USER MANUAL

_ASTROLAB

ARTURIA

_The sound explorers

Special Thanks

DIRECTION

Frédéric Brun
Kevin Molcard

PRODUCT MANAGEMENT

Pierre Pfister

PROJECT MANAGEMENT

Philippe Cavenel

SOFTWARE ENGINEERING

Baptiste Aubry
Mathieu Nocenti
Pierre-Lin Laneyrie
Raynald Dantigny
Corentin Comte
Marie Pauli
Alexandre Adam
Yann Burrer
Loris De Marco
Cyril Lepinette
Patrick Perea
Stéphane Albanese
Pascal Douillard
Christophe Luong
Pierre Mazurier
Fabien Meyrat

ELECTRONIC ENGINEERING

Loïc Brunet-Jailly
Nadine Lantheaume

FIRMWARE ENGINEERING

Osée Rajaiah
Yannick Dannel
Thibault Senac

MECHANICAL ENGINEERING

Lionel Ferragut

INDUSTRIALIZATION AND PACKAGING

Jérôme Blanc
Héloïse Noir
Morgan Perrier

PRODUCTION TEST

Aurore Baud
Valentin Lepetit

QUALITY

Matthieu Bosshardt
Emilie Jacuszin
Germain Marzin
Arthur Peytard
Félix Roux

SYSTEM ENGINEERING

Markus Bollinger
Charles Leo Mc Manus
Cyril Protat
Antoine Moreau
Timothée Behety
Robert Bocquier

SOUND DESIGN

Athan Billias | Lily Jordy | Quentin Feuillard | Stewart Walker

MOBILE APPLICATION

Camille Maurel

USER DOCUMENTATION

Stephen Fortner (writer) | Sven Bornemark (writer) | Jimmy Michon

BETA TESTING

Richard Courtel | Paolo Apollo Negri | Sean Weitzmann
Gary Morgan | Davide Puxeddu | Chuck Zwicky

In memory of our late colleague Markus Bollinger, for his decisive role in the first stages of development of AstroLab, and above all his unfailing kindness.

26 avenue Jean Kuntzmann
38330 Montbonnot-Saint-Martin
FRANCE
www.arturia.com

Product version: 1.0.0

Revision date: 18 June 2024

Foreword

Dear Sound Explorer,

In front of you is an instrument that represents many things.

An instrument that is the culmination of over 20 years of passion, innovation, and commitment to the pursuit of unhindered musical exploration. AstroLab encapsulates everything we've ever wanted to achieve; the seamless fusion of software and hardware, the magic of finding the perfect sound, the feeling of absolute creative freedom.

An instrument that is a manifestation of everything we feel is missing from performance-oriented keyboards. More than the sum of its parts, AstroLab embraces technologies that are fundamental to the betterment of our daily lives, but haven't yet been fully utilized to creative advantages; mobile app integration, workflow-focused software, the power of thoughtful & simple design.

An instrument that finally offers freedom for performers and producers to command their sound in ways they've always wanted to. AstroLab answers the need for an authentic, spontaneous, experiential tool that creates a fluid continuum between stage and studio - like the humble compass, a simple and powerful tool you can always rely on.

So, fellow Sound Explorer, we couldn't be more proud and grateful that you've chosen AstroLab to help you navigate your creative journey. May it inspire you for many years to come.

Frédéric Brun - *Founder and CEO*

Thank you for purchasing the AstroLab!

This manual covers the features and operation of Arturia's AstroLab, another powerful and user friendly instrument from your favorite synthesizer manufacturer.

Be sure to register your product as soon as possible!

When you purchased AstroLab you were sent a serial number and an unlock code by e-mail. These are required during the online registration process.

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 synthesizer, 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.

EPILEPSY WARNING – Please Read Before Using AstroLab

Some people are susceptible to epileptic seizures or loss of consciousness when exposed to certain flashing lights or light patterns in everyday life. This may happen even if the person has no medical history of epilepsy or has never had any epileptic seizures. If you, or anyone in your family, has ever had symptoms related to epilepsy (seizures or loss of consciousness) when exposed to flashing lights, consult your doctor prior to using this AstroLab.

