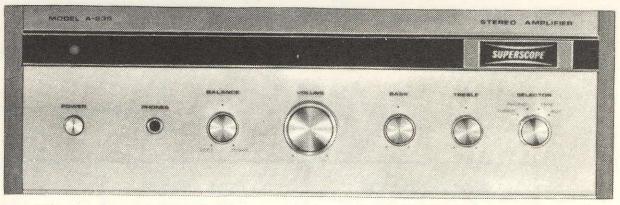
SUPERSCOPE®

SOLID STATE
STEREO AMPLIFIER

Model A-235 (E)

SERVICE DATA



—May. 1973—

SUPERSCOPE INC.
8150 VINELAND AVENUE,
SUN VALLEY, CALIFORNIA · 91352 · U.S.A.

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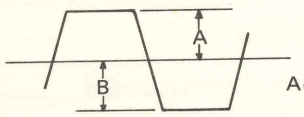
TECHNICAL SPECIFICATIONS

<AMPLIFIER SECTION>	
Instantaneous peak music power	28W at 8 ohms
E. I. A music power	20W at 8 ohms
Total music power (I.H.F)	15W at 8 ohms
Continuous power (R.M.S)	**5W + 5W at 8 ohms**
Harmonic distortion at 1 KHz	Less than 0.5% to 4W
Power bandwidth	30 to 25,000Hz at 8 ohms
Frequency response	20 to 30,000Hz at 8 ohms
Signal to noise ratio	AUX 70 dB MAG 60 dB
Damping factor	30 at 8 ohms
Bass control	±10 dB at 100Hz
Treble control	±10 dB at 10,000Hz
Input sensitivity	MAG 3mV, CER 200mV TUNER 100mV AUX 100mV TAPE 400mV
<AUXILIARY CIRCUIT>	
Tape in/out connectors. Stereo headphones jack. Separate bass and treble controls. Balance control.	
<SOLID STATE DEVICES>	
Transistors	18
Diodes	8
<POWER REQUIREMENTS>	
Power voltage	AC 110, 120, 220, 240V 50/60Hz
Power consumption	32W maximum
<DIMENSIONS>	
Width	14-11/32"
Height	4-9/16"
Depth	7-1/8"
<WEIGHT>	6.5 lbs.

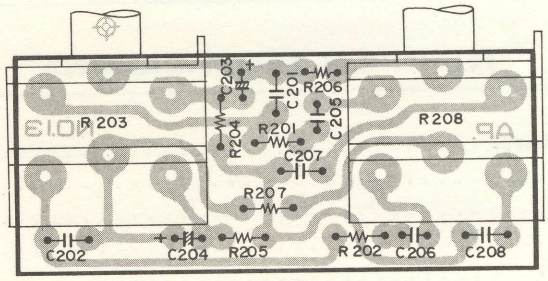
※These specifications and exterior designs may be changed for improvement without notice.

ALIGNMENT PROCEDURE

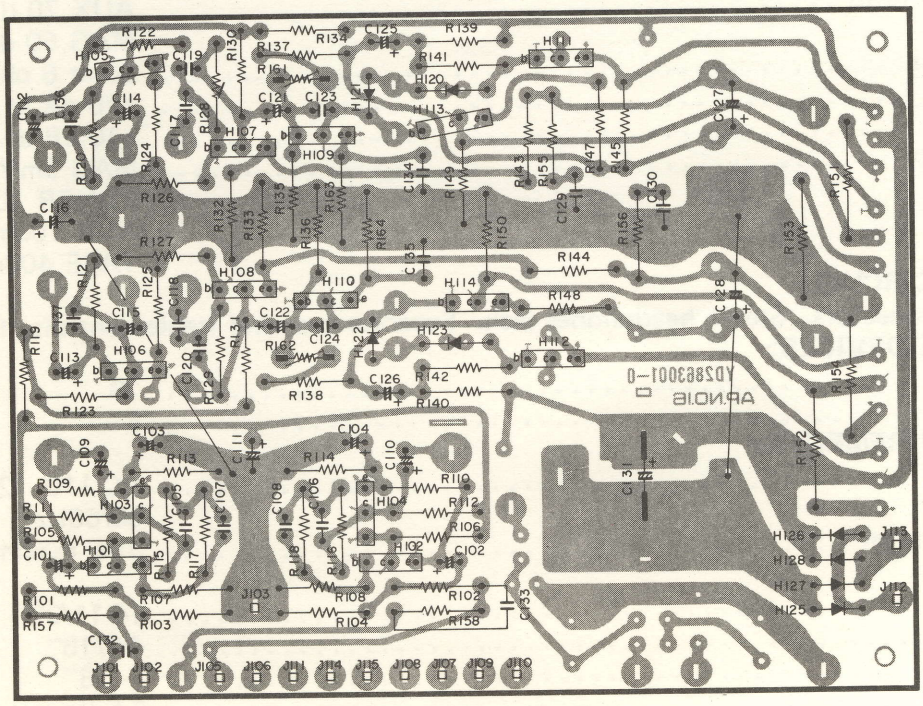
(Selector switch in the position "AUX")

