

Piano Maintenance Guide

Flynn Pianos

Dear customer,

This short guide will give you a basic sense of what a piano needs to stay healthy and happy in your home, studio, or institution. This information has been gathered over the course of many decades in the piano service industry. The steps outlined are proven to be effective in maximizing the lifespan of the piano, keeping the tuning as stable as possible, and reducing the likelihood of any major damage being done to the moving parts, cast iron plate, soundboard, and case finish. For more information please visit our website at www.flynnpianos.com.

- **Fast Facts:**

- Keep your piano out of direct sunlight!
- Temperature and Humidity:
 - Summer: 70-75F, 50-60% RH
 - Winter: 55-65F, 30-35% RH
- Tuning Frequency:
 - One a year at minimum, twice a year for moderate frequency players, seasonally for higher end pianos or for frequent players.
- Fallboard: Leave the fallboard up unless necessary to prevent impact damage. Ivory keys need some indirect sunlight to stay white, they turn yellow when left covered. Plastic-covered keys also benefit from air circulation to prevent mold build-up on key sides.

- **Keep the temperature and humidity as steady as possible.** We live on a planet with wildly fluctuating temperatures, humidity levels, seasons, weather, and an ever-changing climate. In the summer we see temperatures vary wildly from the low to mid 60s F at night, to the upper 90s F during the day. Winter can see similar fluctuations, but are more influenced by our heating systems than they are by the sun. Humidity levels can also vary wildly between seasons, or even between days of the week depending on the weather. Ideally we would like to keep temperature and humidity as constant as possible, with as few peaks, valleys, fluctuations, or deviations as possible. For most people this is an impossible task. However, we can make significant headway in stabilizing the climate with a few simple and key steps:
- **Keep the piano out of direct sunlight!** Sunlight can fade, crack, or otherwise destroy the case finish of a piano, and fast. It will also increase the temperature of the room or anything that it touches significantly. Asphalt in direct sunlight, even on mild days, can reach temperatures of over 110F. A black piano in direct sunlight can be expected to reach similar temperatures on its surface. Not only will that bake the finish, fade the color, and risk cracking the veneer, it will also cause the tuning to shift, and you could

notice your piano going out of tune even after being tuned earlier that day. We cannot stress this enough. One does not need to black out the window. Simply install a sheer or semi-opaque curtain to dissipate the incoming sunlight. This will still allow light into the room while avoiding a majority of the sunlight's ill effects. When in doubt, cover the piano. A good piano cover will help to prevent any damage from the sun's rays, and will protect against various scratches and dings.

- **Keep your thermostat steady.** During the summer it's easy to follow the whims of nature in dictating how hot/cold it is in your house. For some it's non-negotiable for reasons that may be out of their control (aka budget). If you can, keep your thermostat in the same place day and night. Or, if you feel the need to keep the house colder at night, try to keep the temperature change within five degrees. We keep our showrooms at about 70-75F using air-conditioning during the summer and circa 65F during the winter.
- If you're away for longer than a week, we recommend keeping the temperature in your house above 55F. Never let the piano reach the freezing point, it will cause damage.
- **Humidify during the winter, dehumidify during the summer.** During the summer we would like to see humidity levels around 50% – and no higher than 60%. This will help to keep the pitch from rising, and to keep mold and rust from forming on or inside the piano. Humidity levels can get as high as 85-90% during the summer! During the winter, ideally humidity levels would be between 30-35%, sometimes a bit lower when it's brutally cold outside. The colder it is outside, the lower the relative humidity needs to be inside your home to keep condensation from forming on your windows and walls. This moisture can damage your house. Most home heating systems cause dangerously low humidity levels. The worst offenders are forced air heating systems and wood burning stoves which suck the surrounding air into the furnace. However, even the more tame baseboard radiators and radiant heating systems can still cause trouble. Here are the methods by which we recommend maintaining correct humidity levels:
 - **In-piano climate control systems (aka PianoSavers).** All of the pianos we sell come with an in-piano climate system (and a cloth undercover for grands). These systems are not cheap, costing \$450 to \$850 depending on the size of the piano. They work especially well in upright pianos (which have their own closed interior). These systems have a humidistat that automatically switches between humidification and dehumidification as needed, and require very little maintenance. Simply fill the water reservoir via a convenient hose when it asks for a drink with a flashing yellow light. This could be as infrequently as once a month during the summer, and once every 3-7 days during the winter. These systems are not for everyone. The user **MUST** close grand piano tops and flaps when not in use (feel free to leave the key cover open, which is especially recommended for pianos with ivory keys). For piano owners who like to leave their grand pianos on display with the lid open, this is not the system for you. These systems are compatible with nearly every vertical piano, although some

