

## Automatic Humidity Control for Your Piano



# Today, Piano Life Saver Systems® protect over 850,000 pianos worldwide.



## How the Piano Life Saver Benefits You and Your Piano

- Permits the tuning to hold better between regular tunings;
- Minimizes the expansion and contraction of upright piano action parts which improves touch and keyboard control;
- Minimizes glue failure;
- Minimizes rust on strings and metal parts;
- Minimizes felt deterioration, reducing the harsh tones that come from flattened hammer felt in low humidity or the muffled tones from swollen hammer felt in high humidity;
- Protects the piano's investment value year after year.

#### THE PROBLEM

All wood shrinks and swells with humidity changes. Your piano is made, primarily, of wood.

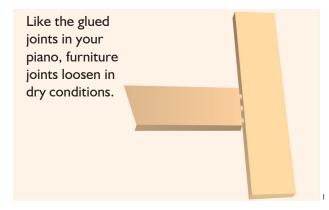
#### **RESULTS OF SHRINKING AND SWELLING**

**Pitch Instability.** Your piano must have stable pitch to hold a tuning well.

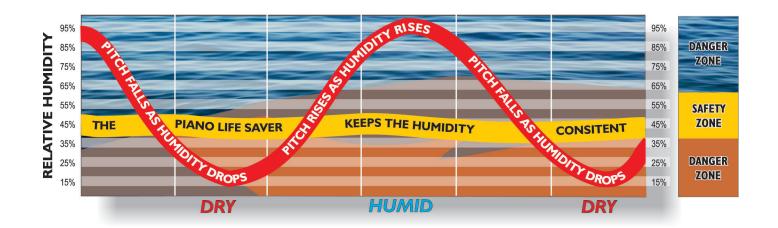
**Cracking and Splitting** of wooden piano parts, which brings costly repairs.

Glue Failure throughout the piano, which also brings costly repairs.





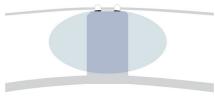
# The tuning can change drastically when your piano is exposed to humidity fluctuations.



▲ In Dry Conditions the Pitch becomes "FLAT."

▲ In Humid Conditions the Pitch becomes "SHARP."

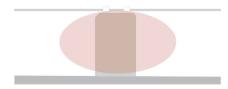
## The System prevents shrinking and swelling of the soundboard.



#### Moist Conditions

As the soundboard absorbs moisture from the air surrounding the

piano, it swells, producing an upward bulge. Through the bridge, this puts additional tension on the strings. Now, the pitch is too high (**sharp**) in the lower mid-range and extreme treble strings.

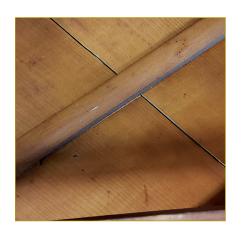


### **Dry Conditions**

When the soundboard shrinks and flattens, the tension of strings over the bridge becomes inadequate. The pitch of the mid-range and treble strings is now flat.

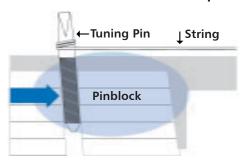
## Cracked Soundboard

Over time, constant changes in humidity levels, with the corresponding



shrinking and swelling of the soundboard, will damage the integrity of the soundboard. Initially you will see this damage in the form of a crack in the wood.

## The System minimizes tuning-pin movement . . . which also helps stabilize pitch.



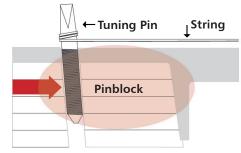
#### Moist Conditions

The strings of your piano are held tight by the pins in the pinblock. As the pinblock absorbs moisture in periods of high humidity, it swells, crushing the wood fibers against the pin.

### **Dry Conditions**

In dry periods, the wood shrinks away from the pin loosening it

and causing the string to sag. When this cycle is repeated time after time, the wood fibers surrounding the pin are destroyed and lose their resilience.





