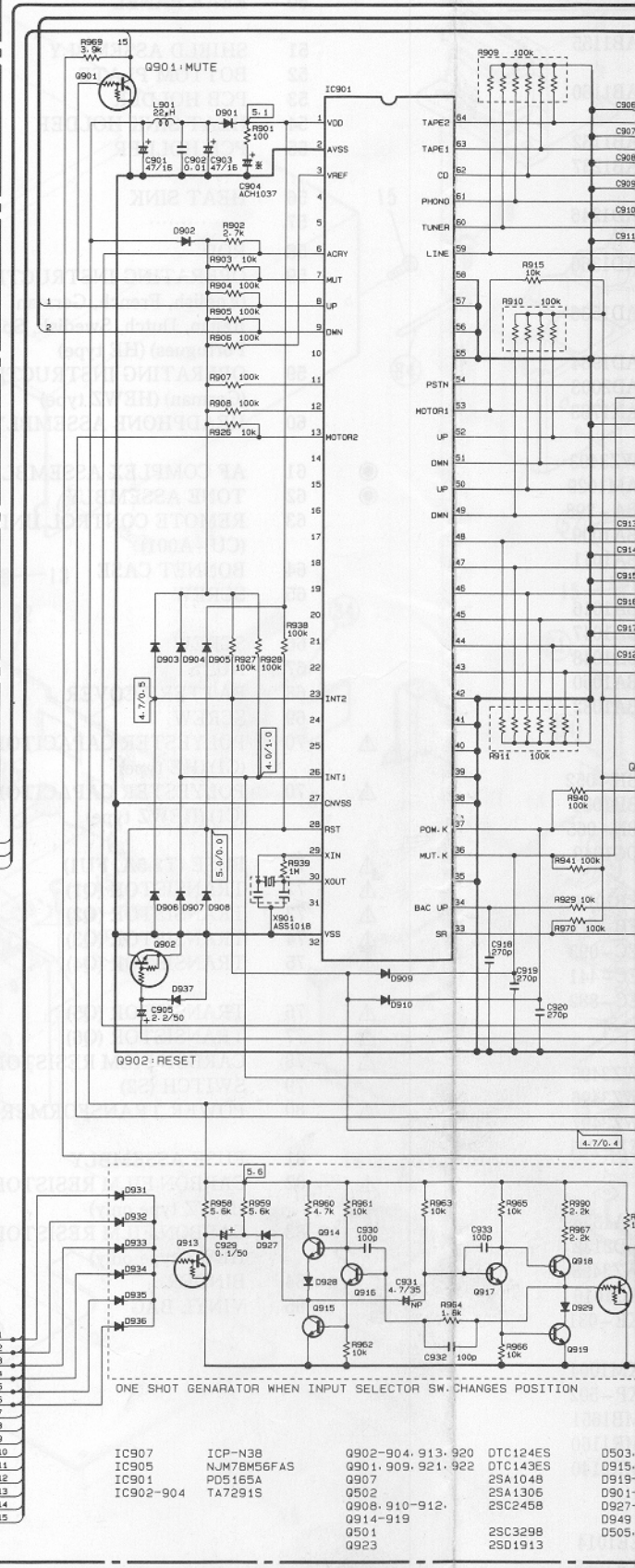
- Q203-208, 215-218, 25A1048
- Q305
- Q231, 232 25A1145
- Q223, 224 25A1306
- Q229, 230, 233, 234, 25A992
- Q238, 291-294
- Q306 25C1815
- Q211, 212, 227, 228, 25C1845
- Q237, 301, 302 25C2458
- Q105, 106 25C2458
- (A-550R ONLY)
- Q303, 304, 307 25C2458
- Q225, 226 25C2603
- Q219, 220 25C2705
- Q221, 222 25C3298
- Q101-104 25K369
- (A-550R ONLY)



