

# Service Manual



The illustration shows model A-400.

ORDER NO.  
ARP2044

STEREO AMPLIFIER

# A-400

## A-300

MODEL A-400 AND A-300 HAVE FOLLOWING VERSIONS:

Type	Applicable model		Power requirement	Export destination
	A-400	A-300		
HB	○	○	AC220V, 240V (switchable) *	United Kingdom

\* Change the connection of the power transformer lead wire.

- This manual is applicable to the A-400/HB and A-300/HB types.
- Ce manuel pour le service comprend les explications de réglage en français.
- Este manual de servicio trata del método ajuste escrito en español.

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# 1. SPECIFICATIONS

## [A-400]

### Amplifier Section

Continuous power output (both channels driven at 20 Hz to 20 kHz)\*

T.H.D. 0.03 %, 8 Ω ..... 50 W + 50 W

T.H.D. 0.05 %, 4 Ω ..... 70 W + 70 W

DIN Continuous power output (both channels driven at 1 kHz)

T.H.D. 1.0 %, 8 Ω ..... 60 W + 60 W

T.H.D. 1.0 %, 4 Ω ..... 85 W + 85 W

Dynamic power output (on EIA dynamic test signal)

8 Ω/4 Ω/2 Ω ..... 70 W/100 W/135 W

Total harmonic distortion \*

20 Hz to 20 kHz, 50 W, 8 Ω ..... 0.03 %

20 Hz to 20 kHz, 70 W, 8 Ω ..... 0.05 %

Input sensitivity/impedance

PHONO (MM) ..... 2.5 mV/50 kΩ

PHONO (MC) ..... 0.2 mV/100 Ω

CD, TUNER, LINE, TAPE ..... 150 mV/50 kΩ

PHONO overload level

1 kHz, T.H.D. 0.008 % (MM/MC) ..... 150 mV/12 mV

Output level/impedance

TAPE REC ..... 150 mV/2.2 kΩ

Frequency response

PHONO (MM) ..... 20 Hz to 20 kHz, ± 0.3 dB

PHONO (MC) ..... 20 Hz to 20 kHz, ± 0.5 dB

CD, TUNER, LINE, TAPE ..... 5 Hz to 100 kHz, ± 0.5 dB

Signal-to-Noise ratio (IHF short circuit, A network)

PHONO (MM, 2.5 mV input/MC, 0.2 mV input) ..... 87 dB/69 dB

CD, TUNER, LINE, TAPE ..... 108 dB

Signal-to-Noise ratio (DIN, continuous power/50 mW)

PHONO (MM) ..... 74 dB/63 dB

CD, TUNER, LINE, TAPE ..... 88 dB/65 dB

### Power Supply/Miscellaneous

Power requirements ..... a.c. 240 V ~, 50/60 Hz

Power consumption ..... 520 W

Dimensions ..... 420 (W) x 352 (D) x 126 (H) mm

Weight (without package) ..... 8.0 kg

### Accessories

Operating instructions ..... 1

• *Specifications and design subject to possible modification without notice, due to improvements.*

\* *Measured by Audio Spectrum Analyzer.*

## [A-300]

### Amplifier Section

Continuous power output (both channels driven at 20 Hz to 20 kHz)\*

T.H.D. 0.03 %, 8 Ω ..... 30 W + 30 W

T.H.D. 0.05 %, 4 Ω ..... 40 W + 40 W

DIN Continuous power output (both channels driven at 1 kHz)

T.H.D. 1.0 %, 8 Ω ..... 40 W + 40 W

T.H.D. 1.0 %, 4 Ω ..... 60 W + 60 W

Dynamic power output (on EIA dynamic test signal)

8 Ω/4 Ω/2 Ω ..... 50 W/75 W/90 W

Total harmonic distortion \*

20 Hz to 20 kHz, 40 W, 8 Ω ..... 0.03 %

20 Hz to 20 kHz, 50 W, 8 Ω ..... 0.05 %

Input sensitivity/impedance

PHONO (MM) ..... 2.5 mV/50 kΩ

CD, TUNER, LINE, TAPE ..... 150 mV/50 kΩ

PHONO overload level

1 kHz, T.H.D. 0.02 % (MM) ..... 150 mV

Output level/impedance

TAPE REC ..... 150 mV/2.2 kΩ

Frequency response

PHONO (MM) ..... 20 Hz to 20 kHz, ± 0.3 dB

CD, TUNER, LINE, TAPE ..... 5 Hz to 100 kHz, ± 0.5 dB

Signal-to-Noise ratio (IHF short circuit, A network)

PHONO (MM, 2.5 mV input) ..... 83 dB

CD, TUNER, LINE, TAPE ..... 108 dB

Signal-to-Noise ratio (DIN, continuous power/50 mW)

PHONO (MM) ..... 73 dB/63 dB

CD, TUNER, LINE, TAPE ..... 88 dB/65 dB

### Power Supply/Miscellaneous

Power requirements ..... a.c. 240 V ~, 50/60 Hz

Power consumption ..... 410 W

Dimensions ..... 420 (W) x 352 (D) x 126 (H) mm

Weight (without package) ..... 6.8 kg

### Accessories

Operating instructions ..... 1

• *Specifications and design subject to possible modification without notice, due to improvements.*

\* *Measured by Audio Spectrum Analyzer.*

## 2. EXPLODED VIEWS, PACKING AND PARTS LIST

### NOTES:

- Parts without part number cannot be supplied.
- The  $\triangle$  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.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

### 2.1 PARTS LIST

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	1	ROTARY KNOB L (PLS)	AAB1160		38	C1 CAPACITOR (FOR A-400/HB TYPE)	CQMXA104J100
	2	ROTARY KNOB R (PLS)	AAB1162			C1 CAPACITOR (FOR A-300/HB TYPE)	CQMXA473J100
	3	ROTARY KNOB M (PLS)	AAB1164			FU1 FUSE(T2.5A) (FOR A-400/HB TYPE)	AEK-512
	4	PUSH KNOB C (A-400/HB TYPE ONLY)	AAD1366	$\triangle$	39	FU1 FUSE(T1.6A) (FOR A-300/HB TYPE)	AEK-510
	5	KNOB (POWER)	AAD1535	$\triangle$		Q1 TRANSISTOR (FOR A-400/HB TYPE)	2SC3281
	6	NAME PLATE (METAL)	AAM1029	$\triangle$	40	Q1 TRANSISTOR (FOR A-300/HB TYPE)	2SC3181N
	7	SCREW	ABA-298	$\triangle$		Q2 TRANSISTOR (FOR A-400/HB TYPE)	2SC3281
	8	SCREW (STEEL)	ABA1009	$\triangle$		Q2 TRANSISTOR (FOR A-300/HB TYPE)	2SC3181N
	9	SCREW (STEEL)	ABA1011	$\triangle$		Q3 TRANSISTOR (FOR A-400/HB TYPE)	2SA1302
	10	SCREW (STEEL)	ABA1016	$\triangle$	41	Q3 TRNSISTOR (FOR A-300/HB TYPE)	2SA1264N
	11	SCREW (STEEL)	ABA1048	$\triangle$		Q4 TRANSISTOR (FOR A-400/HB TYPE)	2SA1302
	12	SCREW (STEEL)	ABA1050	$\triangle$		Q4 TRANSISTOR (FOR A-300/HB TYPE)	2SA1264N
	13	SCREW	ABA1082	$\triangle$	42	Q5 TRANSISTOR	2SC4137
	14	SPRING	ABH-052	$\triangle$	43	Q6 TRANSISTOR	2SC4137
	15	NUT	ABN-065	$\triangle$		S1 SWITCH	ASU1035
$\triangle$	16	AC POWER CORD	ADG1070	$\triangle$	46	S2 SWITCH	ASU1037
	17	RIVET	AEC-441	$\triangle$	47	T1 POWER TRANSFORMER (FOR A-400/HB TYPE)	ATS1279
	18	SHEET	AEE1014	$\triangle$	48	T1 POWER TRANSFORMER (FOR A-300/HB TYPE)	ATS1278
	19	STYROL PROTECTOR	AHA1335	$\triangle$		AF COMPLEX ASS'Y (FOR A-400/HB TYPE)	AWZ2868
	20	PACKING CASE (FOR A-400/HB TYPE)	AHD1865	$\triangle$		AF COMPLEX ASS'Y (FOR A-300/HB TYPE)	AWZ2870
		PACKING CASE (FOR A-300/HB TYPE)	AHD1866	$\triangle$	44	POWER SW ASS'Y	
				$\triangle$	45	LED ASS'Y	
	21	COVER SHEET	AHG1016		46	SHIELD ASS'Y (FOR A-400/HB TYPE)	
	22	TERMINAL SCREW			47	HEADPHONE ASS'Y	
	23	PANEL BASE	AMB1651	$\triangle$	48	-----	
	24	INDICATING LENS	AMR1160	$\triangle$		BINDER	
	25	INSULATOR ASS'Y	AMR2140	$\triangle$		SHIELD ASS'Y (FOR A-300/HB TYPE)	
	26	ARM (A-400/HB TYPE ONLY)	AMR2142		49	WASHER (A-400/HB TYPE ONLY)	ABE1018
	27	CHASSIS			50	NUTS (A-400/HB TYPE ONLY)	NK90FCU
	28	FRONT PANEL (FOR A-400/HB TYPE)	ANB1399		51	GND SCREW	ABA1047
		FRONT PANEL (FOR A-300/HB TYPE)	ANB1400		52		
	29	REAR PANEL			53		
	30	METAL BONNET	AZN1799		54		
	31	BOTTOM PLATE			55		
	32	AC CORD SPACER	ANG1153		56		
	33	P.C.B HOLDER			57		
	34	HEAT SINK			58		
	35	OPERATING INSTRUCTIONS (E)	ARB1247		59		
	36	SCREW	BBT30P060FZK				
	37	NUTS (A-300/HB TYPE ONLY)	NK90FZB				

# WS, PACKING AND PARTS LIST

## 2.2 EXPLODED VIEWS

supplied.  
 ent parts indicates the importance of the safety  
 lacing, be sure to use parts of identical designa-

cept in stock. Their delivery time may be longer

36

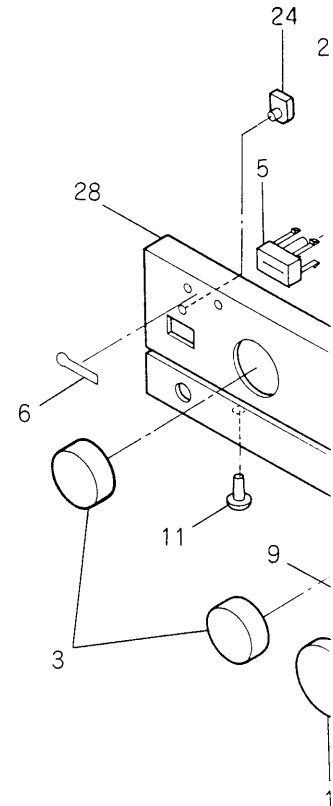
Parts No.	Mark	No.	Description	Parts No.
AAB1160		38	C1 CAPACITOR	CQMXA104J100
AAB1162			(FOR A-400/HB TYPE)	
AAB1164			C1 CAPACITOR	CQMXA473J100
AAD1366			(FOR A-300/HB TYPE)	
AAD1535	⚠	39	FU1 FUSE(T2.5A)	AEK-512
	⚠		(FOR A-400/HB TYPE)	
	⚠		FU1 FUSE(T1.6A)	AEK-510
AAM1029			(FOR A-300/HB TYPE)	
ABA-298	⚠	40	Q1 TRANSISTOR	2SC3281
ABA1009			(FOR A-400/HB TYPE)	
ABA1011	⚠		Q1 TRANSISTOR	2SC3181N
ABA1016			(FOR A-300/HB TYPE)	
ABA1048	⚠	41	Q2 TRANSISTOR	2SC3281
ABA1050			(FOR A-400/HB TYPE)	
ABA1082	⚠		Q2 TRANSISTOR	2SC3181N
ABH-052			(FOR A-300/HB TYPE)	
ABN-065	⚠	42	Q3 TRANSISTOR	2SA1302
			(FOR A-400/HB TYPE)	
ADG1070	⚠		Q3 TRNSISTOR	2SA1264N
AEC-441			(FOR A-300/HB TYPE)	
AEE1014	⚠	43	Q4 TRANSISTOR	2SA1302
AHA1335			(FOR A-400/HB TYPE)	
AHD1865	⚠		Q4 TRANSISTOR	2SA1264N
			(FOR A-300/HB TYPE)	
AHD1866	⚠	44	Q5 TRANSISTOR	2SC4137
	⚠	45	Q6 TRANSISTOR	2SC4137
AHG1016		46	S1 SWITCH	ASU1035
		47	S2 SWITCH	ASU1037
AMB1651	⚠	48	T1 POWER TRANSFORMER	ATS1279
AMR1160			(FOR A-400/HB TYPE)	
AMR2140	⚠		T1 POWER TRANSFORMER	ATS1278
			(FOR A-300/HB TYPE)	
AMR2142		49	AF COMPLEX ASS'Y	AWZ2868
			(FOR A-400/HB TYPE)	
			AF COMPLEX ASS'Y	AWZ2870
			(FOR A-300/HB TYPE)	
ANB1399		50	POWER SW ASS'Y	
ANB1400		51	LED ASS'Y	
		52	SHIELD ASS'Y	
			(FOR A-400/HB TYPE)	
AZN1799		53	HEADPHONE ASS'Y	
		54	-----	
ANG1153		55	BINDER	
		56	SHIELD ASS'Y	
			(FOR A-300/HB TYPE)	
ARB1247		57	WASHER	ABE1018
			(A-400/HB TYPE ONLY)	
		58	NUTS	NK90FCU
			(A-400/HB TYPE ONLY)	
BBT30P060FZK		59	GND SCREW	ABA1047
(E ONLY) NK90FZB				

