

The Citation Eleven

**Professional Solid State
Stereophonic Preamplifier/Audio Equalizer**

Technical Manual

9700924

harman/kardon

REPLACEMENT PARTS

CIRCUIT REF.	DESCRIPTION	HK PART NO.
CAPACITORS		
C1, C2	Disc, 600 PF $\pm 10\%$, 500V	30418336
C3, C4, C5	Disc, 0.01 UF, 1400V	30418307
C6	Lytic, 1000 UF, 100V	31126416
C7	Mylar 0.1 UF $\pm 10\%$, 100V	30222073
C8	Poly, 0.01 UF $\pm 5\%$, 63V	30618929
C9, C10	Mylar, 0.1 UF $\pm 10\%$, 100V	30222073
C11	Poly, 0.01 UF $\pm 5\%$, 63V	30618929
C12-C500	Not Used	
C501	Mylar, 1 UFD, $\pm 10\%$, 100V	31918839
C502	Disc, 150 PF $\pm 10\%$, 100V	31718873
C503	Mylar, 1 UF, 100V	31918839
C504	Disc, 47 PF $\pm 20\%$, 100V	31718776
C505	Mylar, 2700 PF $\pm 5\%$, 100V	31918939
C506	Poly, .01 UF $\pm 5\%$, 63V	30618929
C507	Lytic, 100 UF, 16V	31818880
C508	Mylar, 1 UFD $\pm 10\%$, 100V	31918839
C509	Disc, 150 PF $\pm 10\%$, 100V	31718873
C510	Mylar, 1 UF, 100V	31918839
C511	Disc, 47 PF $\pm 20\%$, 100V	31718776
C512	Mylar, 2700 PF $\pm 5\%$, 100V	31918939
C513	Poly, .01 UF $\pm 5\%$, 63V	30618929
C514	Lytic, 100 UF, 16V	31818880
C515, C516	Lytic, 10 UF, 35V	31518805
C517	Lytic, 50 UF, 25V	31518919
C518	Mylar, 1 UF, 100V	31918839
C519	Disc, 47 PF $\pm 20\%$, 100V	31718776
C520	Lytic, 200 UF, 15V	31518802
C521	Disc, 22 PF $\pm 10\%$, 500V	31718798
C522	Mylar, 1 UF, 100V	31918839
C523, C524	Lytic, 10 UF, 35V	31518805
C525	Disc, 47 PF $\pm 20\%$, 100V	31718776
C526	Lytic, 200 UF, 15V	31518802
C527	Disc, 22 PF $\pm 10\%$, 500V	31718798
C528, C529	Disc, 47PF $\pm 20\%$, 100V	31718776
C530-C600	Not Used	
C601	Mylar, 1 UF, 100V	31918839
C602	Lytic, 10 UF, 35V	31518805
C603	Mylar, 1 UF, 100V	31918839
C604	Disc, 470 PF $\pm 10\%$, 500V	31718825
C605	Disc, 47 PF $\pm 20\%$, 100V	31718776
C606	Lytic, 10 UF, 35V	31518805
C607	Lytic, 5 UF, 25V	31818905
C608	Mylar, .39 UF $\pm 10\%$, 100V	31919089
C609	Mylar, 0.22 UF $\pm 10\%$, 100V	31918791
C610	Mylar, .047 UF $\pm 10\%$, 100V	31918808
C611	Mylar, .015 UF $\pm 10\%$, 100V	31918803
C612-C800	Not Used	
C801-C805	Lytic, 50 UF, 100V	31818897
C806	Lytic, 47 UF, 63V	31518899
C807	Lytic, 500 UF, 50 V	31827095
C808	Lytic, 47 UF, 63V	31518899
C809	Lytic, 500 UF, 50 V	31827095
C810, C811	Lytic, 50 UF, 100V	31818897

