# Wounded Paw Blender V4 revision j1

The Blender V4 is a parallel effects loop blender with 4 fully buffered effects loops. The instrument signal is split into 4 channels, sent to the 4 effects loops, and then mixed back together and each effects loop may be switched on or off individually.

Effects Loop A defaults to a clean channel if no external effects unit is plugged into its return jack. The Bass and Treble tone controls for effects loop A work on either the return of the effects loop or the clean signal accordingly.

Effects Loop B has a switchable high pass filter on the return of the loop which can be used to roll off the low end on the effects signal in that loop.

Effects Loops C and D can be switched from a parallel to a serial configuration with the return of loop C going directly to the send of loop D or vice versa.

There are toggle switches for the behaviour of the returns of the effects loops when those effects loops are bypassed. The options are to be muted, or to send through the clean send signal, or the return of the effects loop.
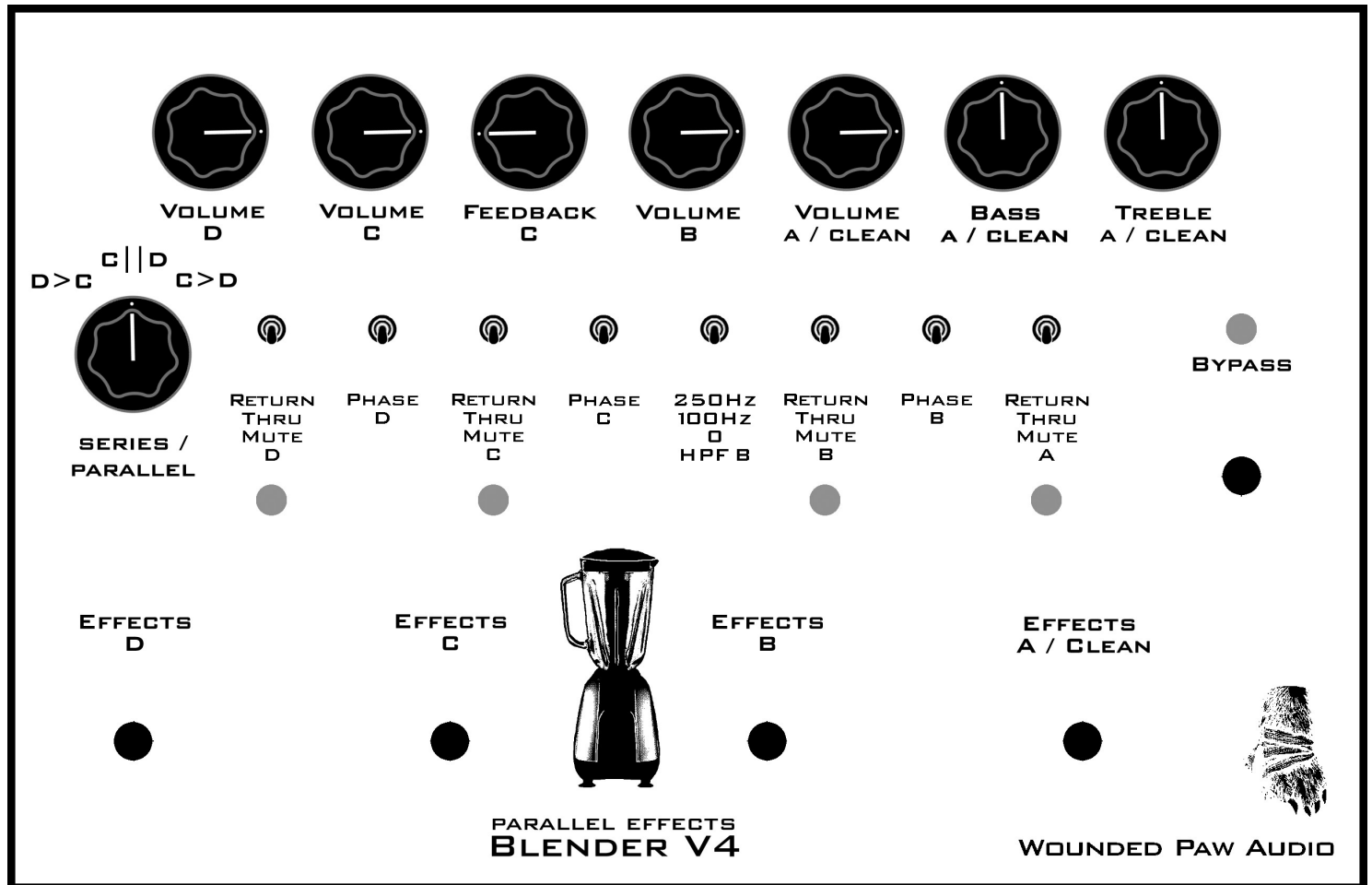
Controls

BYPASS – True bypass stomp switch to turn the entire pedal on or off.