Signal Source Connection	Input Signal Frequency	Indicator Connection Oscilloscope across	Adjustment
Audio signal generator to R and L channel AUX jackes	1,000 Hz	8 ohms dummy load resistor connected between the speakers terminals.	Increase audio generator output level gradually and adjust R161 and R162 for symmetrical clipping level 

CIRCUIT BOARD DIAGRAM (TOP VIEW)

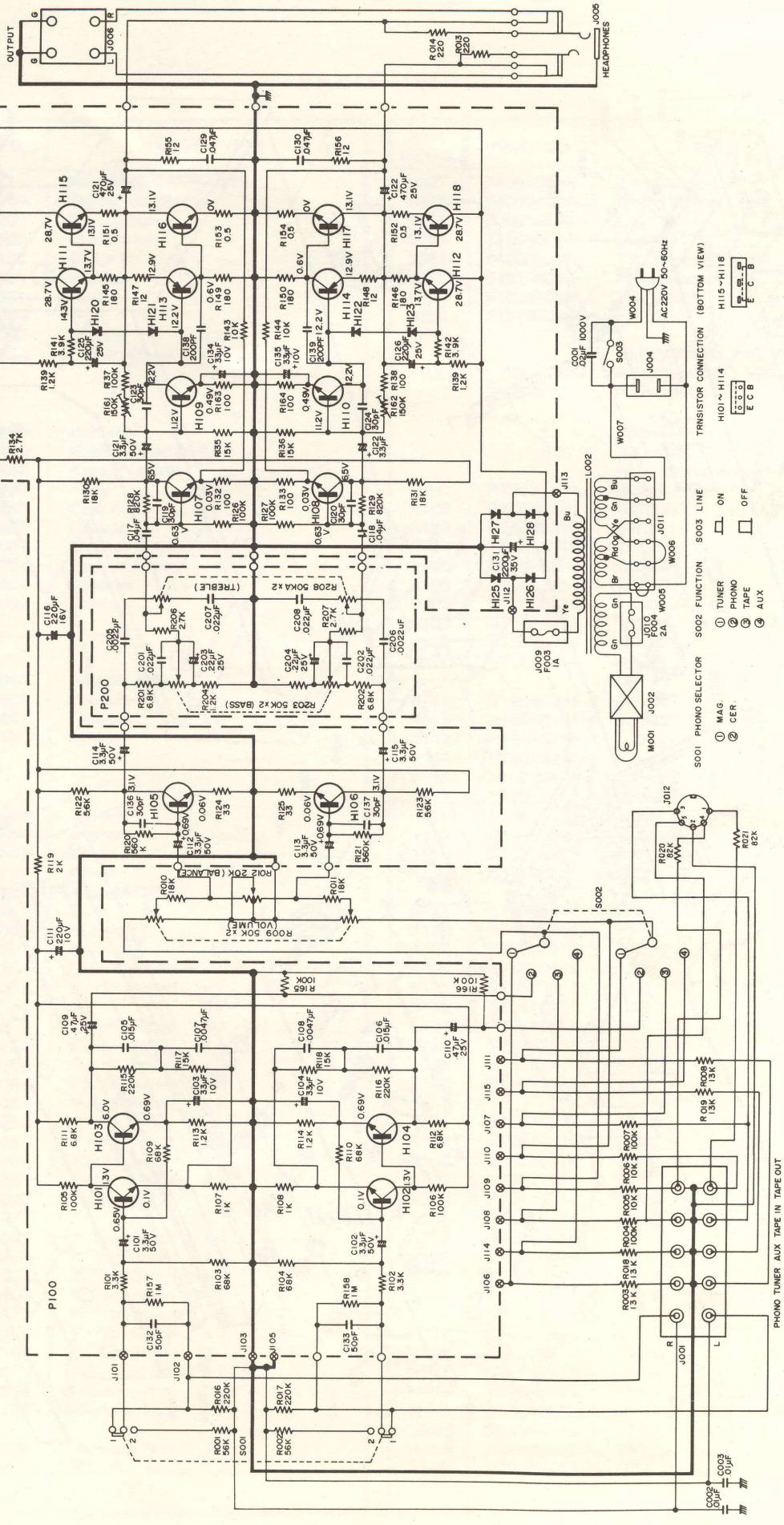


Tone Control Block

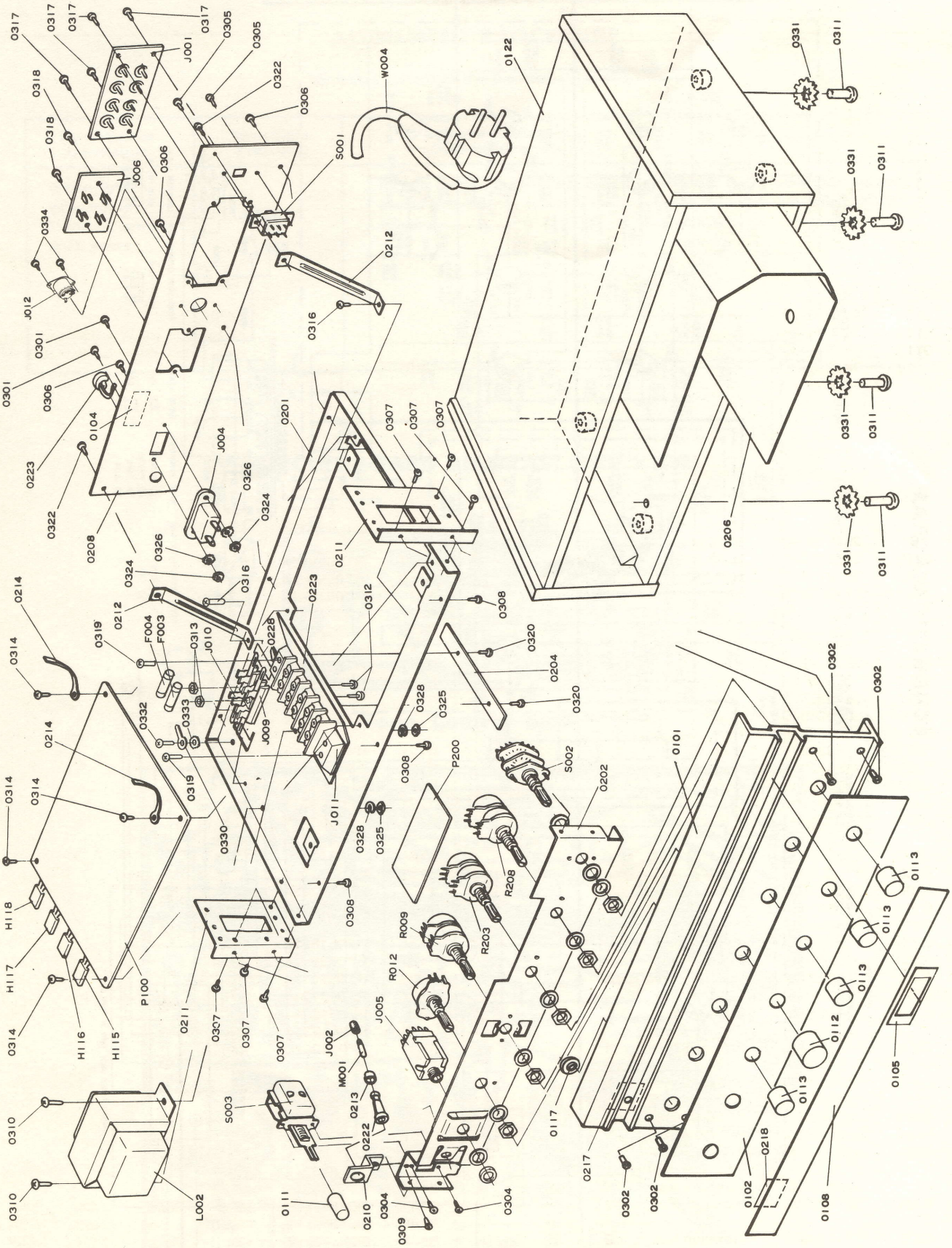


Audio Amp. Block

SCHEMATIC DIAGRAM



EXPLODED DIAGRAM OF THE MECHANISM



PARTS LIST

REF. DESIG.	PART NO.	DESCRIPTION
		MECHANICAL PARTS
A	287606340	Escutcheon Ass'y
0101	287606301	Escutcheon
0102	287606302	Escutcheon
0105	287625150	Badge K
0108	287615801	Window
0117	286025901	Bush
0118	273125901	Bush
0211	287616002	Bracket x 2
0302	51040306A	F.H.M. Screw x 4
0104	287626502	Indicator
0111	287615408	Knob (Power Switch)
0112	287615402	Knob (Volume)
0113	287615406	Knob x 4
0122	287606450	Case K
0201	279210501	Chassis
0202	279216001	Bracket (Front)
0203	286016001	Bracket (Rear)
0205	279200501	Clamper
