

SUPERSCOPE®

STEREO AMPLIFIER

Model QA-450(e)

SERVICE DATA

— Nov. 1973 —

SUPERSCOPE INC.

8150 VINELAND AVENUE.

SUN VALLEY, CALIFORNIA 91352 U.S.A.

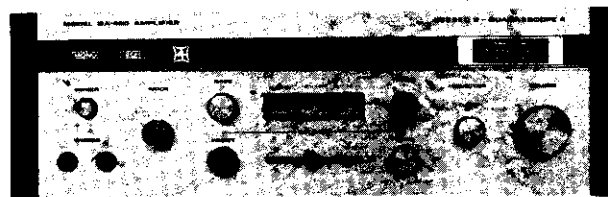


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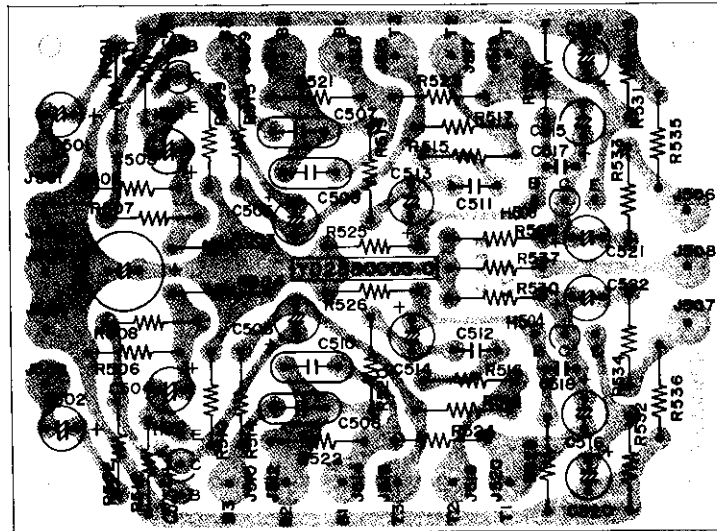
TECHNICAL SPECIFICATIONS

Input Impedance - Low level input	Phono 47K	Dimensions	
High level input	100K	Width	14 - 19/32"
Input Sensitivity - Phono	2.6mV	Height	4 - 13/16"
High level	150mV	Depth	11 - 5/16"
Frequency Response	±3.0dB, 20Hz to 100KHz	Weight	18 lbs
	at 1W output	Semi Conductors	52 transistors, 16 diodes,
Total Harmonic Distortion	Less than 1.0%		1 IC, 2 FET
	rated power output	Signal to Noise Ratio - Phono	60dB
Rated continuous (RMS) Output		Aux	75dB
Per channel, all channels operating			
simultaneously	25W x 2		
	10W x 4		
Comparable Total Music Power (IHF)...	64 watts at 8 ohms		
Power Requirement	AC 110, 120, 220, 240V		
	50 to 60Hz		
At rated output all channels operating	90 watts		

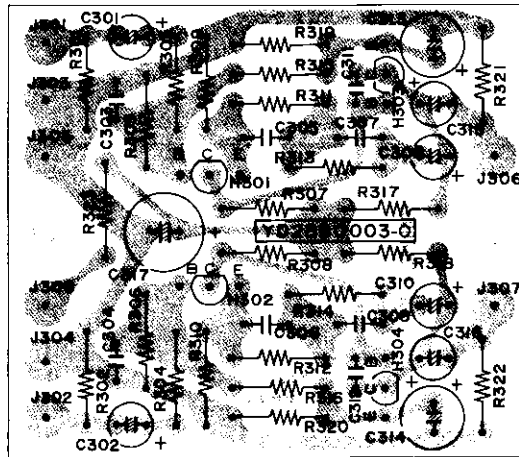
* These specifications and exterior designs may be changed for improvement without advance notice.

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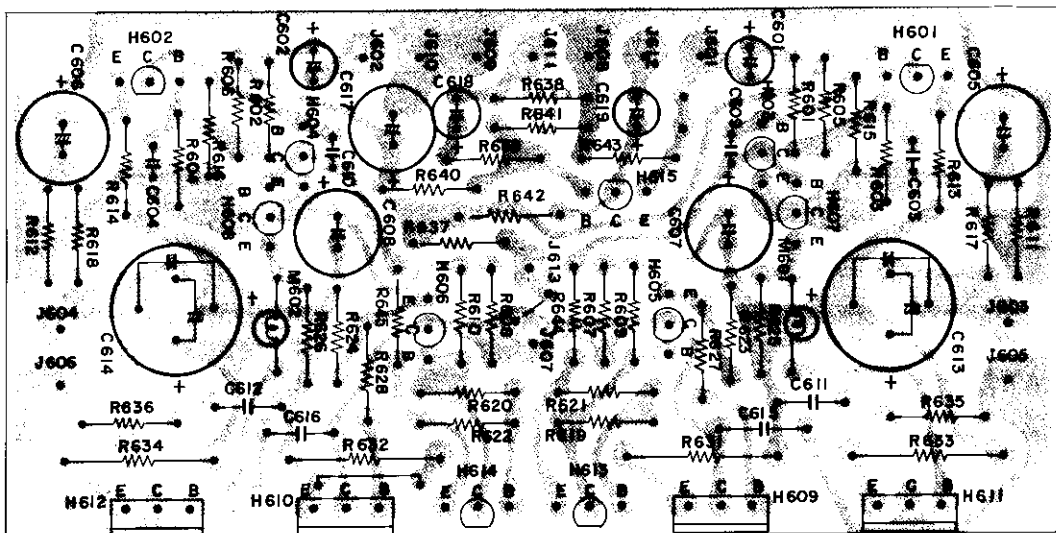
CIRCUIT BOARD DIAGRAM (TOP VIEW)



