

## NOTES:

If regulator is not needed/used, do not install the associated components such as C9, R21, R23, R24, and D1 for the LM317.

Solder a jumper between the IN and OUT pins respectively in place of the unused regulator, pins 2 and 3.

The LED and respective current limiting resistor only need to be installed if the circuit load is insufficient for the respective regulator.

See the LM317 data sheet for minimum load specifications.

Select Q6 to be "noisy".

- \* Use either the switch to choose white or pink noise, or use the 25k pot to have a white, pink for a continuously variable mix
- \*\* Use R19 only if needed for biasing, otherwise do not install anything. Depending on the beta of Q5, you might get clipping.
- \*\* Adding R19 will correct this. Use a value which centers the noise between ground and +12.
- \*\* If you want a higher Noise output, lower the value of R14, 3.9k is good. You will need to add a 27k for R19 for proper biasing.
- \*\*\* R4 is normally a jumper. Install a trimmer to adjust the high frequency content if you want to.
- \*\*\* Don't use a big trimmer, 10k should be fine. If you use the pot instead of the switch for white/pink, you don't need the trimmer here.
- \*\*\* You only need this if you want to make your pink noise a little more white.

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