0206	287610901	Shield
B	287616040	Bracket Ass'y
0210	287616001	Bracket
0212	254910401	Retainer x 2
0213	71400219Q	Spring
0208	287616003	Bracket
0214	138200503	Clamper
0217	287605301	Cover
0218	287605002	Cover
0221	145525905	Bush (AC Cord)
0222	276325901	Bush
0223	286412001	Insulator
0228	286026503	Indicator
0232	257886101	CUATION Label
0301	51042608A	F.H.M. Screw x 2
0304	51060305A	P.H.M. Screw x 2
0305	51060305A	P.H.M. Screw x 2
0306	51060305A	P.H.M. Screw x 3
0307	51060305A	P.H.M. Screw x 6
0308	51060305A	P.H.M. Screw x 3
0309	51060305A	P.H.M. Screw
0310	51060408A	P.H.M. Screw x 2
0311	51100410A	B.H.M. Screw x 4
0312	51062608E	P.H.M. Screw x 2
0313	53112603E	Hexagon Nut x 2
0314	51570306B	P. Tapt Screw x 4
0316	51570306B	P. Tapt Screw x 2
0317	51570306B	P. Tapt Screw x 3
0318	51570306B	P. Tapt Screw x 2
0319	51570312B	P. Tapt Screw x 2
0320	51570310B	P. Tapt Screw x 2
0321	51570310B	P. Tapt Screw
0322	51380305P	P.H. Tapt Screw x 2
0323	53110303E	Hexagon Nut
0324	53112603E	Hexagon Nut x 2
0325	53110403E	Hexagon Nut x 2
0326	54052600R	T.L. Washer OR x 2