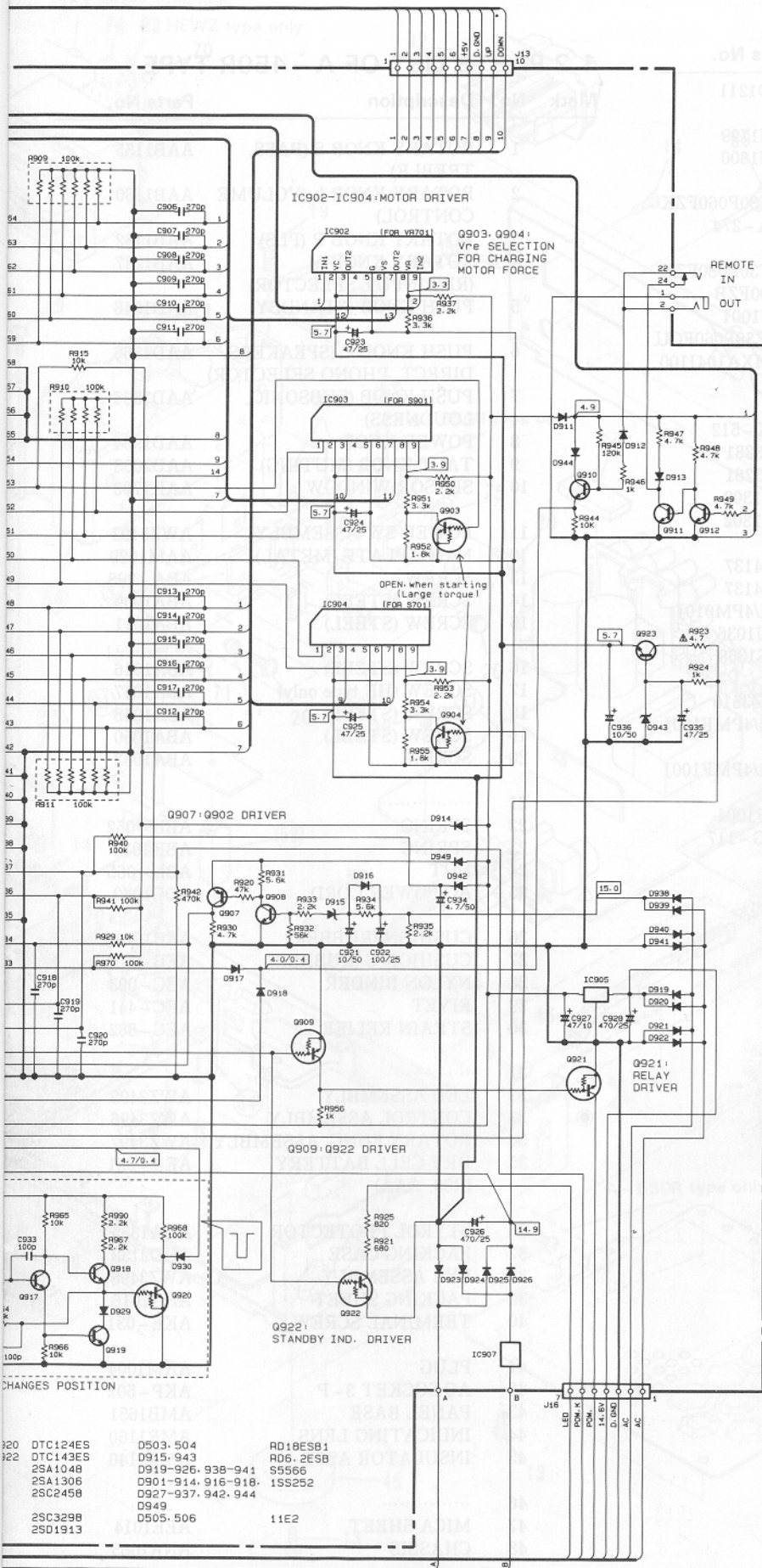
- DC (A-550R)
A-450R1
- 218. 2SA1048
- 2SA1145
- 2SA1306
- 234. 2SA992
- 25C1815
- 25C1845
- 25C2458
- 25C2458
25C2603
25C2705
25C3298
25K369
- D507
D217-220
- D201-202
D307
- D101-102
(A-550R ONLY)
- D103
(A-550R ONLY).
- D209-216, 301-306
- D5SB20F
RD15ESB
(A-550R)
ROB. 2ESB1
(A-450R)
RD2. 7ESB1
RD22ESB
(A-550R)
RD15ESB
(A-450R1)
RD7. 5ESB2
- 1SS252
- 1SS252



