

Behringer Wave V1.0.11 Quick Reference (rev. A)

DIGITAL

UW – Upper Wavetable setting:

- 0 – All waves, wrapping
- 1 – The Upper Wavetable is used
- 2 – Exclude basic waveforms, no wrapping

SW – Sub-oscillator Waveform / function:

- 0 – Follows Main-oscillator, plus WAVES-SUB control
- 1 – WAVES-SUB independent control
- 2 – ENV3 → Sub-oscillator waveform
- 3 – Off
- 4 – Hard-sync, sync frequency is set by WAVES-SUB
- 5 – Ring mod, waveform is set by WAVES-SUB
- 6 – Noise generator, level is set by WAVES-SUB

KW – Keyboard → Waveform tracking:

- 0 – Off
- 1-3 – Higher notes = higher waveform in the wavetable
- 4 – Each note has its own waveform, WAVES-OSC offset
- 5-7 – Stronger versions of 4, waveforms are skipped

KF – Keyboard → Filter cutoff tracking:

- 0 – Off
- 1-2 – Less than 100%
- 3 – Approximately at 100%
- 4-6 – Between 100% and 200%
- 7 – Approximately at 200%

KL – Keyboard → Loudness tracking:

- 0-3 – Lower keys will sound louder than higher keys
- 4 – All keys have the same loudness
- 5-7 – Higher keys will sound louder than lower keys

MW – Waveform modulation:

- 0 – Off
- 1 – LFO → Waveform, amount set by ModWheel
- 2 – ModWheel → Waveform
- 3-9 – LFO → Waveform, amount from 10% to 100%

MF – Filter modulation:

- 0 – Off
- 1 – LFO → Cutoff, amount set by ModWheel
- 2 – ModWheel → Cutoff
- 3 – ModWheel → Resonance
- 4-9 – LFO → Cutoff, amount from 10% to 100%

ML – Loudness modulation:

- 0 – Off
- 1 – LFO → Loudness. *Enhanced: amount set by ModWheel*

DIGITAL

BD – Bend wheel destination:

- 0 – Off
- 1 – Oscillators pitch
- 2 – Filter cutoff
- 3 – Waveform
- 4 – Only Sub-oscillator pitch
- 5 – Pitch + Filter cutoff
- 6 – Pitch + Waveform
- 7 – Filter cutoff + Waveform

BI – Bend wheel interval:

- 0 – Two semitones
- 1 – Major third
- 2 – Fifth
- 3 – One octave
- 4 – Two octaves
- 5 – One octave in semitones steps

TW – Aftertouch → Waveform:

- 0 – Off
- 1 – Aftertouch → Waveform
- 2 – Aftertouch → LFO modulation amount

TF – Aftertouch → Filter cutoff:

- 0 – Off
- 1 – Aftertouch → Filter cutoff
- 2 – Aftertouch → LFO modulation amount

TL – Aftertouch → Loudness:

- 0 – Off
- 1 – Aftertouch → Loudness
- 2 – Aftertouch → LFO modulation amount

TM – Aftertouch → ModWheel:

- 0 – Off
- 1 – On

VF – Velocity → Filter cutoff:

- 0 – Off
- 1 – Low sensitivity
- 2 – Medium sensitivity
- 3 – High sensitivity

VL – Velocity → Loudness:

- 0 – Off
- 1 – Low sensitivity
- 2 – Medium sensitivity
- 3 – High sensitivity

TUNING

DETU – Detune:

- 0 – Off
- 1-4 – Detune amount
- 5 – Fifth
- 6 – Up one octave
- 7 – Up two octaves
- 8 – Down one octave
- 9 – Down two octaves

MO – LFO → Main-oscillator: (ModWheel sets amount)

- 0 – Off
- 1 – On

MS – LFO → Sub-oscillator: (ModWheel sets amount)

- 0 – Off
- 1 – On

EO – ENV3 → Main-oscillator:

- 0 – Off
- 1 – On
- 2-9 – Portamento (both oscillators) glide time

ES – ENV3 → Sub-oscillator:

