



This Line Level Color Organ was one of my early creations. I brought various circuits together that others designed. I updated it recently and modernized it a bit. The original version flashed neon bulbs instead of LEDs on the front panel. The updated version flashes both, if you wish. The unit responds to 3 frequency bands: high, medium, and low.

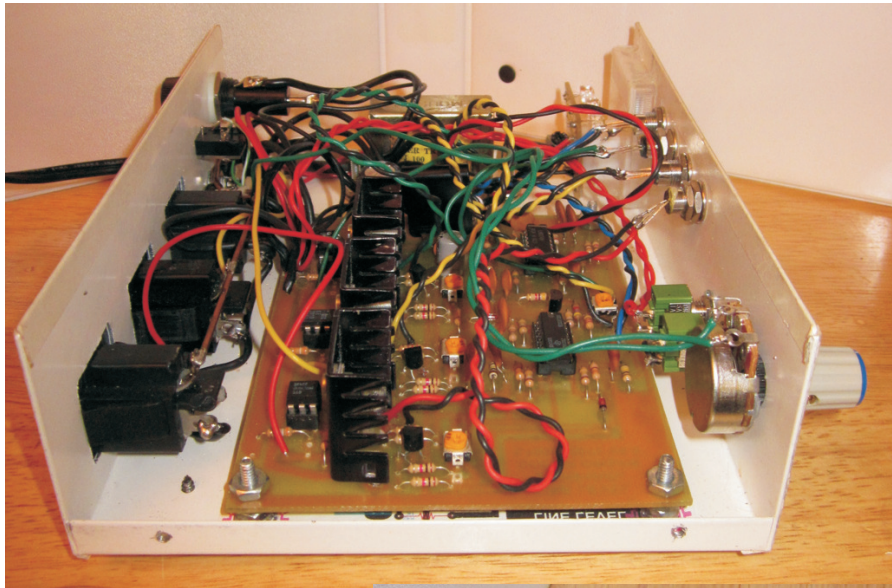
At one time, this unit flashed 3 strings of lights on our Christmas tree. It was a bit much.

The metal VU meter scale was replaced with a paper one and illuminated from the back.

When I was younger, the living room was equipped with large speakers and an almost floor to ceiling stereo equipment cabinet on castors. I had lights everywhere!

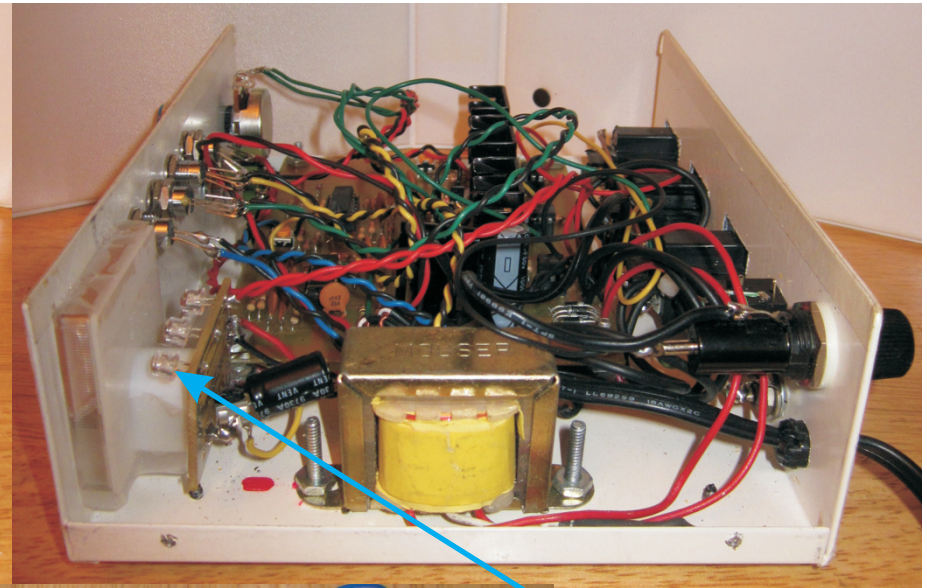
It's all gone now and I've settled down to listening to music from the computer system. The house doesn't rock anymore!





