



COMBO PRE-AMP III

KIT 7880 INFORMATION MANUAL



COMBO PRE-AMP III
is used with: One or two combo instruments
LESLIE Pro-line Speakers

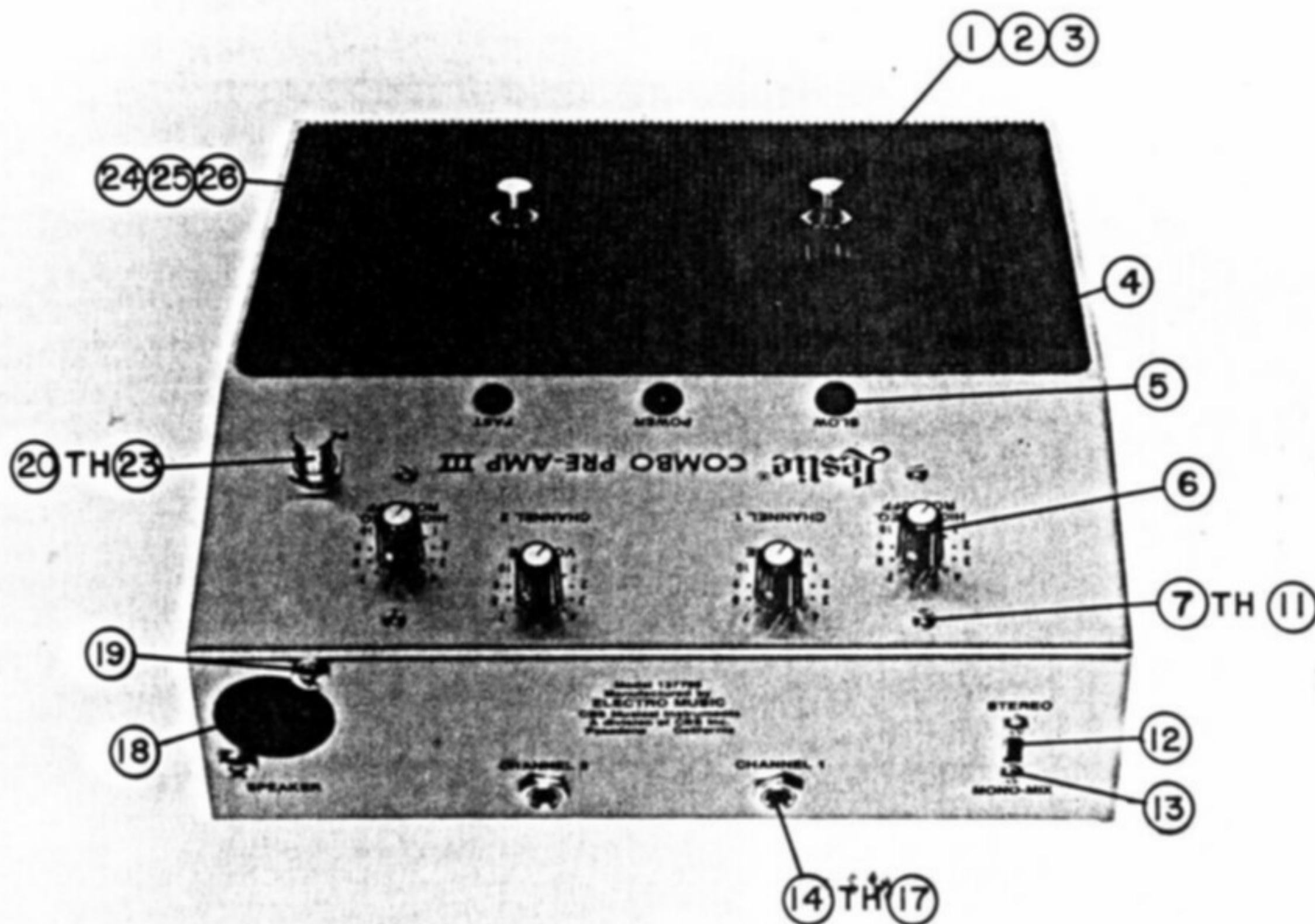
INTRODUCTION

The Combo Pre-amp III is designed to amplify and enhance the output from one or two sound sources, such as a combo organ and guitar (or a combo organ with two-channel output). Two input channels, each with its own jack, volume control, and high-frequency roll-off control are provided. One or both channels can be used.

