USER MANUAL

PIANO V

ARTURIA®

YOUR EXPERIENCE • YOUR SOUND

Special Thanks

DIRECTION

Frédéric Brun
Kevin Molcard

DEVELOPMENT

Pierre Pfister (project manager)
Samuel Limier (lead)
Stefano D'Angelo
Baptiste Aubry
Corentin Comte
Matthieu Courouble
Raynald Dantigny
Baptiste Le Goff
Pierre-Lin Laneyrie
Valentin Lepetit
Germain Marzin
Mathieu Nocenti
Benjamin Renard

DESIGN

Glen Darcey
Morgan Perrier
Sebastien Rochard
Greg Vezon

SOUND DESIGN

Jean-Baptiste Arthus
Jean-Michel Blanchet
Glen Darcey
Marion Demeulemeester
Frank Lecomte
Valentin Lepetit
Victor Morello
Pierre Pfister
Vintage Synth Pads
(Impulse Responses)

MANUAL

Randy Lee
Tomoya Fukuchi
Léonard Sauget
Jason Valax

11 Chemin de la Dhuy
38240 Meylan
FRANCE
www.arturia.com

Product version: 2.0

Revision date: 29 November 2017

Special Messages

Specifications Subject to Change:

The information contained in this manual is believed to be correct at the time of printing. However, Arturia reserves the right to change or modify any of the specifications without notice or obligation to update the hardware that has been purchased.

IMPORTANT:

The software, when used in combination with an amplifier, headphones or speakers, may be able to produce sound levels that could cause permanent hearing loss. DO NOT operate for long periods of time at a high level or at a level that is uncomfortable.

If you encounter any hearing loss or ringing in the ears, you should consult an audiologist.

NOTICE:

Service charges incurred due to a lack of knowledge relating to how a function or feature works (when the software is operating as designed) are not covered by the manufacturer's warranty, and are therefore the owner's responsibility. Please study this manual carefully and consult your dealer before requesting service.

Table Of Contents

1. INTRODUCTION

We'd like to thank you for purchasing Piano V, our virtual acoustic piano. You now possess not one, but twelve authentic piano models, and you can carry all of them under your arm wherever you go! We are confident Piano V will become the foundation of many great tracks in your studio and the path to unforgettable moments on stage.

It is difficult to overstate the impact the piano has had upon the world of music. Nearly every church, every concert hall, every school, and untold millions of homes on every continent possess at least one piano, if not more. From the simplest of songs to the most complex of concertos, the piano has been the compositional tool, the compelling accompaniment, and the soaring soloist for over four centuries.

We are certain Piano V will take you places you never dreamed you could go with a piano, both physically and creatively!

1.1. What is Piano V?

Piano V is the newest addition to our extensive family of virtual instruments. Not only have we faithfully modeled the sound and behavior of this essential instrument, we have taken it far beyond what a physical piano can do.

We conducted an extensive analysis of every component that makes the piano what it is, and with Piano V we allow you to combine these components into variations so subtle and so extreme as to bring the impossible to life.

Piano V runs both as a standalone instrument on Windows and macOS and as a plug-in in all major formats inside your DAW. It has easy MIDI learn functionality for hands-on control of most parameters, and as a plug-in also allows parameter automation for greater creative control.

1.2. History of the piano

The hammered dulcimer is probably one of the earliest ancestors of the piano. Its origins can be traced back to the Middle Ages, and it continues to be used in the modern era. However, its age-old limitations may have spurred the existence of the piano, due to an increasing demand for instruments that could play chords, not just the dulcimer's usual maximum of two notes at once.

Enter the harpsichord and the clavichord, each with its own strengths and weaknesses. The harpsichord allowed the user to play chords, but since its method of generating notes involved plucking a string with a quill when a key was pressed, it was not possible to control the dynamics of the notes. They always played at the same volume unless the player engaged a second set of strings by pulling a lever. All things taken together, the harpsichord was loud enough to be heard even in a large ensemble setting, but it was not able to be played with much subtlety.

The clavichord solved some of the problems faced by the dulcimer and harpsichord but had others of its own. It did allow the user to play multiple notes at once, and to play them dynamically (i.e., louder and softer), but the instrument was too quiet to be used in a concert setting.

And thus the stage was set for the arrival of a new instrument. First invented around the year 1700 by Bartolomeo Christofori, the *pianoforte* (literally, "soft loud") combined the best features of both the harpsichord and clavichord: it could be played with great sensitivity and intensity, with a tone and power that could hold its own in any musical ensemble.

The first pianofortes (*piano*, for short) were small by today's standards, having keyboards that spanned only 5 octaves. What's more, the sustain pedal mechanism was not available for a number of decades, itself going through multiple variations until the player was able to operate it by foot instead of by hand or with a knee.

Additional variations have included the number of pedals and their functions, the composition of the materials used for the hammers and strings, and the types of metal used for the soundboards.

But perhaps the most critical sonic development was the use of multiple strings for the higher notes. This idea also went through various stages until the piano arrived at its current configuration: one string per note in the bass, two per note in the middle, and three per note in the higher registers. The doubling and tripling of those strings keeps their notes from being overwhelmed by the bass notes.

1.3. The sound is always in style

The piano is rivalled perhaps only by the acoustic guitar as the instrument with the most direct connection between the musician and the music. One person, one instrument, no amplification: it is the perfect combination for personal expression and musical intimacy.

The only thing the guitar has in its favor over the piano is that you can take one with you anywhere and make just as much music in a forest as you can on the streets. But then again, with a laptop computer, a controller keyboard like the Arturia KeyStep, and Piano V, that advantage has been virtually eliminated.

The sound of a piano can be found in nearly any style of music. It is equally at home in living rooms and saloons, concert halls and jazz clubs, recording studios and cathedrals. A random sample of the music of Western culture would produce an eclectic list of piano-centric compositions such as:

- The Beatles: "Oh! Darling", "Hey Jude"
- Ludwig van Beethoven: "Moonlight Sonata", "Für Elise"
- Dave Brubeck: "Blue Rondo A La Turk"
- Ray Charles: "Georgia On My Mind", "Hit The Road, Jack"
- Steely Dan: "Aja"
- Earth, Wind & Fire: "After The Love Has Gone"
- Emerson, Lake & Palmer: "Karn Evil 9: Second Impression"
- George Gershwin: "Rhapsody in Blue"
- Scott Joplin: "Maple Leaf Rag"
- Jerry Lee Lewis: "Whole Lotta Shakin' Goin' On"
- Trent Reznor: "What If We Could?", "Hand Covers Bruise"
- Cat Stevens: "Morning Has Broken"

This diverse and influential group all have one thing in common: the piano.

1.4. To piano and beyond!

We've been relentless in our pursuit of the most accurate recreation of a piano that can be achieved in software. And we believe we have succeeded.

But as always, once we had harnessed the underlying power of the piano we knew we could also unleash that power in ways that are physically impossible. Everything from the composition of the hammers and their position, to the type of piano and its condition, to the number and placement of microphones, to the size of the room housing the piano, can be changed instantly and all at once.

Here's an overview of the features at your disposal:

- Twelve virtual piano models available, from traditional to unusual
- Two types: Upright and Grand
- Change every parameter instantly by selecting a new preset
- Instant access to tone-shaping features that normally require a technician to adjust:
    - Master tuning, detuning and stretch tuning
    - Hammer type and position, relative to the strings
    - Noise levels for the hammers, dampers, and pedals
    - Soundboard resonance
    - Velocity curve shaping and presets
- Lid position (open, slightly open, and closed)
- Placement, level, and panning of four microphones
- Independent left/right delay for each mic channel
- Stereo delay
- Compressor
- Multiple convolution reverb models
- 5-band Master EQ: 3 fully parametric bands plus high/low shelving

2. ACTIVATION & FIRST START

2.1. Register and Activate

Piano V works on computers equipped with Windows 7 or later and macOS 10.10 or later. You can use the stand-alone version or use Piano V as an Audio Units, AAX, VST2 or VST3 instrument.

Once Piano V has been installed, the next step is to register the software.

This is a simple process that involves a different software program: the Arturia Software Center.

2.1.1. The Arturia Software Center (ASC)

If you have not already installed the ASC, please go to this web page:

Arturia Updates & Manuals

Look for the Arturia Software Center at the top of the page, and then download the version of the installer that you need for your system (macOS or Windows).

Follow the installation instructions and then:

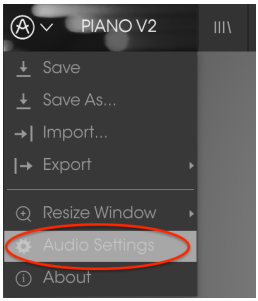
- Launch the Arturia Software Center (ASC)
- Log into your Arturia account
- Scroll down to the My Products section of the ASC
- Click the Activate button

That's all there is to it!

2.2. Initial setup

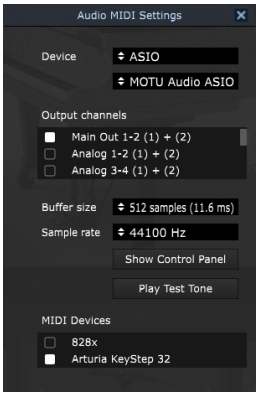
2.2.1. Audio and MIDI settings: Windows

At the top left of the Piano V application is a pull-down menu. It contains various setup options. Initially you will need to go to this menu and choose the Audio Settings option to get sound and MIDI flowing in and out.



Piano V main menu

You will then see the Audio MIDI settings window. This works in the same way on both Windows and macOS, although the names of the devices available to you will depend on the hardware you are using.