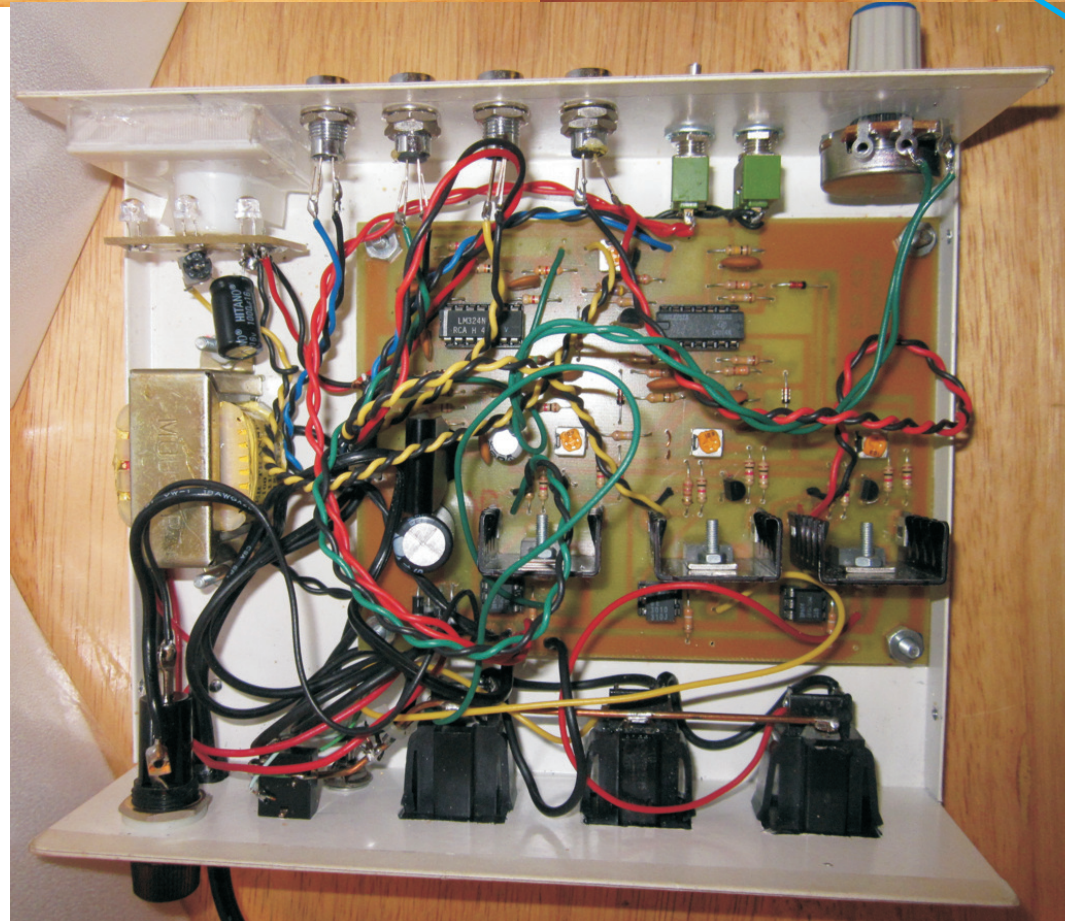
Notice the label under the PCB. It helps me find the best position for the board as well as how it relates to other parts.

When I find its final resting place, I adhere it to the cabinet and use it as a drill guide. No guessing nor measuring with this method!



These are Straw Hat LEDs. (The diode is close to the surface.) This is the only type I use to illuminate meters. They have a wide viewing angle which makes them ideal. Round Top LEDs make too much of a spot on the meter.

Not much room leftover in this box!



RESISTORS

R1, R5, R7, R15, R19, R21, R22, R29, R31, R32, R39, R41, R42 1K
R8, R20, R30, R40 220R
R2, R3, R25, R35, R45 100K
R4 1Meg
R9, R10 4K7
R12 10K
R11 6K8
R13, R14 220K
R6 150K
R16 390R
R24, R34, R44 680K
R18, R23, R28, R33, R38, R43 180K
R26, R36, R46 330R
R17, R27, R37 39K

POTENTIOMETERS

P1 10K Panel Mount
P2-P5 10K PC Mount

CAPACITORS

C1 1000mF 50V Electrolytic
C2 10mF 25v Electrolytic
C3, C7, C8, C9, C10, C11 104 Disc
C4, C5, C6 0.001 Disc