A

B

C

D



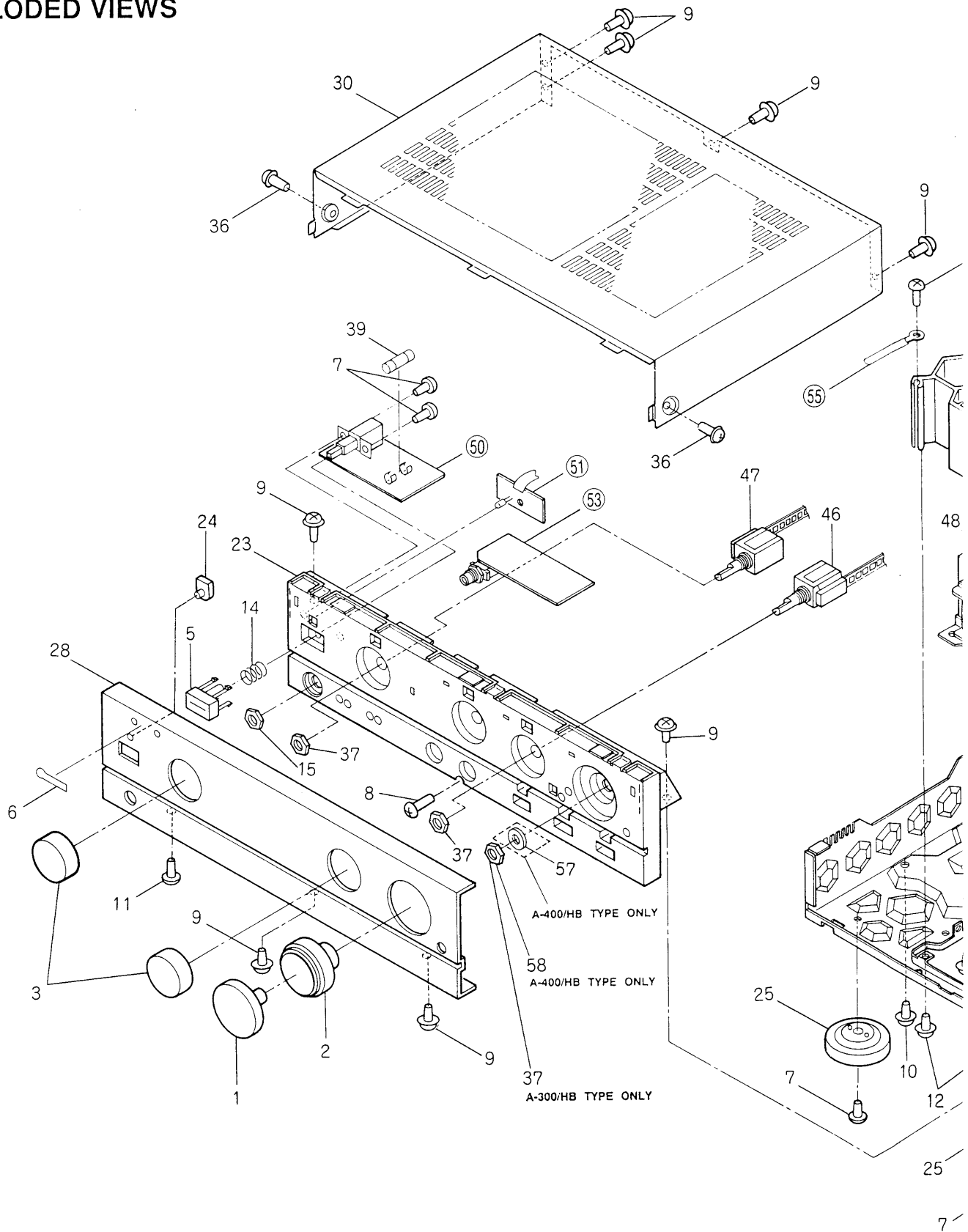
## 2.2 EXPLODED VIEWS

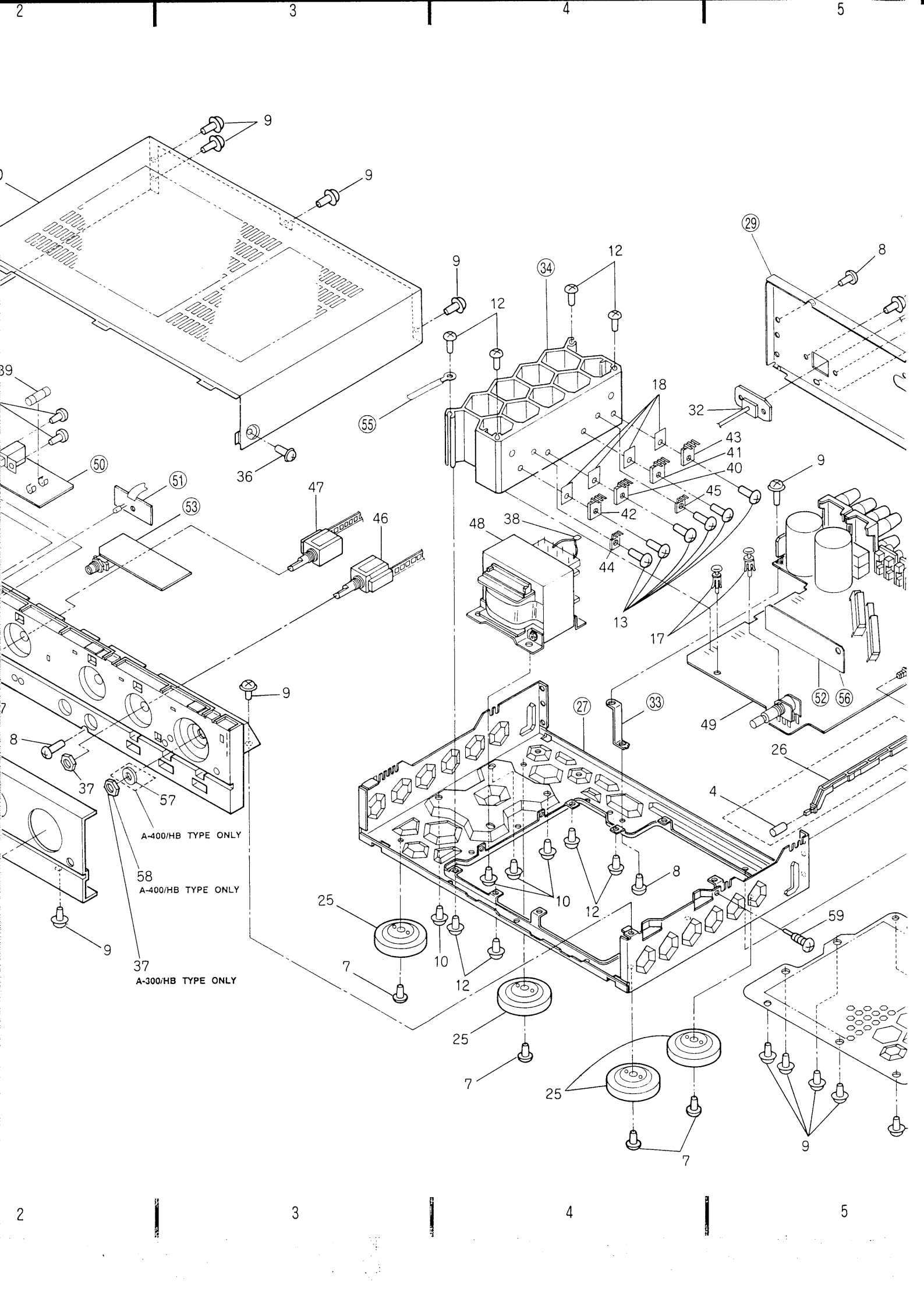
A

B

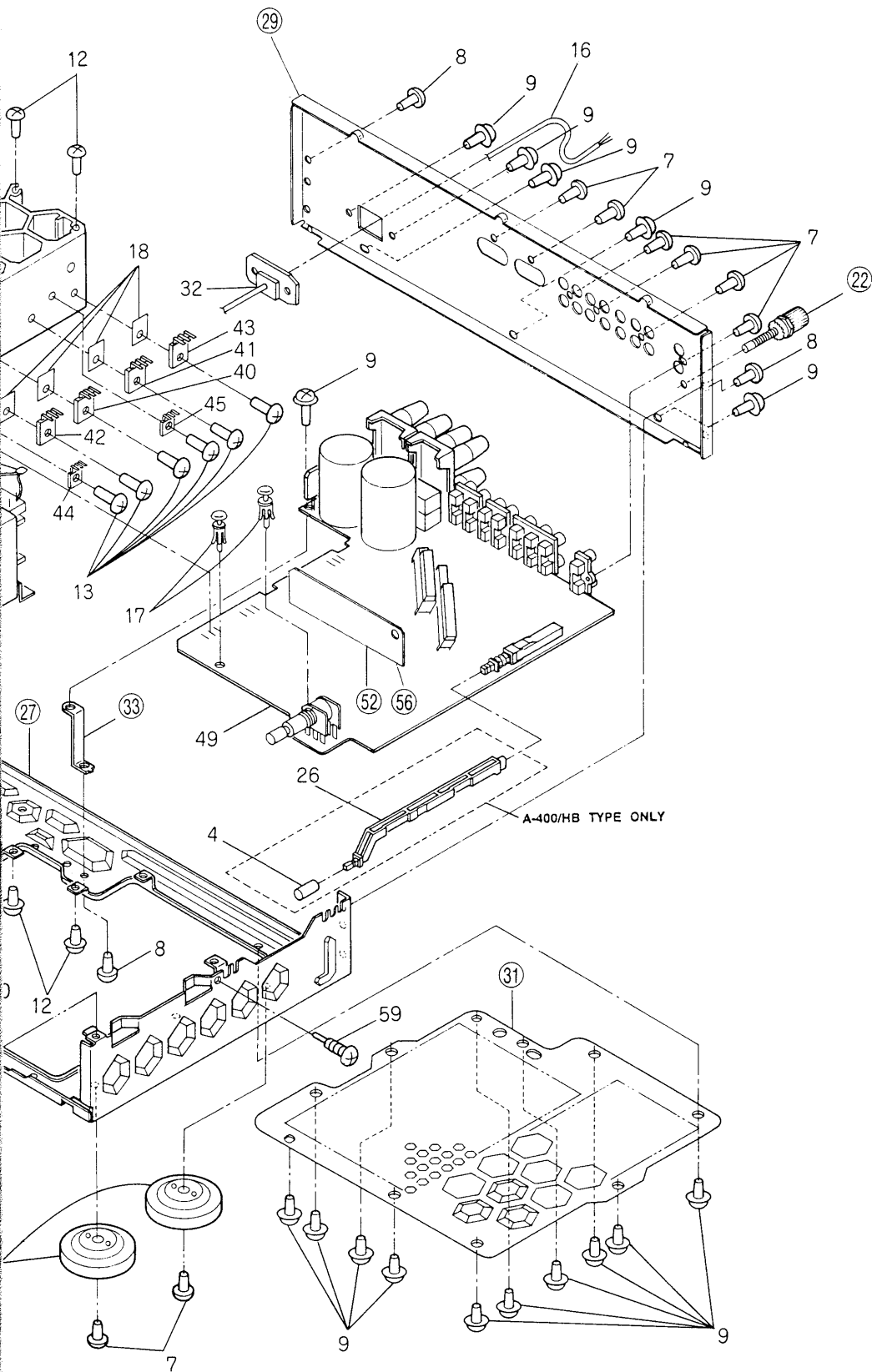
C

D





# 2.3 PACKING



A

B

C

D

5

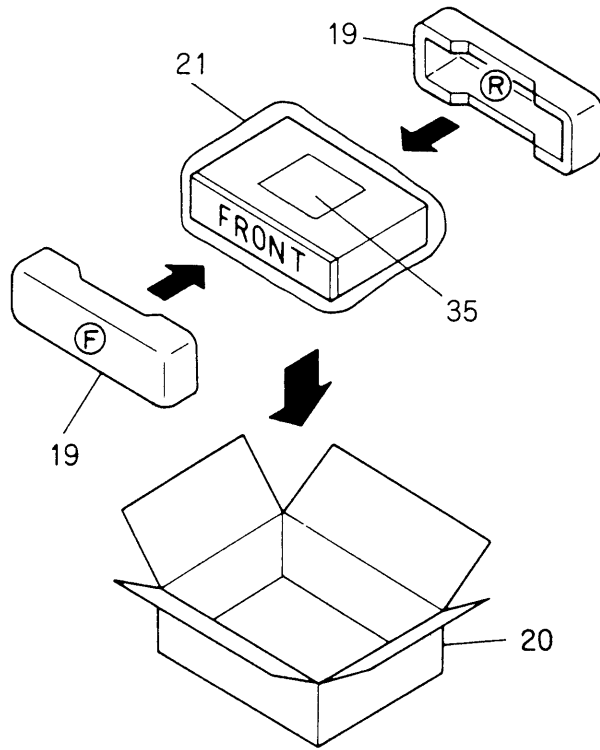
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5

4

### 2.3 PACKING

A



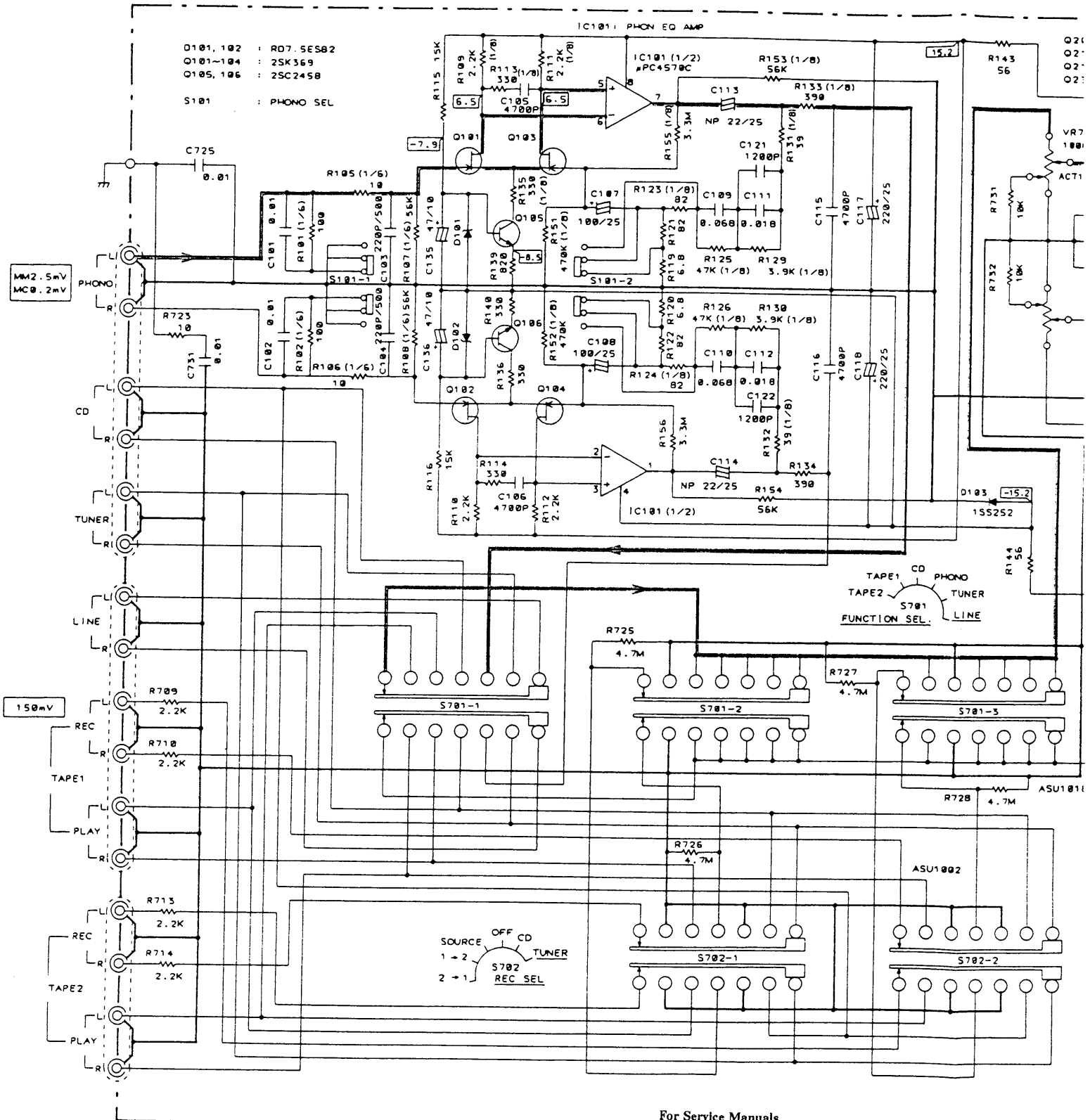
B

C

D



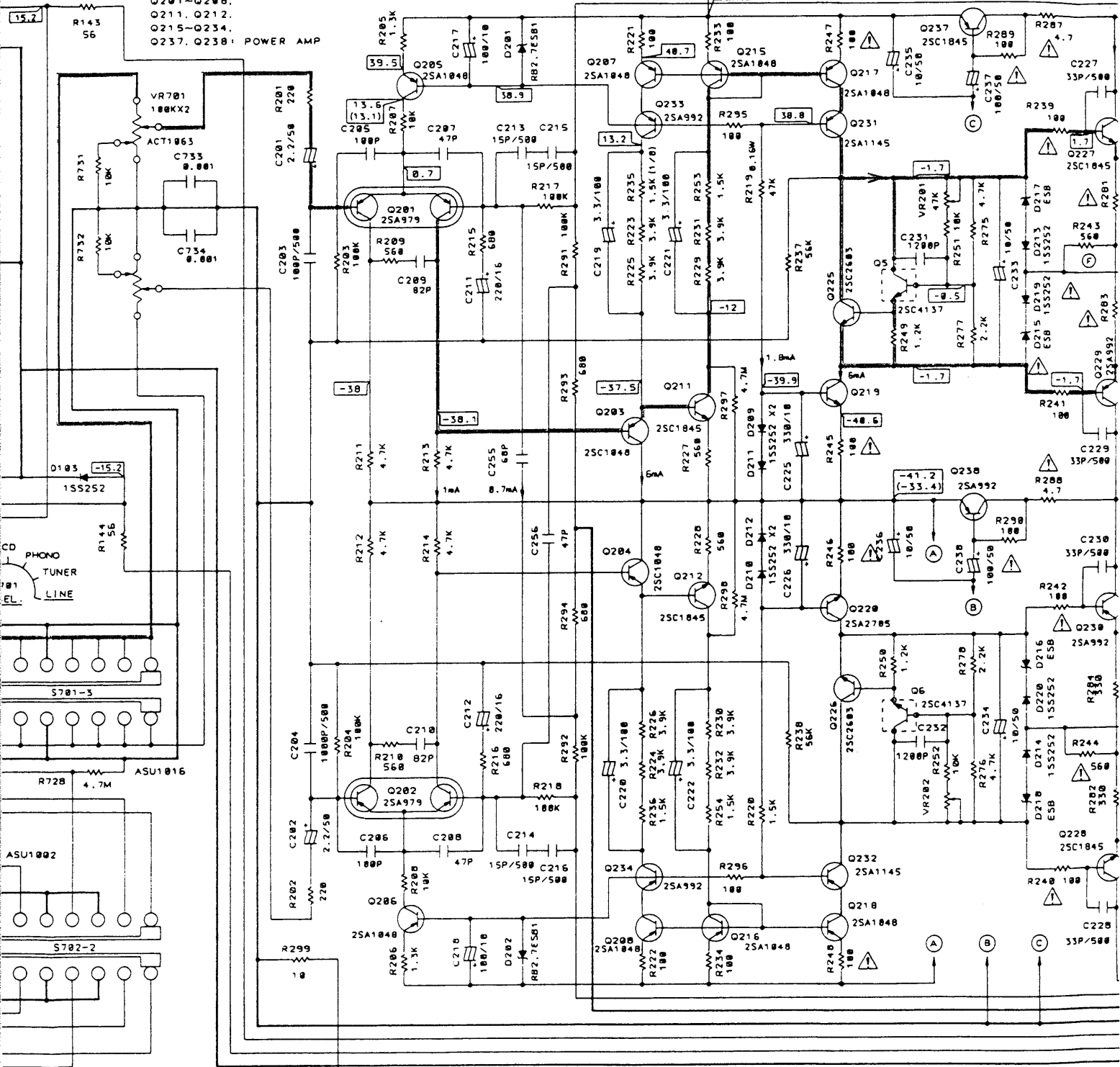
### 3. SCHEMATIC DIAGRAM (FOR A-400/HB TYPE)

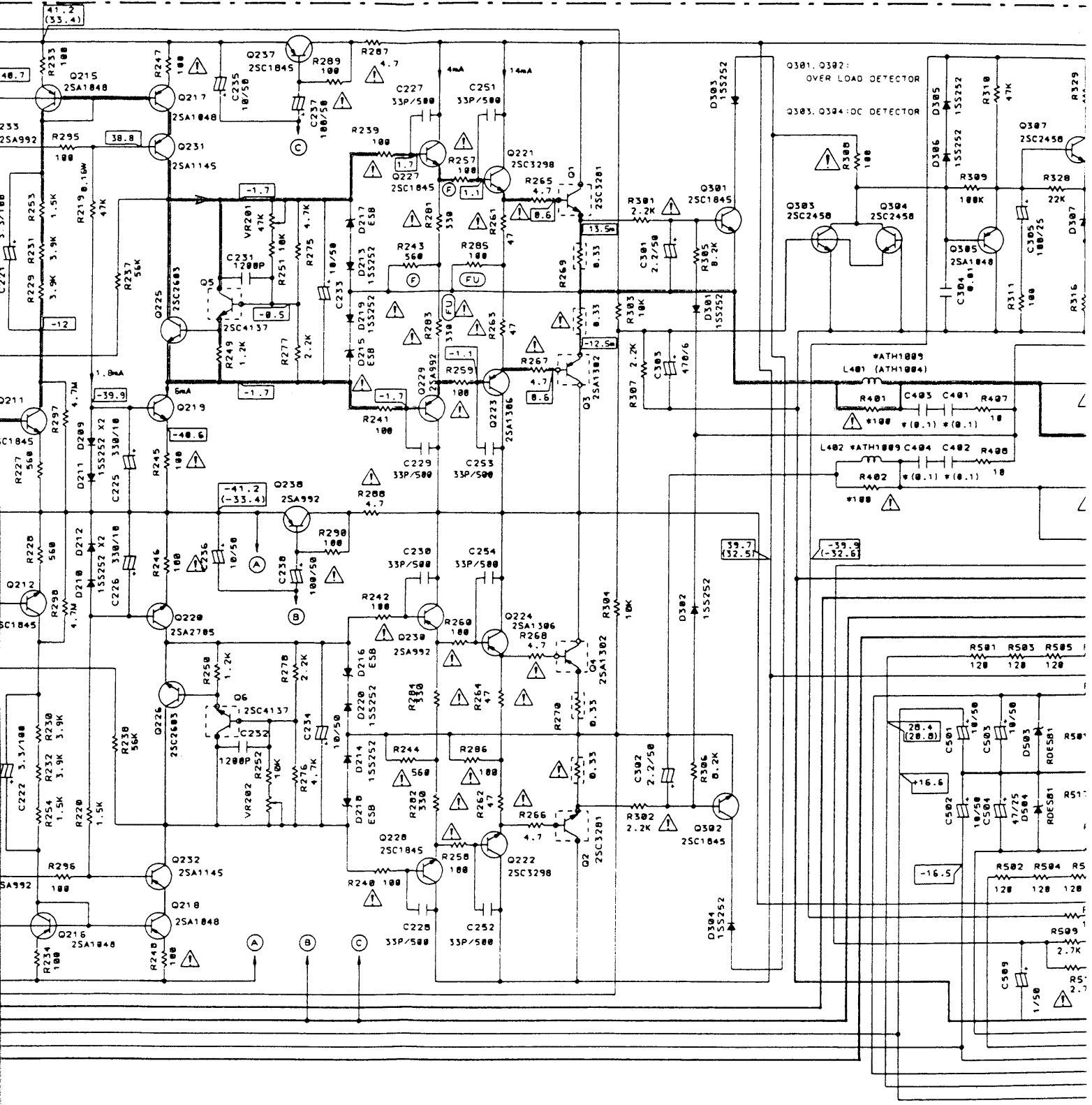


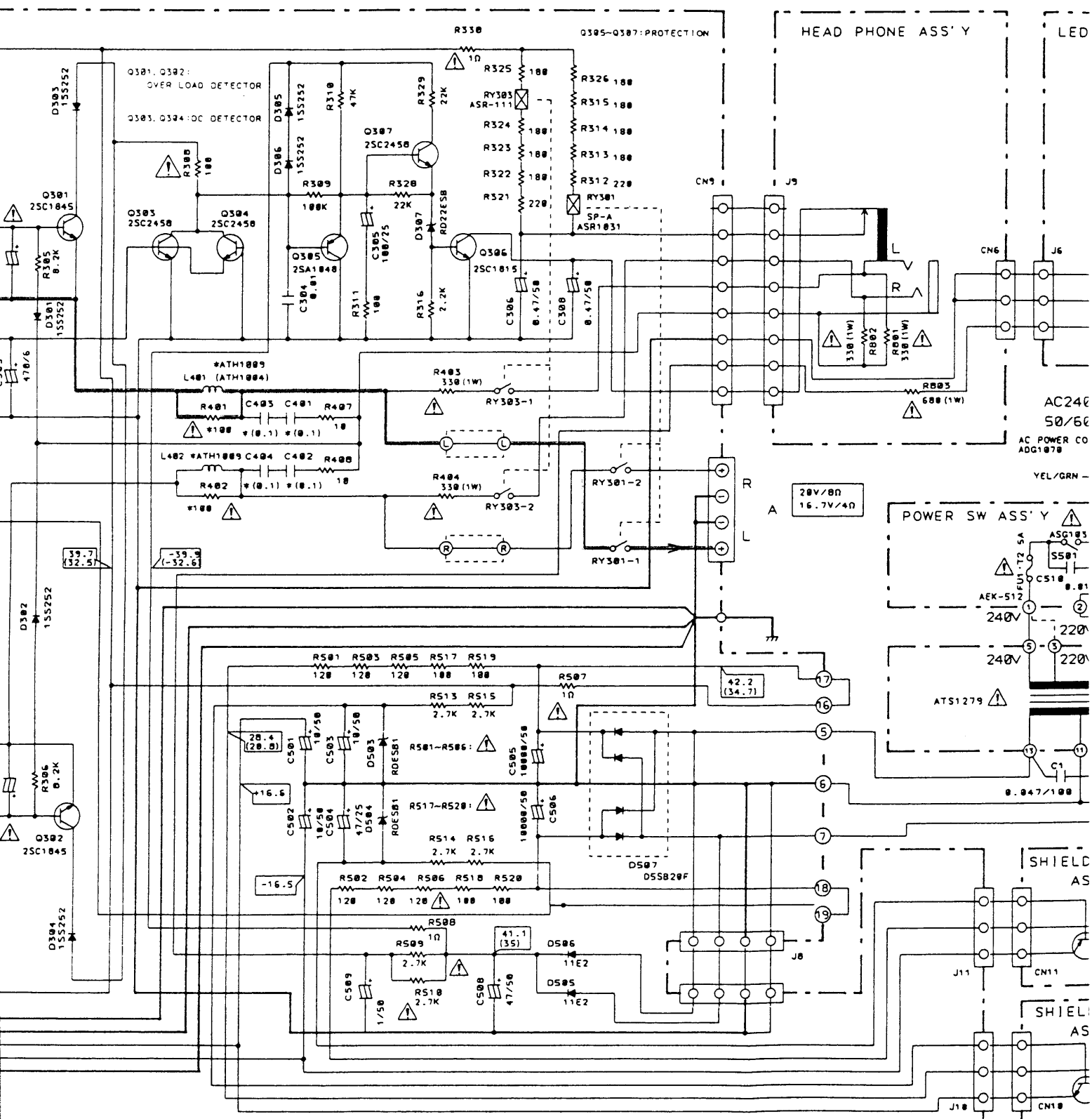
For Service Manuals  
**MAURITRON SERVICES**  
 8 Cherry Tree Road, Chinnor  
 Oxfordshire, OX9 4QY.  
 Tel (01844) 351694  
 Fax (01844) 352554  
 email:- sales@mauriton.co.uk

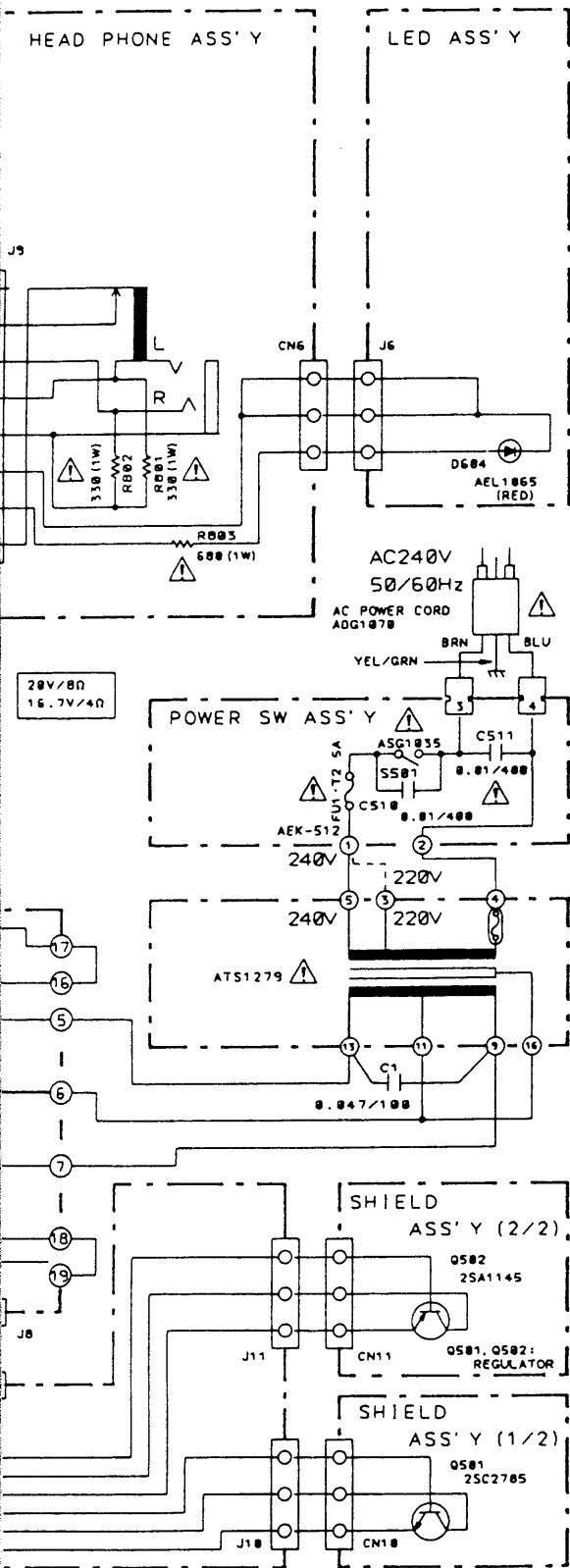
# AF COMPLEX ASS'Y (AWZ2868)

Q201-Q208,  
Q211, Q212,  
Q215-Q234,  
Q237, Q238: POWER AMP









**1. RESISTORS:**

Indicated in  $\Omega$ , 1/8, 1/4W,  $\pm 5\%$  tolerance unless otherwise noted  
 K; k $\Omega$ , M; M $\Omega$ , (F);  $\pm 1\%$ , (G);  $\pm 2\%$ , (K);  $\pm 10\%$ , (M);  $\pm 20\%$  tolerance.