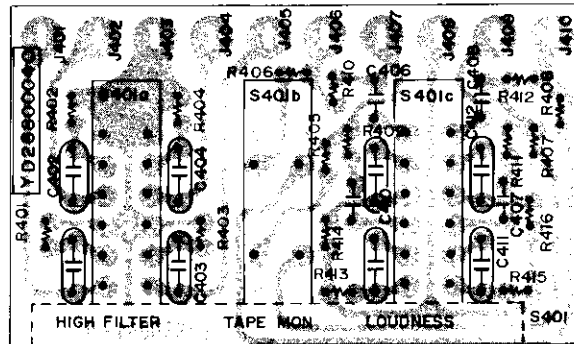
Tone Amp Block P500



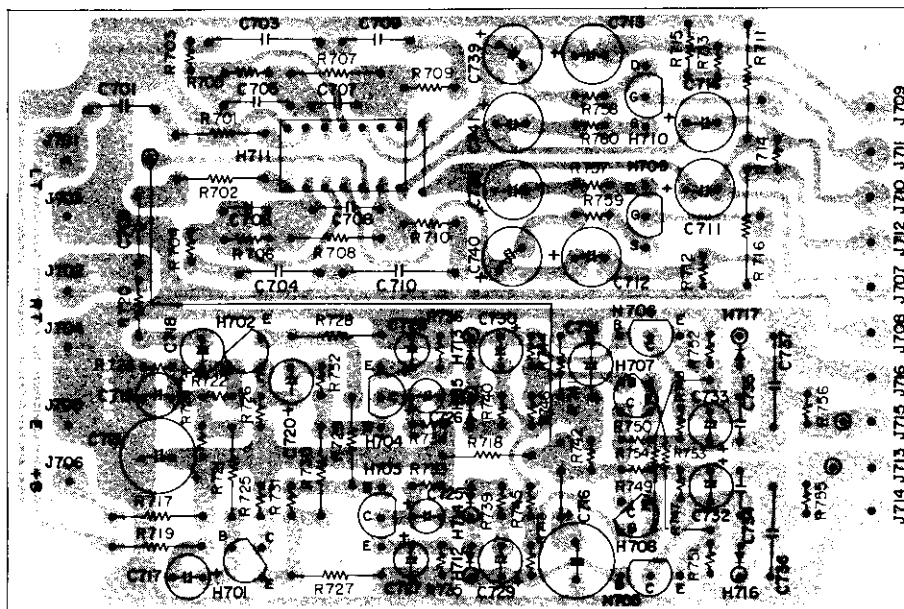
E, Q Amp Block P300



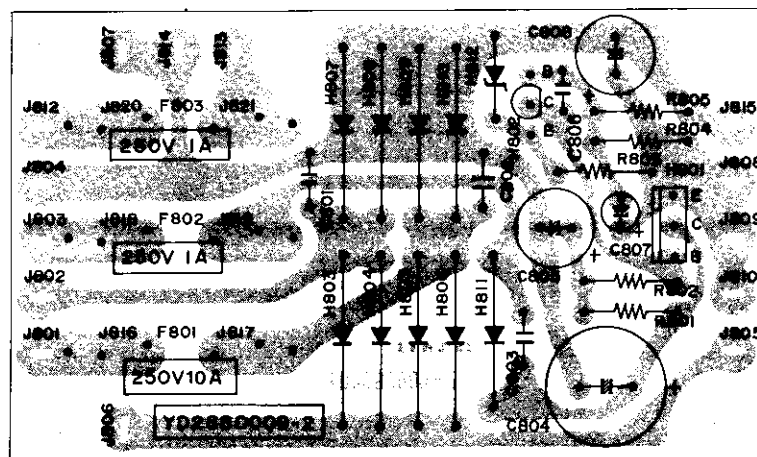
Main Amp Block P600



Switch Block P400
(High Filter. Tape Monitor
and Loudness)

