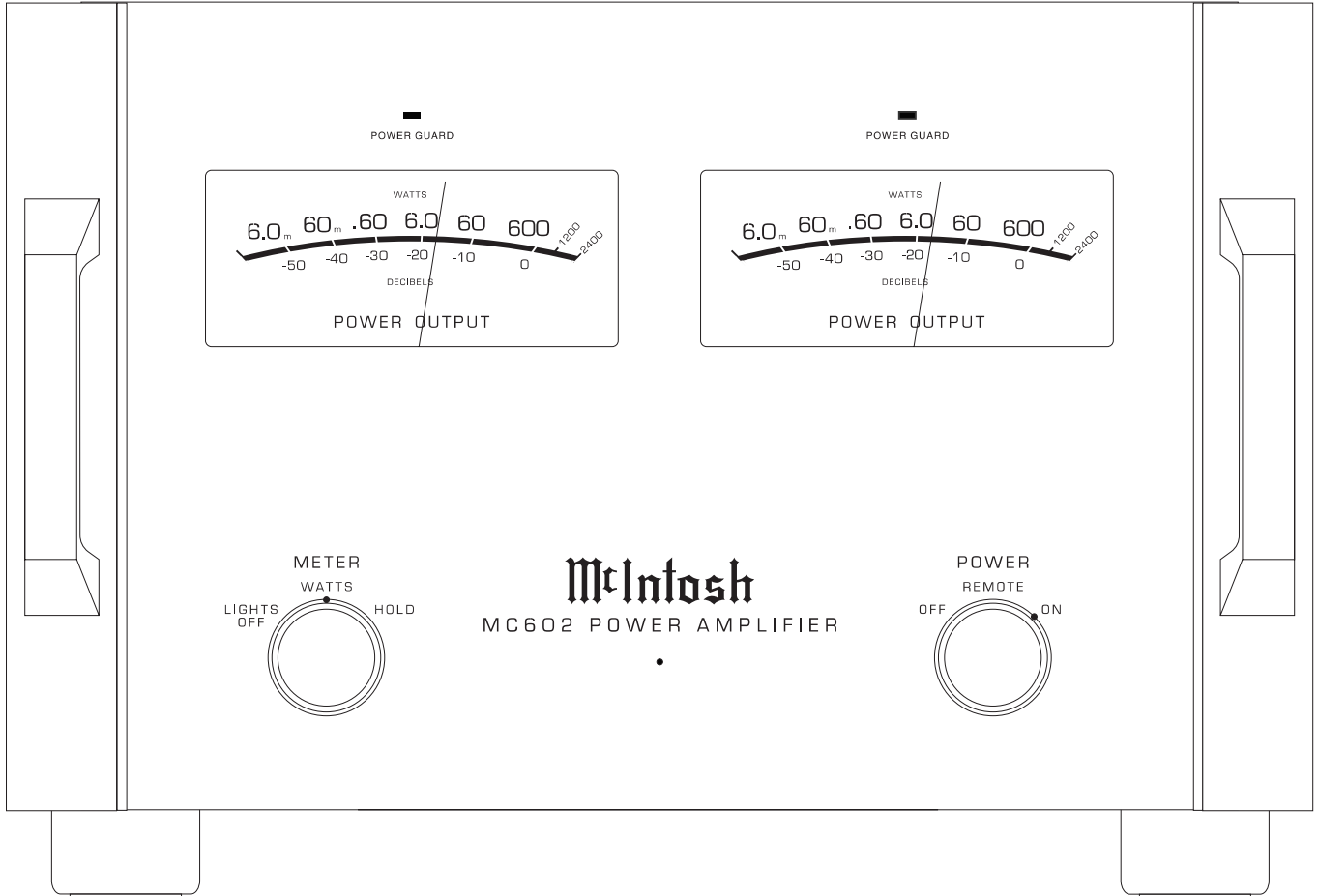


MC602

POWER AMPLIFIER



CONTENTS

Performance Specifications	2	Capacitor Schematic and PCB	15
Notes	2	Meter Schematic and PCB	17 - 19
Rear Panel	3	Indicator Schematic and PCB	20
Section Location	4	PG Light Schematic and PCB	21 - 22
Block Diagram	5 - 6	Meter Lamps Schematic and PCB	21 - 22
Interconnection Diagram	7 - 8	Standby Light Schematic and PCB	21 - 22
Heatsink Schematic and PCB	9 - 10	Parts List	23 - 24
Driver Schematic and PCB	11 - 13	Exploded View and Parts List	25 - 28
Input Schematic and PCB	14	Repacking Instructions	29

McIntosh

SERVICE MANUAL

PERFORMANCE SPECIFICATIONS

POWER OUTPUT STEREO

600 watts into 2, 4 or 8 ohm loads is the minimum sine wave continuous average power output per channel with both channels operating.

OUTPUT LOAD IMPEDANCE

2, 4 or 8 ohms

RATED POWER BAND

20Hz to 20,000Hz

DYNAMIC HEADROOM

2.1dB

FREQUENCY RESPONSE

+0, -0.25dB from 20Hz to 20,000Hz

+0, -3dB from 10Hz to 100,000Hz

TOTAL HARMONIC DISTORTION

0.005% maximum at any power level from 250 milliwatts to rated power per channel from 20Hz to 20,000Hz, all channels operating.

INTERMODULATION DISTORTION

0.005% maximum if instantaneous peak output per channel does not exceed twice the rated output with all channels operating for any combination of frequencies from 20Hz to 20,000Hz.

SIGNAL TO NOISE RATIO (A WEIGHTED)

93dB Unbalanced (120dB below rated output)

97dB Balanced (124dB below rated output)

SENSITIVITY

2.45 Volts Unbalanced Input

4.9 Volts Balanced Input

INPUT IMPEDANCE

10,000 ohms Unbalanced and Balanced

WIDE BAND DAMPING FACTOR

100 @ 8 ohms

POWER REQUIREMENTS

100 Volts, 50/60Hz at 18 amps

110 Volts, 50/60Hz at 16.5 amps

120 Volts, 50/60Hz at 15 amps

220 Volts, 50/60Hz at 8.2 amps

230 Volts, 50/60Hz at 7.8 amps

240 Volts, 50/60Hz at 7.5 amps

NOTE: Refer to the rear panel of the MC602 for the correct voltage.

DIMENSIONS


Front Panel: 17-3/4 inches (46cm) wide, 11 inches (28cm) high. Depth behind front mounting panel is 19-5/8 inches (49.83cm). Clearance required in front of front panel is 1-3/4 inches (4.5cm).

