

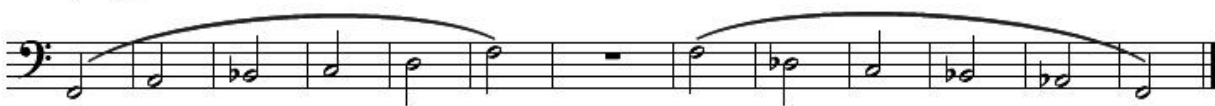
Drone Interval Warm-Up / Just Intonation Chart

The concept of Just Intonation helps us tune to others, so what the human ear hears is quite perfect between many instruments. Practice with a **drone** instead of a tuner. Look at the chart on the next page for reference. The numbers, +12 and such are really more meant for you to understand which way to bend the intonation of the note to be in tune(+=sharp, -=flat), and how far to go, rather than getting those exact numbers with the needle of a tuner, which is why a drone is much more helpful.

Drone Interval Warm-up


1. Turn on a drone on F. Make it louder than you when you play.
2. Focus on the drone and use the chart below to determine if the note needs to be lower or higher to be perfectly in tune with that F!

♩ = 50



M3	P4	P5	M6		m6	P5	P4	m3
-14	-2	+2	-16		+14	+2	-2	+16

♩ = 50



3. Try this in any key, or any octave!

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Just Intonation Chart

What IS Just Intonation?

In music, just intonation or pure intonation is the tuning musical intervals as whole number ratios of frequencies. Any interval tuned in this way is called a just interval.

Root/Tonic/Octave +/-0

minor second +12

Major second +4

minor third +16

Major third -14

Perfect fourth -2

Tritone -18

Perfect fifth +2

minor sixth +14

Major sixth -16

minor seventh -4

Major seventh -12

Chords of Just Intonation

All chords are based on root "C" which is "0" pitch.
+ or - is cents rounded to nearest whole number


Maj min dim Aug



Maj w/ add 6 min w/ add 6 dim w/ add 6 dom 7



Maj 7 min min 7 dom 7 #5 dim 7



min 7 b5 dom 7 b5 min Maj7 Maj 7 #5



dim Maj7 dom 7 w/ add 9 dom 7 w/ add #9 Maj 7 w/ add 9