DIODES

CR1-CR800	Not Used	
CR801-CR803	200 PIV	41022464

COILS

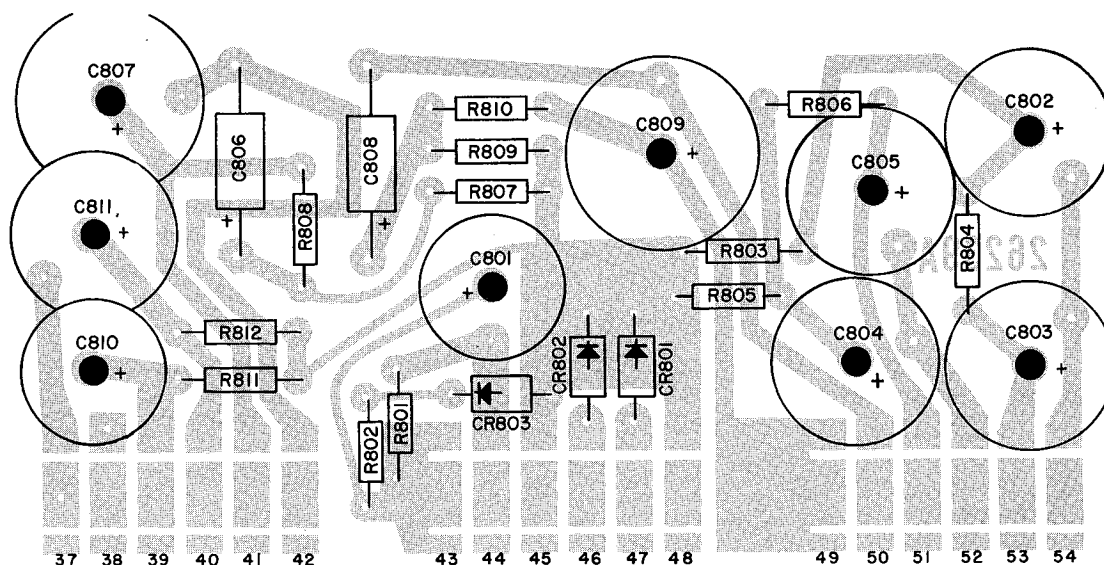
L1-L600	Not Used	
L601	Choke, 1H $\pm 10\%$	12027623
L602	Choke, 0.6H $\pm 10\%$	12027624
L603	Choke, 102MH $\pm 10\%$	12025894
L604	Choke, 22 MH $\pm 10\%$	12025896
L605	Choke, 10 MH $\pm 10\%$	12025895

CIRCUIT REF.	DESCRIPTION	HK PART NO.
TRANSISTORS		
Q1-Q500	Not Used	
Q501	BC239C Seimens	43027872
Q502	2N3417 Motorola EL-238 Series	43025972
Q503	BC239C Seimens	43027872
Q504, Q505	2N3417 Motorola EL-238 Series	43025972
Q506	FET P-CHAN AMELCO	43022956
Q507	2N3417 Motorola EL-238 Series	43025972
Q508	FET P-CHAN AMELCO	43022956
Q509	2N3417 Motorola EL-238 Series	43025972
Q510	FET P-CHAN AMELCO	43022956
Q511	2N3417 Motorola EL-238 Series	43025972
Q512-Q600	Not Used	
Q601	2N3417 Motorola EL-238 Series	43025972