Controls are also provided for the speed of the LESLIE speaker rotors; the combo pre-amp is intended for use with a LESLIE speaker.

KIT CONTENT

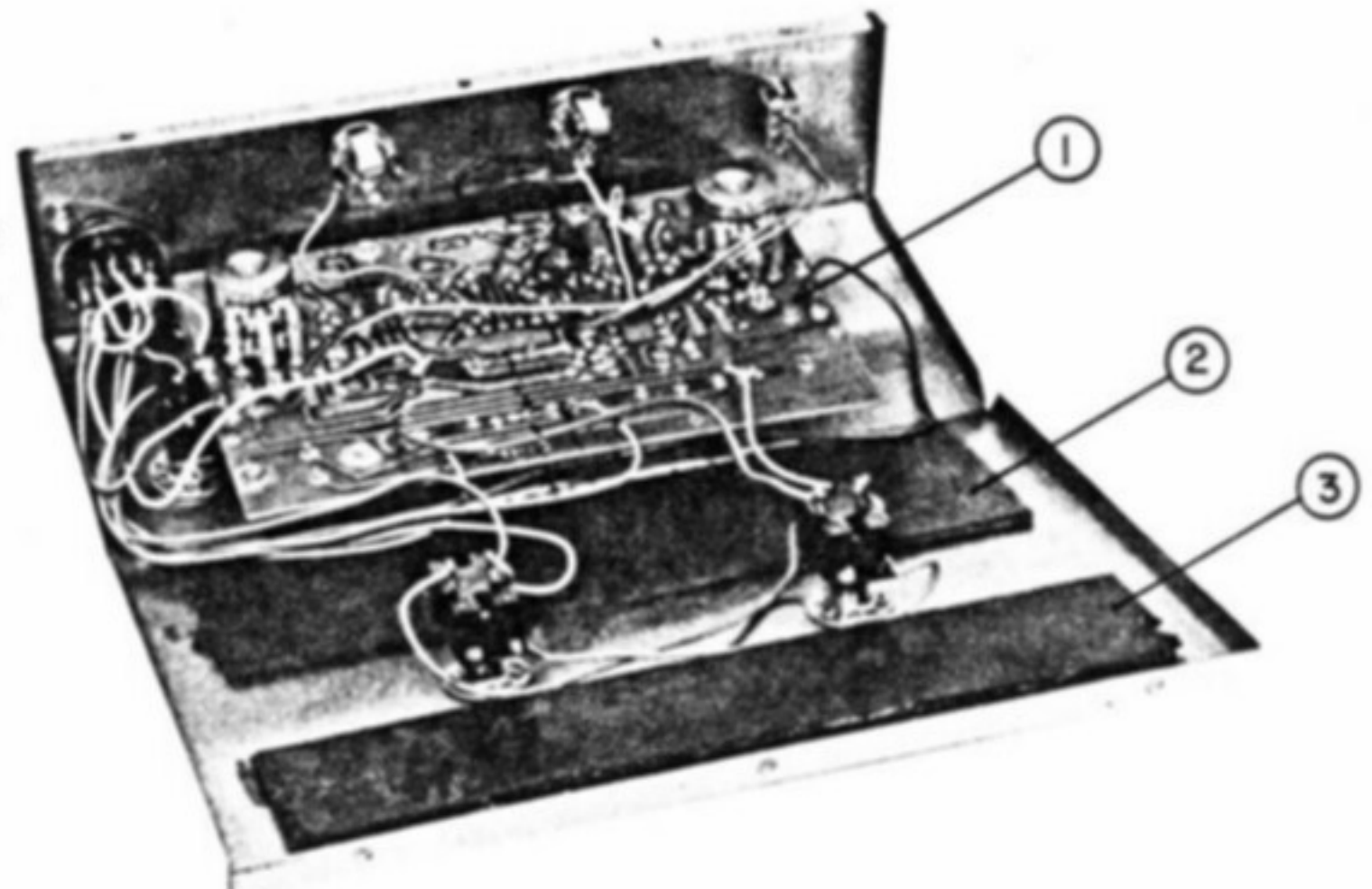
Combo Pre-amp Assembly	137786
Cable Assembly, 11-contact, 30-foot	137357
Oiler Package	053025



