

### 3 1/2 inch Steel EMT Chime Length Calculator for the C-9 Chord (C E G B<sup>b</sup> D) Inches version A-440 For a Tube or Rod unrestricted at both ends

To determine the resonant frequency for a rod set the ID=0 and enter the OD and Metal Type

**Enter values in BLUE, answers in ORANGE (inches) and in YELLOW (mm)**

<b>OD inches =</b> <span style="color: blue;">4.000</span>		<b>ID inches =</b> <span style="color: blue;">3.834</span>		<b>Metal =</b> <span style="color: blue;">Aluminum</span> < Click to Select							
<b>Wall = 0.083 inches</b>		Length calculated for fundamental F Hang Point is for fundamental F node									
Note	Freq Hz	Length inches	Hang Point	Length mm	Hang Point	Note	Freq Hz	Length inches	Hang Point	Length mm	Hang Point
C1	32.70	173 1/16	38 13/16	4395.8	985.5	C5	523.30	43 1/4	9 11/16	1,098.6	246.3
E	41.21	154 3/16	34 9/16	3916.4	878.0	E	659.30	38 9/16	8 5/8	979.5	219.6
G	49.00	141 3/8	31 11/16	3590.9	805.1	G	784.00	35 3/8	7 15/16	898.5	201.4
A <sup>#</sup> /B <sup>b</sup>	58.30	129 5/8	29 1/16	3292.5	738.2	A <sup>#</sup> /B <sup>b</sup>	932.30	32 7/16	7 1/4	823.9	184.7
D2	73.41	115 1/2	25 7/8	2933.7	657.7	D6	1,174.61	28 7/8	6 1/2	733.4	164.4
Total feet =		59.5	Total cm=	1812.9		Total feet required		14.9	Total cm=	453.4	
C2	65.40	122 3/8	27 7/16	3108.3	696.9	C6	1,046.50	30 9/16	6 7/8	776.3	174.0
E	82.40	109	24 7/16	2768.6	620.7	E	1,318.50	27 1/4	6 1/8	692.2	155.2
G	98.01	99 15/16	22 3/8	2538.4	569.1	G	1,568.00	25	5 5/8	635.0	142.4
A <sup>#</sup> /B <sup>b</sup>	116.50	91 11/16	20 9/16	2328.9	522.1	A <sup>#</sup> /B <sup>b</sup>	1,864.60	22 15/16	5 1/8	582.6	130.6
D3	146.80	81 11/16	18 5/16	2074.9	465.2	D7	2,349.20	20 7/16	4 9/16	519.1	116.4
Total feet required		42.1	Total cm=	1281.9		Total feet required		10.5	Total cm=	320.5	
C3	130.81	86 1/2	19 3/8	2197.1	492.6	C7	2,093.00	21 5/8	4 7/8	549.3	123.1
E	164.80	77 1/16	17 1/4	1957.4	438.8	E	2,637.00	19 1/4	4 5/16	489.0	109.6
G	196.00	70 11/16	15 7/8	1795.5	402.5	G	3,136.00	17 11/16	3 15/16	449.3	100.7
A <sup>#</sup> /B <sup>b</sup>	233.10	64 13/16	14 1/2	1646.2	369.1	A <sup>#</sup> /B <sup>b</sup>	3,729.20	16 3/16	3 5/8	411.2	92.2
D4	293.70	57 3/4	12 15/16	1466.9	328.9	D8	4,698.40	14 7/16	3 1/4	366.7	82.2
Total feet required		29.7	Total cm=	906.3		Total feet required		7.4	Total cm=	226.5	
C4	261.60	61 3/16	13 11/16	1554.2	348.4						
E	329.61	54 1/2	12 1/4	1384.3	310.4						
G	392.00	50	11 3/16	1270.0	284.7						
A <sup>#</sup> /B <sup>b</sup>	466.20	45 13/16	10 1/4	1163.6	260.9						
D5	587.30	40 13/16	9 1/8	1036.6	232.4						
Total feet required		21.0	Total cm=	640.9							
<b>Calculate Length or Frequency for ID &amp; OD entered above</b>											
Enter F=	<span style="color: blue;">220.00</span>	66 3/4	14 15/16	1695.5	380.1	<b>Convert</b>	<span style="color: blue;">2.000</span>	inches to	50.8	mm	
		Enter L ↓					<span style="color: blue;">60</span>	mm to	2 3/8	inches	
F=	2106.48	<span style="color: blue;">21 9/16</span>	4 13/16	547.7	122.8	<a href="https://leehite.org/Chimes.htm">https://leehite.org/Chimes.htm</a>					