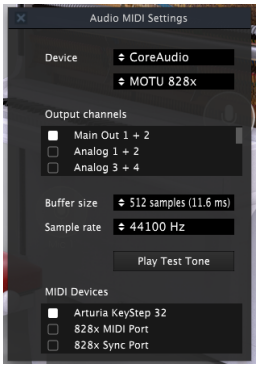
Audio and MIDI settings window (PC)

Starting from the top you have the following options:

- **Device** lets you choose which audio driver you want to use to route sound out of the instrument. This might be your computer's own driver like Windows Audio, or an ASIO driver. The name of your hardware interface may appear in this field.
- **Output Channels** lets you select which of the available outputs will be used to route audio out. If you only have two outputs, only two will appear as options. If you have more than two you can select a specific pair of outputs.
- The **Buffer Size** menu lets you select the size of the audio buffer your computer uses to calculate sound. A smaller buffer means lower latency between pressing a key and hearing the note. A larger buffer means a lower CPU load as the computer has more time to think, but can result in a small latency. Find the optimum buffer size for your system. A fast, modern computer should easily be able to operate at 256 or 128 sample buffer size without creating pops or clicks in the sound. If you are getting clicks, try raising the buffer a little. The latency is displayed on the right hand side of this menu.
- The **Sample Rate** menu lets you set the sample rate at which audio is sent out of the instrument. The options here will depend on the capability of your audio interface hardware though even most computers' own hardware can operate at up to 48kHz which is perfectly fine. Higher sample rates use more CPU power so unless you have a good reason to go up to 96kHz, then 44.1k or 48k is usually fine.
- The **Show Control Panel** button will jump to the system control panel for whatever audio device is selected.
- **Play Test Tone** helps you to troubleshoot audio issues by confirming whether sound can be heard through the correct device.
- Your connected MIDI devices will appear in the **MIDI Devices** area. Click the check box to accept MIDI from the device you want to use to trigger the instrument. In standalone mode, Piano V listens for all MIDI channels so there's no need to specify a channel. You can specify more than one MIDI device at once.

2.2.2. Audio and MIDI settings: macOS

The process is very similar to initial setup for Windows and the menu is accessed in the same way. The difference is that macOS uses CoreAudio to handle audio routing and the audio device selection is made in the second dropdown menu. Apart from that, the options work the same way as described in the Windows section.



OS X Audio and MIDI settings window (macOS)

2.2.3. Piano V as a plug-in

Piano V comes in VST, AU and AAX plug-in formats for use in all major DAW software such as Cubase, Logic, Pro Tools and so on. You can load it as a plug-in instrument and its interface and settings work the same way as in standalone mode, with a couple of differences.

- You can automate numerous parameters using your DAW's automation system.
- You can use more than one instance of Piano V in a DAW project. In standalone mode you can only use one at once.
- Any additional audio effects your DAW has available may be used to process the sound, including delay, chorus, filters, etc.
- You can route Piano V's audio outputs more creatively inside your DAW using the DAW's own audio routing system.

3. USER INTERFACE

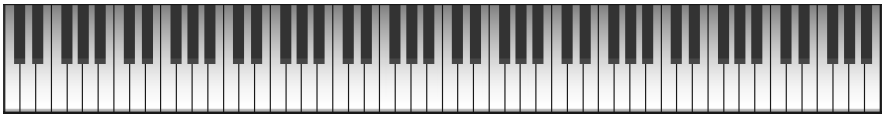
Piano V is packed with great features, and in this chapter we'll make sure you know what each one does. We think you'll be amazed by the huge range of sounds that can be made with this instrument.

And while Piano V is very flexible, there's nothing complicated about it. That will always be the main focus of every Arturia product: to unleash your creativity while remaining easy to use.

3.1. Virtual keyboard

The virtual keyboard allows you to play a sound without the need for an external MIDI device. Simply click on a virtual key to hear the currently selected sound. You can also drag the cursor across the keys to hear a glissando.

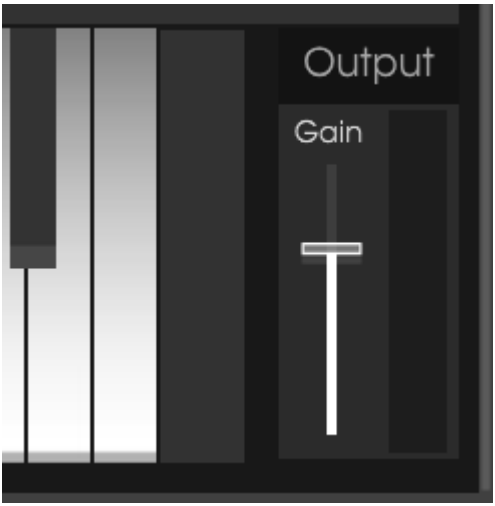
Clicking near the front edge of the key results in a higher velocity note; clicking near the back of the key produces a soft velocity.



The virtual keyboard of Piano V

3.2. Output Gain

To control the overall loudness of the selected preset, click this slider and drag it up or down. The minimum gain is -80 decibels (dB); the maximum gain is +12 dB.



The Output Gain control

!: Be careful: The gain can be boosted to the point of distorting the sound of the piano. It could not only ruin your music, it could ruin your speakers or your hearing. You may want to experiment with the compressor effect [p.55] to control the peaks of the loudest notes when adjusting the Output Gain.

3.3. The toolbar

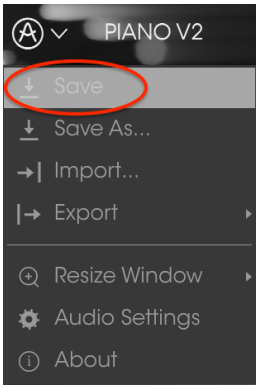
The toolbar that runs along the top edge of the instrument provides access to many useful features. Let's look at them in detail.

The first group of options can be found by clicking on the Piano V section at the top left hand corner of the instrument window.

We'll go through each of these functions in the following sections.

3.3.1. Save Preset

!: This option will overwrite the active preset with any changes you have made, so if you want to keep the source preset also, use the Save As option instead. See section Save Preset As... [p.14] for information about this.

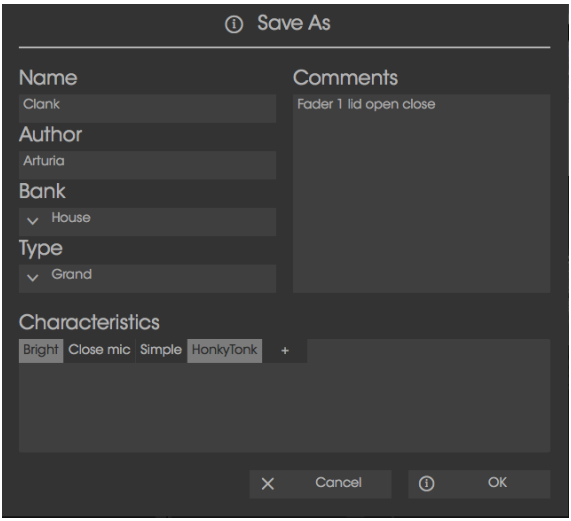


Save Preset

3.3.2. Save Preset As...

If you select this option you are presented with a window where you can enter information about the preset. In addition to naming it you can enter the Author name, select a Bank and Type, select tags that describe the sound, and even create your own Bank, Type, and Characteristics. This information can be read by the preset browser and is useful for searching the preset banks later.

You can also enter freeform text comments in the Comments field, which is handy for providing a more detailed description.

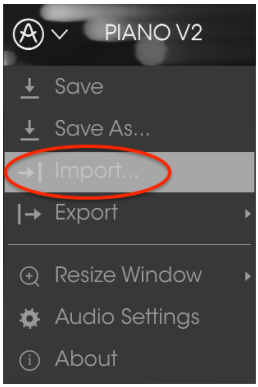


The Save As window

3.3.3. Import...

This command lets you import a file that was originally exported by Piano V. It can be either a single preset, an entire bank of presets, or a playlist. Presets are stored in the **.pianox** format, while playlists are given the extension **.playlist**.

After selecting this option the default path to these files will appear in the window, but you can navigate to whichever folder you prefer to use.



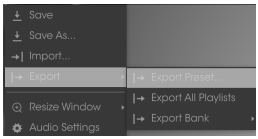
The Import Preset window

3.3.4. Export menu

The Export menu has several options for exporting files from Piano V, which enables you to share your sounds and playlists with other users. You could also use these options to transfer files to another computer.

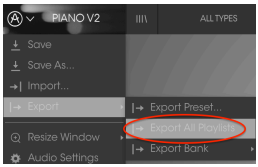
3.3.4.1. Export Preset

You can export and share a single preset using this command. The default path to these files will appear in the window, but you can create a folder at another location if you like.



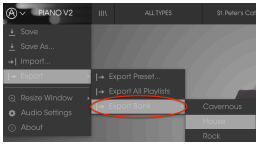
3.3.4.2. Export All Playlists

Playlists allow you to select which sounds to use for a particular gig or session. With this command you can export all of your playlists and import them into another computer that also has Piano V installed.



3.3.4.3. Export Bank

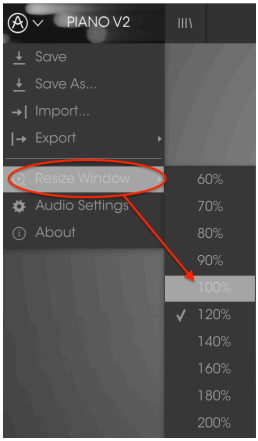
This option can be used to export an entire bank of sounds from the instrument, which is useful for backing up or sharing presets.