Discontinue use and consult your doctor immediately if you experience any of the following symptoms while using this software: dizziness, blurred vision, eye or muscle twitches, loss of consciousness, disorientation, or any involuntary movement or convulsion.

Precautions to Take During Use

- Do not stand too close to the screen.
- Sit a good distance away from the screen.
- Avoid using if you are tired or have not had much sleep.
- Make sure that the room is well lit.
- Rest for at least 10 to 15 minutes per hour of use.

Important Safety Instructions and Recommendations

PRECAUTIONS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

1. Read and understand all the instructions.
2. Always follow the instructions on the device.
3. Before cleaning the device, always remove the USB and DC cable. When cleaning, use a soft and dry cloth. Do not use gasoline, alcohol, acetone, turpentine or any other organic solutions; do not use a liquid cleaner, spray or cloth that's too wet.
4. Do not use the device near water or moisture, such as a bathtub, sink, swimming pool or similar place.
5. Do not place the device in an unstable position where it might accidentally fall over.
6. Do not place heavy objects on the device. Do not block openings or vents of the device; these locations are used for air circulation to prevent the device from overheating. Do not place the device near a heat vent at any location with poor air circulation.
7. Do not open or insert anything into the device that may cause a fire or electrical shock.
8. Do not spill any kind of liquid onto the device.
9. Always take the device to a qualified service center. You will invalidate your warranty if you open and remove the cover, and improper assembly may cause electrical shock or other malfunctions.
10. Do not use the device with thunder and lightning present; it may cause electrical shock.
11. Do not expose the instrument to hot sunlight. The operating temperature range of the instrument should be 15°- 35° C (59°-95° F).
12. Do not use the device when there is a gas leak nearby.
13. Arturia is not responsible for any damage or data loss caused by improper operation of the device.
14. Under the environment with electrostatic discharge, the sample may malfunction and need user reset to recover.

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 product and its 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.

Table Of Contents

1. WELCOME TO ASTROLAB

AstroLab is one of the most transformative musical instruments Arturia has ever created. The dream of combining the flexibility of software instruments with the reliability of hardware is finally a reality.

Since virtual instruments were first introduced, a Holy Grail for keyboardists, producers, and synthesizer enthusiasts has been a hardware synth that can play them without the need for a computer, thus harnessing their diversity, sound quality, and power. This is exactly what AstroLab does.

1.1. What Is AstroLab?

In a nutshell, AstroLab is a hardware version of our Analog Lab software, which in turn gathers a plethora of Presets from all of the more than 30 instruments across our renowned V Collection anthology of the most desirable vintage synthesizers and keyboards in the world. You can do almost anything on AstroLab that you can in Analog Lab – which, by the way, is included.

AstroLab stands alone as a flexible and powerful keyboard instrument, letting you split or layer two instruments, add effects, and more. Analog synths, digital synths, samplers, classic organs, and electric pianos are all present and running on powerful DSP optimized to ensure the best performance possible. Like Analog Lab, AstroLab doesn't settle for one-size-fits-all technology but instead uses the best synthesis method for the type of sound being played, such as our True Analog Emulation for analog synths, physical modeling for acoustic and electric pianos, and more.

1.1.1. AstroLab Instruments

The sounds of AstroLab were taken from these essential Arturia instruments:

- ARP 2600 V3
- Augmented Piano
- Augmented Strings
- Augmented Voices
- B-3 V2
- Buchla Easel V
- Clavinet V
- CMI V
- CS-80 V4
- CZ V
- DX7 V
- Emulator II V
- Farfisa V
- Jun-6 V
- Jup-8 V4
- Korg MS-20 V
- Matrix-12 V2
- Mini V3
- Modular V3
- OP-Xa V
- Piano V3
- Pigments
- Prophet-5 V
- Prophet-VS V
- Sampler
- SEM V2
- Solina V2
- SQ80 V
- Stage-73 V2
- Synclavier V
- Synthi V
- Vocoder V
- Vox Continental V2
- Wurli V2

AstroLab thus embodies the infinite soundscape of V Collection in a single, portable, versatile, and easy-to-use keyboard. It is therefore ideal as the heart of a studio or live gig rig, or as a powerhouse addition to the setup you already have.