WEIGHT

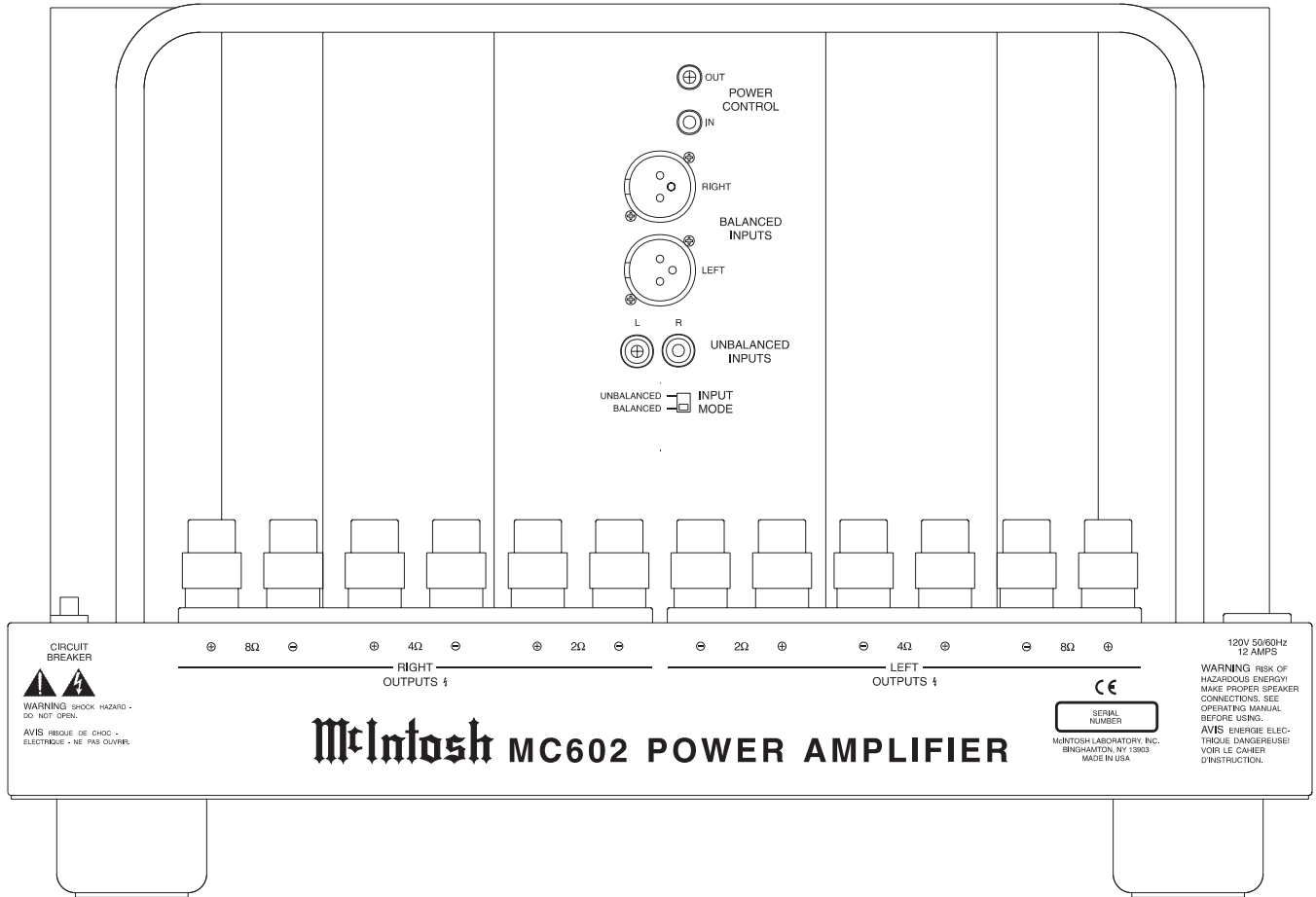
155lbs. (70.3kg) Net

180lbs. (81.6kg) Shipped

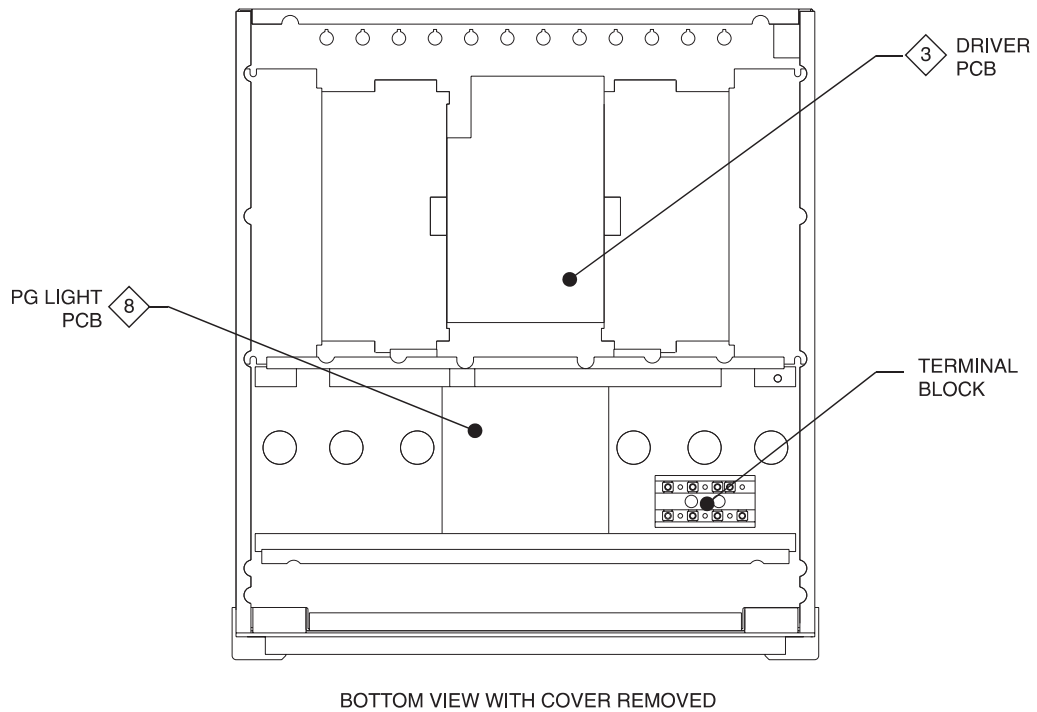
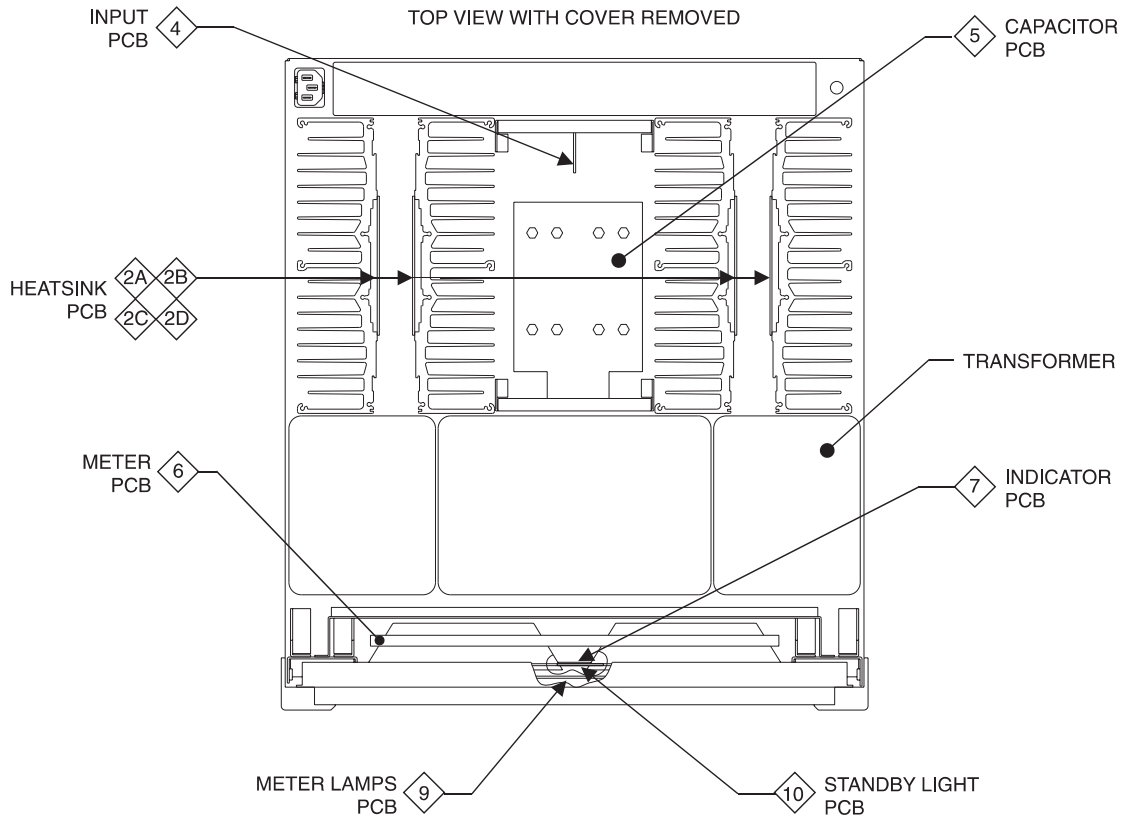
NOTES

1. The heavy notes on the schematic denote the primary signal path.
2. Unless otherwise noted, all voltages indicated on the schematics are measured under the following conditions:
 - a. AC input at 120 volts, 50/60Hz.
 - b. All voltages are +/-10% with respect to ground. A high impedance (10 megaohm) voltmeter must be used.
3. Unless otherwise specified:
 - a. Resistor values are in ohms.
 - b. Capacitor values are microfarads (uF).
 - c. Inductor values are in microhenries (uH)
4. On PC board drawings, Square pad indicates:
 - a. Polarized Capacitors - Positive
 - b. Diodes - Cathode
 - c. Others - Pin 1
5. **WARNING**  Parts marked with the symbol have critical characteristics. Use only replacement parts recommended by the manufacturer.

