USER MANUAL

_ANALOG LAB V



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MANUAL

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Thank you for purchasing Arturia Analog Lab V!

This manual covers how to use Analog Lab V, including a detailed look at its features and other elements of music production and performance.

Make sure to register your software as soon as possible! When you purchased Analog Lab V, you were sent a serial number and an unlock code via email. These are required at the online registration process.

To register your Analog Lab V licence, log into your MyArturia account, click on 'Register new product', fill in your license serial number and the unlock code, and click 'Register'. Be sure to do this to stay updated about free software updates and new soundbank releases.

Special Messages

Specifications Subject to Change:

The information contained in this manual is correct at the time of printing. However, Arturia reserves the right to change or modify any of the specifications or features without notice or obligation.

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 volume or at a level that is uncomfortable.

If you encounter any hearing loss or ringing in your ears, please consult an audiologist.

NOTICE:

Service charges incurred due to lack of knowledge relating to how a function or a 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 additional support.

Introduction

Congratulations on your purchase of Analog Lab V!

Thank you for purchasing Analog Lab V, a music production and performance software crafted to give you the most intuitive and inspiring musical journey.

Excellence is placed at the heart of every Arturia product, and Analog Lab V is no exception. Explore the preset sounds, tweak a few controls, get lost in the features - dive as deeply as you like. This program is easy to understand and intuitive to use. We're confident that Analog Lab V will be a valuable addition to your setup and that you'll enjoy creating truly original tunes with it.

Be sure to visit the www.arturia.com website for information on all our other inspiring hardware and software instruments. They have become indispensable tools for many visionary artists around the globe.

Musically yours,

The Arturia team

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1 WELCOME

1.1. History

Early in 2001, Arturia began working on advanced algorithms to achieve digital emulation of analog circuits. These are known as TAE®, short for 'True Analog Emulation' - in other words, a way of analyzing and recreating the analog circuits of hardware instruments into a digital form. Less than a year after initiating this innovative practice, the company's most dedicated inventors were ready to show the world their work. At the 2002 NAMM show in California, Arturia presented an early version of what would later become the Modular V synthesizer, a software recreation of the classic 60's modular synthesizer. The launch of this instrument was an instant success, winning awards from several leading magazines in the industry.

By gathering insights from sound production experts as well as avid synthesizer users, Arturia was able to develop high-quality instruments that satisfied an ever-evolving demand for sonic innovation. Shortly after the pivotal 2002 NAMM show, the company started receiving a numerous requests from musicians, producers, and bands, many of them wanting to replace their original hardware synthesizers with virtual instruments. Artists around the globe were beginning to see the advantages of software alternatives to hardware gear. Arturia was prepared to answer this call and responded by releasing software instruments of the most loved synthesizers of all time.

The CS-80V emulated the legendary Yamaha CS-80, considered by many as the ultimate polyphonic synthesizer. It was launched at the AES 2003 in New York.

At the winter NAMM Show 2005 in Anaheim, Arturia launched ARP 2600V. This instrument is a faithful reproduction of the ARP 2600 and is great for just about any sound one might wish to create - a range of memorable sounds ranging from drum n' bass stabs to Star Wars' R2-D2 sounds were in fact made with the ARP.

A year later, again at the winter edition of NAMM, Arturia announced the release of its new product: the Prophet V. This powerful hybrid integrated two instruments into one - it combined the warmth of the legendary Prophet 5 programmable analog synth with the unique Vector Synthesis textures of the digital Prophet VS.

At the 2007 summer NAMM Show, Arturia launched the Jup-8 V. Jup-8 V was capable of creating incredibly versatile sounds. You could easily make 'fat' or 'crystal' sounds with it. It sounded exactly the way it looked - sleek and polished.

After Jup-8 V came the Oberheim® SEM V. With SEM V, Arturia produced the unique sound of the constantly variable filter and oscillators present in the original SEM. The addition of the 8 Voice Programmer module allowed the users to recreate one of most rare and expensive polysynths of the 70's, the Oberheim® 8 Voice. Following its core ethos of taking sonic exploration one step further, Arturia went beyond the original boundaries of the product and added new sound and modulation capabilities. These features took SEM V far beyond the original, while staying true to its recognizable audio characteristics.

With the release of Wurlitzer V in 2012, Arturia launched its first venture into the classic electric piano products. Based on a physical engine, the virtual instrument recreated the sound used on many of the best albums in music history. Once again, Arturia took it to the next level and gave musicians access to the physical modeling parameters, allowing them to sculpt the sound freely and creatively.

2014 was the year when Arturia expanded into recreating the classic Vox Continental transistor organ. The Vox sound was a key part of the early British Invasion sound as well as the ska and the 2-Tone label sounds of the 70's and 80's. The Arturia Vox instrument went well beyond the original by adding more drawbars, percussion sections, expanding modulation, and recreating the extremely rare Jennings J70 voice engine. It was designed to 'light your fire' and push musicians to explore the endless space of creativity beyond their musical habits.

Having recreated synths, a classic electric piano and a legendary organ, the team of sonic specialists at Arturia decided to dig deep into the vintage string machines by recreating the Arp/Eminent Solina. Solina's typical expression of the lush string sounds was a staple for many bands in the 70's and 80's. To stay true to the vintage character of this legendary machine, Arturia mirrored the original circuits of Solina and included several new features to expand its expressive palette.

After Solina V's release, the company recreated one of the most ambitious and powerful synths ever made - Oberheim® Matrix 12. With its numerous modulation sources and nearly unlimited routing possibilities, this powerhouse synth is still considered as one of the best synths in music history. Arturia's Matrix 12 V gifted the world with an affordable option to explore legendary and phenomenal soundscapes.

In 2015, Arturia added five new acclaimed instruments to its arsenal. Synclavier V, an outstanding digital synthesizer and workstation, was initially priced between a whopping \$40k - \$400k. It was based on a mix of additive synthesis and FM with the unparalleled possibilities offered by the 'time slice engine'. It was recreated using parts of the code of the original Synclavier in partnership with Cameron Jones, the developer of the original instrument. B-3 V reproduced the most emblematic tonewheel organ and its groundbreaking rotary speaker. Farfisa V is an emulation of two transistor organs mixed as one: the Farfisa Compact Deluxe and the Compact Duo. Stage-73 V brought the sublime sound of two different versions of the iconic tine-based electric plano from the 60's and 70's. Last but not least, the Piano V introduced a visionary package for the most eager keyboard players, including an acoustic piano and nine other piano models ranging from the simplest to the most unconventional kind.

V Collection 6 saw the addition of four iconic instruments in 2017: CMI V, Clavinet V, DX7 V and Buchla Easel V; and three more with V Collection 7 in 2019: Synthi V, Mellotron V and CZ V. 2019 was also the year the company launched Pigments, Arturia's first software synthesizer that was built in-house from scratch. The release of all these innovative instruments truly demonstrated Arturia's continued commitment to building world-class gear for the most visionary creatives.

The arrival of V Collection 8 in 2020 marks the most expansive library of Arturia's virtual instruments yet, now including JUN-6 V, Emulator II V, Vocoder V, OB-Xa V, as well as major updates to many other instruments already included in the previous versions, such as Jup-8 V and Stage-73 V.

1.2. Here and Now

Analog Lab V offers an extensive and inspiring selection of sounds taken from V Collection, providing an efficient doorway to a wide spectrum of soundscapes in a single software. The software has been designed to serve as a creatively gratifying way of accessing sounds that revolutionized modern music.

The Analog Lab V sounds were taken from these quintessential instruments:

- Modular V
- Mini V
- CS-80 V
- ARP 2600 V
- Prophet V
- SEM V
- Wurli V
- VOX Continental V
- Solina V
- Matrix-12 V
- Farfisa V
- Synclavier V
- B-3 V2
- Piano V2
- Clavinet V
- DX7 V
- CMI V
- Buchla Easel V
- Mellotron V
- Synthi V
- · Pigments
- OB-Xa V
- Vocoder V
- Emulator V
- Jun-6 V
- Jup-8 V4
- Stage-73 V2

The Multi system allows you to combine any two patches, layering or splitting them across a key range, meaning there is virtually unlimited potential for sound creation.