Index No.	Description	Part No.
1	Switch, push, SPST (SW2) — attaching parts —	026435
2	Nut, hex, 15/32-32	044776
3	Washer, lock, 1/2 x 7/8 x .030	020958
4	Cover, rubber, 6-3/4 x 9-1/2	044230
5	Lens with Grommet	137753
6	Knob	020354
7	Screw, machine, 6-32 x 1-1/8	022145
8	Bushing, aluminum, .196 x .313 x .625 long	055079
9	Washer, lock, 6 x 9/32 x 18	028993
10	Nut, hex, 6-32 x 5/16 x 7/64	012930
11	Washer, spring, split	025312
12	Switch, slide, SPST (SW1) — attaching parts —	110770
13	Screw, sheet metal, 6 x 1/4, Phillips head	011692

Index No.	Description	Part No.
14	Nut, hex, 3/8-32	020388
15	Washer, flat, 3/8 x 5/8 x .020	127580
16	Washer, lock, 3/8 x 11/16 x .025	020396
17	Jack, phone	039602
18	Cable and Socket Assembly (11 pin) — attaching parts —	137859
19	Screw, sheet metal, 12 x 3/8, Phillips head	022095
20	Switch, push, SPST (SW4)	026435
21	Nut, hex, 15/32-32	044776
22	Washer, lock, 1/2 x 7/8 x .030	020958
23	Washer, flat, 15/32 x 3/4 x .034	026401
24	Switch, push, DPDT (SW3) — attaching parts —	039610
25	Nut, hex, 15/32-32	044776
26	Washer, lock, 1/2 x 7/8 x .030	020958

Index No.	Description	Part No.
1	Circuit Board Assembly	137785
2	Damper Pad, 1/8 x 2-1/2 x 8-1/2	039560
3	Damper Pad, 1/8 x 1-3/4 x 8-1/2	039552
	[not shown]	
	Cover (bottom)	039594
	— attaching parts —	
	Screw, sheet metal, 8 x 1/4, Phillips head	022103
	Foot, black	020859



INSTALLATION

1. Connect the cable from the instrument to the CHANNEL 1 or CHANNEL 2 jack at the rear of the pre-amp. (The connector should be a phone-type plug.) If only one instrument is to be used, connect it to the CHANNEL 1 jack.
2. Prepare the LESLIE speaker as described in the manual accompanying the speaker.
3. Connect the 11-contact cable which is in this kit between the LESLIE speaker and the SPEAKER socket at the rear of the pre-amp.
4. Adjust the volume of each instrument and speaker in the system in relation to the desired total output.

OPERATION

1. Press the POWER on/off switch; the center indicator (POWER) should glow red.
2. If the motors in the LESLIE speaker do not start, press the left-most foot switch. The SLOW indicator should glow red. The motors in the LESLIE speaker should also start.
3. To alternate between slow and off, press (and release) the left switch.
4. To alternate between fast and off, press (and release) the right switch.
5. To alternate between slow and fast, set the left switch so that the SLOW indicator glows; then press (and release) the right switch for the speed desired. The SLOW or FAST indicator will glow, as appropriate.
6. Volume controls provide separate variation for each channel. Setting 1 is the lowest; setting 10 is the highest.
7. The HIGH FREQ. ROLLOFF control adjusts a filter circuit which selects the frequency at which the gain of the pre-amp begins to fall off.