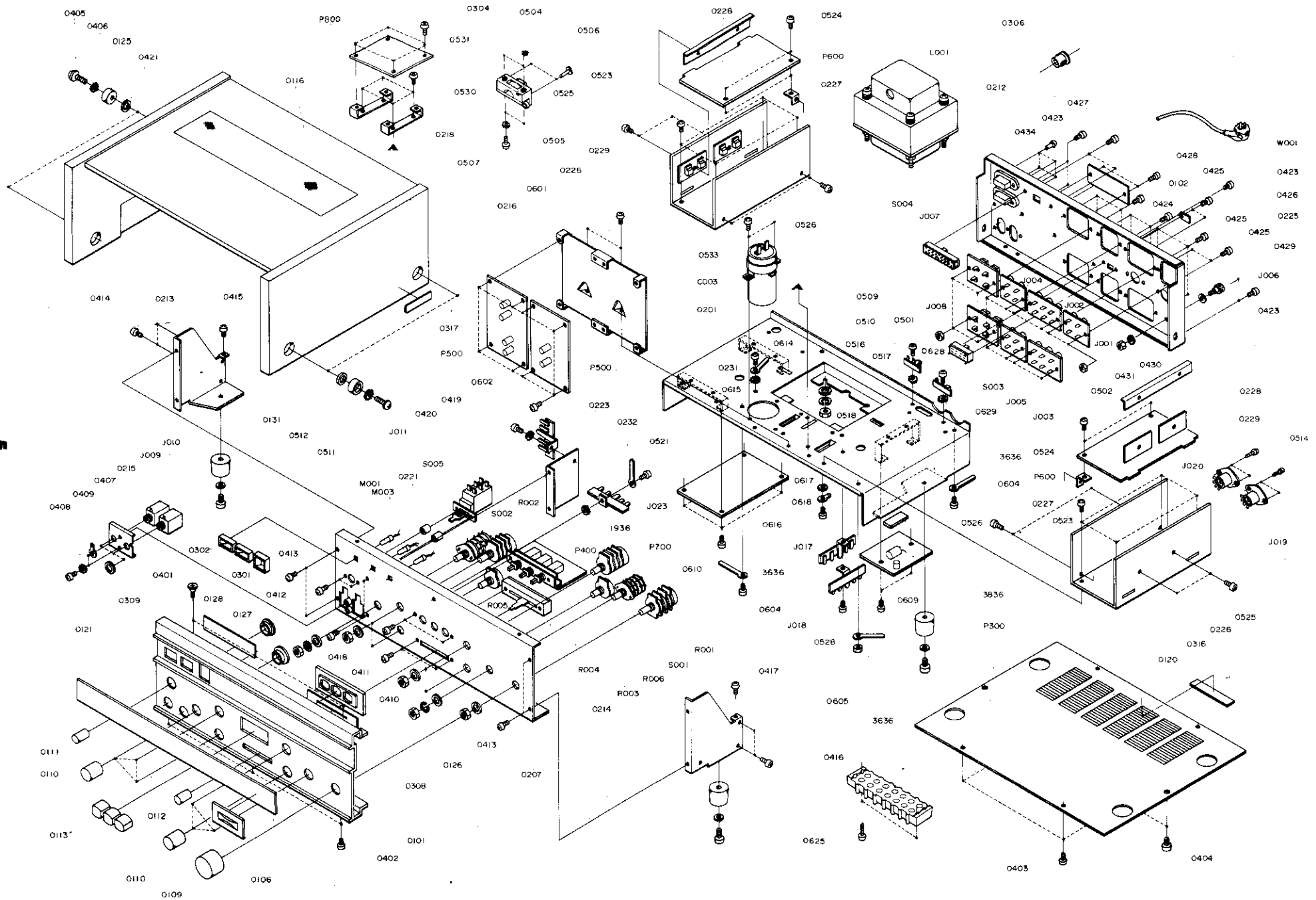


SQ Decoder Block P700

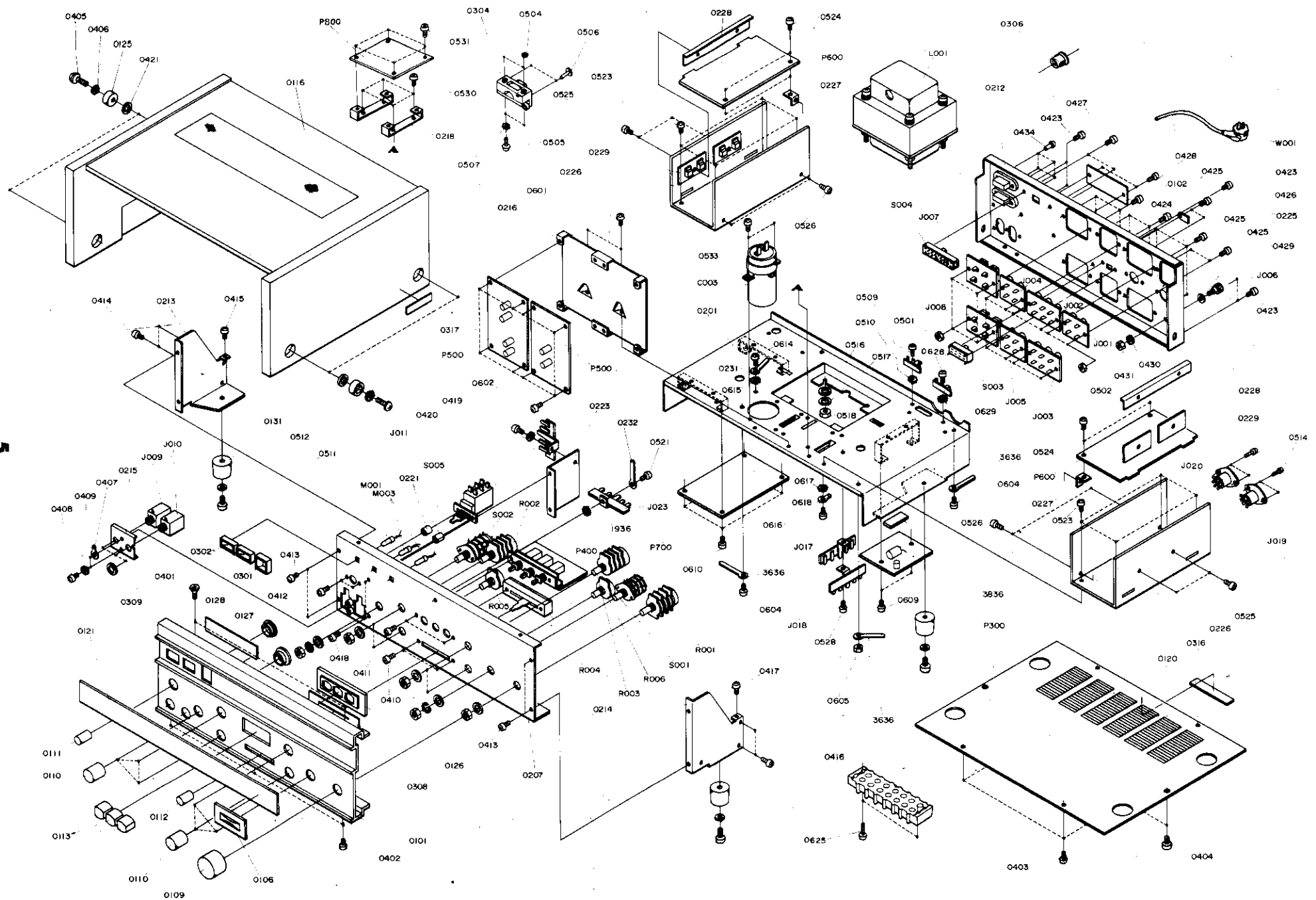


Power Source Block P800

EXPLODED DIAGRAM OF THE MECHANISM



EXPLODED DIAGRAM OF THE MECHANISM



REF. DESIG.	PART NO.	DESCRIPTION	REF. DESIG.	PART NO.	DESCRIPTION
A	288016040	Bracket Assembly	J301		MISCELLANEOUS
0207	288016050	Bracket K	J308	YP1000113	Plug
0301	288025901	Bush			
0302	287225901	Bush x 2			
B	288016042	Back Panel Assembly			
0212	288016003	Bracket	P500	YD2880005	P.W. Board, TONE Amp. x 2
0434	55060365S	T. R. Rivet x 4		ZZ 2880005	P.W. Board Assembly x 2
J014	YJ0400018	Jack			RESISTORS
J015	YJ0400018	Jack			All resistor are $\pm 5\%$ and $\frac{1}{4}W$.
C	288006340	Front Panel Assembly			
0101	288006301	Escutcheon	R501	RT0510214	1K Ω x 2
0106	287625150	Badge K	R502	RT0510214	1K Ω x 2
0121	288015801	Window	R503	RT0568314	68K Ω x 2
0126	287225903	Bush	R504	RT0568314	68K Ω x 2
0127	281825905	Bush	R505	RT0515314	15K Ω x 2
0128	273125901	Bush x 2	R506	RT0515314	15K Ω x 2
0308	287210701	Sheet	R507	RT0515414	150K Ω x 2
0309	288005301	Cover	R508	RT0515414	150K Ω x 2
			R509	RT0533214	3.3K Ω x 2
			R510	RT0533214	3.3K Ω x 2
P300	YD2880003	P.W. Board, EQ Amp.			
	ZZ2880003	P.W. Board Assembly	R511	RT0582114	820 Ω x 2
		RESISTORS	R512	RT0582114	820 Ω x 2
		All resistor are $\pm 5\%$ and $\frac{1}{4}W$	R513	RT0518314	18K Ω x 2
R301	RT0556314	56K Ω	R514	RT0518314	18K Ω x 2
R302	RT0556314	56K Ω	R515	RT0539214	3.9K Ω x 2
R303	RT0510214	1K Ω	R516	RT0539214	3.9K Ω x 2
R304	RT0510214	1K Ω	R517	RT0539414	390K Ω x 2
R305	RN0524414	240K Ω	R518	RT0539414	390K Ω x 2
R306	RN0524414	240K Ω	R519	RT0518314	18K Ω x 2
R307	RN0556414	560K Ω	R520	RT0518314	18K Ω x 2
R308	RN0556414	560K Ω			
R309	RT0510214	1K Ω	R521	RT0527414	270K Ω x 2
R310	RT0510214	1K Ω	R522	RT0527414	270K Ω x 2
R311	RT0575414	750K Ω	R523	RT0518314	18K Ω x 2
R312	RT0575414	750K Ω	R524	RT0518314	18K Ω x 2
R313	RT0547314	47K Ω	R525	RT0527414	270K Ω x 2
R314	RT0547314	47K Ω	R526	RT0527414	270K Ω x 2
R315	RN0568414	680K Ω	R527	RT0527314	27K Ω x 2
R316	RN0568414	680K Ω	R528	RT0527314	27K Ω x 2
R317	RT0515314	15K Ω	R529	RT0568214	6.8K Ω x 2
R318	RT0515314	15K Ω	R530	RT0568214	6.8K Ω x 2
