

# Chapter 5

## Note Numbers and Intonation Tables

### K2500 Note Numbers and MIDI Note Numbers

K2500	MIDI
C -1—B -1	0—11
C 0—B 0	12—23
C 1—B 1	24—35
C 2—B 2	36—47
C 3—B 3	48—59
C 4 (Middle C)—B 4	60—71
C 5—B 5	72—83
C 6—B 6	84—95
C 7—B 7	96—107
C 8—B 8	108—119
C 9—G 9	120—127

You can assign samples to keymaps in the range from C 0 to G 9. The K2500 will respond to MIDI events in the octave from C -1 to B -1. If a Note On event is generated in the range from C -1 to B -1, the K2500 will respond by setting the Intonation key correspondingly (C -1 will set it to C, C# -1 will set it to C#, etc.)

### Note Numbers for Percussion Keymaps

Most of the K2500's percussion programs have keymaps that place the various percussion timbres at standardized key locations. There are eight drum keymaps: Preview Drums, five 5-octave kits (two dry and three ambient), a 2-octave kit, and the General MIDI kit. The keymap 30 General MIDI Kit adheres as closely as possible to the General MIDI standard for placement of timbres. As a rule, programs that use this keymap can be assigned in percussion tracks for prerecorded sequences and will play appropriate timbres for all percussion notes.

The timbres are located consistently within the 5-octave kit keymaps so you can interchange keymaps within percussion programs freely without changing the basic timbres assigned to various notes (snare sounds will always be at and around Middle C, for example). The note assignments for the timbres in the 5-octave kit and 2-octave kit keymaps are listed below. MIDI note number 60 (Middle C) is defined as C 4.

#### 5-Octave Percussion Keymaps (C2 - C7)

MIDI NOTE NUMBER	KEY NUMBER	SAMPLE ROOT
36-37	C2-C#2	Low Tom
38-39	D2-D#2	Low Mid Tom
40-41	E2-F2	Mid Tom
42-43	F#2-G2	Hi MidTom
44-45	G#2-A2	Mid Hi Tom
46	A#2	Hi Tom
47-51	B 2-D# 3	Kick
52-54	E3-F#3	Snare (Sidestick)

## Note Numbers and Intonation Tables

### Note Numbers for Percussion Keymaps

55-56	G3-G#3	Low Snare (dual vel. on Dry Kit 1)
57-59	A3-B3	Mid Snare (dual vel. on Dry Kit 1)
60-61	C4-C#4	Hi Snare (dual vel. on Dry Kit 1)
62-64	D 4-E 4	Closed HiHat
65-67	F 4-G 4	Slightly Open HiHat
68-69	G# 4-A 4	Open HiHat
70-71	A# 4-B 4	Open to Closed HiHat
72	C 5	Foot-closed HiHat
73-74	C#5-D5	Low Crash Cymbal
75-78	D#5-F#5	Pitched Crash Cymbals
79	G5	Splash Cymbal
80	G#5	Ride Cymbal (Rim)
81-82	A5-A#5	Ride Cymbal (Rim and Bell)
83-84	B5-C6	Ride Cymbal (Bell)
85	C# 6	Cowbell
86	D 6	Handclap
87	D# 6	Timbale
88	E 6	Timbale Shell
89	F 6	Conga Tone
90	F#6	Conga Bass Hi
91	G 6	Conga Slap
92	G#6	Conga Bass Low
93	A 6	Clave
94	A# 6	Cabasa
95-96	B 6-C 7	Tambourine Shake

## 2-Octave Percussion Keymaps (C3 - C5)

MIDI NOTE NUMBER	KEY NUMBER	SAMPLE ROOT
48-49	C 3-C# 3	Kick
50	D 3	Low Tom
51	D# 3	Cowbell
52	E 3	Low Tom
53	F 3	Mid Tom
54	F# 3	Cowbell
55	G 3	Mid Tom
56	G# 3	Timbale
57	A 3	High Tom
58	A# 3	Snare (Sidestick)
59	B 3	High Tom
60-61	C4-C#4	Snare (dual velocity)
62	D 4	Closed HiHat
63	D#4	Ride Cymbal (Rim and Bell)
64	E 4	Closed HiHat
65	F 4	Slightly Open HiHat
66	F# 4	Crash Cymbal
67	G 4	Slightly Open HiHat
68	G# 4	Crash Cymbal
69	A 4	Open HiHat
70	A# 4	Crash Cymbal
71	B 4	Open to Closed HiHat
72	C 5	Foot-closed HiHat

## List and Description of Intonation Tables

1	Equal	No detuning of any intervals. The standard for modern western music.
2	Classic Just	Tunings are defined based on the ratios of the frequencies between intervals. The original tuning of Classical European music.
3	Just $\flat$ 7th	Similar to classic Just, but with the Dominant 7th flatted an additional 15 cents.
4	Harmonic	The perfect 4th, Tritone, and Dominant 7th are heavily flatted.
5	Just Harmonic	
6	Werkmeister	Named for its inventor, Andreas Werkmeister. It's fairly close to equal temperament, and was developed to enable transposition with less dissonance.
7	1/5th Comma	
8	1/4th Comma	
9	Indian Raga	Based on the tunings for traditional Indian music.
10	Arabic	Oriented toward the tunings of Mid-Eastern music.
11	1Bali/Java	Based on the pentatonic scale of Balinese and Javanese music.
12	2Bali/Java	A variation on 1Bali/Java, slightly more subtle overall.
13	3Bali/Java	A more extreme variation.
14	Tibetan	Based on the Chinese pentatonic scale.
15	CarlosAlpha	Developed by Wendy Carlos, an innovator in microtonal tunings, this intonation table flats each interval increasingly, resulting in an octave with quarter-tone intervals.
16	Pyth/aug4	This is a Pythagorean tuning, based on the Greek pentatonic scale. The tritone is 12 cents sharp.
17	Pyth/dim5	This is a Pythagorean tuning, based on the Greek pentatonic scale. The tritone is 12 cents flat.
18	Obj <i>vn.n</i>	Not an intonation table; indicates version number of K2500 ROM objects.

In general, you should select a non-standard intonation table when you're playing simple melodies (as opposed to chords) in a particular musical style. When you use intonation tables based on pentatonic scales, you'll normally play pentatonic scales to most accurately reproduce those styles. An excellent reference source for further study of alternative tunings is *Tuning In: Microtonality in Electronic Music*, by Scott R. Wilkinson.

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