

The Citation Eleven

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

Technical Manual

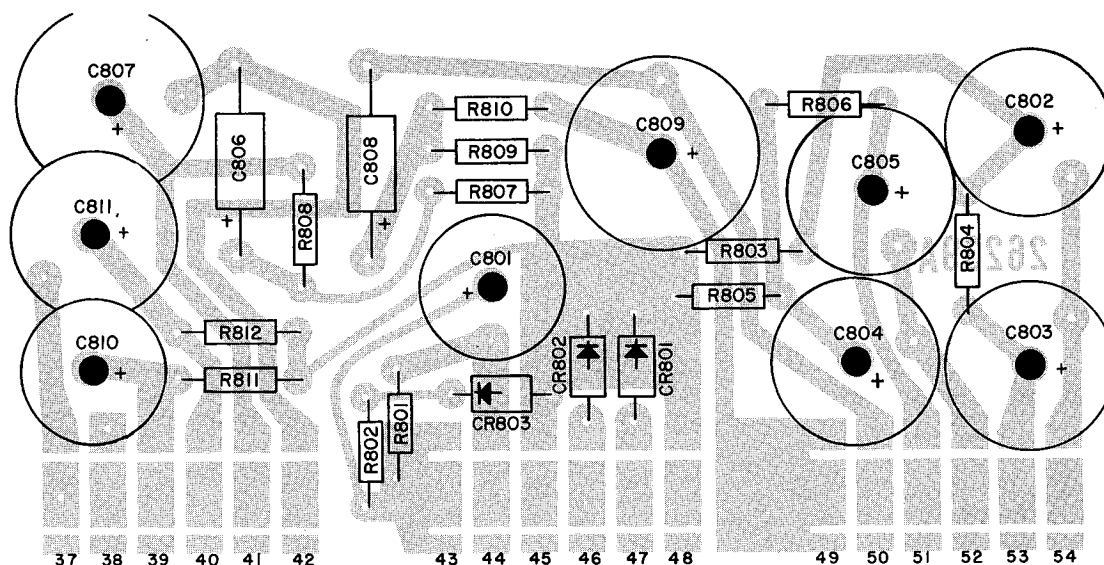
9700924

harman/kardon

REPLACEMENT PARTS

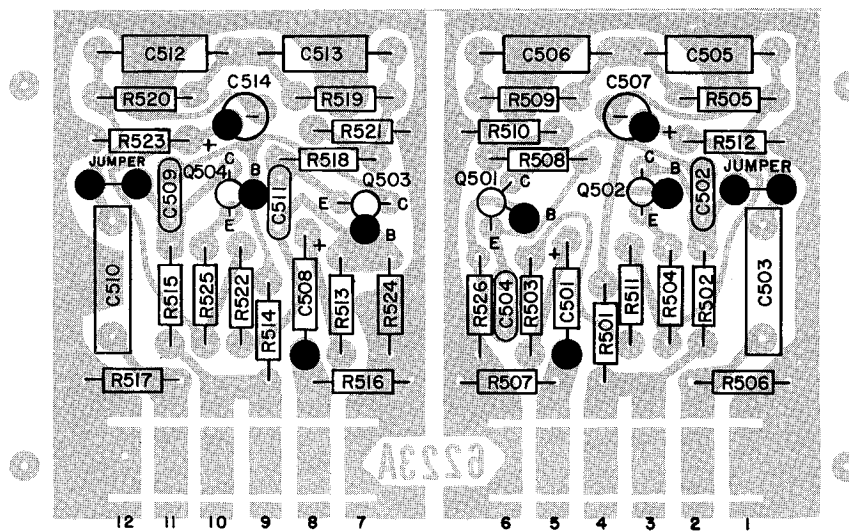
CIRCUIT REF.	DESCRIPTION	HK PART NO.	CIRCUIT REF.	DESCRIPTION	HK PART NO.
CAPACITORS			TRANSISTORS		
C1, C2	Disc, 600 PF $\pm 10\%$, 500V	30418336	Q1-Q500	Not Used	
C3, C4, C5	Disc, 0.01 UF, 1400V	30418307	Q501	BC239C Seimens	43027872
C6	Lytic, 1000 UF, 100V	31126416	Q502	2N3417 Motorola EL-238 Series	43025972
C7	Mylar 0.1 UF $\pm 10\%$, 100V	30222073	Q503	BC239C Seimens	43027872
C8	Poly, 0.01 UF $\pm 5\%$, 63V	30618929	Q504, Q505	2N3417 Motorola EL-238 Series	43025972
C9, C10	Mylar, 0.1 UF $\pm 10\%$, 100V	30222073	Q506	FET P-CHAN AMELCO	43022956
C11	Poly, 0.01 UF $\pm 5\%$, 63V	30618929	Q507	2N3417 Motorola EL-238 Series	43025972
C12-C500	Not Used		Q508	FET P-CHAN AMELCO	43022956
C501	Mylar, 1 UFD, $\pm 10\%$, 100V	31918839	Q509	2N3417 Motorola EL-238 Series	43025972
C502	Disc, 150 PF $\pm 10\%$, 100V	31718873	Q510	FET P-CHAN AMELCO	43022956
C503	Mylar, 1 UF, 100V	31918839	Q511	2N3417 Motorola EL-238 Series	43025972
C504	Disc, 47 PF $\pm 20\%$, 100V	31718776	Q512-Q600	Not Used	
C505	Mylar, 2700 PF $\pm 5\%$, 100V	31918939	Q601	2N3417 Motorola EL-238 Series	43025972
C506	Poly, .01 UF $\pm 5\%$, 63V	30618929	RESISTORS		
C507	Lytic, 100 UF, 16V	31818880	R1, R2	15K $\pm 10\%$, $\frac{1}{4}$ W	33211531
C508	Mylar, 1 UFD $\pm 10\%$, 100V	31918839	R3	3.3K $\pm 10\%$, 3W Wire Wound	36613321
C509	Disc, 150 PF $\pm 10\%$, 100V	31718873	R4, R5	3.3K $\pm 10\%$, $\frac{1}{4}$ W	33213321
C510	Mylar, 1 UF, 100V	31918839	R6, R7	330 $\pm 10\%$, 5W Wire Wound	36713311
C511	Disc, 47 PF $\pm 20\%$, 100V	31718776	R8-R500	Not Used	
