

CONSOLE CONNECTOR KIT 7773 INSTALLATION INSTRUCTIONS
FOR USE WITH: WURLITZER Organ Models 4370, 4373, 4570, 4573 (with Echo feature)
LESLIE Speaker Model 212S

KIT CONTENT

Console Connector Assembly	118220	Tremolo Switch (2 furnished)
Cable Assembly, 9-conductor, 30-foot	021600	brown 119070 ebony 119080 ivory 119090
Hardware Package	121300	
Oiler	053025	Echo Switch
Installation Instructions	121320	brown 119160 ebony 119170 ivory 119180

CAUTION: Due to the presence of electrical potential and the danger of moving mechanical parts, installation procedures or adjustments requiring work inside the LESLIE speaker cabinet or the organ console should be performed only by a service man authorized by the dealer or factory to perform such work.

INSTALLATION

CAUTION: DISCONNECT ORGAN POWER BEFORE PROCEEDING:

1. 4370, 4570 only Remove the bottom shield from the console connector chassis. Clip the wires from the orbit III interceptor at the terminals on the small circuit board. Remove the interceptor from the console connector. (The interceptor has a red and a clear wire inside a gray sleeve, and 6-contact plug and socket.) Replace the shield.
2. Remove the organ back.
3. Mount the console connector in the location indicated for the model of organ being connected (viewed from the back) :
 - a. 4370, 4373 Mount the connector chassis on the left side of the pedal cover.
 - b. 4570, 4573 Mount the connector chassis on the floor of the organ, at the left, near the dual power amplifier.

SPECTRA-TONE AMPLIFIER CONNECTIONS (See figures 1, 2.)

4. Locate the D. C. keying and sustain section (figure 1). Remove the screws at the left side, top and bottom, and swing the board outward to gain access to the spectratone amplifier.
5. Connect the AC cord to the brown multiple plug on the right.
6. Remove the plug from the CONTROL socket. Insert the spectra-tone kill interceptor (blue and yellow wires) plug into the socket; insert the plug that was just removed into the socket of the interceptor.
7. Remove the plug from the SWELL socket. Insert the swell control interceptor (double brown wire) plug into the socket; insert the plug that was just removed into the socket of the interceptor.

8. Remove the plug from the AMP OUT socket. Insert the main amplifier plug (gray wire with phono plug and jack) into the socket; insert the plug that was just removed into the socket on the gray wire.

DUAL POWER AMPLIFIER CONNECTION (See figures 1, 3.)

9. Remove the plug from the REVERB socket. Insert the reverb output interceptor (red and yellow wires) plug into the socket; insert the plug that was just removed into the socket of the interceptor.

ORBIT III CONNECTION (If the organ does not include the orbit III equipment go on to step 17.)

10. Remove the three screws from the back of the organ top panel.
11. (From the rear) locate a red wire coming from the organ top at the left (AC to the organ light); the wire terminates in a 3-contact plug. Disconnect the plug from its socket. (Some models may not have this wire.)
12. Pull the organ top panel toward the rear and upward; remove it.
13. Loosen a screw (toward the front) at each side of the stop rail and lift the latching plates. (Plates may be secured in the upward position, for convenience.) Lift the rail from the front.
14. Viewing the organ from the front, locate the orbit III power supply on a metal tray at the right. By the fuse caution label there are two plugs; remove the six-contact plug.
15. Insert the orbit III interceptor (gray wire) plug into the socket just described; insert the plug that was just removed into the socket of the interceptor.
16. Lower the stop rail and fasten it by moving the latching plates down into locked position and tightening the screws.

CONTROL INSTALLATION

17. Mount the control switches on the front of the organ.
18. 4370, 4373 Route the wires from the controls through the round opening under the keybed, at the left, into the interior of the organ, and connect them to the sockets on the console connector chassis. (Each socket is labeled.)

4570, 4573 Under the keybed, at the right side of the organ, is a small cardboard cover; loosen one side of this. Route the wires from the controls through the opening above the cover, into the interior of the organ, and connect them to the sockets on the console connector chassis. (Each socket is labeled.)
19. Replace the top panel. Connect the plug which is on the red wire to its socket at the left rear.
20. Re-position the D. C. keying and sustain section board and fasten it with its two screws at the left side.
21. Replace the organ back. Installation is now complete.