- 0 – Off
- 1 – On

BI – Bend wheel interval: (same as BI in DIGITAL)

- 0 – Two semitones
- 1 – Major third
- 2 – Fifth
- 3 – One octave
- 4 – Two octaves
- 5 – One octave in semitones steps

USER

EXP-PEDAL – Select action:

- 0 – Off
- 1 – Loudness
- 2 – Filter Cutoff
- 3 – Filter Resonance
- 4 – Waveform
- 5 – Modulation Wheel

TOUCH – Channel Aftertouch transmitted and received:

- 0 – Off
- 1 – Transmitted over MIDI
- 2 – Received over MIDI only, not from the keyboard
- 3 – Transmitted and received over MIDI

SEQUENCER

MOD – Sequencer/arpeggiator mode:

First digit:

- 0 – Sequencer
- 1 – Arpeggiator, one octave
- 2 – Arpeggiator, two octaves

Second digit (arpeggiator only):

- 1 – Up
- 2 – Down
- 3 – Alternating Up/Down
- 4 – Random
- 5 – Moving, the root moves through the notes held

CLK – Clock source and rate:

First digit = clock source:

- 0 – Internal
- 1 – DIN MIDI
- 2 – USB MIDI
- 3 – External analog trigger

Second digit = clock rate

- 0 – 1 pulse per step
- 1 – 2 pulses per quarter note
- 2 – 24 pulses per quarter note (default)
- 3 – 48 pulses per quarter note

MIDI clock rate is fixed at 24 pulses per quarter note

GAT – Gate duration:

- 1 - 99 – Gate duration %, default is 50

DIV – Clock division:

- 0 – 1/4 note
- 1 – 1/8 note
- 2 – 1/16 note
- 3 – 1/32 note
- 4 – 1/4 note triplet
- 5 – 1/8 note triplet
- 6 – 1/16 note triplet

BPM – internal clock:

- 40-240 – Sets the internal BPM
- Displays the BPM when external clock sources are used

SEQUENCER

MTN – Metronome:

- 0 – Off
- 1 – On

OVP – Sequencer overdub:

First digit:

- 0 – Disabled, new notes replaces
- 1 – Enabled, new notes will be added (up to 8)

Second digit:

- 0 – Keyboard will transpose the sequencer
- 1 – Keyboard plays voices independently

SAVE – Save sequence:

- 1 – Saves notes, gate and div to the current program

STEP – L:R

- L – Current step
- R – Total number of steps programmed

STATUS – indicates the current sequencer status:

- STOP, PLAY, RECORD or APPEND

PROGRAM

SYSEX – Dump program data:

- 0 – default (no action).
- 1 – sends current edit buffer data.
- 2 – sends current program data.
- 3 – sends current bank.
- 4 – sends sequencer edit buffer.
- 5 – sends current program's sequencer data.
- 6 – sends current bank's sequencer data.

LOC – Local control of sound engine:

- 0 – Off, sound engine is controlled only through MIDI
- 1 – On, keyboard and MIDI controls sound engine

MIDI – Transmit and receive channel:

- 0 – Off, no messages will be transmitted or received
- 1-16 – Channel to transmit and receive MIDI on

USER

BRT – LCD brightness (00-99)

CNT – LCD contrast (00-99)

PAR-COM – Receive and transmit MIDI CC

- 0 – Off
- 1 – Transmit only
- 2 – Receive only
- 3 – Transmit and receive

Save a patch

On the PROGRAM page, go to DTF and type 9, go to PROG and type the location to save your patch in, the Store menu is now displayed, type 1 to save your patch at the selected location.

Transients

When the selected wavetable is a **transient** some knobs and settings changes purpose:

WAVES-OSC sample playback start points for main osc

WAVES-SUB sample playback start points for sub osc

ENV 1 ▷ **WAVES** loop point for the sample playback (both)

UW – Transient playback length:

- 0 – 128 samples
- 1 – 2048 samples
- 2 – 8192 samples