

Blue Magic

Blue Magic is a very low to medium grit, tube-like, overdrive pedal that is based on a MOSFET (BS170) pushing a JFET (J201) into distortion. Voltage at the JFET drain should be about 4.7, but tune by ear. Switch in C13 with a SPST push-pull switch incorporated into the tone pot. Mica capacitors for the pF values and input cap are recommended, as mica sounds clearer than ceramic. However, you could use a ceramic cap for C13 to switch in added mids, while simultaneously smoothing the sound. The value of the C4 and C10 may need to change depending on the type of cap used. Same goes for C2 and C8. All capacitors are in uF unless otherwise noted.

Modifications: R11 smooths out the sound, but at the cost of sounding less "open." Thus, reduce R11 for a more open sound. You could switch in reduced resistance for R11 by switching in a parallel resistor.

It might be interesting to do this while also switching in added capacitance parallel with C12. Also, experiment with the coupling caps and the source bypass caps (C2 and C8).

PCB Instructions: Print this document without "fit to page" option. Pads are provided for the open switch mod. Ignore Open Sw. pads if you don't want R11 switchable. Use sockets for the transistors, C2, C8, R11, and maybe C12.

Originally released on 2/28/01 under a different name, but changed to the current name to avoid confusion with a commercial pedal. V1.3

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