smaller models don't have enough space inside the body to accommodate the reservoir. If your house has forced air, please read the following sections before purchasing an in-piano climate system.

- **HVAC or Forced air climate control.** In situations where a piano owner has a grand piano and a forced air heating system, one might install a humidifier directly into the HVAC or forced air system that can be controlled by the homeowner. These may cost \$1-2K, but are the best way to control room humidity. This will allow the piano owner to keep the lid open at all times without worry (although it will still get dirty inside). These systems can also be fitted with a dehumidifier, which is good during the humid summer months. Air conditioning systems do a bit of dehumidification, but it isn't their primary purpose, and thus may fail to remove enough moisture from the air to be effective during the most humid months.
- **Standalone room humidifiers.** If a piano owner has baseboard, radiant floor heating, or a similar system it may be enough to simply use a dedicated unit to humidify the room during the winter. These cost around \$150, are easy to use and maintain, and are effective. They work best in rooms that can be sectioned off from the rest of the house, but some models can humidify an entire floor of a house. **DO NOT BUY A VAPORIZING HUMIDIFIER.** If you have a humidifier that sends out a small stream of vapor, get rid of it. It will damage your floors, encourage mold growth, and leave sediment from your water on whatever surface you leave it on. Instead, look for the term **Evaporative Humidifier**. These will do just as their name suggests, evaporate water into the air. These are beneficial for nearly everyone, regardless of whether you own a piano or not. They will also keep instruments like guitars or other string or woodwind instruments happy. Large ones with dual fans are quiet at low speeds. (We recommend against using a standalone humidifier in combination with a forced air heating system. The forced air system will cancel out any humidification the humidifier could churn out).
- **Standalone dehumidifiers.** Unfortunately, standalone dehumidification units are a bit challenging to live with. They are noisy, generate lots of heat, and require daily removal of the collected water, unless it's pumped to a drain. Window A/C units will do some dehumidification, and can help to keep temperatures stable, but as noted above, dehumidification is not their primary function. So they may not eliminate sufficient moisture from the air.
- **Hydrometer/Hygrometer.** This is a necessity. A simple battery powered digital hydrometer should be kept near the piano. Some more expensive models can record humidity and temperature levels over time, and can even give information to your phone in real time. However, we recommend a simple digital unit. We strongly advise against using older or cheaper coil based thermometers and

hydrometers/hygrometers. They are often wildly inaccurate, sometimes being as far as 10-20% off.