R319	RT0522214	2.2K Ω			
R320	RT0522214	2.2K Ω	R531	RT0568114	680 Ω x 2
R321	RT0547314	47K Ω	R532	RT0568114	680 Ω x 2
R322	RT0547314	47K Ω	R533	RT0522214	2.2K Ω x 2
R323	RT0512214	1.2K Ω	R534	RT0522214	2.2K Ω x 2
		CAPACITORS	R535	RT0522414	220K Ω x 2
C301	EE1060351	Electroly, 10 μF 35V	R536	RT0522414	220K Ω x 2
C302	EE1060351	Electroly, 10 μF 35V	R537	RT0533114	330 Ω x 2
C303	DD1620101	Ceramic, 200PF $\pm 10\%$			CAPACITORS
C304	DD1620101	Ceramic, 200PF $\pm 10\%$	C501	EM3350252	Electroly, 3.3 μF 25V x 2
C305	DF1556205	Film, 0.0056 μF $\pm 5\%$	C502	EM3350252	Electroly, 3.3 μF 25V x 2
C306	DF1556205	Film, 0.0056 μF $\pm 5\%$	C503	EA1060359	Electroly, 10 μF 35V x 2
C307	DF1515205	Film, 0.0015 μF $\pm 5\%$	C504	EA1060359	Electroly, 10 μF 35V x 2
C308	DF1515205	Film, 0.0015 μF $\pm 5\%$	C505	EA1060359	Electroly, 10 μF 35V x 2
C309	EA1060359	Electroly, 10 μF 35V	C506	EA1060359	Electroly, 10 μF 35V x 2
C310	EA1060359	Electroly, 10 μF 35V	C507	DF1622305	Film, 0.022 μF $\pm 10\%$ x 2
			C508	DF1622305	Film, 0.022 μF $\pm 10\%$ x 2
C311	DD1610001	Ceramic, 10PF $\pm 10\%$	C509	DF1622305	Film, 0.022 μF $\pm 10\%$ x 2
C312	DD1610001	Ceramic, 10PF $\pm 10\%$	C510	DF1622305	Film, 0.022 μF $\pm 10\%$ x 2
C313	EA1070109	Electroly, 100 μF 10V			
C314	EA1070109	Electroly, 100 μF 10V	C511	DF1610205	Film, 0.001 μF $\pm 10\%$ x 2
C315	EA1060359	Electroly, 10 μF 35V	C512	DF1610205	Film, 0.001 μF $\pm 10\%$ x 2
C316	EA1060359	Electroly, 10 μF 35V	C513	EA1060359	Electroly, 10 μF 35V x 2
C317	EA1080359	Electroly, 1000 μF 35V	C514	EA1060359	Electroly, 10 μF 35V x 2
		TRANSISTORS	C515	EA1060359	Electroly, 10 μF 35V x 2
H301	HT313272B	2SC1327(T,U)	C516	EA1060359	Electroly, 10 μF 35V x 2
H302	HT313272B	2SC1327(T,U)	C517	DD1620001	Ceramic, 20PF $\pm 10\%$ x 2
H303	HT313272A	2SC1327(S,T)	C518	DD1620001	Ceramic, 20PF $\pm 10\%$ x 2
H304	HT313272A	2SC1327(S,T)	C519	EA4760109	Electroly, 47 μF 10V x 2
			C520	EA4760109	Electroly, 47 μF 10V x 2
			C521	EA1060359	Electroly, 10 μF 35V x 2
			C522	EA1060359	Electroly, 10 μF 35V x 2
			C523	EA1070359	Electroly, 100 μF 35V x 2
			C524	DD1610001	Ceramic, 10PF $\pm 10\%$ x 2
			C525	DD1610001	Ceramic, 10PF $\pm 10\%$ x 2

