

The Organ of Trinity Ev. Lutheran Church in Kaukauna, Wisconsin, U.S.A. Aeolian-Skinner Organ Co., Opus 1234, 1953



Original Disposition, 1953

GREAT

Bourdon 8'
Prinzipal 4'
Spitzgedackt 4'
Sesquialtera II
Mixture III
Swell to Great 16'
Swell to Great 8'
Swell to Great 4'

SWELL

Rohrflöte 8'
Spitzgamba 8'
Gamba Celeste 8' (tc)
Blockflöte 4'
Octave 2'
Fagott 8'
Tremulant
Chimes
Swell 16
Swell Unison Off
Swell 4'

PEDAL

Subbass 16'
Gemshorn 8'
Choralbass 4'
Great to Pedal 8'
Swell to Pedal 8'
Swell to Pedal 4'

Crescendo

Restored by Letourneau, 2013

GREAT

Principal 8'
Bourdon 8'
Octave 4'
Spitzgedackt 4'
Waldflöte 2'
Sesquialtera II
Mixture III
Chimes
Swell to Great 16'
Swell to Great 8'
Swell to Great 4'

SWELL

Rohrflöte 8'
Spitzgamba 8'
Gamba Celeste 8' (tc)
Blockflöte 4'
Octave 2'
Fagott 8'
Tremulant
Chimes
Swell 16
Swell Unison Off
Swell 4'

PEDAL

Subbass 16'
Principal 8'
Gemshorn 8'
Choralbass 4'
Great to Pedal 8'
Swell to Pedal 8'
Swell to Pedal 4'

Crescendo

According to <http://aeolianskinner.organsociety.org/>, there are only nine Aeolian-Skinner organs in Wisconsin. One of the closest ones to me is Opus 1234 at Trinity Ev. Lutheran Church in Kaukauna. Opus 1234 is not a large organ, but it is large enough to display the concept of the American Classic Organ, a style that Aeolian-Skinner defined by much of its work under G. Donald Harrison. The console of Opus 1234 does not bear Harrison's signature plate, but it was built when Aeolian-Skinner was making their best known American Classics.

The organ shows that it was built for flexibility and versatility. The one reed, the Swell Fagott 8' is voiced so that it can work as an Oboe, a Cromorne or a Trumpet. With couplers, it can become a full 16', 8' and 4' reed chorus. Coupled to the Great, it gives the Great's clear plenum some fire. The strings are quite mellow. The flutes are distinct from one another. The 4' flutes display some delightful natural wind destabilization.

In the 2013 restoration by Letourneau, façade principals for the Pedal and Great divisions were added, along with a 2' Waldfloete on the Great. While the organ was versatile and complete before, the new principals give it some additional weight and power.



The Great chamber is on the right, the Swell is on the left. The Pedal Subbass and Choralbass are with the Great, The Principal and Gemshorn are with the Swell.



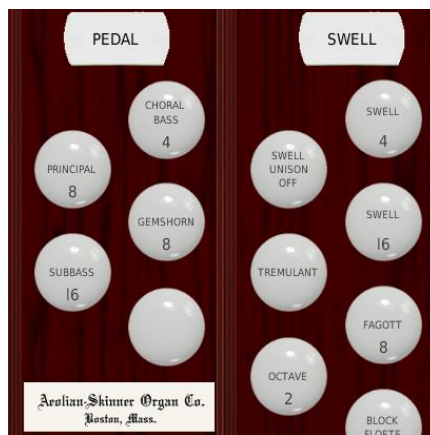
Opus 1234 has a well-built console that has all the characteristics of the larger and more famous Aeolian-Skinner organs. The combination pistons are very large, the stopknobs are porcelain, and the keycheeks are finished with a nicely carved scallop. The organ itself is just as much a work of art as the music that is played on it. Sitting at the console felt like sitting in a Lincoln or a Cadillac!

In the 2013 restoration, it looks like the only changes made to the console were some minor refinishing, the additions of the three stops, a computerized memory system, a MIDI player and a USB port for storage of files.