At the fully counterclockwise position (1 on the dial) gain is sharply reduced at 800 Hz (nominal), falling off 3 db from the reference point, or flat gain value. Up to that frequency the gain is relatively flat.

At the fully clockwise position (10 on the dial) gain is off 3 db at 18,000 Hz and continues to fall sharply at higher frequencies.

Set the HIGH FREQ. ROLLOFF for the output desired of each channel.

8. Set the STEREO/MONO-MIX switch. With the switch in the MONO-MIX position the inputs of channel 1 and channel 2 are mixed, after passing through the volume control and (high-frequency roll-off) filter circuits. Output is through contact 1 of socket S1.

With the switch in the STEREO position each channel is handled separately from input to output. (Channel 2 output is through contact 2 of socket S1.)

NOTE

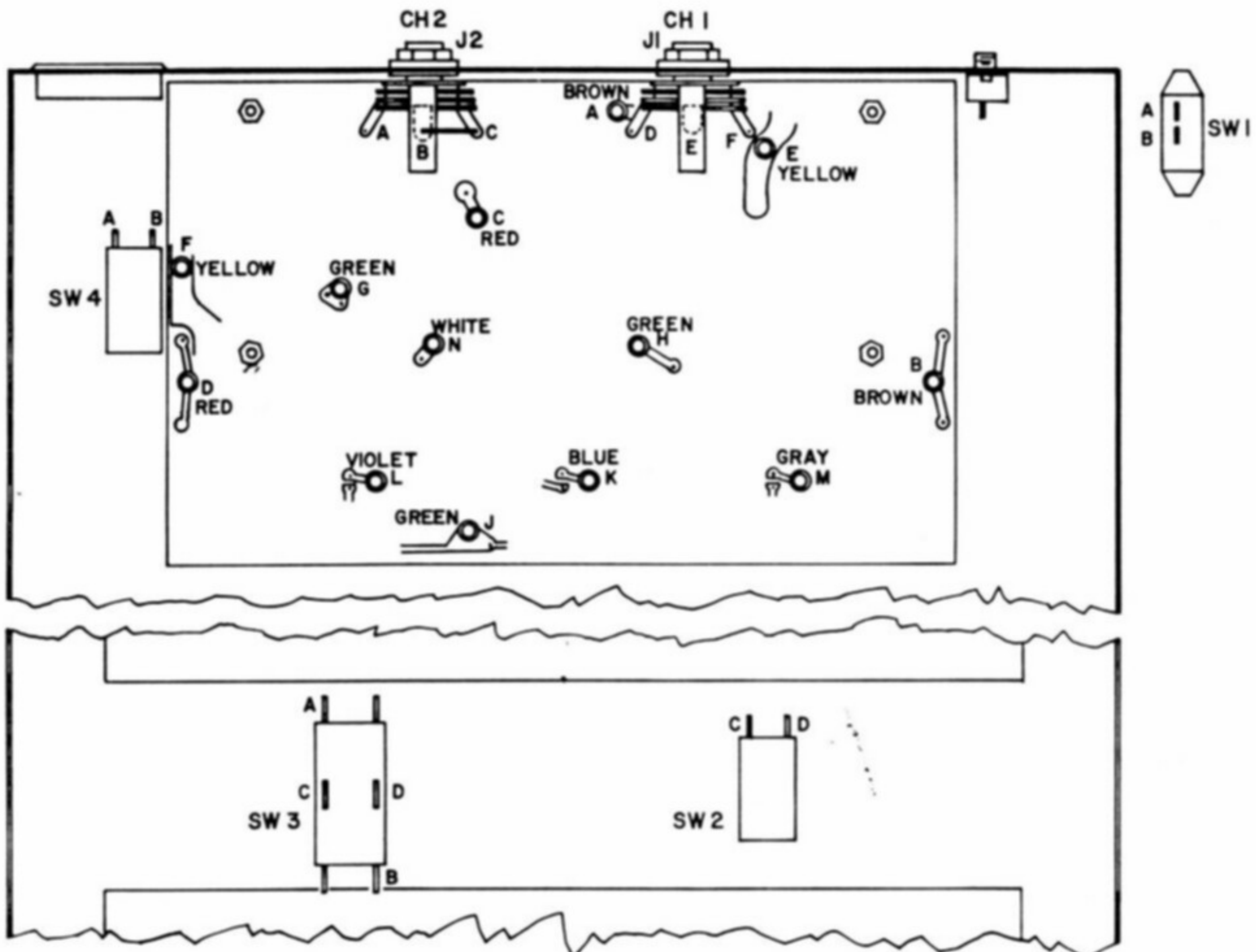
When the combo pre-amp III is used with a LESLIE speaker model which accommodates single-channel input, only channel 1 is picked up at the input (P1) of the cabinet. Therefore the combo pre-amp III should always be used in the MONO-MIX configuration when it is connected to such a speaker.