With all these classic instruments in one place, Analog Lab V gives you access to sounds from all the powerful hardware instruments that are financially out of reach for most people. Plus, with its simple and powerful browser and intelligent filtering, it makes finding the right sound quick and easy.

2. MAIN FEATURES

You will see that Analog Lab V offers three main tabs to work from: Library, Studio, and Stage.

The Library View is the default viewing mode when you open the software. It lets you explore sounds and presets by types (such as Bass, Piano, Strings, and more), instruments, soundbanks, and sound designers. Access your saved presets, soundbanks and favorite sounds in 'My Library', and prepare Playlists with Songs for playling live in Stage View.

In *Studio View*, you can enter Single Mode - playing with one instrument - or Multi Mode, where you can work with up to two instruments at once. In *Multi Mode*, you can create your own splits and layers with the powerhouse synths and keyboards with a simple drag and drop functionality. You'll also be able to add effects (Effects A and Effects B) of your choice, with Delay and Reverb acting as two default effects.

The Stage View simplifies the setup of your instruments and effects you prepare in Library and Studio View for the smoothest live playing experience possible. Recall your sounds and multis quickly via program change messages, and enjoy the ride without needing to think too hard about the setup. The Playlists you will in this mode are the Playlists you will have created in the left side panel in Library view.

 \mathfrak{L} : If you own a full license to a standalone virtual instrument and have it installed on your device, you can also load it up in Analog Lab V and make use of its full functionality.

If you'd like to learn more about these modes right now, jump to Library,-Studio-and-Stage Menu [p.14].

Analog Lab V is more than just a sound library of the best analog keyboards - it is a powerful sound design tool and live performance instrument you can integrate into your unique workflow. You'll be able to work with more than 2,000 presets with added macros, effects, and arpeggios. With its capacity to save your favorite instruments and sounds in playlists, and intelligent browsing of presets by genre, moods, and more, you're able to easily create the music straight from your wildest dreams.

Analog Lab V is a brand new software that will install separately from Analog Lab 4, meaning it won't work as a simple update but as a new addition to your collection of digital music tools. Analog Lab Intro is included when purchasing a MiniLab, and the full version of Analog Lab V comes with KeyLab at no extra cost.

The software also supports many of Arturia's MIDI controller devices natively and, once connected, will adapt to reflect their physical controls. You can of course use generic MIDI controllers as well.

3. ACTIVATION AND SETUP

3.1. Register and Activate

Analog Lab V works on computers and laptops equipped with Windows 8.1 or later, and macOS X 10.13 or later. You can work with it in standalone mode or use it via Audio Units, AAX. VST2. or VST3 instrument.









Once you install Analog Lab V, the next step is to register the software. This is a simple process that involves a different software program, Arturia Software Center.

3.1.1. Arturia Software Center (ASC)

If you haven't installed ASC yet, 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 installer version for the system you're using (Windows or macOS).

After you complete the installation instructions, proceed to do the following:

- · Launch the Arturia Software Center (ASC)
- · Log into your Arturia account
- · Scroll down to the 'My Products' section of the ASC
- Click on the 'Activate' button next to the software you want to start using (in this
 case, Analog Lab V)

It's as simple as that!

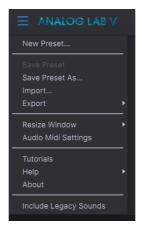
3.2. Initial setup for Standalone Use

If you would like to use Analog Lab V in standalone mode, you will need to set up the software and ensure that MIDI and audio signals are flowing through it properly. You only need to do this once unless you'd make some major changes to your computer. The setup process is largely the same on both Windows and macOS computers but for the sake of clarity, we'll cover each system separately.

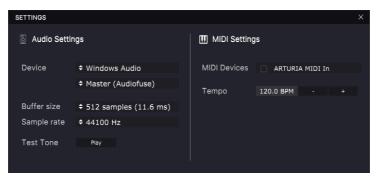
!: This section only applies to readers that plan to use Analog Lab V in standalone mode. If you are only going to use the software as a plugin within a host music software, you can jump to the end of this chapter - Using-Analog-Lab-V-in-plugin-mode [p.9] - as your host music software will handle these things automatically.

3.2.1. Windows Users: Audio and MIDI settings

At the top left of the Analog Lab V application, you'll find a hamburger icon that opens up a pulldown menu. This contains various setup options. Go to 'Audio MIDI Settings' to setup how the audio signal behaves (the sound and MIDI flowing in and out).



This option works in the same way on both Windows and macOS X, although the names of the devices available to you will depend on the hardware that you are using.



Starting from the top, you'll have the following options:

- Device selects which audio driver and device will handle the playback of Analog
 Lab V. This can be your computer's internal driver, like Windows Audio or ASIO,
 or CoreAudio in Mac devices. Depending on your selection, the name of your
 hardware interface may appear in the field below.
- Using the second bar under 'Device' lets you select the output channels, which
 means choosing which of the available outputs will be used to route your audio
 out. If your selected device has only two outputs, then only two options will
 appear here. If your device has more than two outputs, then you can select a
 specific pair of outputs.
- The Buffer Size gives you the option to choose the size of the audio buffer your computer uses to calculate sound.

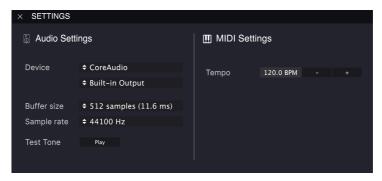
 Λ : A larger buffer means a lower CPU load as the computer has fewer interruptions and longer amount of time to process commands. However, this can result in longer latency (reaction time) between pressing a key and hearing the sound it's supposed to produce, which creates a considerable problem when wanting to play an instrument smoothly. On the contrary, a smaller buffer means lower latency between pressing a key and hearing the note but a higher strain on your CPU.

A fast, modern computer should be easily able to operate at low sample buffer sizes (256 or 128) without audio glitches. However, if you do hear clicks, pops or other audio disruptions, try increasing the buffer size until you reach smooth playback without any glitches. The latency time is displayed in milliseconds 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 listed here will depend on the capability of your
 audio interface hardware.
 - f: Virtually, all audio hardware can operate at 44.1 or 48 kHz which is perfectly fine in most applications, including Analog Lab. Higher sample rates place greater loads on the CPU so we recommend staying at 44.1 or 48 kHz unless you have a specific requirements to work at high sample rates.
- Test Tone plays a simple test tone to help you troubleshoot any audio issues. You
 can use this feature to confirm if the instrument is routed correctly through your
 audio interface and whether audio is playing back to where you expect to hear
 it (your speakers or headphones, for example).
- Your connected MIDI devices will appear in the MIDI Settings area. Note that
 this is only displayed if MIDI devices are present on your computer. Click the
 check box to accept MIDI data from the device you want to use to trigger the
 instrument. Note that you can select more than one MIDI device if you wish to
 play Analog Lab V from multiple controllers.
- Tempo lets you set the tempo of the Analog Lab V sequencer. When using Analog
 Lab V within a host music software as a plugin, the virtual instrument gets tempo
 information from your host software.

3.2.2. MacOS Users: Audio and MIDI settings

The process of setting up Audio and MIDI settings in a macOS system is overwhelmingly similar to setting them up in Windows (described above), and the menu is accessed in an identical way. The only difference here in macOS is that OS X uses CoreAudio to handle audio routing, and within that, your audio device will be available in the *second* dropdown menu.



3.2.3. Using Analog Lab V in plugin mode

Analog Lab V comes in VST, AU and AAX plugin formats for use in all major digital audio workstation (DAW) host software, such as Cubase, Logic Pro, Pro Tools and more. You can load it as a plugin instrument and its interface and settings will work in the same way as in standalone mode, with a few small differences:

- The instrument will now sync to your DAW's host tempo.
- · You can automate numerous parameters using your DAW's automation system.
- You can use more than one instance of Analog Lab V in a DAW project (in standalone mode you can only run one instance of Analog Lab).
- You can route Analog Lab V's audio outputs more creatively inside your DAW using the DAW's own audio routing system.

