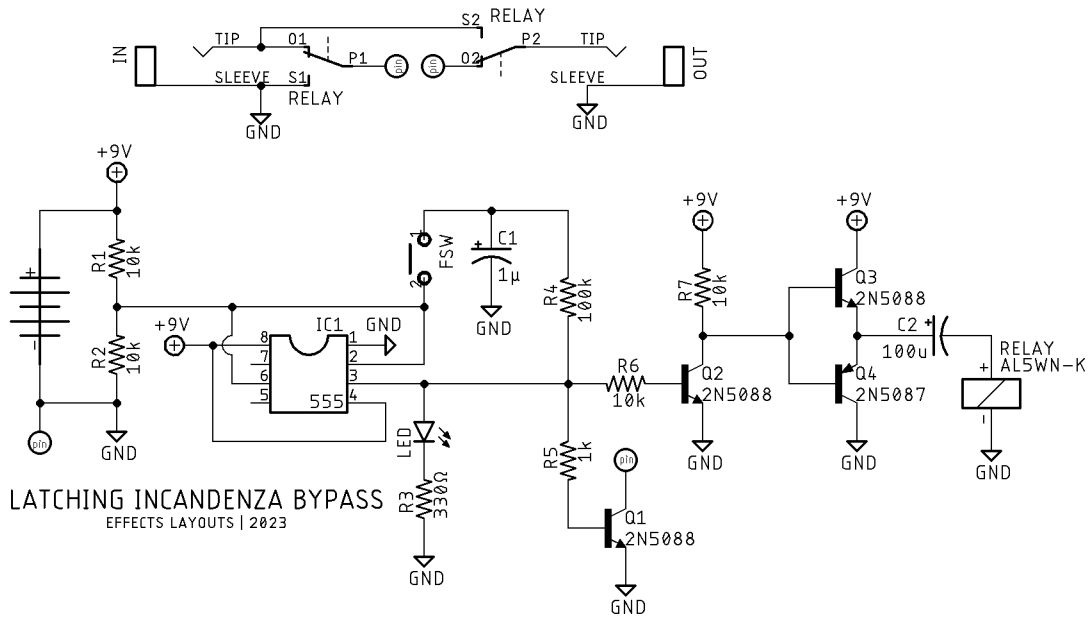


LATCHING INCANDENZA BYPASS

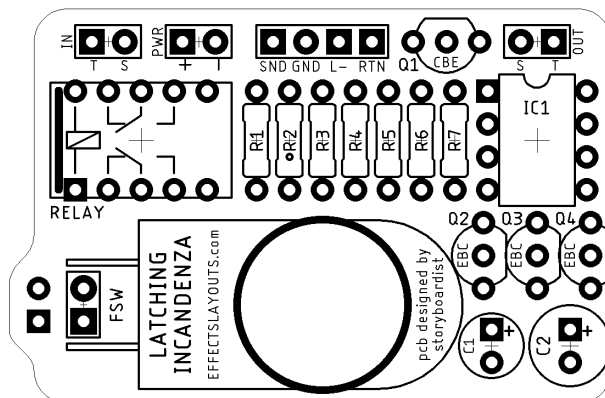
DESCRIPTION

I've implemented this updated version of Steve Demedash's Incandenza in a couple of other projects and figured it was time to create a stand-alone board like the original Incandenza. This version uses a latching relay and consumes less current. The original, non-latching design pulled about 50mA when engaged, which isn't terrible, but if you have multiple pedals utilizing the circuit that power consumption adds up pretty quickly. With the addition of a few transistors though, a latching relay can be used and while there's still a small spike in consumption when it's engaged, overall it consumes way less current.

SCHEMATIC



LAYOUT



BOM

Resistors

R1	10k
R2	10k
R3	330Ω
R4	100k
R5	1k
R6	10k
R7	10k

Capacitors

C1	1μ
C2	100μ

Semiconductors

IC1	555
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LED	3 or 5mm
Q1	2N3904 or 2N5088
Q2	2N3904 or 2N5088
Q3	2N3904 or 2N5088
Q4	2N 3906 or 2N5087

Electromechanical

FSW	Momentary footswitch
Relay	AL5WN-K or similar

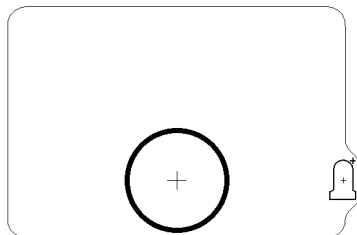
Notes

If using an LED built into the main effect board populate R5 and Q1 and omit the LED and R3. If using the LED mounted to this bypass board, populate the LED and R3 and omit R5 and Q1.

SHOPPING LIST

Value	Type (suggested)	Quantity
330Ω	¼ watt metal or carbon film	1
1k	¼ watt metal or carbon film	1
10k	¼ watt metal or carbon film	4
100k	¼ watt metal or carbon film	1
1μ	Electrolytic (25v+)	1
100μ	Electrolytic (25v+)	1
555	Timer	1
2N3904 or 2N5088	NPN BJT	3
2N3906 or 2N5087	PNP BJT	1
LED	3 or 5mm	1
Footswitch	Momentary	1
AL5WN-K	5v latching DPDT	1

DRILL TEMPLATE



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For DIY and small commercial applications.
Not for non-peer to peer resale.