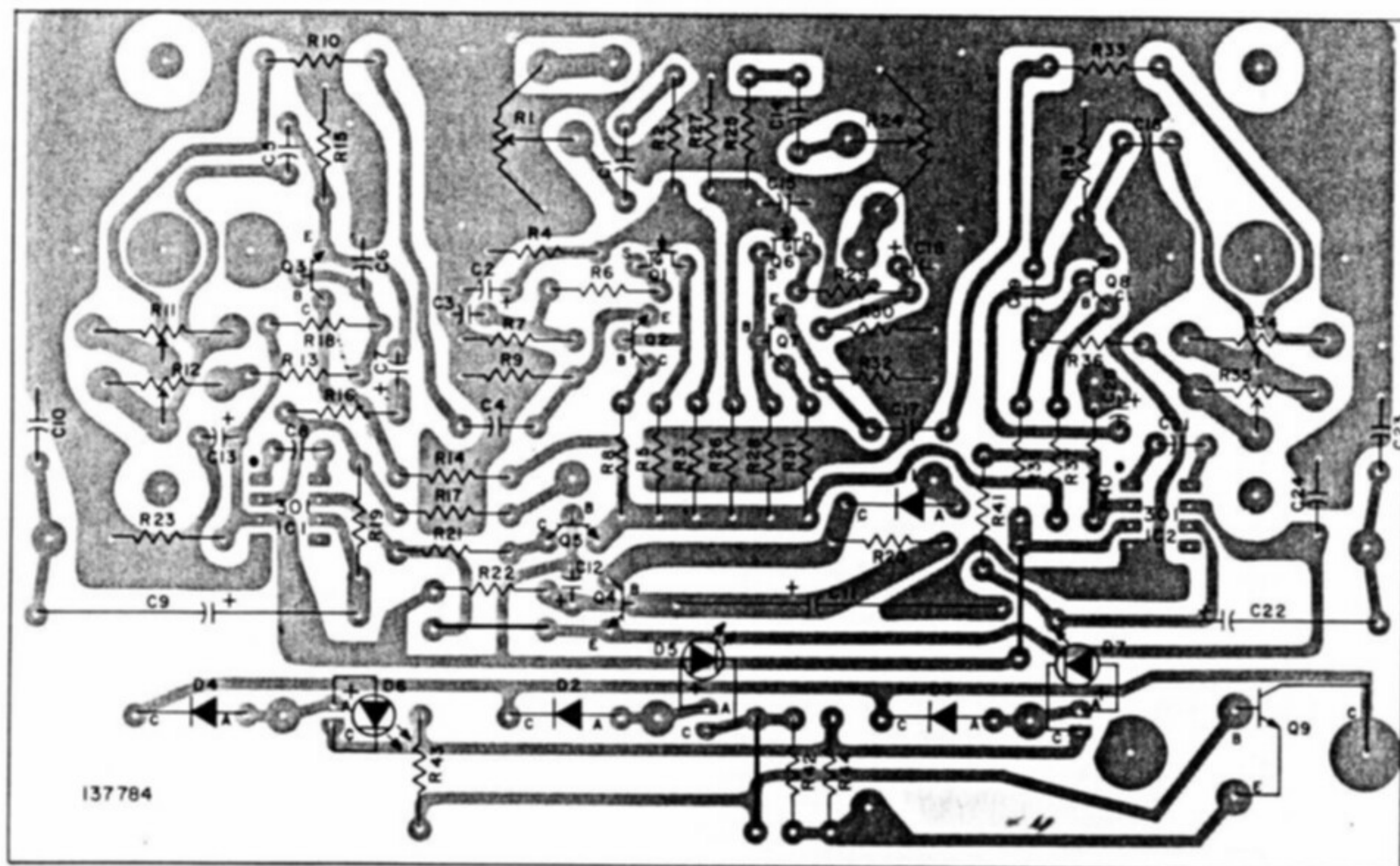
9. To stop the operation of the LESLIE speaker motors press the left and right foot switches until both the SLOW and FAST indicators go out.