**2. CAPACITORS:**

Indicated in capacity ( $\mu\text{F}$ ) / voltage (V) unless otherwise noted p; pF.  
 Indication without voltage is 50V except electrolytic capacitor.

**3. VOLTAGE CURRENT:**

- $\square$  V ; Signal voltage at (50W + 50W/8 $\Omega$ , 70W + 70W/4 $\Omega$ ) output (1kHz).
- $\square$  ; DC voltage (V) at no input signal.  
 Value in ( ) is DC voltage at rated power.
- mA ; DC current (V) at no input signal.
- mV ; Signal voltage at FM 400Hz  $\pm 75\text{Hz}$  DEV.

**4. OTHERS**

- $\leftarrow$  ; Signal route.
- $\odot$  ; Adjusting point.
- The  $\otimes$  mark 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.
- $\triangle$  marked capacitor and resistor have parts number.
- This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

**5. SWITCHES (The underline indicates the switch position)**

- S501 : POWER SW (ON-OFF)
- S101 : PHONO SEL MM/MC
- S701 : FUNCTION SEL (TAPE 2 - TAPE 1 - CD - PHONO - TUNER - LINE)
- S702 : REC SEL (2-1 - 1-2 - SOURCE - OFF - CD - TUNER)

**Line Voltage Selection**

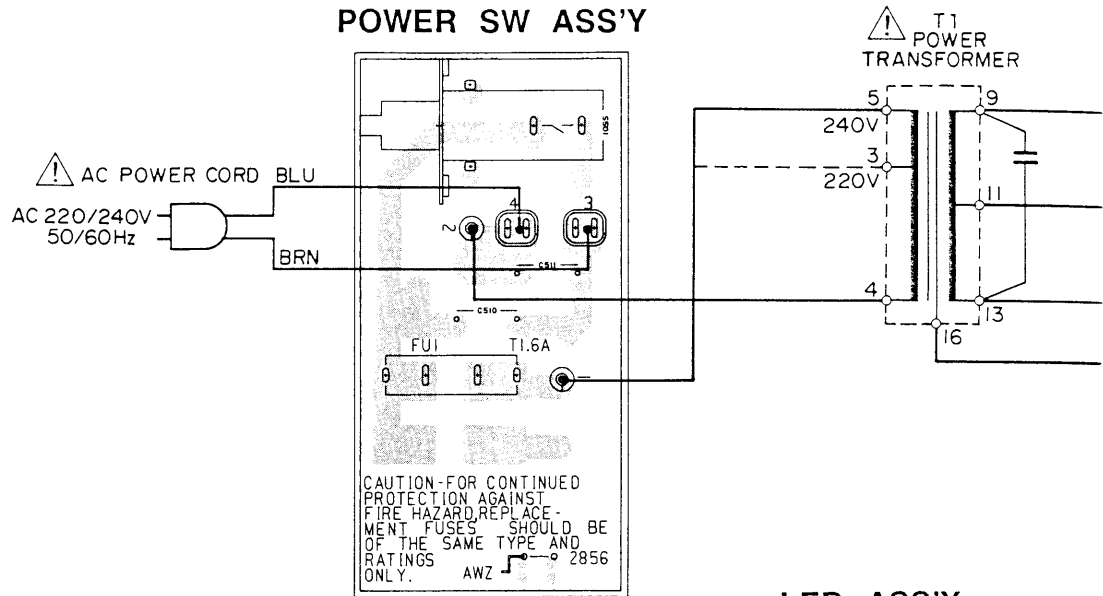
Line voltage can be changed with following steps.

1. Disconnect the AC power cord.
2. Remove the Bonnet case.
3. Change the connection of the power transformer lead wire.
4. Stick the line voltage label on the rear panel.

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

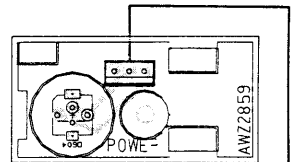
# 4. P.C. BOARDS CONNECTION DIAGRAM (FOR A-400/HB TYPE)

A



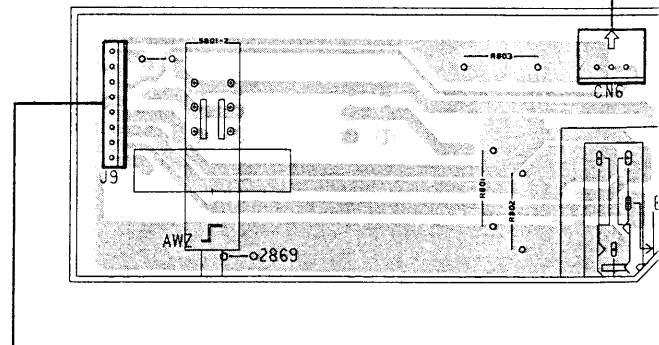
B

## LED ASS'Y



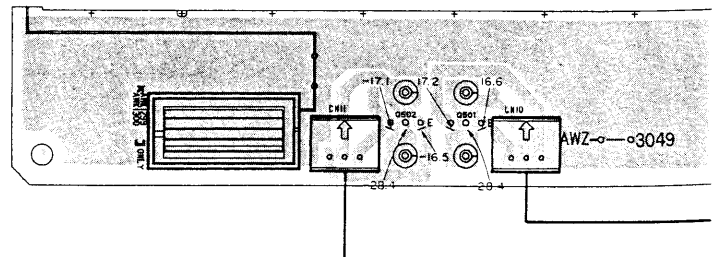
C

## HEADPHONE ASS'Y



D

## SHIELD ASS'Y



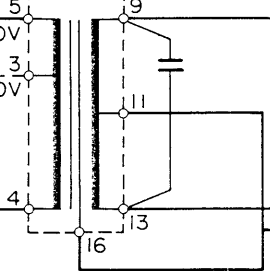
# RAM (FOR A-400/HB TYPE)

# AF COMPLEX ASS'Y (AWZ2868)

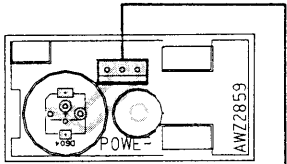
ASS'Y

T1  
POWER  
TRANSFORMER

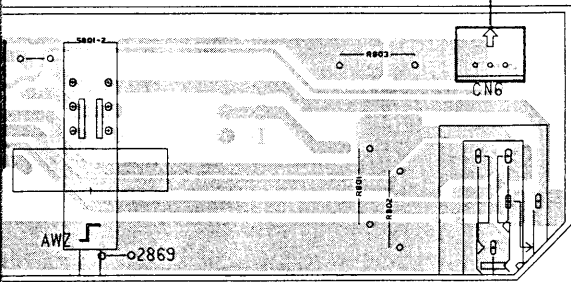
240V  
220V



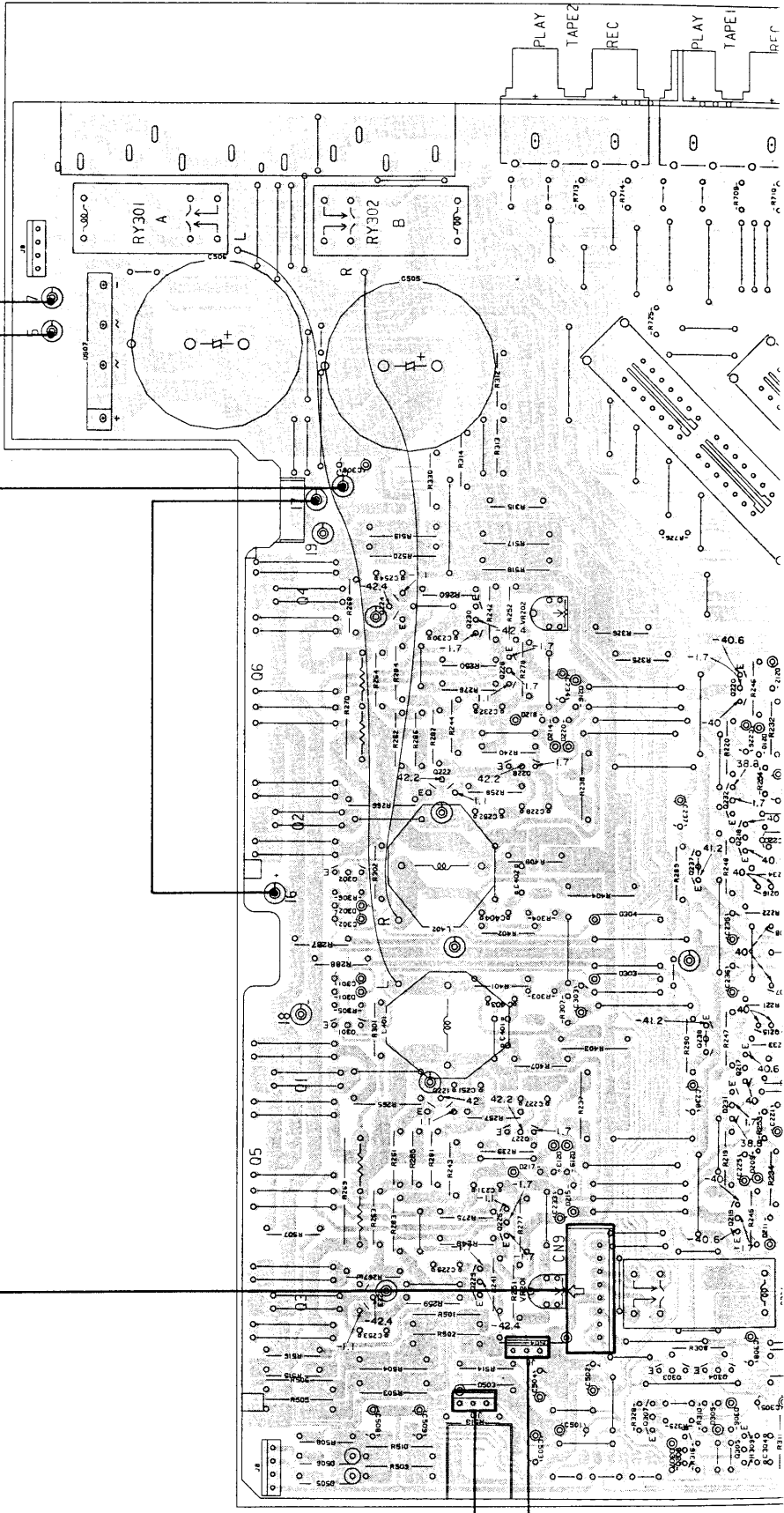
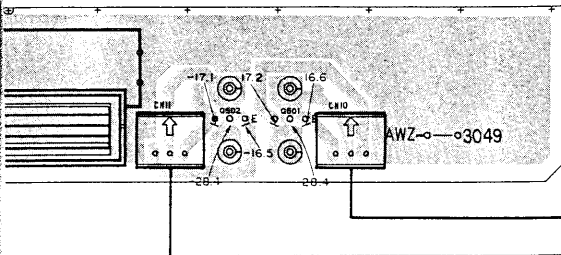
LED ASS'Y

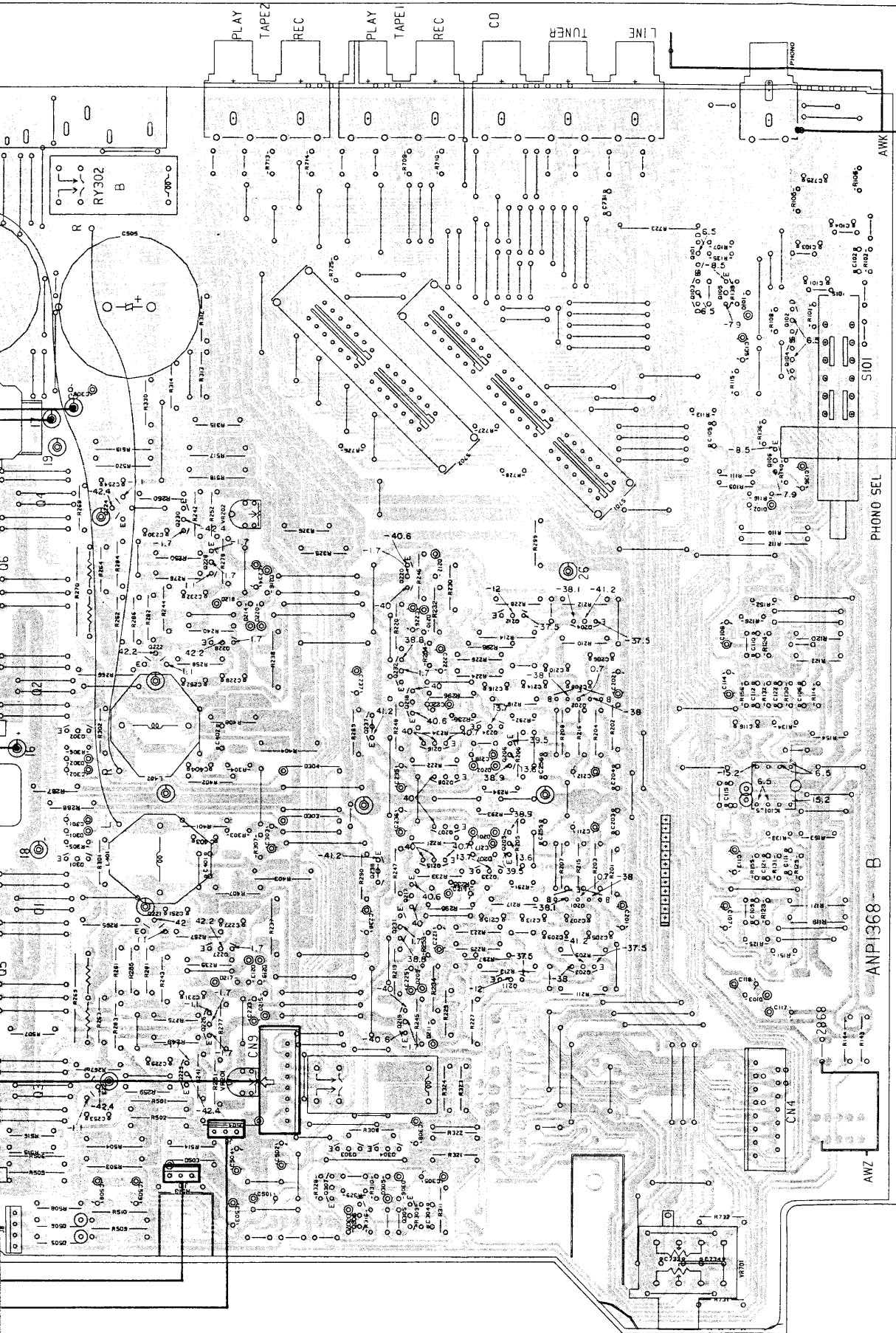


ADPHONE ASS'Y



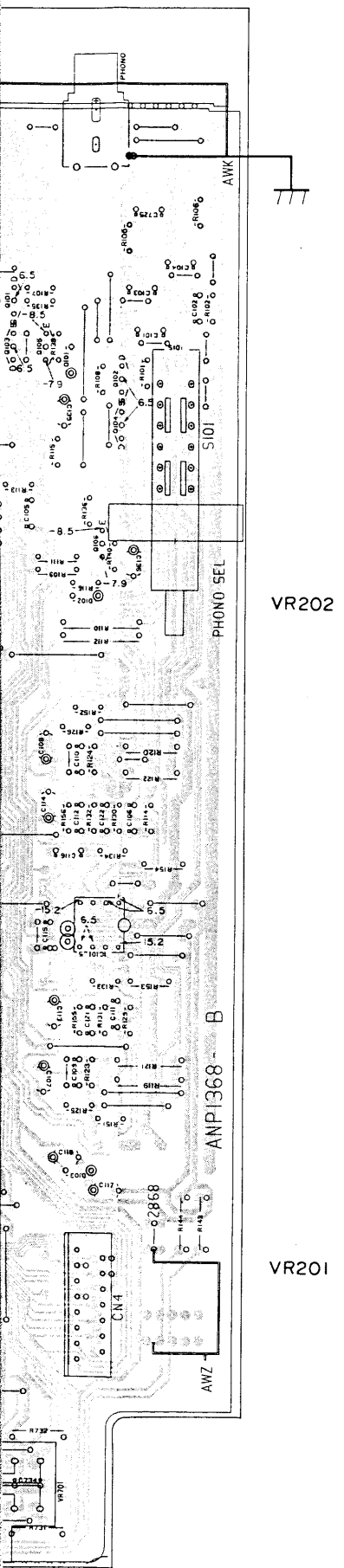
ASS'Y





VR202	Q224	
	Q230	
	Q226	Q220
		Q212
		Q204
	Q222	
	Q228	Q232
		Q218
		Q207
		Q237
	Q302	Q234
		Q216
		Q208
		Q207
		Q205
	Q301	Q238
		Q215
		Q233
	Q221	Q217
		Q201
	Q227	Q231
		Q203
		Q211
	Q225	Q219
VR201	Q229	
	Q223	
		Q303
		Q304
		Q307
		Q306
		Q305





Q101  
Q103  
Q105  
Q102  
Q104

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Oxfordshire, OX9 4QY.  
Tel (01844) 351694  
Fax (01844) 352554  
email:- sales@mauritron.co.uk

Q106

VR202  
Q224  
Q230  
Q226

Q220  
Q212  
Q204

Q222  
Q228

Q232  
Q218  
Q202  
Q237

Q302

Q234  
Q216  
Q206  
Q208

IC101

Q301

Q207  
Q205  
Q238  
Q215  
Q233

Q221

Q217

Q227

Q201  
Q231  
Q203  
Q211

Q225

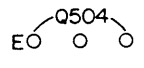
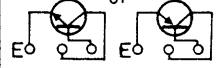
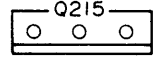
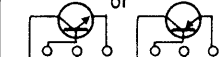
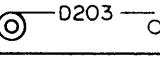
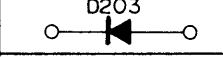
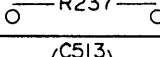
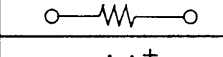
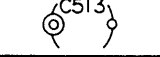
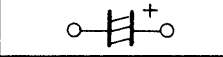
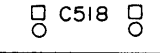
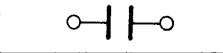
Q219

Q229

Q223

Q303  
Q304  
Q307  
Q306  
Q305

1. This P.C.B connection diagram is seen from the parts mount side.
2. The parts mounted on to the P.C.B can be replaced with those shown in the following correspondence table with wiring marks.

