

Service Manual

ORDER NO.
ARP2034

STEREO AMPLIFIER

A-656 MARK II

HEWZ, HE, HB

A-656 MARK II-S

HEWZ

- Refer to the service manual ARP1817, A-656/HEZ type.
- This manual is applicable to the A-656 mark II /HEWZ, HE, HB and A-656 mark II -S/HEWZ types.

1. CONTRAST OF MISCELLANEOUS PARTS

NOTES:

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

The A-656 mark II / HEWZ, HE, HB and A-656 mark II -S/HEWZ types are the same as the A-656/HEZ type with the exception of the following sections.

Mark	Symbol & Description	Part No.					Remarks
		A-656/ HEZ type	A-656mark II /HEWZ type	A-656mark II /HE type	A-656mark II /HB type	A-656mark II -S/HEWZtype	
	REC OUT assembly	Non supply	Non supply	Non supply	Non supply	Non supply	
	INPUT SELECTOR assembly	AWZ2351	AWZ2351	AWZ2459	AWZ2459	AWZ2351	
	HEAD PHONE assembly	Non supply	Non supply	Non supply	Non supply	Non supply	
	POWER AMP assembly	AWZ2335	AWZ2335	AWZ2454	AWZ2454	AWZ2335	
	POWER SUPPLY assembly	AWZ2336	AWZ2336	AWZ2455	AWZ2455	AWZ2336	
	SPEAKER TERMINAL assembly	AWZ2337	AWZ2337	AWZ2456	AWZ2456	AWZ2337	
	PHONO AMP assembly	AWZ2338	AWZ2338	AWZ2457	AWZ2457	AWZ2338	
Δ	T1 Power transformer	ATS1210	ATS1287	ATS1287	ATS1287	ATS1287	
Δ	FU1 Fuse (T2.5A/250V)	AEK-403	AEK-403	AEK-403	AEK-512	AEK-403	
	C2 Ceramic capacitor	.....	CKDYB472K50	.....	.....	CKCYB472K50	
	C1 Ceramic capacitor	CKDYB472K50	CKDYB472K50	.....	.....	CKDYB472K50	
	C3	ACH1043	ACH1155	ACH1155	ACH1155	ACH1155	
	R1	RD1/4PM4R7J	RD1/4PM4R7J	.....	.....	RD1/4PM4R7J	
	R2	RD1/4PM220J	RD1/4PM220J	.....	.....	RD1/4PM220J	
Δ	AC Power cord	ADG1049	ADG1049	ADG1049	ADG1052	ADG1049	
	Front panel	ANB1295	ANB1378	ANB1378	ANB1378	ANB1379	
	Panel base	AMB1200	AMB1628	AMB1628	AMB1628	AMB1629	
	Rotary knob L	AAB1107	AAB1126	AAB1126	AAB1126	AAB1150	
	Rotary knob M	AAB1108	AAB1127	AAB1127	AAB1127	AAB1149	
	Rotary knob S	AAB1109	AAB1143	AAB1143	AAB1143	AAB1144	
	Push knob	AAD1536	AAD1536	AAD1536	AAD1536	AAD1538	
	Direct knob	AAD1560	AAD1560	AAD1560	AAD1560	AAD1562	
	Power knob	AAD1561	AAD1561	AAD1561	AAD1561	AAD1563	
	Bonnet case	ANE1075	ANE1075	ANE1075	ANE1075	ANE1076	
	Screw (BONNET)	FBT40P080FZK	FBT40P080FZK	FBT40P080FZK	FBT40P080FZK	FBT40P080FCR	
	Screw (EARTH)	ABA1047	ABA1047	.....	.....	ABA1047	

Mark	Symbol & Description	Part No.					Remarks
		A-656/ HEZ type	A-656mark II /HEWZ type	A-656mark II /HE type	A-656mark II /HB type	A-656mark II -S/HEWZ type	
	Packing case	AHD1633	AHD1816	AHD1816	AHD1816	AHD1817	
	Operating instructions (German)	ARC1146	ARC1184	.....	.....	ARC1184	
	Operating instructions (English/German/French/Italian/ Swedish/Dutch/Spanish/ Portuguese)	.....	.....	ARE1148	.....	.....
	Operating instructions (English)	.....	.....	.....	ARB1229	.....

REC OUT assembly

The REC OUT assembly (HE, HB types) is the same as the REC OUT assembly (HEZ, HEWZ types) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		HEWZ, HEZ types	HE, HB types	
	C803-C810	CKCYB331K50	.....
	R803-R806	RD1/4PM182J	RD1/4PM222J	
	R807, R808	RD1/8PM182J	RD1/8PM222J	
	R809, R810	RD1/8PM221J	.....

INPUT SELECTOR assembly (AWZ2459)

The INPUT SELECTOR assembly (AWZ2459) is the same as the INPUT SELECTOR assembly (AWZ2351) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		AWZ2351	AWZ2459	
	C701-C710	CKCYB331K50	.....

