3506 Slide/Glide P.Bend-Range

glide and Pitch Bend-Range modules.

The Glide or Lag section is a variable frequency low-pass filter. As the cutoff frequency is lowered the charge-time increases and sharp changes in voltage are smoothed. It's called glide because it smoothes the transition from one note to another. Effectively gliding from one voltage to the next.

By closing S1, Q1 shorts out glide pot P1. C3 is effectivly out of the circut. When a gate signal turns Q2,3 on, Q1 tuns off and removes the short across P1. The preset lag time is bypassed unless the control input is held high or a gate voltage is present.

The P.Bend-Range on EFM midi to CV converters is 0 - 2.5v - 5v. 2.5v being the center (idle) position. Hooking this voltage

pitch. There is always voltage present on the output so simply

still cause the VCOs pitch to change when the PB-range control is adjusted.

Sync effects are best generated by sweeping one VCOs pitch

On a modular you need a inverter.
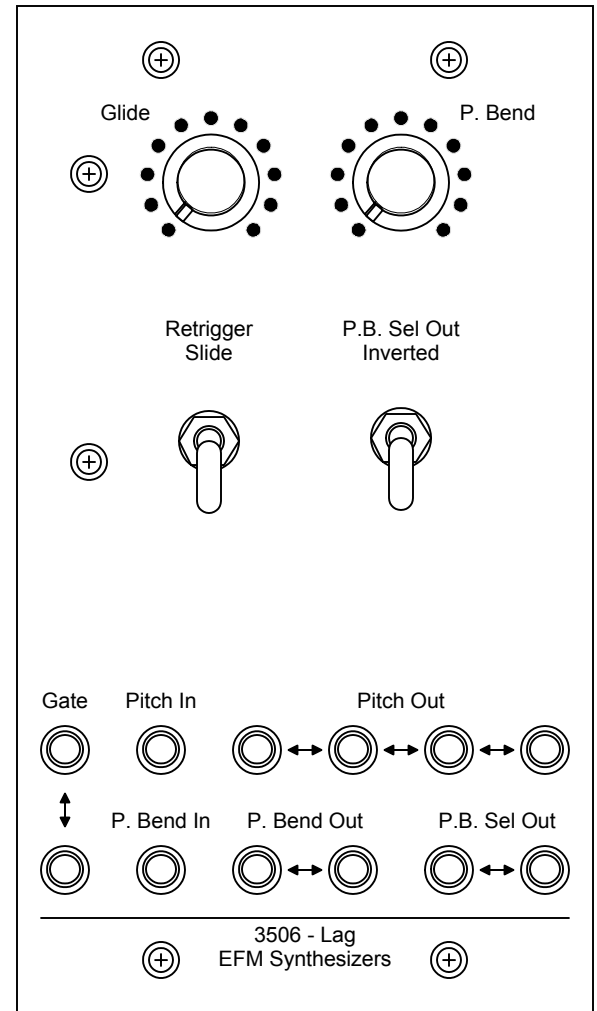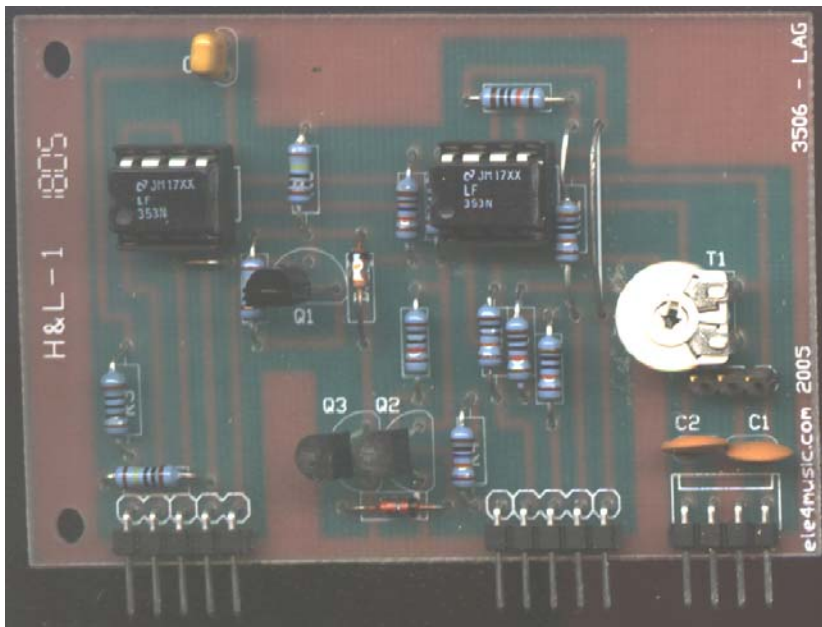
The PB Range section solves all of these problems by first adding -2.5 Volts s to the idle +2.5V coming from the CV converter. This causes the output of U2a to go to zero. The output range becomes (+2.5V) 0 (-2.5V). 0 becomes the center (idle) position. This is good but it's inverted so U2b inverts the output to (-2.5V) 0 (+2.5V). This gives a two and a half octave PBend range. By bypassing U2b we can switch the inverted voltage to synced oscillators.

If you are building this for a normalized synth use a DPDT switch for S2 to switch oscillator sync on when the inverted out is selected.

Small Kit

PCB	PC Board	1
C1,2	0.1uF Ceramic	2
C3	1.0 uF Ceramic	1
R1,2,8	1M	3
R3	100	1
R4,9-13	100K	6
R5,6,7	10K	3
D1,2	1N4148	2
Q1	2N5460	1
Q2,3	2N3904	2
U1,2	TLO72	2

Full Kit

P1	1M Pot	1
P2	50K Pot	1
Knob		2
S1,2	SPDT	2
Jack	1/8"	12
L Bracket w/hardware		2
Header		1
Panel		1
Overlay		1