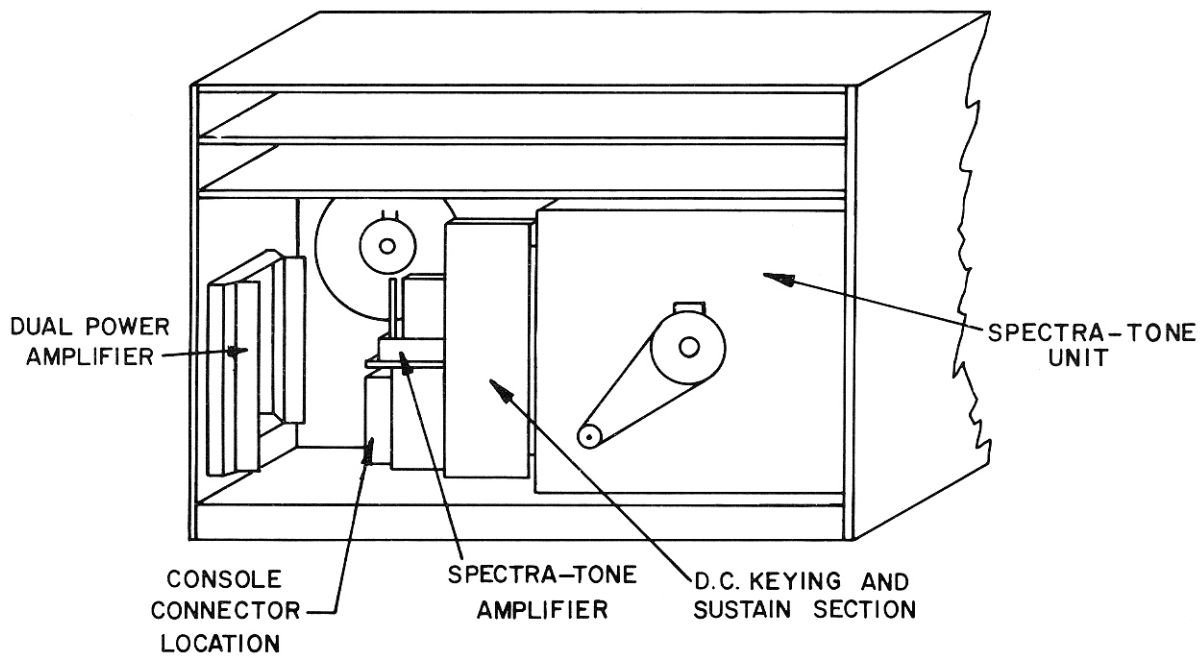


Figure 1. Location of Console Connector in Organ Models 4370, 4373

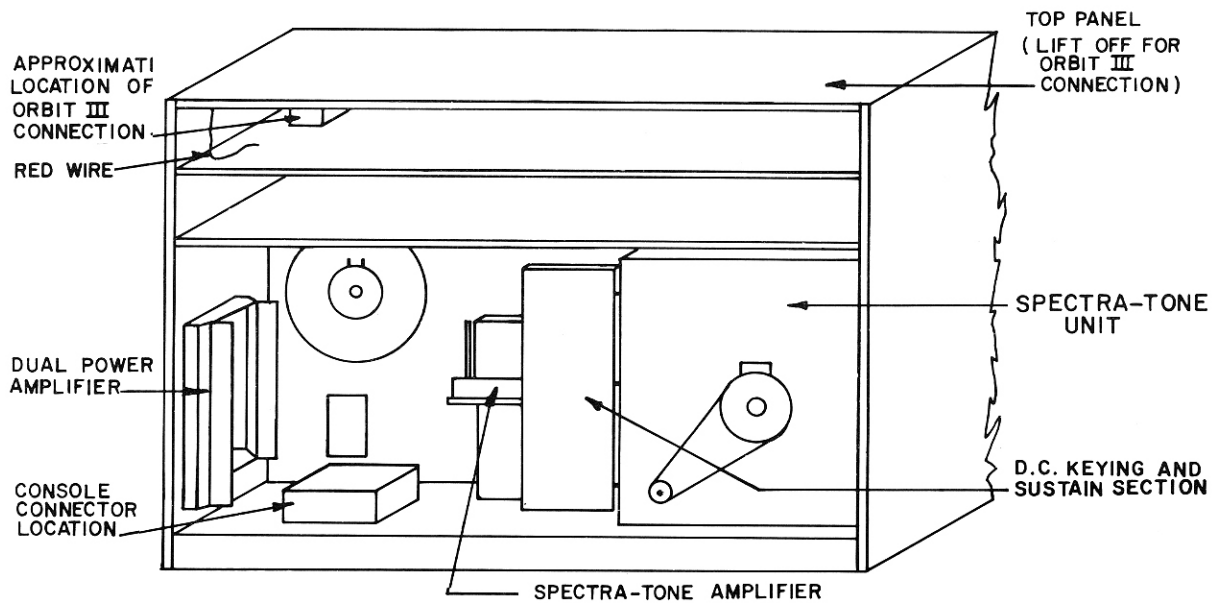
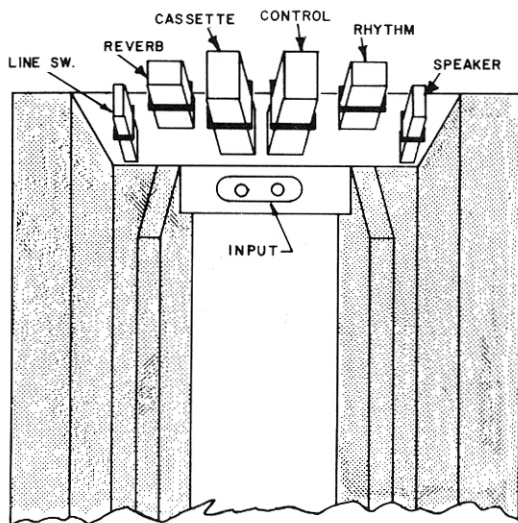