1.2. Use Cases for AstroLab

We designed AstroLab for a wide variety of musicians and use cases. Here are some examples of its benefits for both live performance and recording.

1.2.1. On Stage

Mac and PC laptops have become far more reliable than they were at the dawn of software instruments, but a live gig can still be a challenging place for one. There's the audio interface and associated power supplies to think about. And the extra cables. And so on.

With AstroLab, you can use the included Analog Lab software to set up sounds, effects, controller assignments, and set lists for your gigs from the comfort of your studio computer. Then, easily sync everything into AstroLab via its USB-C and leave the computer at home.

> ♪ If you own full versions of any V-Collection instruments, you may know that you can open them up and assign parameters within them to Macros in Analog Lab. Settings like these transfer to AstroLab seamlessly.

If you'd rather explore sounds right from the hardware, the unique Navigation Wheel – a circular high-resolution display surrounded by a control ring – plus the Preset Type buttons, make it quick and intuitive to do so.

1.2.2. In the Studio

Since AstroLab can mirror what's going on in Analog Lab, it offers true zero-latency monitoring for recording sessions. Here's how it works. The keyboard player monitors the output of AstroLab while overdubbing. Meanwhile, AstroLab sends MIDI to an identical Preset in Analog Lab, which lives on a virtual instrument track in the DAW. This way, the project's sample buffer size can be set as high as needed for the session to run smoothly while the keyboardist hears and plays in perfect sync with the DAW playback. Just make sure to compensate for any added MIDI latency that might occur in this scenario.

Monitoring without latency could also be achieved using a hardware synth, but once it's recorded as audio, any changes would need to be *re*-recorded as audio. Here, what's getting recorded in the DAW is MIDI data for Analog Lab, which can then be freely edited and transposed. You enjoy the zero latency of hardware plus the editability a soft synth – the best of both worlds.

1.2.3. Both Stage and Studio

AstroLab's method of selecting Presets, effects, and individual instruments makes it easy to come up with sounds on the fly. For example, if you spontaneously want to hear a chorus on a vintage electric piano, a phaser on an analog string machine, or a trippy delay on a synth lead, the result is only seconds away.

In other words, AstroLab provides seamless transition between three stages of music production: preparing sounds and creating original presets on the computer, performing or recording on the hardware, then fine-tuning and editing back on the computer.

1.3. Some Historical Context

We believe AstroLab is the first instrument that truly delivers on the promise of software instruments embedded in hardware. However, there have been many synths that were created in the same spirit. Here are just four examples, including one of our own.

1.3.1. PPG Realizer (1986)

Wolfgang Palm's PPG Realizer

German innovator Wolfgang Palm's company PPG lay claim to the first hardware synth meant to run emulations of other synths, complete with graphics and multiple synthesis methods including analog modeling, FM, wavetables, and sampling. An image of a synth such as a "Mini" appeared in the central screen, with the surrounding hardware knobs controlling the onscreen knobs. Its cost of $65,000 prevented it from being a market success.

1.3.2. Open Labs NeKo (2003)

Open Labs NeKo 64

One way to take all the benefits of software onstage was to simply build a keyboard instrument around the computer! The NeKo had a powerful Windows PC at its core and featured an integrated touchscreen, knobs and sliders, drum pads, sequencer controls, QWERTY keyboard, and audio interface. It even had its own host software to stack and split virtual instruments, called Karsyn. At the peak of its popularity, Morris Hayes played one in Prince's band.

1.3.3. Use Audio Plugiator (2008)

Use Audio Plugiator

This affordable ($500) DSP box provided authentic keyboard emulations while taking some load off the computer's CPU; the plug-in interfaces appeared onscreen while Plugiator did the heavy lifting. It inherited its plug-in DNA from a company called Creamware, whose Pulsar and Scope computer cards earned a cult following in the late 1990s. Analog synths, tonewheel organs, and wavetable synths were among the plug-ins it offered. It could only run one plug-in at a time, but the sound quality was excellent.