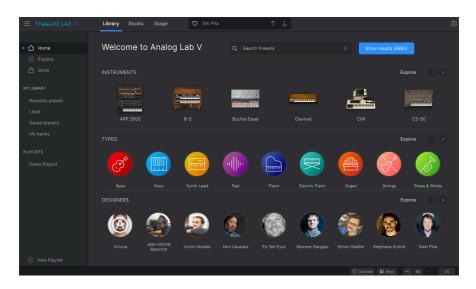
Now that you've set up your software, it's time to play!

4. _USING ANALOG LAB V

Analog Lab V contains over 2,000 presets carefully selected from Arturia's award-winning emulations of the world's greatest hardware synthesizers, organs, vintage keyboards and pianos. You'll also be able to explore cinematic soundscapes, must-have presets from the most popular music genres, and layered instrument sounds.

This chapter goes in-depth into the features of Analog Lab V so you can get the most out of your creative journey.

4.1. The Interface



Analog Lab V has been designed to let you find sounds, instruments and presets quickly and easily for maximum productivity and inspiration. Its core application interface is similar to the one you can find in many V Collection instruments.

When you open the software, you will see that the main interface consists of the following sections:

- The Upper Toolbar: This toolbar includes a hamburger button with a drop down menu, access to the Library, Studio, and Stage mode, a preset bar to flick through and like (heart icon) presets, and an expandable Settings menu in the top right corner.
- The Left Side Panel: The side panel is a quick navigation panel to explore the presets available, to access your personalized library of sounds, and to organize the sounds you want to play when going live.
- The Right Side Panel: The right side panel appears when you click on the gear icon in the top right corner. Customize your Global Settings, MIDI preset settings, Macros, and access our Tutorials.
- The Main Menu: This is the central browsing catalog of sounds where you'll probably be spending most of your time. Browse sounds by Instruments, Types, Packs (soundbanks), or Sound Designers.
- The Lower Toolbar (bottom right): The lower toolbar lets you make the knobs and the keyboard appear, set up keyboard settings, access your history of actions, and monitor CPU levels.

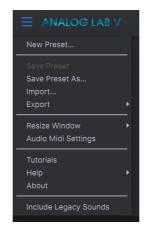
4.2. The Upper Toolbar

The Upper Toolbar that runs along the top of the software provides access to many useful features, including the dropdown Analog Lab V menu, access to switch between the modes you're working in, the preset browsing bar, and the gear icon to access settings. Note that the mode you're viewing is underlined with blue - in the case below, that would be the Libraru mode.

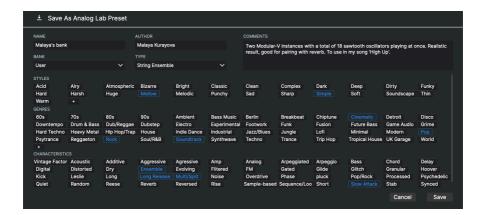


4.2.1. The Analog Lab V Menu

Clicking the hamburger icon in the top left corner opens a dropdown menu and lets you access several important features. Let's look at them in detail.



- New Preset: This option creates a new preset with default settings on all
 parameters. Click on 'Explore' on the left side panel to view a list of the sounds
 you are choosing from. To cancel creating a new preset, click on the 'X' in the
 preset bar in the upper toolbar. This function is called 'Quit swap' and it will be
 highlighted in red during the process of creating a new preset.
- Save Preset: This option will overwrite the currently loaded preset with any changes you have made. If you would like to save the current preset under a different name, use the 'Save As...' option below.
- Save Preset As... This lets you save your preset under a different name. Clicking
 this option reveals a window where you can name your preset and enter more
 detailed information about it.



Arturia's powerful browsing system lets you save much more than just a preset name. You can enter the Author's name, select a Bank and Type, select multiple tags that describe the sound, and even create your own Bank, Type, and Characteristics. This information can be read by the preset browser and will be useful for searching the presets banks later. You can enter any text comments you want in the Comments field, which is handy for storing any creative brainstorming thoughts while creating a preset. It can help you remember what you intended to make with the sound or provide context to other users with which you are collaborating.

Import: This command lets you import a preset file, an entire bank, or a set of
playlists exported from another Arturia instrument. When importing a playlist file
(aplst), it will show up in 'Playlists' in the panel on the left side (please refer to
the 'Playlists' chapter of this user guide to learn more). This function is mostly
reserved for cases when you'll be collaborating with other musicians and you
will need to import a soundbank that they have made and sent you.

Note: Any soundbanks or virtual instruments that you purchased and installed via the Arturia Software Center will not need to be individually imported. Analog Lab V will automatically recognize the installation of these sounds and will add these to your library of sounds.

- Export: You can export presets in two ways as a single preset, or as a bank.
 - Export Preset: Exporting a single preset is handy when you want to share a preset with someone else. The default path to these files will appear in the 'save' window, but you can create a folder in another location if you like. The saved preset can be reloaded using the *Import* Preset menu option.
 - 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. Saved banks can be reloaded using the *Import Preset* menu option.
- Resize Window: When you click on 'Resize Window', you'll be able to select Zoom In or Zoom Out to increase or decrease the size of the instrument's window on your screen. To speed up your workflow, use the shortcut 'cmd' and '-' to zoom out, or 'cmd' and '+' to zoom in on a Mac, and 'ctrl' and '+' or 'ctrl' and '-' on a PC. You'll also be able to select a specific viewing percentage you want to work in. The smallest viewing percentage is 50%, the highest is 200%.

f: Increase the size to get a better view of the controls, especially on large screens or second

Audio MIDI Settings (only available in Standalone mode): This is where you
manage the way the instrument transmits audio and receives MIDI. Press 'Play'
to test where the sound is coming from and how it behaves. See the section
Audio and MIDI settings for more information about these settings.

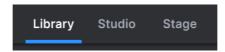
I: The Audio Settings menu is only available when using Analog Lab V in Standalone mode (working with the software when it's open directly and not accessing it through another program). When using Analog Lab V as a plugin, the host software handles all of the parameters in this menu including audio and MIDI routing, buffer size settings, and more.

- **Tutorials:** Analog Lab V comes with tutorials that walk you through different features of the instrument. Select one of the tutorials to get step-by-step descriptions of how to make the most of the software's features.
- Help: Get more help by visiting links to the Analog Lab V User Manual and the Analog Lab V's Frequently Asked Questions pages on Arturia's website. You will need to be connected to the internet to access these pages.
- **About:** Here you can view the software version and developer credits. Click again anywhere on the screen to make this pop-up window disappear.
- Include Legacy Sounds: The option to 'Include Legacy Sounds' will appear if you have installed version 1 of Piano V, B-3 V, Stage-73 V, Jup-8 V3. The Analog Lab 4 soundbanks are also available to import into Analog Lab V, however, some of the presets will have different FX (effects) settings. You can think of this option as an opportunity to import a soundbank of older sounds. This gives you the option to recall the exact presets that came with the original (v1) instruments, and the flexibility to keep working with sounds you learned to love in a newer, revamped version of the software for the smoothest experience possible.

Note that certain presets from older versions of instruments will not be added by default as these presets have been replaced by newer, improved versions.

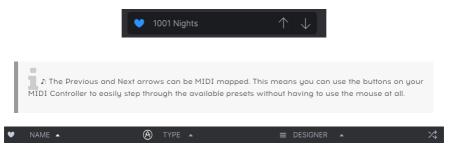
4.2.2. Library, Studio, and Stage Menu

Switch between Library, Studio, and Stage Mode quickly and easily. Each of these modes will be explained in more detail in the 'Main Menu' section.



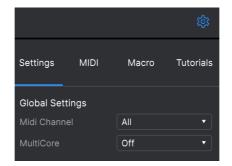
4.2.3. Preset bar and navigation arrows

This area of the Toolbar will show you the name of the currently selected preset. The heart button gives you the option to like your preset. To access all your liked sounds, click on 'Liked' on the left side pannel under 'My Library' (you can also access the liked presets by clicking on the like button at the top left of the result list). The up and down arrows will let you load the previous or the next preset, moving within a previously selected filtered list of presets.



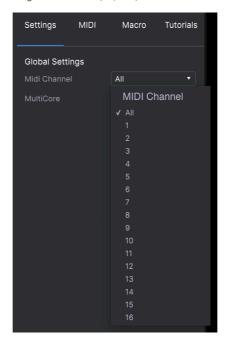
4.2.4. Settings

Clicking the gear icon in the top right corner will open the right side panel, where you'll find these 4 settings tabs. Click back on it to close the side panel.