REF. DESIG.	PART NO.	DESCRIPTION
0327	54050300R	T.L. Washer OR
0328	54040402A	Spring Washer x 2
0329	62031650W	Lug
0330	62031650W	Lug
0331	54080400R	T.L. Washer RR x 4
0332	51570306B	P. Tapt Screw
0333	54050300R	T.L. Washer
0334	51570308B	P. Tapt Screw x 2
		ELECTRICAL PARTS
P100	YD2863001	P.W. Board (EQ, PRE, MAIN AMP)
	ZZ2860101	P.W. Board Ass'y
		RESISTORS
		All resistors are ±5%, ¼W and carbon type, unless otherwise indicated.
R101	RT0533214	3.3KΩ
R102	RT0533214	3.3KΩ
R103	RT0568314	68KΩ
R104	RT0568314	68KΩ
R105	TT0510414	100KΩ
R106	RT0510414	100KΩ
R107	RT0510214	1KΩ
R108	RT0510214	1KΩ
R109	RT0568314	68KΩ
R110	RT0568314	68KΩ
R111	RT0568214	6.8KΩ
R112	RT0568214	6.8KΩ
R113	RT0512214	1.2KΩ
R114	RT0512214	1.2KΩ
R115	RT0522414	220KΩ
R116	RT0522414	220KΩ
R117	RT0515314	15KΩ
R118	RT0515314	15KΩ
R119	RT0520214	2KΩ
R120	RT0556414	560KΩ
R121	RT0556414	560KΩ
R122	RT0556214	5.6KΩ
R123	RT0556214	5.6KΩ
R124	RT0533014	33Ω
R125	RT0533014	33Ω
R126	RT0510414	100KΩ
R127	RT0510414	100KΩ
R128	RT0582414	820KΩ
R129	RT0582414	820KΩ
R130	RT0518314	18KΩ
R131	RT0518314	18KΩ
R132	RT0510114	100Ω
R133	RT0510114	100Ω
R134	RT0527214	2.7KΩ
R135	RT0515314	15KΩ
R136	RT0515314	15KΩ
R137	RT0510414	100KΩ
R138	RT0510414	100KΩ
R139	RT0512214	1.2KΩ
R140	RT0512214	1.2KΩ
R141	RT0539214	3.9KΩ
R142	RT0539214	3.9KΩ
R143	RT0510314	10KΩ
R144	RT0510314	10KΩ
R145	RC1018112	180Ω, Solid, ±10%, 1/2W
R146	RC1018112	180Ω, Solid, ±10%, 1/2W
R147	RC1012012	12Ω, Solid, ±10%, 1/2W
R148	RC1012012	12Ω, Solid, ±10%, 1/2W