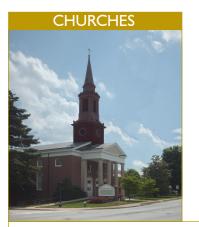
#### **Moist Conditions**

In the picture to left, this pinblock (without pins) was removed from a piano during restoration. With continuous swelling and shrinking, the wood could no longer provide the snug fit required to hold pins in place and, also, the wood cracked.

## The System provides substantial cost savings.

As explained on page 4, when the soundboard shrinks or swells, string tension becomes loose or tight. Radical changes in string tension forces the piano tuner to loosen or tighten the string incrementally over and over again before he/she can actually begin the fine tuning of the piano. This slow, laborious process of normalizing the string tension is called "pitch adjusting." With the Piano Life Saver installed in the piano, the piano tuner usually does not need to do a pitch adjustment before the fine tuning. This saves the piano tuner's time and saves you money with each tuning.

In addition to cost savings with each tuning, the System prevents humidity-related damage from occurring and prevents the need for many repairs that can be costly.





Pianos in Churches and Universities are constantly subjected to humidity extremes. Piano tuners in those settings rely on the System to avoid radical pitch adjustments (see information to left).

# The System improves keyboard control noticeably.



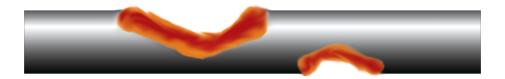
### Sticking Keys

Just as doors and drawers become tight with high humidity and loose in dry air, the keys of your piano may stick down when struck in times of high humidity. When the environment surrounding your piano is dry, the keys may seem to rattle when played.

#### Sluggish Action

As you play your piano, you will notice how responsive the keys are to your touch. The way the keys cause the wood hammers to strike the piano strings is part of thousands of interconnected wooden parts called the piano action. With high moisture levels in the piano action, the aciton is sluggish, and the kays seem non-responsive to your touch.

# The System prevents rust on metal parts from high humidity.



#### **Rusted Strings**

The strings of your piano are responsible for producing the musical sounds. With exposure to high humidity levels over long periods, strings become rusted and corroded.

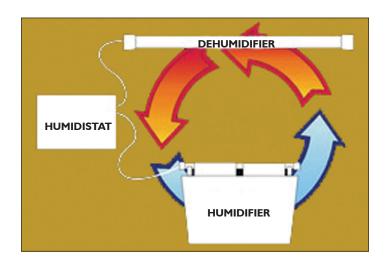
#### **Rusted Pins**

At the junction where rusted strings wrap around rusted pins, rust corrosion forms a hardened bond between the two. Then, during a tuning, when your piano technician turns the pins to stretch the strings, the inflexible, rusted string snaps at the joint.



## How the System works.





Through a cycling action, the Humidistat is calibrated to create a separate environment within the piano, producing a narrow range of average humidity. When the Humidistat, located less than an inch from your soundboard, senses that the humidity is at a low point, it turns the power on the Humidifier.

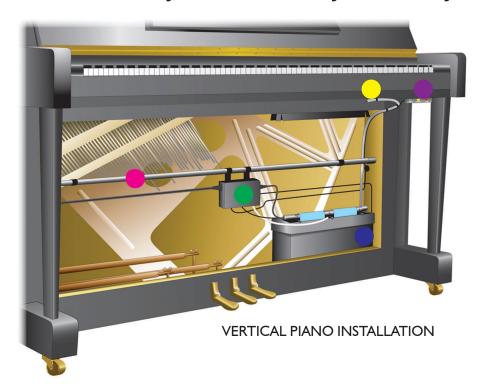
The PIANO LIFE SAVER SYSTEM comes with a watering system to allow you to keep the Humidifier supplied with water. Typically, you will need to add one gallon of water twice monthly.



Then, when the Humidifier has provided enough moisture to the soundboard, the Humidistat turns off the Humidifier and turns the power on the Dehumidifier.

The Dehumidifier carries away moisture from the soundboard on air currents until the Humidistat again senses that the humidity is low. The System again switches to the humidifying function. The cycle continues day after day, year after year, protecting your piano from external conditions.

