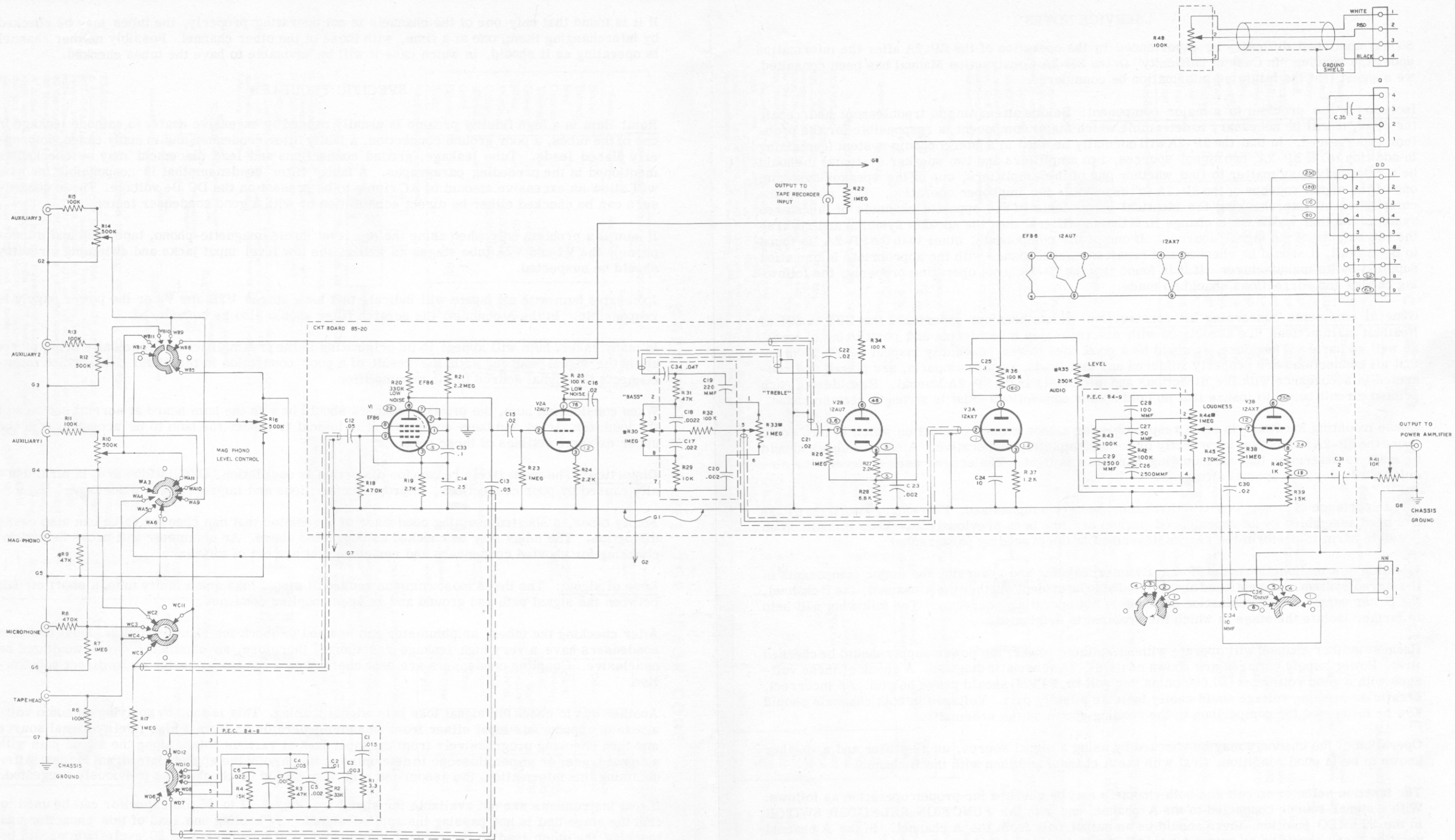


ALL SWITCHES SHOWN IN FULL "CCW" POSITION AS VIEWED FROM FRONT  
 "SELECTOR" SWITCH (G) IN "TAPE HEAD" POSITION  
 "SCRATCH FILTER" SWITCH (A) IN "OFF" POSITION  
 \*THIS RESISTOR MAY BE CHANGED IF SUGGESTED BY CARTRIDGE MANUFACTURERS  
 ■ PANEL MOUNTED CONTROLS  
 ALL CONDENSERS IN  $\mu$ FD UNLESS OTHERWISE SPECIFIED  
 ALL RESISTORS ARE 1/2 WATT UNLESS OTHERWISE SPECIFIED  
 ○ INDICATES VOLTAGE

