

## TB3 Project - Powering the ToneBender<sup>™</sup> PNP circuit with a Charge Pump

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We ran across a forum post long ago where R.G. Keen suggested using a charge pump to convert the power input of a PNP circuit from positive ground to negative ground. This provides a solution for those of us who like to **daisy chain** a power supply to all of our stompboxes. If you've ever tried to daisy chain your modern pedals (Boss, Ibanez, etc) with a Fuzz Face (or a 70's Big Muff Pi or any PNP transistor circuit pedal), you know you can't do it. Now you can!

From the DC jack or battery, the charge pump circuit is a negative ground circuit. From the output of the charge pump circuit, we use the ground and -9v outputs to power the ToneBender. The ToneBender circuit sees a positive ground (0v is more positive than -9v). So here is the solution for the TB3 PNP versions in diagram and photo. This is a great "wrapper circuit" to install and probably well worth the time in the long run. Here's a photo of a Tone Bender 3 (Boutique version) replica with the charge pump.



Here's the wiring diagram for the ColorSound ToneBender 3-knob Replica with charge pump (next page).



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