REF. DESIG.	PART NO.	DESCRIPTION
R149	RC1018112	180Ω, Solid, ±10%, 1/2W
R150	RC1018112	180Ω, Solid, ±10%, 1/2W
R151	GW1050202	0.5Ω ±10%, 2W
R152	GW1050202	0.5Ω ±10%, 2W
R153	GW1050202	0.5Ω ±10%, 2W
R154	GW1050202	0.5Ω ±10%, 2W
R155	RC1012012	12Ω, Solid, ±10%, 1/2W
R156	RC1012012	12Ω, Solid, ±10%, 1/2W
R157	RT0510514	1MΩ
R158	RT0510514	1MΩ
R161	RA0154001	150KΩ, Trimming
R162	RA0154001	150KΩ, Trimming
R163	RT0510114	100Ω
R164	RT0510114	100Ω
R165	RT0510414	100KΩ
R166	RT0510414	100KΩ
R201	RT0568214	6.8KΩ
R202	RT0568214	6.8KΩ
R203	RM0503038	50KΩ A x 2, Variable
R204	RT0512214	1.2KΩ
R205	RT0512214	1.2KΩ
R206	RT0527214	2.7KΩ
R207	RT0527214	2.7KΩ
R208	RM0503038	50KΩ A x 2, Variable
R001	RT1056314	56KΩ ±10%, 1/4W
R002	RT1056314	56KΩ ±10%, 1/4W
R003	RT1013314	13KΩ ±10%, 1/4W
R004	RT1010414	100KΩ ±10%, 1/4W
R005	RT1010314	10KΩ ±10%, 1/4W
R006	RT1010314	10KΩ ±10%, 1/4W
R007	RT1010414	100KΩ ±10%, 1/4W
R008	RT1013314	13KΩ ±10%, 1/4W
R009	RM0503039	50KΩ A x 2, Variable
R010	RT1018314	18KΩ ±10%, 1/4W
R011	RT1018314	18KΩ ±10%, 1/4W
R012	RK0203021	20KΩ, Variable
R013	RT1022114	220Ω ±10%, 1/4W
R014	RT1022114	220Ω ±10%, 1/4W
R016	RT1022414	220KΩ ±10%, 1/4W
R017	RT1022414	220KΩ ±10%, 1/4W
R018	RT1013314	13KΩ ±10%, 1/4W
R019	RT1013314	13KΩ ±10%, 1/4W
R020	RT0582314	82KΩ
R021	RT0582314	82KΩ
		CAPACITORS
C101	EA3350509	Electrolytic, 3.3μF, 50V
C102	EA3350509	Electrolytic, 3.3μF, 50V
C103	EA3360109	Electrolytic, 33μF, 10V
C104	EA3360109	Electrolytic, 33μF, 10V
C105	DF1715301	Mylar, 0.015μF
C106	DF1715301	Mylar, 0.015μF
C107	DF1747201	Mylar, 0.0047μF
C108	DF1747201	Mylar, 0.0047μF
C109	EM4740251	Electrolytic, 0.47μF, 25V
C110	EM4740251	Electrolytic, 0.47μF, 25V
C111	EA2270109	Electrolytic, 220μF, 10V
C112	EA3350509	Electrolytic, 3.3μF, 50V
C113	EA3350509	Electrolytic, 3.3μF, 50V
C114	EA3350509	Electrolytic, 3.3μF, 50V
C115	EA3350509	Electrolytic, 3.3μF, 50V
C116	EA2270169	Electrolytic, 220μF, 16V
C117	DF1740301	Mylar, 0.04μF, 25V

REF. DESIG.	PART NO.	DESCRIPTION
C118	DF1740301	Mylar, 0.04μF
C119	DD1630001	Ceramic, 30pF