Indication of the P.C.B. pattern	Symbol of corresponding parts	Parts name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Condenser (Polar type)
		Condenser (Non-polar type)

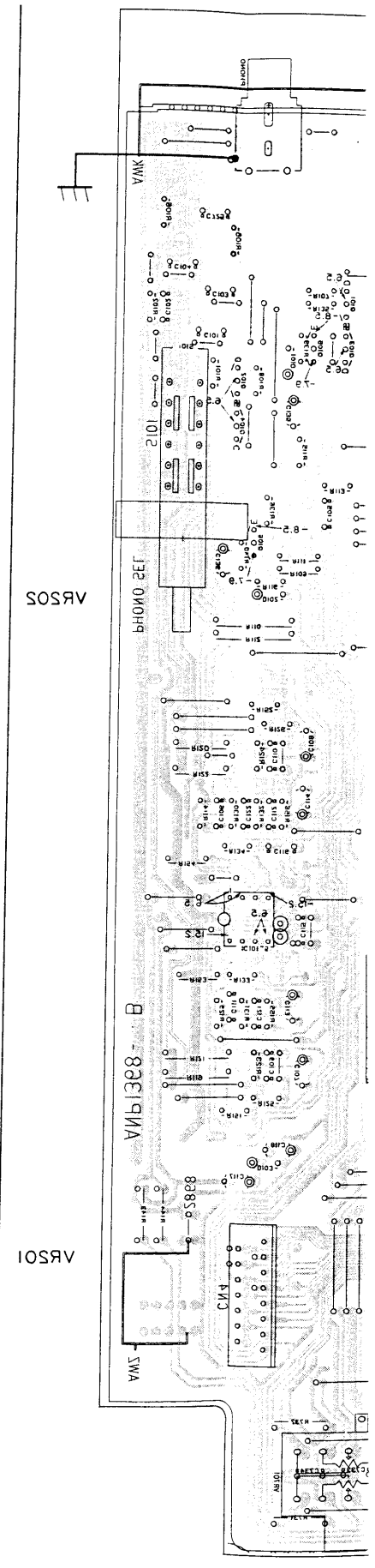
Others

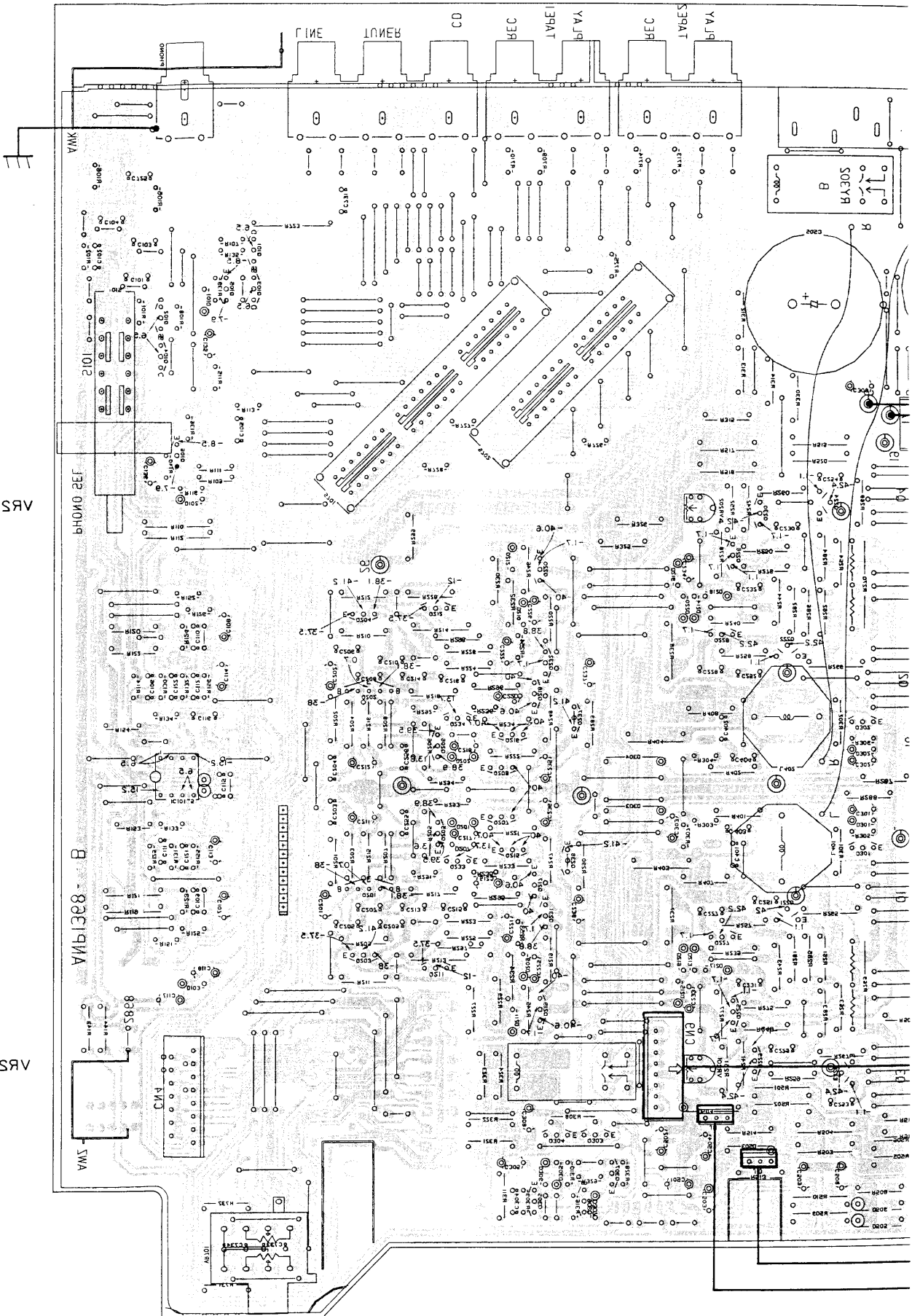
Wiring mark on the P.C.B pattern diagram	Parts list
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or semi-fixed resistor

3. The condenser terminal marked with double circles (⊙) represents (-) terminal.
4. The diode terminal marked with double circles (⊙) represents the cathode side.
5. The transistor terminal marked with "E" represents an emitter.

● View from soldering side

- Q302
- Q30E
- Q30L
- Q304
- Q303
- Q503
- Q501
- Q502
- Q503
- Q501
- Q501
- Q517
- Q533
- Q512
- Q538
- Q502
- Q502
- Q507
- Q508
- Q50E
- Q51E
- Q534
- Q53L
- Q505
- Q518
- Q535
- Q550
- Q504
- Q515
- Q55E
- Q305
- Q301
- Q551
- Q552
- Q553
- Q552
- Q51a
- Q10E
- Q104
- Q105
- Q10E
- Q103
- Q101





- 0302
- 030E
- 0301
- 0304
- 0303
- 0553
- 055a
- 0552
- 051a
- 0511
- 0503
- 0521
- 0521
- 0538
- 0502
- 0501
- 0517
- 0533
- 0512
- 0538
- 0502
- 0501
- 0531
- 0503
- 0521
- 0501
- 0508
- 050E
- 051E
- 0534
- 0537
- 0505
- 0518
- 0535
- 0558
- 0555
- 0504
- 0515
- 0550
- 055E
- 0530
- 0554

ARSO5

ARSO1

ВНЮИ РЕГ

В - 8215

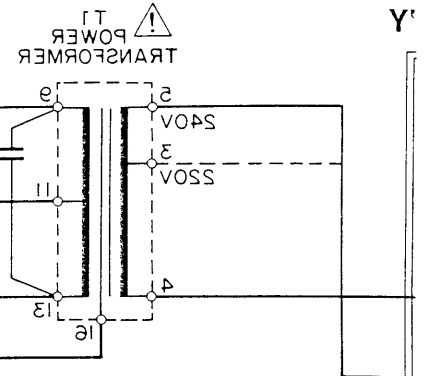
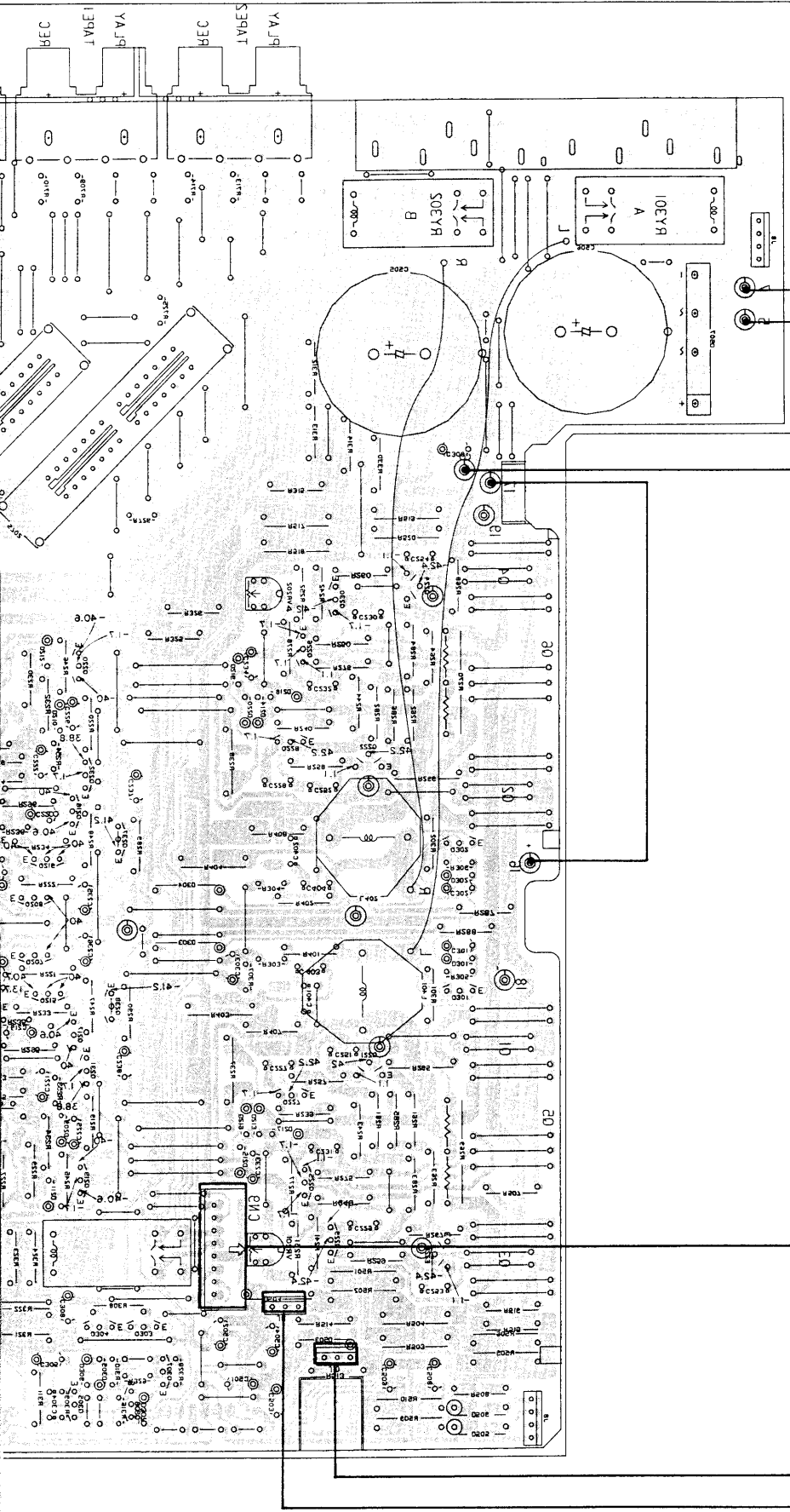
ΣWA

AMC

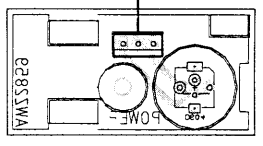
ARSO1

# 7M (FOR A-400/HB TYPE)

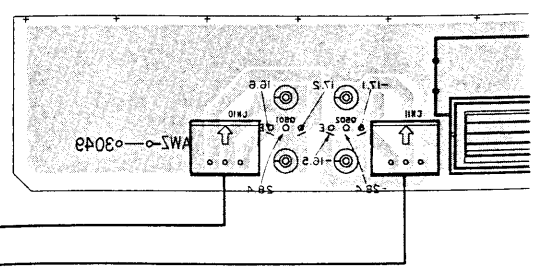
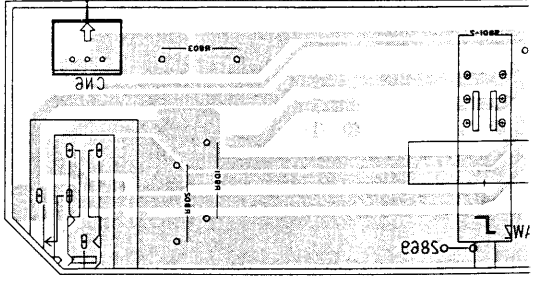
# AF COMPLEX ASSY (AW55868)



LED ASSY

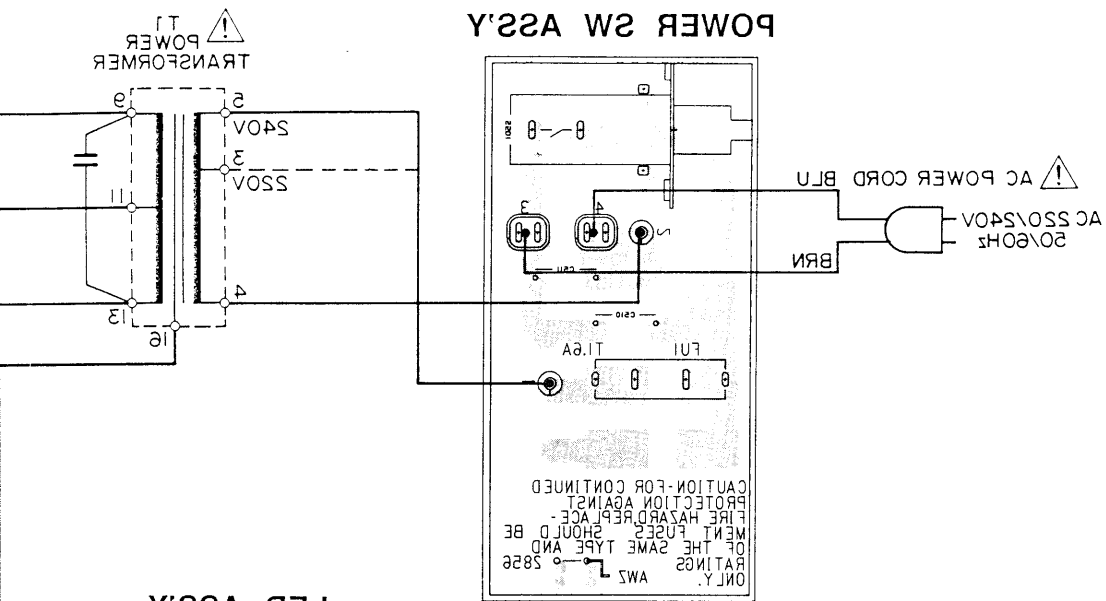


PHONE ASSY

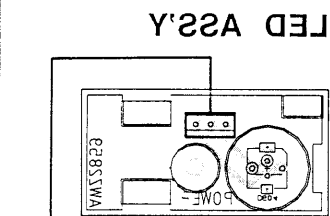


# 4.P.C. BOARDS CONNECTION DIAGRAM (FOR A-400\HB TYPE)

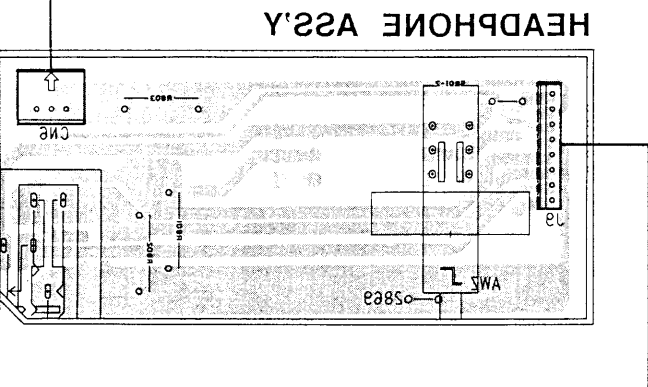
A



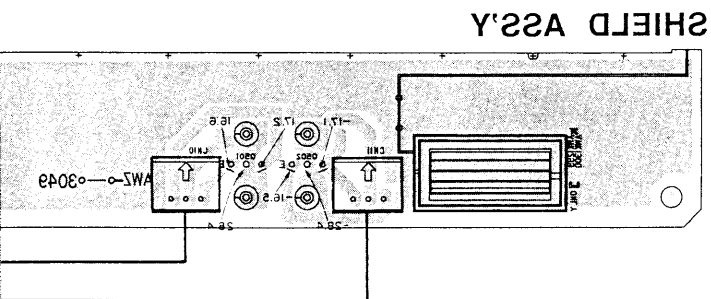
B



C



D



3

5

1

● View from soldering side

A

B

C

D

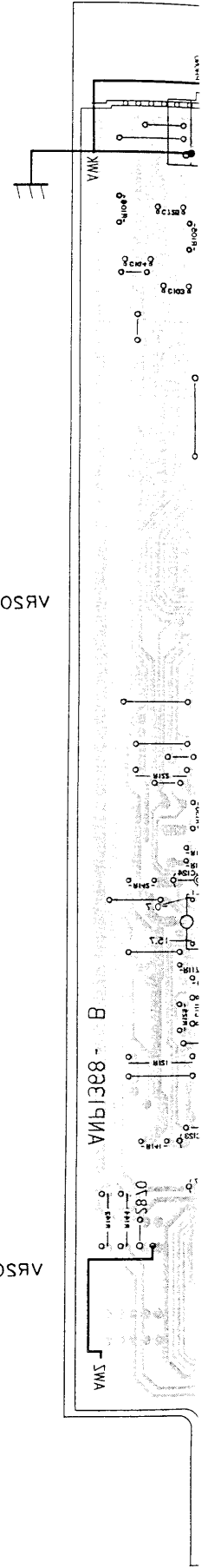
ARSOS

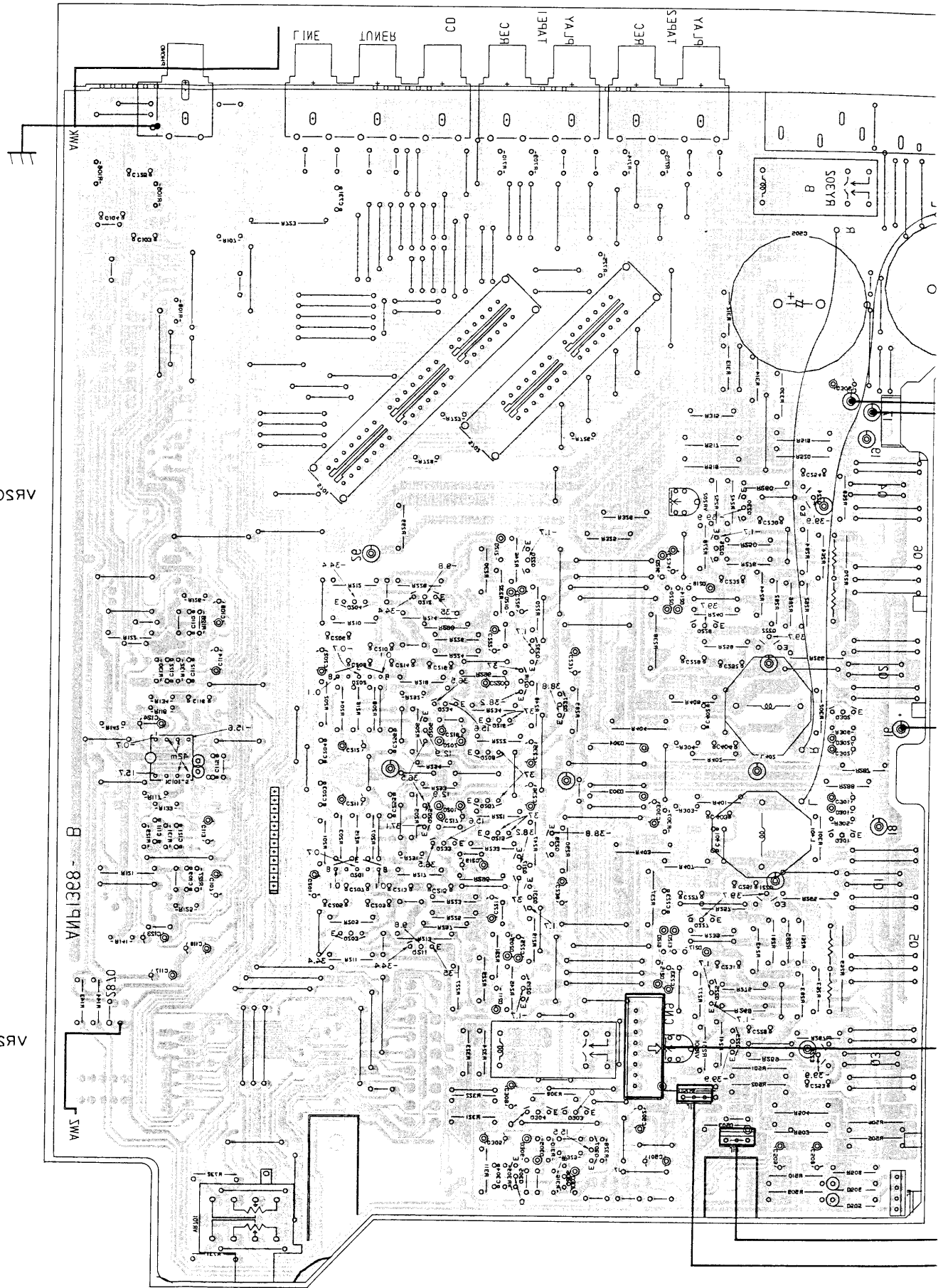
ARSOI

0502	0503	0508	0509	0510	0511	0512	0513	0514	0515	0516	0517	0518	0519	0520	0521	0522	0523	0524	0525	0526	0527	0528	0529	0530	0531	0532	0533	0534	0535	0536	0537	0538	0539	0540	0541	0542	0543	0544	0545	0546	0547	0548	0549	0550	0551	0552	0553	0554	0555	0556	0557	0558	0559	0560	0561	0562	0563	0564	0565	0566	0567	0568	0569	0570	0571	0572	0573	0574	0575	0576	0577	0578	0579	0580	0581	0582	0583	0584	0585	0586	0587	0588	0589	0590	0591	0592	0593	0594	0595	0596	0597	0598	0599	0600	0601	0602	0603	0604	0605	0606	0607	0608	0609	0610	0611	0612	0613	0614	0615	0616	0617	0618	0619	0620	0621	0622	0623	0624	0625	0626	0627	0628	0629	0630	0631	0632	0633	0634	0635	0636	0637	0638	0639	0640	0641	0642	0643	0644	0645	0646	0647	0648	0649	0650	0651	0652	0653	0654	0655	0656	0657	0658	0659	0660	0661	0662	0663	0664	0665	0666	0667	0668	0669	0670	0671	0672	0673	0674	0675	0676	0677	0678	0679	0680	0681	0682	0683	0684	0685	0686	0687	0688	0689	0690	0691	0692	0693	0694	0695	0696	0697	0698	0699	0700	0701	0702	0703	0704	0705	0706	0707	0708	0709	0710	0711	0712	0713	0714	0715	0716	0717	0718	0719	0720	0721	0722	0723	0724	0725	0726	0727	0728	0729	0730	0731	0732	0733	0734	0735	0736	0737	0738	0739	0740	0741	0742	0743	0744	0745	0746	0747	0748	0749	0750	0751	0752	0753	0754	0755	0756	0757	0758	0759	0760	0761	0762	0763	0764	0765	0766	0767	0768	0769	0770	0771	0772	0773	0774	0775	0776	0777	0778	0779	0780	0781	0782	0783	0784	0785	0786	0787	0788	0789	0790	0791	0792	0793	0794	0795	0796	0797	0798	0799
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IC101