RESISTORS

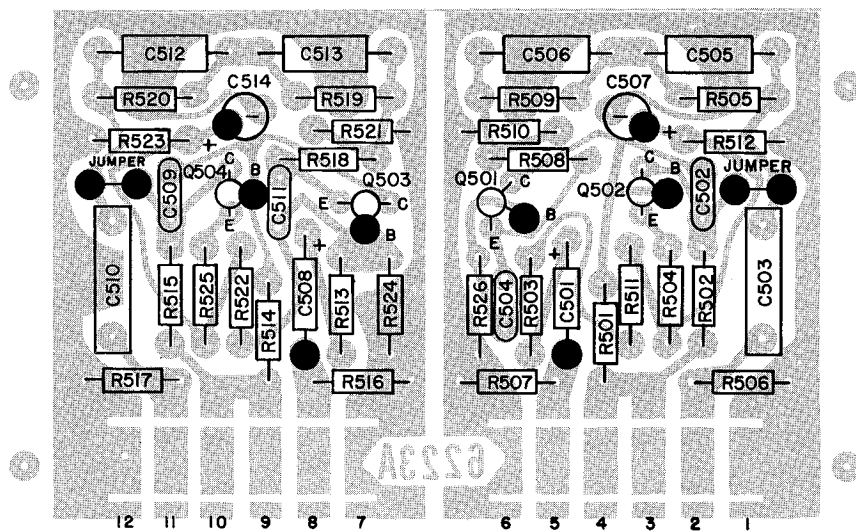
R1, R2	15K $\pm 10\%$, $\frac{1}{4}$ W	33211531
R3	3.3K $\pm 10\%$, 3W Wire Wound	36613321
R4, R5	3.3K $\pm 10\%$, $\frac{1}{4}$ W	33213321
R6, R7	330 $\pm 10\%$, 5W Wire Wound	36713311
R8-R500	Not Used	
R501	1 meg $\pm 10\%$, $\frac{1}{4}$ W	33211051
R502	12K $\pm 10\%$, $\frac{1}{4}$ W	33211231
R503	1K $\pm 10\%$, $\frac{1}{4}$ W	33211021
R504	100 $\pm 5\%$, $\frac{1}{4}$ W	33211015
R505	24K $\pm 1\%$, $\frac{1}{4}$ W	33212433
R506	150K $\pm 10\%$, $\frac{1}{4}$ W	33211541
R507	470K $\pm 10\%$, $\frac{1}{4}$ W	33214741
R508	180 $\pm 5\%$, $\frac{1}{4}$ W	33211815
R509	390K $\pm 1\%$, $\frac{1}{4}$ W	33213943
R510	560 $\pm 5\%$, $\frac{1}{4}$ W	33215615
R511	470K $\pm 10\%$, $\frac{1}{4}$ W	33214741
R512	2.0K $\pm 5\%$, $\frac{1}{4}$ W	33212025
R513	1K $\pm 10\%$, $\frac{1}{4}$ W	33211021
R514	1 meg $\pm 10\%$, $\frac{1}{4}$ W	33211051
R515	12K $\pm 10\%$, $\frac{1}{4}$ W	33211231
R516	470K $\pm 10\%$, $\frac{1}{4}$ W	33214741
R517	150K $\pm 10\%$, $\frac{1}{4}$ W	33211541
R518	180 $\pm 5\%$, $\frac{1}{4}$ W	33211815
R519	390K $\pm 10\%$, $\frac{1}{4}$ W	33213943
R520	24K $\pm 1\%$, $\frac{1}{4}$ W	33212433
R521	560 $\pm 5\%$, $\frac{1}{4}$ W	33215615
R522	470K $\pm 10\%$, $\frac{1}{4}$ W	33214741
R523	2.0K $\pm 5\%$, $\frac{1}{4}$ W	33212025
R524	68K $\pm 10\%$, $\frac{1}{4}$ W	33216831
R525, R526	68K $\pm 10\%$, $\frac{1}{4}$ W	33216831
R527	2.2M $\pm 10\%$, $\frac{1}{4}$ W	33212251
R528	1M $\pm 10\%$, $\frac{1}{4}$ W	33211051
R529	470K $\pm 10\%$, $\frac{1}{4}$ W	33214741
R530	1K $\pm 10\%$, $\frac{1}{4}$ W	33211021
R531	47K $\pm 10\%$, $\frac{1}{4}$ W	33214731
R532	2.2M $\pm 10\%$, $\frac{1}{4}$ W	33212251
R533	150K $\pm 10\%$, $\frac{1}{4}$ W	33211541
R534	390 $\pm 10\%$, $\frac{1}{4}$ W	33213911
R535	220 $\pm 5\%$, $\frac{1}{4}$ W	33212215
R536	5.6K $\pm 5\%$, $\frac{1}{4}$ W	33215625
R537	1.5M $\pm 10\%$, $\frac{1}{4}$ W	33211551
R538	5.6 $\pm 10\%$, $\frac{1}{4}$ W	33215621
R539	68K $\pm 10\%$, $\frac{1}{4}$ W	33216831
R540	1K $\pm 10\%$, $\frac{1}{4}$ W	33211021
R541	470K $\pm 10\%$, $\frac{1}{4}$ W	33214741
R542	47K $\pm 10\%$, $\frac{1}{4}$ W	33214731
R543	150K $\pm 10\%$, $\frac{1}{4}$ W	33211541
R544	390 $\pm 10\%$, $\frac{1}{4}$ W	33213911
R545	220 $\pm 5\%$, $\frac{1}{4}$ W	33212215
R546	5.6K $\pm 5\%$, $\frac{1}{4}$ W	33215625
R547	5.6K $\pm 10\%$, $\frac{1}{4}$ W	33215621