C512	Mylar, 2700 PF $\pm 5\%$, 100V	31918939	R501	1 meg $\pm 10\%$, $\frac{1}{4}$ W	33211051
C513	Poly, .01 UF $\pm 5\%$, 63V	30618929	R502	12K $\pm 10\%$, $\frac{1}{4}$ W	33211231
C514	Lytic, 100 UF, 16V	31818880	R503	1K $\pm 10\%$, $\frac{1}{4}$ W	33211021
C515, C516	Lytic, 10 UF, 35V	31518805	R504	100 $\pm 5\%$, $\frac{1}{4}$ W	33211015
C517	Lytic, 50 UF, 25V	31518919	R505	24K $\pm 1\%$, $\frac{1}{4}$ W	33212433
C518	Mylar, 1 UF, 100V	31918839	R506	150K $\pm 10\%$, $\frac{1}{4}$ W	33211541
C519	Disc, 47 PF $\pm 20\%$, 100V	31718776	R507	470K $\pm 10\%$, $\frac{1}{4}$ W	33214741
C520	Lytic, 200 UF, 15V	31518802	R508	180 $\pm 5\%$, $\frac{1}{4}$ W	33211815
C521	Disc, 22 PF $\pm 10\%$, 500V	31718798	R509	390K $\pm 1\%$, $\frac{1}{4}$ W	33213943
C522	Mylar, 1 UF, 100V	31918839	R510	560 $\pm 5\%$, $\frac{1}{4}$ W	33215615
C523, C524	Lytic, 10 UF, 35V	31518805	R511	470K $\pm 10\%$, $\frac{1}{4}$ W	33214741
C525	Disc, 47 PF $\pm 20\%$, 100V	31718776	R512	2.0K $\pm 5\%$, $\frac{1}{4}$ W	33212025
C526	Lytic, 200 UF, 15V	31518802	R513	1K $\pm 10\%$, $\frac{1}{4}$ W	33211021
C527	Disc, 22 PF $\pm 10\%$, 500V	31718798	R514	1 meg $\pm 10\%$, $\frac{1}{4}$ W	33211051
C528, C529	Disc, 47PF $\pm 20\%$, 100V	31718776	R515	12K $\pm 10\%$, $\frac{1}{4}$ W	33211231
C530-C600	Not Used		R516	470K $\pm 10\%$, $\frac{1}{4}$ W	33214741
C601	Mylar, 1 UF, 100V	31918839	R517	150K $\pm 10\%$, $\frac{1}{4}$ W	33211541
C602	Lytic, 10 UF, 35V	31518805	R518	180 $\pm 5\%$, $\frac{1}{4}$ W	33211815
C603	Mylar, 1 UF, 100V	31918839	R519	390K $\pm 10\%$, $\frac{1}{4}$ W	33213943
C604	Disc, 470 PF $\pm 10\%$, 500V	31718825	R520	24K $\pm 1\%$, $\frac{1}{4}$ W	33212433
C605	Disc, 47 PF $\pm 20\%$, 100V	31718776	R521	560 $\pm 5\%$, $\frac{1}{4}$ W	33215615
C606	Lytic, 10 UF, 35V	31518805	R522	470K $\pm 10\%$, $\frac{1}{4}$ W	33214741