Selecting a Bank to export

3.3.5. Resize Window options

The Piano V window can be resized from 60% to 200% of its original size without any visual artifacts. On a smaller screen such as a laptop you might want to reduce the interface size so it doesn't dominate the display. On a larger screen or a second monitor you can increase the size to get a better view of the controls. The controls work the same at any zoom level but the smaller ones can be harder to see at the smaller magnification values.



The Resize Window menu

3.3.6. Audio Settings

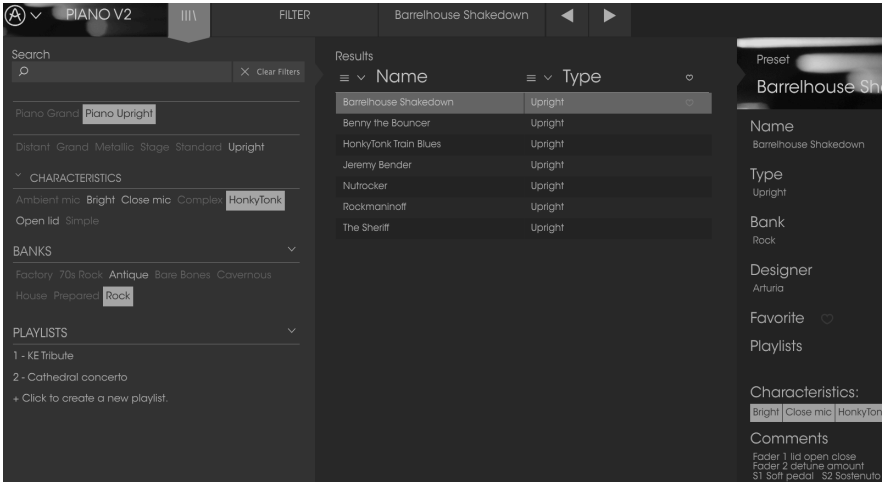
Here you manage the way the instrument transmits sound and receives MIDI. See the section Audio and MIDI settings [p.8] for full details on this.

3.3.7. About

In this window you can view the Piano V software version and developer credits. Click on the About window to close it.

3.4. Preset browser overview

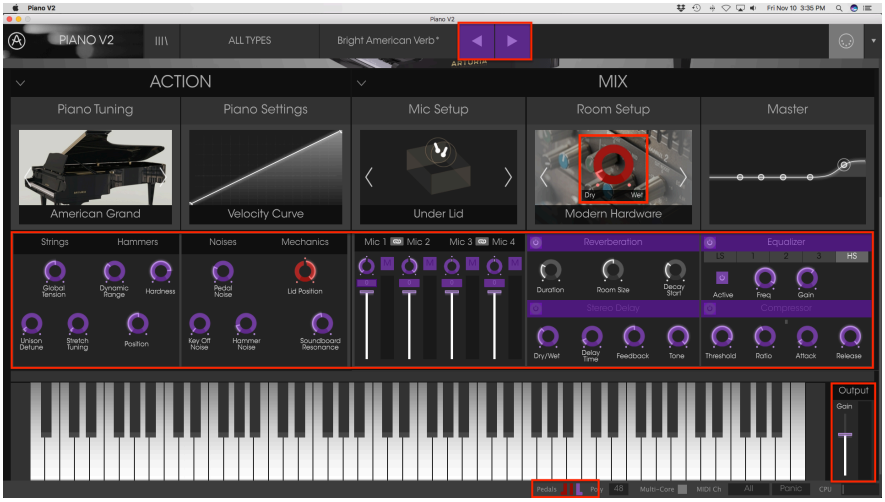
Presets can be viewed by clicking the Preset Browser button (III\ ) on the left side of the toolbar. See the Preset browser [p.27] chapter for full details on this. The Filter, name field and left / right arrows in the toolbar all assist with preset selection.



The Preset Browser

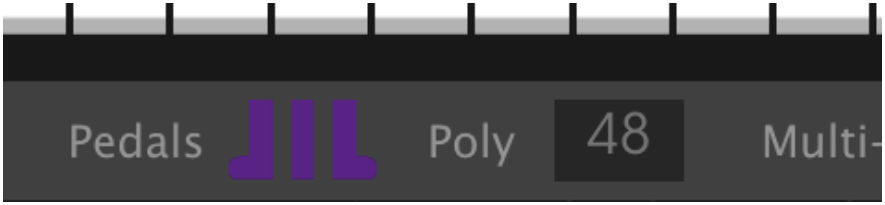
3.5. MIDI Learn assignment

The MIDI plug icon at the far right side of the toolbar places the instrument into MIDI learn mode. MIDI-assignable parameters will be shown in purple, which means you can map physical buttons, knobs, faders or pedals to those destinations inside the instrument. A typical example might be to map a real expression pedal to the Output Gain control, or buttons on a controller to the Preset selection arrows so you can change the preset from your hardware keyboard.



MIDI Learn mode

The Pedals can be mapped also:



MIDI Learn mode: Lower tool bar assignable parameters

3.5.1. Assigning / unassigning controls

If you click on a purple area you'll put that control into learning mode. Move a physical knob, fader, or button and the target goes red, indicating that a link has been made between the hardware control and the software parameter. There's a popup window that displays which two things are being linked and an Unassign button that will disconnect the two.

Mic 4 Mute switch selected and assigned

You can also right-click on a control to unassign it.

3.5.2. Min / Max value sliders

There are also minimum and maximum value sliders that you can use to restrict the parameter change range to something other than 0%-100%. For example you might want the Output Gain to be controllable via hardware from 30% to 90%. If you made this setting (Min set to 0.30 and Max set to 0.90) your physical knob would be unable to alter the volume lower than 30% or higher than 90%, no matter how far you turned it. This is very useful for making sure you can't accidentally make the sound too quiet or too loud when performing.

In the case of switches which only have two positions (on or off), those would normally be assigned to buttons on your controller. But it is possible to toggle those with a fader or other control if you like.

3.5.3. Relative control option

The final option in this window is a button labelled "Is Relative". It is optimized for use with a specific type of control: one which sends only a few values to indicate the direction and speed at which a knob is turning, as opposed to sending a full range of values in a linear fashion (0-127, for example).

To be specific, a "relative" knob will send values 61-63 when turned in a negative direction and values 65-67 when turned in a positive direction. The turn speed determines the parameter response. Refer to the documentation of your hardware controller to see if it has this capability. If so, be sure to switch this parameter on when setting up its MIDI assignments.

When configured this way, movements of the physical control (usually a knob) will change the software parameter by starting at its current setting, rather than being an "absolute" control and snapping it to some other value as soon as you start to move it.

This can be a great feature when controlling things like volume, filter, or effect controls, since you won't usually want them to jump noticeably from their current setting when they are modified.

3.5.4. Reserved MIDI CC numbers

Certain MIDI Continuous Controller (MIDI CC) numbers are reserved and cannot be reassigned to other controls. These are:

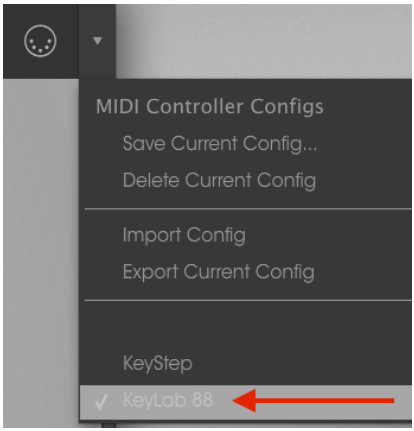
- PitchBend
- Ctrl Sustain On/Off (CC #64)
- Ctrl Sostenuto On/Off (CC #66)
- Ctrl Soft Pedal On/Off (CC# 67)
- Ctrl All Notes Off (CC #123)

All other MIDI CC numbers may be used to control any assignable parameter in Piano V.

3.5.5. MIDI controller configuration

There's a small arrow at the far right hand side of the toolbar that deals with MIDI controller configurations. This allows you to manage the different sets of MIDI maps you may have set up for controlling the instrument's parameters from MIDI hardware. You can copy the current MIDI assignment setup or delete it, import a configuration file or export the currently active one.

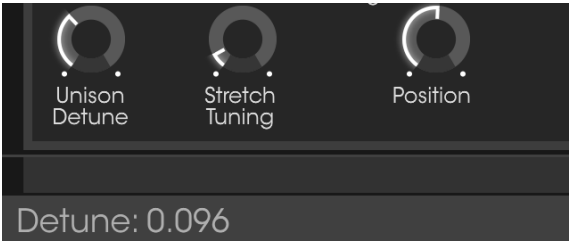
This is a quick way to set up different hardware MIDI keyboards or controllers with Piano V without having to build all the assignments from scratch each time you swap hardware.



Note the check mark next to one of the controller names: that indicates that the KeyLab 88 configuration is currently active.

3.6. The lower tool bar

At the left hand side of the lower tool bar you will see a readout showing the value or state of whatever control you are modifying. It will also display the current value of a parameter without editing it: just hover the cursor over the related control and the value will appear as pictured below.



Displaying the current control's value

At the right hand side of the lower toolbar are several small windows and buttons. These are very important features, so let's take a closer look at them.

3.6.1. Pedals

The three different pedal types found on most pianos are available in the lower toolbar: Soft, Sostenuto, and Sustain. They allow you to toggle these features even without a controller keyboard attached to your computer.

The toolbar pedals, inactive

Soft and Sustain pedals active

3.6.1.1. The Sostenuto pedal

The functions of the sustain and soft pedals will be immediately obvious, but unless you've worked with a sostenuto pedal it could be confusing at first.