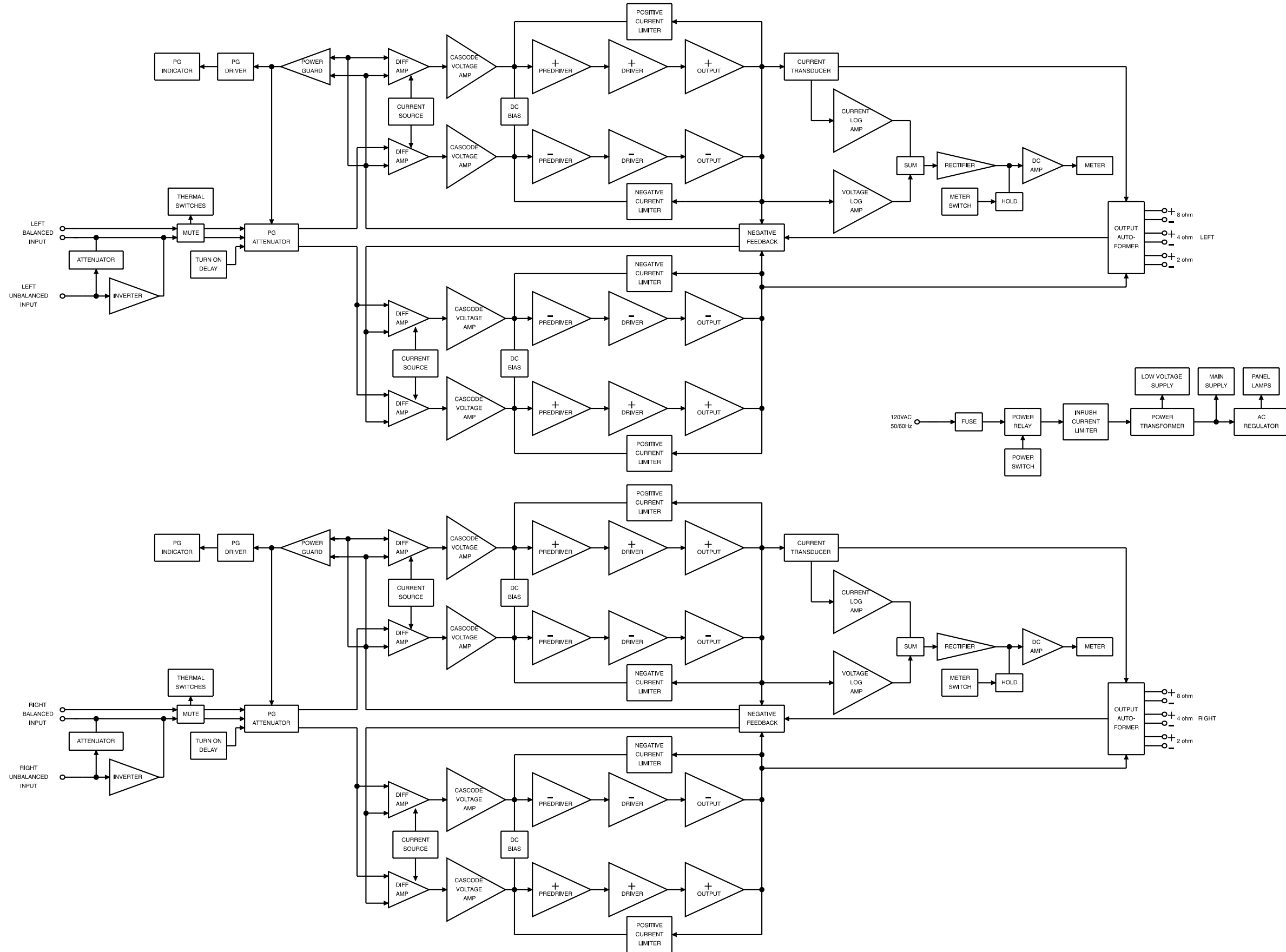
REAR PANEL



SECTION LOCATIONS

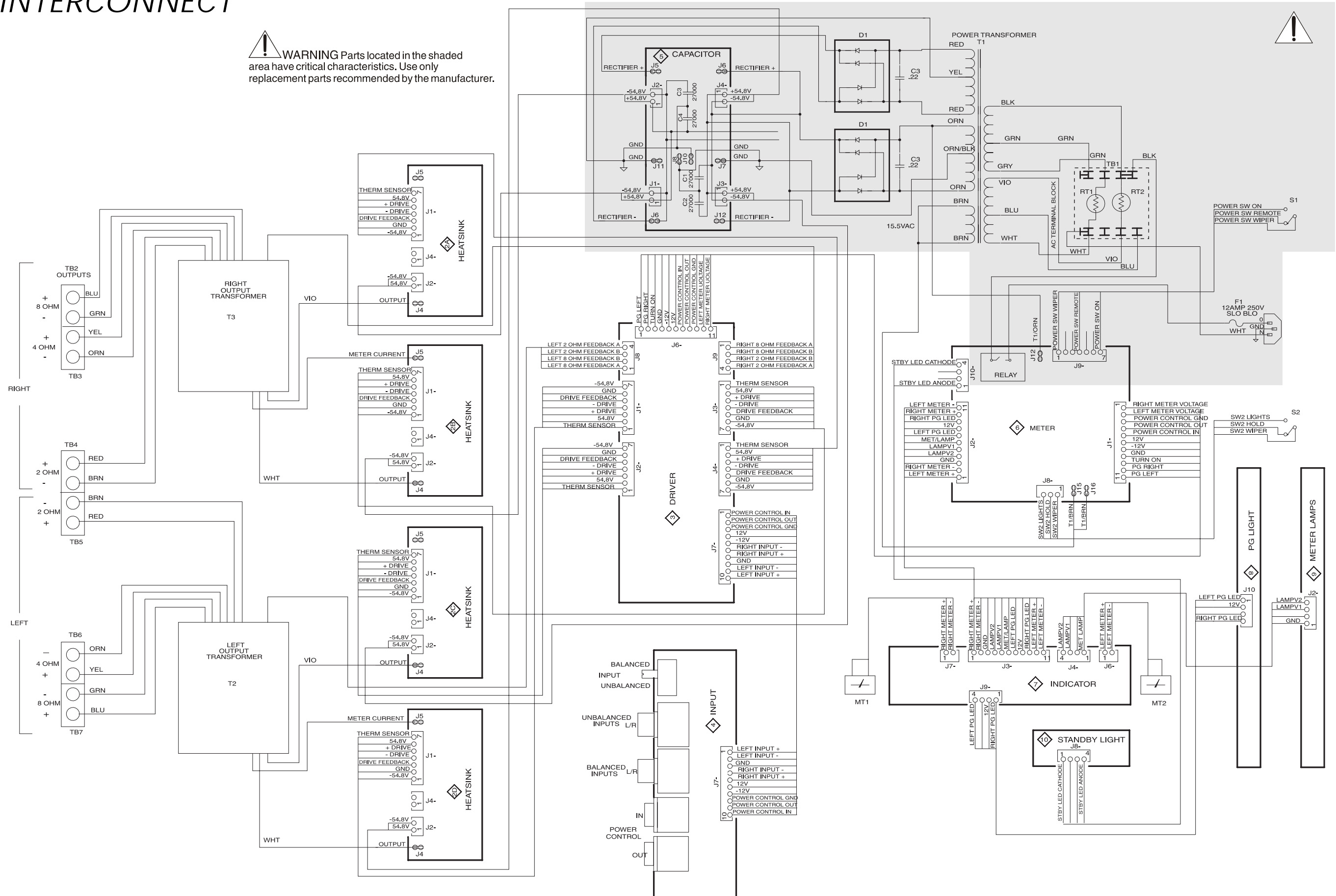


BLOCK DIAGRAM



INTERCONNECT

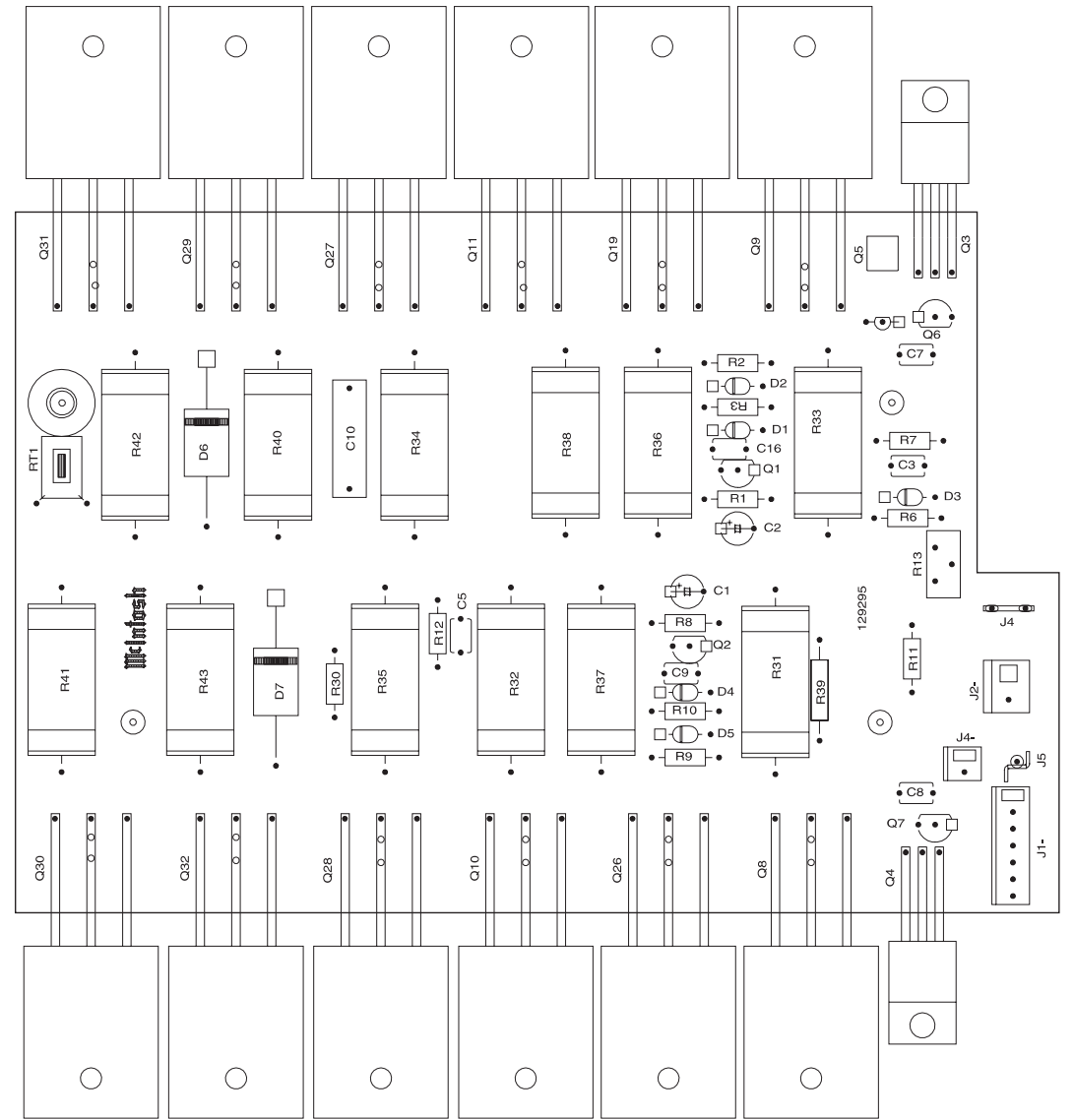
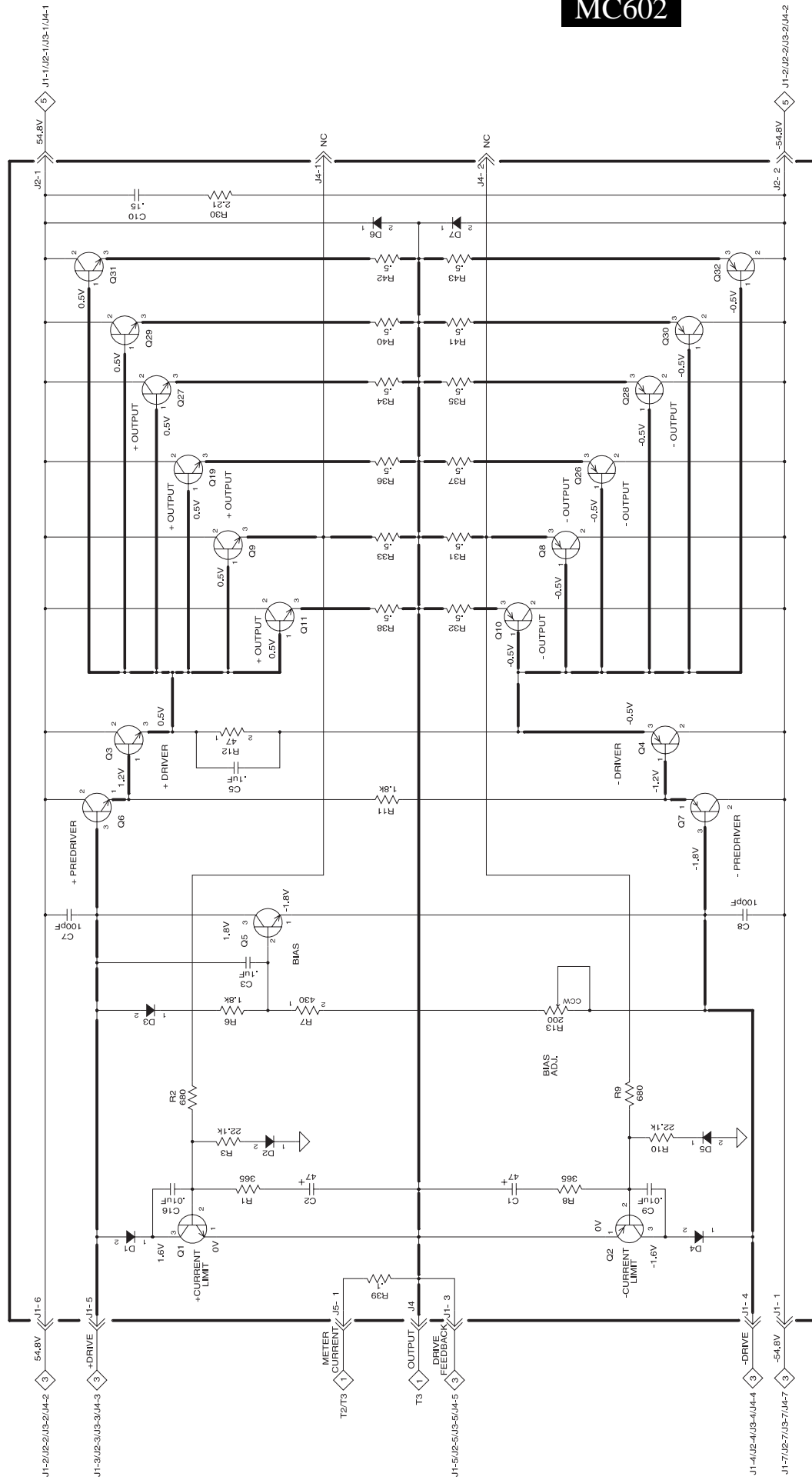
WARNING Parts located in the shaded area have critical characteristics. Use only replacement parts recommended by the manufacturer.