CIRCUIT REF.	DESCRIPTION	HK PART NO.	DESCRIPTION	HK PART NO.
RESISTORS			Light Shield, Fishpaper,	
R548	100 $\pm 10\%$, $\frac{1}{4}$ W	33211011	Slide Control	61426352
R549-R600	Not Used		Function Switch	24025502
R601	470 $\pm 10\%$, $\frac{1}{4}$ W	33214741	Mode Switch	24025430
R602	3.3K $\pm 10\%$, $\frac{1}{4}$ W	33213321	Pushbutton Switch, Power	25026153
R603	2.2M $\pm 10\%$, $\frac{1}{4}$ W	33212251	Pushbutton Switch, DPDT	25026151
R604	1K $\pm 10\%$, $\frac{1}{4}$ W	33211021	Headphone Jack W/Hardware	65426283
R605	1.5M $\pm 10\%$, $\frac{1}{4}$ W	33211551	Speaker Selector Switch	24025431
R606	3.3K $\pm 10\%$, $\frac{1}{4}$ W	33213321	Speaker Selector Switch Shaft	60426231
R607	1M $\pm 10\%$, $\frac{1}{4}$ W	33211051	Speaker Switch Shaft Coupler	60426216
R608	270 $\pm 10\%$, $\frac{1}{4}$ W	33212711	Speaker Switch Shaft Bushing	61613253
R609-R612	470 $\pm 10\%$, $\frac{1}{4}$ W	33214711	Pilot Light Jewel	61626346
R613-R800	Not Used		Pilot Lamp	46527153
R801	15K $\pm 10\%$, $\frac{1}{2}$ W	33311531	Fuse Holder W/Hardware	65410901
R802	10K $\pm 10\%$, $\frac{1}{2}$ W	33311031	Fuse, 0.25A-3AG	45026404
R803-R806	3.9K $\pm 10\%$, $\frac{1}{2}$ W	33313921	Line Cord	53021115
R807-R810	15K $\pm 10\%$, $\frac{1}{2}$ W	33311531	Strain Relief	65421116
R811, R812	3.3K $\pm 10\%$, $\frac{1}{2}$ W	33313321	AC Receptacle, Black	65416751
TRANSFORMER			AC Receptacle, White	65427146
T1	Power	10125602	Ground Terminal	65426317
CONTROLS			Speaker Connection Strip	65426351
VR1	Volume, 50K, Rotary	22026162	Power Amp. Input Conn., Female	65426341
VR2	Balance, 50K, Rotary	22026161	Power Amp. Input Conn., Male	65426340
VR3-VR7	Audio Equalizers, 50K, Slide	22125397	RCA Jack Ass'y	65426318
MISCELLANEOUS			Tone Control PC Board	
	Knob, Rotary	63228028	W/Components	00126143
	Knob, Slide	63228033	Phono Preamp PC Board	
	Knob, Pushbutton	00228324	W/Components	00126344
	Escutcheon	63028247	Preamp Output PC Board	
	Top Cover	60125936	W/Components	00126345
	Bottom Plate	60125937	Power Supply PC Board	
	Rubber Foot	62011692	W/Components	00126346
			PC Board Connector Strip	65425278
			PC Board Guide, Edge Mounting	61626248
			PC Board Guide, Free Standing	61626267
			Owner Manual	90726401
			Technical Manual	90728859
			Speaker Patch Cable	57526338

