

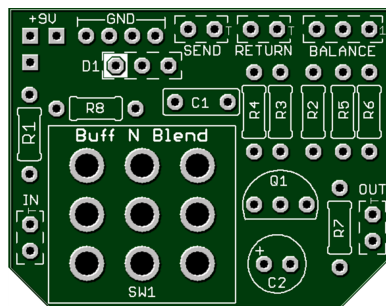
Buff N' Blend

Here are a few reasons the Buff N Blend can give your builds Tonal Superiority.

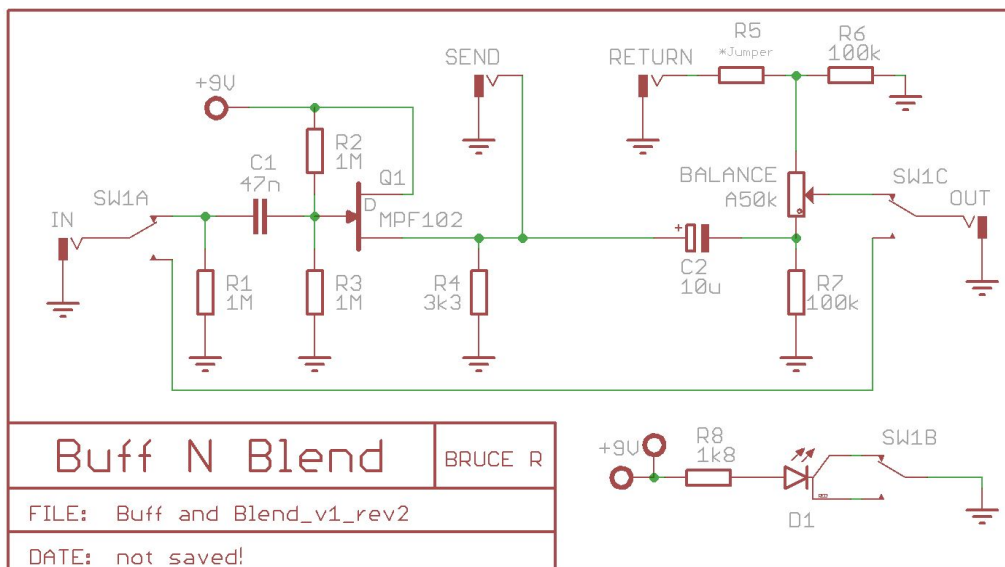
- Great definition and thickness
- More complexity to your final mix
- Add more amp like tones to thinner sounding pedals
- By never fully clipping your waveform you can now stack multiple pedals
- By blending and stacking, create huge sounding riffs simulating two separate amps
- Great for solo guitarists by filling out your sound with complex tones
- Bass guitarists can add more bottom end back into the mix making favorite pedals more Bass friendly
- Join the ranks of leading builders who are now adding a Blend Control to the latest pedals

Modulation: In regards to modulation, did you ever have a Phaser, Flanger, Delay or Chorus that was either too dominant or brittle sounding? Now you can add any degree of clean tone by blending in the natural warmth of your amplifier. You can even subdue an over active circuit with just a twist of a knob!

Board design and layout by Bruce R. based off an idea 2003, by Joel Purkis



Part	Value	Part	Value
R1	1M	BALANCE	A50k
R2	1M	C1	47n
R3	1M	C2	10u
R4	3k3	D1	CA Bicolor or Standard LED
R5	*Jumper	Q1	J113 or MPF102
R6	100k		** Socket transistor.
R7	100k		
R8	1k8		



Build Notes

***R5:** If the output from the effect(s) in the loop overpowers the input signal, replace the jumper with a resistor value somewhere between 10K and 100K. I have not experienced needing anything above 10k.

**** Q1 - J113 or MPF102 are both excellent choices for a transparent buffer. That said many MPF102's from China are counterfeit. We encourage you to either purchase a J113 (genuine transistor) from our SHOP or buy from a very reputable dealer.**

The **Buff N Blend** splits the original signal into two paths. One path sends a non-inverted signal to the blend pot. The other path routes the signal through a Send and Return loop that permits the injection of 1 or more external effects.” When these two paths are recombined at the Blend pot if there is a difference in phase, phase cancellations **"may"** result. If the effect results in a change in phase then the resulting output may exhibit phase cancellation, which in some cases may be a preferred result. If not there are ways around this.

There is much information to help answer “Phase” questions. This discussion thread is for the **Buff N' Blend**. A vast majority of popular circuits do not invert the phase. For more information read below.

Here is a link that lists pedals that invert the phase. For pedals that invert the phase, you can still use the Buff N Blend: [Pedals that invert the phase.](#)

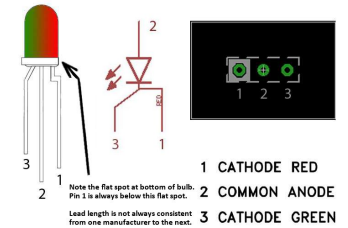
For pedals that do invert the phase you can still use a Buff N Blend: Since the **Stage 3 circuit** inverts a signal, you might add a **Stage 3** in the effects loop of the Buff N' Blend! That will change an inverting pedal signal back to a non-inverting signal when returning to the Buff N' Blend. Or add any other inverting effect to the loop. Two inverting effects equal one non-inverting signal.

GuitarPCB also carries the larger and feature rich **Paramix** board for putting many pedal circuits in a loop w/ Mix and Phase function.

STATUS LED

D1 is a common anode bi-color LED. The diagram at right shows the pin-out, schematic symbol and pad connection for a common anode LED. The pin-out for the bi-color LED is typically (but not always) as follows:

1st Color Cathode	Is on the “flat” side of the LED (see graphic); 90 degree bend in the lead
Common Anode	Middle lead
2nd Color Cathode	45 degree bend in the lead



The lead 1 pad on the circuit board is marked with a white box.

When connected correctly, the LED will light red when power is applied and the circuit is in bypass mode. The LED will light green when in effects mode. **If you wish to use a standard LED, connect the anode to the middle pad and the cathode to the right pad (non-white) to show the circuit in effects mode.** If using a 3PDT wiring board for a status LED, you can omit the LED and R8. *R8 is the Current Limiting Resistor (CLR). If you use a different LED, you may want to change this value to adjust LED brightness.