WIRE LIST*

FROM	COLOR	TO
point B	brown	socket, pin 1
point D	red	socket, pin 2
point F	yellow	socket, pin 4
		(jumped from 4 to 3)
point K	blue	socket, pin 6
point N	white	socket, pin 11
SW1, A	green	point G
SW1, B	green	point H
SW2, C	gray	SW3, B
SW2, D	gray	point M
SW3, A	violet	point L
SW3, B	gray	SW2, point C
SW3, C	violet	socket, pin 7
SW3, D	gray	socket, pin 8
SW4, A	green	point J
SW4, B	green	socket, pin 5
J1, D	brown	point A
J1, E	yellow	J1, F
J1, F	yellow	point E
J2, A	red	point C
J2, B	bare	J2, C

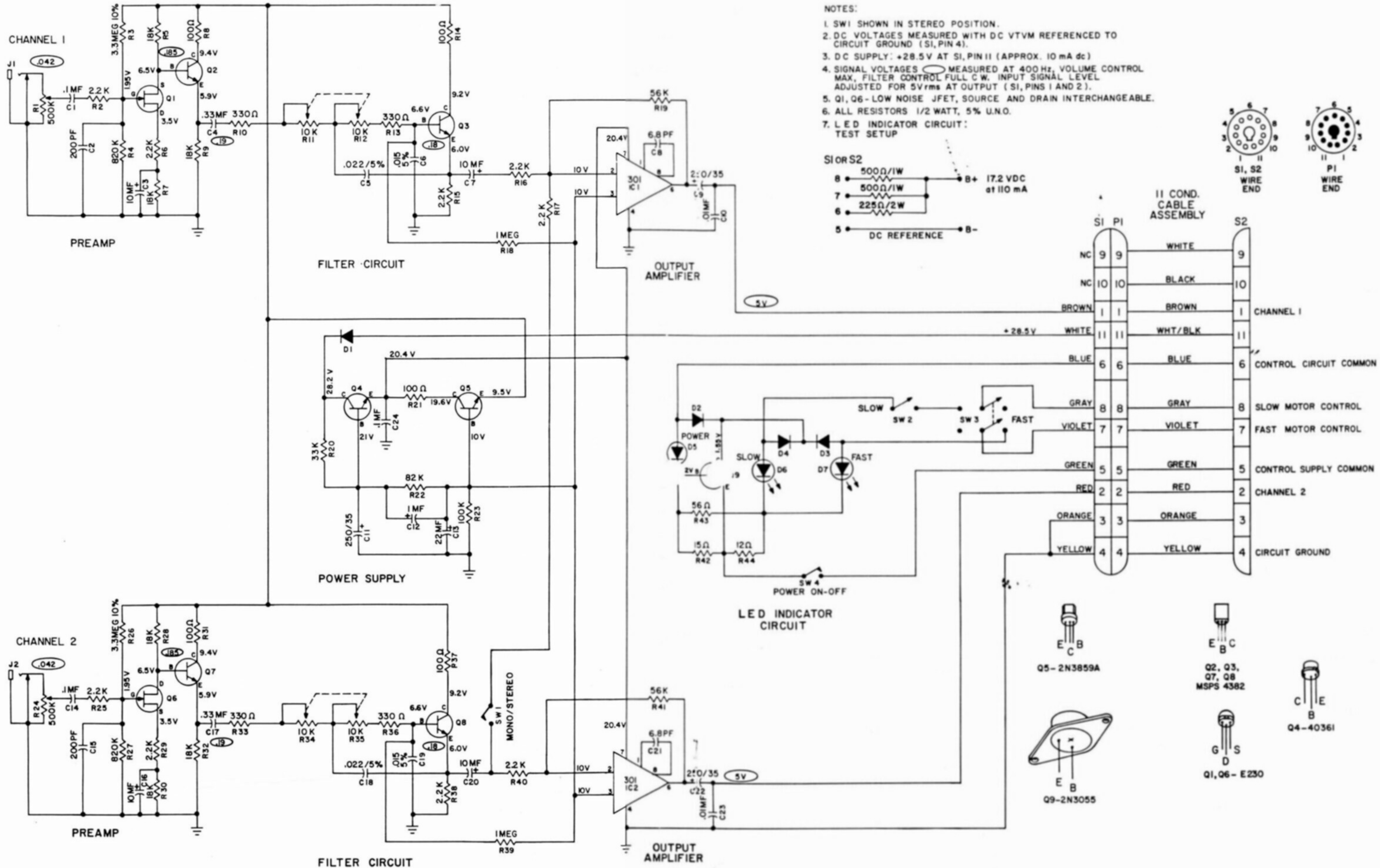
*Where no item is listed (only point designation) the points are on the circuit board.