DIODES

D1-D4 1N4001 1 amp
D5-D7 1N4148

LED

LED1 Orange Panel Mount
LED2 Red Dot Panel Mount
LED3 Green Panel Mount
LED4 Yellow Panel Mount
LED5 Red Panel Mount

SEMI CONDUCTORS

IC2, IC6 LM324N Quad Op Amp
IC3, IC4, IC5 (570-SE3010) Opto Coupler
IC1 7815 15 volt 1 amp Regulator
Q1-Q4 2N4401 NPN General Purpose Transistor
TR1-TR3 Q4004L3 400V 10A TRIAC Isolated Tab

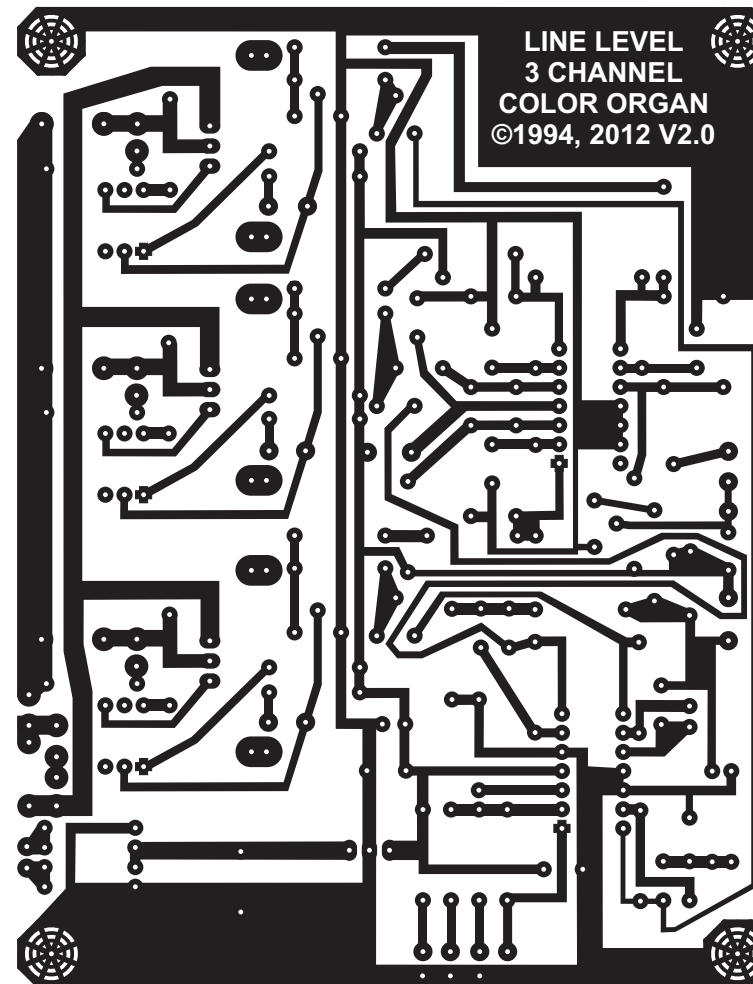
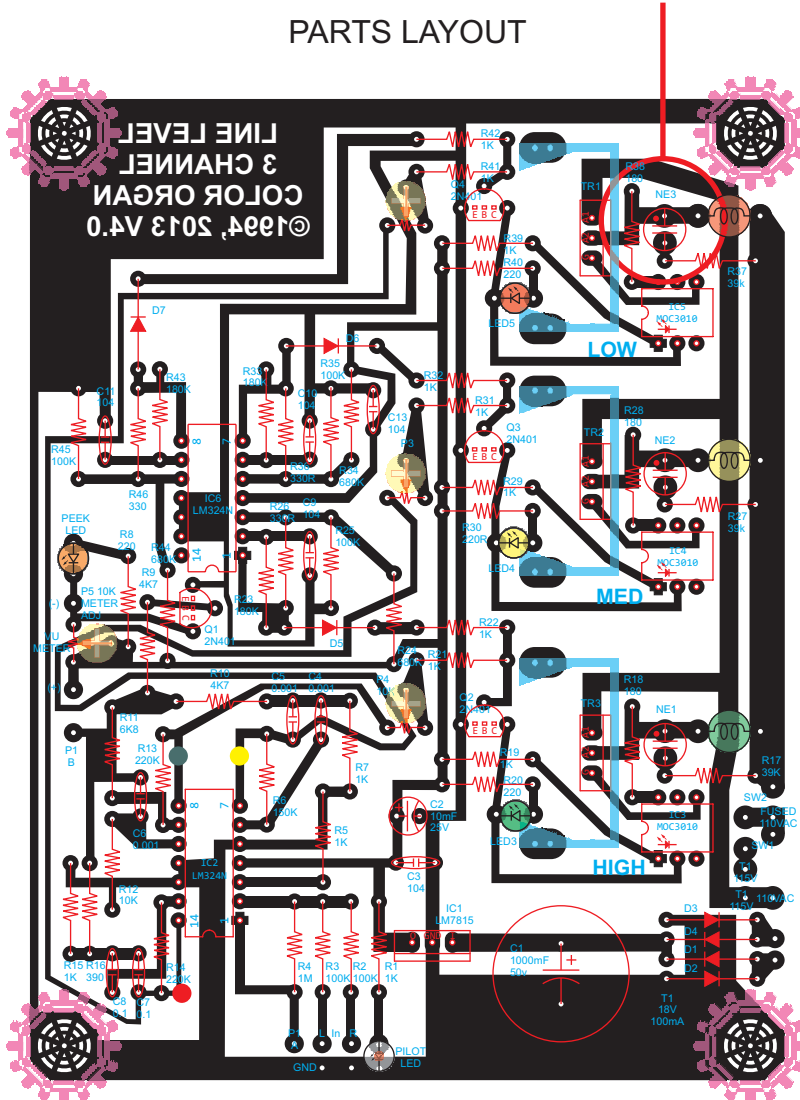
MISC.