**SCHEMATIC**  
**HEATHKIT STEREO PREAMPLIFIER**  
**MODEL SP-2A**  
**A CHANNEL PREAMPLIFIER AND POWER SUPPLY**



ALL SWITCHES SHOWN IN FULL "CCW" POSITION AS VIEWED FROM FRONT  
 "SELECTOR" SWITCH (W) IN "TAPE HEAD" POSITION  
 "FUNCTION SELECTOR" SWITCH (V) IN "STEREO" POSITION  
 \*THIS RESISTOR MAY BE CHANGED IF SUGGESTED BY CARTRIDGE MANUFACTURER  
 ■PANEL MOUNTED CONTROLS  
 ALL CONDENSERS  $\mu$ FD UNLESS OTHERWISE SPECIFIED  
 ALL RESISTORS 1/2 WATT  
 ○ INDICATES VOLTAGE

**B CHANNEL PREAMPLIFIER**

PARTS LIST

PART No.	PARTS Per Kit	DESCRIPTION	PART No.	PARTS Per Kit	DESCRIPTION
<b>Capacitors</b>			<b>Sockets-Terminal Strips (cont)</b>		
21-3	2	10 $\mu\mu\text{f}$ disc ceramic	431-5	1	4-lug terminal strip
21-13	2	500 $\mu\mu\text{f}$ disc ceramic	431-6	1	2-lug screw type terminal strip
21-14	2	.001 $\mu\text{fd}$ disc ceramic	431-15	1	1-lug terminal strip
21-31	10	.02 $\mu\text{fd}$ disc ceramic	434-16	2	9-pin wafer tube socket
21-36	3	.002 $\mu\text{fd}$ disc ceramic	434-20	5	110 v 2-prong socket
23-28	2	.1 $\mu\text{fd}$ 200 v plastic molded paper	434-76	4	Triple phono socket
23-53	2	.1 $\mu\text{fd}$ 400 v plastic molded paper	434-78	6	9-pin socket, printed circuit type
23-59	4	.05 $\mu\text{fd}$ 200 v plastic molded paper	434-82	2	Double phono socket
25-4	2	10 $\mu\text{fd}$ 25 v tubular electrolytic	434-87	1	Socket for type #47 PILOT LIGHT
25-30	2	20-20 $\mu\text{fd}$ 350 v tubular electrolytic	<b>Plugs-Covers</b>		
25-35	3	2 $\mu\text{fd}$ 50 v tubular electrolytic	206-93	2	Switch cover
25-41	1	40 $\mu\text{fd}$ 350 v tubular electrolytic	432-17	1	Connector female
25-44	2	25 $\mu\text{fd}$ 25 v tubular electrolytic	432-18	1	Connector male
25-71	2	30 $\mu\text{fd}$ 200 v tubular electrolytic	432-19	2	9-pin molded connector
<b>Controls-Switches</b>			438-4	8	Single prong phono plug
10-35	8	500 K ohm Audio INPUT LEVEL	438-6	2	Octal plug
10-79	1	1 megohm linear, tapped LOUDNESS control	440-3	1	Cover with insulating linear
10-80	1	1 megohm linear, tapped LOUDNESS control	440-4	2	Vinyl plug cover
10-81	2	1 megohm Audio Tone control	<b>Hardware</b>		
10-82	2	1 megohm Audio Tone control	250-2	12	2-38 x 5/16" machine screw
10-83	1	250 K ohm Audio LEVEL control	250-8	36	#6 x 3/8" sheet metal screw
10-84	1	250 K ohm Audio LEVEL control	250-9	46	6-32 x 3/8" machine screw
10-88	2	10 K ohm Audio OUTPUT LEVEL control	250-18	2	8-32 x 3/8" machine screw
10-90	1	100 K ohm linear (miniature) REMOTE BALANCE control	250-29	4	6-32 x 3/4" machine screw
11-17	2	100 ohms wirewound HUM control	252-1	12	3-48 hex nut
B63-162	1	1 deck - 3 position rotary SCRATCH FILTER	252-3	61	6-32 hex nut
A63-164	1	2 deck - 8 position rotary SELECTOR	252-4	2	8-32 hex nut
A63-165	1	2 deck 8 position rotary SELECTOR	252-7	28	3/8" - 32 control nut
B63-166	1	1 deck - 4 position rotary FUNCTION	252-37	1	9/32" - 32 nut
63-178	2	Line switch "ON-OFF"	252-39	1	1/4" - 32 control nut
<b>Tubes-Lamps</b>			253-1	1	Flat fibre washer (small)
411-25	2	12AU7	253-10	28	3/8" x 5/8" control washer
411-26	2	12AX7	253-15	2	Flat fibre washer (large)
411-106	2	EF86	253-16	2	Fibre shoulder washer
412-1	1	#47 - 6 volt Pilot lamp	253-46F246	1	Steel panel washer (remote control)
<b>Transformers-Chokes</b>			254-1	57	#6 lockwasher
46-20	1	2.2 henry	254-2	2	#8 lockwasher
54-71	1	Power transformer	254-4	22	Control lockwasher
<b>Sockets-Terminal Strips</b>			254-7	8	#3 lockwasher
431-1	2	Dual 1-lug terminal strip	254-14	1	#12 lockwasher
431-2	2	2-lug terminal strip	259-6	1	#3 solder lug
			259-11	2	#6 spade lug
			261-13	4	Plastic feet
			<b>Cabinet-Chassis-Associated Metal Parts</b>		
			90-M87	1	Cabinet shell
			100-M244	1	Front panel assembly
			200-M177	1	Power supply chassis