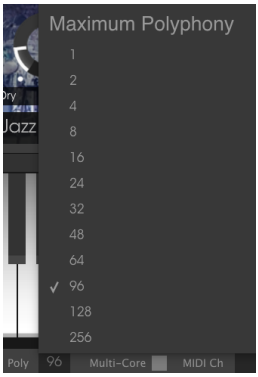
A sostenuto pedal is like a "targeted sustain" pedal: it will sustain only the notes you define for it and will let the others continue to work normally. Follow these steps and you will see how it works.

- Make sure the other pedals are not being pressed.
- Play a note and keep holding down the key.
- Click the Sostenuto pedal icon (the middle one).
- Release the key. It should continue to sustain.
- Play a glissando across the keys in the area of the note you pressed earlier. Only that note will sustain; the others will play but will not sustain.

There are many compositions that utilize the Sostenuto pedal. And now you can write some of your own!

3.6.2. Polyphony

Click on this field to specify the maximum polyphony of Piano V. Options range from 1 to 256.



The Polyphony selection window

A check mark indicates the current polyphony selection.

3.6.2.1. A note about polyphony

An acoustic piano has full polyphony; i.e., 88 keys played at the same time would produce 88 "voices" (not counting the extra strings on most notes). Holding the sustain pedal and striking a key repeatedly simply causes the same "voice" to be retriggered, although with a different attack profile and other timbral variations.

But on a virtual instrument, holding the sustain pedal and playing a single note repeatedly will require more than one voice or else the note will cut off unnaturally. And in some pieces of piano music the performer will sustain all of the notes in an arpeggio that spans the length of the keyboard, often with many notes and/or chords repeated on the way up or down the keys. Each of these struck, sustained, and repeated notes needs to be processed independently so it can be added to the calculations that are being done "behind the scenes".

To allow for any foreseeable musical scenarios, then, it may seem that you should maximize the polyphony of Piano V with a setting of 256 voices. But there's a trade-off: the more active notes there are, the higher the CPU load will be.

The engineers at Arturia have been very clever with the voice-stealing algorithm, though. For example, they took into account the fact that as a note decays to a certain point it may no longer be audible. And if it is not audible it might not be needed, especially after a sufficient number of additional notes have been played.

It was a complicated process, but they made Piano V smart enough to make some very musical decisions about which notes to keep and which to "borrow". So you will probably find that a polyphony setting of 256 (or even 128) is not necessary. We think you will discover that settings well below 128 are completely transparent and natural to your ear, even during solo piano performances.

And a setting of 1 does not make Piano V truly "monophonic", either. For example, it will allow chords to be played if the notes are triggered at the same time. But with a low polyphony setting, active voices are more likely to be "stolen" when the sustain pedal is held, for example, or immediately after a key is released (when the note would normally take a small amount of time to decay).

All that to say that we can't tell you what the proper polyphony setting is for your music and your system. You'll have to experiment until you find a realistic balance between CPU load and a natural-sounding piano performance. But we've given you a lot of options for the polyphony value, so you should be able to find a setting that works well for you.

3.6.3. Multi-Core

The Multi-Core feature, enabled

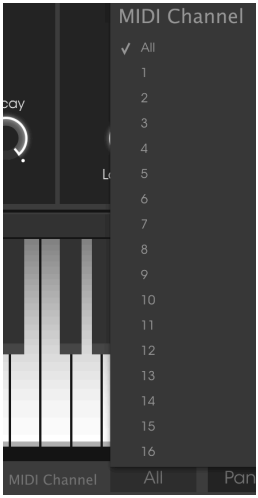
When this field is lit (light gray) it means the Multi-Core feature has been enabled in the preferences.

The **Multi-Core** button instructs Piano V to take advantage of multi-core processing as it generates the sounds. If the CPU meter in the lower tool bar is nearing its maximum you may want to use this feature.

♪: Some DAWs are not able to use multi-core rendering, so there will be no difference if you toggle the button. Please refer to the specifications for your computer if you do not already know whether it has a multi-core processor.

3.6.4. MIDI Channel setting

This window indicates the current MIDI Channel setting. Click on it and it will expand to show the full range of values you can select (All, 1-16).



3.6.5. Panic button

The Panic button can be pressed to reset all MIDI signals in the event of stuck notes or other issues.

3.6.6. CPU meter

The CPU meter is used to monitor how much of your computer's CPU is being used by the instrument.

4. THE PRESET BROWSER

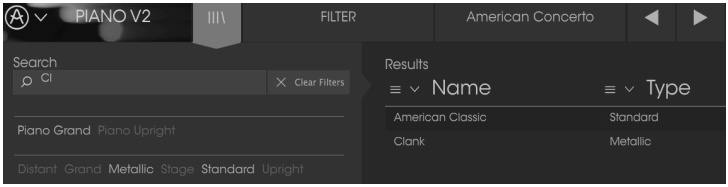
The preset browser is how you search, load and manage sounds in Piano V. It has a couple of different views but they all access the same banks of presets.

To access the search view click on the browser button (the icon looks a bit like books on a library shelf).

The Preset Browser button

4.1. Searching presets

The Search screen has a number of sections. By clicking on the Search field at the top left you can quickly enter any search term to filter the preset list by patch name. The Results column is updated to show the results of your search. Press the Clear Filters button in the search field to clear the search.

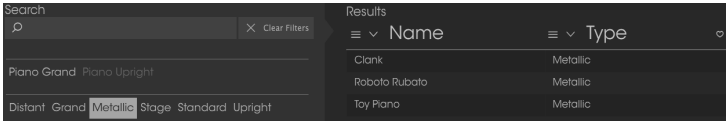


Filter by typing text in the Search field

In the example above the letters "C" and "l" were typed into the Search field. This selects all presets that have those two letters next to eachother in the preset name.

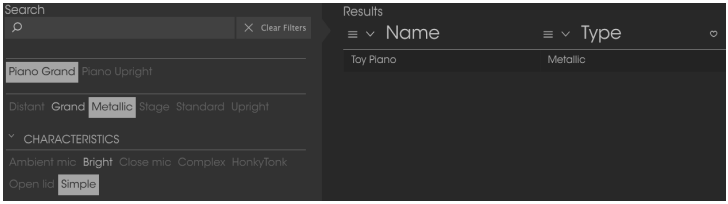
4.2. Using tags as a filter

You can also search using different tags. So for example by clicking on the Metallic option in the Types field you can show only presets that match that tag. The tag fields can be shown or hidden by using the small down arrow buttons in their title fields. Results columns can be sorted by clicking the same arrow button in their own section.



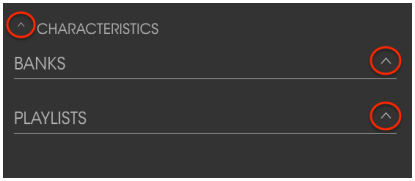
You can use multiple search fields to perform narrower searches. So by entering a text search and also specifying the Type, Bank and Characteristics options you will see only the presets that match those exact criteria. Deselect any tag in any area to remove that criteria and widen the search without having to go back and start again.

♪: Using "Ctrl click" (Windows) or "Cmd + click" (Mac) will allow you to select multiple elements in the same area.

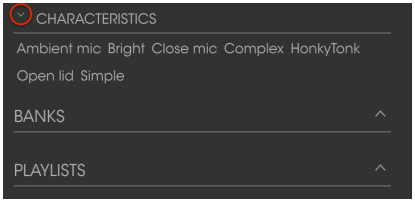


4.2.1. Tag category windows

The Tag category windows may be collapsed and expanded using the arrows near their names.



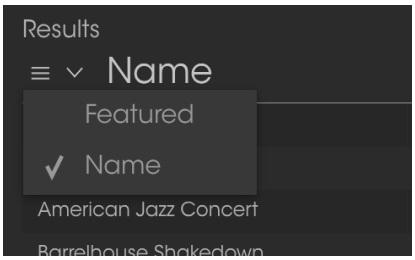
Tag category windows closed



Characteristics window open

4.2.2. Search Results window

Click the options menu button in the first Results column to specify whether you want to view the presets by **Featured** or by **Name**. Click the sort arrow to reverse the alphabetical order.



Sorting options for the first Results column

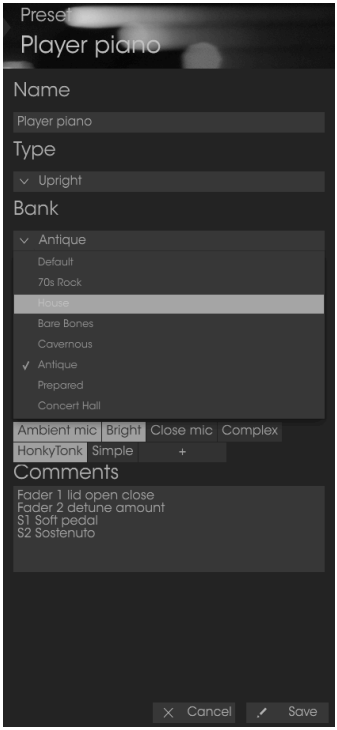
Similarly, click the options menu button in the second Results column to order its display results by Type, Sound Designer, or Bank tags. Click the sort arrow to reverse the alphabetical order.