2 6 pin DIP sockets
2 14 pin DIP sockets
T1 110v 18v 100mA Transformer
SW1, SW2 SPST Switch
NE1-NE3 Neon Lamp
Outlet Sockets (3) Panel Mount
VU Meter
Power Cord w/strain relief
Panel Mount 0.6 amp Fuse
Knob
2 RCA panel jacks
1 Stereo 1/8 in. jack

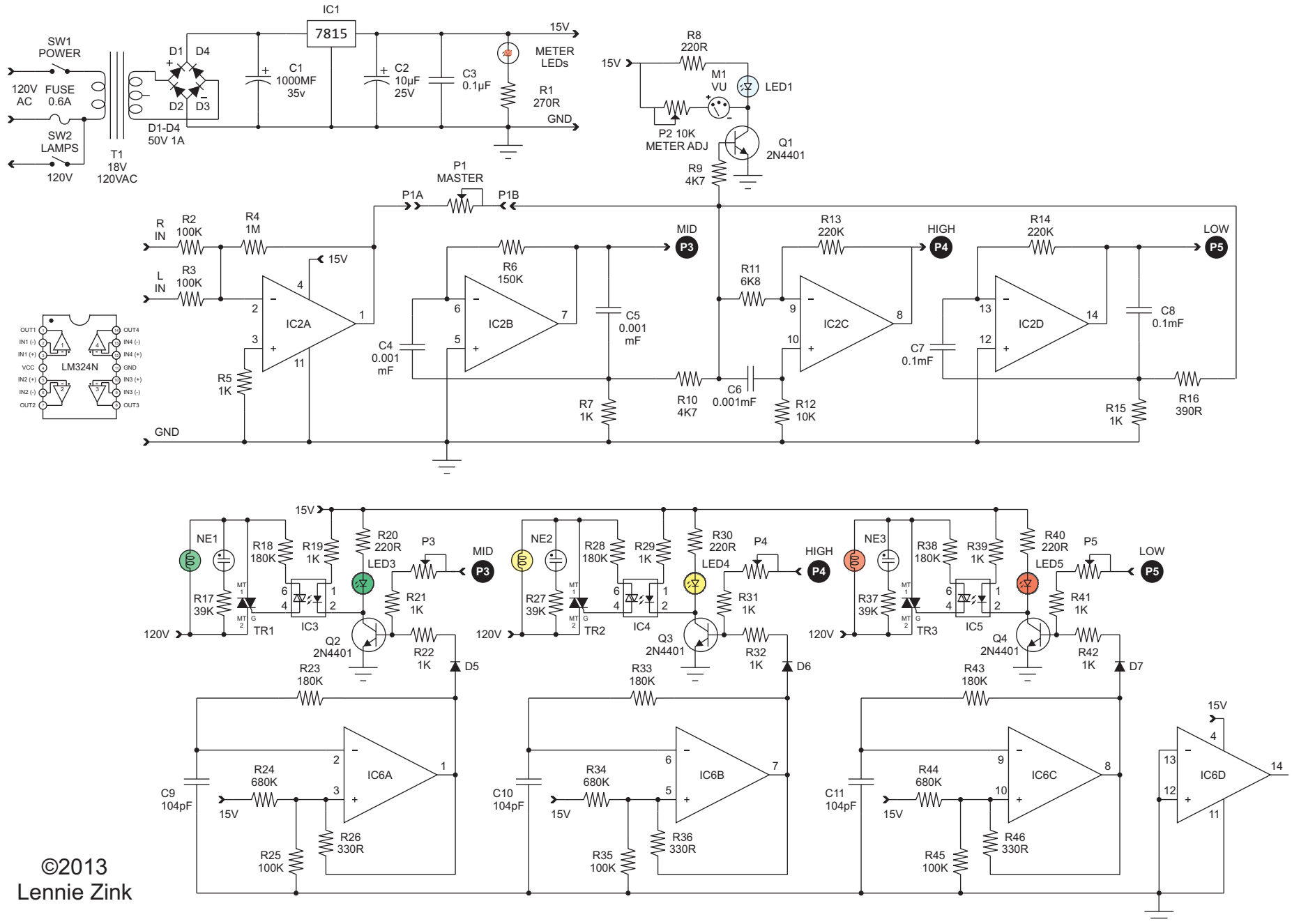
Just a reminder:
Although I did not
install them, the
board is designed to
flash neon bulbs.
(I wonder why I
installed their
resistors?)