REF. DESIG.	PART NO.	DESCRIPTION
H501	HT306442A	TRANSISTORS
H502	HT306442A	2SC644S,T x 2
H503	HT306442A	2SC644S,T x 2
H504	HT306442A	2SC644S,T x 2
J501	YP1000113	MISCELLANEOUS
J520		Plug x 2
0216	288016007	Bracket
0602	51100305A	B.H.M. Screw x 8
P600	YD2880010 ZZ2880010	P.W. Board, POWER Amp. SE P.W. Board Assembly x 2
R601	RT0510214	RESISTORS
R602	RT0527214	All resistors are $\pm 5\%$ and $\frac{1}{4}W$. unless otherwise indicated.
R603	RT0510414	1K Ω x 2
R604	RT0510414	2.7K Ω x 2
R605	RT0568314	100K Ω x 2
R606	RT0568314	100K Ω x 2
R607	RT0522214	68K Ω x 2
R608	RT0522214	68K Ω x 2
R609	RT0533214	2.2K Ω x 2
R610	RT0533214	2.2K Ω x 2
R611	RT0568014	3.3K Ω x 2
R612	RT0568014	3.3K Ω x 2
R613	RT0539214	68 Ω x 2
R614	RT0539214	68 Ω x 2
R615	RT0527214	3.9K Ω x 2
R616	RT0527214	3.9K Ω x 2
R617	RT0527214	2.7K Ω x 2
R618	RT0527214	2.7K Ω x 2
R619	RT0575214	2.7K Ω x 2
R620	RT0575214	7.5K Ω x 2
R621	RT0533214	7.5K Ω x 2
R622	RT0533214	3.3K Ω x 2
R623	GF0515112	150 Ω $\pm 5\%$ $\frac{1}{4}W$ x 2
R624	GF0515112	150 Ω $\pm 5\%$ $\frac{1}{4}W$ x 2
R625	GF0515112	150 Ω $\pm 5\%$ $\frac{1}{4}W$ x 2
R626	GF0515112	150 Ω $\pm 5\%$ $\frac{1}{4}W$ x 2
R627	GF0510014	10 Ω x 2
R628	GF0510014	10 Ω x 2
R631	RW1000503	0.5 Ω $\pm 10\%$ 3W x 2
R632	RW1000503	0.5 Ω $\pm 10\%$ 3W x 2
R633	RW1000503	0.5 Ω $\pm 10\%$ 3W x 2
R634	RW1000503	0.5 Ω $\pm 10\%$ 3W x 2
R635	RC1010012	10 Ω $\pm 10\%$ $\frac{1}{4}W$ x 2
R636	RC1010012	10 Ω $\pm 10\%$ $\frac{1}{4}W$ x 2
R637	RT0520214	2.0K Ω x 2
R638	RT0575314	75K Ω x 2
R639	RT0510214	1K Ω x 2
R640	RT0522414	220K Ω x 2
R641	RT0518414	180K Ω x 2
R642	RT0568214	6.8K Ω x 2
R643	RT0568214	6.8K Ω x 2
R644	RT0582014	82 Ω x 2
R645	RT0582014	82 Ω x 2
C601	EA1060359	CAPACITORS
C602	EA1060359	Electroly, 10 μ F 35V x 2
C603	DD1620101	Electroly, 10 μ F 35V x 2
C604	DD1620101	Ceramic, 200P $\pm 10\%$ x 2
C605	EA2270259	Ceramic, 200P $\pm 10\%$ x 2
C606	EA2270259	Electroly, 220 μ F 25V x 2
C607	EA1070259	Electroly, 220 μ F 25V x 2
C608	EA1070259	Electroly, 100 μ F 25V x 2

REF. DESIG.	PART NO.	DESCRIPTION
C609	DD1650001	Ceramic, 50PF $\pm 10\%$ x 2
C610	DD1650001	Ceramic, 50PF $\pm 10\%$ x 2
C611	DF1747305	Film, 0.047 μ F $\pm 20\%$ x 2
C612	DF1747305	Film, 0.047 μ F $\pm 20\%$ x 2
C613	EA1080359	Electroly, 1000 μ F 35V x 2
C614	EA1080359	Electroly, 1000 μ F 35V x 2
C615	DK1710301	Ceramic, 0.01 μ F $\pm 20\%$ x 2
C616	DK1710301	Ceramic, 0.01 μ F $\pm 20\%$ x 2
C617	EA1070359	Electroly, 100 μ F 35V x 2
C618	EA1060359	Electroly, 10 μ F 35V x 2
C619	EA1060359	Electroly, 10 μ F 35V x 2
H601	HT107212A	TRANSISTORS
H602	HT107212A	2SA721 S,T x 2
H603	HT313182R	2SA721 S,T x 2
H604	HT313182R	2SC1318R,S x 2
H605	HT313182Q	2SC1318R,S x 2
H606	HT313182Q	2SC1318Q,R x 2
H607	HT107202B	2SC1318Q,R x 2
H608	HT107202B	2SA720Q,R x 2
H609	HT403652B	2SA720Q,R x 2
H610	HT403652B	2SD365P,O x 2
H611	HT205122B	2SD365P,O x 2
H612	HT205122B	2SB512P,O x 2
H613	HT308281B	2SB512P,O x 2
H614	HT308281B	2SC828Q x 2
H615	HT306442A	2SC828Q x 2
J602	YP1000113	MISCELLANEOUS
J613		Plug x 2
M601	IN1008033	Lamp, 8V 60mA x 2
M602	IN1008033	Lamp, 8V 60mA x 2
0226	287426701	Heat Sink x 2
0227	287416002	Bracket x 4
0228	287400501	Clamper x 2
0229	287411801	Spacer x 4
0524	51100305A	B.H.M. Screw x 4
0525	51100312A	B.H.M. Screw x 4
0526	51100306A	B.H.M. Screw x 4
P700	YD2880007 ZZ2880007	P.W. Board, SQ Decoder P.W. Board Assembly
R701	RT0510214	RESISTORS
R702	RT0510214	All resistors are $\pm 5\%$ and $\frac{1}{4}W$.
R703	RT0536214	1K Ω
R704	RT0536214	1K Ω
R705	RT0543214	3.6K Ω
R706	RT0543214	3.6K Ω
R707	RT0543214	4.3K Ω
R708	RT0543214	4.3K Ω
R709	RT0536214	4.3K Ω
R710	RT0536214	3.6K Ω
R711	RT0547314	47K Ω
R712	RT0547314	47K Ω
R713	RT0527314	27K Ω
R714	RT0527314	27K Ω
R715	RT0518314	18K Ω
R716	RT0518314	18K Ω
R717	RT0510114	100 Ω
R718	RT0522114	220 Ω
R719	RT0510214	1K Ω
R720	RT0510214	1K Ω
R721	RT0533414	330K Ω
R722	RT0533414	330K Ω

