

# Overtone Series Chart for BB $\flat$ Tuba

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The differences between compensating and non-compensating instruments on fourth-valve combinations are clearly indicated.

The chart displays the overtone series for a BB $\flat$  tuba across 12 valve combinations. The partials are labeled on the left:

- 12th Partial (Sharp--Lower Slightly)
- 11th Partial (Very Flat--Unusable)
- 10th Partial (Flat--Raise Slightly)
- 9th Partial (Sharp--Lower Slightly)
- 8th Partial (Normal)
- 7th Partial (Very Flat--Unusable)
- 6th Partial (Sharp--Lower Slightly)
- 5th Partial (Flat--Raise Slightly)
- 4th Partial (Normal)
- 3rd Partial (Sharp--Lower Slightly)
- 2nd Partial (Normal)
- Fundamental (Normal)

The valve combinations are indicated at the bottom of the chart:

- 0
- 2
- 1
- 1-2, 3
- 2-3
- 4
- 1-3, 1-2-3
- Non-Compensating: 1-2-4, 1-4
- Compensating: 1-2-4
- Non-Compensating: 2-3-4
- Compensating: 1-2-4
- Non-Compensating: 1-3-4
- Compensating: 2-3-4
- Non-Compensating: 1-2-3-4
- Compensating: 1-3-4
- Non-Compensating: (Not present on four-valve instruments. False tones only.)
- Compensating: 1-2-3-4