Figure 2. Location of Console Connector in Organ Models 4570, 4573



Socket, relay	49577
Relay, 4PDT, 12VDC	
Zettler	049571
Capacitor, electrolytic, 250mfd, 35V (C26, C35)	065086
Rectifier, silicone, 30PIV, 500MW (D1, D2, D3)	041616
Nut, Tinnerman	025965
Circuit Board, etched	110680

Figure 3. Dual-power Amplifier

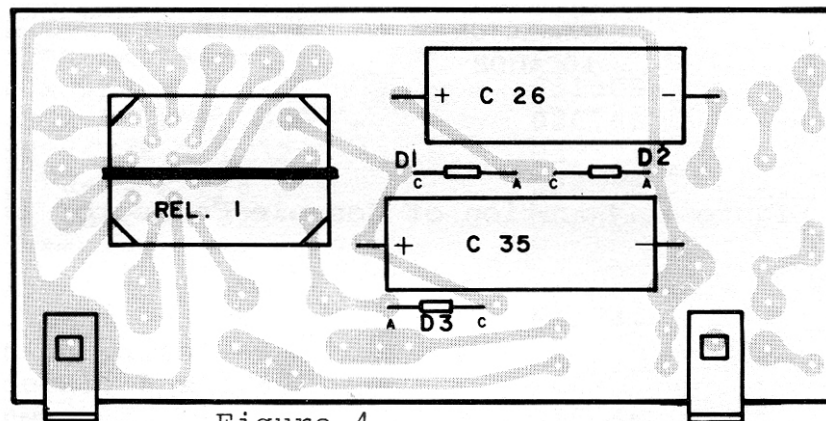


Figure 4.
Circuit Board Assembly 118150 Parts Location

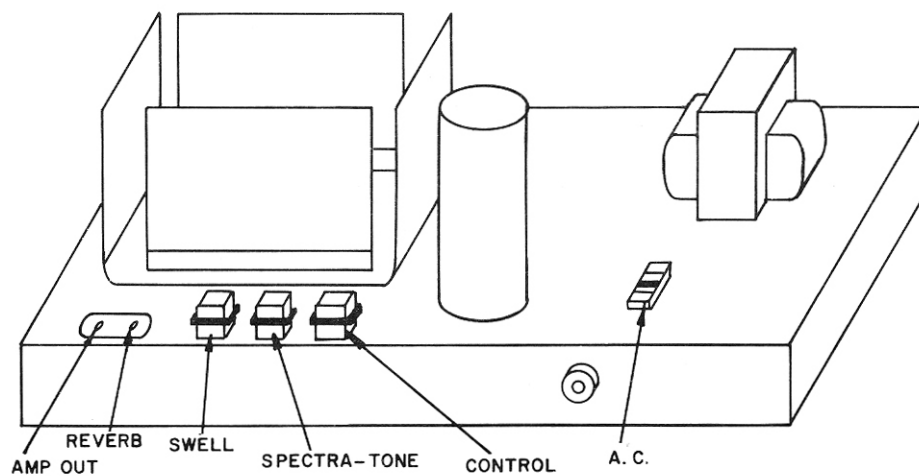


Figure 5. Spectra-tone Amplifier

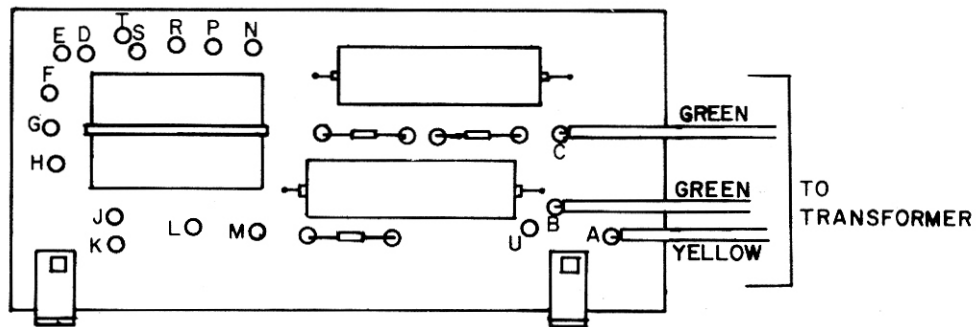


Figure 6. Circuit Board 118150 Wiring

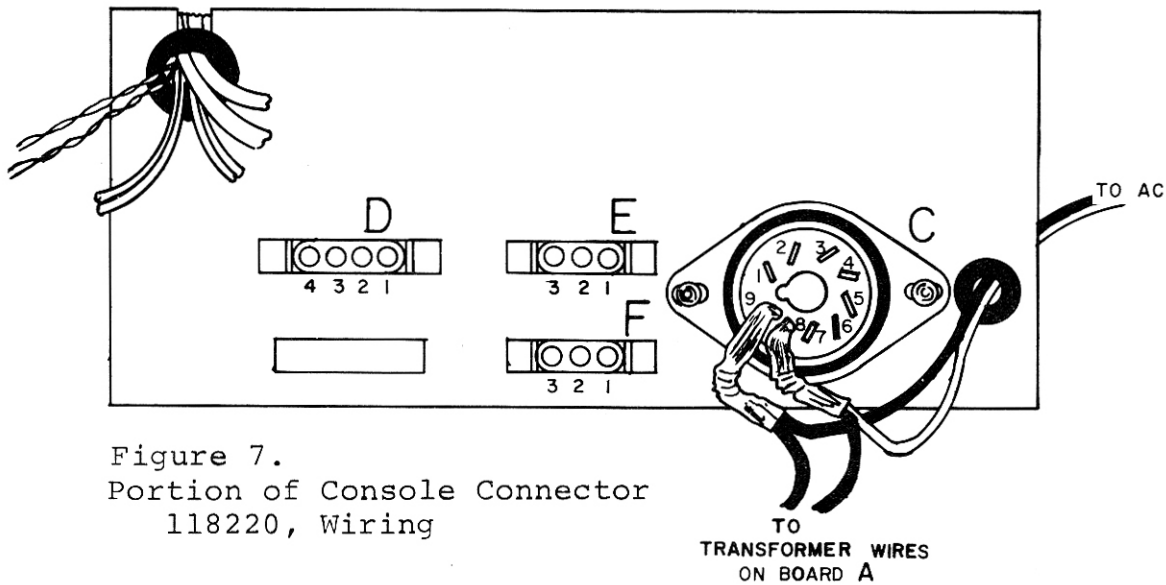


Figure 7.
Portion of Console Connector
118220, Wiring

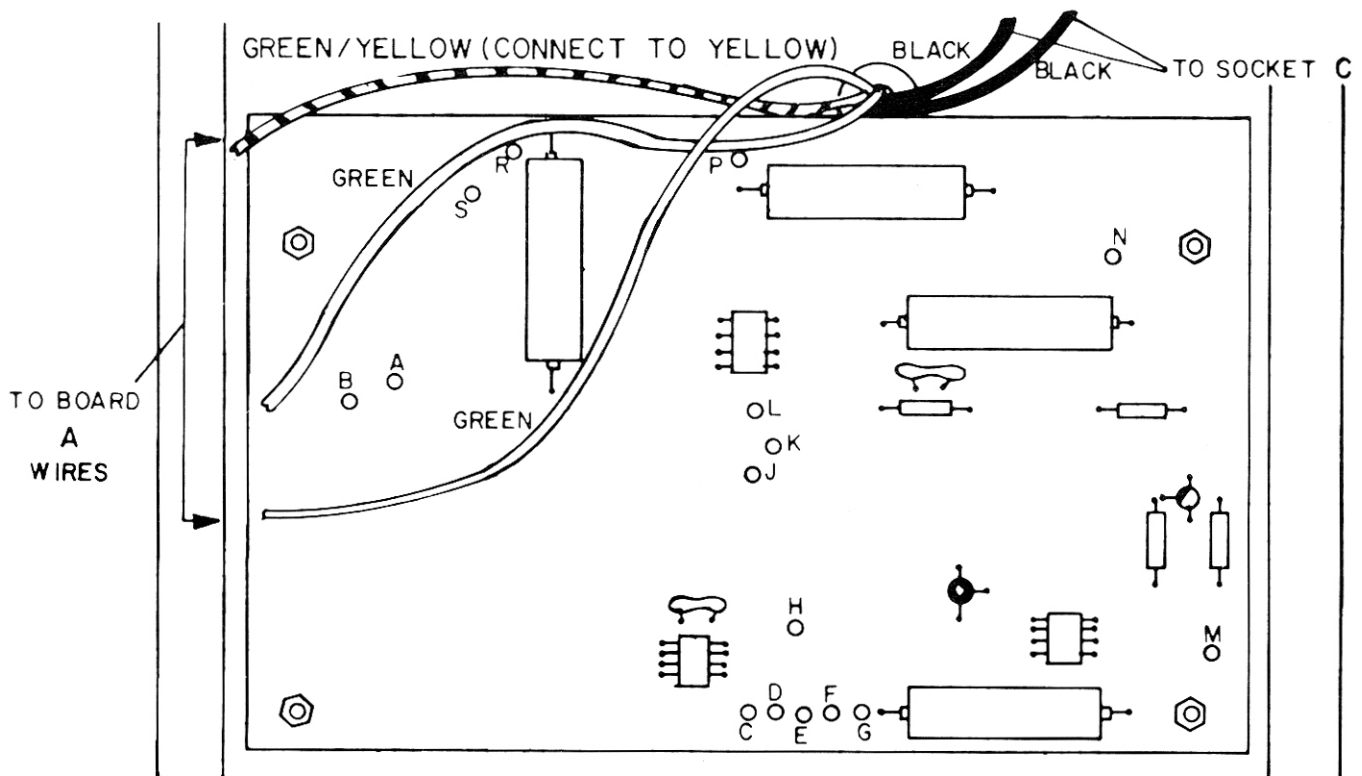


Figure 8. Circuit Board 118160 and Transformer Wiring

WIRING LIST

Key

A Circuit Board Assy 118150
 B Circuit Board Assy 118160
 C Socket 028837 (9 contact)
 D Socket 042093 (4 contact)
 E Socket 043265 (3 contact)
 F Socket 043265 (3 contact)

Key

G Transformer 022244