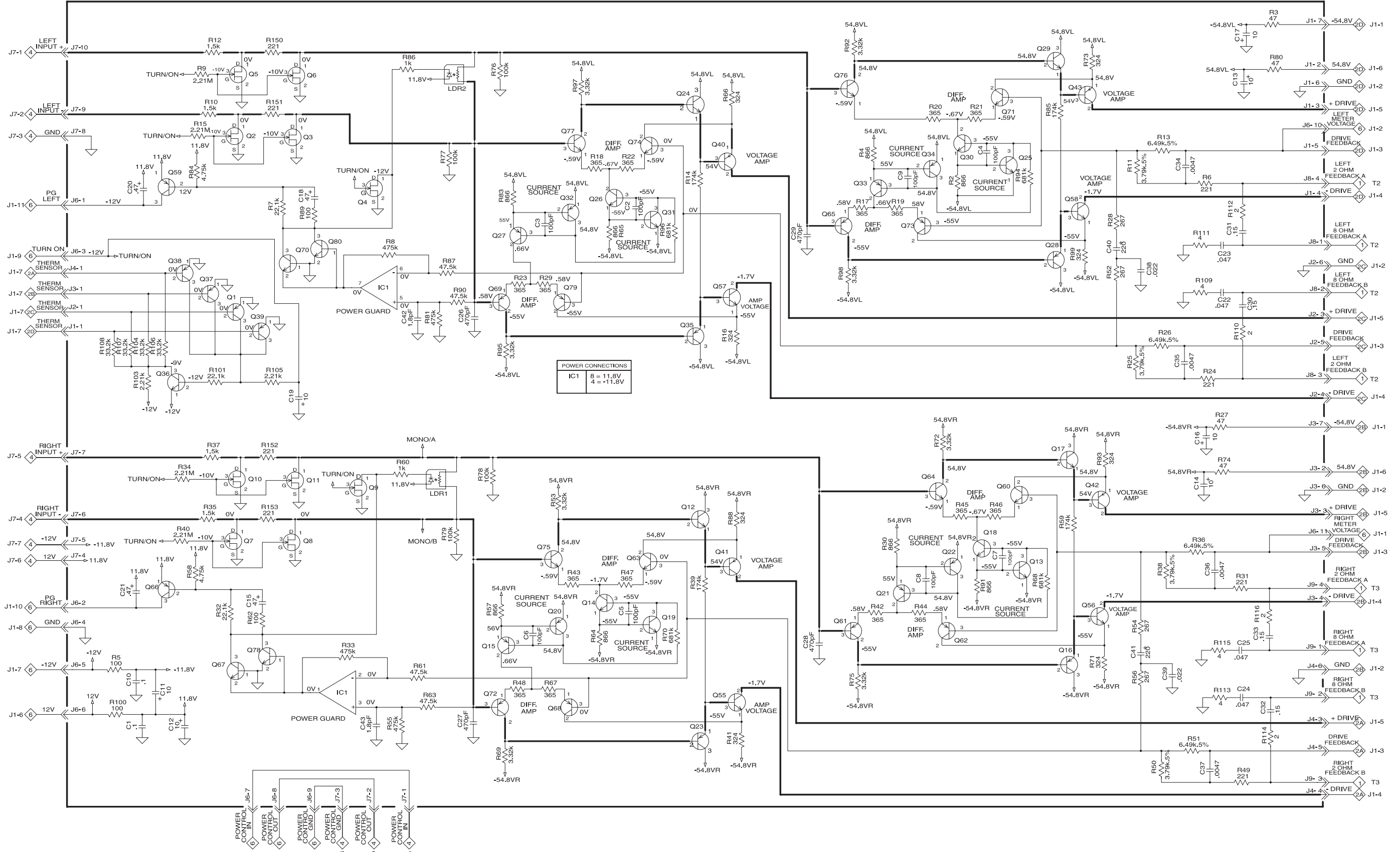
2A 2B 2C 2D

HEATSINK 049368

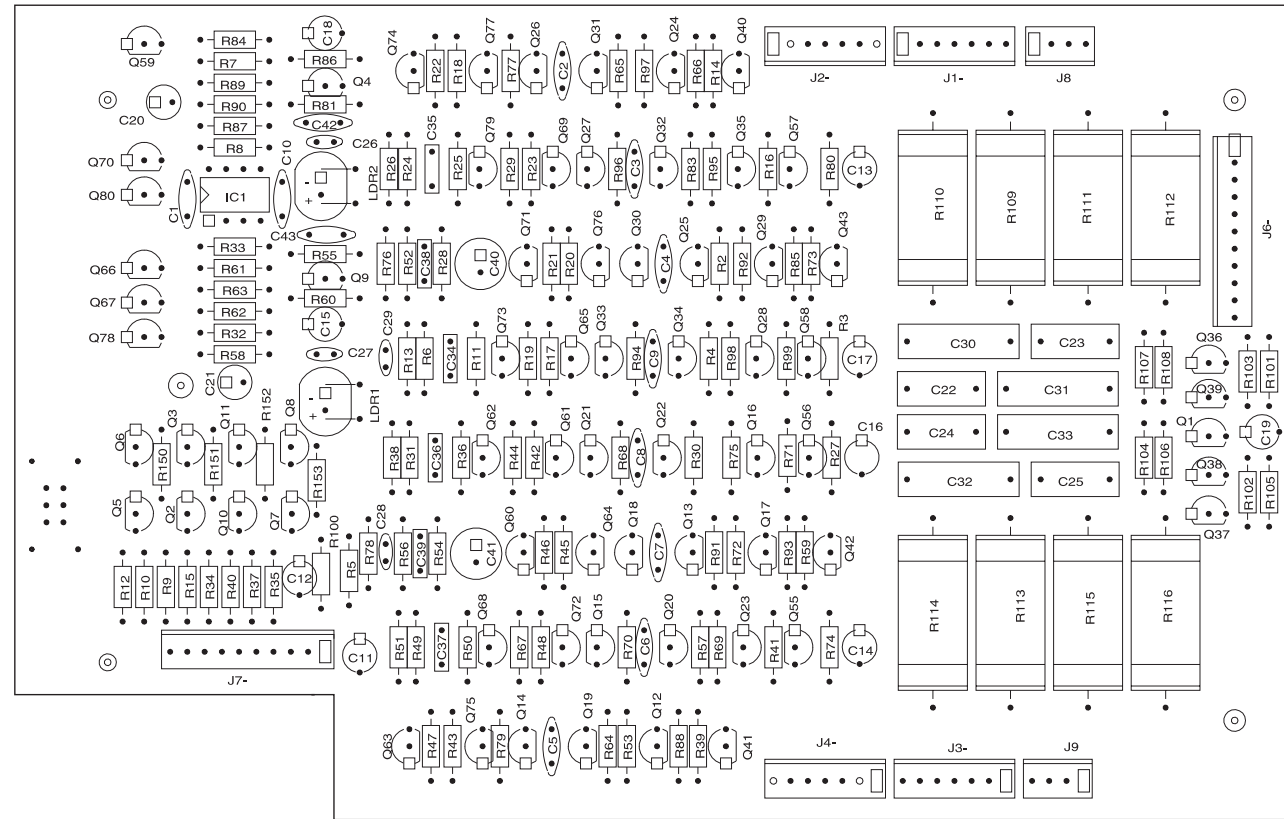
MC602



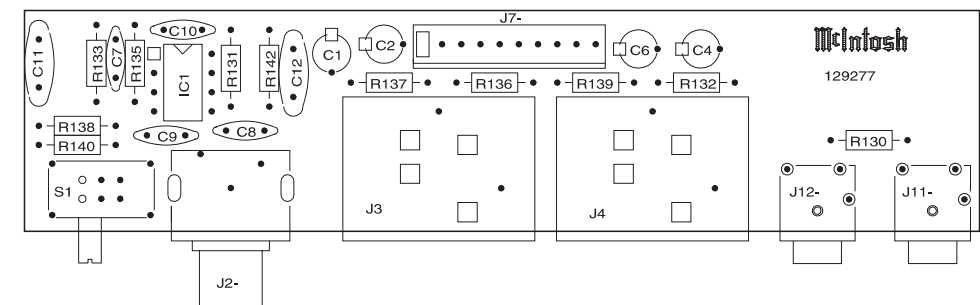
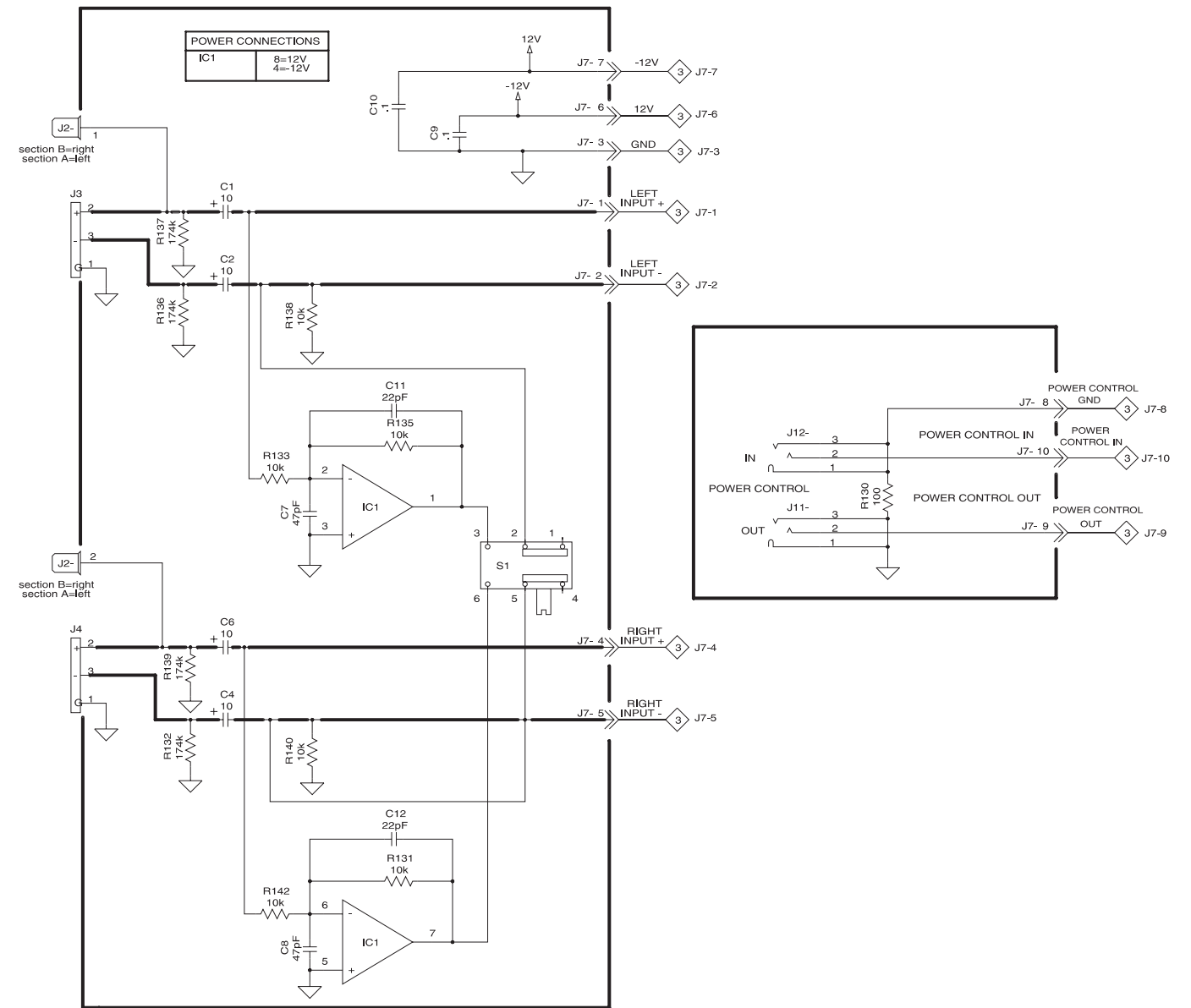
3 DRIVER 049369



3 DRIVER 049369



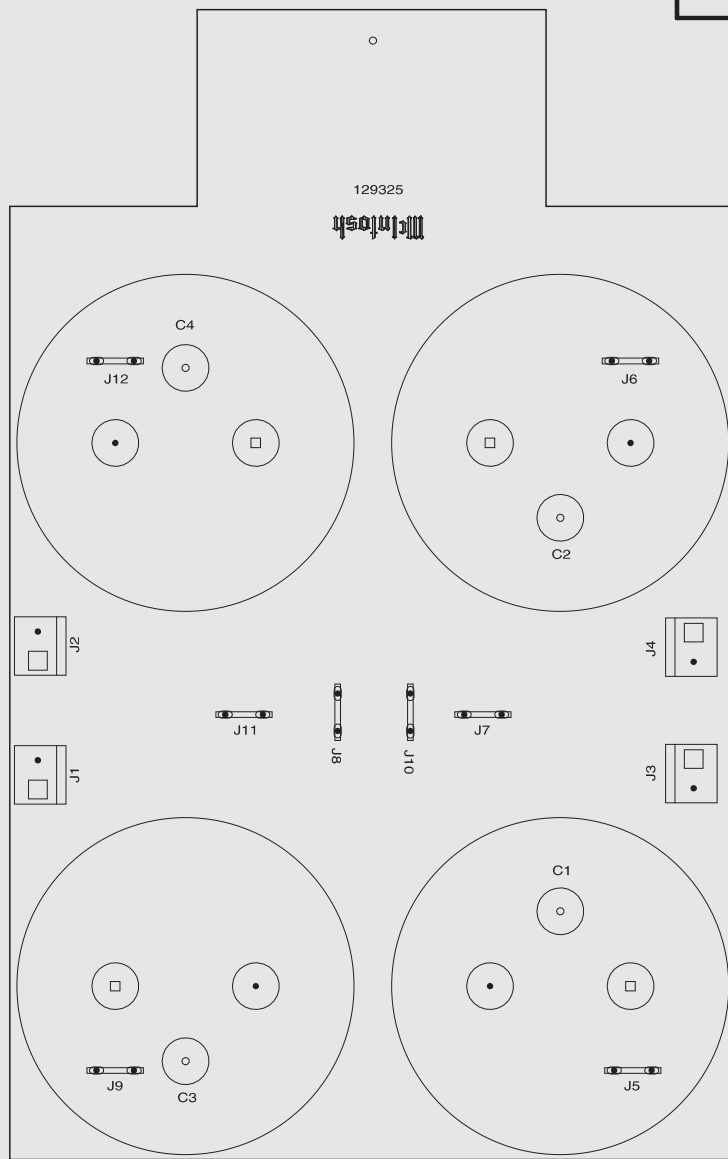
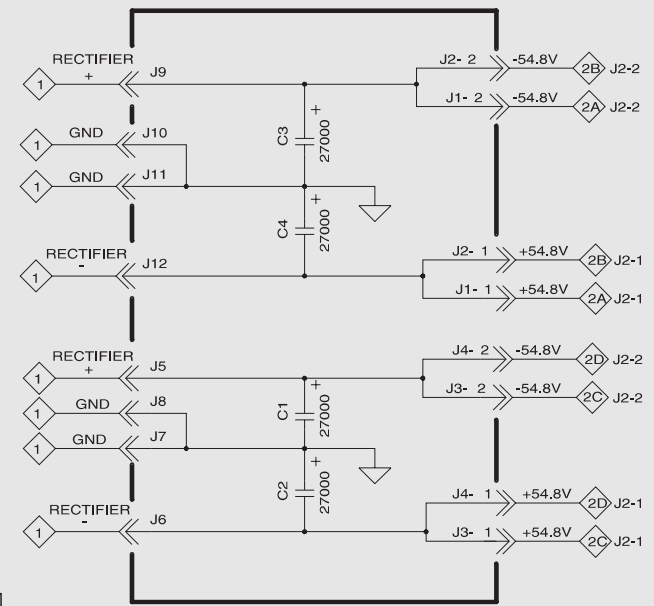
4 INPUT 049222