REF. DESIG.	PART NO.	DESCRIPTION
R723	RT0547314	47K Ω
R724	RT0547314	47K Ω
R725	RT0522214	2.2K Ω
R726	RT0522214	2.2K Ω
R727	RT0522214	2.2K Ω
R728	RT0522214	2.2K Ω
R729	RT0533314	33K Ω
R730	RT0533314	33K Ω
R731	RT0533314	33K Ω
R732	RT0533314	33K Ω
R733	RT0533314	33K Ω
R734	RT0533314	33K Ω
R735	RT0515314	15K Ω
R736	RT0515314	15K Ω
R739	RT0533214	3.3K Ω
R740	RT0533214	3.3K Ω
R741	RT0515314	15K Ω
R742	RT0539314	39K Ω
R743	RT0533314	33K Ω
R744	RT0533314	33K Ω
R745	RT0533314	33K Ω
R746	RT0533314	33K Ω
R747	RT0515314	15K Ω
R748	RT0515314	15K Ω
R749	RT0512314	12K Ω
R750	RT0512314	12K Ω
R751	RT0512314	12K Ω
R752	RT0512314	12K Ω
R753	RT0582014	82 Ω
R754	RT0582014	82 Ω
R755	RT0510414	100K Ω
R756	RT0510414	100K Ω
R757	RT0515214	1.5K Ω
R758	RT0515214	1.5K Ω
R759	RT0515214	1.5K Ω
R760	RT0515214	1.5K Ω
C701	DF1747305	Film, 0.047 μ F $\pm$ 20%
C702	DF1747305	Film, 0.047 μ F $\pm$ 20%
C703	DF1522405	Film, 0.22 μ F $\pm$ 5%
C704	DF1539305	Film, 0.039 μ F $\pm$ 5%
C705	DF1539305	Film, 0.039 μ F $\pm$ 5%
C706	DF1568205	Film, 0.0068 μ F $\pm$ 5%
C707	DF1568205	Film, 0.0068 μ F $\pm$ 5%
C708	DF1539305	Film, 0.039 μ F $\pm$ 5%
C709	DF1539305	Film, 0.039 μ F $\pm$ 5%
C710	DF1522405	Film, 0.22 μ F $\pm$ 5%
C711	EE1060351	Electroly, 10 μ F 35V
C712	EE1060351	Electroly, 10 μ F 35V
C713	EE1060351	Electroly, 10 μ F 35V
C714	EE1060351	Electroly, 10 μ F 35V
C715	EA4760359	Electroly, 47 μ F 35V
C716	EA1070259	Electroly, 100 μ F 25V
C717	EA1050509	Electroly, 1 μ F 50V
C718	EA1050509	Electroly, 1 μ F 50V
C719	EA2260109	Electroly, 22 μ F 10V
C720	EA1060359	Electroly, 10 μ F 35V
C725	EM2250251	Electroly, 2.2 μ F 25V
C726	EM2250251	Electroly, 2.2 μ F 25V
C727	EM1050251	Electroly, 1 μ F 25V
C728	EM1050251	Electroly, 1 μ F 25V
C729	EA3350509	Electroly, 3.3 μ F 50V
C730	EA3350509	Electroly, 3.3 μ F 50V
C731	EA1060359	Electroly, 10 μ F 35V
C732	EA3350509	Electroly, 3.3 μ F 50V
C733	EA3350509	Electroly, 3.3 μ F 50V
C734	DF1656205	Film, 0.0056 μ F $\pm$ 10%
C735	DF1656205	Film, 0.0056 μ F $\pm$ 10%
C736	DF1682305	Film, 0.082 μ F $\pm$ 10%
C737	DF1682305	Film, 0.082 μ F $\pm$ 10%
C738	EE1060351	Electroly, 10 μ F 35V
C739	EE1060351	Electroly, 10 μ F 35V
C740	EE1060351	Electroly, 10 μ F 35V
C741	EE1060351	Electroly, 10 μ F 35V