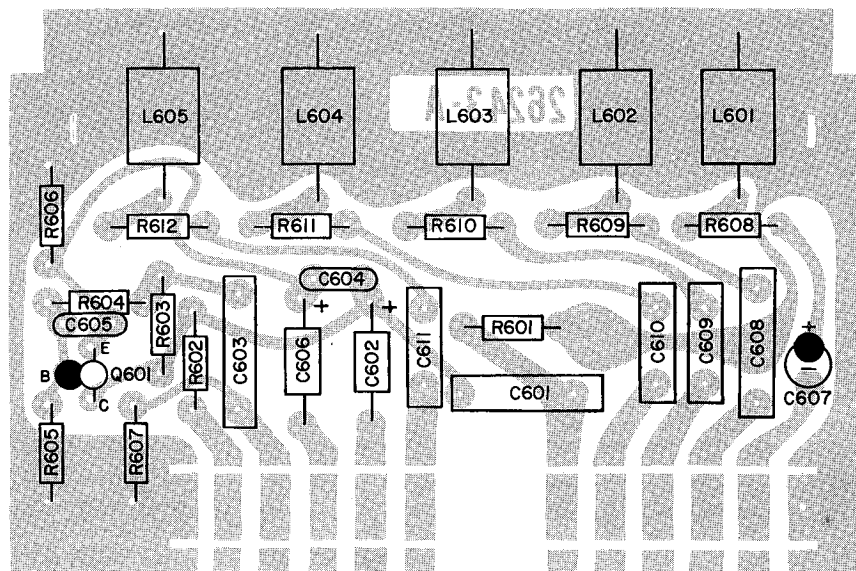


POWER SUPPLY PC BOARD

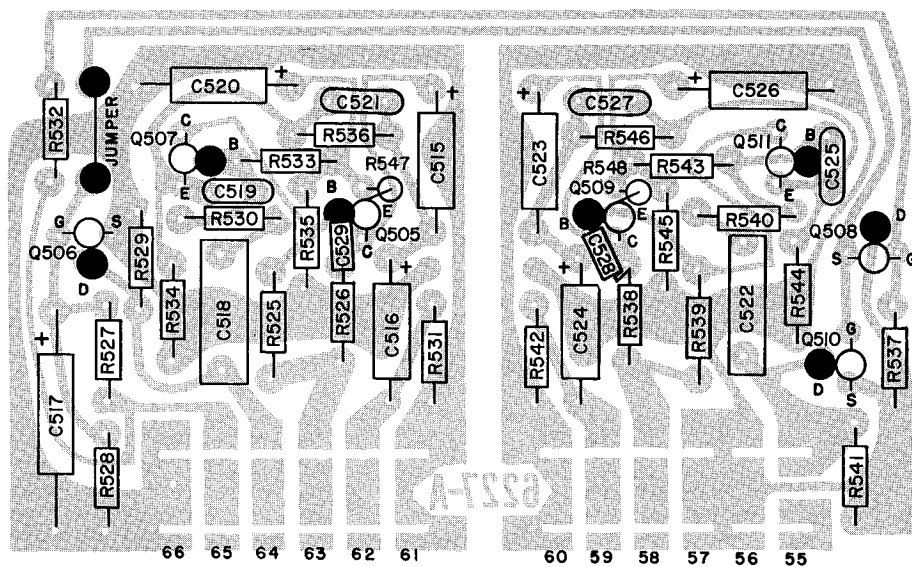
2 H



PHONO PREAMP PC BOARD

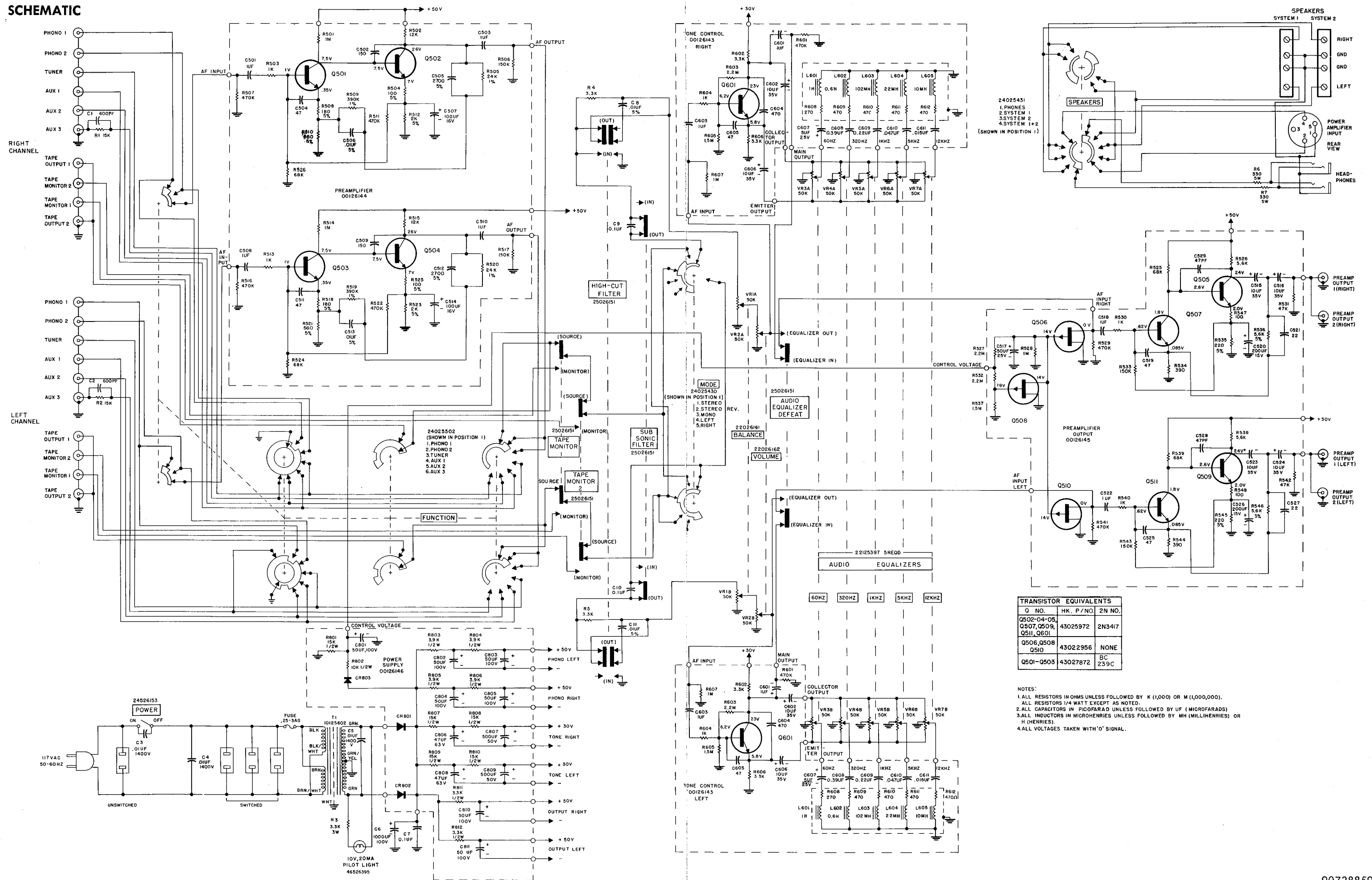


TONE CONTROL PC BOARD

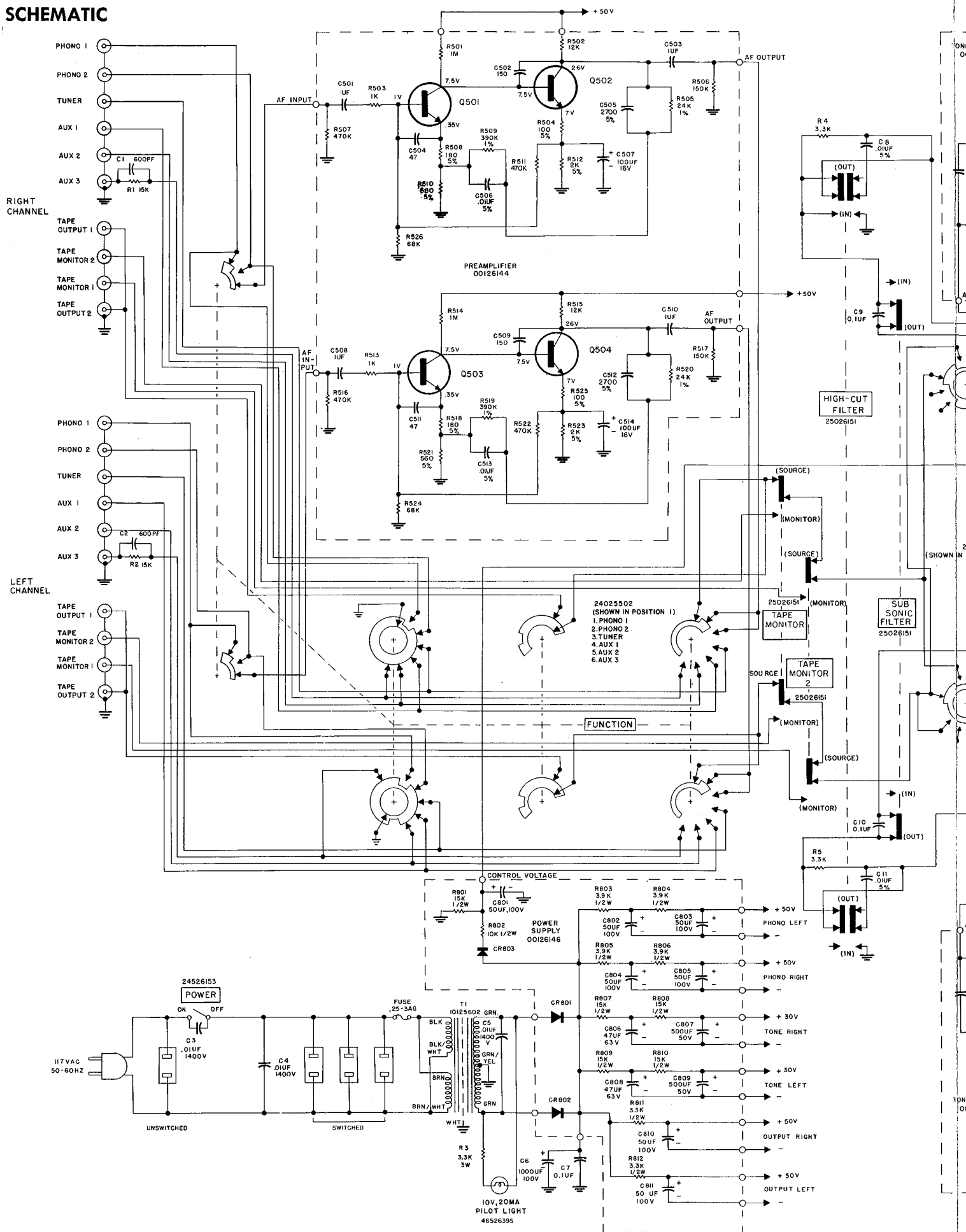


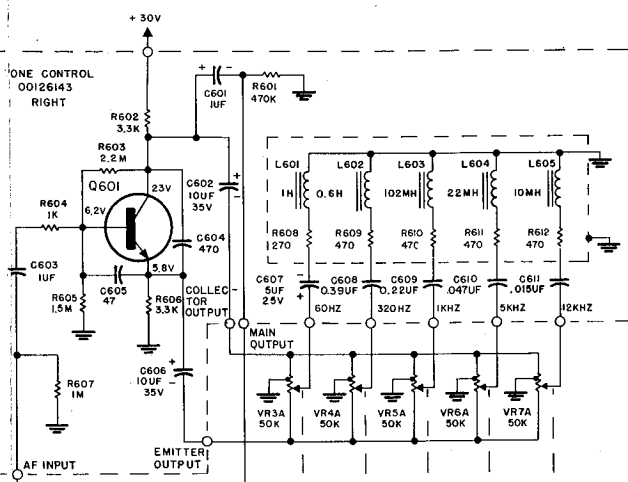