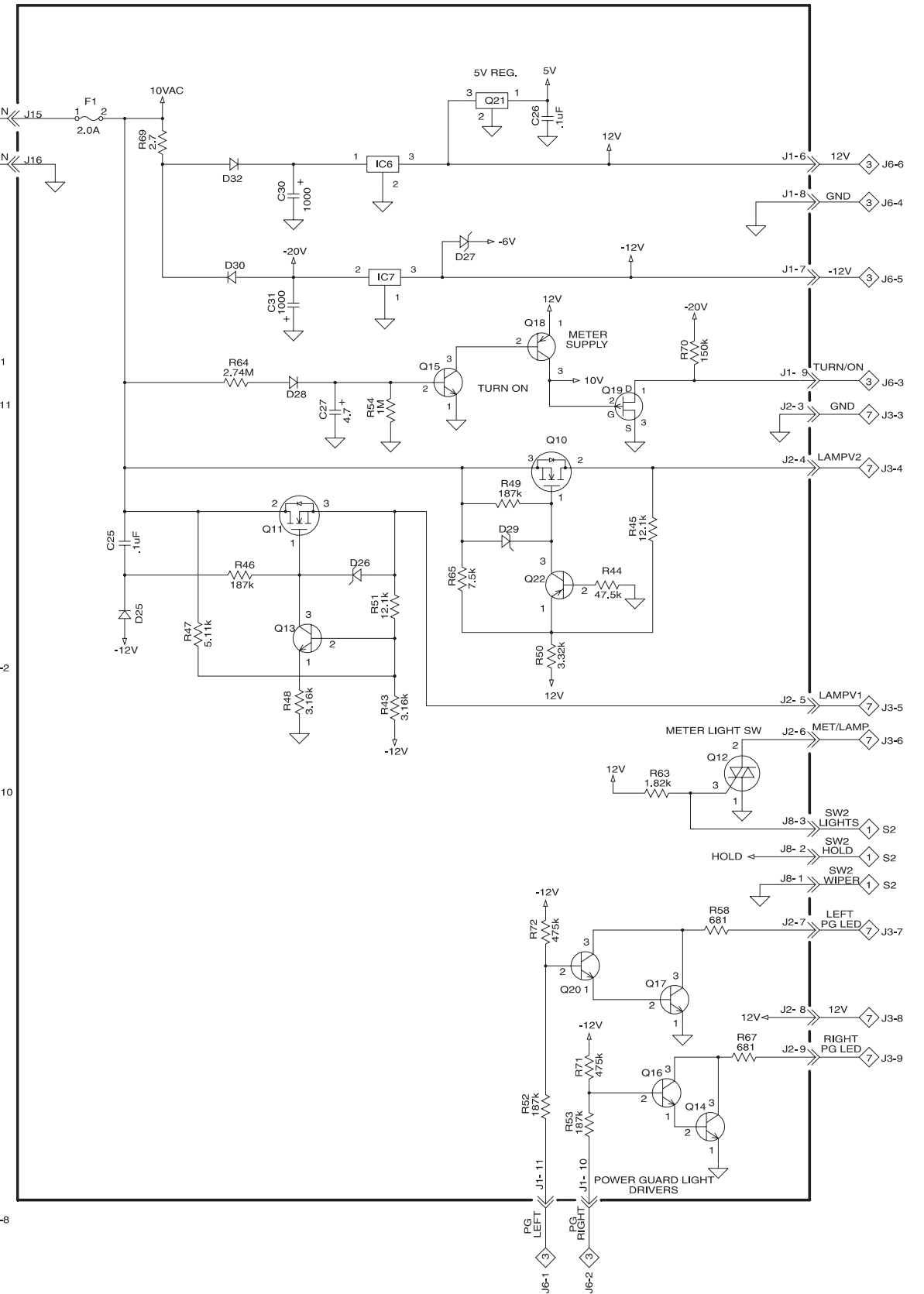
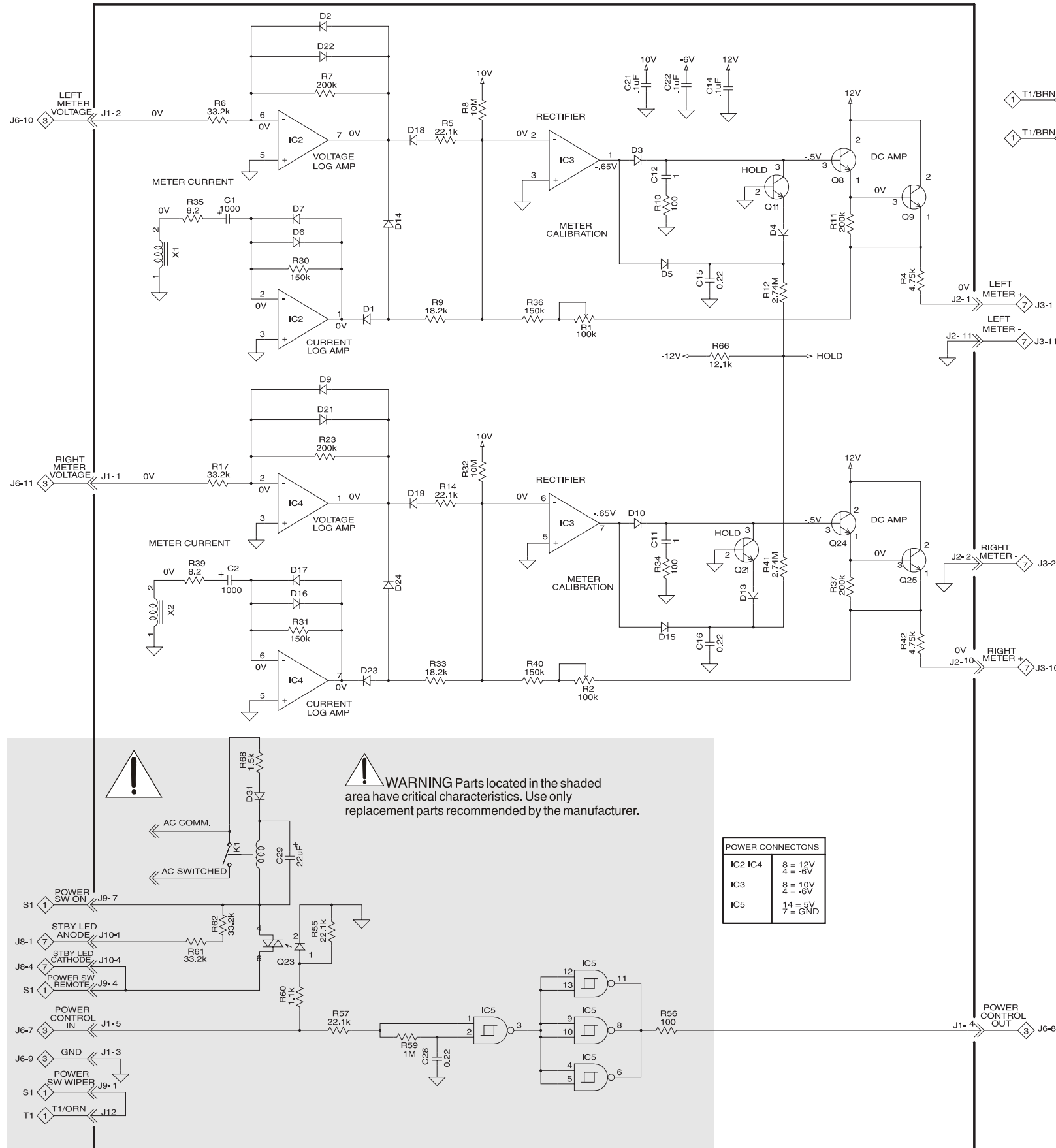
5 CAPACITOR 049367

NOTES

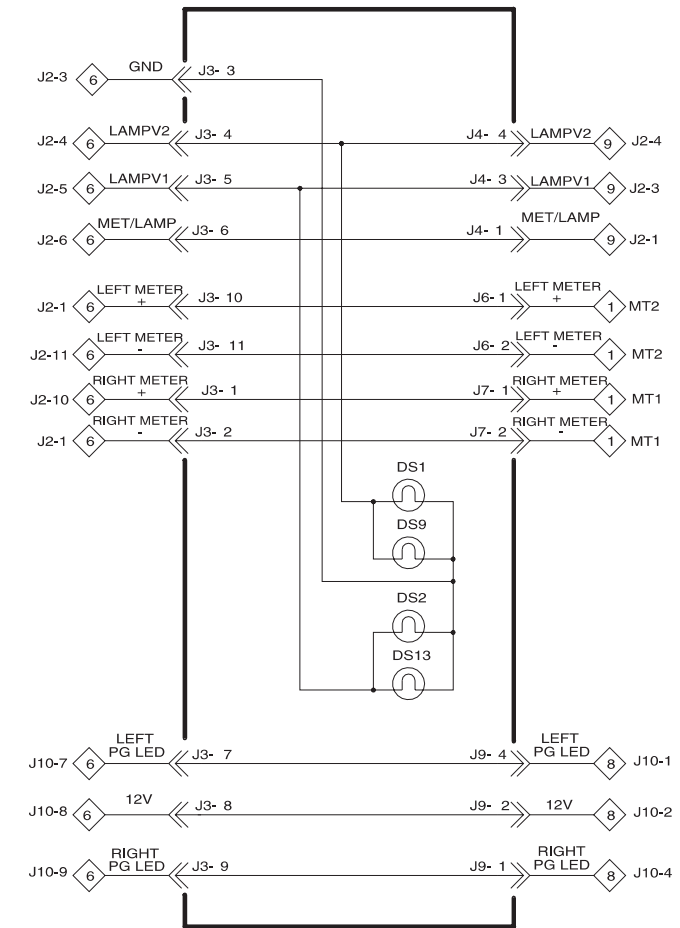
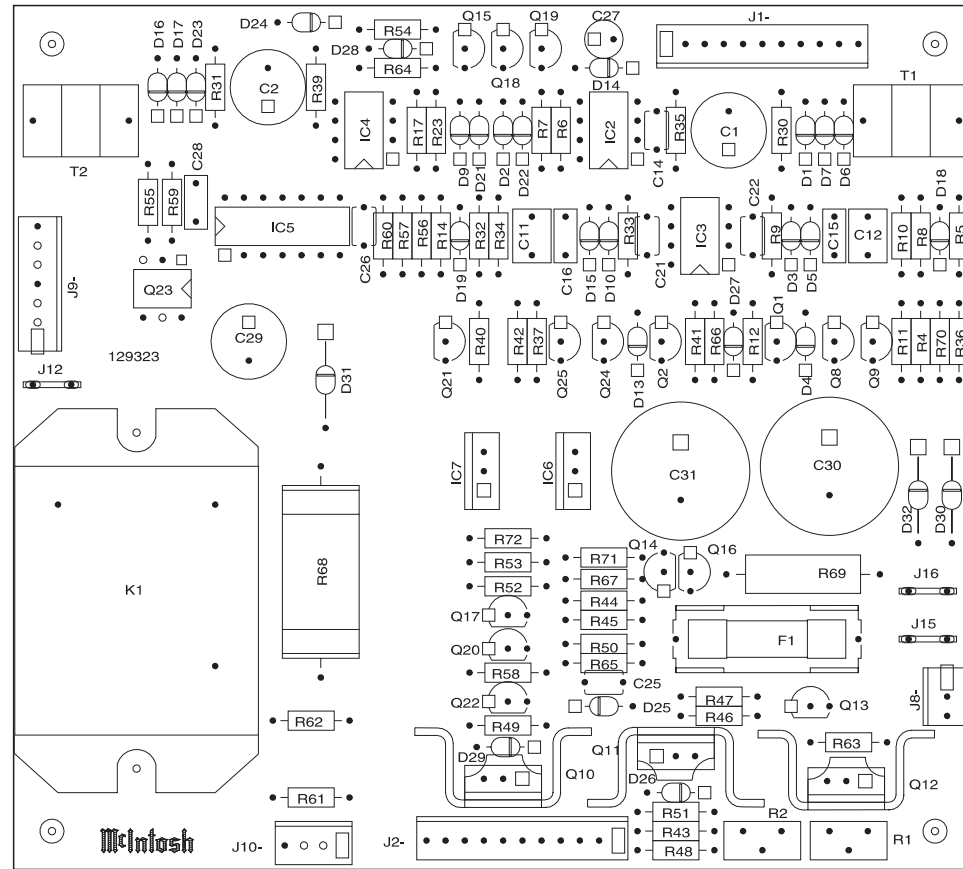
! WARNING Parts located in the shaded area have critical characteristics. Use only replacement parts recommended by the manufacturer.