1.3.4. Arturia Origin (2009)

Arturia Origin

Available in desktop and keyboard versions, our own Origin cast our TAE technology in hardware using plug-in-like templates. You could mix and match modules from different templates, like a Mini oscillator with a Jupiter filter or vice versa. It also had its own synthesizer personality, an edit rack for virtual modular synthesis, a sequencer/arpeggiator, and many more features. The keyboard version featured a ribbon controller. Origins are still in use and sought after today.

1.4. AstroLab Features

The main features of AstroLab are:

- Over 1,300 built-in sounds across all types of synths and keyboards (pianos, electric pianos, organs, synths, string machines, samplers, and more).
- Over 2,000 free sounds available through Analog Lab and the Arturia Sound Store.
- Semi-weighted keys with velocity and aftertouch.
- Instrument section with two selectable parts, allowing you to split or layer different instruments (or two instances of the same one) across the keyboard.
- Two insert effects with 12 effect choices each.
- Dedicated Delays and Reverbs on sends.
- Stereo XLR combo jacks lets you process external audio (mic, line, or instrument level signals) through applicable AstroLab instruments, such as Vocoder V.
- Unique Color Navigation Wheel to make browsing Presets, Instruments, and Effects quick and easy.
- Eight 360-degree encoder knobs with LED position rings.
- Macros (Brightness, Timbre, Time, and Movement) let you control multiple parameters with a single knob twist.
- Quick-access Type buttons to store, recall, and navigate sounds.
- Smooth Preset transition ensures that sustained notes are not cut off when switching sounds.
- Arpeggiator and Looper with chord mode and scale quantizer.
- Playlists and Songs let you organize Presets in any order, then step through them in sequence.
- Multi-color LEDs above the keys indicate split points and notes played on the keyboard and by the Arpeggiator.
- Powered USB-A port for external storage or playing AstroLab from a MIDI controller.
- USB-C port for connecting a computer, smartphone, or tablet.
- 5-pin MIDI in and out.
- Wi-Fi and Bluetooth connectivity.
- Four control pedal inputs: Expression, Sustain, Aux 1, and Aux 2.
- Balanced 1/4" TRS outputs.

1.5. Register your AstroLab Hardware

Registering your AstroLab unit will ensure you are first in line for things like firmware updates, new banks of Presets, and more.

To do so, simply follow the steps displayed on the AstroLab screen when turning it on for the first time. You'll be able to register it using the dedicated mobile app: AstroLab Connect.

You can also register it through our website:

- Log in to your My Arturia account.
- Click on "+ Register New Product".
- Enter the Serial Number and Unlock Code found on the registration card included with your instrument, and/or a sticker on the underside of the unit.
- Click 'Register' and enter the information as prompted.

Here's another method. Please go to AstroLab Installation webpage, and follow the instructions.

Your AstroLab is now registered !

2. HARDWARE OVERVIEW

This chapter describes the physical hardware and I/O of AstroLab and gives brief descriptions of what each control does. We will learn how to use them to get musical results in upcoming chapters.

2.1. Front Panel, Left Side

Many front panel controls have an alternate function if pressed while you hold the **Shift** button, as described in the tables below.

Number	Control	Main Function	Shift Function
1	Pitch-Bend Wheel	Bends pitch up or down, spring-loaded	N/A
2	Modulation Wheel	Adds modulation to a sound with LED strip to show current position	N/A
3	Octave Shift buttons	Shifts the overall octave up or down	Transposes the keyboard up or down in semitones
4	Arpeggiator button	Turns the Arpeggiator [p.57] on and off	Toggles Hold mode
5	Chord button	Turns Chord mode [p.58] on and off	Toggles Scale Mode [p.59]
6	Looper Play button	Plays and stops the MIDI Looper [p.56]	Opens the Tempo menu or enters tap tempo if pressed repeatedly

Number	Control	Main Function	Shift Function
7	Looper Record button	Starts/stops recording of a MIDI loop	Toggles Metronome on/off
8	Navigation Wheel [p.16]	Displays and navigates Presets, Instruments, Effects, and all settings	Edits Presets or shows sound sub-categories
9	Back button	Returns to the previous screen	Goes to the Home Screen
10	Previous/Next buttons	Loads the previous or next preset in the current list	N/A
11	Shift button	Hold to access alternate functions labeled in gray on the panel	N/A