PARTS LAYOUT

BOTTOM VIEW



3 CHANNEL LINE LEVEL COLOR ORGAN



**FUSE
1 AMP**

STEREO

**HIGH
GREEN**

**MED
YELLOW**

**LOW
RED**

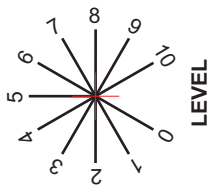
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LINE LEVEL
COLOR ORGAN

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POWER	LAMPS
On	On
Off	Off



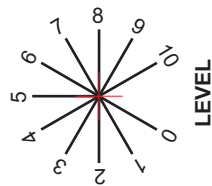
PEAK

HIGH

MED

LOW

POWER	LAMPS
On	On
On	Off
Off	On
Off	Off



PEAK

HIGH

MED

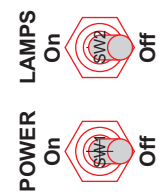
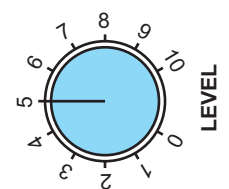
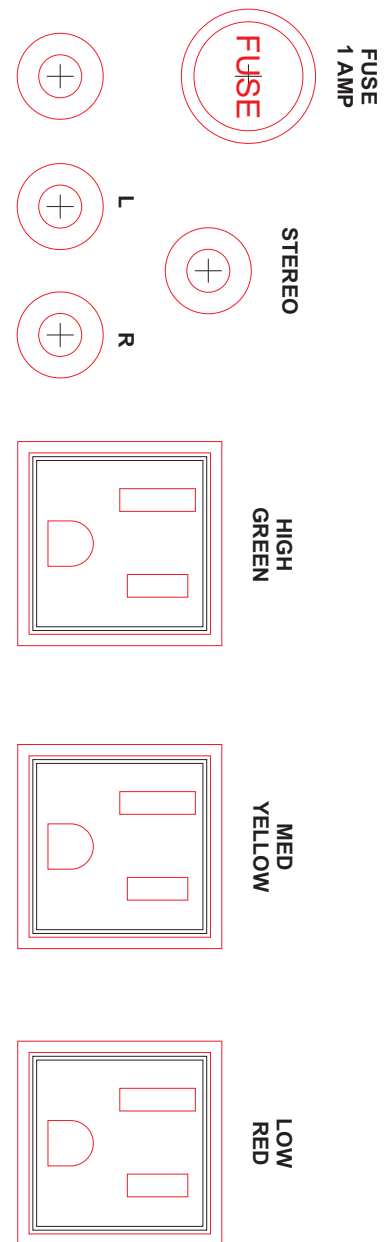
LOW