ВИ1388 - B





ARSO5

ARSO1

- 0554
- 0530
- 055E
- 050
- 051
- 053
- 058
- 0505
- 051
- 050
- 051
- 052
- 053
- 054
- 055
- 056
- 057
- 058
- 059
- 05A
- 05B
- 05C
- 05D
- 05E
- 05F
- 0501
- 051
- 052
- 053
- 054
- 055
- 056
- 057
- 058
- 059
- 05A
- 05B
- 05C
- 05D
- 05E
- 05F

838-381381

AW

03  
03  
03  
03

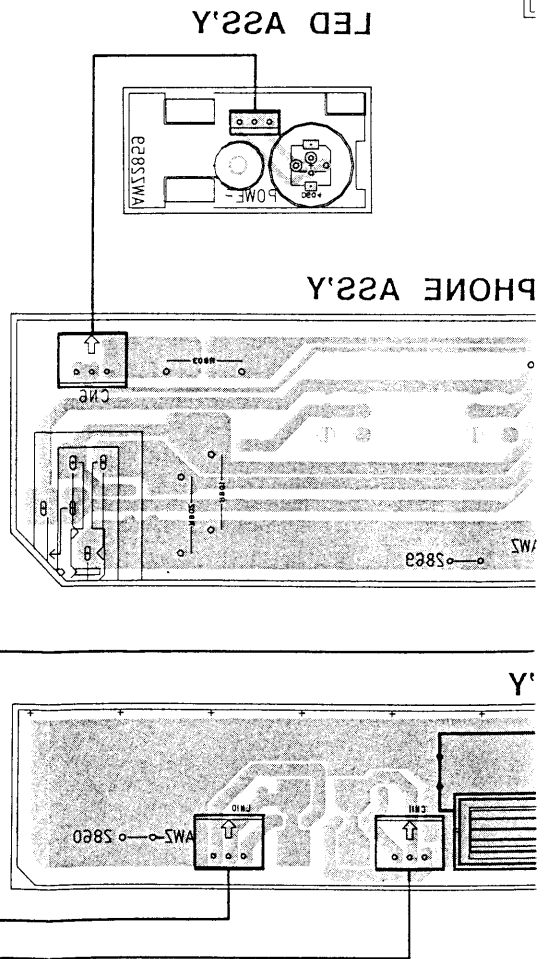
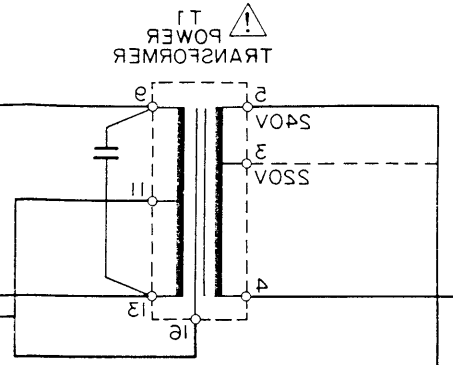
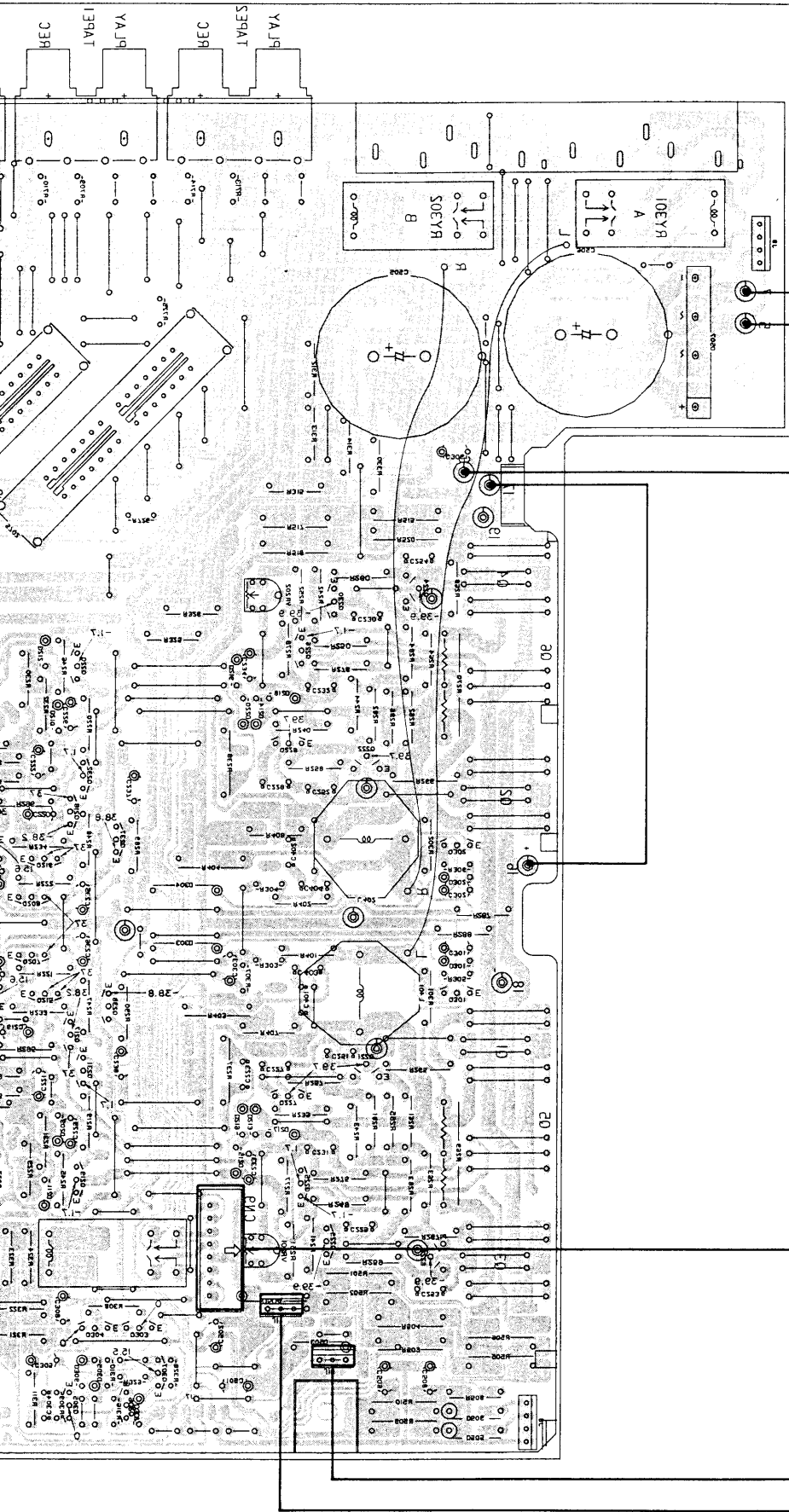
5

8

2

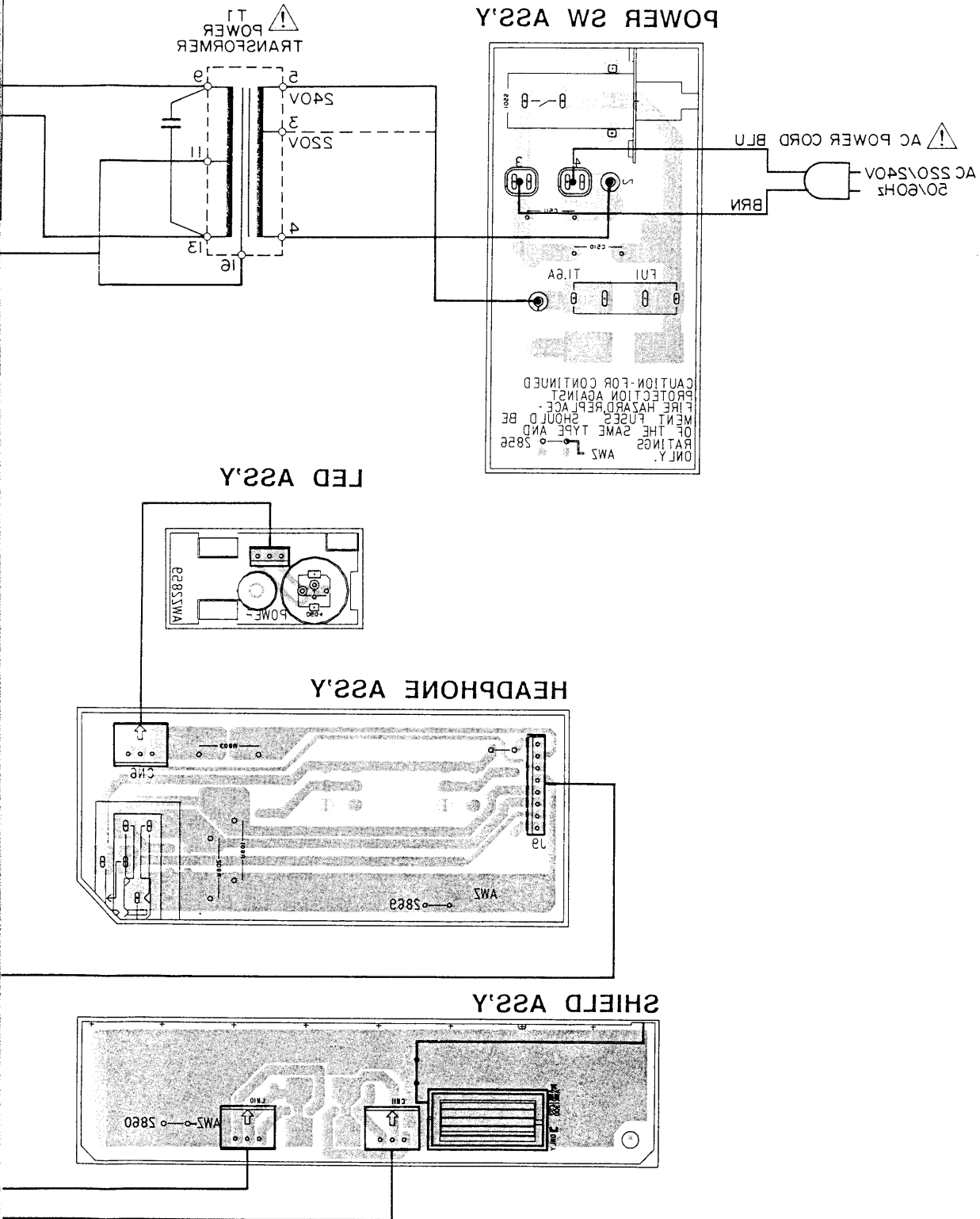
# 7M (FOR A-300HB TYPE)

## AF COMPLEX ASSY (AW52870)

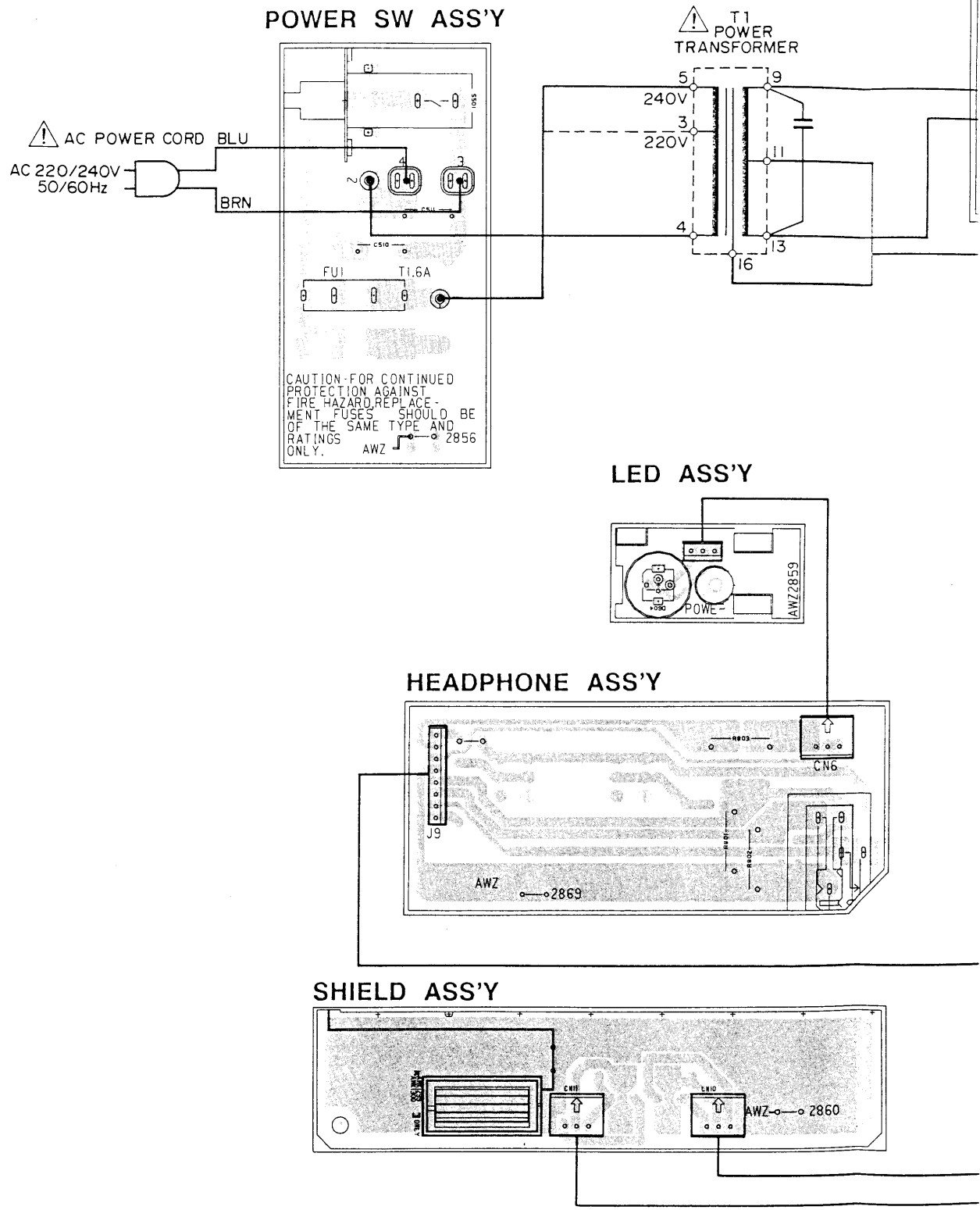




# 5. P.C. BOARDS CONNECTION DIAGRAM (FOR A-300\HB TYPE)



# 5. P.C. BOARDS CONNECTION DIAGRAM (FOR A-300/HB TYPE)

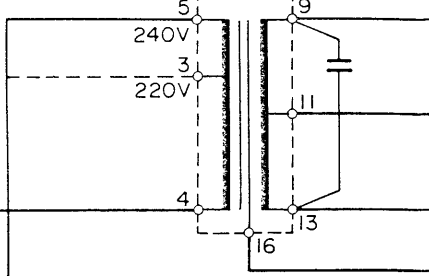


AM (FOR A-300/HB TYPE)

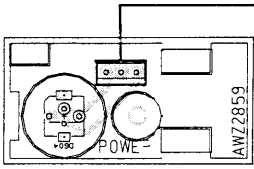
AF COMPLEX ASS'Y (AWZ2870)

Y

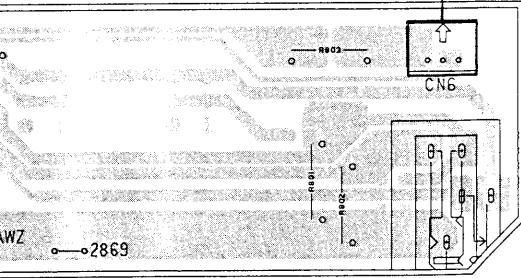
T1  
POWER  
TRANSFORMER



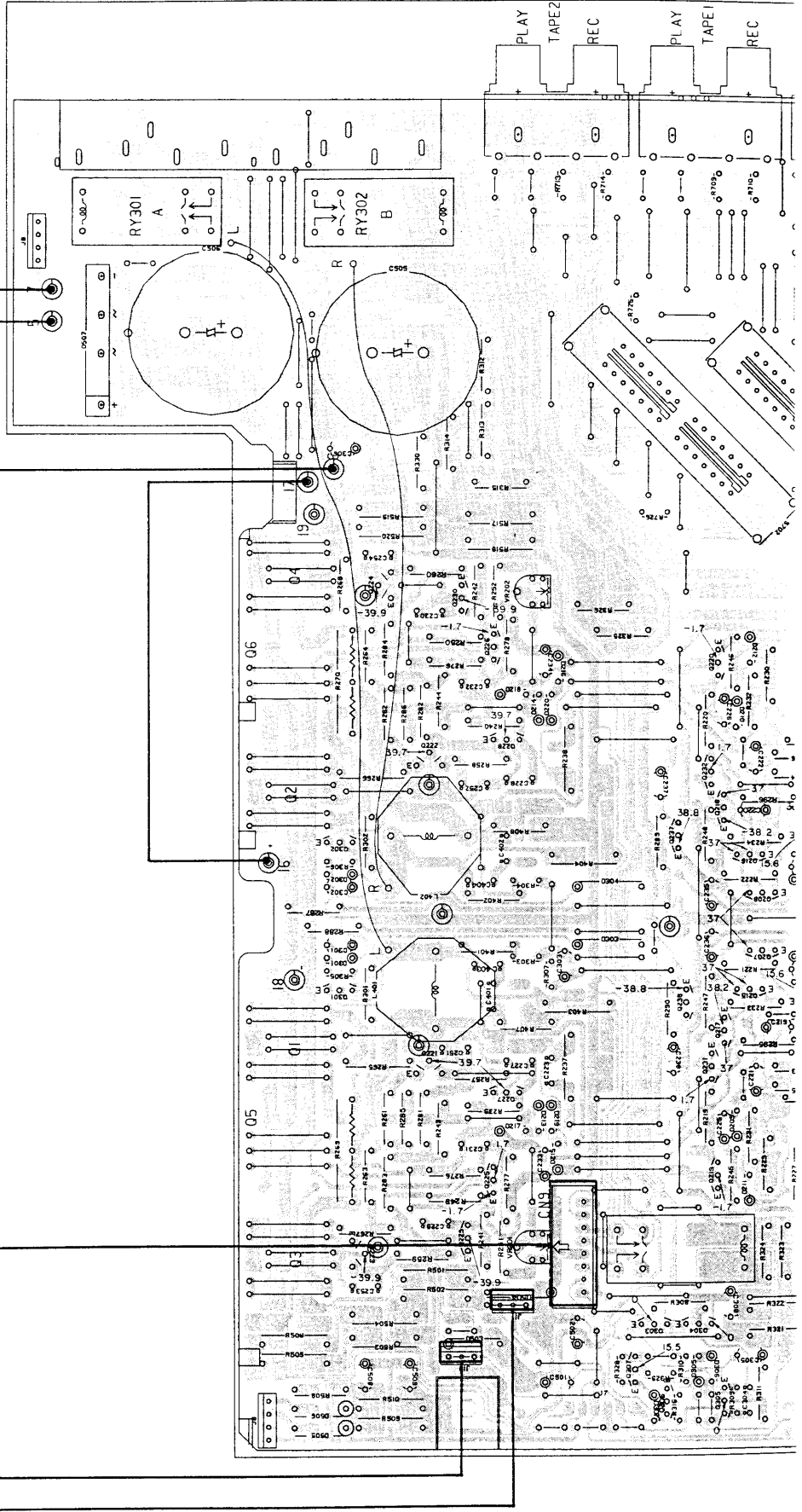
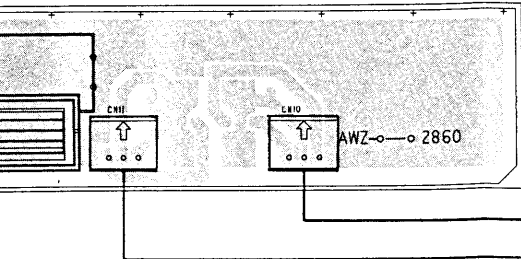
LED ASS'Y