HEAD PHONE assembly

The HEAD PHONE assembly (HE, HB types) is the same as the HEAD PHONE assembly (HEZ, HEWZ types) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		HEWZ, HEZ types	HE, HB types	
	C951, C952	CKCYB392K50	.....

POWER AMP assembly (AWZ2454)

The POWER AMP assembly (AWZ2454) is the same as the POWER AMP assembly (AWZ2335) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		AWZ2335	AWZ2454	
	L101-L104	.....	ATX1012	
	C105, C106	CKCYB122K50	CKCYB152K50	
	C109, C110	CMA080D500	CMA150J500	
	C111, C112	.....	CMA150J500	
	C141, C142	CCCSL121J50	.....
	C155	CCCSL151J50	.....
	C157, C158	CKCYB331K50	.....
	R123, R124	RD1/4PM560J	RD1/4PM101J	
	R245, R246	RD1/4PM100J	.....

POWER SUPPLY assembly (AWZ2455)

The POWER SUPPLY assembly (AWZ2455) is the same as the POWER SUPPLY assembly (AWZ2336) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		AWZ2336	AWZ2455	
⚠	C615	CQMXA104J100	ACG1005	
	C625	CKCYB472K50	.....

SPEAKER TERMINAL assembly (AWZ2456)

The SPEAKER TERMINAL assembly (AWZ2456) is the same as the SPEAKER TERMINAL assembly (AWZ2337) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		AWZ2337	AWZ2456	
	C905-C908	CQMXA472J100	.....
	C909, C910	CCDSL101K500	.....
	R901, R902	RS1LMF101J	RS1LMF100J	
	R905, R906	.....	RS1PMF681J	
	SPEAKER TERMINAL	AKE1015	AKE1017	

PHONO AMP assembly (AWZ2457)

The PHONO AMP assembly (AWZ2457) is the same as the PHONO AMP assembly (AWZ2338) with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		AWZ2338	AWZ2457	
	L501, L502 (270μH)	ATH1010	.....
	L503, L504 (2.2μH)	LAU2R2M	.....
	C505, C506	CCCSL221J50	CCCSL271J50	
	C523, C524	CCCSL390J50	.....
	R505, R506	RD1/8PM272J	.....

Line Voltage Selection

Line voltage can be changed with following steps.

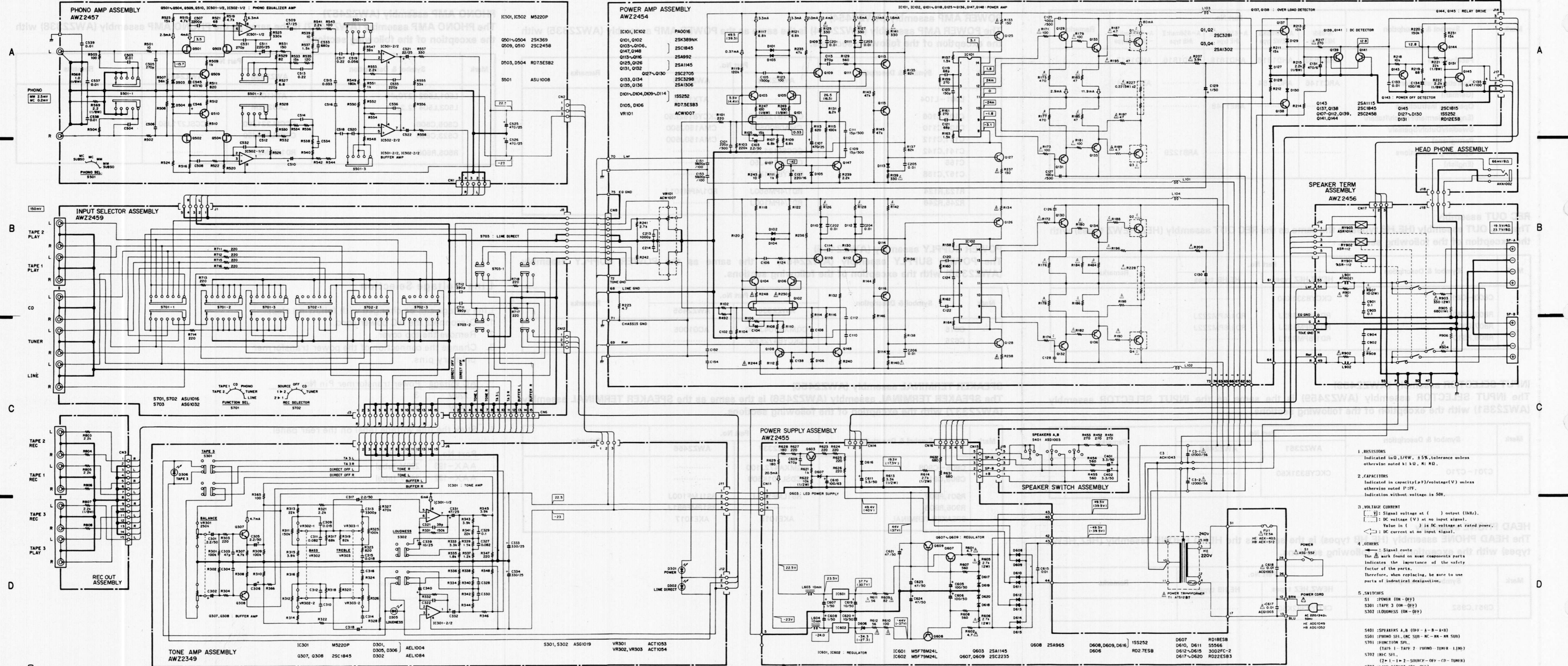
1. Disconnect the AC power cord.
2. Remove the top cover.
3. Change the connection of the power transformer primary pins.