# The PIANO LIFE SAVER SYSTEM works automatically and silently inside your piano.



#### The System

- Humidifier
- Dehumidifier
- Easy-Fill Watering Tube
- 3-Light Panel (Can be installed out of view)
- Humidistat

Each
PIANO LIFE SAVER SYSTEM
carries a limited

5-Year Warranty



Only a technician can be sure that each componment is located for optimal effectiveness and protection.

GRAND PIANO INSTALLATION (View from beneath the piano)

## The System compared with other methods.

	Portable "Room" Equipment	Piano Life Saver System
Electricity Used In 24 Hours	<b>II,760 Watts</b> Dehumidifier, covers 350 sq. ft.)	<b>996 Watts</b> Grand System
Noise Level and Appearance	Noisy, intrusive, unattractive, messy	Silent, installed out- of-view, not messy
Piano Owner Water Responsibility	You empty or fill reservoir every day	You fill reservoir twice a month.
Monitoring of Humidity	Requires daily monitoring with a Hygrometer	The System automatically monitors humidity
Mold Growth and Home Structural Damage	In cold weather, room humidifiers can drive moisture into walls, causing mold growth & structural damage	System does not cause mold growth or structural damage to your home.

#### Whole -House Air Conditioner

Air conditioners turn on and off to maintain a desirable temperature. When this temperature is achieved, the unit turns off, no matter what humidity level is achieved. In addition, most whole-house air conditioners are unable to reduce the relative humidity lower than 60%, which is outside the safe zone for pianos.

#### Whole -House Humidifier

Most furnace humidifiers have the same limitations as air conditioners: when the furnace has achieved the desired temperature, both the furnace and the humidifier turn off, no matter what humidity level is attained in individual rooms

THE TEST If your whole-house air conditioner and furnace humidifier are effectively keeping the humidity stable, the pitch of your piano will not go sharp or flat with weather changes.

### Piano Manufacturers



#### Baldwin

"Baldwin recommends the Dampp-Chaser system as a valuable means to help insure the longevity and stability of our pianos."

#### Bechstein

"In environments with fluctuating humidity, Dampp-Chaser Humidity Control Systems efficiently help to preserve the extroidinary tonal quality and investment value of Bechstein pianos."

#### Blüthner

"The Life Saver System certainly helps to control the humidity around a piano, helps to prevent damage and to maintain its value."

Christian Blüthner-Haessler

#### Bosendorfer

"The use of Dampp-Chaser humidity control systems effectively compensates climatic changes within the

piano's environment and is for that reason beneficial in terms of stability and long term reliability.

#### **Fazioli**

"Fazioli pianos are individually handcrafted combining high quality materials with the finest workmanship and technology. Despite our pianos are built according to strict standards in order to tolerate changes in tgemperature and humidity, we always remind our clients that it is much better to preserve the piano from severe climate conditions. For this reason we recommend the Piano Life Saver System in particular to protect the soundboard from the damaging effects of extreme humidity fluctuations."

#### Hailun

"A stable environment is necessary for the piano to be enjoyed and maintained to the highest level. We endorse the Piano Life Saver System from Dampp-Chaser for all our grand and upright pianos."

### Piano Manufacturers



#### Kawai

"Your Dampp-Chaser humidity control systems are the best and most carefully designed systems we have seen."

#### Mason & Hamlin

"The Piano Life Saver System should be included in the pianist's arsenal to combat damaging humidity extremes."

#### **Pearl River**

"Pearl River Piano Group USA believes that a properly installed and maintained Dampp-Chaser system can enhance the performance and longevity of our pianos."

#### Petrof

"Petrof company recommends the Dampp-Chaser System with Petrof pianos to enhance tuning and regulation stability, especially those pianos placed in areas that are subject to great air humidity changes or to extreme high or extreme low humidity evels. Without such a system, it is

very difficult to control the air humidity in the immediate vicinity of the piano." Zuzana Ceralovà Petrofavà

#### Sauter

"The Piano Life Saver helps to preserve the outstanding sound, fine touch and unique expressiveness of Sauter handcrafted pianos." *Ulrich Sauter* 

#### Schimmel

"The best way to preserve the value of fine grands and uprights is to automatically regulate the humidity right within the instrument...with a System from Dampp-Chaser Corporation." *Nicholas Schimmel* 