4.3. Global Settings

• MIDI Channel: Click on 'MIDI Channel' to expand its selection to show the full range of values you can select (All, 1-16).



♪: By default, Analog Lab V will receive MIDI data on all 16 MIDI channels. You can change this by selecting a specific channel in this menu. You will need to do this if, for example, you want to use an external controller to use a number of instances of Analog Lab V.

Acceleration Mode: This option sets the sensitivity of encoder knobs by adjusting
the 'ballistics' of encoder knobs. You can adjust this parameter to your personal
taste if on-screen knobs feel too-slow or too-quick. Note that this option is only
available for certain controllers that support it, it is hidden for controllers that do
not support it.

4.3.0.1. MIDI Mapping Options

This section is used when configuring generic MIDI controllers. Note that these menu options are only listed when using non-Arturia controllers, or when selecting 'Generic MIDI Controller' in the MIDI controller menu.

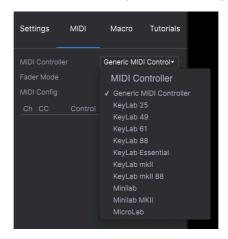
- Function Learn: These options provide quick-access to MIDI learning of preset navigation and preset filtering features. To use these, simply click Learn of your desired function and push, turn or move any control on your hardware controller. Doing so will map your hardware control to the desired software parameter.
- Enter Assign Mode Button: This button places Analog Lab into MIDI learn mode. In this mode, all MIDI-assignable parameters are shown highlighted and you can map physical controls (on your MIDI Controller) to those on-screen controls inside the instrument. A typical example might be to map a real expression pedal to the Master Volume control, or a physical knob on the MIDI controller to the Frequency knob of the Filter Oscillator module.

MIDI learn works for Analog Lab V's controller areas, mixer and effects sections and patch select buttons. You can't use MIDI learn directly on the parameters of the instruments interfaces, but you can MIDI assign a controller of Analog Lab's controller area and then assign this controller to a parameter of the instrument interface.

• MultiCore: Click on 'MultiCore' to switch it on and off. This function serves to process each part of a multi in a dedicated core of your computer.

4.4. MIDI

MIDI Controller: Select which MIDI controller you want to control Analog Lab
V with. If you are using one of Arturia's own MIDI controllers, it will be autodetected and automatically MIDI mapped, together with the layout of the onscreen keyboard controls. If you do not own an Arturia controller, you can select
'Generic MIDI Controller' and create your own MIDI assignments.



 $m{1}$. If you own an Arturia MIDI controller but still prefer to map controls manually, select 'Generic MIDI Controller' in the MIDI Controller menu.

-Fader Mode (available only if you own an Arturia controller with faders): This menu determines the MIDI 'pickup' behavior. Pickup is what happens when your hardware controller's slider or knob is out of sync with an on-screen control. For example, if the position of the knob is at 12 o'clock, and the position of the software instrument's parameter is at 3 o'clock, you will need to turn the knob to the 3 o'clock position before the adjustments will be activated.

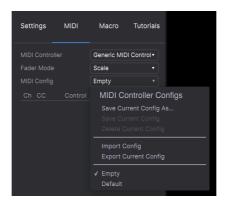


The *None* option snaps the on-screen control to the physical position of your control when you push, turn or move the control. This is the simplest approach but can potentially result in sudden, abrupt jumps.

The *Hook* option means the on-screen knob is not affected at all until the physical control reaches the on-screen position. This helps you avoid sudden jumps but it may mean the knobs won't have an immediate effect on an on-screen control until they are 'hooked' together.

The *Scale* option offers the best of both worlds by moving the on-screen control when the physical knob is out of sync until the two controls become synchronized. This helps to avoid sudden jumps and deals with non-reactive knobs efficiently, making it the perfect solution to the MIDI's pickup behavior.

-MIDI Config: This pull-down menu lets you manage different setups of MIDI mappings for controlling Analog Lab V.

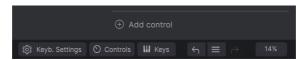


For example, if you have multiple hardware controllers (such as a small live performance keyboard, a large studio keyboard, a pad based controller, etc.), you can create a profile for each of them once and then quickly load it here afterwards. This saves you from having to redo the MIDI mapping assignments from scratch each time you swap hardware.

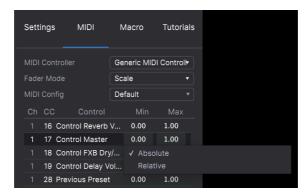
Once you have created a profile, you can save, delete, import, export, or empty it, using the options in this menu.

!: If you connect your MIDI controller to your laptop after launching the Analog Lab V software, you will need to quit the software and relaunch it again in order to see all the options related to your controller.

-Add Control: Press '+ Add Control' on the bottom right, just above the edge of the lower toolbar. This will open a pop-up selection of all the available parameters. When you click on one, it will be added to the list just below the MIDI settings panel on the right. Turn a knob on your connected controller, and the parameter will become assigned to that specific knob.



Double clicking on the parameter after it shows up in the list will give you the option to choose 'Absolute' or 'Relative' message ('Absolute' is the default one).



Having your parameter set in the 'Absolute' mode means that the current position of the knob won't affect the range of the parameter's effect, and will instead be guided by 'absolute' values that are levels placed on the very left and the very right when moving the knob. On the other hand, changing your parameter into a 'Relative' mode will mean that the position of the knob when you select this mode will become the boundary level of this parameter. This means you can customize the way you use the knobs to fit your specific style of music.

↑: Absolute positioning sends the exact position of the knob as a specific numerical value (i.e. 'Set value to 54, 55, 56' etc.) when you turn the knob on your hardware controller. This is the most common implementation and is almost always used when using potentiometer knobs with 'hard' stops at the opposite ends. One downside to this process is that if you change presets, your physical knob and onscreen control will be out of sync with each other, and turning the physical control can cause the onscreen control to suddenly jump to that specific position.

If you want to assign multiple parameters to one knob, go to 'Settings', then 'Macro', then add the parameters you want to use by clicking on 'Add Control'.

In a Single Sound mode, you can add a destination only if you own the instrument that's in the selected Part, with the available destination showing in purple.



In a Multi Mode, you are premapped to the Part 1 Macro 1 and the Part 2 Macro 1, when you generate the multi. You can assign others parameters in the Studio view if you'd like, but not specific pre-assigned parameters from the parts.



4.4.0.1. How MIDI assignment works

Placing Analog Lab V into MIDI learn mode (using the Enter Assign Mode button in the MIDI Settings menu) activates MIDI Learn mode. When this mode is engaged, all assignable controls are highlighted in either red or purple.

If you click on a purple area, you'll place that control into learning mode. Move a physical dial or fader and the target turns red to show 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 a button to unassign the two from each other.

The popup also features a **minimum** and **maximum slider** that you can use to restrict the parameter change range to something other than 0%-100%. For example, you might want the amp's master volume 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 dial would not alter the volume any lower than 30% or any 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.

If you have assigned a control accidentally or would like to re-assign it, click the **Unassign** button to unlink the hardware and on-screen controls.

In the case of on-screen controls (like switches) that only have two positions (up or down) you can still use minimum and maximum values in the MIDI learn popup window. The behavior is slightly different in such a case. In short, it's about what values the controller sends and whether those are high or low enough to trigger the state change in a switch. The threshold values are always 0.5 or in the case of two-state switches, .33/.66 in three-state switches and so on. You can set the minimum and maximum values of the hardware MIDI control but whether it affects the software parameter depends on whether it crosses the threshold required to make the change.

Let's take an example. We want to control a 2-position switch with a hardware fader. The fader value goes from 0.0 to 1.0 and the switch state will always change when 0.5 is crossed. The same principle applies for the three-stage switches, where instead of 0.5 being the state change value, it is divided into thirds. In the case of drawbars which have nine different positions the same rule applies but instead of splitting the controller range into two or three it is split into nine.