 H Interceptor Assy 118170
 J Interceptor Assy 118180
 K Interceptor Assy 118190
 L Interceptor Assy 118200
 M Cable Assy 118210

INTERNAL CONNECTIONS*

From		Color or ID	To
A, point	E	blue	B, point J
"	F	white	" F
"	K	yellow	" L
"	M	white	D, pin 3
"	U	black	" 2
B, point	C	blue	E, pin 3
"	D	violet	" 3
"	G	white	C, pin 1
"	M	green	" 5
"	N	black	" 3
"	P	orange	" 2
"	R	red	" 4
"	S	white	D, pin 4
C, pin	6	blue	E, pin 2
"	7	violet	F, pin 2

*In addition to those shown on figures.

INTERNAL-EXTERNAL CONNECTIONS

From		Color or ID	To
A, point	D	red	J socket contact 6
"	G	clear	H plug contact 5
"	H	yellow	J plug contact 6
"	J	red	H socket contact 5
"	L	blue	K socket contact 16
"	N	red	M plug
"	P	yellow	K plug contact 16
"	R	clear	M jack
"	S	shield	M plug and jack
"	T	shield	H plug & socket contact 4
B, point	A	red	L plug contact 10
"	A	red	L socket contact 10
"	B	brown	L plug contact 6
"	B	brown	L socket contact 6
"	E	drain	
"	H	orange	L plug contact 14
"	H	orange	L socket contact 14
"	K	black	L plug contact 2
"	K	black	L socket contact 2

PARTS LIST: 118170 INTERCEPTOR ASSY

Housing, plug, 6-circuit, natural (white), miniature Molex	066548
Insert, contact, male	065599
Housing, socket, 6-circuit, natural (white), miniature Molex	066555
Insert, contact, female	065581

PARTS LIST: 118180 INTERCEPTOR ASSY

Housing, plug, 6-circuit, natural (white), miniature Molex	066548
Insert, contact, male	065599
Housing, socket, 6-circuit, natural (white), miniature Molex	066555
Insert, contact, female	065581

PARTS LIST: 118190 INTERCEPTOR ASSY

Housing, plug, 24-circuit, natural (white), miniature Molex	110130
Insert, contact, male	065599
Housing, socket, 24-circuit, natural (white), miniature Molex	110120
Insert, contact, female	065581

PARTS LIST: 118200 INTERCEPTOR ASSY

Housing, plug, 24-circuit, natural (white), miniature Molex	110130
Insert, contact, male	065599
Housing, socket, 24-circuit, natural (white), miniature Molex	110120
Insert, contact, female	065581