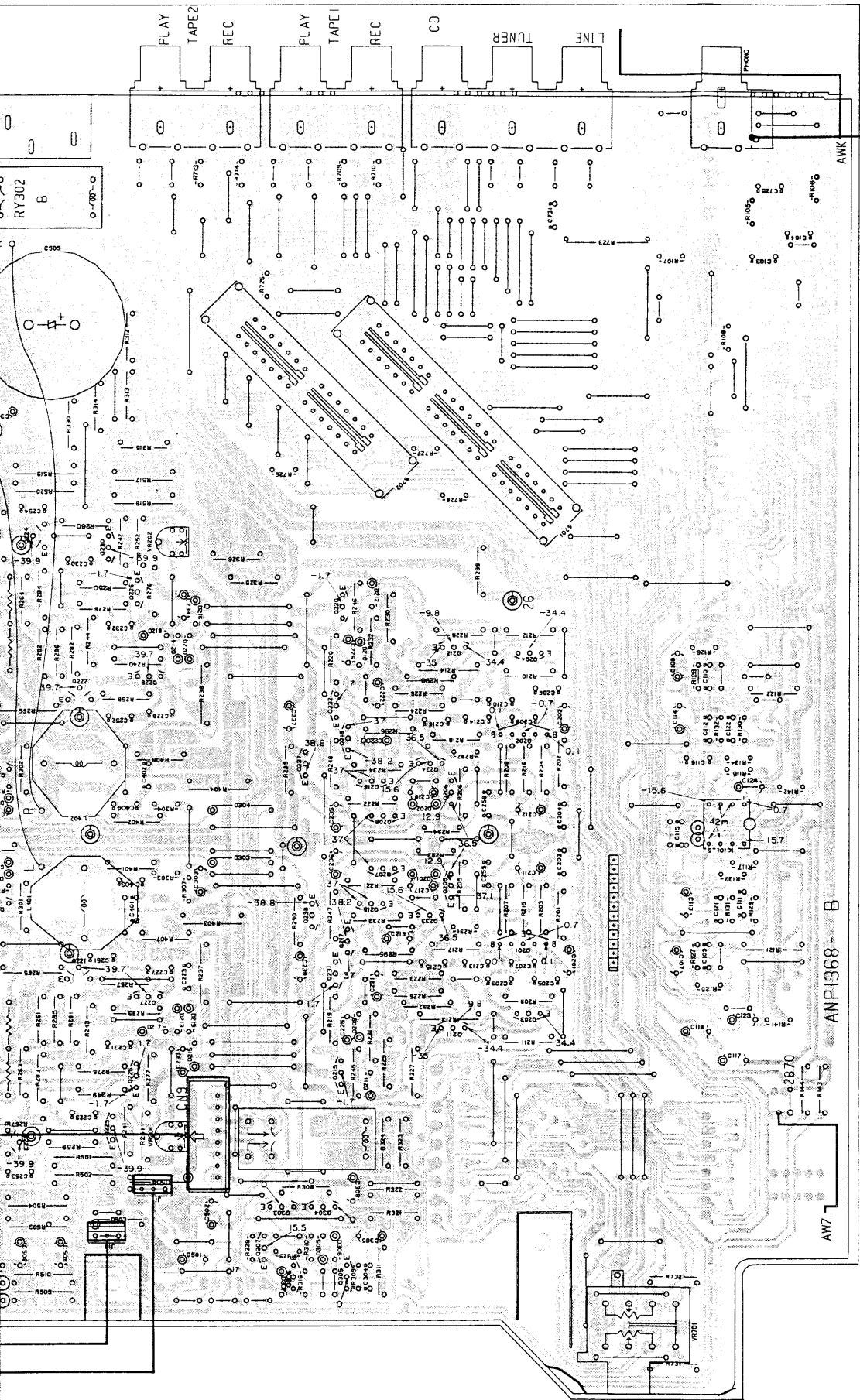


PHONE ASS'Y

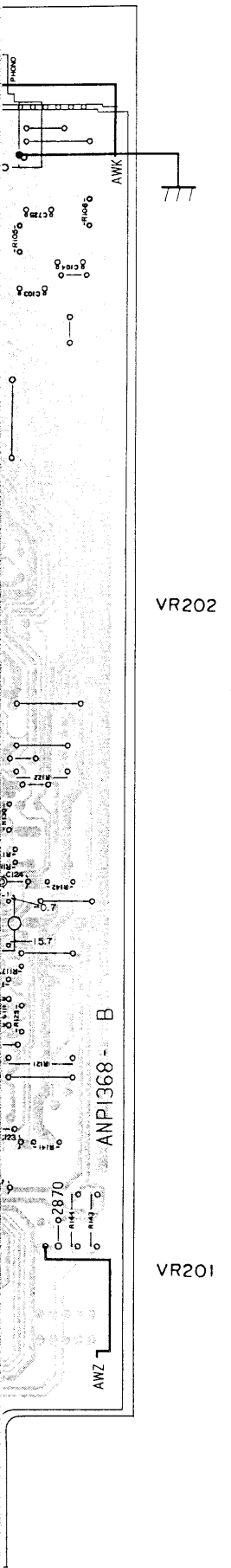


Y





VR202	Q224	
	Q230	
	Q226	Q220
		Q212
		Q204
	Q222	
	Q228	Q232
		Q218
		Q202
		Q237
	Q302	Q234
		Q216
		Q206
		Q208
		IC101
		Q207
		Q205
		Q238
		Q215
		Q233
	Q221	Q217
		Q201
	Q227	Q231
		Q203
		Q211
	Q225	Q219
VR201	Q229	
	Q223	
		Q303
		Q304
		Q307
		Q306
		Q305



- Q224
- Q230
- Q226 Q220
- Q212
- Q204
- Q222
- Q228 Q232
- Q218
- Q202
- Q237
- Q302 Q234
- Q216
- Q206
- Q208
- Q207
- Q205
- Q301 Q238
- Q215
- Q233
- Q221 Q217
- Q201
- Q227 Q231
- Q203
- Q211
- Q225 Q219
- Q229
- Q223
- Q303
- Q304
- Q307
- Q306
- Q305

IC101

- This P.C.B connection diagram is seen from the parts mount side.
- The parts mounted on to the P.C.B can be replaced with those shown in the following correspondence table with wiring marks.

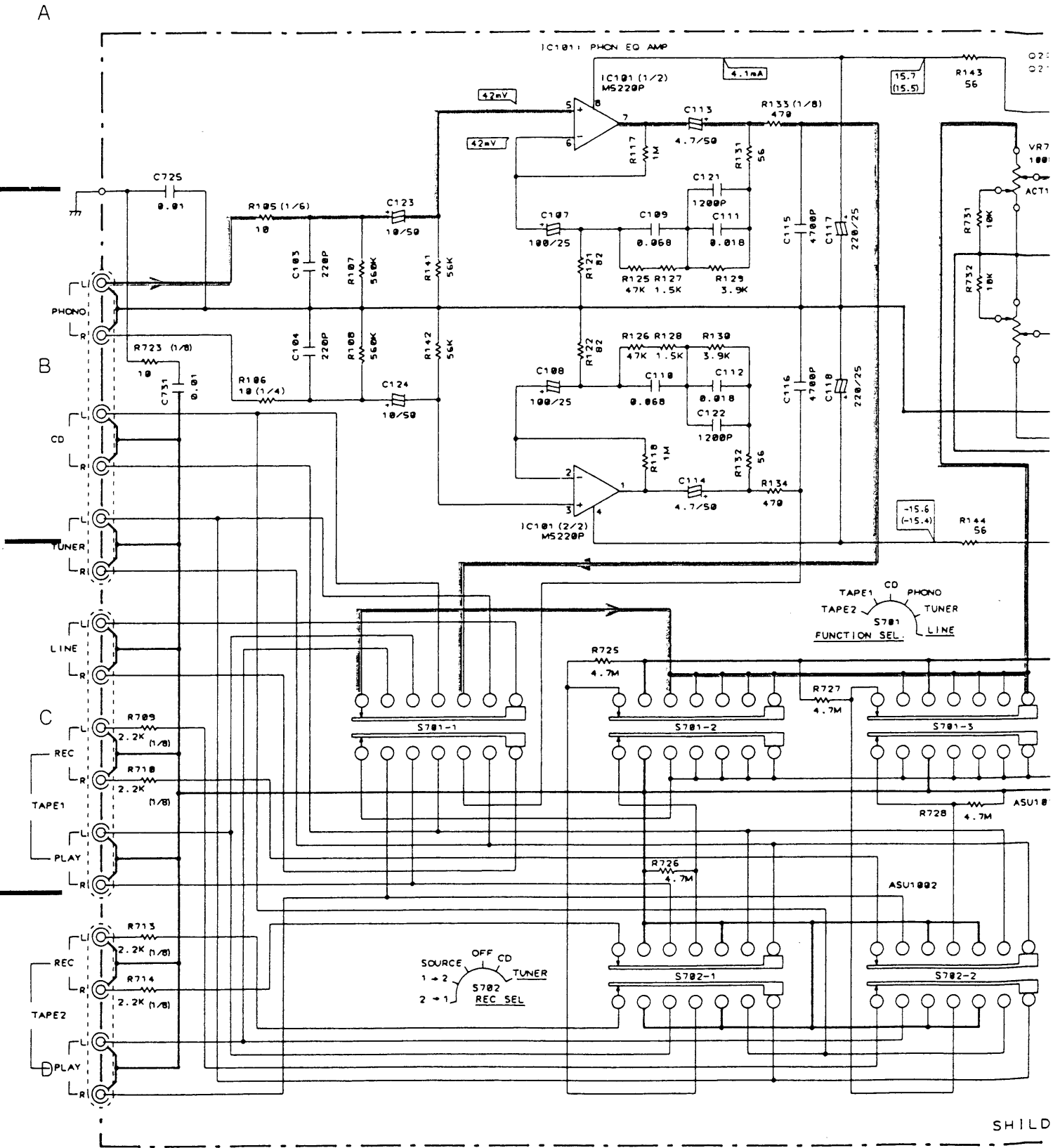
Indication of the P.C.B. pattern	Symbol of corresponding parts	Parts name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Condenser (Polar type)
		Condenser (Non-polar type)

Others

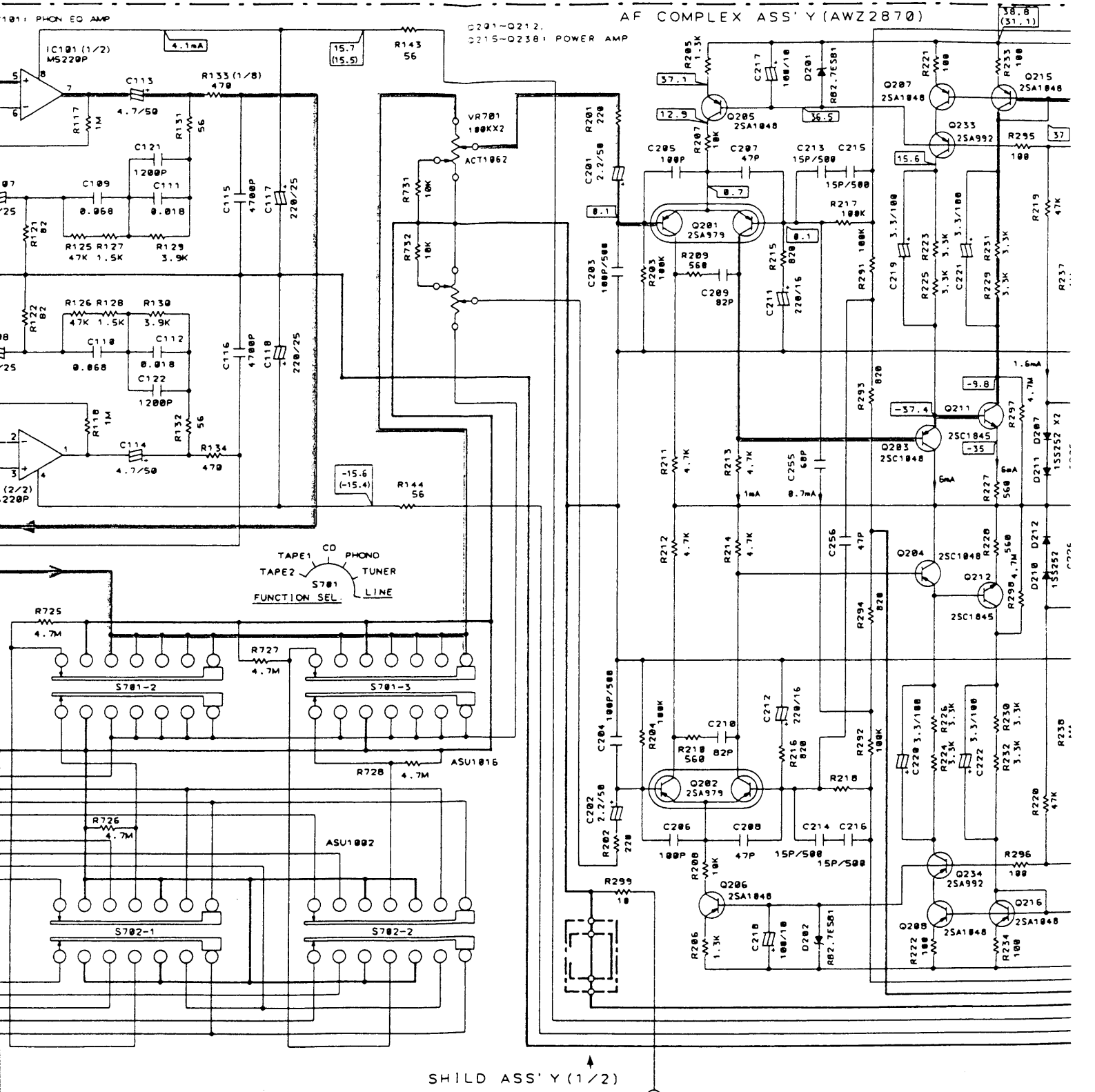
Wiring mark on the P.C.B pattern diagram	Parts list
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or semi-fixed resistor

- The condenser terminal marked with double circles (⊙) represents (-) terminal.
- The diode terminal marked with double circles (⊙) represents the cathode side.
- The transistor terminal marked with "E" represents an emitter.

# 6. SCHEMATIC DIAGRAM (FOR A-300/HB TYPE)

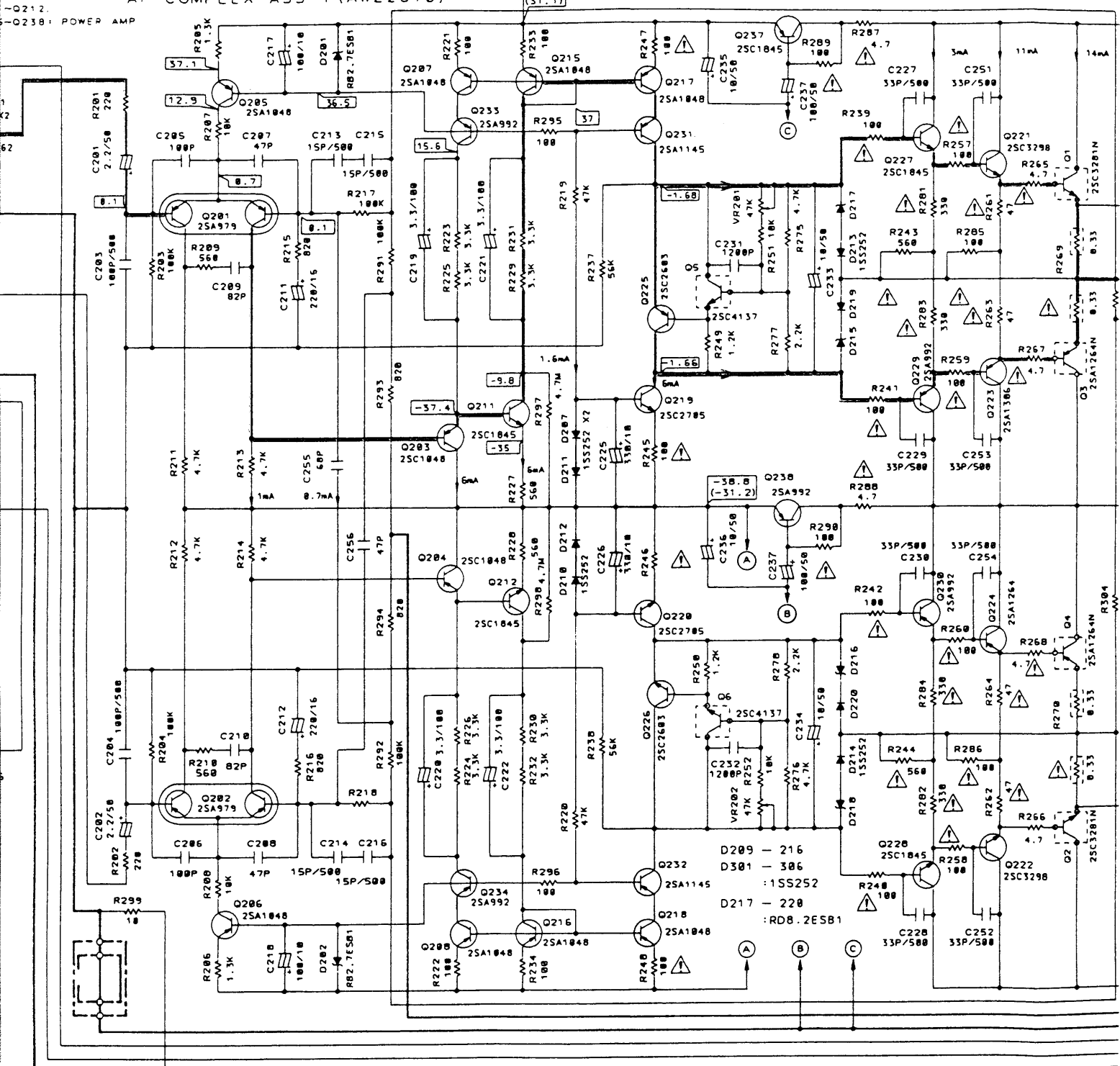


R A-300/HB TYPE)



AF COMPLEX ASS'Y (AWZ2870)