PART No.	PARTS Per Kit	DESCRIPTION	PART No.	PARTS Per Kit	DESCRIPTION
<b>Cabinet-Chassis-Associated Metal Parts (con't.)</b>			<b>Miscellaneous</b>		
200-M178	1	Amplifier (A channel) chassis	57-13	2	35 MA selenium rectifier
200-M189	1	Amplifier (B channel) chassis	73-1	1	3/8" rubber grommet
202-M23	1	Chassis end plate (left)	89-1	1	Line cord
202-M24	1	Chassis end plate (right)	95-1	1	Rubber remote control cone
204-M202	1	Hum balance control bracket	206-30	1	length 1/8" spirashield
205-M96	1	Amplifier chassis cover plate	206-68	6	Tube shields
205-M98	2	Printed circuit cover plate	207-4	1	Plastic cable clamp
<b>Knobs</b>			340-2	1	length Bare wire
462-70	6	Large knobs (concentric)	343-3	1	length Shielded cable
462-71	6	Small knobs (concentric)	344-1	1	#22 plastic jacket
462-75	2	Small knob flatted shaft	346-1	1	length Hookup wire
462-79	1	Small knob flatted shaft (remote control)	346-7	1	length 1/16" sleeving
			347-1	1	length Sleeving #5 clear plastic
<b>Packaged Electronic Circuits-Printed Circuit Boards</b>			347-9	1	length 8 conductor cable
84-1	2	Tone control network	390-47	1	length 3 conductor shielded
84-8	2	Compensation network	390-48	1	A channel input label-adhesive
84-9	2	Loudness control network	390-49	1	B channel input label-adhesive
85-20	2	Circuit boards	391-6	1	Power supply label-adhesive
			413-4	1	Logo "Heathkit" black and gold
			453-68	1	Clear red jewel
			453-69	1	Lock shaft (with identifying ring)
			455-28	2	Lock shaft
			595-296	1	Bushing
					Manual
			<b>Resistors</b>		
			1-9	2	1 K ohm 1/2 watt (brown-black-red)
			1-10	2	1.2 K ohm 1/2 watt (brown-red-red)
			1-13	2	2.7 K ohm 1/2 watt (red-violet-red)
			1-19	2	6.8 K ohm 1/2 watt (blue-gray-red)
			1-21	3	15 K ohm 1/2 watt (brown-green-orange)
			1-25	2	47 K ohm 1/2 watt (yellow-violet-orange)
			1-26	14	100 K ohm 1/2 watt (brown-black-yellow)
			1-29	1	220 K ohm 1/2 watt (red-red-yellow)
			1-30	2	270 K ohm 1/2 watt (red-violet-yellow)
			1-33	4	470 K ohm 1/2 watt (yellow-violet-yellow)
			1-35	12	1 megohm 1/2 watt (brown-black-green)
			1-37	2	2.2 megohm 1/2 watt (red-red-green)
			1-44	4	2.2 K ohm 1/2 watt (red-red-red)
			1A-2	2	1 K ohm 1 watt (brown-black-red)
			1A-5	1	22 K ohm 1 watt (red-red-orange)
			1A-7	1	47 K ohm 1 watt (yellow-violet-orange)
			4-2	2	100 K ohm 1/2 watt (low noise)
			4-3	2	330 K ohm 1/2 watt (low noise)