

you charge if a pitch raise is required?" And, **"Can you do the fine tuning immediately after the pitch raise, or do you need to come back at a later date for the fine tuning?"** Some technicians may refer to the process of a pitch raise and a fine tuning as a "double tuning". Also, some prefer to come back later for the fine tuning so they can charge for two tuning visits.

If the piano technician charges by the hour (as I do) rather than by the job, **ask him how long it generally takes for a pitch raise and a fine tuning.** I have found that, except for rare cases, like the two pianos I mentioned above, a pitch raise and a fine tuning can be completed within an hour and a half.

Other questions to ask:

How much extra do you charge for driving longer distances to the job? (I charge \$2 a mile over 20 miles, shared proportionally if there are other customers serviced in the area on the same trip.)

Do you tune and service pianos full time? (If it is only part time or a hobby, they may charge less, but also may not be as competent.)

Are you authorized to collect sales tax in your state? (A legitimate business needs to register with the Department of Revenue in his state in order to collect and remit sales taxes for repair parts or other items sold. Avoid doing business with businesses that are not registered. If they cheat the state, maybe they will cheat you too!)

What training and experience do you have? (Typical training may include a piano tuning school, a correspondence course, or an apprenticeship.)

Are you a member of the Piano Technicians Guild or another such organization? If not, why not? If so, do you attend the meetings regularly? If not, why not? (PTG Meetings generally include discussion or training in technical aspects of the trade, thus helping members to stay abreast of the best techniques in tuning and repairing pianos. Regional and national conventions offer further, in-depth training opportunities. Members also receive a monthly journal in which tuning and repairing techniques are discussed. You may wish to see the PTG web page at: www.ptg.org.)

I hope this article has been helpful. Please feel free to contact me with any comments, questions, or to schedule a piano service appointment.

Thanks,

Wally Scherer, Phone: 561-432-4121

WHAT IS "PIANO TUNING"?

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Piano Technician/Music Educator

A FINE TUNE, 5020 Canal Dr., Lake Worth FL 33463

Phone: 561-432-4121

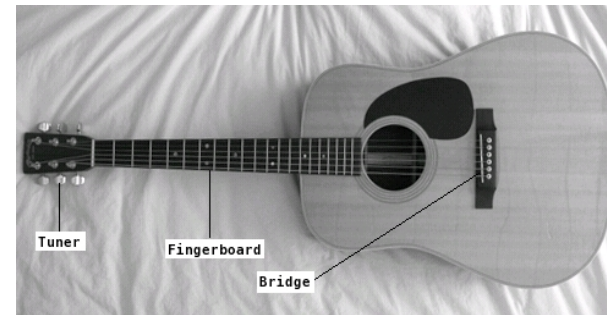
Web page: <http://aftune.angelfire.com>

I regularly receive phone calls from people asking me how much it costs to have a piano tuned. These calls usually come from people who have either recently acquired, or are about to acquire a used piano for the first time. Too often they are not aware of the process of piano tuning.

This article is prepared to help those people understand a bit more about piano tuning, and therefore enable them to ask more intelligent questions as they call to inquire about pricing.

As a frame of reference, picture a guitar:

A standard acoustic guitar will have six strings stretched from a point on the top surface of the body of the instrument, across a raised piece of material called a "bridge",



then up over the "fingerboard", finally terminating at a "tuner".

The six guitar strings are each of a different thickness. The thicker strings vibrate at a lower frequency, thus producing lower sounding notes, and the thinner strings produce higher sounding notes. Each tuner is turned to tighten or loosen its string tension until the correct pitch is acquired.

When guitar strings are new they have a lot of elasticity in them and must be tuned very frequently - sometimes every few minutes. As they remain under the tension of their tuning over several days or weeks, they will need less and less tuning, but still will probably need to be tuned before they are played each time.