4.4.0.2. Reserved MIDI CC numbers

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

- PitchBend
- Ctrl Mod Wheel (CC #1)
- Ctrl Expression (CC #11)
- After Touch
- Ctrl Sustain On/Off (CC #64)
- Ctrl All Notes Off (CC #123)

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

4.4.1. Macro

The Macro tab lets you use 4 performance controls. These will apply to any instrument you will choose to work with.



Upon selecting a preset in the Library view, you will be able to click on that sound in the Part selection that will appear to the right of the results column, and control the macro values for that specific Part.



To tweak the sounds and to find your sweet spot, select the most desirable parameters to make a preset evolve and finetune their range.

 \mathfrak{L} : To adjust the range of parameters without changing the original preset, you can select the minimum and the maximum of each destination. To do this, hover over the values and click so that a double-sided arrow appears instead of your cursor. Then, slide up or down to change the values.

The 4 Macros present in Analog Lab V are:

- -**Brightness:** The most commonly used macro on most presets. Used for controlling the cutoff on subtractive synths, piano tones, or drawbars on organs.
- -**Timbre:** Complementary to brightness for adding another dimension to the sound. This function lets you set the resonance for the filter, mix different sound sources, make your sounds 'dirtier' everything that transforms the sound in a creative way.
- -**Time:** Play with Attack, Decay, Release whichever timing transformation you'll find most interesting.
- -**Movement:** This knob brings life to any preset with Vibrato, Tremolo, and more evolving sequences.

Use the right and left arrows to switch between these 4 Macros.

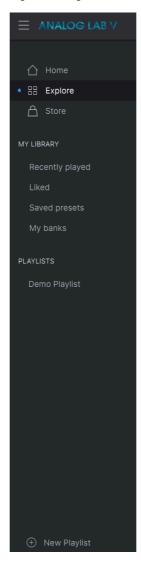
£: Planos, EPs and organs offer automatic working macros. This should not prevent you from making more creative presets by changing some of the macros. For these three categories of instruments, the Brightness and Timbre should ideally remain quite consistent, while Time and Movement should allow custom mappings when a preset is calling for it.

4.4.2. Tutorials

Access Arturia's Analog Lab V tutorials and be inspired about the endless capability of this instrument. Browse through our expert guidance to encourage yourself creating in a way that works best for you.

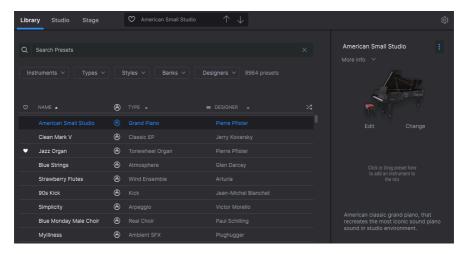
4.5. Left side panel

The side panel on the left works as a comprehensive navigation menu to access all the sounds you need in a quick and organized way.



- **Home:** Clicking on 'Home' allows you to return to the general Main Menu (Library) view, from where you can browse sounds by different categories.
- **Explore:** You can explore presets, instruments, and soundscapes through lists in the 'Explore' view.

After clicking on a specific preset, you will see it appear on the right. You can then drag another preset from the list to add into the mix (you can also do this by clicking on the empty area first followed by clicking on the preset in the list). You can have up to two presets in the mix at one time.



When clicking on either of these two presets, you will notice that the one on the top shows up with orange controls, whereas the one below shows up with green controls. This coloring serves to distinguish 'Part 1' and 'Part 2' (which you can understand as 'Instrument 1' and 'Instrument 2'). This will become important when you'll be viewing the instruments in Studio and Stage Mode that are explained in more detail in the upcoming sections. Selecting the two presets will make both of them appear in the Studio as well as the Stage mode.

When you click on the preset info panel on the right (where the preset shows up with a visual representation of the instrument that this preset is taken from), you can then select 'Edit' to view the specific instrument's interface. If you have the license of the instrument in question, you'll be able to manipulate its controls or wiring manually. If you select 'Replace', you'll be able to swap your preset selection for a different one. Swap it after clicking 'Change' by clicking on a different preset in the list menu. Confirm your selection with 'Quit'.

 \mathcal{E} : In case you fall in love with a preset you'll discover in the 'Explore' section, you can save it straight away to play with it live later on. To do this, click on the preset in the panel on the right, then click on the three dots placed at the top of that panel, and choose 'Add Preset to Playlist'.

Select 'Clear All' to erase all the filters you have selected. The 'Clear All' option is at the top of the result list, only visible if you have selected a filter.



• Store: Visit the in-app Arturia Sound Store to equip your setup with more inspiring sounds. The 'Store' view will automatically show the latest releases of soundbanks. Clicking on the packs will allow you to listen to a few sample presets. Make sure you're signed into your Arturia account to be able to complete the check out. To view the packs you already own, press 'User Banks'.

4.5.1. My Library

Access your 'Recently played' and 'Liked' sounds as well as 'Saved presets and 'My banks' to return to the customized creative journey.

 $m{r}$. If you 'hearted' your favorite sounds in Analog Lab 4, these will now automatically show up in your 'Liked' sounds in Analog Lab V library too.

4.5.2. Playlists

Playlists act as lists of sounds you need ready at your fingertips when playing live. This incredibly helpful mode will save you crucial time on stage. You'll see a 'Demo Playlist' to get you going - why wait? Press 'Go on Stage' to experience your live setup. Press '+ New Playlist' to create your own selection of sounds to perform live. We'll get into more detail in the 'Stage View' chapter later on.

4.6. Main Menu

The main menu lets you browse sounds intuitively by instruments, types, packs, and sound designers. If you're searching for a specific sound, you can also use the search bar (no need to press enter to see the results, the result list automatically refilters when you type in what you're looking for). For example, entering 'techno' will offer a selection of sounds filtered by style (Hard techno, Techno), by banks (Aphex Ambient Tribute), and by sound store (JMJ Tribute, Sunthopedia).

Clicking on an instrument or a type you're interested in will move you to the 'Explore' view.

4.7. Lower Toolbar



Controls: Clicking on 'Controls' expands the 9 knobs available: 4 Macros (Brightness, Timbre, Time, Movement), 4 effects (Effects A and Effects B of your choice, and Delay and Reverb), and 1 Master slider. Click on 'Controls' again if you want this panel to disappear.

Keys: Clicking on 'Keys' expands the virtual keyboard, with the Pitch and Modulation wheels placed on the left. Click on 'Keys' again to make the virtual keyboard disappear.

Navigation arrows and hamburger icon: Clicking on the hamburger icon in the lower toolbar lets you browse your history of clicks.

CPU Meter: The CPU meter is used to monitor how much of your computer's CPU is being used by the instrument. If it nears 100%, your workflow might be slowed down. Clicking on the CPU meter sends a 'panic'/'All sounds off' message, cutting any residual sounds in your audio signal.

!: If the CPU meter is high, you may hear clicks, pops, or other audible glitches in playback. In this case, consider increasing the audio buffer size setting. This is found under Audio Settings when working in Standalone Mode or in your host music software's preferences menu. Reducing the number of polyphonic voices can also help with decreasing CPU usage.

4.8. The Virtual Keyboard

The virtual keyboard area in Analog Lab V gives you access to both click-and-play keyboard and controls that you can use to modify the presets. These can vary in appearance depending on your connected hardware. Let's work our way through each section.

4.8.1. Virtual Controls

When Analog Lab V detects an Arturia MIDI controller, it automatically chooses controls that match that unit's appearance and functionality. This means all of your controls are visible on the computer and their assignments will match instantly. For example, a larger KeyLab MkII hardware controller will have many more on-screen controls than less in-depth controller keyboards. If an Arturia MIDI controller is not detected, a generic MIDI controller will be displayed on the screen.

 Γ . If you would like to override this assignment or if you don't have an Arturia keyboard connected to Analog Lab V, you can manually select a controller from the Settings menu.

4.8.1.1. Accessing Virtual Keyboard and Controls

To make the virtual keyboard in Multi Mode appear, choose your Part 1 and Part 2, go to Studio Mode, and press on 'Keys' in the lower toolbar.

To make the controls appear, click on 'Controls', also in the lower toolbar. Click on Part 1 to access controls on that part, and click on Part 2 to control the second part.