C607	Lytic, 5 UF, 25V	31818905	R523	2.0K $\pm 5\%$, $\frac{1}{4}$ W	33212025
C608	Mylar, .39 UF $\pm 10\%$, 100V	31919089	R524	68K $\pm 10\%$, $\frac{1}{4}$ W	33216831
C609	Mylar, 0.22 UF $\pm 10\%$, 100V	31918791	R525, R526	68K $\pm 10\%$, $\frac{1}{4}$ W	33216831
C610	Mylar, .047 UF $\pm 10\%$, 100V	31918808	R527	2.2M $\pm 10\%$, $\frac{1}{4}$ W	33212251
C611	Mylar, .015 UF $\pm 10\%$, 100V	31918803	R528	1M $\pm 10\%$, $\frac{1}{4}$ W	33211051
C612-C800	Not Used		R529	470K $\pm 10\%$, $\frac{1}{4}$ W	33214741
C801-C805	Lytic, 50 UF, 100V	31818897	R530	1K $\pm 10\%$, $\frac{1}{4}$ W	33211021
C806	Lytic, 47 UF, 63V	31518899	R531	47K $\pm 10\%$, $\frac{1}{4}$ W	33214731
C807	Lytic, 500 UF, 50 V	31827095	R532	2.2M $\pm 10\%$, $\frac{1}{4}$ W	33212251
C808	Lytic, 47 UF, 63V	31518899	R533	150K $\pm 10\%$, $\frac{1}{4}$ W	33211541
C809	Lytic, 500 UF, 50 V	31827095	R534	390 Ω $\pm 10\%$, $\frac{1}{4}$ W	33213911
C810, C811	Lytic, 50 UF, 100V	31818897	R535	220 $\pm 5\%$, $\frac{1}{4}$ W	33212215
DIODES			R536	5.6K $\pm 5\%$, $\frac{1}{4}$ W	33215625
CR1-CR800	Not Used		R537	1.5M $\pm 10\%$, $\frac{1}{4}$ W	33211551
CR801-CR803	200 PIV	41022464	R538	5.6 $\pm 10\%$, $\frac{1}{4}$ W	33215621
COILS			R539	68K $\pm 10\%$, $\frac{1}{4}$ W	33216831
L1-L600	Not Used		R540	1K $\pm 10\%$, $\frac{1}{4}$ W	33211021
L601	Choke, 1H $\pm 10\%$	12027623	R541	470K $\pm 10\%$, $\frac{1}{4}$ W	33214741
L602	Choke, 0.6H $\pm 10\%$	12027624	R542	47K $\pm 10\%$, $\frac{1}{4}$ W	33214731
L603	Choke, 102MH $\pm 10\%$	12025894	R543	150K $\pm 10\%$, $\frac{1}{4}$ W	33211541
L604	Choke, 22 MH $\pm 10\%$	12025896	R544	390 Ω $\pm 10\%$, $\frac{1}{4}$ W	33213911
L605	Choke, 10 MH $\pm 10\%$	12025895	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