PREAMP OUTPUT PC BOARD

SCHEMATIC

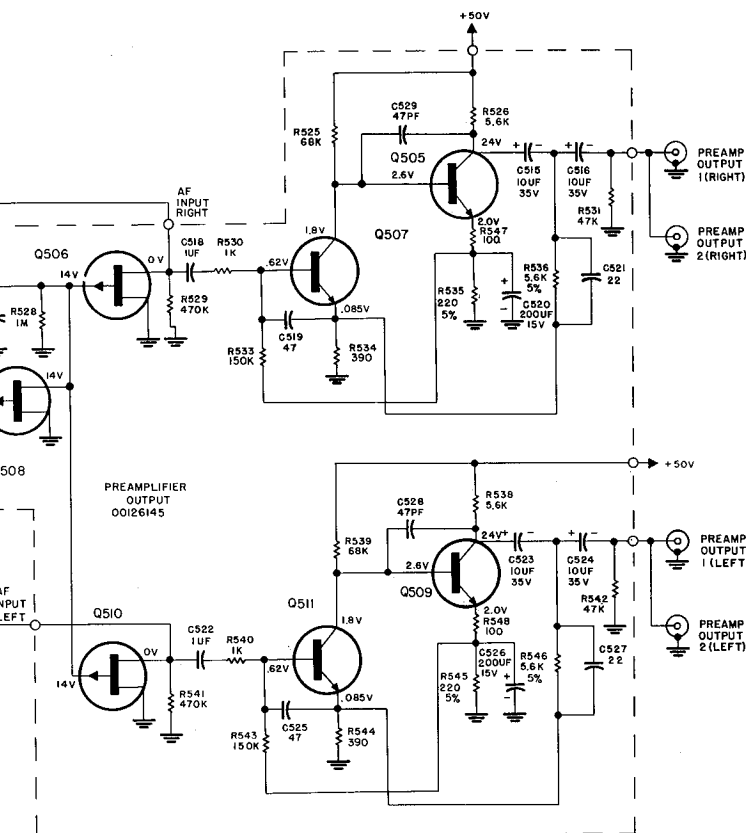
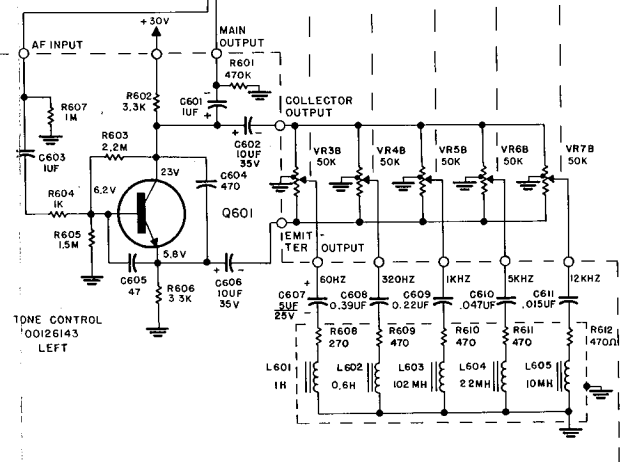
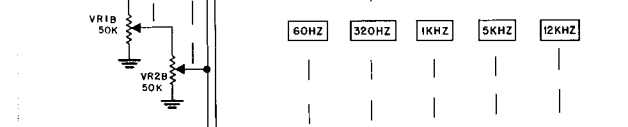
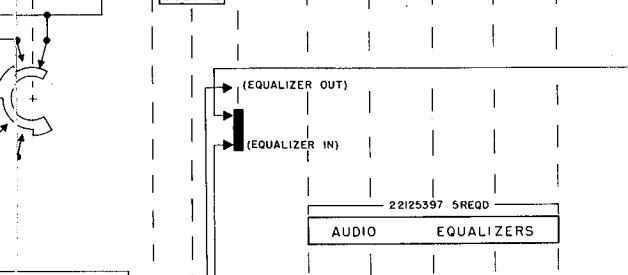
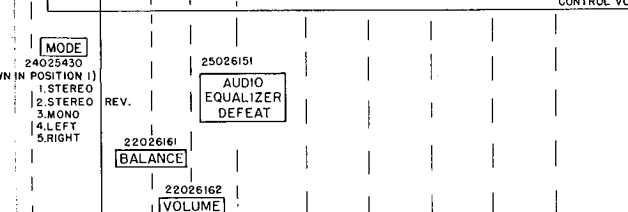
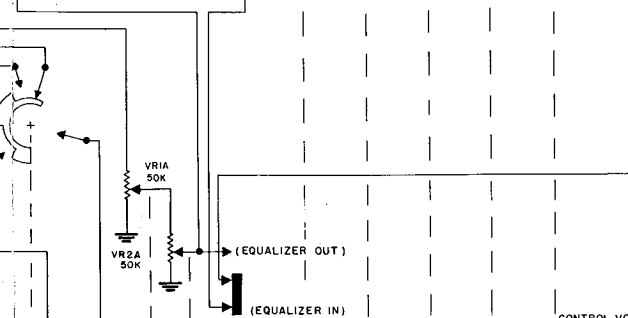