REF. DESIG.	PART NO.	DESCRIPTION
H701	HT308282A	Transistor, 2SC828R,S
H702	HT308282A	Transistor, 2SC828R,S
H703	HT308282A	Transistor, 2SC828R,S
H704	HT308282A	Transistor, 2SC828R,S
H705	HT308282A	Transistor, 2SC828R,S
H706	HT308282A	Transistor, 2SC828R,S
H707	HT308282A	Transistor, 2SC828R,S
H708	HT308282A	Transistor, 2SC828R,S
H709	HF200301C	F.E.T., 2SK30(Y)
H710	HF200301C	F.E.T., 2SK30(Y)
H711	HC1000417	I.C., MC1312P
H712	HD1000302	Diode, 20A90M
H713	HD1000302	Diode, 20A90M
H714	HD1000302	Diode, 20A90M
H715	HD1000302	Diode, 20A90M
H716	HD1000302	Diode, 20A90M
H717	HD1000302	Diode, 20A90M
J701	YP1000113	Plug
J716		
P800	YD2880009 ZZ2880009	P.W. Board P.W. Board Assembly
R801	RT0522214	2.2K Ω
R802	RT0522214	2.2K Ω
R803	RT0582214	8.2K Ω
R804	RT0568214	6.8K Ω
R805	RT0547214	4.7K Ω
C801	DK1840301	Ceramic, 0.04 μ F +100%
C802	DK1840301	Ceramic, 0.04 μ F +100%
C803	DK1840301	Ceramic, 0.04 μ F +100%
C804	EA3370509	Electroly, 330 μ F 50V
C805	EA4760509	Electroly, 47 μ F 50V
C806	DD1650101	Ceramic, 500PF $\pm$ 10%
C807	EA4750359	Electroly, 4.7 μ F 35V
C808	EA1070359	Electroly, 100 μ F 35V
H801	HT313982B	Transistor, 2SC1398P,Q
H802	HT308282H	Transistor, 2SC828AQ,R
H803	HD2002107	Diode, S1.5-01
H804	HD2002107	Diode, S1.5-01
H805	HD2002107	Diode, S1.5-01
H806	HD2002107	Diode, S1.5-01
H807	HD2002107	Diode, S1.5-01
H808	HD2002107	Diode, S1.5-01
H809	HD2002107	Diode, S1.5-01
H810	HD2002107	Diode, S1.5-01
H811	HD2000501	Diode, W06B
H812	HD3002409	Diode, WZ-12C
J801	YP1000099	Plug
J810		
J812	YP1000099	Plug, for Fuse
J813	YP1000099	Plug, for Fuse
J814	YP1000099	Plug, for Fuse
J815	YP1000099	Plug, for Fuse
J816	YJ0800020	Socket, for Fuse
J817	YJ0800020	Socket, for Fuse
J818	YJ0800020	Socket, for Fuse
J819	YJ0800020	Socket, for Fuse
J820	YJ0800020	Socket, for Fuse
J821	YJ0800020	Socket, for Fuse

REF. DESIG.	PART NO.	DESCRIPTION	REF. DESIG.	PART NO.	DESCRIPTION
0213	288016004	Bracket	C408	DD1615101	Ceramic, 150PF
0214	288016005	Bracket	C409	DF1615305	Film, 0.015μF
0215	288016006	Bracket,	C410	DF1615305	Film, 0.015μF
0221	380205501	Collar, Power SW x 2	C411	DF1615305	Film, 0.015μF
0407	62031650W	Lug, Jack	C412	DF1615305	Film, 0.015μF
0408	51100305A	B.H.M. Screw, Jack x 2	S401	SP0403006	MISCELLANEOUS
0409	54050300R	T.L. Washer OR, Jack x 2			Push Switch, High Filter
0410	51100305A	B.H.M. Screw, Slidevol x 2			Tape Mon Loudness
0411	51100305A	B.H.M. Screw, Push-SW x 2	J401	YP1000099	Plug
0412	51100310A	B.H.M. Screw, Power-SW x 2	J410		
0413	51100305A	B.H.M. Screw, Front Bracket x 4	R004	RS0503018	Variable Resistor, 50KΩ Balance
1936	54050300R	T.L. Washer OR	R005	RK0503008	Variable Resistor, 50K(3BM)X2 Balance
0418	51100305A	B.H.M. Screw, Front Bracket x 2	R006	RK0503008	Variable Resistor, 50KΩ(3BM)X2
0521	51570306B	P. Tapt Screw, + Shield	S001	SR0803012	Rotary Switch, Balance Selector
R001	RG0254002	Variable Resistor 250K (B)X4VR	J023	YL0105001	Terminal
J009	YJ0100069	Jack, Phone (Front)	0232	138200503	Clamper
J010	YJ0100069	Jack, Phone (Rear)	0304	282126901	Bush
R007	RC1022112	Resistor, 220Ω ±10% ½W	0306	284906702	Cap
R008	RC1022112	Resistor, 220Ω ±10% ½W	0424	51100308S	B.H.M. Screw, x 4
R009	RC1022112	Resistor, 220Ω ±10% ½W	0425	51100308S	B.H.M. Screw, RCA, Pin x 10
R010	RC1022112	Resistor, 220Ω ±10% ½W	0426	51100304S	B.H.M. Screw, Inter Coupled x 2
S005	SP0201011	Push Switch, Power	0427	51100304S	B.H.M. Screw, Amplifier Mode x 2
C004	DF1747380	Film Cap. 0.047μF ±20%	0429	54020401E	Flat Washer P, Ground
0223	288010901	Shield, Front	0430	54050400R	T.L. Washer OR, Ground
0419	51100305A	B.H.M. Screw,	0431	53110403A	Hexagon Nut, Ground
0420	54050300R	T.L. Washer OR	0504	53110303A	Hexagon Nut x2
J011	YL0105001	Terminal,	0505	51060316A	P.H.M Screw x 2
M001	IN1008030	Lamp, 4CH, Ind.	0506	55060305S	TR Rivet x 2
M002	IN1008030	Lamp, 2CH, Ind.	0507	54050300R	TL Washer OR x 2
M003	IN1008030	Lamp, Mono, Ind.	0514	51570306B	P TAPT Screw x 4
S002	SR1405001	Rotary Switch, Mode	0501	53110303A	Hexagon Nut, x 4
R002	RG0104002	Variable Resistor, 100KΩ(B)X4 Bass	0502	53110303A	Hexagon Nut, RCA Pin x 10
R003	RG0104002	Variable Resistor, 100KΩ(B)X4 Treble	J002	YT0206003	Terminal, Aux. Tape in out
P400	YD2880004	P.W. Board, Switch	J003	YT0206003	Terminal, Aux. Tape in out
	ZZ2880004	P.W. Board Assembly	J006	YL0301021	Terminal, Ground Terminal
			J007	YT0304004	Terminal, SPK Terminal
			J008	YT0304004	Terminal, SPK Terminal
			W001	YC0190003	AC Cord
			J019	YJ 1100001	Socket Din Front
			J020	YJ 1100001	Socket Din Rear
R401	RT0510514	1MΩ	R015	RT0539414	390kΩ 5% ½W
R402	RT0510514	1MΩ	R016	RT0539414	390kΩ 5% ½W
R403	RT0510514	1MΩ	R017	RT0539414	390kΩ 5% ½W
R404	RT0510514	1MΩ	R018	RT0539414	390kΩ 5% ½W
R405	RT0510214	1KΩ	R190	RT0582314	82kΩ 5% ½W
R406	RT0510214	1KΩ	R020	RT0582314	82kΩ 5% ½W
R407	RT0510214	1KΩ	R021	RT0582314	82kΩ 5% ½W
R408	RT0510214	1KΩ	R022	RT0582314	82kΩ 5% ½W
R409	RT0510414	100KΩ	J021	YL0103021	Terminal
R410	RT0510414	100KΩ	J022	YL0103021	Terminal
R411	RT0510414	100KΩ	S004	SS0802008	Slide Switch, Amplifier Mode
R412	RT0510414	100KΩ	S003	SS0402022	Slide Switch, Inter Coupled
R413	RT0527314	27KΩ	J004	YT0204003	Terminal, Pre Main
R414	RT0527314	27KΩ	J005	YT0204003	Terminal, Pre Main
R415	RT0527314	27KΩ	J001	YT0204003	Terminal, Phono Tuner
R416	RT0527314	27KΩ	C001	DK1810301	Ceramic Cap, 0.01μF +100%
			C002	DK1810301	Ceramic Cap, 0.01μF +100%
			0630	62031650W	Lug,
			J017	YL0105011	Terminal,
			J018	YL0105011	Terminal,