2.2. Front Panel, Right Side

Number	Control	Main Function	Shift Function
12	Part Select buttons	Select a part to control on a Multi [p.28] Preset or add a Part to a Single preset	Change one part while keeping the other
13	Split button	Turns keyboard split on and off	Access Part settings

Number	Control	Main Function	Shift Function
14	Macro knobs (4)	Edit multiple aspects of the instrument's sound in 4 categories L to R: Brightness, Timbre, Time, Movement	L to R: Part Volume, Bass, Mid, Treble EQ
15	FX A and B knobs	Adjust dry/wet mix of the selected Insert FX [p.42]	Adjust Intensity (parameter varies with FX type)
16	Delay and Reverb knobs	Adjust the send level of the Send Effects [p.40]	Adjust Delay time and Reverb decay or size
17	Preset Type buttons (9)	Quickly access Presets by instrument type	N/A
18	Playlist button	Loads the current Playlist	Save the current Preset
19	FX buttons	Toggle Insert Effects on or off	Edit the effect
20	Delay and Reverb button	Toggle Delay on or off	Edit the Delay or Reverb
21	Master Volume	Sets the volume of AstroLab's main outputs	N/A

2.2.1. Navigation Wheel Operation

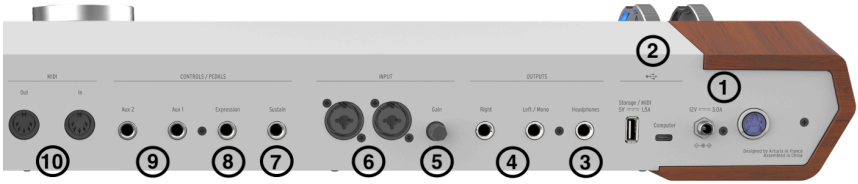
AstroLab's powerful Navigation Wheel is a button, encoder, and display all in one. It provides intuitive browsing and editing of Presets, Instruments, Effects, and most other settings in the instrument.

Operating the Navigation Wheel is simple.

- **Turn** the collar around the display to scroll through the available options.
- **Press** down on the Navigation Wheel to select an option.
- **Shift** + **press** or **long-press** Navigation Wheel to edit a Preset [p.28].

2.3. Rear Panel

AstroLab offers a professional-grade complement of I/O as follows.



Number	Jack	What It Does
1	Power switch and connector	Press 1 second to turn off; long-press for forced shutdown; accepts the included international power adaptor.
2	USB connectors	USB-A port for connecting storage or MIDI input; USB-C for computer connection.
3	Headphone output	Connects to stereo headphones; responds to Master Volume knob.
4	Main outputs	Provides balanced output at line-level.
5	Input gain knob	Adjusts gain for the audio inputs.
6	Audio inputs	Balanced inputs receive external audio for mic, line, or instrument-level signals.
7	Sustain Pedal input	Accepts sustain pedal with TS connector.
8	Expression Pedal input	Accepts continuous pedal to control Preset volume or other assigned parameter.
9	Aux Pedal inputs	Accepts switch or continuous pedals to control assignable parameters.
10	MIDI In/Out	Connects to other devices via standard 5-pin MIDI cables.

Some helpful features of the rear panel are:

2.3.1. Force Shutdown

You can force a shutdown by holding the power button for at least five seconds.

2.3.2. Powered USB

The USB-A port provides 5-volt power at a maximum current of 1.5 amps. This is more than enough to power devices such as portable hard drives or SSDs or USB-powered MIDI controllers.

2.3.3. Mono Summing

If no audio cable is plugged into the Right Main output, the Left output will sum the entire signal to monaural.

2.3.4. Flexible Pedals

All the pedal inputs accept either switch pedals with TS connectors, or continuous pedals with TRS connectors.

> You can check out the list of compatible pedals in the FAQ section dedicated to AstroLab (AstroLab - Features details).

2.4. The Keyboard

Last but not least, AstroLab's keyboard features piano-shaped, semi-weighted keys that sense both velocity and channel aftertouch. We designed it to hit a sweet spot between pianists who expect some resistance and synth/organ players who want to be able to move fast.