Skin



The skin is based on the jOrgan classic skin. Stops were modified to look like porcelain drawknobs. Other elements were made to resemble switches and controls on Aeolian-Skinner Opus 1234 in its present state. Elements that do not correspond to the real instrument are from the Stratman Master Skin.



Two skins are included, one for dual screens with three-dimensional representations of drawknob stops, and one for a single screen with a more two-dimensional representation of the stops.

Additional Controls

Reverb Controls

The virtual model has a switch for Fluidsynth reverb. The reverb is preset to be similar to the acoustics of Trinity Lutheran Church in Kaukauna. The standard controls for Fluidsynth reverberation are hidden behind the left coupler controls.

Since Fluidsynth reverb has its limitations, we recommend using a convolution reverb program with the Trinity Kaukauna impulse response, included in the folder “Reverb.”

Sound Effects

Sound Effects turns on sound effects synchronized to the stop and coupler action, the crescendo pedal, the swell and the blower (which is also activated by key graphic switch). Turning Sound Effects OFF disables all sound effects.

Melody Coupler / Auto Pedal

For those playing this virtual model with a single keyboard, we include the Melody Coupler and Auto Pedal. The Melody Coupler will couple the highest note played on the Great from the Swell to the Great (keys 60-96 C3-C6). The Auto Pedal will couple the lowest note played on the Great from the Pedal division to the Great (36-57 C1-A2).

Dynamic Wind Simulation

The Dynamic Wind Simulation Engine monitors key activity using jOrgan’s MIDI merger and has all key activity trigger an incrementer that uses a number of switch filters to vary the pitch, thus simulating wind behavior in a pipe organ. Faster play and increased polyphony bring the pitch down as far as -10c, and the pitch then recovers in a short time. Since the wind behavior in the original organ was quite stable, the Dynamic Wind Simulation is set to have a gradual pitch drop and a moderate speed pitch recovery. For the effect to work, all keyboards must be referenced to the jOrgan MIDI merger. An indicator in the “Dynamic Wind OFF/ON” switch shows the state of the pitch in the wind simulation.

Pitch Adjust

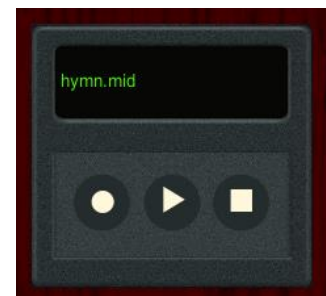
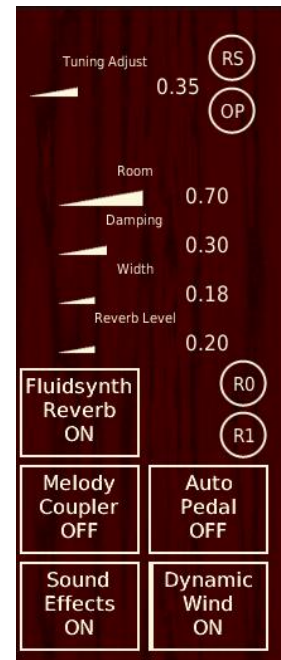
Pitch can be changed with the slider. Deviation from standard pitch (A = 440 Hz) is displayed in cents. “OP” is the setting for the original pitch of the organ, which is about 10c below standard pitch. The “0c” button resets the organ to standard pitch. With this feature, the organ can be tuned to other instruments on the fly.

Transposer

The transposer allows you to change the key of the music you are playing. The real instrument at present does not appear to have a transposer. This was added and is included with the memory and sequencer display.

Recorder

The recorder records a performance with a MIDI file, and can also play a performance back, along with registration and expression changes.



Sequencer and Memory

As on the real instrument, the jOrgan replica has a sequencer that activates the general combinations in order. This is an *endless* sequencer. When advanced after General Piston 6, it automatically advances the memory to the next level and returns to piston one. The sequencer can be activated with the white arrow up/down switches or with the black + and – pistons. The endless sequencer feature only works forward. Like the real organ, memory levels can be accessed by the up/down white arrows on the memory display, and an additional + can be customized to your console to advance the memory forward.



Soundfont Features

Samples are from the C, E, and G# notes of the organ. Other notes were sampled if the C, E or G# were not typical of the rank.