Circuit Board Assembly 137785

Reference Designation	Description	Part No.	Reference Designation	Description	Part No.
C1	Capacitor, polyester, 0.1 mfd, 200VDC	022251	R1	Potentiometer, 500K	020370
C2	Capacitor, disc, 200pF, 1000VDC	023622	R2	Resistor, 2.2K, 1/2W, 5%	137758
C3	Capacitor, tantalum, 10 mfd, 16VDC	041707	R3	Resistor, 3.3-meg, 1/2W, 10% (alternate part)	137760
C4	Capacitor, polyester, 0.33 mfd, 200VDC	137986	R4	Resistor, 820K, 1/2W, 5%	137759
C5	Capacitor, mylar, .022 mfd, 100VDC	137751	R5	Resistor, 18K, 1/2W, 5%	137761
C6	Capacitor, mylar, .015 mfd, 100VDC	137750	R6	Resistor, 2.2K, 1/2W, 5%	137758
C7	Capacitor, tantalum, 10 mfd, 16VDC	041707	R7	Resistor, 18K, 1/2W, 5%	137761
C8	Capacitor, disc, 6.8pF, 1000VDC	118140	R8	Resistor, 100-ohm, 1/2W, 5%	137762
C9	Capacitor, electrolytic, 250 mfd, 35VDC	065086	R9	Resistor, 18K, 1/2W, 5%	137761
C10	Capacitor, disc, .01 mfd, 1000VDC	060467	R10	Resistor, 330-ohm, 1/2W, 5%	137763
C11	Capacitor, electrolytic, 250 mfd, 35VDC	065086	R11, R12	Potentiometer, dual, 10K	137752
C12	Capacitor, tantalum, 1 mfd, 35VDC	067538	R13	Resistor, 330-ohm, 1/2W, 5%	137763
C13	Capacitor, tantalum, 22 mfd, 15VDC	062638	R14	Resistor, 100-ohm, 1/2W, 5%	137762
C14	Capacitor, polyester, 0.1 mfd, 200VDC	022251	R15 th R17	Resistor, 2.2K, 1/2W, 5%	137758
C15	Capacitor, disc, 200pF, 1000VDC	023622	R18	Resistor, 1-meg, 1/2W, 5%	137764
C16	Capacitor, tantalum, 10 mfd, 16VDC	041707	R19	Resistor, 56K, 1/2W, 5%	137766
C17	Capacitor, polyester, 0.33 mfd, 200VDC	137986	R20	Resistor, 33K, 1/2W, 5%	137767
C18	Capacitor, mylar, .022 mfd, 100VDC	137751	R21	Resistor, 100-ohm, 1/2W, 5%	137762
C19	Capacitor, mylar, .015 mfd, 100VDC	137750	R22	Resistor, 8.2K, 1/2W, 5%	137816
C20	Capacitor, tantalum, 10 mfd, 16VDC	041707	R23	Resistor, 100K, 1/2W, 5%	137765
C21	Capacitor, disc, 6.8pF, 1000VDC	118140	R24	Potentiometer, 500K	020370
C22	Capacitor, electrolytic, 250 mfd, 35VDC	065086	R25	Resistor, 2.2K, 1/2W, 5%	137758
C23	Capacitor, disc, .01 mfd, 1000VDC	060467	R26	Resistor, 3.3-meg, 1/2W, 10% (alternate part)	137760