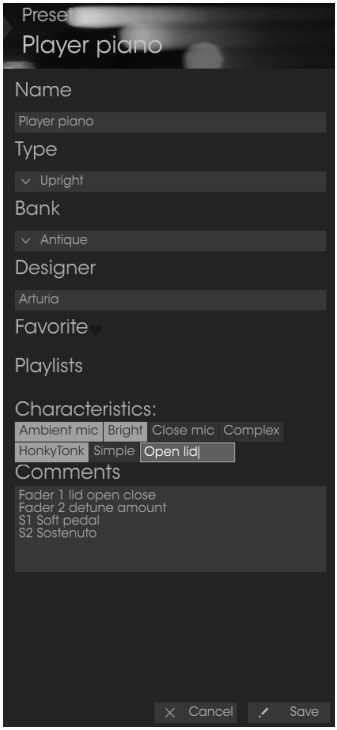
Results window: additional sorting options

4.3. The Preset Info section

The Info column on the right side of the search field showsspecific information about each preset. The information for User presets may be changed here: Name, Type, Favorite, etc.

Click Edit and then make the desired changes, either by typing in one of the fields or by using a pull-down menu to change the Bank or Type. You can even add new Characteristics by clicking the + sign at the end of that list. Click Save when you are done.



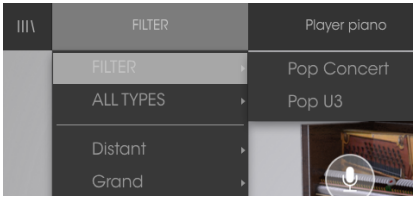


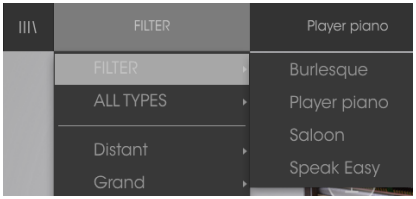
♪: If you want to alter the information for a Factory preset you must first use the Save As command to re-save it as a User preset. After this the Info section will gain Edit and Delete buttons at the bottom of the window.

4.4. Preset selection: other methods

The pull-down menu to the right of the Search menu provides a different way to select presets. The first option in this menu is called Filter, and it will display the presets that fit the search terms you used in the Search field. So if you searched for "Pop" in the main search area, the results of that search will appear here.

Similarly, if you previously selected **Type: Upright** and **Banks: Antique** in the Search field you would see the results of that search in this area instead.

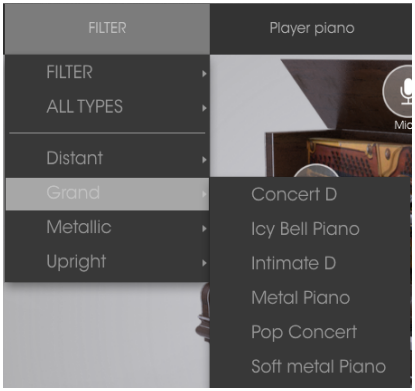




Filter results may differ based on Search criteria

Selecting the All Types option in the pull-down menu will bypass the Search criteria and show the entire list of presets.

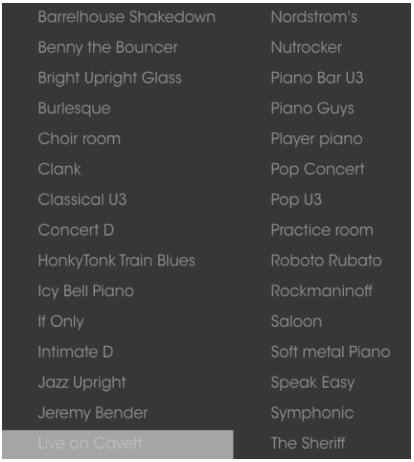
The Categories below the line also ignore the Search criteria and display the presets based on their Type: Grand, Upright, Rock, and so on.



Selecting a preset by its Type

Clicking on the name field in the center of the toolbar will show you a list of all available presets. The list will also take into account any selections you have made in the Search field. So if you have pre-selected a Characteristic such as "Funky" this shortcut menu will only show you presets that match that tag.

The left and right arrows in the toolbar cycle up and down through the preset list: either the full list, or the filtered list that resulted from the use of one or more search terms.

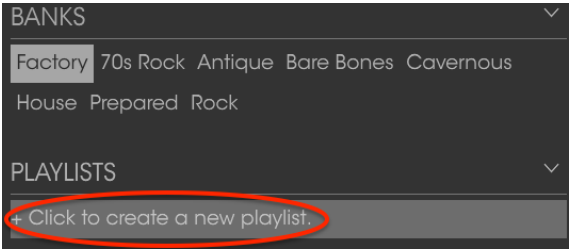


4.5. Playlists

In the lower left corner of the Preset Browser window is a feature titled Playlists. This is used to collect presets into different groups for different purposes, such as a set list for a particular performance or a batch of presets related to a particular studio project.

4.5.1. Add a playlist

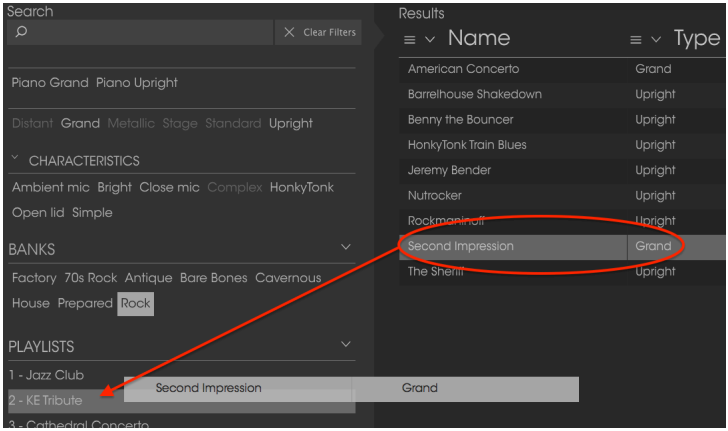
To create a playlist, click the field at the bottom:



Give the playlist a name and it will appear in the Playlists menu. You can rename the playlist at any time; just click the pencil icon at the end of its row.

4.5.2. Add a preset

You can use all of the options in the Search window to locate the presets you want to have in your playlist. Once you have found the right preset, click and drag it onto the playlist name.

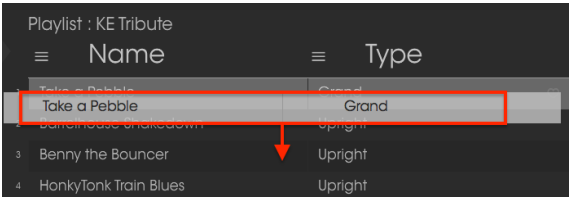


Click and drag from the Search Results list onto one of the playlists

To view the contents of a playlist, click on the playlist name.

4.5.3. Re-order the presets

Presets may be reorganized within a playlist. For example, to move a preset from slot 1 to slot 3, drag and drop the preset to the desired location.



This will move the preset into the new location.

This will cause the other presets to be bumped up in the list to accommodate the new location of the preset being moved.

4.5.4. Remove a preset

To delete a preset from a playlist, click the x at the end of the preset row.

Click the X to remove a preset from a playlist

4.5.5. Delete a playlist

To delete an entire playlist, click the x at the end of the playlist row. This will only delete the playlist; it will not delete any of the presets inside the playlist.

Click the X to delete a playlist

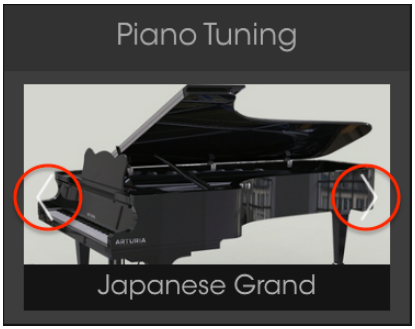
5. THE ACTION WINDOW

Placed below the large piano graphic are five windows, divided into two groups: Action and Mix. Click the title bar of either group to expand and view its contents.

Click to expand the Action window

5.1. Piano model

The first window inside the Piano Tuning tab allows you to select one of twelve different piano models by clicking the arrows to the left or right of the smaller piano graphics.

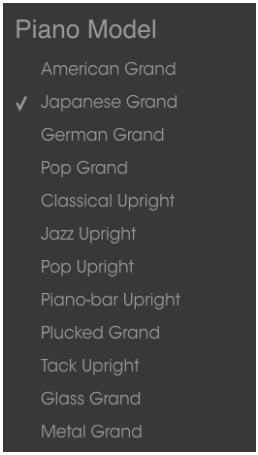


Piano model selection window

The piano graphics will change to give a visual representation of the source instrument.

There is more to each model than its appearance, though. We have painstakingly modeled every nuance of these twelve instruments, from the resonance of their materials to the way their sound changes in relation to the placement of the microphones in each configuration.

Another way to select a different model is to click the piano label, which will open a menu containing all twelve choices.

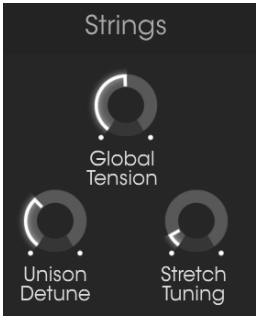


Piano model selection menu

A check mark indicates the current model. Make a selection and the menu will close.

5.2. Strings

The tuning of the piano strings may be varied by three different parameters: Global Tension, Unison Detune, and Stretch Tuning.



Tuning controls

5.3. Global Tension

All taken together, the 236 strings on a piano exert over 17 tons of force on the soundboard. This control allows you to lessen or increase the tension on the soundboard, which in turn lowers or raises the overall pitch of the instrument.

There are two ways to change the tension: Fine Tuning or Transposition.

5.3.1. Fine Tuning

This is the method to use if you want to tune the entire piano to a different tuning standard such as the 19th-century French standard of 435 Hz.

You can use a left-click to move the Global Tension knob in 1 Hz increments to any value within the range of 400-480 Hz. Double-click the knob to reset it to the ISO 16 standard of 440 Hz.