CONTROL assembly (AWZ3496)



- IC907 ICP-N38
- IC905 ICP-N38
- IC901 NJM78M56FAS
- IC900 PD5165A
- IC902-904 TA7291S
- Q902-904, 913, 920 DTC124ES
- Q901, 909, 921, 922 DTC143ES
- Q907 2SA1048
- Q902 2SA1306
- Q908, 910-912, 914-919 25C2458
- Q901 25C3298
- Q923 25D1913
- D503
- Q915
- Q919
- Q901
- Q927
- Q949
- Q505



- RESISTORS:**
Indicated in Ω, %W, %W, %W, ±5% tolerance unless otherwise noted k: kΩ, M: MΩ, (F): ±1%, (G): ±2%, (K): ±10% (M): ±20% tolerance
- CAPACITORS:**
Indicated in capacity (μF)/voltage (V) unless otherwise noted p: pF
Indication without voltage is 50V except electrolytic capacitor.
- VOLTAGE, CURRENT:**
 - : Signal voltage at (W + W B₁) output (1kHz)
 - : DC voltage (V) at no input signal
 - Value in () is DC voltage at rated power.
 - ← mA: DC current at no input signal
- OTHERS:**
 - : Signal route.
 - ⊗: Adjusting point.

The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 * marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

SWITCHES

POWER SW assembly
S501 POWER

ROTARY FUNC. assembly
S901 ROTARY SW

LED assembly
S902 STANDBY

AF COMPLEX assembly
S101 PHONO SEL MM/MC (A-550R ONLY)
S701 FUNCTION REC SEL
S702 FUNCTION
S703 DIRECT SW ON/OFF

TONE assembly
S601 SUB SONIC ON/OFF (A-550R ONLY)
S602 LOUDNESS
S604 MUT.K

HEADPHONE assembly
S801-1 SP-A ON/OFF
S801-2 SP-B ON/OFF

LINE VOLTAGE SELECTION

Line voltage can be changed with the following steps.

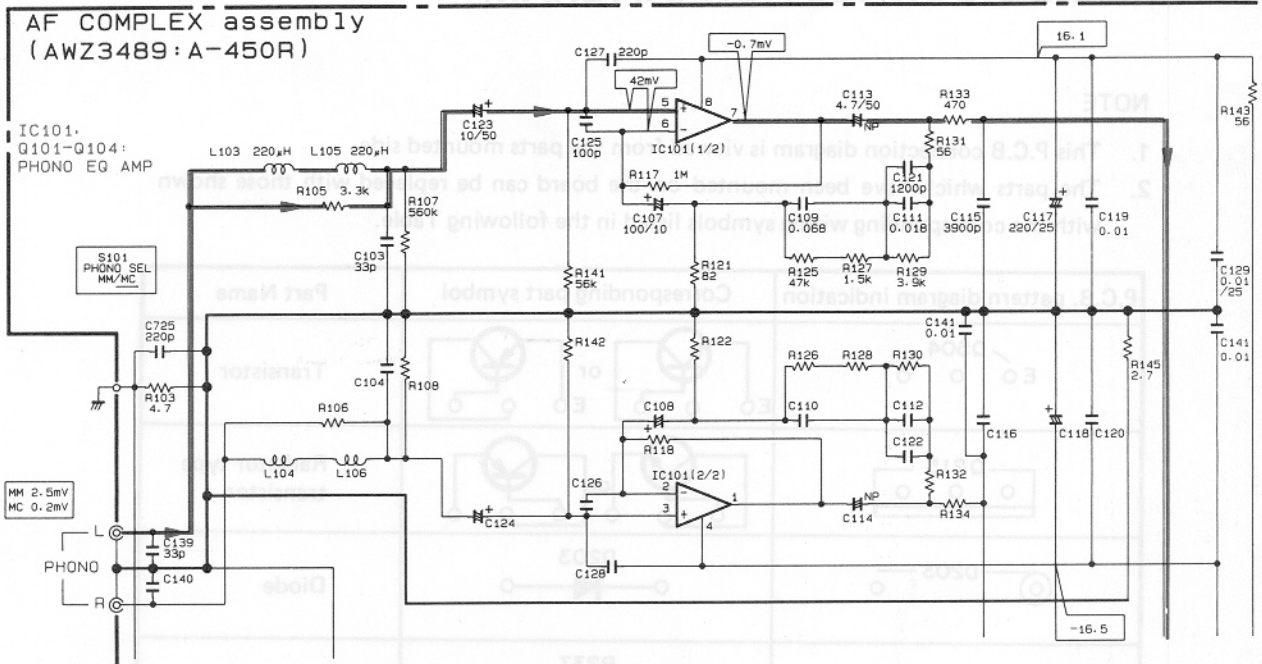
1. Disconnect the AC Power cord.
2. Remove the top cover.
3. Change the connection of the power transformer primary pins.