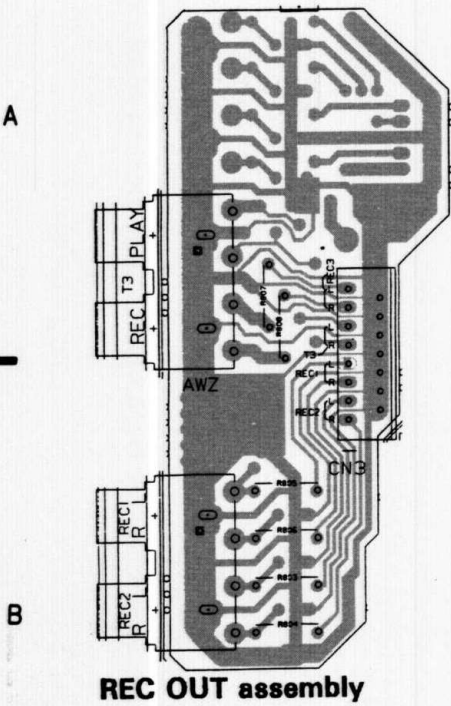
AC voltage	Power transformer Pin No.
220V	3
240V	5

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

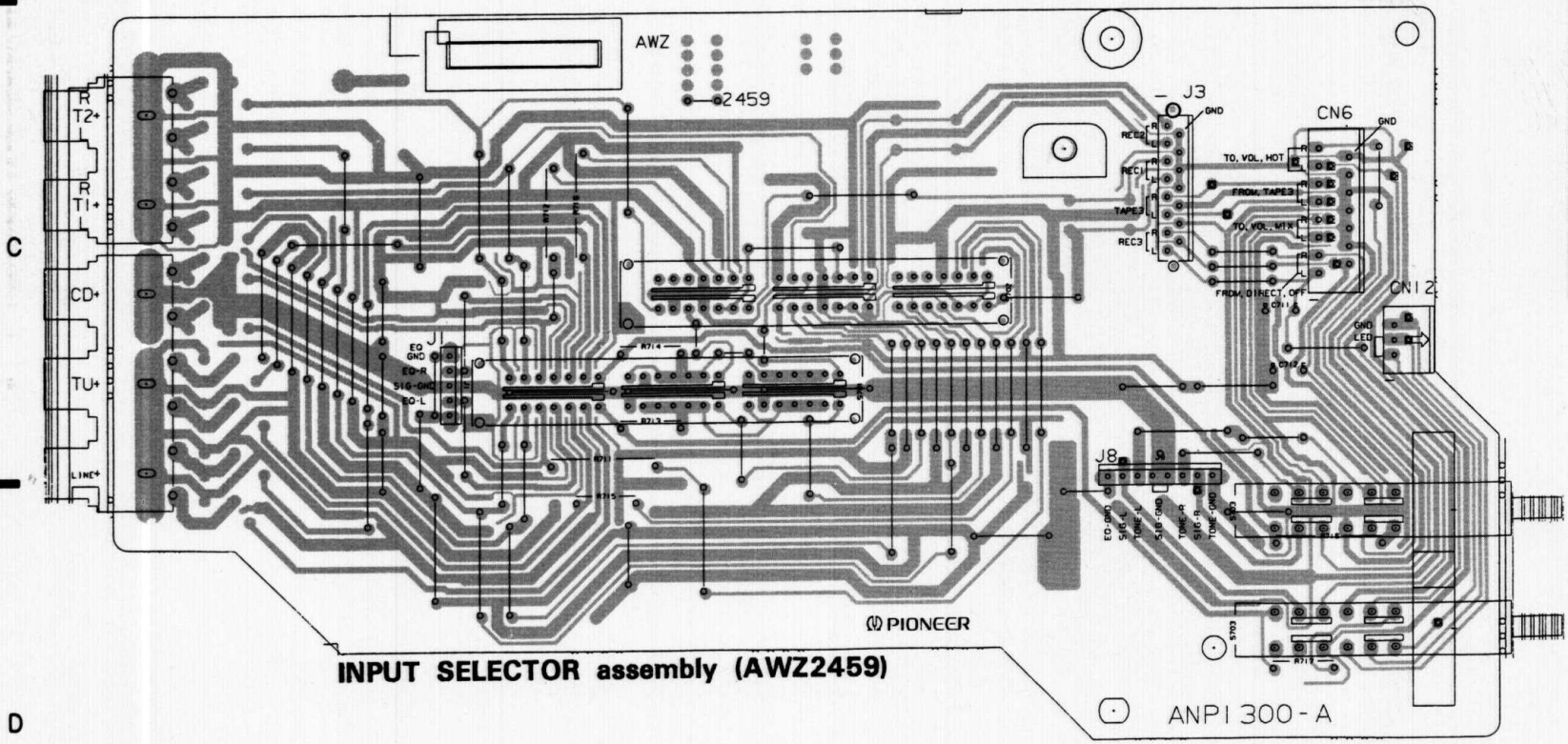
Part No.	Description
AAX-193	220V label
AAX-192	240V label

