Yusynth Comparators

http://yusynth.net/Modular/EN/COMPARATORS/index.html

C1, C2	22uF	R11, R31	150K
C3, C4, C5, C6	10nF	R12, R32	220K
Cz, Cz, Cz, Cz	100null	R13, R14, R33, R34	3,3K
D1, D2, D3, D4, D5, D6, D7, D8, D9, D10	1N4148	R15, R17, R19, R35, R37, R39	1,2K
Eyelet	M3	R16, R18, R20, R36, R38, R40	1K
R1, R2	10Ω	R21, R43	1,5K
R3, R22, R23, R44	10K	R25	47K
R4, R24, R26	1M	Vero Board	18 x 33
R5, R6	100K	U1, U2	LM324
R7, R8, R9, R10, R27, R28, R29, R30	12K		

The square pads are connected with hookup wire.
C7, C8 (100n) are mounted on the back (decoupling U1, U2).
Note: The LEDs are wired 'backwards' (as indicated).

Suggested adjustments

Threshold A (-5...+5V): R5 = R6 = P1 = 82k...100k (depending on the actual resistance of P1)
Threshold A (-10...+10V): R5 = R6 = 22k, P1 = 100k
Threshold B (0...10V): R25 = 39k...50k
Gate/Trigger OUT 10V: R15, R17, R19, R35, R37, R39 = 1k & R16, R18, R20, R36, R38, R40 = 2k7
LED brightness: adjust R21 = R43 = 1k...33k
Voltage divider (for Vref): R7, R8, R9, R10, R27, R28, R29, R30 = 12k...100k
   Cz = 100n in parallel to ground for additional stability of Vref
   The Vref may be shared between the two units: leave out the respective resistors and connect the points with hookup wire.

created with DIY Layout Creator G3 V 40.0
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