Voltage	Power transformer Pin No.
220V	3
240V	5

4. Stick the line voltage label on the rear panel.

Part No.	Description
AAX-193	220V label
AAX-192	240V label

S20 DTC124ES	D503, 504	RD18ESB1
S22 DTC143ES	D915, 943	RD5, 2E5B
2SA104B	D919-926, 938-941	S5566
2SA1306	D901-914, 916-918, 1SS252	
2SC245B	D927-937, 942, 944	
	D949	
2SC329B	D505, 506	11E2
2SD1913		



- Parts with asterisk (*) differs according to models as follows ;

AF COMPLEX ASSEMBLY

Parts No.	A-550R and A-550R-S	A-450R
IC101	UPC4570C	M5220P
Q101-Q104	2SK369	VACANT
Q105, Q106	2SC2458	VACANT
D101, D102	RD7.5ESB2	VACANT
D103	1SS252	VACANT
D217-D220	RD15ESB	RD8.2ESB1
D307	RD22ESB	RD15ESB
S101	ASG1012	VACANT
RY301, RY302	ASR1037	ASR1038
L101, L102	ATH1010	VACANT
L103-L106	LAU221K	VACANT
L107, L108	LAU3R3K	VACANT
C101, C102	CFTXA103J50	VACANT
C103, C104	CCCSL271J50	CCCSL330J50
C105, C106	CKCYB472K50	VACANT
C107, C108	CEXA101M25	CEAS101M10
C113, C114	CEANP220M10	CEAS4R7M50
C117, C118	CEXA221M25	CEAS221M25
C123, C124	VACANT	CEAS100M50
C125, C126	VACANT	CCCSL101J50
C127, C128	CCCSL101J50	CCDSL221J50
C135, C136	CEAS470M10	VACANT
C137, C138	CCCSL151J50	VACANT
C139, C140	CCCSL330J50	CCDSL330J50
C139, C140	CCCSL330J50	CCDSL330J50
C244	CKDYX104M25	CQMA224K50
C506	ACH1078	ACH1190
C507	QOMA103K250	VACANT
C725	CCDSL221J50	CCCSL221J50
C726	CKCYF103Z50	VACANT