PARTS LIST: 118210 CABLE ASSY

Jack, extension	015396
Plug, phono	029876

PARTS LIST: 021600 CABLE ASSY

Plug Assembly, 9-pin	061879
Socket, 9-contact	028837
Cap, body	022046
Clamp, cut	022079
Screw, machine, 6-32 x 3/8	027979

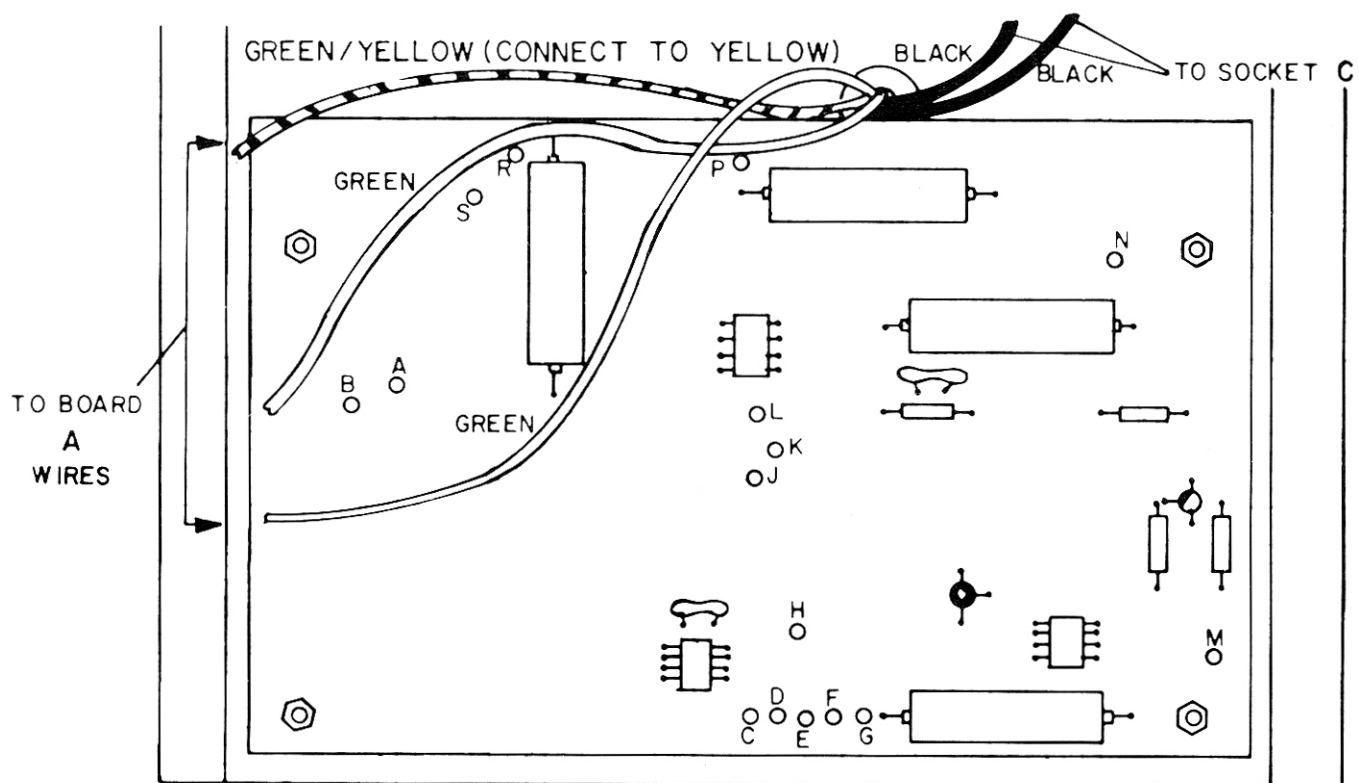


Figure 8. Circuit Board 118160 and Transformer Wiring

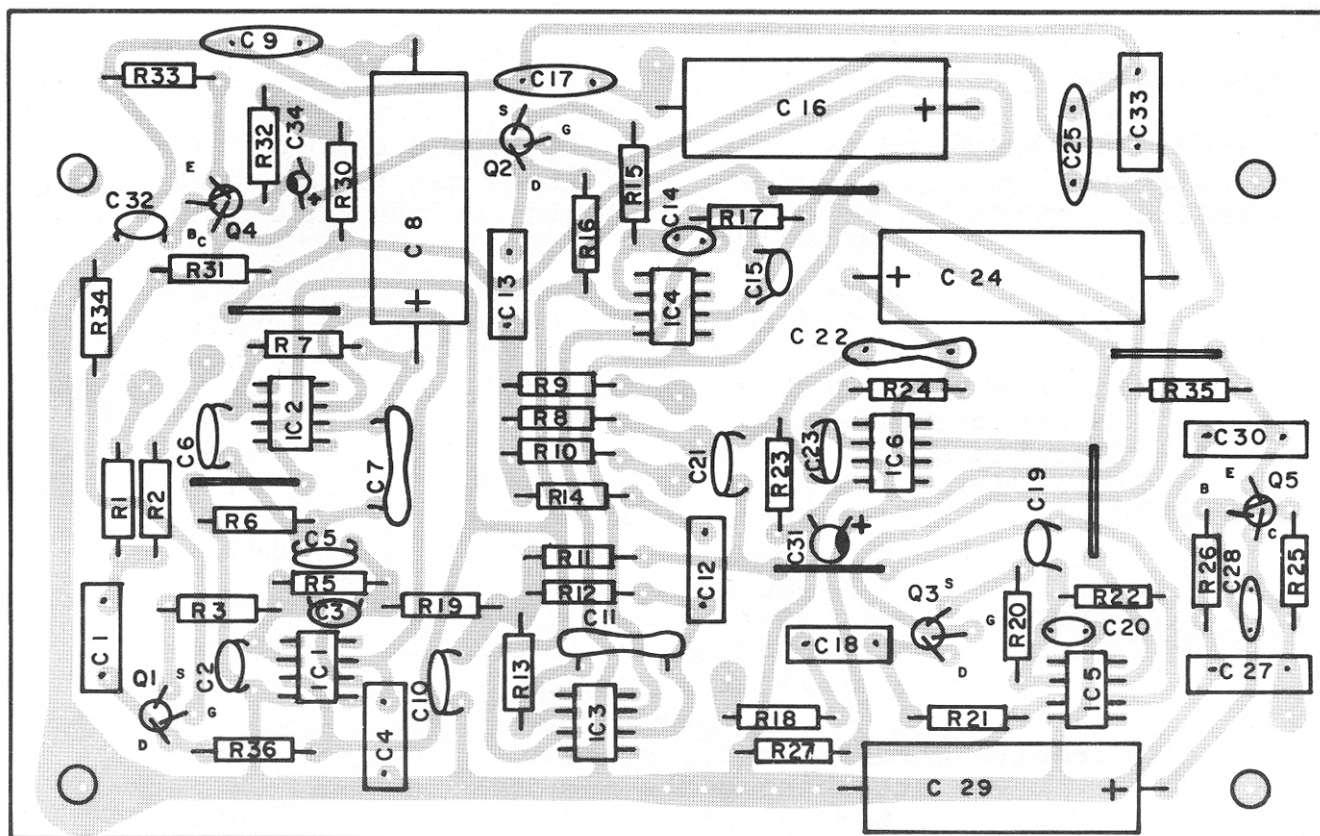


Figure 9. Circuit Board Assembly 118160 Parts Location

C1	Capacitor, poly, 0.1 mfd, 200V, 20%	022251
C2, C3	Capacitor, disc, 100pf, 1000V, 20%	028027
C4	Capacitor, poly, 0.1 mfd, 200V, 20%	022251
C5, C6	Capacitor, disc, 3300pf, 100V, 20%	067546
C7	Capacitor, mica, 600pf, 500V, 5%	024034
C8	Capacitor, electrolytic, 150 mfd, 25V	031294
C9	Capacitor, disc, 0.1 mfd, 1000V, 20%	060467
C10	Capacitor, disc, 4700pf, 100V, 10%	028431
C11	Capacitor, mica, 900pf, 500V, 5%	024042
C12, C13	Capacitor, poly, 0.1 mfd, 200V, .20% .	022251
C14	Capacitor, disc, 100pf, 1000V, 20%.	028027
C15	Capacitor, disc, 6.8pf, 1000V, 10%	118140
C16	Capacitor, electrolytic, 150 mfd, 25V	031294
C17	Capacitor, disc, .01 mfd, 100DV, 20%	060467
C18	Capacitor, poly, 0.1 mfd, 200V, 20%	022251
C19	Capacitor, disc, 56 pf, 1000V, 10%	022350