2. SCHEMATIC AND P.C. BOARDS DIAGRAM

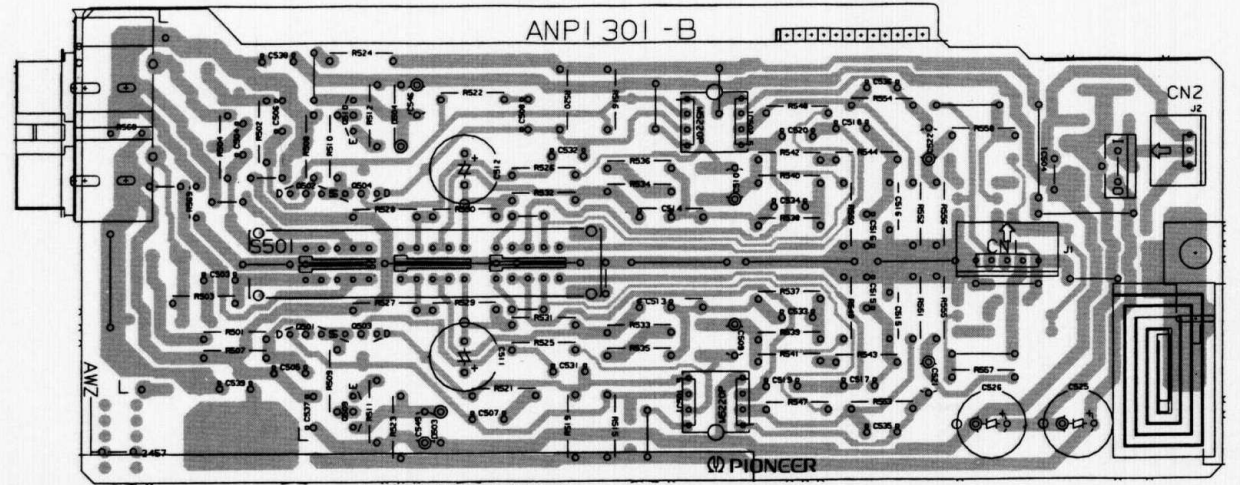




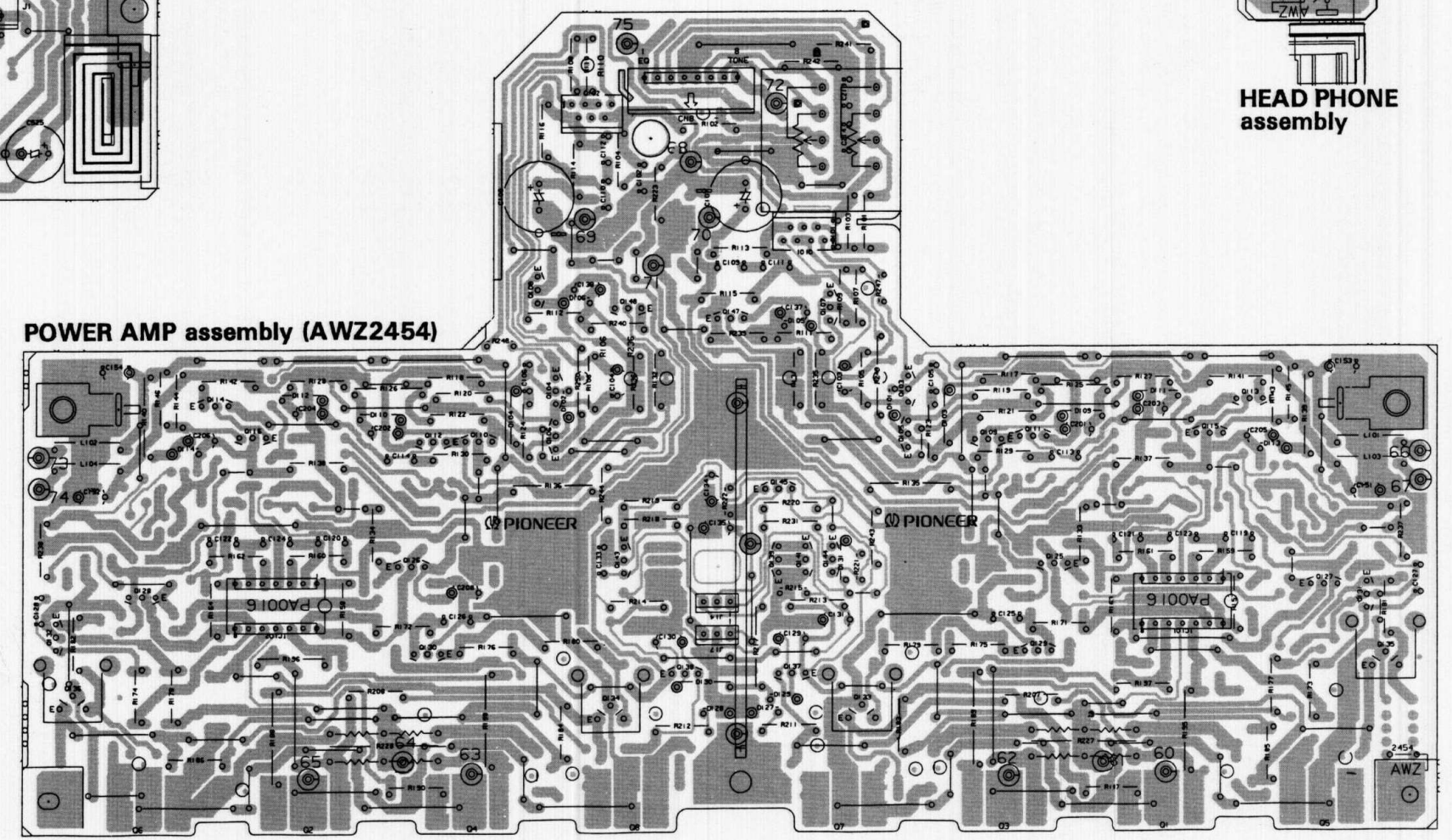
REC OUT assembly



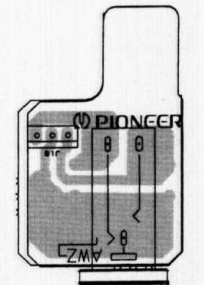