C120	DD1630001	Ceramic, 30pF
C121	EA3350509	Electrolytic, 3.3μF, 50V
C122	EA3350509	Electrolytic, 3.3μF, 50V
C123	DD1630001	Ceramic, 30pF
C124	DD1630001	Ceramic, 30pF
C125	EA2270259	Electrolytic, 220μF, 25V
C126	EA2270259	Electrolytic, 220μF, 25V
C127	EA4770259	Electrolytic, 470μF, 25V
C128	EA4770259	Electrolytic, 470μF, 25V
C129	DF1747301	Mylar, 0.047μF
C130	DF1747301	Mylar, 0.047μF
C131	EB2280351	Electrolytic, 2200μF, 35V
C132	DD1650001	Ceramic, 50pF
C133	DD1650001	Ceramic, 50pF
C134	EA3360109	Electrolytic, 33μF, 10V
C135	EA3360109	Electrolytic, 33μF, 10V
C136	DD1630001	Ceramic, 30pF
C137	DD1630001	Ceramic, 30pF
C138	DD1620101	Ceramic, 200pF
C139	DD1620101	Ceramic, 200pF
C201	DF1622301	Mylar, 0.022μF
C202	DF1622301	Mylar, 0.022μF
C203	EM2240251	Electrolytic, 0.22μF, 25V
C204	EM2240251	Electrolytic, 0.22μF, 25V
C205	DF1722201	Mylar, 0.0022μF
C206	DF1722201	Mylar, 0.0022μF
C207	DF1722301	Mylar, 0.022μF
C208	DF1722301	Mylar, 0.022μF
C001	DF1722380	Mylar, 0.022μF, 1KV DC
C002	DK1810301	Ceramic, 0.01μF, 50V
C003	DK1810301	Ceramic, 0.01μF, 50V
		SEMICONDUCTORS
H101	HT304580Z	Transistor, (2SC458LGD)
H102	HT304580Z	Transistor, (2SC458LGD)
H103	HT304580C	Transistor, (2SC458LC)
H104	HT304580C	Transistor, (2SC458LC)
H105	HT304580Z	Transistor, (2SC458LGD)
H106	HT304580Z	Transistor, (2SC458LGD)
H107	HT304580Y	Transistor, (2SC458LGC)
H108	HT304580Y	Transistor, (2SC458LGC)
H109	HT304580C	Transistor, (2SC458LC)
H110	HT304580C	Transistor, (2SC458LC)
H111	HT304580K	Transistor, (2SC458LB)
H112	HT304580K	Transistor, (2SC458LB)
H113	HT106731B	Transistor, (2SA673B)
H114	HT106731B	Transistor, (2SA673B)
H115	HT311622A	Transistor, (2SC1162)
H116	HT311622A	Transistor, (2SC1162)
H117	HT311622A	Transistor, (2SC1162)
H118	HT311622A	Transistor, (2SC1162)
H120	HV0000401	Varistor, (HV46R)
H212	HV0000201	Varistor, (HV23)
H122	HV0000201	Varistor, (HV23)
H123	HV0000401	Varistor, (HV46R)
H125	HD2000110	Diode, (IS1665)
H126	HD2000110	Diode, (IS1665)
H127	HD2000110	Diode, (IS1665)
H128	HD2000110	Diode, (IS1665)