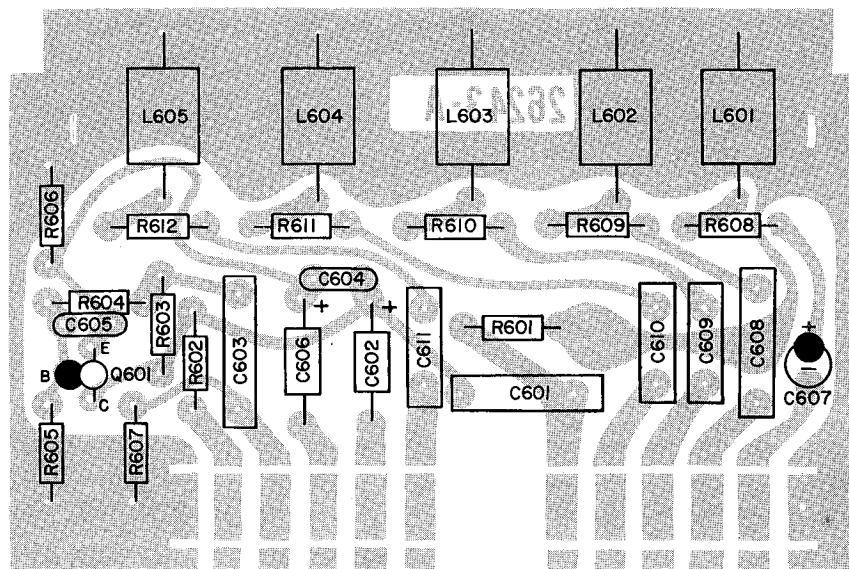


POWER SUPPLY PC BOARD

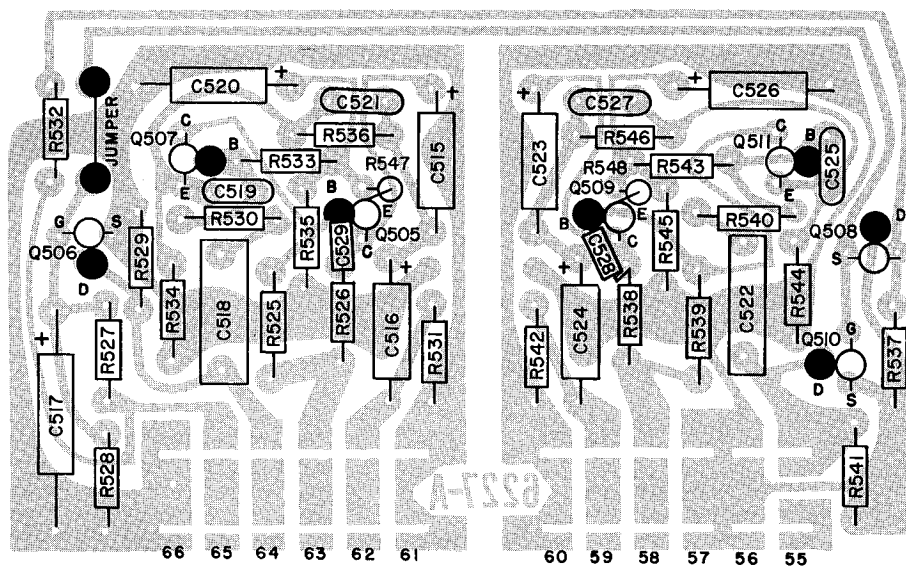
2 H



PHONO PREAMP PC BOARD

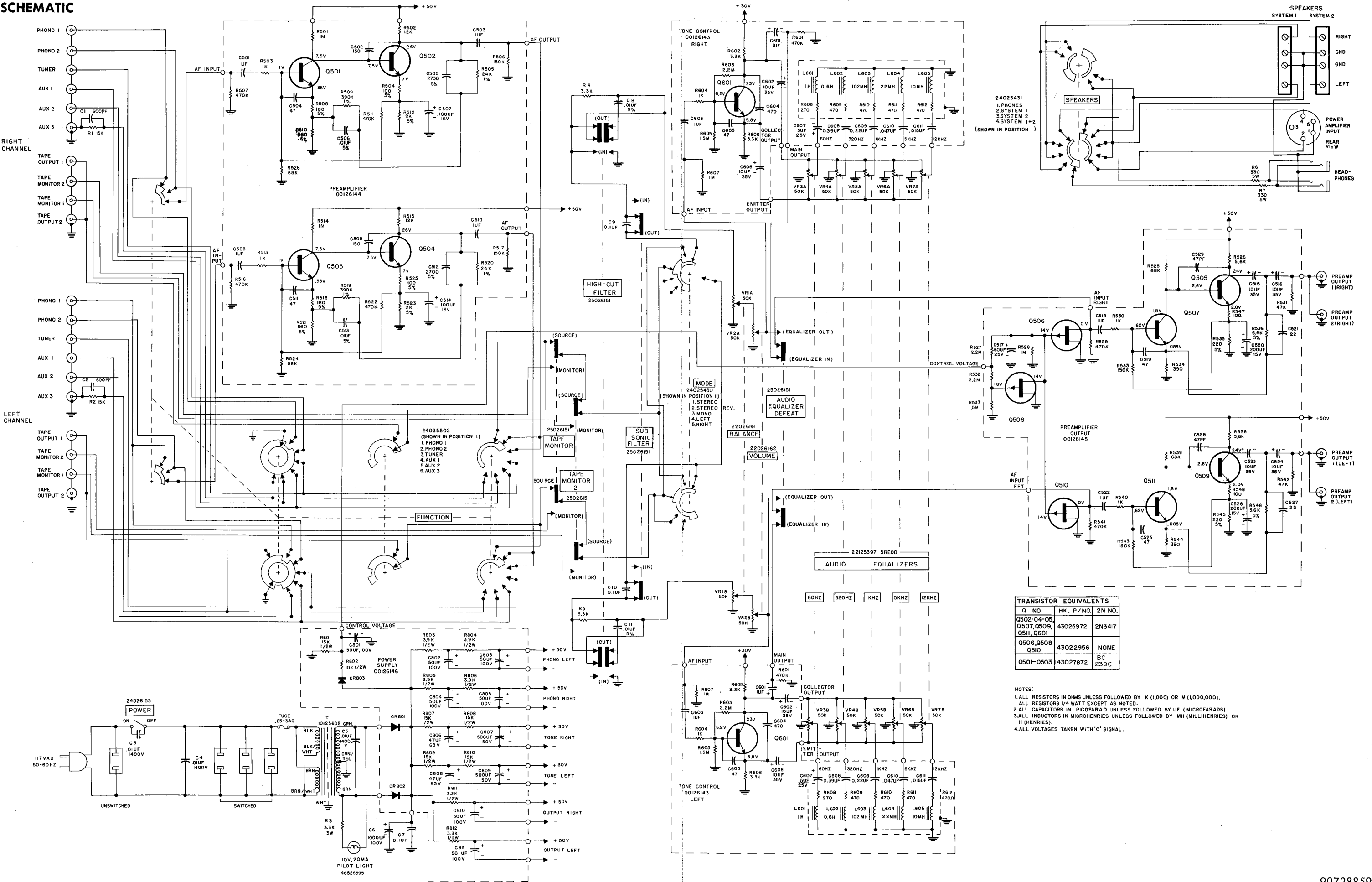


TONE CONTROL PC BOARD



PREAMP OUTPUT PC BOARD