4.8.1.2. Keyboard Settings and Split Point

To see the virtual keyboard's current settings and to manipulate them, press 'Keyb. Settings' in the lower toolbar. Here you will see the green and orange strip at the top of the keys. The orange strip corresponds to the playing range of Part 1, and the green strip corresponds to Part 2. To setup your 'split point' (the boundary between the different playing ranges of both of your sounds), press and drag on 'Low' to set up your lowest key value, and press and drag on 'High' to set up the highest key value.

Note that you adjust all the controls for Part 1 and Part 2 independently.

Click on 'Chan' on either parts to select on which channel the MIDI input signal will be received. Please refer to the section on MIDI [p.18].

'Oct' and 'Transp' are functions to let you manipulate the octave and transpose values of the keys you play. You can move up or down 4 octaves, and the minimum and maximum value of transpose is -24 and +24. With the transpose function, you can adjust what your keys will play by moving them up or down by a desired amount of semitones.

You can activate or deactive the bend and wheel controls on Part 1 and Part 2 by selecting or deselecting the corresponding blocks, placed right above the virtual keyboard next to the 'Oct' and 'Transp' functions. The pitch bend and mod wheel are placed at the very left of the keys.

'AT' (aftertouch), 'Sust' (sustain), and 'Exp' (expression) are additional controls to help you perform in your own unique way.

AT can be described as a secondary velocity layer, meaning if you push the note to trigger a sound, and then push it harder (on a physical controller keyboard which has AT functionality), it will activate the secondary control. A secondary control could be opening a filter, an LFO rate, or any of your own customized controls.

The 'Sustain' function works the same as a sustain pedal on a piano (after triggering a note, the note will be held for as long as the pedal is pressed). For this function to work, you need to have a sustain pedal connected to a controller keyboard. With the Sustain function switched off, the pedal will not have the desired effect on that specific Part. Depending on the instrument, Sustain will work either as an on/off mechanism, or as a continuous effect (like on all the pianos and EP).

Expression' works on a gradual basis, as an expression pedal. A common use of this to control velocity. You will need to have an expression pedal connected to a controller keyboard to be able to play with this feature.

4.8.2. Common on-screen keyboard features

While the knobs and sliders will vary depending on the type of MIDI controller you are using, some controls remain consistent across all keyboards. These are the following:

4.8.2.1. Level [master volume]

Each of the virtual keyboard choices has a Level slider in the same location: above the pitch/mod controls (except on KeyLab Essential and KeyLab MkII where it is the 9th knob). This slider allows you to set the volume of the current part, or the master volume of a Multi if the Live tab is currently selected.

4.8.2.2. Pitchbend and Modulation wheels

Depending on the virtual keyboard you have selected, their appearance may vary, but you will always have one or the other set of these controls on the left side:

Pitch: Controls the pitch of the sound. Click and drag up or down to alter the pitch of the active Sound.

Mod: Controls the modulation depth (MIDI controller #1). Click and drag upward to increase the modulation, and vice versa.

4.8.2.3. 7-octave keyboard

In the absence of an external USB MIDI controller, you can still play and edit sounds on the virtual keyboard. When using Analog Lab V in standalone mode, you can use your computer's keyboard to play the on-screen keys. To access the virtual keyboard, click on 'Keys' in the lower toolbar.

4.9. Single Sound Mode

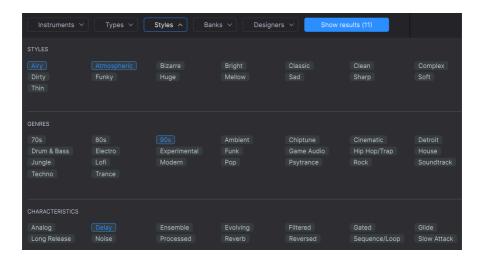
We believe one of the great joys of using Analog Lab V is the over 2,000 incredible presets that come with the software. A preset contains all the settings that produce a particular sound. The main browser—which is always present and takes up much of the screen—is where you find your presets.

To load sounds, just click on any preset in the middle 'Results' column to load it. The preset's details are displayed in the right column. As you scroll through the list, you may realize there are a *lot* of presets. To prevent you from feeling lost or overwhelmed, we have developed a powerful set of search features to help you find the perfect sound quickly.

4.9.1. Preset Browsing in Detail

Analog Lab V, like other instruments in the V Collection, makes extensive use of tagging to make it quicker and easier for you to find the sounds you want. A selection of tags appears in the middle section udner each filtered dropdown list of presets. You can also use keywords or even create your own new tags when saving presets. Newly created tags will be added to the pool and you will be able to search for them.

f: To select more than one tag, hold the 'cmd' (Mac) or 'ctrl' (Windows) key while clicking on tag names.



4.9.2. Using Tags

There are five sections in this column (Instruments, Types, Styles, Banks, and Designers) containing tags, and you can click these tags to refine your search even further. Each section can be minimized using the arrow by its header if you don't wish to use it.

- **Instruments** lets you filter results based on the source instrument used to generate the sound.
- Tupes lets you filter by descriptive tags like 'experimental' or 'processed'
- Styles lets you search using descriptive tags, for example, finding all presets marked with the tag 'mellow'.
- **Banks** lets you focus in on presets based on the bank they belong to. You can also export whole banks from the main application menu.
- **Designers** lets you explore presets by the sound designer responsible for crafting the sounds in Analoa Lab V.

4.9.3. Using the Search Field

Typing text into the Search field will further narrow down your tagged search in a number of ways:

- It narrows down the list of presets presented in the Results column by only
 including Presets that contain the exact word(s) you have typed.
- It locates any filter tags that match your search term
- It searches in the Arturia Sound Store for options that apply to your search terms



4.9.4. Results Column

The center 'Results' column shows the results of your search. If you have not entered any search text or selected any tags, it displays all available Analog Lab V presets (which can be a lot to go through!).

Note that the number of presets displayed in the results after 'Show Results' may be more than the default 2,000 presets if you have already purchased some Arturia soundbanks.

You can reverse the alphabetical display order of either column by clicking on the small arrow at the top of each one. You can also click the display menu button on the Type column to choose what information is shown in that column. For example, you may prefer to see sounds displayed with the associated instrument type rather than the sound designer's name.

4.9.4.1. Shuffle Presets

If you would like to mix up your filtered results so that they are not always displayed in the same order, press the Shuffle Presets List icon. This function helps preset browsing more spontaneous and can help you find sounds that you might not otherwise come across if you browse through filtered preset lists from the top.

4.9.4.2. AI-based preset searching

One of the most amazing features introduced into Analog Lab V is its ability to recommend similar sounds using an artificial intelligence (AI) technology. This system analyzes all of the sounds in your Analog Lab V collection and makes recommendations based on sonic similarity. If you have found a sound you like but would like to audition other sounds that are similar to your chosen sound, click on 'Discover similar presets', accessible through the three dot menu on the info panel for your current preset.

Clicking the double notes icon brings up the prompt above. The AI recommended presets always include your originally chosen preset at the top of the list with similar options listed below. You can audition any of the presets in the list by clicking on them. When you have found a sound that you like, click the X at the top-right. If you would like to keep searching, click the double notes icon to continue the search based on that new preset.

The **Analyze Users Presets** button analyses user-generated or imported presets that have not been added to the database of the AI system.

Finally, the **Analyze Current Preset** button analyses the currently selected preset if it is not yet in the database of the AI System. This can be faster than the above option because it lets you analyze a single preset instead of analyzing all presets.

4.9.5. Preset Details Column

When a preset is selected, the part on the right of the Preset list is a window showing details about the selected Preset.

Use the **Save As** button that you will find in the three dot menu on the top right of the preset info panel to edit any information about the preset such as its name, styles and any comments you want to add.

A Delete button is available for User preset, again in the three dot menu on the top right of the preset info panel. This button is only available when editing user presets (factory presets cannot be deleted).

4.9.6. Editing a preset

One of the great features of Analog Lab V is that it is possible for any of its presets to be opened and edited using the original Arturia instrument on which it was created, as long as you have purchased and installed that instrument on your computer. Presets created using individual instruments will also be available inside Analog Lab V. Similarly when you save a Single preset inside Analog Lab V for a specific instrument, that preset can be opened in the standalone version of the instrument if you have it installed and activated.

That being the case, clicking on the Edit button inside the Preset details window will open the current preset inside that synth.