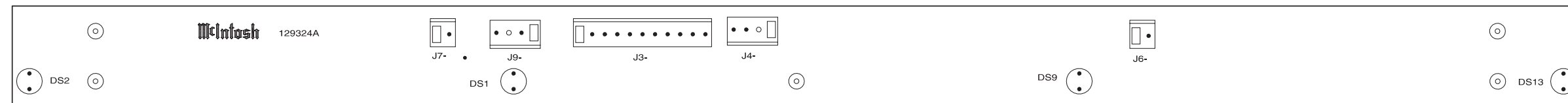
6 METER 049384



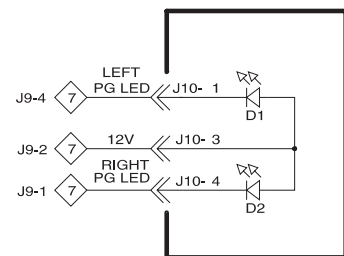
6 METER 049384



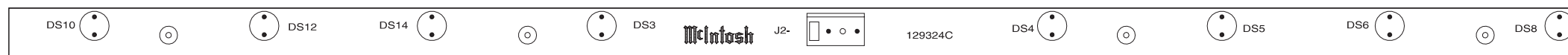
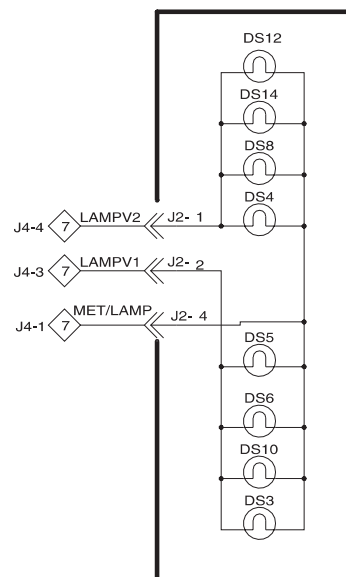
7 INDICATOR 049371



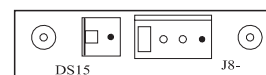
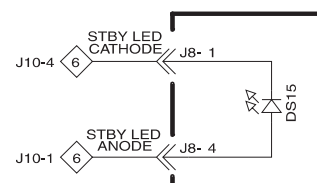
8 PG LIGHT 049370