SCHEMATIC

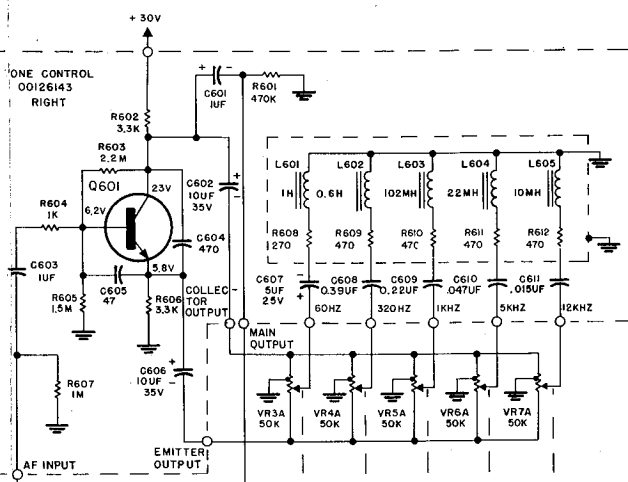


TRANSISTOR EQUIVALENTS		
Q NO.	HK. P/NO.	2N NO.
Q502-Q504, Q507, Q509, Q511, Q601	43025972	2N3417
Q506, Q508, Q510	43022956	NONE
Q501-Q503	43027872	BC 239C