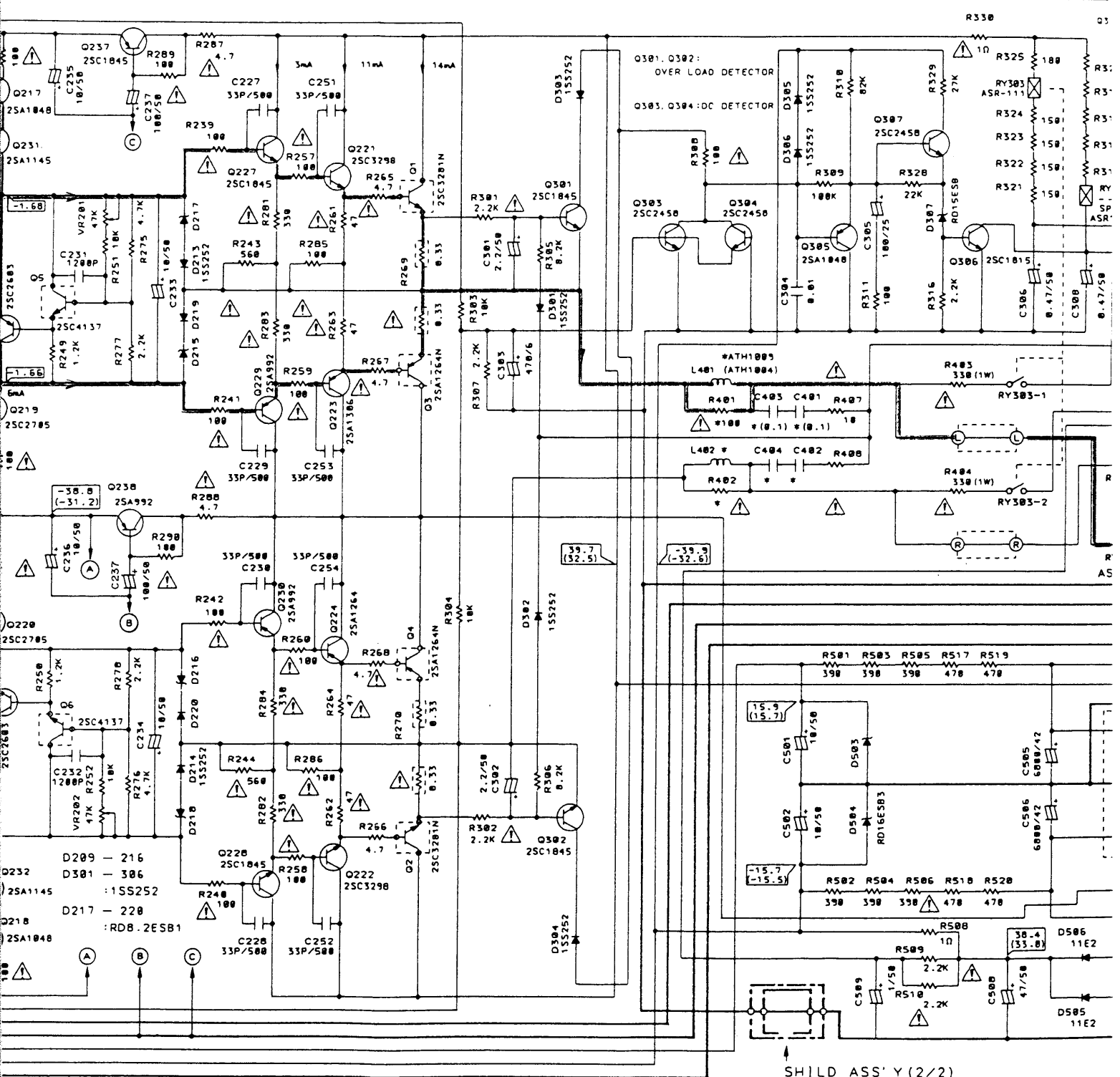
-Q212.  
-Q238: POWER AMP



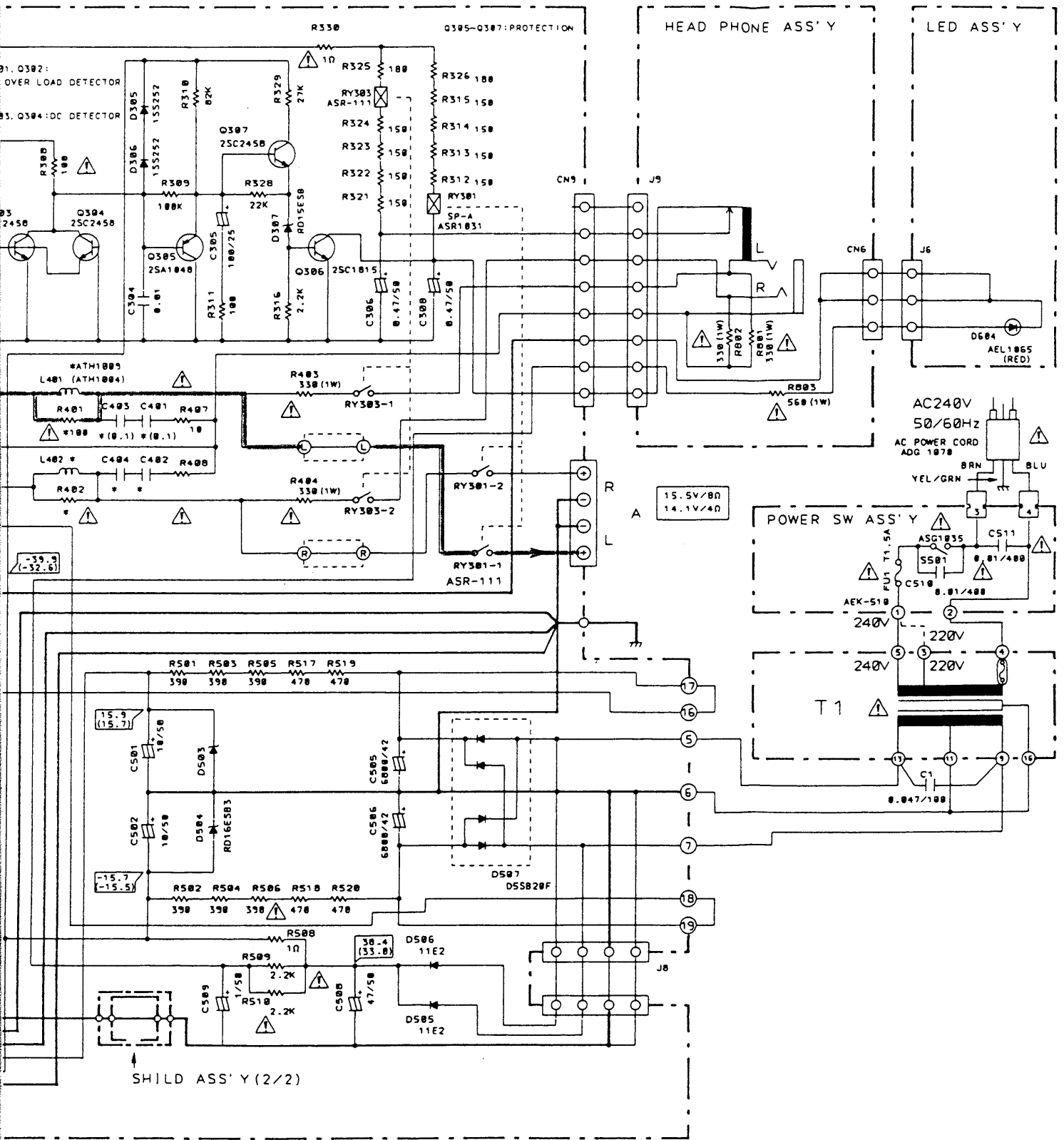
ASS'Y (1/2)

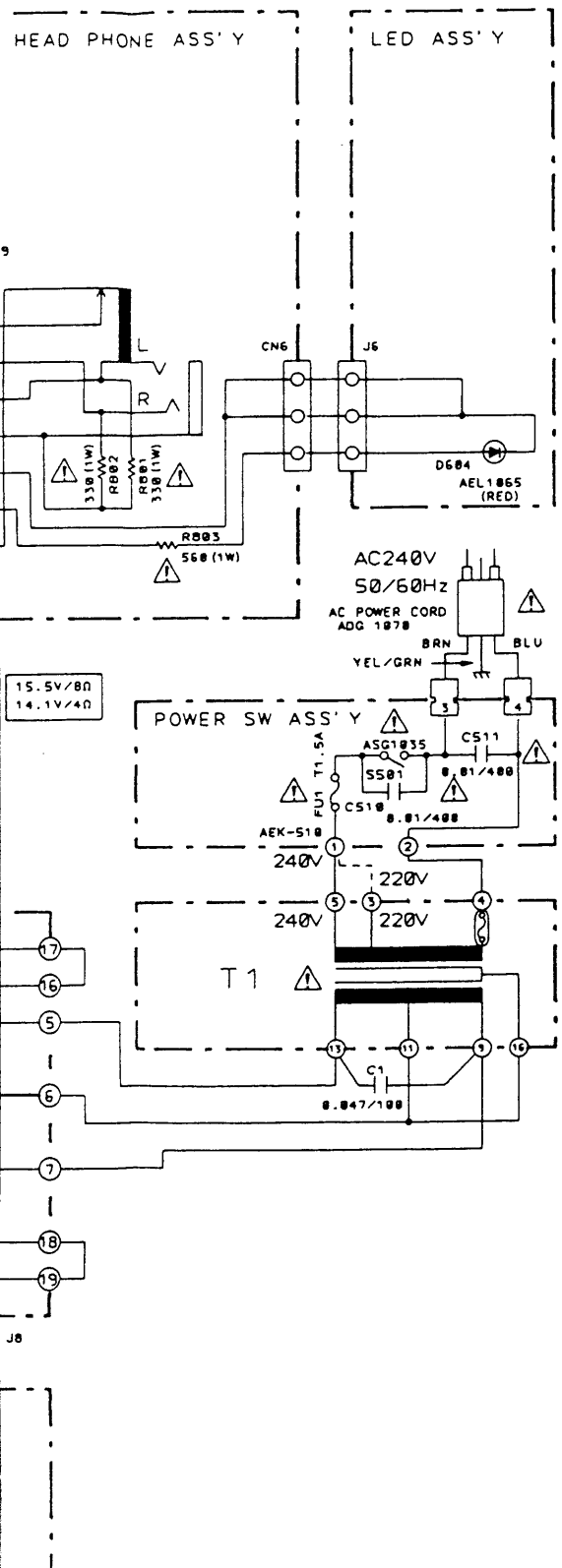
For Service Manuals  
**MAURITRON SERVICES**  
 8 Cherry Tree Road, Chinnor  
 Oxfordshire, OX9 4QY.  
 Tel (01844) 351694  
 Fax (01844) 352554  
 email:- sales@mauritron.co.uk





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 Tel (01844) 351694  
 Fax (01844) 352554  
 email:- sales@mauritron.co.uk





1. RESISTORS:

Indicated in  $\Omega$ , 1/8, 1/4W,  $\pm 5\%$  tolerance unless otherwise noted  
 K; k $\Omega$ , M; M $\Omega$ , (F);  $\pm 1\%$ , (G);  $\pm 2\%$ , (K);  $\pm 10\%$ , (M);  $\pm 20\%$   
 tolerance.

2. CAPACITORS:

Indicated in capacity ( $\mu\text{F}$ ) / voltage (V) unless otherwise noted p; pF.  
 Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE CURRENT:

- : Signal voltage at (30W + 30W/8 $\Omega$ , 50W + 50W/4 $\Omega$ )  
 output (1kHz).
- : DC voltage (V) at no input signal.  
 Value in ( ) is DC voltage at rated power.
- mA : DC current (V) at no input signal.
- mV : Signal voltage at FM 400Hz  $\pm 75\text{Hz DEV}$ .

4. OTHERS

- : Signal route.
- : Adjusting point.
- The  $\otimes$  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 capacitor and resistor have parts number.
- This is the basic schematic diagram, but the actual circuit may  
 vary due to improvements in design.

5. SWITCHES (The underline indicates the switch position)

- S501 : POWER SW (ON-OFF)
- S701 : FUNCTION SEL  
 (TAPE 2 - TAPE 1 - CD - PHONO -  
 TUNER - LINE)
- S702 : REC SEL  
 (2 $\rightarrow$ 1 - 1 $\rightarrow$ 2 - SOURCE - OFF - CD - TUNER)

## 7. ELECTRICAL PARTS LIST

**NOTES:**

- Parts without part number cannot be supplied.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The △ 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.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω	56 × 10 <sup>1</sup>	561.....	RD1/4PS	□	□	□	J
47kΩ	47 × 10 <sup>3</sup>	473.....	RD1/4PS	□	□	□	J
0.5Ω	0R5.....		RN2H	□	□	□	K
1Ω	010.....		RS1P	□	□	□	K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ	562 × 10 <sup>1</sup>	5621.....	RN1/4SR	□	□	□	F
--------	-----------------------	-----------	---------	---	---	---	---

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
<b>POWER SW ASS'Y</b>					Q219,Q220	TRANSISTOR	2SC2705
<b>CAPACITORS</b>					Q221,Q222	TRANSISTOR	2SC3298
	△ C510,C511	CKA (0.01/AC400V)	ACG1002		Q223,Q224	TRANSISTOR	2SA1306
<b>SWITCH</b>					Q225,Q226	TRANSISTOR	2SC2603
	△ S501	PUSH SWITCH	ASG1035		Q227,Q228	TRANSISTOR	2SC1845
<b>LED ASS'Y</b>					Q229,Q230	TRANSISTOR	2SA992
<b>SEMICONDUCTOR</b>					Q231,Q232	TRANSISTOR	2SA1145
	D604	LED (RED)	AEL1065		Q233,Q234	TRANSISTOR	2SA992
<b>SHIELD ASS'Y</b>					Q237	TRANSISTOR	2SC1845
<b>(FOR A-400/HB TYPE)</b>					Q238	TRANSISTOR	2SA992
<b>SEMICONDUCTORS</b>					Q301,Q302	TRANSISTOR	2SC1845
	Q501	TRANSISTOR	2SC2705		Q303,Q304	TRANSISTOR	2SC2458
	Q502	TRANSISTOR	2SA1145		Q305	TRANSISTOR	2SA1048
<b>OTHERS</b>					Q306	TRANSISTOR	2SC1815
	CN10,CN11	JUMPER CONNECTOR 3-P	KPC3		Q307	TRANSISTOR	2SC2458
<b>HEADPHONE ASS'Y</b>					D101,D102	ZENER DIODE	RD7.5ESB2
<b>RESISTORS</b>					D103	DIODE	1SS252
	△ R801,R802	METAL OXIDE RESISTOR	RS1PMF331J		D201,D202	ZENER DIODE	RD2.7ESB1
	△ R803	METAL OXIDE RESISTOR	RS1LMF681J		D209-D216	DIODE	1SS252
<b>OTHERS</b>					D217-D220	ZENER DIODE	RD15ESB
	JACK		AKN1022		D301-D306	DIODE	1SS252
	CN6	JUMPER CONNECTOR 3-P	KPC3		D307	ZENER DIODE	RD22ESB
<b>AF COMPLEX ASS'Y (AWZ2868)</b>					D503,D504	ZENER DIODE	RD18ESB1
<b>FOR A-400/HB TYPE</b>					D505,D506	DIODE	11E2
<b>SEMICONDUCTORS</b>					D507	DIODE	D5SB20F
	IC101	IC	UPC4570C	<b>COILS &amp; FILTERS</b>			
	Q101-Q104	N-FET	2SK369		L401,L402	COIL	ATH1004
	Q105,Q106	TRANSISTOR	2SC2458	<b>CAPACITORS</b>			
	Q201,Q202	TRANSISTOR	2SA979		C101,C102	AUDIO FILM CAPACITOR	CFTXA103J50
	Q203-Q208	TRANSISTOR	2SA1048		C103,C104	CERAMIC CAPACITOR	CCCSL221K500
	Q211,Q212	TRANSISTOR	2SC1845		C105,C106	POLYESTER CAPACITOR	CQMXA472J100
	Q215-Q218	TRANSISTOR	2SA1048		C107,C108	ELECTR. CAPACITOR	CEXA101M25
					C109,C110	AUDIO FILM CAPACITOR	CFTXA683J50
					C111,C112	AUDIO FILM CAPACITOR	CFTXA183J50
					C113,C114	ELECTR. CAPACITOR	CEXANP220M25
					C115,C116	POLYESTER CAPACITOR	CQMXA472J100

Mark	No.	Description	Parts No.
	C117,C118	ELECTR. CAPACITOR	CEXA221M25
	C121,C122	POLYESTER CAPACITOR	CQMXA122J100
	C135,C136	ELECTR. CAPACITOR	CEAS470M10
	C201,C202	ELECTR. CAPACITOR	CEEA2R2M50
	C203,C204	MICA CAPACITOR	CMA101J500
	C205,C206	CERAMIC CAPACITOR	CCCCL101J50
	C207,C208	CERAMIC CAPACITOR	CCCCL470J50
	C209,C210	CERAMIC CAPACITOR	CCCCL820J50
	C211,C212	ELECTR. CAPACITOR	CEEA221M16
	C213-C216	CERAMIC CAPACITOR	CCCCL150K500
	C217,C218	ELECTR. CAPACITOR	CEAS101M10
	C219-C222	ELECTR. CAPACITOR	CEAS3R3M100
	C225,C226	ELECTR. CAPACITOR	CEAS331M10
	C227-C230	CERAMIC CAPACITOR	CCCCL330K500
	C231,C232	CERAMIC CAPACITOR	CKCYB122K50
	C233-C236	ELECTR. CAPACITOR	CEAS100M50
	C237,C238	ELECTR. CAPACITOR	CEAS101M50
	C251-C254	CERAMIC CAPACITOR	CCCCL330K500
	C255	CERAMIC CAPACITOR	CCCCL680J50
	C256	CERAMIC CAPACITOR	CCDSL470J50
	C301,C302	ELECTR. CAPACITOR	CEAS2R2M50
	C303	ELECTR. CAPACITOR	CEAS471M6
	C304	CERAMIC CAPACITOR	CKCYF103Z50
	C305	ELECTR. CAPACITOR	CEAS101M25
	C306,C308	ELECTR. CAPACITOR	CEASR47M50
	C401-C404	AUDIO FILM CAPACITOR	CFTXA104J50
	C501,C502	ELECTR. CAPACITOR	CEAS100M50
	C503,C504	ELECTR. CAPACITOR	CEAS470M25
	C505	ELECTR. CAPACITOR (10000/5V)	ACH1152
	C506	ELECTR. CAPACITOR (10000/5V)	ACH1153
	C508	ELECTR. CAPACITOR	CEAS470M50
	C509	ELECTR. CAPACITOR	CEAS010M50
	C725	CERAMIC CAPACITOR	CKCYF103Z50
	C731	CERAMIC CAPACITOR	CKCYF103Z50
	C733,C734	CERAMIC CAPACITOR	CKDYF102Z50

#### RESISTORS

	VR201,VR202	SEMI-FIXED(47K)	ACP1045
	VR701	VARIABLE(100K-20AX2)	ACT1063
	R101,R102	CARBON FILM RESISTOR	RDR1/6PU101J
	R105-R108	CARBON FILM RESISTOR	RDR1/6PU□□□J
	R119-R122	CARBON FILM RESISTOR	RDR1/4PM□□□J
	R133,R134	CARBON FILM RESISTOR	RDR1/6PU391J
	R143,R144	CARBON FILM RESISTOR	RD1/4PM560J
	R201-R204	CARBON FILM RESISTOR	RDR1/4PM□□□J
	R205-R214	CARBON FILM RESISTOR	RD1/4PM□□□J
	R215-R218	CARBON FILM RESISTOR	RDR1/4PM□□□J
	R219-R234	CARBON FILM RESISTOR	RD1/4PM□□□J
	R237,R238	CARBON FILM RESISTOR	RDR1/4PM563J
△	R239-R242	FUSIBLE RESISTOR	RFA1/4PS101J
△	R243,R244	CARBON FILM RESISTOR	RD1/4PMF561J
△	R245-R248	FUSIBLE RESISTOR	RFA1/4PS101J

Mark	No.	Description	Parts No.
	R249-R252	CARBON FILM RESISTOR	RD1/4PM□□□J
△	R257-R260	FUSIBLE RESISTOR	RFA1/4PS101J
△	R261-R264	FUSIBLE RESISTOR	RFA1/4PS470J
△	R265-R268	FUSIBLE RESISTOR	RFA1/4PS4R7J
△	R269,R270	RESISTOR (0.33, 5W)	ACN1063
	R275-R278	CARBON FILM RESISTOR	RD1/4PM□□□J
△	R281-R284	FUSIBLE RESISTOR	RFA1/4PS331J
△	R285,R286	FUSIBLE RESISTOR	RFA1/4PS101J
△	R287,R288	CARBON FILM RESISTOR	RD1/4PMF4R7J
△	R289,R290	FUSIBLE RESISTOR	RFA1/4PS101J
	R299	CARBON FILM RESISTOR	RD1/4PM100J
△	R301,R302	CARBON FILM RESISTOR	RD1/4PMF222J
△	R308	CARBON FILM RESISTOR	RD1/4PMF101J
	R311-R315	CARBON FILM RESISTOR	RD1/4PM□□□J
	R321-R326	CARBON FILM RESISTOR	RD1/4PM□□□J
△	R330	CARBON FILM RESISTOR	RD1/4PMF010J
△	R401,R402	CARBON FILM RESISTOR	RD1/4PMFL100J
△	R403,R404	METAL OXIDE RESISTOR	RS1LMF331J
△	R407,R408	CARBON FILM RESISTOR	RD1/4PMFL100J
△	R501-R506	METAL OXIDE RESISTOR	RS1PMF121J
△	R507,R508	CARBON FILM RESISTOR	RD1/4PMF010J
△	R509,R510	METAL OXIDE RESISTOR	RS1LMF272J
	R513-R516	CARBON FILM RESISTOR	RD1/4PM272J
△	R517-R520	METAL OXIDE RESISTOR	RS1PMF101J
	R731,R732	CARBON FILM RESISTOR	RD1/4PM103J
	OTHER RESISTORS		RD1/8PM□□□J
<b>SWITCHES</b>			
	S101	PUSH SWITCH	ASG1012
	S701	SWITCH	ASU1016
	S702	SWITCH	ASU1002
<b>OTHERS</b>			
	CN9	JUMPER CONNECTOR	KPC8
	RY301	RELAY	ASR1031
	RY303	RELAY	ASR-111
		PHONO JACK 6-P	AKB1007
		PHONO JACK 6-P	AKB1008
		PHONO JACK 2-P	AKB1059
		SPEAKER TERMINAL 4-P	AKE1020

### AF COMPLEX ASS'Y (AWZ2870)

#### FOR A-300/HB TYPE

#### SEMICONDUCTORS

IC101	IC	M5220P
Q201,Q202	TRANSISTOR	2SA979
Q203-Q208	TRANSISTOR	2SA1048
Q211,Q212	TRANSISTOR	2SC1845
Q215-Q218	TRANSISTOR	2SA1048
Q219,Q220	TRANSISTOR	2SC2705
Q221,Q222	TRANSISTOR	2SC3298
Q223,Q224	TRANSISTOR	2SA1306
Q225,Q226	TRANSISTOR	2SC2603
Q227,Q228	TRANSISTOR	2SC1845