Parts No.	A-550R and A-550R-S	A-450R
R101, R102	RDR1/6PU101J	VACANT
R105, R106	RD1/8PM472J	RD1/8PM332J
R107, R108	RDR1/6PU563J	RD1/8PM564J
R109-R112	RD1/8PM222J	VACANT
R113, R114	RD1/8PM331J	VACANT
R115, R116	RD1/8PM153J	VACANT
R117, R118	VACANT	RD1/8PM105J
R119, R120	RDR1/4PM6R8J	VACANT
R123, R124	RD1/8PM820J	VACANT
R127, R128	VACANT	RD1/8PM152J
R131, R132	RD1/8PM390J	RD1/8PM560J
R133, R134	RDR1/6PU391J	RDR1/6PU471J
R135, R136	RD1/8PM331J	VACANT
R139, R140	RD1/8PM821J	VACANT
R141, R142	VACANT	RDR1/6PU563J
R151, R152	RD1/8PM474J	VACANT
R153, R154	RD1/8PM563J	VACANT
R155, R156	RD1/8PM335J	VACANT
R215, R216	RDR1/4PM821J	RDR1/4PM102J
R223-R226	VACANT	VACANT
R229-R232	RD1/4PM392J	RD1/4PM332J
R235, R236	RD1/8PM152J	RD1/8PM122J
R253, R254	RD1/4PM4R7J	RFA1/4PS4R7J
R287, R288	RD1/8PM681J	RD1/8PM821J
R293, R294	RD1/8PM473J	RD1/8PM823J
R310	VACANT	VACANT
R312, R317, R321	RD1/4PM221J	RD1/4PM181J
R329	RD1/8PM223J	RD1/8PM273J
R733	RD1/8PM105J	VACANT
R734	RD1/8PM475J	VACANT

TONE ASSEMBLY

Parts No.	A-550R and A-550R-S	A-450R
Q601, Q602	2SK246	VACANT
D601	AEL1065	VACANT
D605, D606	1SS252	VACANT
S601	ASG1019	VACANT
C603, C604	CFTXA823J50	VACANT
C635, C636	CCDSL150J50	VACANT
C643	CKCYF103Z50	VACANT
C647, C648	CCCSL820J50	CCDSL390J50
R601, R602	RD1/8PM124J	RD1/8PM224J
R603, R604	RD1/8PM822J	VACANT
R647, R648	RD1/8PM105J	VACANT

HEADPHONE ASSEMBLY

Parts No.	A-550R and A-550R-S	A-450R
R803	RS1LMF681J	RS1LMF561J

5. ADJUSTMENTS

IDLE CURRENT ADJUSTMENT

1. Connect measuring instrument as Fig. 5-1.
2. Set the VOLUME CONTROL to minimum.
3. Set the POWER switch to ON.
4. Adjust VR201 (VR202) so that the voltage between TP1 (TP3) and TP2 (TP4) becomes $20\text{mV} \pm 3\text{mV}$.

NOTE)

After turning on the power, wait at least 5 minutes before adjustment.

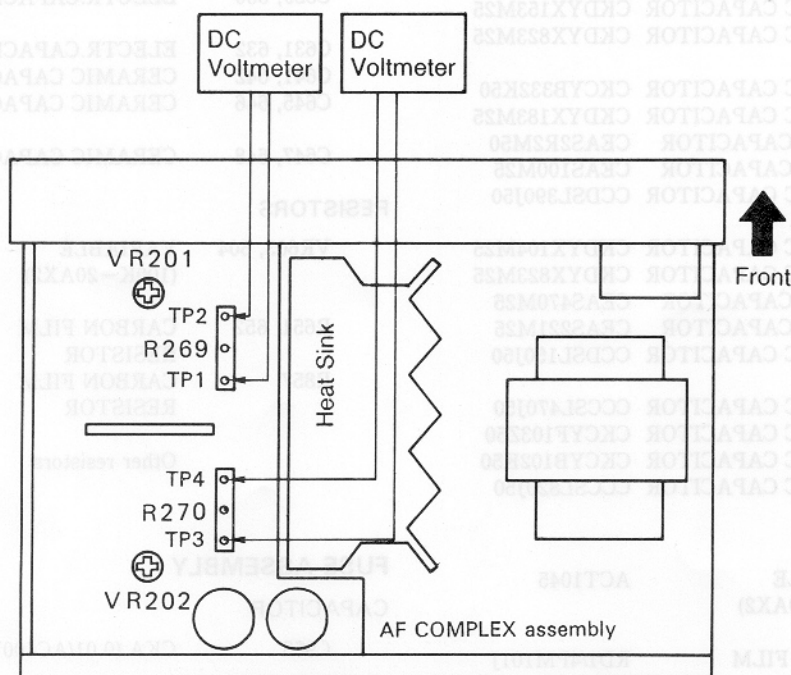


Fig. 5-1 Adjustment Method