C20	Capacitor, disc, 100pf, 1000V, 20%	028027
C21	Capacitor, disc, 8300pf, 100V, 10%	067546
C22	Capacitor mica 600pf 500V, 5%	024034
C23	Capacitor, disc, 3300pf 100V, 10%	067546
C24	Capacitor, electrolytic, 150 mfd, 25V	031291
C25	Capacitor, disc, .01 mfd, 1000V, 20%	060467
C27	Capacitor poly, 0.1 mfd 200V, 20%	022251
C28	Capacitor, disc, 4700pf, 100V, 10%	028431
C29	Capacitor, electrolytic, 250 mfd 35V	065086
C30	Capacitor, poly, 0.1 mfd, 200V, 20%	022251
C31	Capacitor, tantalum, 22 mfd, 15V, 20%	062638
C32	Capacitor, disc, 100pf, 1000V, 20%	028027
C33	Capacitor, poly, 0.1 mfd, 200V, 20%	022251
C34	Capacitor, tantalum, 1 mfd, 35V	067538
IC1 through IC6	Integrated Circuit, operational amplifier	112640
Q1, Q2, Q3	Transistor, FET, 2N5163	023606
Q4 Q5	Transistor 2N3859A NPN	061366
R1, R2	Resistor, 470K	018002
R3	Resistor, 10K	028548
R5	Resistor, 120K	027078
R6	Resistor, 220K	013615
R7	Resistor, 3.3 mfd	118120
R8	Resistor, 1.8 meg	118130
R9	Resistor, 470K	018002
R10	Resistor, 1.8 meg	118130
R11, R12	Resistor, 1 meg	024125
R13	Resistor, 330K	020826
R14	Resistor, 1.8 meg	118130
R15	Resistor, 10K	028548
R16	Resistor, 1 meg	021125
R17	Resistor, 1.8 meg	118130
R18	Resistor, 470K	018002