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CABINET PANELS LAYOUT

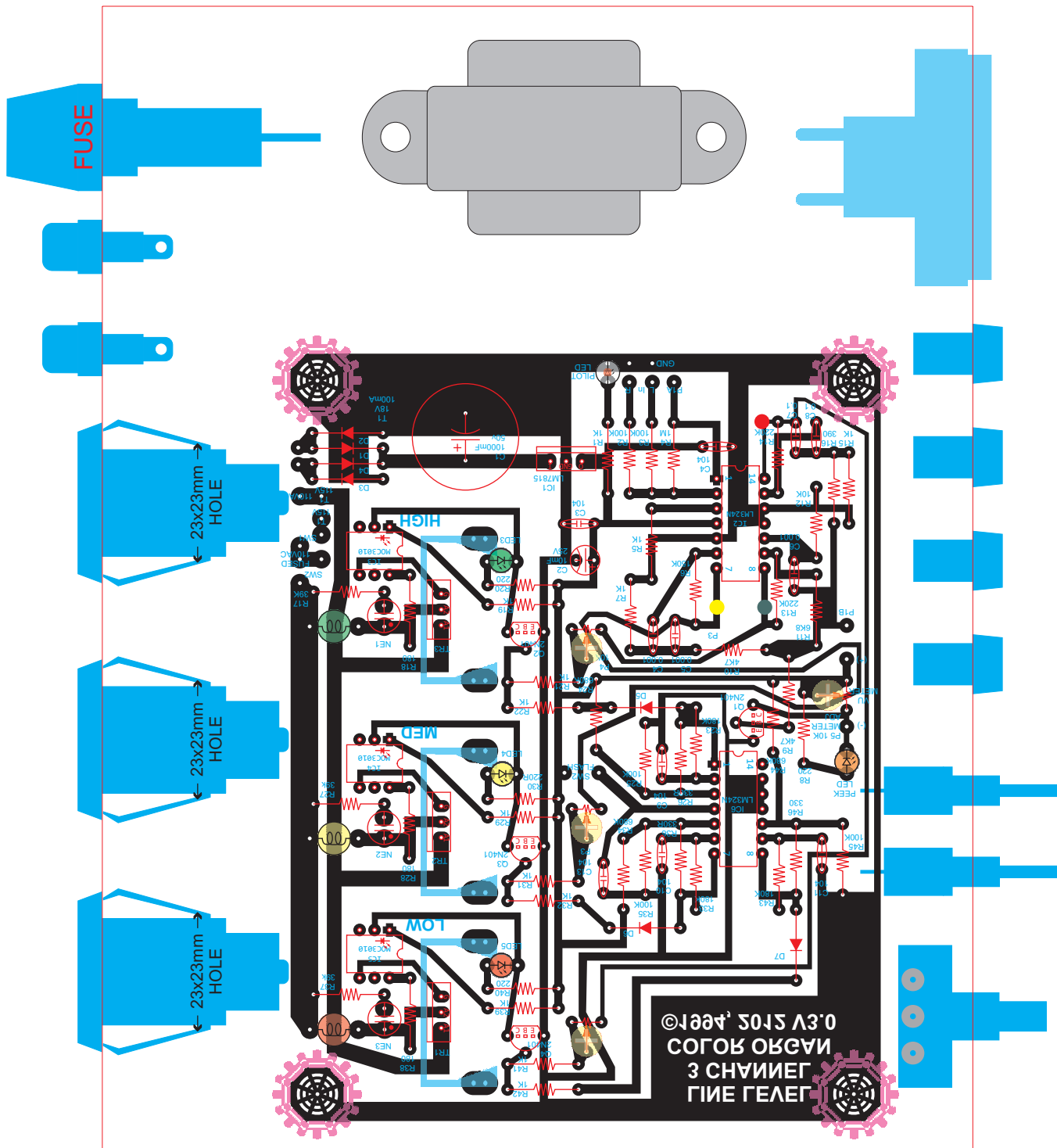
For greater details on making and applying labels see:
<http://www.geopodium.com/files/Lennie/Sferics%20Detector-4.pdf>

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LINE LEVEL
COLOR ORGAN

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COMPONENT LAYOUT