C24	Capacitor, polyester, 0.1 mfd, 200VDC	022251	R27	Resistor, 820K, 1/2W, 5%	137759
D1 th D4	Diode, 100 PIV, 1 amp	021154	R28	Resistor, 18K, 1/2W, 5%	137761
D5 th D7	Diode, light-emitting	104680	R29	Resistor, 2.2K, 1/2W, 5%	137758
IC1, IC2	Integrated Circuit, OP-AMP 301	118040	R30	Resistor, 18K, 1/2W, 5%	137761
	Socket, integrated circuit	128010	R31	Resistor, 100-ohm, 1/2W, 5%	137762
Q1	Transistor, field effect	137704	R32	Resistor, 18K, 1/2W, 5%	137761
Q2, Q3	Transistor, MSPS 4382	026237	R33	Resistor, 330-ohm, 1/2W, 5%	137763
Q4	Transistor, RCA 40361	018077	R34, R35	Potentiometer, dual, 10K	137752
Q5	Transistor, 2N3859A	061366	R36	Resistor, 330-ohm, 1/2W, 5%	137763
Q6	Transistor, field effect	137704	R37	Resistor, 100-ohm, 1/2W, 5%	137762
Q7, Q8	Transistor, MSPS 4382	026237	R38	Resistor, 2.2K, 1/2W, 5%	137758
Q9	Transistor, 2N3055	023762	R39	Resistor, 1-meg, 1/2W, 5%	137764
			R40	Resistor, 2.2K, 1/2W, 5%	137758
			R41	Resistor, 56K, 1/2W, 5%	137766
			R42	Resistor, 15-ohm, 1/2W, 5% (alternate part)	018051
			R43	Resistor, 56-ohm, 1/2W, 5%	137827
			R44	Resistor, 12-ohm, 1/2W, 5%	137825
				Etched Circuit Board	137784



LIMITED WARRANTY

The equipment is warranted for a period of one year from the date of the original sale, under normal use and service, against defects in materials and workmanship. Fuses are warranted for ninety days from the date of the original sale. Any implied warranties are limited to the period of the express warranty. This warranty becomes fully effective when the registration card has been properly completed and mailed to Electro Music within 14 days of purchase.

Defective parts will be repaired or replaced, through an authorized Leslie speaker dealer, authorized service technician, or factory service center, within one year of the date of original sale. Labor and transportation charges are not included in this warranty.

The warranty is void if the equipment has been visibly damaged by accident or misuse, or if it has been serviced by any person other than an authorized Leslie speaker dealer, authorized service technician, or the factory service center.

W. J.