#### Seiler

"The Dampp-Chaser Climate Control System helps retain both the regulation and pitch of top quality instruments, thus stabilizing the tonal character inherent in a particular make or instrument as well as its long-term value. *Ursula Seiler* 

#### Piano Manufacturers



#### Steingraeber

"We use only fine natural wood and natural materials in the manufacture of Steingraeber pianos. The Dampp-Chaser System helps to avoid damage to our pianos in severe climatic conditions especially in overly-dry environments." *Udo Steingraeber* 

## Keyboard Manufacturers

### Kluge Klaviaturen GmbH

Remscheid, Germany www.kluge-klaviaturen.de

"Kluge Klaviaturen, foundedin 1876, is producing premium-quality keyboards for many of the world's leading piano manufacturers. Due to many experiences we contribute, that drastic humidity swings can damage the perfect easing of a keyboard and make it unresponsive to the touch. By controlling the wood's moisture content, the Piano Life Saver System brings more enjoyment to playing and helps preserve the instrument. Every fine piano deserves a System."

#### Aug. Laukhuff GmbH

WEIKERSHEIM, GERMANY WWW.LAUKHUFF.DE

"For over 100 years, renowned piano producers have trusted Laukhuff to create keyboards that allow the pianist exceptional keyboard control. By minimizing wood movement caused by humidity changes, we think that the Piano Life Saver helps to maintain the distinctive integrity of touch."



## Schools of Piano Technology

#### North Bennet Street School

Boston, Massachusetts

"The Piano Technology Department at NBSS has long been an avid supporter of humidity control for pianos. In our opinion, Dampp-Chaser offers the best way to shield pianos from the consequences of temperature and humidity fluctuation. The Piano Life Saver System provides the most practical, cost effective means available for protecting a sizeable investment. Hands-on system installation and maintenance continues to be an important part of our curriculum every year."

### Randy Potter School of Piano Technology

WWW.PIANOTUNING.COM

"Since launching our piano technology school in 1986, I have taught thousands of students in over 70 countries about the Piano Life Saver System's benefits.

"I have installed over 500 systems in my clients pianos, and recommend them for both new and older pianos. I always install complete systems with the Smart Bracket."

— Randi Potter, RPT

### University of Western Ontario Piano Technology Program

WWW.PIANOTECH.UWO.CA

"The University of Western Ontario in London, Canada experiences extreme swings of temperature and humidity due to its location in the Great Lakes region. Dampp-Chaser has made a great contribution to the stability of our instruments. Thirty Dampp-Chaser humidity Control systems were installed in piano faculty members' studios this past season, and it is remarkable how much more stable the pianos have become. Thank you Dampp-Chaser!"

#### Soundboard Manufacturers



#### Enrico Ciresa SRL

TECERO, ITALY
WWW.CIRESAFIEMME.IT

"The Ciresa soundboards, installed in the most famous pianos, are considered the best in the world for their quality and for their acoustic properties. The Ciresa Co. confirms that the Dampp-Chaser Piano Life Saver System contributes to the maintenance of the ideal moisture conditions of the piano. The achievement of the wood stability avoids damages, warpings and cracks of the soundboard, which is the weakest component (few milimetres thickness) of the wooden frame of the instrument"

#### Pianos André Bolduc

QUEBEC, CANADA WWW.PIANOBOLDUC.COM

"As Canadian manufacturer of high quality piano soundboards and pinblocks, we highly recommend the use of the Dampp-Chaser humidity control system in both new and vintage pianos. The system is conceived to compensate the climatic changes within the piano all year round. It guarantees stability and long term reliability, and protects your piano."

## Action Manufacturer

## Louis Renner GmbH & Co.KG

GÄRTRINGEN, GERMANY WWW.LOUISRENNER.COM

"Renner recommends the Piano Life Saver System to stabilize the piano's wood moisture content, enhancing both the sound and the instrument's longevity."

Enjoy your piano more and stop the deterioration now.

Order Your System Today!



MADE IN THE USA SINCE 1947

Dampp-Chaser Corporation, Hendersonville, NC, U.S.A.

www.PianoLifeSaver.com