For instance, if you own Modular V and have it installed in your device, you can open any of the Modular V presets you find by clicking on the Edit button.

Next, the instrument's editing window will open. All available instrument interfaces open inside Analog Lab V's window.



After this, you can edit the preset however you like with the instrument's controls, and then save the edited preset as a new User preset. Note that when a preset has been edited, it gains a small star icon buits name.

I: Factory presets cannot be overwritten, they can only be modified and saved as 'User' presets.

If you do not have the relevant instrument activated on your computer or the version is not up to date, you will still be able to play the sounds and edit them using Analog Lab V's controls, but not view and edit using the instrument's original interface unless you have an up to date and activated version installed.

4.10. Multi Mode

We feel Multi mode is where Analog Lab V really goes above and beyond. It allows you to take two sounds and combine them in a layer or split them across your controller keyboard for simultaneous playability.

In Analog Lab V, Multi Mode is accessible from all viewing modes: Library, Studio, and Stage.

We've also added quite a bit of flexibility in the ability to enable or disable various MIDI controls for each sound independently.

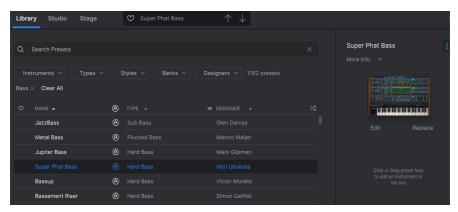
But Multi mode is much more than just adding two sounds together! You can also add independent effects to each sound such as delay, flanger, reverb, bitcrusher and overdrive, to name a few. We've provided a variety of effects that will take your combined synthesizer programs and make them extraordinary. You can also add Studio view effects to single presets.

And of course, you can open the editing panel for any Arturia plug-in synth you have installed and authorized, so it is possible to adjust any parameter of either preset and dial in the exact combination you're looking for.

We've included plenty of Multis already so you can get a feel for what's possible but we hope you'll make many more of your own.

4.10.1. Multi Mode: An Introduction

Upon selecting a preset in the Library view, you will see the info panel of Part 1 appear on the right. You can then drag and drop any other sound from the browser into the empty slot of Part 1, right below Part 2.



When working in Multi mode, a virtual copy of each Single preset in use in the Multi is made and stored inside the Multi patch. So even if you go back to Single mode and change the original Single patch, the version that exists inside the Multi is unaffected. Therefore, you don't have to worry about changes to Single patches affecting Multis.

4.10.2. Replace Mode

When adding a Part to a Single or clicking 'Replace' on an existing Part, you enter the 'Replace' mode. When in Swap Mode, the preset loaded will be loaded into the swapped part. To exit the multi and load another preset, exit swap mode first.

 $\it \Sigma$: Notice that a color is associated for each part - green for part 1, orange for part 2 - in order to make things visually clear to users.



4.11. Studio Mode

Studio Mode is for finetuning and manipulating the sounds you work with to fit to your own musical vision - in other words, creative sound design. It's where you'll prepare how your selection of presets will behave when you're playing them. You will be able to save this for the Stage Mode for a live performance - keep reading to find out how!

When you open Studio Mode, you will see 7 default channel strips:

- 1 PART 1
- 2. PART 2
- 3. EFFECT A
- 4. EFFECT B
- 5. DELAY
- 6. REVERB
- 7. MASTER

Delay and Reverb are 'send effects', meaning they are set as default effects in two of the channel strips. They will always appear in Studio Mode automatically, you don't need to add them in manually every time you need to use them. Effect A and Effect B are 'insert effects', meaning you can choose from a variety of effects to insert into these effect slots.

Part 1, Part 2, Delay, Reverb, and Master all include a volume slider at the bottom of the strip.

In order to hear the different layers playing separately or together, press the power button on the preset or the effect strip you wish to eliminate from the audio signal. When it turns grey, that means the strip is temporarily inactive and you won't hear it playing. Click it again to reactive it again. Blue means it's on again.

4.11.1. Choosing Your Mix

Click on the 'Part 1' strip to select the preset you want to work with. This will take you to the 'Explore' view where you'll be able to choose a sound to work with (remember that you can filter the sounds to narrow down your selection). Click on the preset and go back to 'Studio', where you will see your desired sound appear in the first strip. 'Part 1' controls are highlighted in orange. To replace your Part 1 sound, click on 'Replace' right underneath the visual representation of the preset in the strip (see screenshot below).



Selecting the second preset for 'Part 2' - if you do wish to include a second sound in your mix - works the same way. Click on the strip, choose a sound from the list in 'Explore', and go back to Studio Mode. 'Part 2' controls are highlighted in green. Adding a second sound changes your mix from 'Single Sound Mode' to 'Multi Mode'. For more information on the workings of the Multi Mode, go to Multi-Mode [p.35].



4.11.2. The Effects section

The four strips next to your mix is where you can load and modify two effects of your choice, and work with the 'Delay' and 'Reverb' panel. As mentioned above, each section can be turned on or off by using its power button.

Click on the effect name field to select from the available effects:

- MultiFilter
- ParamEQ
- Compressor
- Distortion
- Chorus
- Flanaer
- Phaser
- StereoPan

4.11.2.1. Insert Effects

'Insect Effects' refer to effects you can select yourself in the Effect A (FX A) and Effect B (FX B) slot. The 'Dry/Wet' knob signified how strongly that effect is present in your mix, with 'Dry' being at 0% level and 'Wet' working the effect at 100% in full power (this is called 'Scale' when you select the ParamEq effect).

Insert effects are serial, meaning FXA will take the output of the two parts (or just Part 1 in Single Sound Mode), add the effect to those sounds, and then FX B will take the output of FX A and add its effect on top of this.

4.11.2.2. Send Effects

'Send Effects' refer to Delay and Reverb that are always present in Studio Mode. Their power is always 'Wet' and you can control the delay volume and the reverb volume by the volume fader.

Send effects are not serial as insert effects. How it works is that 'Delay' takes the output of the FX B (or the output of the parts only, if no effect is selected in FX A and FX B) and then adds its effect into the mix. 'Reverb' also takes the same FX B output as an input (this is why you cannot have delay in the reverb) and then the FX B output is mixed with both delay and reverb

4.11.3. The Master Strip

The Master control affects all the strips in your mix at once. It adjusts the overall combinations of sounds you've got lined up. Treble, Mid, Bass are EQs, and the fader adjusts the overall volume.

I: Use the fader in the Master strip to slowly decrease the volume of the song you're playing to end the song, if you want to achieve the fade-away audio effect.

4.11.4. The Mixer and Effects are MIDI-learnable

The Mixer and all of the effects can respond to MIDI and are MIDI-learnable. This means that if you put Analog Lab V into MIDI learn mode, you will be able to control any of the highlighted parameters with your hardware MIDI controller.

4.11.5. Editing Effects

To edit an effect, load it up in the FX A or FX B strip, and move the knobs to manipulate the Parts sound. For example, when working with a compressor, you can manipulate the values of threshold, ratio, attack, release, out gain, turn the make up on or off, and adjust the dry/wet value.

4.12. Stage Mode

4.12.1. Entering and Exiting Stage Mode

Stage Mode has been designed to make live performances as hassle-free as possible, so you can simply enjoy the ride and not worry about your sound configuration when playing live. It's the simplest representation of your instruments and the controls you chose to work with, so that when you perform, you don't need to worry about . You can think of Studio Mode as the place where you sculpt your sound, and Stage Mode is where you bring those sounds to life by performing your compositions.

\$\mathcal{I}\$: Note that Stage Mode is read-only, meaning that you cannot modify things like FX, MIDI split points, or other setup parameters. The only parameters that can be modified in this mode are the performance knobs and faders. This is done to simplify life when you are on stage. If you would like to modify other parameters, go back to Studio Mode by clicking 'Studio' in the Upper Toolbar.

To enter Stage Mode, click on 'Stage' You can also enter Stage Mode by clicking on the Playlist of your choice in the Library menu, and then clicking on the 'Go On Stage' button highlighted in blue underneath the Playlist name in the central area.

!: Going On Stage will erase your current modified preset in Library mode, so make sure to save it if you want to load it up later. You will be notified of this before confirming your going into Stage Mode.