INPUT SELECTOR assembly (AWZ2459)



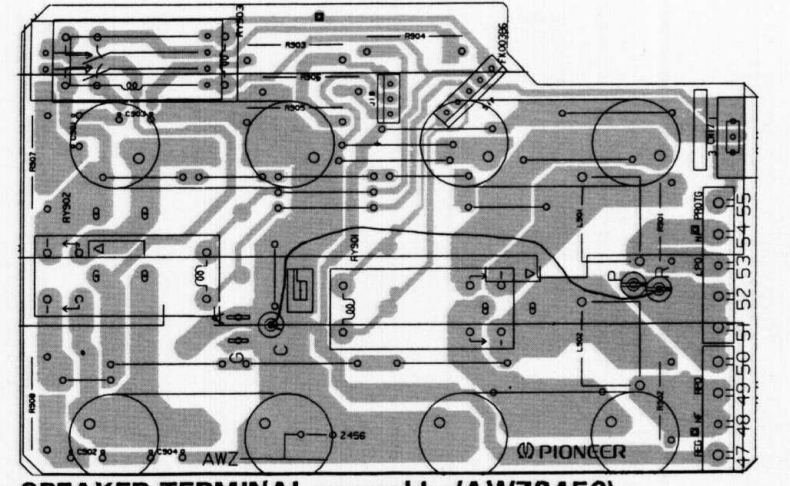
PHONO AMP assembly (AWZ2457)



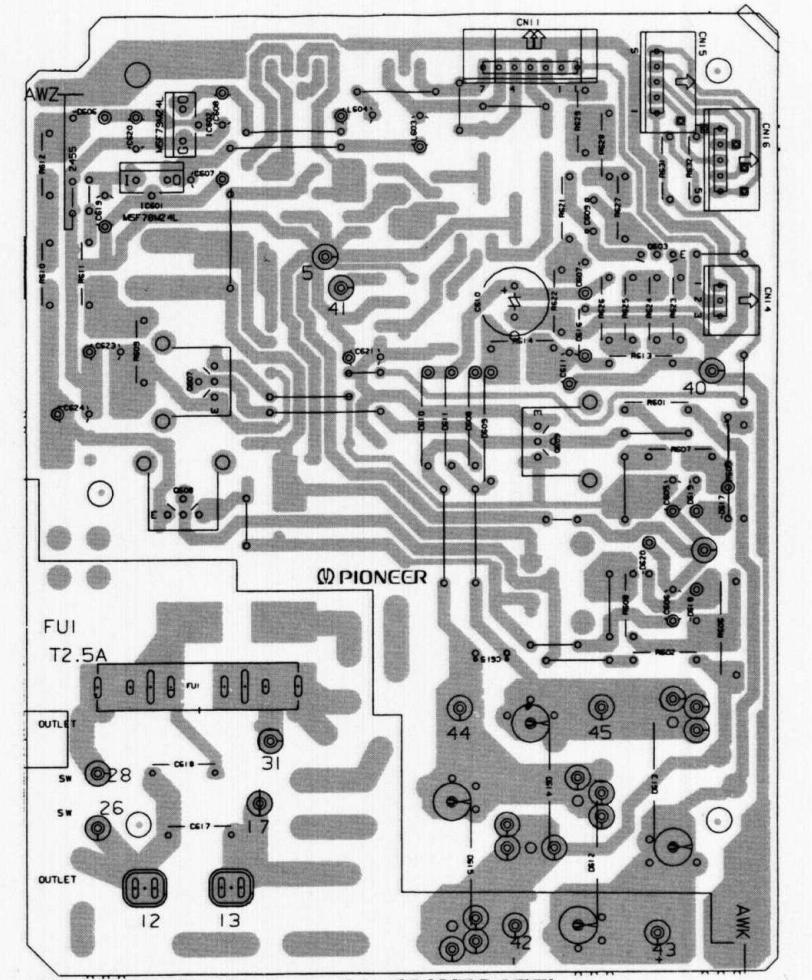
POWER AMP assembly (AWZ2454)