Mark	No.	Description	Parts No.
	Q229,Q230	TRANSISTOR	2SA992
	Q231,Q232	TRANSISTOR	2SA1145
	Q233,Q234	TRANSISTOR	2SA992
	Q237	TRANSISTOR	2SC1845
	Q238	TRANSISTOR	2SA992
	Q301,Q302	TRANSISTOR	2SC1845
	Q303,Q304	TRANSISTOR	2SC2458
	Q305	TRANSISTOR	2SA1048
	Q306	TRANSISTOR	2SC1815
	Q307	TRANSISTOR	2SC2458
	D201,D202	ZENER DIODE	RD2.7ESB1
	D209-D216	DIODE	1SS252
	D217-D220	ZENER DIODE	RD8.2ESB1
	D301-D306	DIODE	1SS252
	D307	ZENER DIODE	RD15ESB
	D503,D504	ZENER DIODE	RD16ESB3
	D505,D506	DIODE	11E2
	D507	DIODE	D5SB20F
<b>COILS &amp; FILTERS</b>			
	L401,L402	COIL	ATH1004
<b>CAPACITORS</b>			
	C103,C104	CERAMIC CAPACITOR	CCCSL221J50
	C107,C108	ELECTR. CAPACITOR	CEXA101M25
	C109,C110	AUDIO FILM CAPACITOR	CFTXA683J50
	C111,C112	AUDIO FILM CAPACITOR	CFTXA183J50
	C113,C114	ELECTR. CAPACITOR	CEXA4R7M50
	C115,C116	MYLOR FILM CAPACITOR	CQMA472K50
	C117,C118	ELECTR. CAPACITOR	CEAS1221M25
	C121,C122	MYLOR FILM CAPACITOR	CQMA122J50
	C123,C124	ELECTR. CAPACITOR	CEXA100M50
	C201,C202	ELECTR. CAPACITOR	CEEA2R2M50
	C203,C204	CERAMIC CAPACITOR	CCCSL101K500
	C205,C206	CERAMIC CAPACITOR	CCCSL101J50
	C207,C208	CERAMIC CAPACITOR	CCCSL470J50
	C209,C210	CERAMIC CAPACITOR	CCCSL101J50
	C211,C212	ELECTR. CAPACITOR	CEEA221M16
	C213-C216	CERAMIC CAPACITOR	CCCSL150K500
	C217,C218	ELECTR. CAPACITOR	CEAS101M10
	C219-C222	ELECTR. CAPACITOR	CEAS3R3M100
	C225,C226	ELECTR. CAPACITOR	CEAS331M10
	C227-C230	CERAMIC CAPACITOR	CCCSL330K500
	C231,C232	CERAMIC CAPACITOR	CKCYB122K50
	C233-C236	ELECTR. CAPACITOR	CEAS100M50
	C237,C238	ELECTR. CAPACITOR	CEAS101M50
	C251-C254	CERAMIC CAPACITOR	CCCSL330K500
	C255	CERAMIC CAPACITOR	CCCSL680J50
	C256	CERAMIC CAPACITOR	CCDSL470J50
	C301,C302	ELECTR. CAPACITOR	CEAS2R2M50
	C303	ELECTR. CAPACITOR	CEAS471M6
	C304	CERAMIC CAPACITOR	CKCYF103Z50
	C305	ELECTR. CAPACITOR	CEAS101M25

Mark	No.	Description	Parts No.
	C306,C308	ELECTR. CAPACITOR	CEASR47M50
	C401-C404	AUDIO FILM CAPACITOR	CFTXA104J50
	C501,C502	ELECTR. CAPACITOR	CEAS470M25
	C505,C506	ELECTR. CAPACITOR (6800/42V)	ACH1077
	C508	ELECTR. CAPACITOR	CEAS470M50
	C509	ELECTR. CAPACITOR	CEAS010M50
	C725	CERAMIC CAPACITOR	CKCYF103Z50
	C731	CERAMIC CAPACITOR	CKCYF103Z50

### RESISTORS

	VR201,VR202	SEMI-FIXED (47K)	ACP1045
	VR701	VARIABLE(100K-20AX2)	ACT1062
	R105,R106	CARBON FILM RESISTOR	RDR1/6PU100J
	R121,R122	CARBON FILM RESISTOR	RDR1/4PM820J
	R133,R134	CARBON FILM RESISTOR	RDR1/6PU471J
	R141,R142	CARBON FILM RESISTOR	RDR1/6PU563J
	R143,R144	CARBON FILM RESISTOR	RD1/4PM560J
	R201-R204	CARBON FILM RESISTOR	RDR1/4PM□□□J
	R205-R214	CARBON FILM RESISTOR	RD1/4PM□□□J
	R215-R218	CARBON FILM RESISTOR	RDR1/4PM□□□J
	R219-R234	CARBON FILM RESISTOR	RD1/4PM□□□J
	R237,R238	CARBON FILM RESISTOR	RDR1/4PM563J
	△ R239-R242	FUSIBLE RESISTOR	RFA1/4PS101J
	△ R243,R244	CARBON FILM RESISTOR	RD1/4PMF561J
	△ R245-R248	FUSIBLE RESISTOR	RFA1/4PS101J
	R249-R252	CARBON FILM RESISTOR	RD1/4PM□□□J
	△ R257-R260	FUSIBLE RESISTOR	RFA1/4PS101J
	△ R261-R264	FUSIBLE RESISTOR	RFA1/4PS470J
	△ R265-R268	FUSIBLE RESISTOR	RFA1/4PS4R7J
	△ R269,R270	RESISTOR (0.33, 5W)	ACN1063
	R275-R278	CARBON FILM RESISTOR	RD1/4PM□□□J
	△ R281-R284	FUSIBLE RESISTOR	RFA1/4PS331J
	△ R285,R286	FUSIBLE RESISTOR	RFA1/4PS101J
	△ R287,R288	CARBON FILM RESISTOR	RD1/4PMF4R7J
	△ R289,R290	FUSIBLE RESISTOR	RFA1/4PS101J
	R299	CARBON FILM RESISTOR	RD1/4PM100J
	R301,R302	CARBON FILM RESISTOR	RD1/4PMF222J
	R308	CARBON FILM RESISTOR	RD1/4PMF101J
	R311-R315	CARBON FILM RESISTOR	RD1/4PM□□□J
	R321-R326	CARBON FILM RESISTOR	RD1/4PM□□□J
	R330	CARBON FILM RESISTOR	RD1/4PMF010J
	R401,R402	CARBON FILM RESISTOR	RD1/4PMFL100J
	R403,R404	METAL OXIDE RESISTOR	RS1LMF331J
	R407,R408	CARBON FILM RESISTOR	RD1/4PMFL100J
	R501-R506	CARBON FILM RESISTOR	RD1/2PM□□□J
	R508	CARBON FILM RESISTOR	RD1/4PMF010J
	R509,R510	METAL OXIDE RESISTOR	RS1LMF222J
	R517-R520	CARBON FILM RESISTOR	RD1/2PM471J
	R731,R732	CARBON FILM RESISTOR	RD1/4PM103J
	OTHER RESISTORS		RD1/8PM□□□J

<u>Mark</u>	<u>No.</u>	<u>Description</u>	<u>Parts No.</u>
<b>SWITCHES</b>			
	S701	SWITCH	ASU1016
	S702	SWITCH	ASU1002
<b>OTHERS</b>			
	CN9	JUMPER CONNECTOR	KPC8
	RY301	RELAY	ASR-111
	RY303	RELAY	ASR-111
		PHONO JACK 4-P	AKB1007
		PHONO JACK 6-P	AKB1008
		PHONO JACK 2-P	AKB1059
		SPEAKER TERMINAL 4-P	AKE1020

## **SHIELD ASS'Y (FOR A-300/HB TYPE)**

No parts supplied with the SHIELD Ass'y.

## 8. ADJUSTMENT

### ADJUSTMENT OF IDLE CURRENT

1. Connect wire as shown in Fig. 8-1.
2. After power ON, aging lasts for 5 mins with no-load.
3. In the Lch VR201 should be adjusted so that both terminal voltages of R269 may attain to 20 mV ( $\pm 3$  mV).
4. In the Rch VR202 should be adjusted so that both terminal voltages may attain to 20 mV ( $\pm 3$  mV).

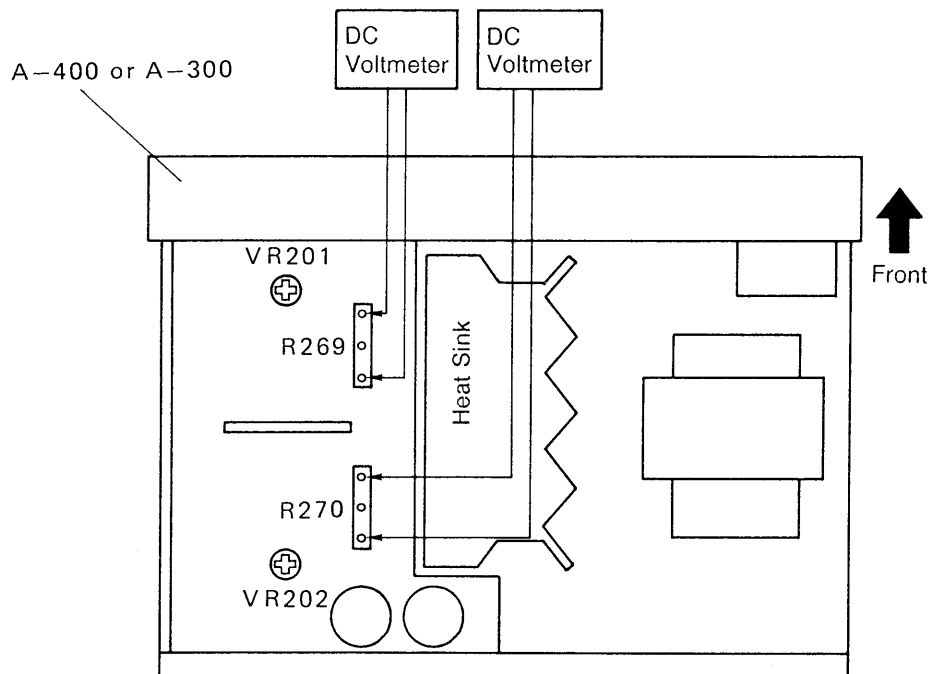


Fig. 8-1 Adjustment Drawing

For Service Manuals  
**MAURITRON SERVICES**  
 8 Cherry Tree Road, Chinnor  
 Oxfordshire, OX9 4QY.  
 Tel (01844) 351694  
 Fax (01844) 352554  
 email:- sales@mauritron.co.uk



## 8. RÉGLAGE

### RÉGLAGE DU COURANT DÉWATTÉ

1. Brancher les fils comme indiqué dans la fig. 8-1.
2. Après la mise sous tension, le moteur dure 5 minutes et n'introduire charge.
3. VR 201 sera réglé dans le canal gauche de manière que les deux tensions de bornes de R269 atteignent 20 mV ( $\pm 3$  mV).
4. VR 202 sera réglé dans le canal droit de manière que les deux tensions de bornes atteignent 20 mV ( $\pm 3$  mV).

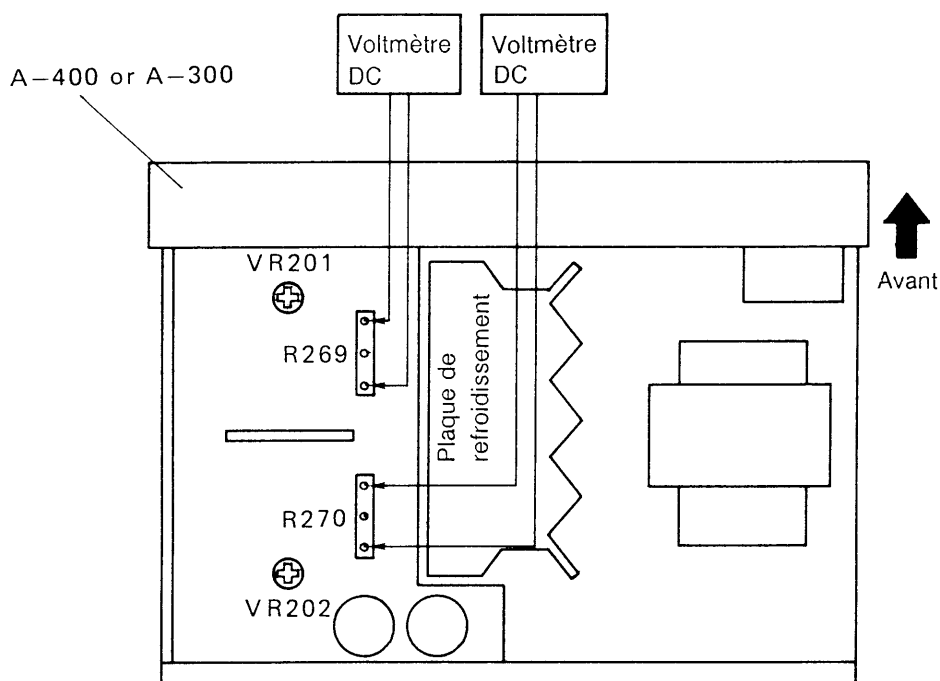


Fig. 8-1 Schéma du réglage

## 8. AJUSTE

### AJUSTE DE LA CORRIENTE DEVATIADA

1. Conecte el cable como lo ilustra la Fig. 8-1.
2. El motor funciona por 5 minutos después de encender la unidad, sin introduzca.
3. El VR201 del canal izquierdo debe ajustarse de modo que la tensión entre ambos bornes de R269 llegue a 20 mV ( $\pm 3$  mV).
4. El VR202 del canal derecho debe ajustarse de modo que la tensión entre ambos bornes llegue a 20 mV ( $\pm 3$  mV).

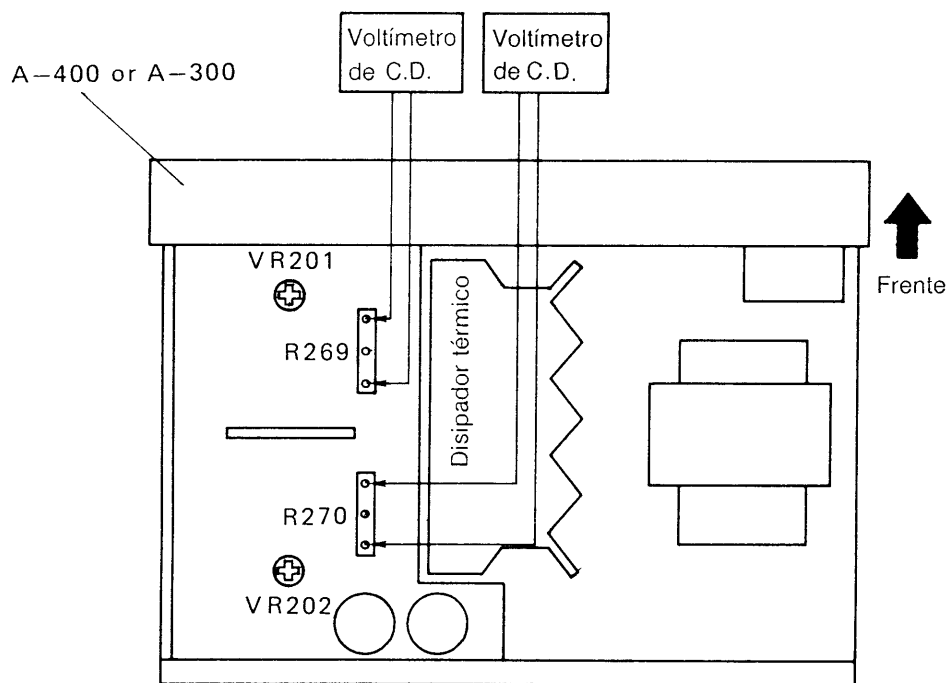


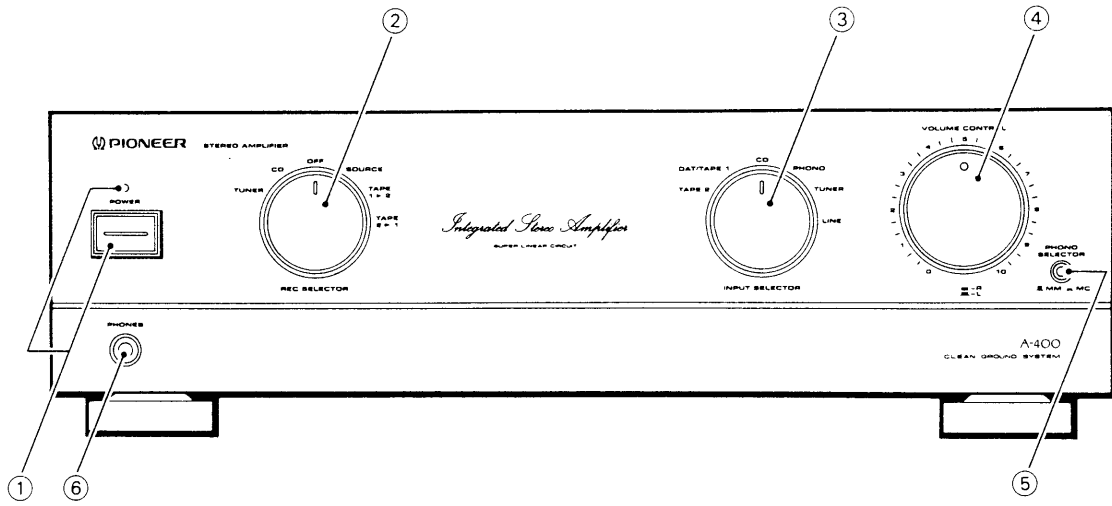
Fig. 8-1 Diagrama de ajuste

For Service Manuals  
**MAURITRON SERVICES**  
 8 Cherry Tree Road, Chinnor  
 Oxfordshire, OX9 4QY.  
 Tel (01844) 351694  
 Fax (01844) 352554  
 email:- sales@mauritron.co.uk

# 9. FRONT PANEL FACILITIES

**[FRONT PANEL]**

The illustration shows model A-400.



**① POWER switch/indicator**

Press to turn power to the unit on and off. When the power is on, the indicator lights.

**② REC SELECTOR switch**

When this switch is set to a position other than SOURCE or OFF, the equipment selected by REC SELECTOR switch can be recorded from, irrespective of the settings of INPUT SELECTOR and DIRECT switches.

- TUNER:**  
To record from the equipment connected to TUNER terminals.
- CD:**  
To record from the equipment connected to CD terminals.
- OFF:**  
In this position, nothing from the REC terminals of DAT/TAPE 1 and TAPE 2 is output. Set to this position when not recording; the cassette deck will be disconnected, improving sound quality.
- SOURCE:**  
To record from the equipment selected by INPUT SELECTOR switch.

- TAPE 1 ► 2:**  
To record (copy) from the cassette deck of DAT/TAPE 1 terminals, to the cassette deck of TAPE 2 terminals.
- TAPE 2 ► 1:**  
To record (copy) from the cassette deck of TAPE 2 terminals, to the cassette deck of DAT/TAPE 1 terminals.

**③ INPUT SELECTOR switch**

- Use to select the playback source.
- LINE:**  
For playback with a component connected to LINE terminal.
- TUNER:**  
For AM or FM broadcast reception with a tuner.
- PHONO:**  
For record playback with a turntable.

**NOTE:**

- With the A-300, you can use an MM cartridge or a high-output MC cartridge (over 1 mV).
- According to the type of cartridge used with the A-400, you can select MM or MC with the PHONO SELECTOR switch.

**CD:**  
For compact disc playback with a CD player.

**DAT/TAPE 1:**

For playback with a cassette deck or digital audio tape deck connected to DAT/TAPE 1 terminals.

**TAPE 2:**

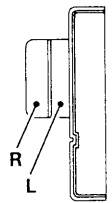
For playback with a cassette deck connected to TAPE 2 terminals.

**④ VOLUME CONTROL**

Use to adjust the volume level. This volume knob consists of two volume controls. Because you can adjust L (left) and R (right) channel volume levels independently, it also functions as a balance control.

**[Example]**

To raise R (right) channel volume level, prevent the L knob from turning with one hand, and turn the R knob with the other hand.



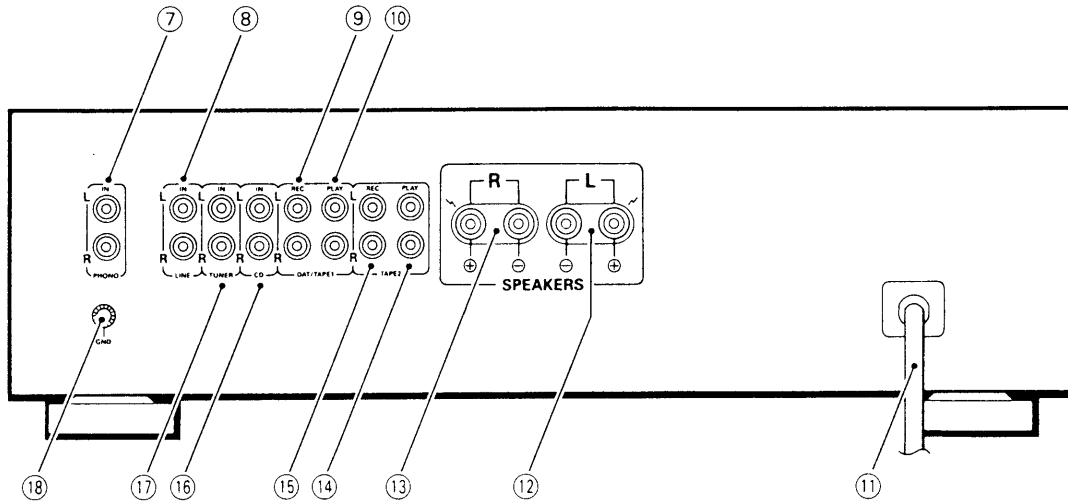
**⑤ PHONO SELECTOR switch (A-400 only)**

- Set in accordance with the type of cartridge used with your turntable.
- MM ( ■ ):**  
Set to this position when using a moving magnet cartridge, or a moving coil cartridge with a high output of 1 mV or more.
- MC ( ▲ ):**  
Set to this position when using a moving coil cartridge.

**⑥ PHONES jack**

When using headphones, insert the plug into this jack. The output to the speakers is cut automatically when connecting headphones.

**[REAR PANEL]**



⑦ PHONO terminals

⑧ LINE terminals

⑨ DAT/TAPE 1 REC terminals

⑩ DAT/TAPE 1 PLAY terminals

⑪ Power cord

Connect this cord to an AC wall socket, or the AC outlet of an audio timer.

⑫ SPEAKERS terminals L (left channel)

⑬ SPEAKERS terminals R (right channel)

⑭ TAPE 2 PLAY terminals

⑮ TAPE 2 REC terminals

⑯ CD terminals

⑰ TUNER terminals

⑱ Turntable ground terminal (GND)