5.3.2. Transpose

To use the Transpose method of adjusting the Global Tension, right-click on the knob and move it up or down. The value display in the lower tool bar will change to Pitch Transpose, and the range will be expressed in terms of semitones (chromatic steps).

The Pitch Transpose method of Global Tension adjustment

As with the Fine Tuning method, the overall pitch of the piano will be raised or lowered chromatically. This is somewhat similar to transposing an electronic keyboard, but with a very important difference: the timbre of the instrument will shift to reflect the fact that the Piano V strings were tightened or loosened to achieve the change in pitch, which in turn changes the timbre of each note. Tighter strings will be brighter, and looser strings will be darker.

To illustrate the concept, try this experiment:

1. Select a piano preset with a memorable timbre (preferably not too bright, for this example)
2. Open the Action window
3. Play a chord and note how it sounds
4. Right-click the Global Tension knob and change the value to -3 semitones
5. Transpose your controller keyboard by the opposite amount (+3 semitones)
6. Play the same keys you played in step 3. The pitches will be the same, but the notes will sound darker
7. Double-click the Global Tension knob to reset the value to center
8. Play the chord again and note how it sounds
9. Right-click the Global Tension knob and change the value to +3 semitones
10. Transpose your controller keyboard by the opposite amount (-3 semitones)
11. Play the same keys you played in step 8. The pitches will be the same, but the notes will sound brighter.
12. Select another preset that is significantly brighter or darker and repeat the steps above, using more extreme levels of transposition.

As you will see, this is a very quick way to make a significant alteration to the character of an instrument! You could make 23 new presets immediately, as long as you keep track of how much you need to transpose your controller keyboard or sequencer tracks when using a particular preset. You may want to make the transposition amount part of the name for the new preset.

The Transpose range is +/- 12 semitones. Double-click the knob to reset it to the center value of 0 semitones.

5.4. Unison Detune

The higher notes on a piano have more than one string per note, which allows them to be heard as easily as the larger, louder bass notes. This parameter lets you specify the amount of detuning between those strings.

This control does not affect the lowest notes, since they only have a single string. It also has a greater impact on the higher notes than the middle notes, as the middle notes have only two strings per note while the higher notes have three.

5.5. Stretch Tuning

One advantage concert grand pianos have over upright pianos, and even over 'baby' grands, is that their strings can be longer. We won't delve into the physics involved, but one result of this is a lower degree of 'inharmonicity'; i.e., the overtones of the longer strings are closer mathematically to the fundamental frequencies. This also holds true for the notes and intervals above them, which in turn means that the fundamentals and overtones are more closely related across the piano. This leads to a purer, more pleasing sound overall.

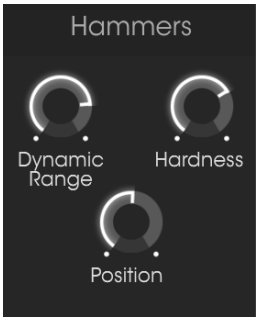
But it is the inharmonicity of the shorter strings which gives baby grands and upright pianos their distinctive sound. So for these instruments the technician must employ a technique known as 'stretch tuning' in order to minimize the beating of fundamentals and overtones against each other.

The Stretch Tuning control allows you to specify the amount the upper notes will be tuned sharp relative to the bass notes. This is all part of giving you the most authentic piano experience possible.

5.6. Hammers

The hammers are an important component of the sound of a piano. A technician will often spend much time 'regulating the action', making sure all of the hammers have a consistent distance from the strings and are striking the strings at a similar point. And if the felt tips of one or more hammers have deteriorated, this will have an adverse effect on the consistency of tone across the keyboard. Those hammers must be replaced.

Piano V gives you a uniform set of hammers to work with in the first place, and then you are able to modify the behavior of all of the hammers at the same time.



Hammer Controls

5.7. Dynamic Range

This parameter models what happens when the hammers are moved closer to or farther from the strings. The closer they are to the strings, the less dynamic range there will be.

When the dynamic range is narrow, notes played softly will be relatively loud and their overtones will be heard more clearly. When the dynamic range is wide, softer notes will be harder to hear.

5.8. Hardness

When the felt on a hammer is new it is very soft, and notes played softly will not have as many overtones. As the hammers age the felt becomes harder, and notes played softly have more overtones. In a very old or poorly maintained piano it may difficult to play notes that are not bright.

This parameter simulates the condition of the hammers at all stages, from soft to hard.

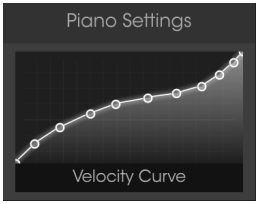
5.9. Position

The point at which the hammers strike the strings has an effect on the brilliance of the tone. This parameter emulates what happens when the position of the hammers is changed.

Low values move the hammers closer to the end of the string, making the sound brighter. Higher values simulate hitting the string closer to the middle, which produces a darker tone.

5.10. Velocity curve

The first window under the Piano Settings tab contains the velocity curve editor.



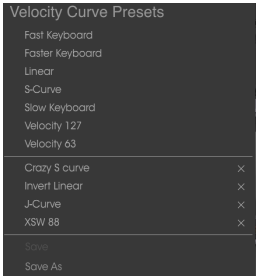
The velocity curve editor

As notes are played on the keyboard vertical lines will appear inside the velocity curve editor window, indicating the velocity at which each note was played. The length of the line represents the amplitude of that particular note.

A number of preset curves are provided, and you can easily create your own.

5.10.1. Selecting a curve

To audition the existing velocity curves, click on the menu bar at the bottom of the editor window. A drop-down menu will appear with a list of presets and the Save / Save As options.



The Velocity Curve menu

The curves at the top of the list are the factory preset velocity curves. These cannot be overwritten or deleted. If you have created velocity curves of your own, they will appear in the second section from the top, between the white lines.

Click on a different curve name to select that curve. The menu will close and the new curve will appear in the editor window.

If you have edited one of your original velocity curves and would like to replace the original with the edited version, use the Save option.

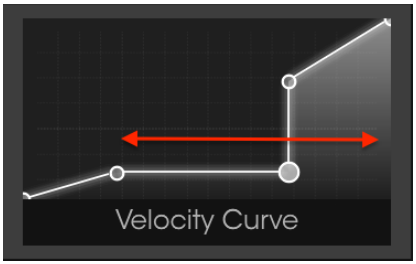
However, if you have edited one of the factory velocity curves, or have edited one of your original velocity curves and would like to save both the new curve and the original curve, use the Save As option and follow the prompts.

In either case, after you name the curve and save it your new curve will appear in the second section of the Velocity Curve Presets list in alphabetical order.

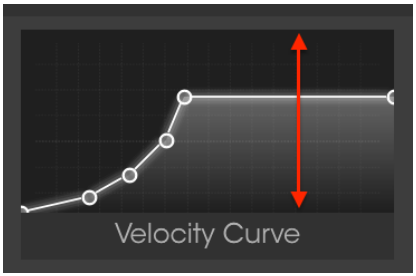
If you want to delete one of your original velocity curves, click the X next to its name in the menu. It will be removed from the Velocity Curve Presets list.

5.10.2. Editing a velocity curve

Each velocity curve can have as many as sixteen points, all of which can be edited. Think of the editor window as an X/Y grid, with the Velocity value along the X axis and Amplitude along the Y axis.



Velocity curves: Velocity on X axis horizontal



and Amplitude on Y axis vertical

There are three main ways to edit a velocity curve:

- Move a point: Click and drag a velocity point to move it to a different location.
- Add a point: Click anywhere within the X/Y grid to add a point. The maximum number of points is 16.
- Remove a point: Right-click on a velocity point to remove it.

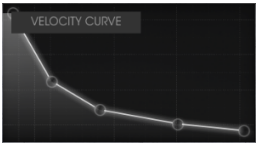
Here are some important things to remember about editing velocity curves:

- There can be as many as 16 velocity points but no fewer than 2.
- The first and last points can only be edited vertically and cannot be removed.
- The middle points can be placed anywhere within the X/Y grid.
- The middle points can be removed and added again.

Using a combination of these features it is possible to create an infinite number of velocity curves. Here are three examples:

Cross-switch low

Cross-fade high

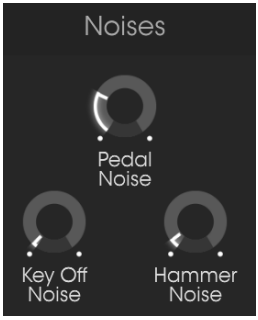


Inverted response

5.11. Noises

Each mechanism that helps produce the sound of an instrument adds its own distinctive rattle or rumble in the background. To eliminate these noises entirely would "sterilize" the sound, making it seem unnatural.

Piano V can dial in just the right level of mechanical noise, but it also lets you to go to either extreme!



The Noise controls

5.11.1. Pedal Noise

When the sustain pedal is pressed it lifts all of the hammers from the strings at the same time. The slight amount of friction of the felt fibers pulling away from the strings makes them resonate softly. With the Pedal Noise control you can specify exactly how much of this effect you want each preset to have.

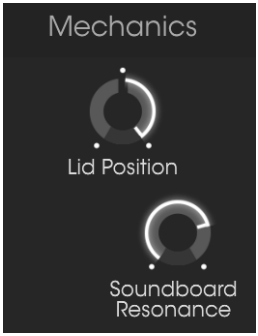
5.11.2. Key Off Noise

This control sets the amount of noise the hammers will make as they return to their starting point after a key is released.

5.11.3. Hammer Noise

The hammers make a distinctive "thunk" when they hit the strings, though the sound is most obvious on the highest notes. This parameter allows you to control how much of this noise will happen when a note is played.