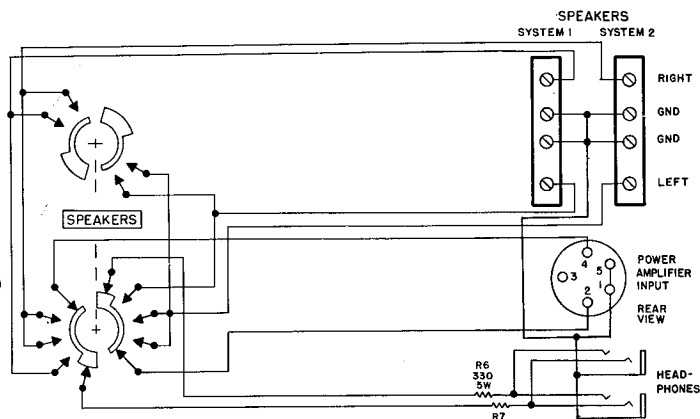


SCHEMATIC





24025431
1. PHONES
2. SYSTEM 1
3. SYSTEM 2
4. SYSTEM 1+2
(SHOWN IN POSITION 1)



Q NO.	HK. P/NO.	2N NO.
Q502-Q4-Q5, Q507,Q509, Q511,Q601	43025972	2N3417
Q506,Q508 Q510	43022956	NONE
Q501-Q503	43027872	BC 239C

NOTES:

1. ALL RESISTORS IN OHMS UNLESS FOLLOWED BY K (1,000) OR M (1,000,000). ALL RESISTORS 1/4 WATT EXCEPT AS NOTED.
2. ALL CAPACITORS IN PICO FARAD UNLESS FOLLOWED BY UF (MICROFARADS)
3. ALL INDUCTORS IN MICROHENRIES UNLESS FOLLOWED BY MH (MILLIHENRIES) OR H (HENRIES).
4. ALL VOLTAGES TAKEN WITH 'O' SIGNAL.