HEAD PHONE assembly



SPEAKER TERMINAL assembly (AWZ2456)



POWER SUPPLY assembly (AWZ2455)

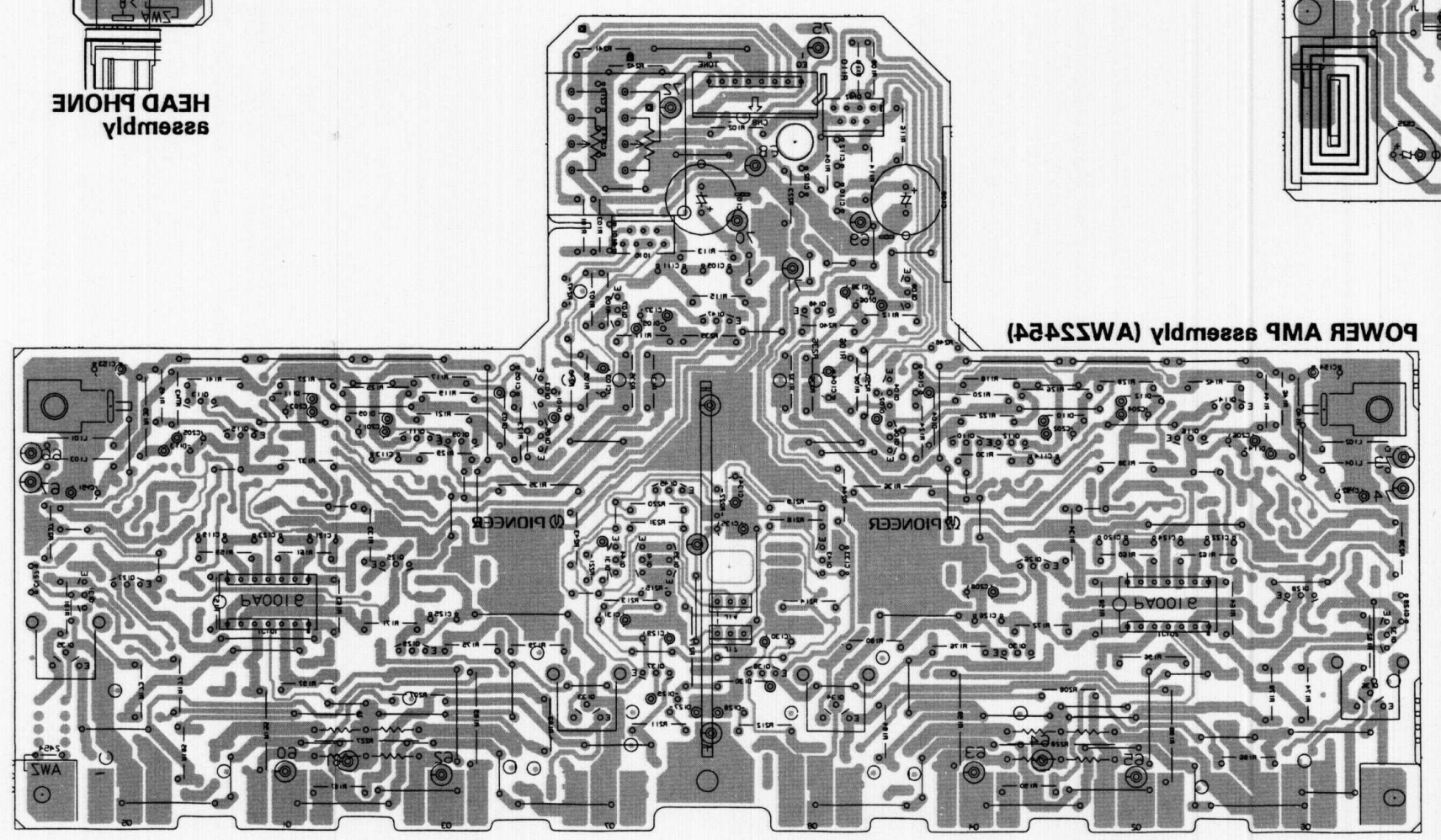
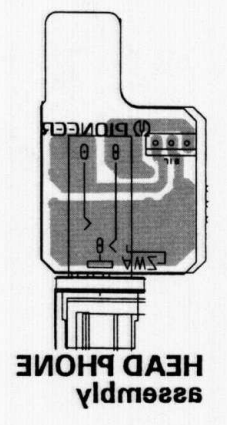
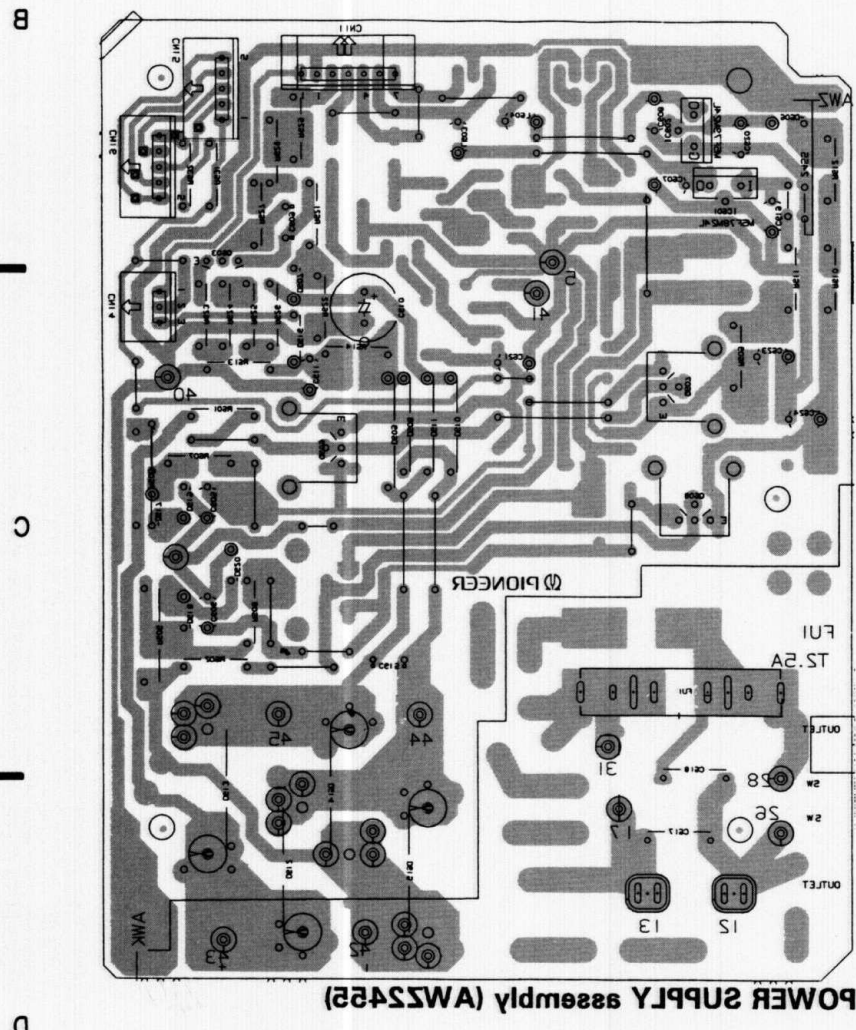
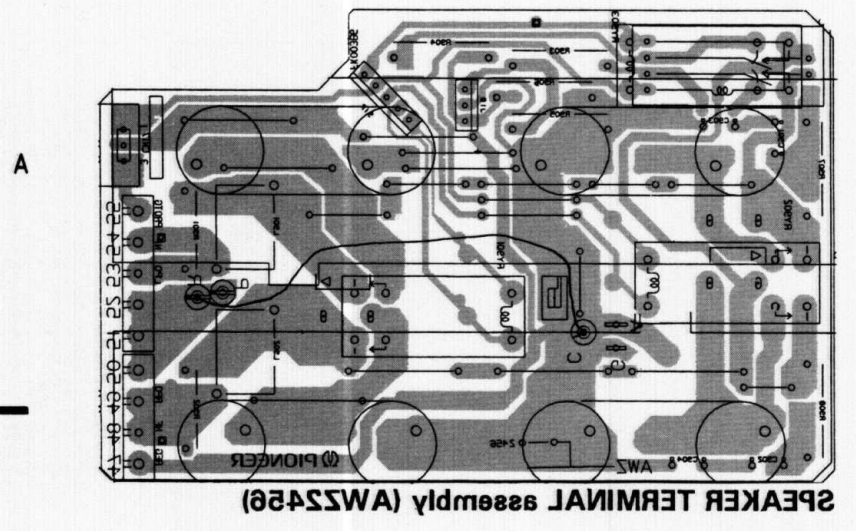
- Q132 Q136 Q128
- Q114 Q116 IC102
- D112 C204
- D110 Q126 Q130
- Q108 D104 Q102 Q106 Q104 Q102 Q106 Q134 Q143
- Q106 Q104 Q102 Q106 Q134 Q143
- Q108 Q106 Q102 Q148 Q147 Q101 D105 Q107 Q101 Q103 Q105 D103 Q109 Q111 D109 Q129 Q125
- Q139 Q145 Q141 Q144 D131 Q105 D103 Q109 Q111 D109 Q129 Q125
- Q138 D130 D128 D127 D129 Q137 Q133
- D111 Q115 Q113 D113 Q127 Q131 Q135

- NOTE
1. This P.C.B. connection diagram is viewed from the parts mounted side.
 2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarity)
		Capacitor (Non-polarity)

Others	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ⊕ (double circles) shows negative terminal.
4. The diode terminal marked with ⊕ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.