- **General and cosmetic care.** It's fairly simple to maintain the look of your piano. Besides avoiding direct sunlight, put nothing on the piano except sheet music, try to keep handbags, clothing with zippers, buckles, or any other sharp objects away from the piano. Every piano will get dings and dents throughout its life, even just using the piano as intended. Paper will scratch the finish, as will our fingernails. On older grands you will find gouge marks in the fallboard (key cover) where frequent use has taken its toll. Wash your hands before playing the piano. This will help to reduce the amount of body soil, dead skin, and oils that collect on the keys. It will also help to keep viruses from spreading through your household. Never place objects directly on the piano, especially not objects containing water. All plant containers are porous, and will damage your piano. Do not place plants or their containers on your piano. Do not place water glasses on your piano. Do not place any beverage containers on your piano. Do not place food on your piano. Do not eat at the piano. This will encourage mice, ants, and other pests to make their home inside your piano.
 - **Cleaning the case.** To clean the case of your piano we recommend using a dry cotton or microfiber cloth. If you need to remove fingerprints from a finish you can use a very lightly damp cloth with a very small amount of dish soap followed immediately by a dry cloth. If your piano finish is flaking or otherwise damaged do not use any liquids to clean your piano. They will penetrate via the cracks.
 - **Get a piano cover.** A good piano cover will go a long way to protect the finish of your piano, especially if you have pets that like to jump on things. For cat owners, a thick quilted piano cover is a must-have.
 - **Cleaning the keys.** Piano keys can be very delicate, especially if they are made of ivory, and cleaning them can often result in the thin layer of veneer popping off or otherwise breaking. An easy way to tell if you have ivory keys is to get up close and look for what seems to be wood grain or finger print pattern. If you can't see any wood grain or seams where the two pieces of ivory would meet, you likely have plastic keys. Plastic keys can be damaged or fall off as well, so it's important to be careful when removing dirt and debris regardless of the material. There is also the matter of cleaning the ebony keys. Some less expensive piano models use black plastic instead of wood. It's a bit tougher to tell the difference, but a close look may reveal some wood grain or streaks of brown or gray. Ebony wood is not fully black. Piano makers worked around this by dyeing the wood black with various types of stain. If the finish or sealant on the black keys is worn off that stain can come off on your fingers, or worse, on the ivory keys. To avoid this, only clean the piano keys with a slightly damp cloth. Alcohol or other cleaning products can thin the stain and cause it to run easier. If you are absolutely positive that you have plastic keys and that your black keys are properly sealed, it should

be safe to use a non-bleach household disinfectant wipe that has been wrung out to remove excess moisture. The cleaning process goes as follows: Take the slightly damp cloth or disinfectant wipe and pull from the back of the key towards the front of the key. Check the cloth often for stain or dye from the black keys. Brown or yellow is normal. This is our dead skin cells, oils, and other residue from our hands. Black is stain. If you find black on the cloth, move to a clean part of the cloth and resume, cleaning the white keys first, and then the black keys separately by depressing the white keys with one hand and gently cleaning the tops of the black keys with the other. Do not clean the keys from side to side or up and down the keyboard, you risk breaking off key tops, white and black.

- **Pests.** Pianos are prime real estate for mice. It's almost inevitable that they will find a way inside your piano and will attempt to make a home. We often find fiberglass insulation, cannibalized piano felt, seeds, seed shells, cat or dog food, cereal, grains, and the obvious waste products of a mouse infestation inside and around pianos. To prevent this we recommend:
 - **Hire a professional.** Have a professional pest prevention service install mouse barriers along your house's exterior. This will do significant work in preventing mice from entering your home in the first place. Keep your doors and windows sealed, and make sure there are effective screens in the windows you want to use.
 - **Keep your food stored in mouse-proof containers.** Mice set up camp where they have easy access to food. The only reason why they might choose a piano is because they know there is a food source nearby and a safe place to store it..
 - **Close off any obvious holes on the underside of the piano.** Ask your tuner or technician to make sure there aren't any gateways inside the piano. Sometimes it may be impossible to actually close off every avenue of entry, like in the case of a grand piano where the top is wide open. However, it may be possible to seal off an upright. It all depends on the piano.
 - **Trap & deter.** There are no guaranteed mouse repellent products on the market. Mice are resilient pests, which is why they've managed to inhabit every part of the world. Once you've managed to seal off your house and properly stored all of your food, you need to trap any mice remaining in your house.
- **How often should I get my piano tuned?**
 - For some piano owners, once a year is fine. This is for the people who either don't play the piano at all, or have family over during the holidays and get the piano tuned in anticipation of a gathering. Unfortunately, most pianos aren't kept in stable climates, and thus the piano might need to be tuned twice in one visit to get it to concert pitch (A4 = 440hz). For those who play only occasionally, we recommend tuning every six months. For people who play every day we recommend seasonal tunings.
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