5.12. Mechanics



The Mechanic controls

5.12.1. Lid Position

A piano sounds completely different with its lid closed than it does when the lid is open. This is true for upright pianos as well. Piano V gives you three lid positions for each piano model: closed, slightly open, and open.

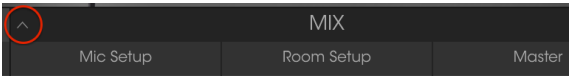
The piano lid will open and close to match the setting you choose.

5.12.2. Soundboard Resonance

This parameter adjusts the sustain time of the piano by simulating changes in the characteristics of the soundboard. A more resonant soundboard will sustain longer, while a less resonant soundboard will not sustain as long.

6. THE MIX WINDOW

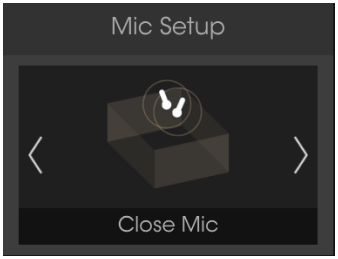
Placed below the large piano graphic are five windows, divided into two groups: Action and Mix. Click the title bar of either group to expand and view its contents.



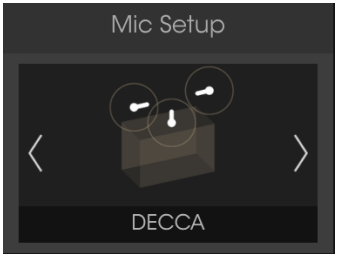
Click to expand the Mix window

6.1. Mic Setup

The first window inside the Mic Setup tab allows you to select one of various microphone configurations by clicking the arrows to the left or right of the 3D graphics. There are five configurations for grand pianos and five different ones for upright pianos.



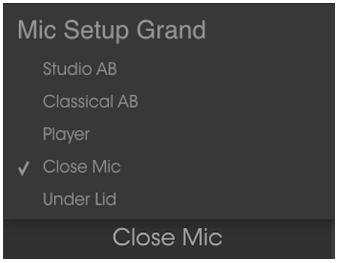
Mic setup: Grand piano



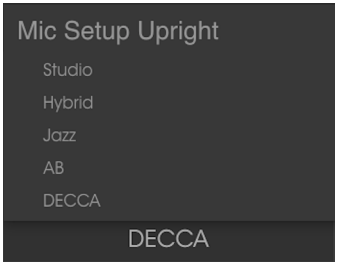
Mic setup: Upright piano

The graphics will change to give a visual representation of the microphone configuration. Note that the graphics in the Mic Setup window show only two or three microphone images, while in actuality four microphones were modeled for each configuration. The larger piano graphic shows the placement of all four mics.

Another way to select a different configuration model is to click the configuration label, which will open a menu containing all available choices for that model.



Mic config menu: Grand



Mic config menu: Upright

A check mark indicates the current model. Make a selection and the menu will close.

6.2. Mic mixer

Immediately below the mic configuration selection window is the microphone mixer window. It allows you to set the relative levels and stereo positions of each microphone.

Each mic channel can be muted independently and also has its own left/right delay. It is also possible to link pairs of microphones so their levels can be adjusted simultaneously. We'll explain these features below.

The microphone mixer

6.2.1. Mic link (1/2, 3/4)

Click the "chain" button and the corresponding pairs of microphones will have their gain faders linked. If one gain fader is higher than the other, its level will drop to match the lower position. After this, when one fader is moved the other will also move.

This is a handy feature, as it allows you to adjust the gain without affecting the stereo placement of the microphones. To put it another way, the phase-coherency of the signal will be unaffected by the change in amplitude.

> ♪: When two mic channels are linked this only affects the gain faders. It does not affect the pan, mute, or left/right delay settings for either channel. These may still be adjusted independently.

6.2.2. Mic pan

Click and drag the pan knob up or down to change the position of the microphone in the stereo field. Use the larger piano graphic to give you an idea of the starting position of each mic.

6.2.3. Mic mute

Click the M button to mute and unmute the microphone channel. This is a quick way to inspect what each microphone is contributing to the overall mix.

You can also use this to disable the close mics and leave only the ambient mics active, for a more distant piano sound.

6.2.4. Mic gain

Click and drag the fader to adjust the microphone gain.

6.2.5. Mic left/right delay

A small amount of slapback delay can be added to each microphone channel. Among other possibilities, this can help simulate a small room with several reflective surfaces.

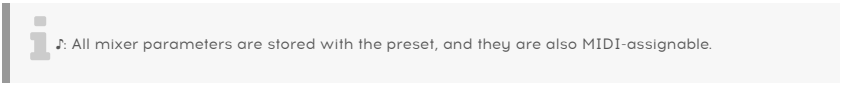
The delays are short, but the delay time can be set independently for each channel. To set the delay time for a channel, click in the delay field and drag it up or down to select a value between -100 and +100. Double-click the delay field to reset the value to zero.

Here's how the left/right delays work. When the microphone channel is panned to center:

- a delay value of 0 to +100 moves the original (dry) signal to the left and the delay is heard on the right.
    - a delay value of 0 to -100 moves the original (dry) signal to the right and the delay is heard on the left.

Panning the microphone channel acts as a wet/dry control:

- With delay value of -100, panning the channel full left = 100% wet.
- With delay value of +100, panning the channel full right = 100% wet.



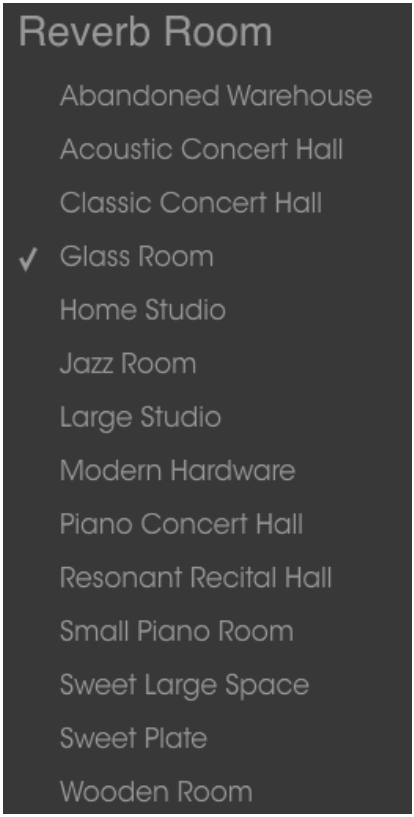
6.3. Room Setup

Piano V provides 14 different convolution reverbs, which are different from the generic reverbs often found in other software programs. A convolution reverb recreates the characteristics of a particular physical space or electronic device through an extensive computer analysis of each environment. The result is an algorithm that will react to any input signal in the same manner that the original space or device would react.

You can select the models by clicking the arrows on the left and right sides of the reverb window.

The reverb selection window

Another way to select a different reverb model is to click the reverb label, which will open a menu containing all available rooms and devices.



The reverb selection menu

A check mark indicates the current model. Make a selection and the menu will close.

6.3.1. Reverb parameters

The reverb parameters are located in two places:

- The Wet/Dry mix control is embedded in the picture of the room or device
- The Reverberation window, which houses three parameter knobs and a bypass switch.

The parameters are the same for each reverb model.

Each of these parameters is MIDI-assignable.

6.3.1.1. Reverb mix

This controls the amount of reverb in the sound, from Dry (0.00 %) to Wet (100 %).

6.3.1.2. Reverb bypass

The button on the left side of the Reverberation title bar will toggle the reverb on and off when clicked.

6.3.1.3. Duration

This parameter determines how long the reverb effect will last.

6.3.1.4. Room Size

Use this parameter to adjust the size of the room containing the piano.

6.3.1.5. Decay Start

Different from the Duration parameter, the Decay Start parameter is a high frequency roll-off control. At its maximum setting the high frequency content of the reverb will be present in the mix until the reverb duration period ends.

6.3.2. Stereo Delay

The stereo delay adds a spaciousness to the sound that is very different from a reverb. It does this by introducing an echo that is a distinct copy of the original signal, as opposed to a wash of audio containing the many reflections of the reverb.

6.3.2.1. Delay bypass

The button on the left side of the Stereo Delay title bar will toggle the delay on and off when clicked.

> ♪: The Delay bypass button does not affect the left/right delay [p.47] settings of the microphone mixer.

6.3.2.2. Dry/Wet

This controls the amount of stereo delay in the sound, from Dry (0.00 %) to Wet (100 %).

6.3.2.3. Delay Time

Click and drag the knob up and down to set the delay time to a value between 9.07 msec (short) and 1000 msec (1 full second).

6.3.2.4. Feedback

Adjusts the number of echoes of the original signal. When fully clockwise the feedback will take a long time to die out.

6.3.2.5. Tone

The Tone parameter is a high frequency roll-off control. At its maximum setting the high frequency content of the stereo delay will die quickly; at its minimum setting the high frequency content will be present in the mix until the echoes stop.

6.4. Master EQ

Piano V provides a 5-band equalizer with 3 fully parametric bands and high/low shelving.

EQ The graphical window provides a visual representation of the current EQ settings.

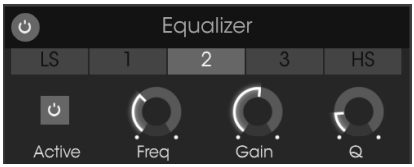
The Master control window

The five EQ points may be dragged to different positions, which adjusts the frequency and gain of the selected EQ point. The width (Q) of each of the three mid-points can be set by right-clicking on the appropriate dot and dragging the cursor up or down.

♪: If you happen to be editing the same point that has been selected with the EQ band selection buttons [p.53] you will see its knobs move as you adjust the values.