Samples were converted to mono and then given note by note stereo pan settings on the instrument level in the soundfont that approximate a spike arrangement in the Swell offset to the left, and a hollow arrangement in the Great offset to the right. The façade ranks (Pedal Principal and Great Principal) both have spike arrangements, the Pedal slightly to the left, the Great slightly to the right. In the real organ, the ranks have many arrangements. The left-right arrangements of the divisions should be the most obvious. All other stereo effects will be more subtle.

Releases are scaled for a “dry” sound that will need added reverb.

Recording and Processing Information

Organ was recorded March 3, 2016

Sounds recorded with a [TASCAM DR-07 MK II](#) digital recorder at 44,000 Hz

Processing done with [Audacity](#). Mild noise reduction done. Samples divided. Some attack trimming was done with [Wavosaur](#). A few samples were processed with [Spear](#) if specific noise removal was needed.

Soundfont built with [Polyphone](#). Samples looped in Polyphone. Additional equalization was done with Polyphone to reduce or remove all frequencies below the fundamental.

Analysis of Gamba Celeste and Spitzgamba samples for pitch

Spitzgamba samples were on average 10.06c below standard pitch. Celeste samples were on average 3.07c below standard pitch. The average difference between each celeste sample and each regular sample was 6.69c. The celeste did not seem to be tuned by the scaled method (designed to give an even pulse across the keyboard). The entire celeste rank is now tuned 7c above standard pitch (uniform method).

Thanks

Sounds from the Aeolian-Skinner organ (Opus 1234) in Trinity Ev. Lutheran Church in Kaukauna, Wisconsin, U. S. A. were recorded and are used in this virtual model with the kind permission of Trinity Ev. Lutheran Church.

Creative Commons
Attribution-NonCommercial-NoDerivatives 4.0 International License
for the virtual model of the Aeolian-Skinner organ (Opus 1234) in Trinity
Ev. Lutheran Church in Kaukauna

<http://creativecommons.org/licenses/by-nc-nd/4.0/>



This is a human-readable summary of (and not a substitute for) the [license](#).

[Disclaimer](#)

You are free to:

Share — copy and redistribute the material in any medium or format

The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:

Attribution — You must give [appropriate credit](#), provide a link to the license, and [indicate if changes were made](#). You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

NonCommercial — You may not use the material for [commercial purposes](#).

NoDerivatives — If you [remix, transform, or build upon](#) the material, you may not distribute the modified material.

No additional restrictions — You may not apply legal terms or [technological measures](#) that legally restrict others from doing anything the license permits.

Notices:

You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable [exception or limitation](#).

No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as [publicity, privacy, or moral rights](#) may limit how you use the material.

Exceptions:

Recordings of the classical organ literature or of Christian hymnody and organ literature based on Christian hymnody using this virtual organ are permitted as derivative works, and such recordings may be shared with attribution as described above.

Additional Information

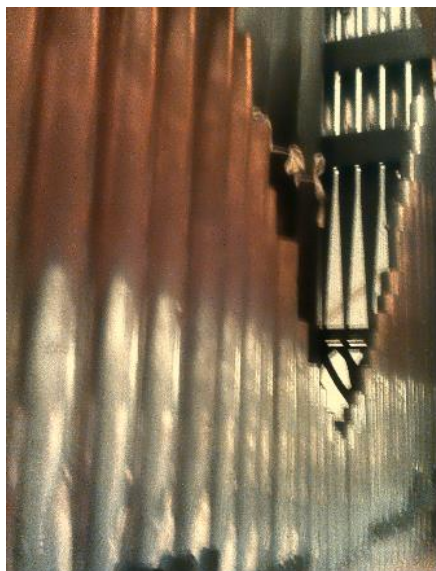
The Aeolian-Skinner Archives <http://aeolianskinner.organsociety.org/>

The Organ Historical Society <http://www.organsociety.org>

Letourneau Organs http://letourneauorgans.com/en/re13_kaukauna.php







Top left and right, inside the Great chamber. Bottom, inside the Swell (Fagott rank is in front).