2.4.1. Keyboard LEDs

AstroLab has a multi-color LED for every note on the keyboard. These LEDs can display keyboard split points in a Multi Preset, or the notes played on the keyboard, or by the Arpeggiator/Looper.

You can choose in the Utility Settings whether to see the LEDs all the time, only when a split is active, or not at all.

AstroLab's keyboard can have 1 or 2 zones. The LEDs change color to indicate Parts:

- Orange: Part 1
- Green: Part 2

We cover this in more detail in the sections on splitting the keyboard [p.34] in upcoming chapters.

2.4.2. Panel LEDs

As you explore AstroLab's many sounds and features, you will find the panel LEDs have certain consistent behaviors. We summarize those here for reference.

- Fully lit: Active and in focus.
- Dim: Active but not in focus.

3. BASIC OPERATIONS

3.1. Screen Navigation

There are 3 main screens in AstroLab. The easiest way to skip through them is by pressing the **Back** button repeatedly. This will take you through Preset Screen → Filter Screen → Home Screen → Preset Screen → Filter Screen, and so on.

3.1.1. Preset Screen

When you first power AstroLab on, the round Navigation Wheel will display the last Preset selected before shutdown. Here, the name of the current preset is shown plus a descriptive illustration.

3.1.2. Filter Screen

On the Filter screen, all Presets are listed by Type. This categorization differs a bit from the way Presets are sorted by the 10 Preset type buttons on the front panel.

In the Filter screen, the number of types is greater than on the front panel:

- Bass
- Keys
- Lead
- Pad
- Piano
- Electric Piano
- Organ
- Strings
- Brass & Winds
- Drums
- Sequence
- Vocal
- Sound Effects

3.1.3. Home Screen

When using AstroLab, you will most likely find yourself working from the Home screen. This is where you will be able to access the important operating modes and locate Presets in various ways.

3.2. Presets in AstroLab

The most obvious method to get familiar with the vast array of sounds in AstroLab, is to use the Preset Type buttons. Start by pressing a Type button, e.g. Strings. Turning the Navigation Wheel will take you through the many presets within this group. You can also use the Previous/Next buttons to step through the presets.

However, there are a number of different ways to browse sub-categories of Presets and get to the sounds you're looking for more quickly.

> ♪ A parameter called *Click To Load* in AstroLab's Settings menu affects how the Navigation Wheel behaves here. If disabled, simply turning the Navigation Wheel loads the next or previous Preset. If enabled, turning the Navigation Wheel will show the next Preset in the display and you will then need to press the Wheel to load it. This is useful if you want to preview a Preset name before you commit to playing it. If you want to get back to standard behavior (where turning the knob immediately selects the next Preset), turn off *Click To Load*.

The Navigation Wheel works much the same way for lists of other objects in AstroLab, such as settings, Preset Types [p.19], and anything else: turn to highlight, click inward to make active.

3.3. The Home Screen

The Home screen is the main menu of AstroLab. Here, you can access all of its operating modes. Hold **Shift** and press the **Back** button to bring it up.

Turn the Navigation Wheel to highlight an item, then press the Wheel to select it.

Going clockwise, the icons are:

- **Types:** Displays a list of Preset Types [p.19] (Bass, Keys, etc.).
- **Instruments:** Displays a list of the Instrument models in AstroLab (and Analog Lab).
- **Artists:** Presets designed, curated, or inspired by specific artists.
- **Liked Presets:** Presets you have liked using the heart icon.
- **Sound Banks:** Lets you browse within banks of Presets you have created, imported or purchased from the Arturia Sound Store (from within Analog Lab, the AstroLab Connect app, or the Arturia website).
- **Playlists:** Your Playlists can be found here.
- **Settings:** Global AstroLab settings, including Wi-Fi, Bluetooth, MIDI, Pedals, and Metronome.

3.4. Filtering Presets

From the Home screen, every selection except **Settings** is used to filter Presets, that is, narrow the list of choices according to criteria you're looking for.

3.4.1. Types

Types are categories of musical instruments, and may be browsed by selecting Types from the Home Screen as described above. Using the Navigation Wheel, you can then browse and choose Presets within that Type.