REF. DESIG.	PART NO.	DESCRIPTION
		TRANSFORMER
L002	TS1601301	Power Transformer
		MISCELLANEOUS
P200	YD2792002	P.W. Board (TONE)
	ZZ2860102	P.W. Board Ass'y
S001	SS0202017	Slide Switch
S002	SR0204004	Rotary Switch
S003	SP0101013	Push Switch
J001	YT0210001	Terminal
J002	YJ0200007	Socket
J004	YJ0400032	Jack
J005	YJ0100069	Jack
J006	YT0104005	Terminal
J009	YJ0800009	Socket
J010	YJ0800009	Socket
J011	YL0106004	Terminal
J012	YJ1100001	DIN Socket
J101	YP1000094	Plug
J102	YP1000094	Plug

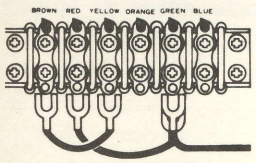
REF. DESIG.	PART NO.	DESCRIPTION
J103	YP1000094	Plug
J105	YP1000094	Plug
J106	YP1000094	Plug
J107	YP1000094	Plug
J108	YP1000094	Plug
J109	YP1000094	Plug
J110	YP1000094	Plug
J111	YP1000094	Plug
J112	YP1000094	Plug
J113	YP1000094	Plug
J114	YP1000094	Plug
J115	YP1000094	Plug
M001	IN1006006	Lamp
F003	FS1010003	Fuse, 1A, 250V
F004	FS1020003	Fuse, 2A, 250V
W004	YC0190003	AC Cord
W005	YB0007001	Wiring Material
W006	YB0007001	Wiring Material
W007	YB0027001	Wiring Material

VOLTAGE CONVERSION

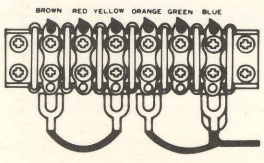
This model is equipped with a universal power transformer to permit operation at 110, 120, 220, 240 Volts AC 50/60 Hz.

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

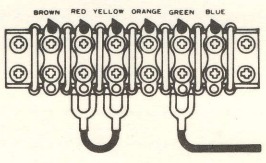
CAUTION: DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.



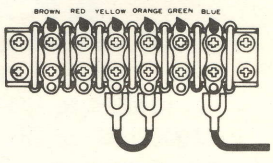
For 110V Operation



For 120V Operation



For 220V Operation



For 240V Operation

Voltage Conversion Chart

SUPERSCOPE INC. 8150 VINELAND AVENUE, SUN VALLEY, CALIFORNIA · 91352 · U.S.A.

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