R19	Resistor, 1 meg	024125
R20	Resistor, 10K	028518
R21	Resistor, 1 meg	024125
R22	Resistor, 270K	028340
R23	Resistor, 220K	013615
R24	Resistor, 3.3 meg	118120
R25	Resistor, 2.2K	028571
R26	Resistor, 56K	024133
R27	Resistor, 10K, 1/2W, 5%	118110
R30	Resistor, 390K	018010
R31	Resistor, 12K, 1/2W, 5%	021543
R32	Resistor, 4.7K	028555
R33	Resistor, 470 ohms	028068
R34, R35	Resistor, 10K, 1/2W, 5%	118110
R36	Resistor, 1 meg	024125

*Resistors 1/2W 10% unless otherwise specified

PARTS LIST: 118220 CONSOLE CONNECTOR ASSEMBLY

Interceptor Assembly, 6-circuit	118170
Interceptor Assembly, 6-circuit	118180
Interceptor Assembly, 24-circuit	118190
Interceptor Assembly, 24-circuit	118200
Cable Assembly, phone plug and jack	118210
Circuit Board Assembly	118630
--- attaching parts ---	
Screw, sheet metal, 6 x 1/4, hex washer head	026666
--- *** ---	
Circuit Board Assembly, pre-amp	118150
--- attaching parts ---	
Nut, hex, 8-32 x 1/4 x 3/32	031005
Washer, lock, 8 x 5/16 x .020	026765
Washer, flat, 8 x 3/8 x 1/32	037325
Screw, machine, 8-32 x 7/8	030874
Bushing, .196 x .312 x .325	051060
--- *** ---	
Transformer, filament	022244
--- attaching parts ---	
Screw, sheet metal, 6 x 1/4, hex washer head	026666
--- *** ---	
Cable Assembly, 117V, 29 in.,	
BRN-SPT-1, with plug	029785
Relay, 4-pole double throw, 12vDC	049551
Retainer Clip, relay, 4-pole type	049593
Socket, 9-contact	028837
--- attaching parts ---	
Screw, sheet metal, 12 x 3/8, Phillips head	029314
--- *** ---	
Housing, socket, 3-circuit, red,	
Molex, with tabs	043265
Housing, socket, 4-circuit,	
natural (white), Molex, with tabs	042093
Insert, contact, Inline, Molex, female	023556
Grommet, neoprene, .250 ID x .443	014084
Grommet, neoprene, .312 ID x .750	050641

PARTS LIST: TREMOLO CONTROL

Switch Case		Switch, Cable, &	
brown	118980	Plug Assembly	064535
ebony	118990		
ivory	119000	Switch Retainer (2)	048744
Case Cover			
brown	048702	Screw, thread-cutting	
ebony	048710	6-32 X 3/8 (2)	029140
ivory	048728		
Switch Knob		Label, CHORALE/TREMOLO	103640
brown	048066		
ebony	048074	Cork, adhesive	029157

PARTS LIST: ECHO CONTROL

Switch Case		Switch, Cable, &	
brown	118980	Plug Assembly	119010
ebony	118990		
ivory	119000	Switch Retainer (2)	048116
Case Cover			
brown	048702	Screw, thread-cutting,	
ebony	048710	6-32 X 3/8 (2)	029140
ivory	048728		
Switch Knob		Label, MAIN/ENSEMBLE/ECHO	103670
brown	048066		
ebony	048074	Cork, adhesive	029157

MULTIPLE SPEAKER INSTALLATION

For complete information see the service manual for the LESLIE speaker to be added.

Schematic, next page