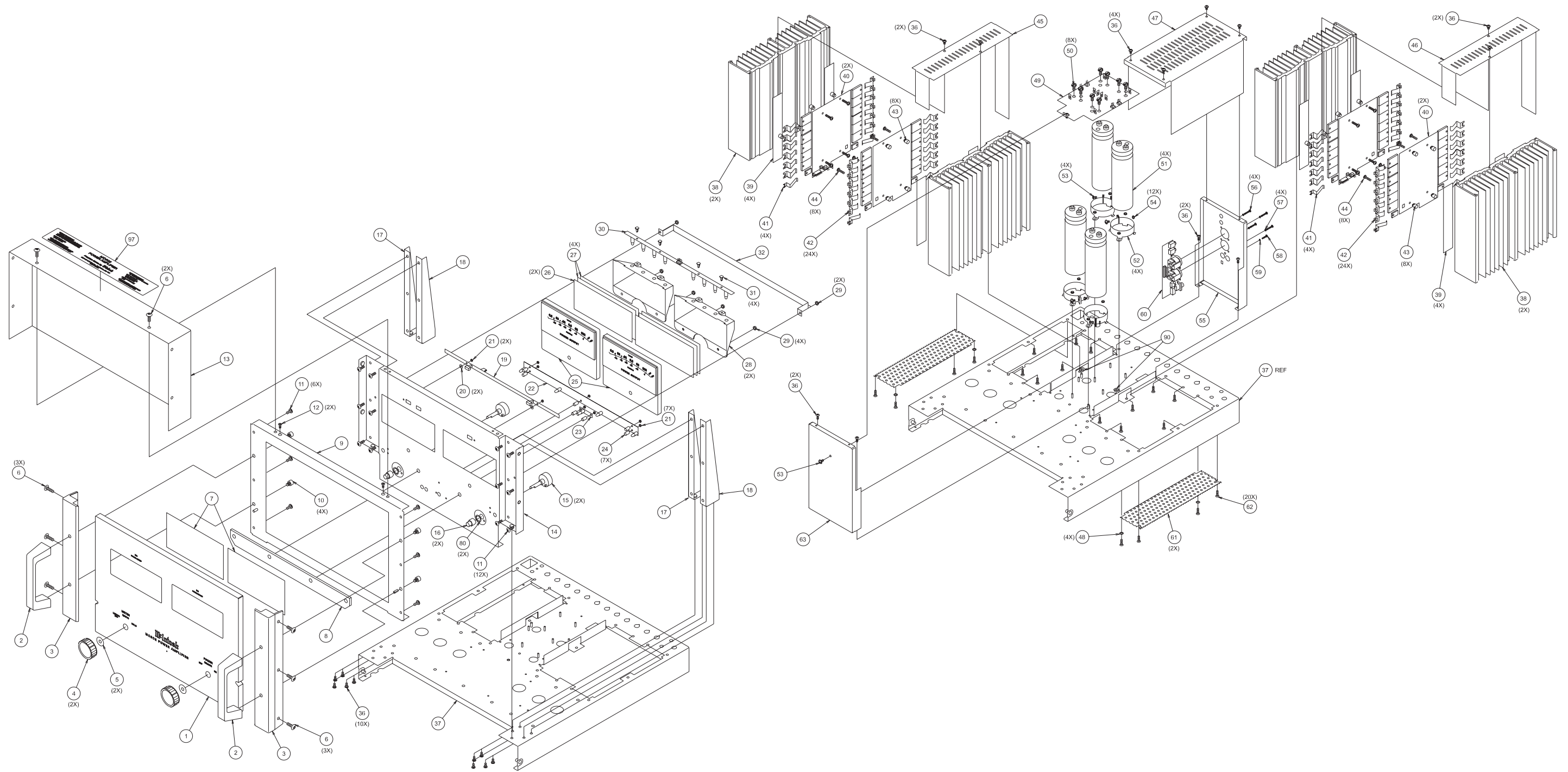
9 METER LAMPS 049373



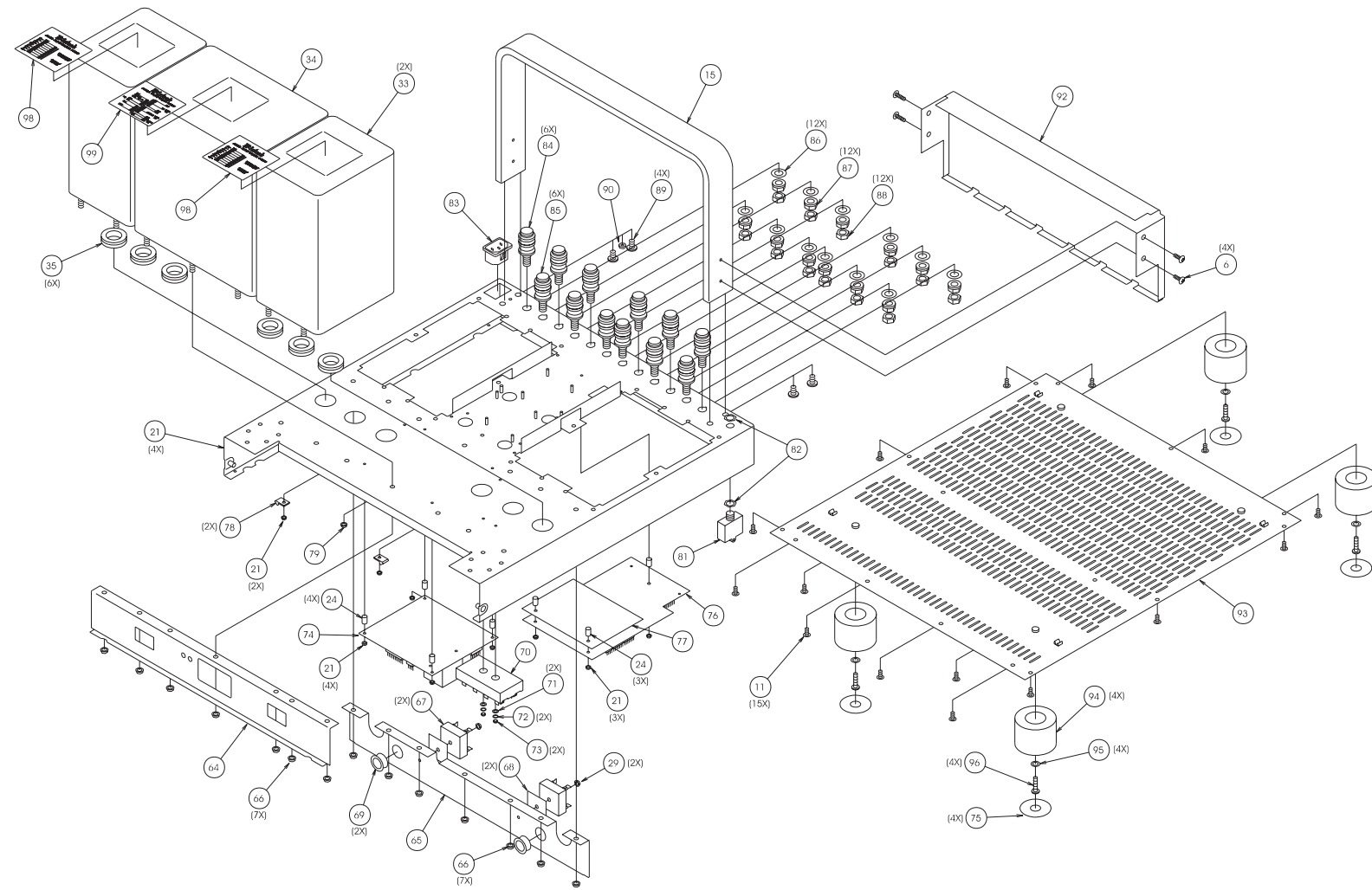
10 STANDBY LIGHT 049395



EXPLODED VIEW 1 OF 2



EXPLODED VIEW 2 OF 2 AND PARTS LIST



Ref No.	Part No.	Description
1	016416	FRONT GLASS FAB
2	018631	HANDLE FRONT
3	018633	PANEL SIDE
4	049321	KNOB ASSEMBLY MC352
5	104017	BLK FELT WASH: 3/4 X 1/4 X 1/16
6	100200	MS 10-32 X 1/2 PH TRUSS BLK
7	092418	DISPLAY FILTER BLUE
8	017798	DISPLAY PLEXIGLAS
9	005049	PANEL PLATE
10	101142	SOCKET HEAD CAP SCREW ALLEN
11	101078	TS 8-32 X 5/16 PHIL PAN BLK
12	101172	TS 6-32 X 1/4 PHIL FLAT U/C
13	005052	DUST COVER
14	005044	SUBPANEL
15	146243	POWER SWITCH
16	021159	BUSHING SWITCH
17	005054	GUSSET BRACKET LEFT
18	005060	RIGHT GUSSET BRACKET
19	049373	LAMP PCB ASSY
20	104137	FIBRE WSHR .125ID X .312OD X.062
21	102001	KEP NUT 4-40 CADMIUM PLATE
22	049371	LIGHT PCB ASSY
23	049395	STANDBY LIGHT PCB ASSY
24	112038	STL SPACER 4 X 3/8L NICKEL PLT
25	124073	PANEL METER MC552
26	092400	BLUE FILTER AZURE
27	092401	BLUE FILTER PALE
28	017749	METER LIGHT BOX
29	102003	MACH NUT 6-32 W/LOCK
30	049384	METER PCB
31	114072	PLASTIC RIVET: NYLON (POP-IN)
32	005059	METER SUPPORT BRACKET
33	049365	OUTPUT TRANSFORMER POT
34	049366	POWER TRANSFORMER POT
35	078025	RUBBER GROMMET 3/4
36	101054	TS 6-32 X 1/4 PH PAN TAPTITE BLK
37	005048	STAINLESS CHASSIS W/PEMS
38	018627	HEATSINK COMPLETE
39	084180	ISOSTRATE
40	049368	HEATSINK PCB ASSY
41	114118	TRANSISTOR CLIP 218
42	114119	TRANSISTOR CLIP 214
43	112087	PCB SPACER 1/4"
44	101059	SM 6 X 5/8 PHIL PAN TYPE A
45	005058	HEATSINK COVER LEFT
46	005055	HEATSINK COVER RIGHT
47	005050	CAPACITOR COVER
48	104007	LK WASHER 6 X .288 INT STAR
49	049367	CAP PCB ASSY
50	100188	SEMS MS 10-32 X 3/8 INDENTED
51	066489	27000uf 100V ELECTROLYTIC
52	005061	CAPACITOR CLAMP
53	100250	SEMS MS 6-32 X 1/4 PHIL PAN
54	102045	KEP NUT 6-32 SPECIAL
55	005042	REAR PANEL
56	101197	HI/LO 4-24 X 3/8 PH ROUND BLK
57	104142	LOCKWASHER 2.5mm INT STAR ZINC
58	101114	SM 4-24 X 1/2 PHIL PAN TYPE A
59	104095	LK WASH: #4 INT STAR
60	049222	INPUT PCB ASSY
61	004954	HEATSINK VENT COMPLETE
62	101176	TCS 6-32 X 1/2 PH PAN BLK TYPE F
63	005043	SUBREAR PANEL
64	005057	FRONT SUPPORT BRACKET
65	005041	CHASSIS SUPPORT BRACKET
66	102006	MACH NUT: 10-32 W/LOCK
67	070139	RECTIFIER BRIDGE MC1000
68	084135	THERMAL PAD MC7150