REF. DESIG.	PART NO.	DESCRIPTION
L002	LC2272001	Choke Coil
L003	LC2272001	Choke Coil
L004	LC2272001	Choke Coil
L005	LC2272001	Choke Coil
R011	RC1002012	Resistor, 2 Ω 10% 1/2W
R012	RC1002012	Resistor, 2 Ω 10% 1/2W
R013	RC1002012	Resistor, 2 Ω 10% 1/2W
R014	RC1002012	Resistor, 2 Ω 10% 1/2W
3636	138200503	Clamper
W004	YB0007001	Wire Material
W006		
W002		
W009	YW2880002	Wire Material
W008	YX2880101	Wire Material
0131	287205701	Leg x 4
0201	288010550	Chassis K
0218	286716001	Bracket,
0231	282100501	Clamper
3836	288005601	Buffer,
0414	51100305A	B.H.M. Screw x 2
0415	51570305B	P Tapt Screw
0416	51100305A	B.H.M. Screw x 2
0417	51570305B	P Tapt Screw
0423	51100305S	B.H.M. Screw x 5
0509	51570306B	P TAPT Screw x 2
0510	54050300R	TL Washer OR
0511	51060418A	P.H.M. Screw x 4
0512	54040402A	Spring Washer x 4
0516	54020401A	Flat Washer P, x 8
0517	54040402A	Spring Washer x 4
0518	53110403A	Hexagon Nut x 4
0523	51570308B	P Tapt Screw x 8
0528	51570306B	P Tapt Screw
0530	51570305B	P Tapt Screw x 4
0531	51100305A	B.H.M. Screw x 4
0533	51570306B	P Tapt Screw x 2
0604	51570306B	P Tapt Screw x 2
0601	51570305B	P Tapt Screw x 2
0605	53110303A	Hexagon Nut
0609	51100305A	B.H.M. Screw x 2
0610	51100305A	B.H.M. Screw x 4
0614	51570406B	P Tapt Screw
0615	54050400R	T.L. Washer OR
0616	51570306B	P Tapt Screw
0617	54050300R	T.L. Washer OR
0618	62031650W	Lug
0625	51570312B	P TAPT Screw x 2
0628	51570306B	P Tapt Screw,
0629	54050300R	T.L. Washer OR,
F801	FS1100002	Fuse, 10A
F802	FS1010003	Fuse, 1A
F803	FS1010003	Fuse, 1A
C003	EC4780504	Electroly Cap, 4700 μ F 50V
L001	TS1960207	Power Transf,
0103	288026502	Indicator
0109	287615402	Knob, Volume
0110	287615406	Knob, Selector, Treble, Bass x 6 Balance Mode

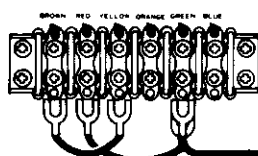
REF. DESIG.	PART NO.	DESCRIPTION
0111	287615407	Knob, Power
0112	287615410	Knob, Slide Vol.
0113	287227001	Button x 3
0116	287206450	Case K
0120	287225701	Lid
0125	287225902	Bush x 4
0225	287211401	Stoper, Inter Coupled
0316	257886101	Label, Caution
0317	287286102	Label
0401	51040305A	F.H.M. Screw x 2
0402	51100305A	B.H.M. Screw x 3
0403	51100305S	B.H.M. Screw x 4
0404	51100405S	B.H.M. Screw x 2
0405	51120418S	T.H.M. Screw x 4
0406	54050400R	T.L. Washer OR x 4
0421	54020601A	Flat Washer P x 4
0428	51100305S	B.H.M. Screw x 2
0711	952301511	Serial No. Card
0702	288085121	Instructions
0703	282885108	Instructions
0706	288085603	Schematic
0713	901383033	Polyethy Bag, For Set.
0714	901183001	Polyethy Bag, For Printing
0716	956000004	Hang Tap
0719	286480401	Sleeve
0721	273182101	Silicagel
0723	288080101	Packing Case
0724	288080102	Packing Case
0725	287280301	Partitioner x 2
0726	287280701	Reinforcement x 2

VOLTAGE CONVERSION

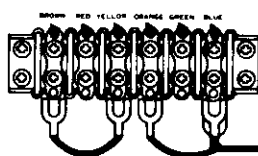
This model is equipped with a universal power transformer to permit operation at 110, 120, 220, 240 Volts AC 50/60 Hz.

To convert the unit to the required voltage, change the jumper wires as illustrated.

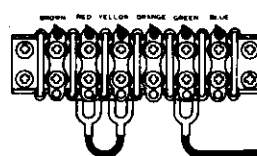
CAUTION: DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.



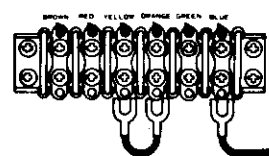
For 110V Operation



For 120V Operation



For 220V Operation



For 240V Operation

Voltage Conversion Chart