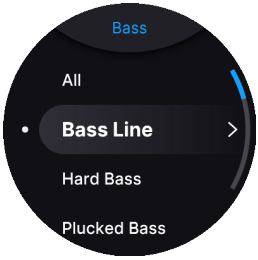
The Types in AstroLab correspond to those in Analog Lab. Clockwise from 12 o'clock, they are:

- Bass
- Keys
- Lead
- Pad
- Piano
- Electric Piano
- Organ
- Strings
- Brass & Winds
- Drums
- Sequence
- Vocal
- Sound Effects
- Custom

3.4.1.1. Subtypes

To help narrow your search for the perfect sound, Presets can be further divided into Subtypes. These cover further subdivisions of musical instruments like acoustic, electric, or synth bass.

Rotate the encoded to select a Type. Then, instead of pressing the Navigation Wheel to select, *long-press* the Wheel to display the Subtypes.



To select a Subtype, scroll the list and select by pressing the Navigation Wheel.

By turning the Navigation Wheel, you can scroll through all Presets that have been filtered by **Type** and **Subtype**.

3.4.2. Instruments

Instruments in AstroLab correspond to the software Instruments in Analog Lab. A Preset can consist of one or two Instruments plus effects. A **Single** is a Preset that contains one Instrument; a **Multi** is a Preset that contains two Instruments.

To browse Presets by Instrument, go to the Home screen. Turn the Navigation Wheel and select the Instrument icon to bring up the menu of instruments:

Then, select an Instrument to display a list of Presets that use that Instrument.

3.4.3. Artists

To filter Presets by the artists who originally created those sounds, go to the Home screen and select Artists.

These presets pay tribute to iconic recordings. The sounds here have been recreated to sound as closely as possible to well-known original songs. This allows you to do covers of those songs and/or get inspiration from the greats.

3.4.4. Liked Presets

Presets you have liked [p.32] using the heart icon can be found here.

> ♪ If you have liked a Preset in Analog Lab, this status will show up in AstroLab. And vice versa.

3.4.5. Sound Banks

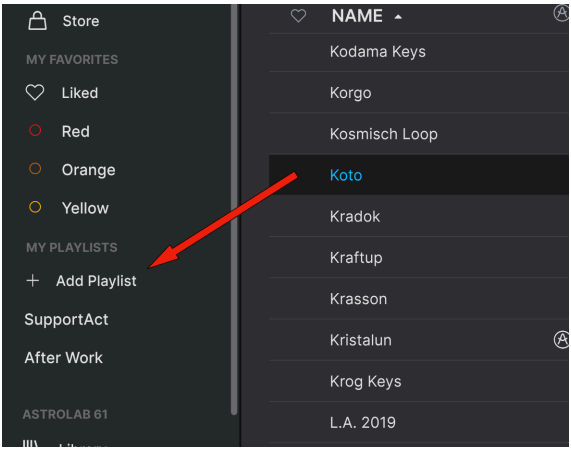
This menu lets you browse presets from within banks you have created, imported, or purchased from the Arturia Sound Store. They are further divided into subtypes:

- **AstroLab Factory:** These are the original Presets that came with AstroLab.
- **Sound Store Banks:** These are Banks downloaded from Arturia Sound Store or the AstroLab Connect app.
- **User Banks:** These Banks contain Presets created by you, the User. These Banks can have any name.

3.4.6. Playlists

A Playlist is a powerful tool for organizing Presets, especially when you fill Playlists with Songs (setlists) for live performances.

In Analog Lab, you drag Presets from a list of search results into a Playlist, like so:



Playlists are then further organized into Songs, which in turn have Presets for each song. You can then send them into AstroLab, where they show up as Playlists with the same Songs and Presets. We cover this in detail in the chapter devoted to Playlists [p.50].

3.4.6.1. USB Drive

Import Playlists: With a USB drive connected to the USB port marked **Storage/MIDI** at the rear of AstroLab, you can easily import Playlists created in Analog Lab on a computer.

Here's how you do it. In Analog Lab, right-click on a Playlist and select Export. Then, copy the exported Playlist to your USB drive. Insert USB drive into AstroLab to import the Playlist.