0125 0126 0128 0114 0116 0118 0119 0120 0121 0122 0123 0124 0125 0126 0127 0128 0129 0130 0131 0132 0133 0134 0135 0136 0137 0138 0139 0140 0141 0142 0143 0144 0145 0146 0147 0148 0149 0150 0151 0152 0153 0154 0155 0156 0157 0158 0159 0160 0161 0162 0163 0164 0165 0166 0167 0168 0169 0170 0171 0172 0173 0174 0175 0176 0177 0178 0179 0180 0181 0182 0183 0184 0185 0186 0187 0188 0189 0190 0191 0192 0193 0194 0195 0196 0197 0198 0199 0200 0201 0202 0203 0204 0205 0206 0207 0208 0209 0210 0211 0212 0213 0214 0215 0216 0217 0218 0219 0220 0221 0222 0223 0224 0225 0226 0227 0228 0229 0230 0231 0232 0233 0234 0235 0236 0237 0238 0239 0240 0241 0242 0243 0244 0245 0246 0247 0248 0249 0250 0251 0252 0253 0254 0255 0256 0257 0258 0259 0260 0261 0262 0263 0264 0265 0266 0267 0268 0269 0270 0271 0272 0273 0274 0275 0276 0277 0278 0279 0280 0281 0282 0283 0284 0285 0286 0287 0288 0289 0290 0291 0292 0293 0294 0295 0296 0297 0298 0299 0300 0301 0302 0303 0304 0305 0306 0307 0308 0309 0310 0311 0312 0313 0314 0315 0316 0317 0318 0319 0320 0321 0322 0323 0324 0325 0326 0327 0328 0329 0330 0331 0332 0333 0334 0335 0336 0337 0338 0339 0340 0341 0342 0343 0344 0345 0346 0347 0348 0349 0350 0351 0352 0353 0354 0355 0356 0357 0358 0359 0360 0361 0362 0363 0364 0365 0366 0367 0368 0369 0370 0371 0372 0373 0374 0375 0376 0377 0378 0379 0380 0381 0382 0383 0384 0385 0386 0387 0388 0389 0390 0391 0392 0393 0394 0395 0396 0397 0398 0399 0400 0401 0402 0403 0404 0405 0406 0407 0408 0409 0410 0411 0412 0413 0414 0415 0416 0417 0418 0419 0420 0421 0422 0423 0424 0425 0426 0427 0428 0429 0430 0431 0432 0433 0434 0435 0436 0437 0438 0439 0440 0441 0442 0443 0444 0445 0446 0447 0448 0449 0450 0451 0452 0453 0454 0455 0456 0457 0458 0459 0460 0461 0462 0463 0464 0465 0466 0467 0468 0469 0470 0471 0472 0473 0474 0475 0476 0477 0478 0479 0480 0481 0482 0483 0484 0485 0486 0487 0488 0489 0490 0491 0492 0493 0494 0495 0496 0497 0498 0499 0500 0501 0502 0503 0504 0505 0506 0507 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 0800 0801 0802 0803 0804 0805 0806 0807 0808 0809 0810 0811 0812 0813 0814 0815 0816 0817 0818 0819 0820 0821 0822 0823 0824 0825 0826 0827 0828 0829 0830 0831 0832 0833 0834 0835 0836 0837 0838 0839 0840 0841 0842 0843 0844 0845 0846 0847 0848 0849 0850 0851 0852 0853 0854 0855 0856 0857 0858 0859 0860 0861 0862 0863 0864 0865 0866 0867 0868 0869 0870 0871 0872 0873 0874 0875 0876 0877 0878 0879 0880 0881 0882 0883 0884 0885 0886 0887 0888 0889 0890 0891 0892 0893 0894 0895 0896 0897 0898 0899 0900 0901 0902 0903 0904 0905 0906 0907 0908 0909 0910 0911 0912 0913 0914 0915 0916 0917 0918 0919 0920 0921 0922 0923 0924 0925 0926 0927 0928 0929 0930 0931 0932 0933 0934 0935 0936 0937 0938 0939 0940 0941 0942 0943 0944 0945 0946 0947 0948 0949 0950 0951 0952 0953 0954 0955 0956 0957 0958 0959 0960 0961 0962 0963 0964 0965 0966 0967 0968 0969 0970 0971 0972 0973 0974 0975 0976 0977 0978 0979 0980 0981 0982 0983 0984 0985 0986 0987 0988 0989 0990 0991 0992 0993 0994 0995 0996 0997 0998 0999 1000

NOTE:
This picture shows the foil side of the printed circuit.

