

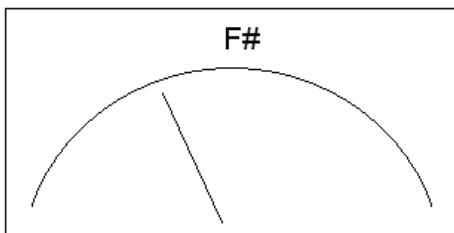
Reading Pitch from a Tuner

If you have never used an electronic tuner, let this exercise walk you through the basics. Doing so will make your first attempt to tune an instrument less confusing and avoid frustration.

You can buy a tuner at a music store or download one for your cell phone.

If the tuner has two modes, choose microphone. Apps don't have this choice, but tuner devices often have a switch labeled "vib/mic". Vibration is for instruments you can clamp on to, like stringed instruments and kalimbas. Mic gets the pitch from the air, and is used for reeds, woodwinds, marimba bars, and trumpets.

Turn on the tuner and hum a note. You will see a letter and an indicator that is either a needle or some colored lights acting like a needle. You may see a sign like this, # or this ♭ .



If your tuner uses this symbol #, called "sharp," the musical alphabet goes like this:

A A# B C C# D D# E F F# G G# A

If your tuner uses this symbol ♭, called "flat," the musical alphabet goes like this:

A B♭ B C D♭ D E♭ E F G♭ G A♭ A

Hum some different notes and watch the tuner tell you the name of the note you're making.

If you slide your voice up slowly, you will see the needle move to the right. When it gets all the way to the right, the name of the note will change and the needle will jump to the far left. Try this.

You see that pitch rises from left to right, both with the needle and on the musical alphabet above.

If the meter gives you a letter to the left of your target on the scale, you need to raise the pitch.

If the meter gives you a letter to the right of your target on the scale, you need to lower the pitch.

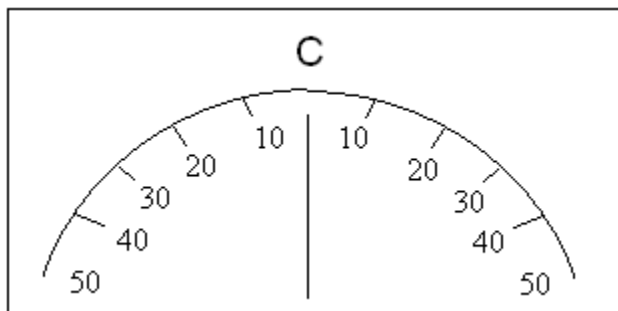
Likewise, if the needle is to the left of center, the pitch is a little low; if the needle is to the right, the pitch is a little high.

Now hum a C. To do this, hum a note, and if it's not a C, move your voice slowly up or down. You will see the letters change, moving to right along the scale if you're raising your pitch, to left if you're lowering it. Continue until you get a C.

If there is a #, that means you're on the note above C. Lower your voice until the C appears with no #.

Next, you will use the needle to tune your C exactly.

The distance between notes on the scale above is divided into 100 increments, called "cents." The meter shows 50 cents to the left of the pitch it is naming, and 50 cents to the right:



When you hum a C, the tuner will look like the one above.

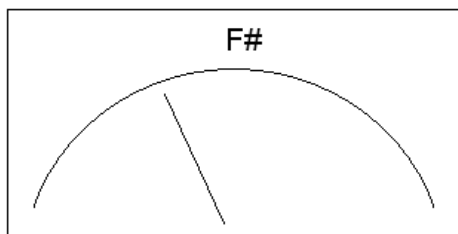
If your needle is slanting to left, raise your voice slightly.

If it slants to the right, lower your voice slightly.

When it looks like the picture above, congratulations! You have learned to use a tuner.

You might want to write down the name of a pitch. For example, if you're enlarging a hole or cutting down a marimba resonator bit by bit, you might be tempted to take bigger bits to get there faster. You need to know how much is safe. You can guess by how much it's been changing with each bit. So track the bits by writing them.

Suppose your meter looks like this:



That would be "F# -20¢", F sharp minus 20 cents.

If your target pitch is F#, you need to go up 20 cents, or 20/100ths of the distance between notes.

If your target pitch is F, you need to go down 80 cents, or 80/100ths of the distance between notes.

If you need to know the distance between two notes, you can subtract them as though they were dollars and cents.