69	078034	GROMMET
70	074091	AC TERMINAL BLOCK
71	104001	FLAT STEEL WASH #4 X 9/32 X .025
72	104004	LK WASH 5 X .255 INT STAR
73	102022	MN 4-40 X 3/16
74	049370	PG PCB ASSY
75	024010	FOOT PAD
76	049369	DRIVER PCB ASSY
77	017770	PCB SHEILD
78	017160	MOUNTING TAB W/.140 DIA MTG
79	102005	MACH NUT: 8-32 W/LOCK
80	104014	LK WASHER 3/8 X .507 INT STAR
81	088022	CIRCUIT BREAKER 20AMP 250VAC
82	102032	HEX NUT 3/8-32 X 1/16 THK-HEX
83	117487	MC1000 AC LINE RECEPT
84	117740	BINDING POST RED
85	117741	BINDING POST BLACK
86	104162	LOCKWASHER INTERNAL TOOTH
87	102052	NUT GOLD SUPPLIED W/117758
88	102051	HEX NUT M9 X .75 GOLD PLATED
89	100102	1/4 - 20 X 3/8 PAN PH BLK ZINC
90	102020	MCH NUT: 6-32 SLF-LOCK
91	018632	HANDLE BACK
92	017797	TERMINAL BLOCK COVER
93	005045	BOTTOM COVER
94	018445	FOOT MC1000
95	104080	FLAT WASHER #10 CLEAR ZINC
96	100159	MS 10-32 X 3/4 PH PAN BLK ZINC
97	126666	TOP COVER DECAL
98	126592	OUTPUT TRANSFORMER DECAL
99	126593	POWER TRANSFORMER DECAL

REPACKING INSTRUCTIONS

In the event it is necessary to repack the amplifier for shipment, the unit must be packed exactly as shown below.

IMPORTANT - The four feet must be attached to the bottom of the unit so they will locate in the four holes of the bottom foam pad. Failure to do this will result in shipping damage.

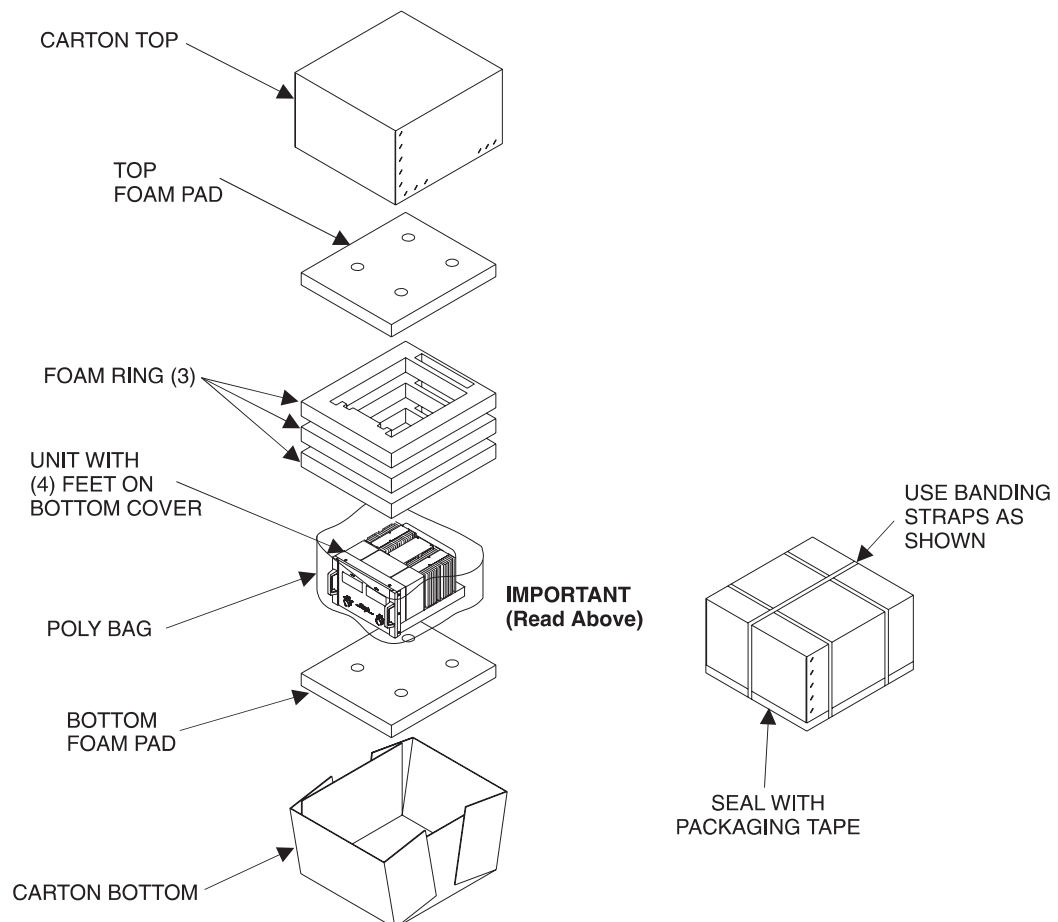
Tape top and bottom cartons together along four edges with 3 inch packaging tape.

Use banding straps to make sure box is held together securely.

If a shipping carton or any of the interior parts are needed, please call or write the Customer Service Department of McIntosh Laboratory. Order parts from the accompanying list by part number.

Use the original shipping carton and interior parts only if they are in good serviceable condition.

Qty.	Part No.	Description
1	033739	Poly bag
1	034104	Carton bottom
1	034105	Carton top
3	034106	Foam ring
2	034107	Top/bottom foam pad



MC602

POWER AMPLIFIER

SERVICE MANUAL

The continuous improvement of its products is the policy of McIntosh Laboratory Incorporated, who reserve the right to improve design without notice. Because of the constant upgrading of McIntosh products' circuitry and components, the Company cannot insure, and does not warrant, the accuracy of the within schematic material, which is intended for information only.