4.12.2. Playlist, Song, and Preset Selection

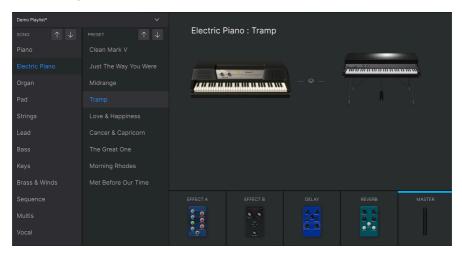
Upon opening Stage Mode, you'll see the Playlist name on top ('Demo Concert', or a different Playlist you created in the Playlists section of the Library menu), with two panels underneath showing your Song and Preset selection. Playlists in Stage Mode can consist of a collection of any number of Songs, with each Song being able to contain up to 128 presets.

Choosing and switching between different Playlists, Songs, and Presets is very easy. To switch between different Playlists, click on the downward facing arrow placed to the right of the Playlist name. You'll then see a dropdown menu of your Playlist selection. Click on the one you want to perform in next. To select a Song or a Preset, click on it or use the navigation arrows to browse the previous or the next item.

It Presets that you place inside a Playlist are saved independently as part of the Playlist. This means that any change made to the original preset won't affect the sound of the preset in your Playlist. Conversely, any change made to a preset in a Playlist won't affect the original preset in Analog Lab V's browser. If you have tweaked a preset inside a Playlist and would like to use that preset elsewhere, save a copy of it in a User bank so you can access it without having to load the Playlist. It You can also use MIDI Program Change messages to change your presets. When working in this way, the MIDI Bank Select MSB selects the song while Program Change selects the Presets within that song. It If you own KeyLab MkII or KeyLab Essential, you can easily select parts directly from the controller by clicking the Part 1, Part 2, or Live buttons. If you own a MiniLab, you can select Part 1, Part 2 or Live by pressing Shift + pad 1, 2 or 3 respectively.

4.12.3. Stage Mode Parts and Effects

You will see your 'Songs' and 'Preset' list on the left, with the Playlist name above. Part 1 and Part 2 (if you chose 2 presets to work with) will show up in the central area, with Effect A, Effect B, Delay, Reverb, and Master slider below.



4.12.3.1. Other controls

The main Stage View section also contains other useful controls for your live performances, all of which can have MIDI commands assigned to them for better hands-on tweaking.

There are also other controls available on this view with pre-assigned parameters, depending on which preset you selected. Go to Controller-Assignment [p.43] to find out more.

4.12.4. Interaction with hardware

As well as automatically mapping hardware controls directly to Part 1 and 2 and the Stage View section, the Arturia MIDI controllers also have a number of built-in shortcuts when directly integrated with Analog Lab V. The key commands are as follows, where the action is carried out on the hardware and the results seen in the software.

4.12.4.1. KeyLab hardware

- Turn Preset Knob: Browse Presets in the list
- Press Preset Knob: Load the selected Preset in the list
- Turn Category Knob: Browse Filters
- · Press Category Knob: Toggle the selected Filter
- Snapshot 1: Select Part 1 (Active Swap Mode, Select Tab Part 1)
- Snapshot 2 : Select Part 2 (Active Swap Mode, Select Tab Part 2)
- Snapshot 3 : Select Live (Exit Swap Mode, Select Tab Live)
- Snapshot 1+ Snapshot 2 + Press Keys: Set the note as split point

4.12.4.2. MiniLab hardware

- Turn Knob 1: Change Volume
- Turn Knob 2: Select Preset in the list, and load it after 1 second
- Pad 9 : Select Part 1 (Active Swap Mode, Select Tab Part 1)
- Pad 10 : Select Part 2 (Active Swap Mode, Select Tab Part 2)
- Pad 11: Select Live (Exit Swap Mode, Select Tab Live)
- Pad 9 + Pad 10 + Press Keys : Set the note as split point

4.12.4.3. MiniLab MkII

- Shift + Turn Knob 1: Change Volume
- · Knob 1: Navigate through filters and active/inactive on push
- Knob 2 : Navigate through presets and load on push
- Pad 9 : Select Part 1 (Active Swap Mode, Select Tab Part 1)
- Pad 10: Select Part 2 (Active Swap Mode, Select Tab Part 2)
- Pad 11 : Select Live (Exit Swap Mode, Select Tab Live)
- Pad 9 + Pad 10 + Press Keys : Set the note as split point

4.12.4.4. KeyLab Essential

- Map Select + Pad Analog Lab V : Enter in Analog Lab V control mode
- Press Cat/Char: Enable navigation into the browser filters
- Press Preset: Enable navigation into the presets result list
- · Turn Central Knob: Navigate through filters/result list
- Press Central Knob on Result List: Load the selected preset in a list
- Press Central Knob on Filter: Active/Unactive Filters
- Part 1: Select Part 1 (Active Swap Mode, Select Tab Part 1)
- Part 2 : Select Part 2 (Active Swap Mode, Select Tab Part 2)
- Live: Select Live (Exit Swap Mode, Select Tab Live)
- · Live + Press Keys : Set the note as split point

4.12.4.5. KeyLab MkII

- Map Select + Pad Analog Lab V: Enter in Analog Lab V control mode
- Press Category: Enable navigation into the browser filters
- Press Preset: Enable navigation into the presets result list
- · Turn Central Knob: Navigate through filters/result list
- Press Central Knob on Result List: Load the selected preset in a list
- Press Central Knob on Filter: Active/Unactive Filters
- Part 1: Select Part 1 (Active Swap Mode, Select Tab Part 1)
- Part 2 : Select Part 2 (Active Swap Mode, Select Tab Part 2)
- Live: Select Live (Exit Swap Mode, Select Tab Live)
- · Live + Press Keys : Set the note as split point
- Fader Buttons : Select filters (when in studio view) and load first nine presets (when in stage mode)
- (When in Stage Mode) Press Left/Right Arrow Buttons to select preset when *Preset* button is illuminated
- (When in Stage Mode) Press Left/Right Arrow Buttons select Song when Category button is illuminated

4.13. Macros and Controller Assignments

4.13.1. Controller Assignment

When you load a preset in Analog Lab V, the controller area at the base of the window changes to reflect the controller assignments stored in that preset. In the case of factory presets, these will be those controls the sound designers have judged most useful for that preset. Additionally, if you are using one of the directly supported Arturia controllers like KeyLab or MiniLab, the relevant set of controls will be loaded to suit that controller. If your hardware controller has lots of physical controls, they will be available in the controller section and pre-mapped; if your controller has fewer physical controls, a more simplified set will be displayed.

For any of the controls shown in this area you can click on the name of the controller to see a popup menu of all other available parameters to which that controller can be directed. This list will depend on the preset you have loaded. So for a synth you will see destinations like oscillators and envelopes, and for an organ, things like swell or drawbar controls.

If you wish, you can unassign a controller by choosing the menu option which is a small dash, meaning no parameters is assigned.

When you are in Multi mode, you get two controller sections, one for each part. If you are using an Arturia controller that is integrated with Analog Lab V, your hardware controller will by default map its physical controls to the same area on each part. So for example a hardware knob that's assigned to the second virtual knob in part 1 will also change the second virtual knob in part 2. You can of course reassign parameters as mentioned above, or unassign a parameter from any controller in either part so the knob will only change one parameter.

If you are using a generic MIDI controller, you will map single parameters to the Part 1, Part 2 or Stage View sections regardless of the page you are currently viewing. It's only when using an integrated Arturia controller that you get default mapping of hardware controls directly to the software.

When you have an instrument installed and activated, you can view its full interface by clicking the 'Show Interface' button.

Note that it is possible to use the controller assign modes in conjunction with the MIDI assign. By assigning a hardware MIDI knob or fader to one of Analog Lab V's controls (purple) and then assigning that control to an instrument parameter (green) you can map the hardware directly through to the instrument's controls.

4.13.2. The MIDI Settings Menu

Here you can configure a variety of MIDI-related parameters. Note that the MIDI Mappings section of this menu is only visible when 'Generic MIDI Controller' is selected under MIDI Controller. Arturia Controllers are automatically MIDI-mapped and ready to go, so no MIDI mapping is necessary.



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