Trumpet Tuning Chart

Equal Tempered Frequencies

Piano Key	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Musical NOTE	E3	F3	#b	G3	#b	A3	#b	B3	C4	#b	D4	#b	E4	F4	#b	G4	#b	A4	#b	B4	C5	#b	D5	#b	E5	F5	#b	G5	#b
ET Frequency (Hz)	164.81	174.61	185.00	196.00	207.65	220.00	233.08	246.94	261.83	277.18	293.67	311.13	329.63	349.23	369.99	392.00	415.30	440.00	466.16	493.88	523.25	554.37	587.33	622.25	659.26	698.46	739.99	783.99	830.61
		^				^			**Mid C**				^			^		**A**		^			^			^			

Bflat Cornet/Trumpet – ET Note Frequencies

							2nd							**3rd**					**4th**				**5th**			**6th**			**7th**
							116.15							116.93					121.17				111.13			132.15			
Open							233.08							349.23					466.16				587.33			698.46			830.61
Key 2						220.00							329.63					440.00				554.37			659.26			783.99	
Key 1					207.65							311.13					415.30				523.25			622.25			739.99		
Key 3				196.00							293.67					392.00				493.88			587.33			698.46			
Key 1,2				196.00							293.67					392.00				493.88			587.33			698.46			
Key 2,3			185.00							277.18					369.99				466.16			554.37			659.26				
Key 1,3		174.61							261.83					349.23				440.00			523.25			622.25					
Key 1,2,3	164.81							246.94					329.63				415.30			493.88			554.37						

Measured Harmonic Frequencies **03/12/2020** ***Cornet***

	2nd	**3rd**	**4th**	**5th**	**6th**	**7th**
Open						
Key 2						
Key 1						
Key 3						
Key 1,2						
Key 2,3						
Key 1,3						
Key 1,2,3						

Frequency variances

		2nd	**3rd**	**4th**	**5th**	**6th**	**7th**
Open	Hz						
	Cents						
Key 2	Hz						
	Cents						
Key 1	Hz						
	Cents						
Key 3	Hz						
	Cents						
Key 1,2	Hz						
	Cents						
Key 2,3	Hz						
	Cents						
Key 1,3	Hz						
	Cents						
Key 1,2,3	Hz						
	Cents						

This worksheet is intended for use in tuning a B flat trumpet or cornet. The lines at the top indicate the notes of the Chromatic scale within the range of the instrument. The carat symbols on the 4th line indicate the notes on the treble and bass clef lines. The first chart shows the "Equal Temper" frequency of the notes that are intended to be played by the trumpet for each fingering. (By "Equal Temper" is meant the ratio of the pitch for any two adjacent notes is a fixed constant.) The numbers between the harmonic headings shows the frequency differences for the notes. This should be the fundamental frequency for the instrument between each of the harmonics. For the B flat instrument, it should be 116.54 Hz.

As a "valved" instrument, each key introduces a length of tube that will adjust the "open pitch" by a fixed amount. Key 2 is intended to lower a note by a semitone, key 1 by 2 semitones and key 3 by 3 semitones. A "semitone" is the difference between adjacent notes in the chromatic scale.

The second chart can be used to record the measured frequency for each note played. As a measurement is recorded, the frequency difference between it and the intended note will be shown in the corresponding entry of the bottom chart. When two adjacent measurements are recorded on the same line, the difference between the two measurements will be shown in the area between them.

The slides of the instrument can be used to adjust the pitch of affected notes to try bringing them closer to the pitch of the intended notes.