

The Overtone Table

Explanations: see below

note	frequency	overtone No.	ot.-deviation (cent)	fundamental note																				
				A ₂	B ₂	C ₁	D ₁	E ₁	F ₁	G ₁	A ₁	B ₁	C	D	E	F	G	A	B	c	d	e	f	g
A ₂	27,50	0	0	x																				
	29,14			x																				
B ₂	30,87				x																			
C ₁	32,70					x																		
	34,65						x																	
D ₁	36,71							x																
	38,89								x															
E ₁	41,20									x														
F ₁	43,65										x													
	46,25											x												
G ₁	49,00												x											
	51,91													x										
A ₁	55,00	1	0	x																				
	58,27			x																				
B ₁	61,74				x																			
C	65,41					x																		
	69,30						x																	
D	73,42							x																
	77,78								x															
E	82,41	2	2	x																				
F	87,31				x																			
	92,50					x																		
G	98,00						x																	
	103,8							x																
A	110,0	3	0	o																				
	116,5			o																				
B	123,5				o																			
c	130,8					o																		
	138,6	4	-14	x			o																	
d	146,8				x			o																
	155,6					x			o															
e	164,8	5	2	x					o															
f	174,6				x					o														
	185,0					x					o													
g	196,0	6	-31	x							o													
	207,7				x							o												
a	220,0	7	0	o	x																			
	233,1			o		x																		
b	246,9	8	4	x		o																		
	261,6			x			o																	
c ¹	261,6			x		o																		
	277,2	9	-14	x				o																
d ¹	293,7			x					o															
	311,1	10	-49	x						o														
e ¹	329,6	11	2	o	x																			
f ¹	349,2	12	41	x	o	x																		
	370,0			x	o	x																		
g ¹	392,0	13	-31	x		o																		
	415,3	14	-12	x			o																	
a ¹	440,0	15	0	o	x																			
	466,2	16	5	x	o	x																		
b ¹	493,9	17	4	x	x	o																		
c ²	523,3	18	-2	x	x	x	o																	
	554,4	19	-14	o	x																			
d ²	587,3	20	-29	x	o	x																		
	622,3	22	28	x	x	o	x																	
e ²	659,3	23	2	x	x	x	o																	
f ²	698,5	24	-27	o	x																			
	740,0	26	6	x	o	x																		
g ²	784,0	28	30	x	x	o	x																	
	830,6	29	-12	x	x	x	o																	
a ²	880,0	31	0	o	x																			
	932,3	33	5	x	o	x																		
b ²	987,8	35	4	x	x	o																		
c ³	1047	37	-2	o	x																			
	1109	39	-14	o	x	x																		
d ³	1175	42	12	x	o	x																		
	1245	44	-10	x	x	o																		
e ³	1319	47	2	x	x	x	o																	
f ³	1397	50	7	o	x																			
	1480	53	6	x	o	x																		
g ³	1568	56	-12	x	x	o																		
	1661	59	-12	x	x	x	o																	
a ³	1760	63	0	o	x																			
	1865	67	5	x	o	x																		
b ³	1976	71	4	x	x	o																		
c ⁴	2093	75	-2	x	x	x	o																	
	2217	80	8	o	x																			
d ⁴	2349	84	-9	x	o	x																		
	2489	90	9	x	x	o																		
e ⁴	2637	95	2	x	x	x	o																	
f ⁴	2794				x	x		o																
	2960					x			o															
g ⁴	3136						x			o														
	3322							x			o													
a ⁴	3520								x			o												

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The Overtone Table: Explanations

In the first column on the left side of the table the tones of the enharmonic scale are listed from A₂ (27,5 Hz) to a⁴ (3520 Hz). The scale is coloured like a keyboard: The tones of the C major scale are white, the others grey. The presented range is supposed to include all the fundamental notes and the playable range of overtones of jew's harps. The playable range of overtones/resonances is indicated by a **dark red** frame (about 250 to 2000 Hz). Next to the tones, in the second column, the corresponding frequencies (Hz) are listed.

In the third row the fundamental note A₂ (27,5 Hz) and its overtones are marked and numbered. Next to the numbers the deviation from the respective enharmonic tone is given (cent). Negative deviations indicate that the overtone is lower than the enharmonic tone.

In the first row on top of the table the possible fundamental tones played by the reeds of different jew's harps are listed, again coloured like a keyboard. The range where the fundamentals of most jew's harps are found is marked by a **green** frame. If you follow the column beneath one fundamental tone downwards, you meet a first cross (x). It is in the row right of the same tone, marking the fundamental note. Further downwards each overtone is marked. The crosses are always in the row of the respective enharmonic tone. To the left of the cross you find the tone and its frequency. In this way the overtones of a certain jew's harp and its fundamental tone are marked as crosses in the enharmonic scale. You can play all the marked overtones that are in the frequency range of the resonance of the oral cavity.

To read the number of a marked overtone and its deviation from the enharmonic scale, you have to go diagonally upwards and left, to reach the respective overtone of the first harmonic row (A₂), where the numbers and deviations are listed. These numbers and deviations are valid for all successive overtone series. To make it more easy to follow the diagonal, every fourth cross is replaced by a circle (o). The fundamental tone and its octaves are marked **red**.