



**MODE switch**- switches between 'chord' and 'scale' modes

**TRANSPOSE knob**- transposes up to 12 quantized semitones in either mode

**TRANSPOSE input**- transpose up to 5 octaves by semitone in either mode

**CHORD/SCALE knob**- selects chord/scale type, there are 32 in each mode

**CHORD/SCALE input/knob**- voltage control select of type with attenuator

**INput**- incoming voltage to be quantized over 5V range

**HOLD input**- used alone, latches outputs indefinitely when any external signal  $\sim +1.5V$  is applied. used alone, LEDs will display an "H" when hold is active

**TRIG input**- the trigger input is normalled to let the quantimator know when this input is in use or not. it's basic purpose is to synchronize quantization with external sources; ie trigger bus on a sequencer. when the input is not used, the quantimator is continually updating and responds to changes at all CV ins and knob turns. when used, the inputs are read only when a trigger is received. this can be any source rising to at least  $\sim +1.5V$

**Arpeggio function in Chord mode**- when the HOLD input is high, use of the TRIG input "rotates" the outputs, in the direction of 1 to 3. the LEDs will display a rotating animation that moves in time with incoming triggers. all ins/ controls will be updated with each trigger, so it's possible to transpose/ change chords etc in arpeggio.

**"Analog shift register" function in Scale mode**- when the trigger input is used in scale mode, the quantized note values are passed along the outputs shift-register style [at each trigger] for cascading, 'arabesque' musical patterns among multiple voices. a high at the HOLD in "closes the loop" and retains the last 3 notes in memory. further triggers received will loop these 3 notes sequentially until HOLD returns low to allow new input data.

**OUTS 1-3**- 1V/oct quantized control outputs to control stuff. output range is 0-5V [5 octaves].

**note** CV INS/OUTS are active in the 0-5V range, but don't be afraid!

**7-seg LED display**- indicate chord/scale type [see charts to right] and mode of operation. the "BNK" decimal is lit from memory locations 17-32 with the characters 0-F repeating. the left-side decimal is lit when in scale mode.

## CHORDS

- 0 major
- 1 major inv1
- 2 major inv2
- 3 augmented
- 4 augmented inv1
- 5 augmented inv2
- 6 6th
- 7 6th inv1
- 8 6th inv2
- 9 7th
- a 7th inv1
- b 7th inv2
- c sus4
- d sus4 inv
- e sus4 aug5
- f sus4 aug5 inv
- 0. sus4 6
- 1. sus4 6 inv1
- 2. sus4 6 inv2
- 3. m6th
- 4. m6th inv1
- 5. m6th inv2
- 6. mAug 5
- 7. mAug 5 inv1
- 8. mAug 5 inv2
- 9. minor
- a. minor inv1
- b. minor inv2
- c. diminished
- d. diminished inv1
- e. diminished inv2
- f. 5ths

## SCALES

- 0 chromatic
- 1 ionian
- 2 dorian
- 3 lydian
- 4 phrygian
- 5 aeolian
- 6 locrian
- 7 major pentatonic
- 8 minor pentatonic
- 9 mixolydian
- a blues
- b diminished
- c oriental
- d whole tone
- e sixtone symmetrical
- f spanish
- 0. algerian
- 1. bali pelog
- 2. arabian
- 3. zirafkend
- 4. spanish gypsy
- 5. hungarian
- 6. egyptian
- 7. persian
- 8. enigmatic
- 9. tritone
- a. surf
- b. major
- c. minor
- d. inversions major
- e. inversions minor
- f. prism