Appendix VIII
Notes and Tone Periods.

The tables which follow give the recommended tone period settings for notes in the even tempered scale for the full eight octave range. The period is calculated from the note frequency as follows (since the period is given in 8 microsecond units):

Period = 125000 / Frequency

The frequency for each note is calculated from International A as follows:

Frequency = 440 * (2 ^ (Octave + (N - 10) / 12))

where:

Octave	is the octave number. 0 is the octave including International A (and middle C), -1 is the octave below, +1 is the octave above etc.
N	is the note number. 1 is C, 2 is C#, 3 is D etc.

The period is an integer value and so the frequency of the note produced is not exactly the required frequency. The relative error is given in the tables below. This is calculated as follows:

Error = (Required frequency - Actual frequency) / Required frequency

Note	Frequency	Period		Error	Octave-3
C	32.703	3822	#0EEE	-0.007%	
C#	34.648	3608	#0E18	+0.007%	
D	36.708	3405	#0D4D	-0.007%	
D#	38.891	3214	#0C8E	-0.004%	
E	41.203	3034	#0BDA	+0.009%	
F	43.654	2863	#0B2F	-0.016%	
F#	46.249	2703	#0A8F	+0.009%	
G	48.999	2551	#09F7	-0.002%	
G#	51.913	2408	#0968	+0.005%	
A	55.000	2273	#08E1	+0.012%	
A#	58.270	2145	#0861	-0.008%	
B	61.735	2025	#07E9	+0.011%	

Note	Frequency	Period		Error	Octave-2
C	65.406	1911	#0777	-0.007%	
C#	69.296	1804	#070C	+0.007%	
D	73.416	1703	#06A7	+0.022%	
D#	77.782	1607	#0647	-0.004%	
E	82.407	1517	#05ED	+0.009%	
F	87.307	1432	#0598	+0.019%	
F#	92.499	1351	#0547	-0.028%	
G	97.999	1276	#04FC	+0.037%	
G#	103.826	1204	#04D4	+0.005%	
A	110.000	1136	#0470	-0.032%	
A#	116.541	1073	#0431	+0.039%	
B	123.471	1012	#03F4	-0.038%	

Note	Frequency	Period		Error	Octave -1
C	130.813	956	#03DC	+0.046%	
C#	138.591	902	#0386	+0.007%	
D	146.832	851	#0353	-0.037%	
D#	155.564	804	#0324	+0.058%	
E	164.814	758	#02F6	-0.057%	
F	174.614	716	#02CC	+0.019%	
F#	184.997	676	#02A4	+0.046%	
G	195.998	638	#027E	+0.037%	
G#	207.652	602	#025A	+0.005%	
A	220.000	568	#0238	-0.032%	
A#	233.082	536	#0218	-0.055%	
B	246.942	506	#01FA	-0.038%	

Note	Frequency	Period		Error	Octave 0
C	261.626	478	#01DE	+0.046%	Middle C
C#	277.183	451	#01C3	+0.007%	
D	293.665	426	#01AA	+0.081%	
D#	311.127	402	#0192	+0.058%	
E	329.628	379	#017B	-0.057%	
F	349.228	358	#0166	+0.019%	
F#	369.994	338	#0152	+0.046%	
G	391.995	319	#013F	+0.037%	
G#	415.305	301	#012D	+0.005%	
A	440.000	284	#011C	-0.032%	International A
A#	466.164	268	#010C	-0.055%	
B	493.883	253	#00FD	-0.038%	

Note	Frequency	Period		Error	Octave 1
C	523.251	239	#00EF	+0.046%	
C#	554.365	225	#00E1	-0.215%	
D	587.330	213	#00D5	+0.081%	
D#	622.254	201	#00C9	+0.058%	
E	659.255	190	#00BE	+0.206%	
F	698.457	179	#00B3	+0.019%	
F#	739.989	169	#00A9	+0.046%	
G	783.991	159	#009F	-0.277%	
G#	830.609	150	#0096	-0.328%	
A	880.000	142	#008E	-0.032%	
A#	932.328	134	#0086	-0.055%	
B	987.767	127	#007F	+0.356%	

Note	Frequency	Period		Error	Octave 2
C	1046.502	119	#0077	-0.374%	
C#	1108.731	113	#0071	+0.229%	
D	1174.659	106	#006A	-0.390%	
D#	1244.508	100	#0064	-0.441%	
E	1318.510	95	#005F	+0.206%	
F	1396.913	89	#0059	-0.543%	
F#	1479.978	84	#0054	-0.548%	
G	1567.982	80	#0050	+0.350%	
G#	1661.219	75	#004B	-0.328%	
A	1760.000	71	#0047	-0.032%	
A#	1864.655	67	#0043	-0.055%	
B	1975.533	63	#003F	-0.435%	

Note	Frequency	Period		Error	Octave 3
C	2093.004	60	#003C	+0.462%	
C#	2217.461	56	#0038	-0.662%	
D	2349.318	53	#0035	-0.390%	
D#	2489.016	50	#0032	-0.441%	
E	2637.021	47	#002F	-0.855%	
F	2793.826	45	#002D	+0.574%	
F#	2959.955	42	#002A	-0.548%	
G	3135.963	40	#0028	+0.350%	
G#	3322.438	38	#0026	+0.992%	
A	3520.000	36	#0024	+1.357%	
A#	3729.310	34	#0022	+1.417%	
B	3951.066	32	#0020	+1.134%	

Note	Frequency	Period		Error	Octave 4
C	4186.009	30	#001E	+0.462%	
C#	4434.922	28	#001C	-0.662%	
D	4698.636	27	#001B	+0.469%	
D#	4978.032	25	#0019	+0.441%	
E	5274.041	24	#0018	+0.246%	
F	5587.652	22	#0016	-0.685%	
F#	5919.911	21	#0015	-0.548%	
G	6271.927	20	#0014	+0.350%	
G#	6644.875	19	#0013	+0.992%	
A	7040.000	18	#0012	+1.357%	
A#	7458.621	17	#0011	+1.417%	
B	7902.133	16	#0010	+1.134%	

The notes in the scale of C major are given in a slightly more digestible form below.