EFFECTS A / CLEAN – Stomp switch to turn on and off Effects Loop A. Effects Loop A becomes a clean channel when no effect is plugged into the EFFECTS A RETURN jack.

VOLUME A / CLEAN – Volume control for the EFFECTS A / CLEAN channel sent to the output mix. Unity gain is at 3 o'clock.

BASS A / CLEAN – Bass shelf with boost or cut control for the EFFECTS A / CLEAN channel. Setting the knob at 12 noon means the tone response is completely flat. Turning the tone control up past noon boosts while turning them down below noon cuts that control. With the treble control this forms a Baxandall type tone section.

TREBLE A / CLEAN – Treble shelf control for the EFFECTS A / CLEAN channel with same functionality as the bass control.

BYPASS A – The Return/Thru/Mute toggle selects what gets sent to the output mix when Effects Loop A is bypassed: the

return of the effects loop, the clean send signal sent through, or nothing (muted).

EFFECTS B – Stomp switch to turn on and off Effects Loop B.

VOLUME B – Volume control for Effect Loop B to be sent to the output mix. Unity gain is at 3 o'clock.

PHASE B – Toggle to flip the phase of the return signal from the effect pedal in loop B. Down is normal phase, up is flipped.
A good way to find out if an effects pedal is sending out a return signal with the phase inverted is to have it in an effects loop,
turn that channel and channel A with nothing in it on at the same volume. Then flip the phase switch to see if there is a signal
loss.

BYPASS B – The Return/Clean/Mute toggle selects what gets sent to the output mix when Effects Loop B is bypassed: the
return of the effects loop, the clean send signal sent through, or nothing (muted).

HPF B – High pass filter on the return of Effects Loop B to roll off the low end of the effects in the loop. The settings are
down – off, middle – 100Hz HPF, and up – 250Hz HPF

EFFECTS C – Stomp switch to turn on and off Effects Loop C.

VOLUME C – Volume control for Effect Loop C to be sent to the output mix. Unity gain is at 3 o'clock.

PHASE C – Toggle to flip the phase of the return signal from the effect pedal in loop C. Down is normal phase, up is flipped.

BYPASS C – The Return/Clean/Mute toggle selects what gets sent to the output mix when Effects Loop C is bypassed: the
return of the effects loop, the clean send signal sent through, or nothing (muted).

FEEDBACK C – Sends the return from the effect pedal in loop C back into it's send. A feedback loop can have interesting
and varied results depending on what effect pedal is in the loop. Delay pedals can be made to repeat endlessly and
fuzz/distortion pedals can come out with droning noises. With the FEEDBACK control in the fully counter clockwise position
the feedback loop is essentially off. Turning the FEEDBACK control clockwise will bring in the feedback signal but until it is
almost fully on not much will happen.

EFFECTS D – Stomp switch to turn on and off Effects Loop D.

VOLUME D – Volume control for Effect Loop D to be sent to the output mix. Unity gain is at 3 o'clock.

PHASE D – Toggle to flip the phase of the return signal from the effect pedal in loop D. Down is normal phase, up is flipped.

BYPASS D – The Return/Clean/Mute toggle selects what gets sent to the output mix when Effects Loop D is bypassed: the
return of the effects loop, the clean send signal sent through, or nothing (muted).

SERIES / PARALLEL – 3 position rotary switch for changing the routing of loops C and D from parallel to series.
In the C || D position Effects Loops C and D function as normal separate parallel effects channels as described above.
In the C > D position loops C and D are put into series mode. This means the return of loop C is fed directly into the send of
loop D. When loop C is off the BYPASS C section controls what is sent to the input of Loop D, in the Return position nothing
is sent to loop D. When loop C is switched on the return is fed into the send of loop D. The return of loop D goes to the
VOLUME D control and on to the output mix of the blender. If loop D is switched off then the BYPASS D section controls
what is sent to the VOLUME D control and on to the output mix, the Clean position in this case is the signal from Loop C.
In the D > C position loops C and D are put into series mode in the opposite order. The return of loop D is fed into the send
of loop C. When loop D is off the BYPASS D section controls what is sent to the input of Loop C, in the Return position
nothing is sent to loop C. When loop D is switched on the return is fed into the send of loop C. The return of loop C goes to
the VOLUME C control and on to the output mix of the blender. If loop C is switched off then the BYPASS C section controls
what is sent to the VOLUME C control and on to the output mix, the Clean position in this case is the signal from Loop D.

9V JACK – The Blender V4 must be powered by a standard 9V power adaptor, such as the Boss PSA or Godlyke Power-All.
The Blender V4 can actually take from 9 to 18 volts DC. The jack must have a center negative connection. The current draw
is 300mA.