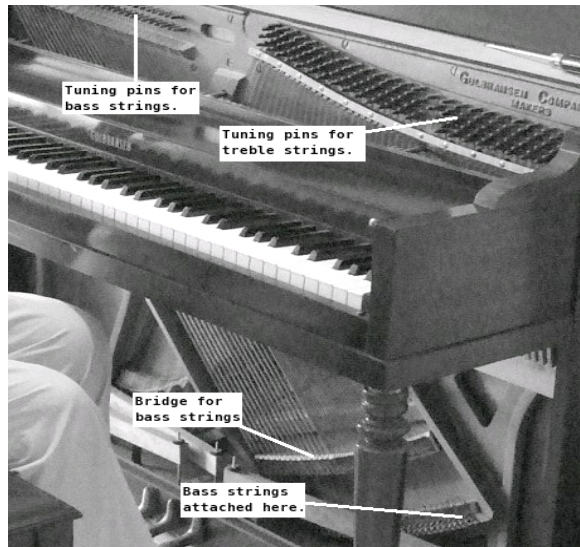
Learning how to tune a guitar should be one of the first lessons in playing a guitar. Since there are only six strings, the tuning process can usually be learned in a few minutes and mastered in a few days. With a good quality

guitar and normal hearing, the new guitar player should take less and less time to tune his guitar each time it is needed. For more information on guitar tuning and a diagram of more of its parts see:

www.howtotuneaguitar.org/lessons/the-guitar/guitar-diagram/

Now, back to the piano:

A standard acoustic piano, whether a vertical model or a grand, will have approximately 220 strings (actually high grade steel wires) which are stretched over a bridge and terminate at a tuning pin. As on the guitar, the thicker (bass) strings produce the lower notes and the thinner (treble) ones the higher notes. One difference from a guitar is that piano strings are of different lengths, with the thicker strings being longer and the thinner ones being shorter.



A special wrench (“tuning hammer”) is placed over the tuning pin and turned slightly to tighten or loosen the tension on each string until the correct pitch is obtained for that note. The basic procedure can be learned in a few weeks, but it takes a lot longer to master the process.

Like the guitar, newer strings must be tuned more frequently. Thus a newer piano will need more frequent tunings than an older piano. Normally a piano company will tune its pianos many times before it is shipped to the dealer. The dealer will have the piano tuned again in the store and perhaps offer a free tuning after the piano is delivered to the customer.

After that, it is the responsibility of the new piano owner to keep the piano tuned. Since the strings are still fairly new, the piano may need three or four tunings in the first year, tapering off to two a year for the next few years, then probably only once a year after the piano has aged about ten to fifteen years.

Many people buy pianos with the hopes that they will learn to play, but

then find out they are not willing to put in the time necessary to practice. They lose interest, and eventually the piano becomes simply a piece of furniture that needs an occasional dusting and polishing. Since no one plays it, they see no need to have it tuned anymore, thus the strings gradually lose their tension and the notes drop in pitch. After a few years the piano becomes terribly "out of tune".

Two customers in two different cities called me in the same week to have a piano tuned that they had recently acquired. Both pianos were of the same make and both were built in 1979. They had evidently received the initial free tuning from the dealer, **but that was all!** They were nearly a whole musical step flat in pitch. (The note "A" sounded more like a "G".) They each required about two hours of tuning work to get them to stay at the standard pitch.

What is a "pitch raise"?

When the tension on the piano strings drops to where the musical pitch is one half a step flat (The note "A" sounds like an "A flat".) we say the pitch is 100 cents (100%) flat. I have found that pianos that are around 20 years old will normally drop in pitch about three to five cents in a year. (Newer pianos will probably drop in pitch faster.) When the pitch has dropped overall by twelve cents or more, it should have a "pitch raise" before the fine tuning is done.

Let's assume the pitch of a string is twelve cents flat and I increase the tension to where it is at the correct pitch. In a matter of a few minutes the tension would decrease (sort of like a slow spring back) to make the pitch about four cents flat. In order to compensate for this drop, I must put an **additional** tension ("**stretch**" or "**overpull**") on the string. Thus when it loses some of the tension I put on it, it will drop down **to** the correct pitch rather than **below** the correct pitch. This process is called a **pitch raise**.

An experienced piano technician can do this pretty closely by ear. However, modern computerized tuning devices can calculate the amount of overpull needed for each string, helping the technician make the stretch adjustment more precisely.

Once the pitch raise is done, a fine tuning will make the final adjustment to each string. Pianos that have had a very large pitch raise will probably need another fine tuning within six months.

If you know that the piano has not been tuned in several years, tell the technician when you are getting his price, and ask him: "**How much more do**