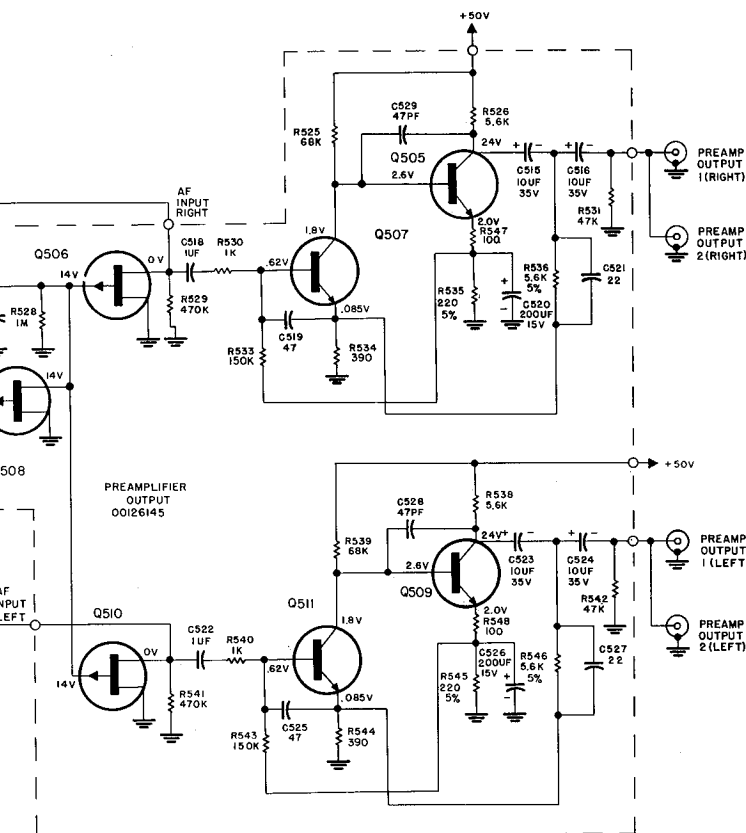
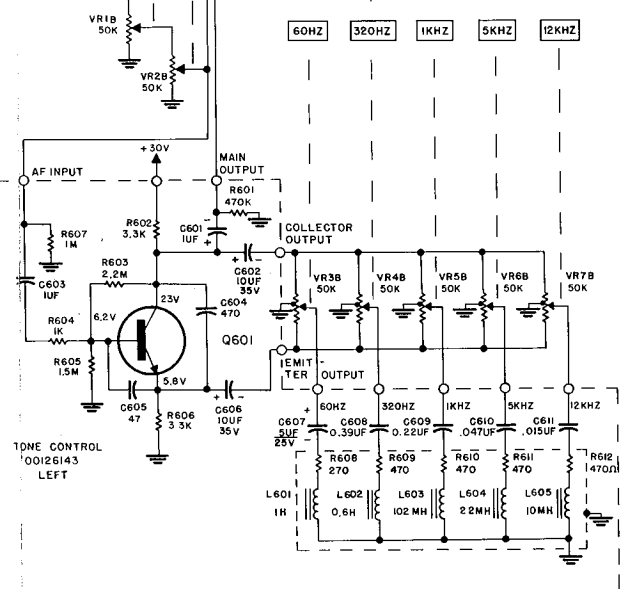
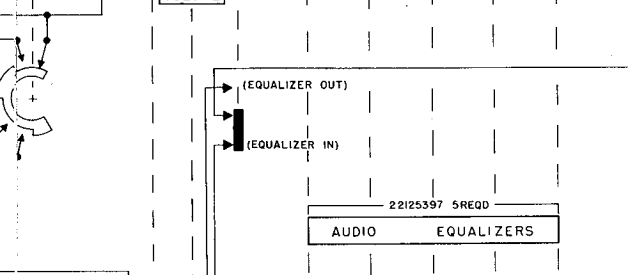
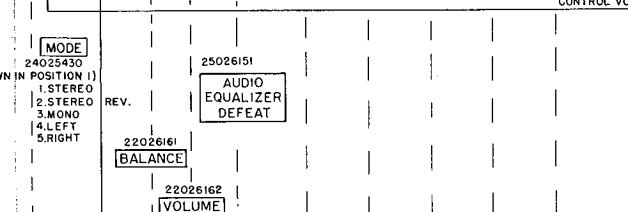
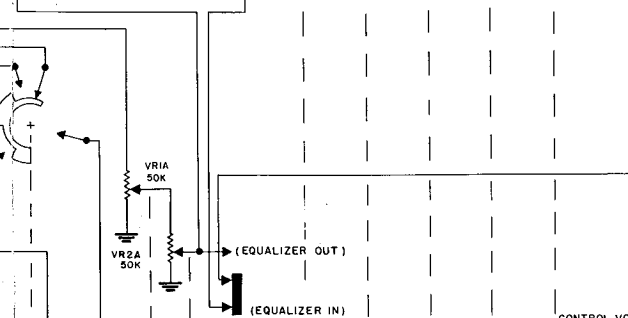
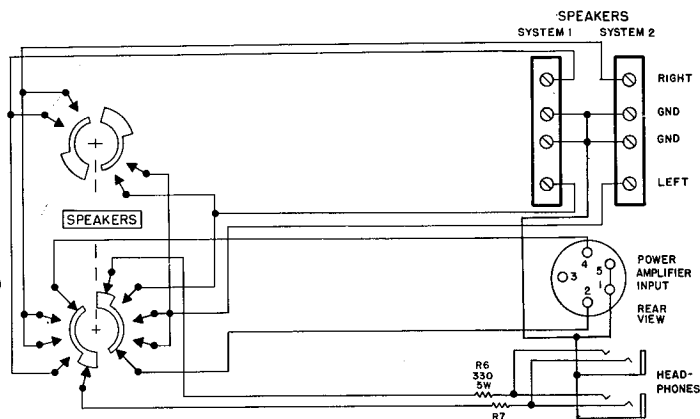
- NOTES:
1. ALL RESISTORS IN OHMS UNLESS FOLLOWED BY K (1,000) OR M (1,000,000).
 2. ALL CAPACITORS IN PICOFARAD UNLESS FOLLOWED BY UF (MICROFARADS).
 3. ALL INDUCTORS IN MICROHENRIES UNLESS FOLLOWED BY MH (MILLIHENRIES) OR H (HENRIES).
 4. ALL VOLTAGES TAKEN WITH 'O' SIGNAL.

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.