6.4.1. Equalizer parameters

The gain and frequency of each EQ point may be adjusted with greater precision within this window.



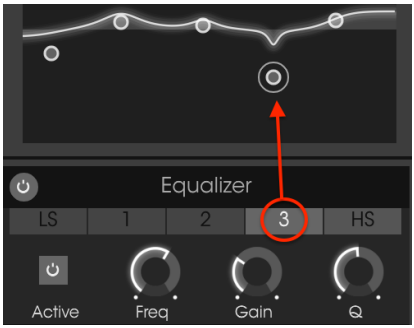
The Equalizer controls

6.4.1.1. EQ bypass

The Equalizer title bar has a button that enables you to bypass all five of the EQ bands at the same time. Click the button to bypass the EQ or to bring it back into the signal path, When the button is lit, the EQ is active; when it is dark, the EQ has been bypassed.

6.4.1.2. Selecting an EQ band

The individual EQ bands are selected by clicking one of the EQ band selection buttons.

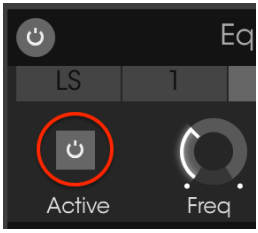


♪: When you select an EQ band the point it controls will be circled in the graphical window.

Each of the five EQ bands has its own Active button, a Frequency knob, and a Gain knob, and each of the three parametric bands has an additional knob (Q).

6.4.1.3. EQ band Active button

Click the Active button to toggle a particular EQ band off and on. This can help you assess the impact a particular EQ band is having on the sound.



The EQ band Active button

6.4.1.4. Shelving bands: LS and HS

A shelving EQ band controls the gain of all frequencies above or below a certain point. The LS band (low shelving) controls everything below its Frequency setting, and the HS band (high shelving) controls everything above its Frequency setting.

The shelving EQ bands have these controls.

The selected frequency range can be boosted or cut by as much as 30 decibels (dB).

6.4.1.5. Parametric bands

A parametric EQ band controls the gain of frequencies within a certain range. The difference between a shelving band and a parametric band is that the width of the range controlled by the parametric band can be made narrower or wider. This is accomplished by adjusting the Q parameter.

The parametric EQ bands have these controls.

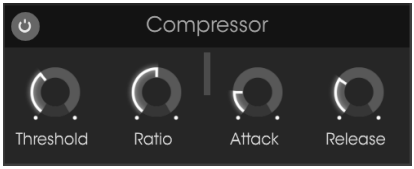
The selected frequency range can be boosted or cut by as much as 30 decibels (dB).

> ♪: It is possible for the frequency of any one of the EQ bands to be set within the range 20-10000 Hz. Unless you are striving for a particular sound that cannot be achieved another way, we suggest that you keep their frequency ranges in numerical order to avoid confusion: LS frequency value lower than parametric band 1, band 1 lower than band 2, etc., with the HS frequency value higher than that of parametric band 3.

Each of the EQ parameters is MIDI-assignable.

6.5. Compressor

A compressor is generally used to help maintain a consistent level of sound. For example, it can keep the attack of a note or chord from clipping. It can also help a sound which would normally decay quickly not to fade away as quickly.



The compressor effect

6.5.1. Compressor parameters

6.5.1.1. Compressor bypass

The Compressor title bar has a button that enables you to bypass the compressor. Click the button to bypass the compressor or to bring it back into the signal path, When the button is lit, the compressor is active; when it is dark, the compressor has been bypassed.

6.5.1.2. Threshold

The Threshold knob sets the level where the compression will begin to have an impact on the sound.

6.5.1.3. Ratio

The Ratio control determines the amount of compression that will be applied once the threshold has been reached.

6.5.1.4. Gain reduction meter

A vertical gain reduction meter will appear as the audio signal is compressed to indicate the amount of compression being applied to the output.

6.5.1.5. Attack

The Attack parameter adjusts the speed with which the compression will begin to affect the sound once the threshold has been reached.

6.5.1.6. Release

The Release knob determines the length of time the compressor will continue to affect the sound once the input signal has dropped below the threshold.

7. SOFTWARE LICENSE AGREEMENT

In consideration of payment of the Licensee fee, which is a portion of the price you paid, Arturia, as Licensor, grants to you (hereinafter termed "Licensee") a nonexclusive right to use this copy of the Analog Lab Lite Software (hereinafter the "SOFTWARE").

All intellectual property rights in the software belong to Arturia SA (hereinafter: "Arturia"). Arturia permits you only to copy, download, install and use the software in accordance with the terms and conditions of this Agreement.

The product contains product activation for protection against unlawful copying. The OEM software can be used only following registration.

Internet access is required for the activation process. The terms and conditions for use of the software by you, the end-user, appear below. By installing the software on your computer you agree to these terms and conditions. Please read the following text carefully in its entirety. If you do not approve these terms and conditions, you must not install this software. In this event give the product back to where you have purchased it (including all written material, the complete undamaged packing as well as the enclosed hardware) immediately but at the latest within 30 days in return for a refund of the purchase price.

1. Software Ownership Arturia shall retain full and complete title to the SOFTWARE recorded on the enclosed disks and all subsequent copies of the SOFTWARE, regardless of the media or form on or in which the original disks or copies may exist. The License is not a sale of the original SOFTWARE.

2. Grant of License Arturia grants you a non-exclusive license for the use of the software according to the terms and conditions of this Agreement. You may not lease, loan or sub-license the software.
The use of the software within a network is illegal where there is the possibility of a contemporaneous multiple use of the program.
You are entitled to prepare a backup copy of the software which will not be used for purposes other than storage purposes.
You shall have no further right or interest to use the software other than the limited rights as specified in this Agreement. Arturia reserves all rights not expressly granted.

3. Activation of the Software Arturia may use a compulsory activation of the software and a compulsory registration of the OEM software for license control to protect the software against unlawful copying. If you do not accept the terms and conditions of this Agreement, the software will not work.
In such a case the product including the software may only be returned within 30 days following acquisition of the product. Upon return a claim according to § 11 shall not apply.

4. Support, Upgrades and Updates after Product Registration You can only receive support, upgrades and updates following the personal product registration. Support is provided only for the current version and for the previous version during one year after publication of the new version. Arturia can modify and partly or completely adjust the nature of the support (hotline, forum on the website etc.), upgrades and updates at any time.
The product registration is possible during the activation process or at any time later through the Internet. In such a process you are asked to agree to the storage and use of your personal data (name, address, contact, email-address, and license data) for the purposes specified above. Arturia may also forward these data to engaged third parties, in particular distributors, for support purposes and for the verification of the upgrade or update right.

5. No Unbundling The software usually contains a variety of different files which in its configuration ensure the complete functionality of the software. The software may be used as one product only. It is not required that you use or install all components of the software. You must not arrange components of the software in a new way and develop a modified version of the software or a new product as a result. The configuration of the software may not be modified for the purpose of distribution, assignment or resale.

6. Assignment of Rights You may assign all your rights to use the software to another person subject to the conditions that (a) you assign to this other person (i) this Agreement and (ii) the software or hardware provided with the software, packed or preinstalled thereon, including all copies, upgrades, updates, backup copies and previous versions, which granted a right to an update or upgrade on this software, (b) you do not retain upgrades, updates, backup copies und previous versions of this software and (c) the recipient accepts the terms and conditions of this Agreement as well as other regulations pursuant to which you acquired a valid software license.
A return of the product due to a failure to accept the terms and conditions of this Agreement, e.g. the product activation, shall not be possible following the assignment of rights.

7. Upgrades and Updates You must have a valid license for the previous or more inferior version of the software in order to be allowed to use an upgrade or update for the software. Upon transferring this previous or more inferior version of the software to third parties the right to use the upgrade or update of the software shall expire.
The acquisition of an upgrade or update does not in itself confer any right to use the software.
The right of support for the previous or inferior version of the software expires upon the installation of an upgrade or update.

8. Limited Warranty Arturia warrants that the disks on which the software is furnished is free from defects in materials and workmanship under normal use for a period of thirty (30) days from the date of purchase. Your receipt shall be evidence of the date of purchase. Any implied warranties on the software are limited to thirty (30) days from the date of purchase. Some states do not allow limitations on duration of an implied warranty, so the above limitation may not apply to you. All programs and accompanying materials are provided "as is" without warranty of any kind. The complete risk as to the quality and performance of the programs is with you. Should the program prove defective, you assume the entire cost of all necessary servicing, repair or correction.

9. Remedies Arturia's entire liability and your exclusive remedy shall be at Arturia's option either (a) return of the purchase price or (b) replacement of the disk that does not meet the Limited Warranty and which is returned to Arturia with a copy of your receipt. This limited Warranty is void if failure of the software has resulted from accident, abuse, modification, or misapplication. Any replacement software will be warranted for the remainder of the original warranty period or thirty (30) days, whichever is longer.

10. No other Warranties The above warranties are in lieu of all other warranties, expressed or implied, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose. No oral or written information or advice given by Arturia, its dealers, distributors, agents or employees shall create a warranty or in any way increase the scope of this limited warranty.

11. No Liability for Consequential Damages Neither Arturia nor anyone else involved in the creation, production, or delivery of this product shall be liable for any direct, indirect, consequential, or incidental damages arising out of the use of, or inability to use this product (including without limitation, damages for loss of business profits, business interruption, loss of business information and the like) even if Arturia was previously advised of the possibility of such damages. Some states do not allow limitations on the length of an implied warranty or the exclusion or limitation of incidental or Oconsequential damages, so the above limitation or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.