3.5. Filtering Shortcuts

You can browse Presets by category (Type, Instrument, My Library, or Sound Banks) without always going to the Home Screen. When in Preset Mode, simply press the Navigation Wheel to see a list of Presets filtered by the currently selected category.

Also, If you're browsing by something other than Types, you can long-press one of the Preset Type buttons to add its filter to the results. For example, you could be looking at all Presets that use the SEM V Instrument. Long-press **Organ** and you'll now see only SEM V Presets tagged Organ.

3.6. Saving Presets

To save any changes you've made to a Preset (e.g., by turning the Macro or FX knobs), quickly press the **Shift** plus **Playlist** buttons. This will bring up a menu:

- **Save:** Use the same Preset name, thus over-writing the original Preset.
- **Save As:** Give your edited Preset a new name and keep the original Preset.

3.6.1. Quick Save

To save a Preset without changing the Type/Subtype, simply hold **Shift** plus **Playlist** until the screen displays "Saving Preset."

3.7. Entering and Editing Text

When editing the name of a Preset, Song, Playlist, or any object, a text editor appears on the Navigation Wheel.

The cursor starts on the last character.

1. To move the cursor to another character, press the Arrow keys.
2. Now turn the Navigation Wheel to scroll through the characters for that position.
3. When you see the character you want, press the Arrow keys to go to another position.
4. To insert a space, long-press the Navigation Wheel.
5. To clear a character, turn the Navigation Wheel. Space is before **A** and after '.
6. Hold **Shift** and press **Save** to accept the text. From the next screen, choose **Save** or **Save As**.

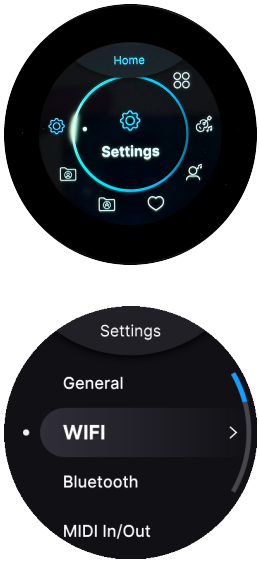
> ♪ You can also skip character categories by holding **Shift** while turning the Navigation Wheel. It will now jump from A –> a –> 0 –>.. A real time-saver!

> ! Pressing **Back** while in character selection mode will cancel editing and return to the previous screen.

Lowercase and uppercase alpha-numeric characters are all available for names, as well as parentheses, braces, brackets, the hyphen, the underscore, and the period. For entering a WiFi password [p.62] to connect to a local network, the following characters are also available:

~ ` ! @ # $ % ^ & * ( ) _ - + = [ ] { } / \ | ' " < > ? , .

3.7.1. The Settings page



Most of the general settings for AstroLab can be found under the Settings tab. Hold **Shift** and press **Back** to get to the Home page, where you will find the Settings tab.

3.7.1.1. General

- **Tempo (Internal):** The **MIDI Looper**, **Arpeggiator**, and **Delay** can be set to sync to the internal clock. Range is 30–240 BPM.
- **Tempo Sync Source:**
    - **Internal**: AstroLab uses its own master clock.
    - **USB**: AstroLab syncs to incoming MIDI clock over USB.
    - **MIDI**: AstroLab syncs to incoming MIDI clock over the 5-pin MIDI input.
    - **Auto**: If an incoming clock is detected, it takes priority over the internal clock. If multiple clocks are detected, they are prioritized in this order: USB > MIDI.
- **Limiter:** A Limiter helps you protect your sound equipment and your ears. This device reduces unwanted audio peaks.
    - **Limiter Threshold:** Set the level where the Limiter will start reducing audio peaks. At 0 dB, the Limiter will ensure that you have the maximum gain and dynamics without unwanted clipping. At –20 dB, the Limiter will hold back audio peaks at a much lower level.
    - **Limiter Release:** You can mask the pumping effect of a hard working Limiter by adjusting the Release time, i.e. the time it takes for the Limiter to release audio back to its original level. Release range goes from 1 to 2,000 milliseconds.

3.7.1.2. USB Drive

- **Import Playlists:** With a USB drive connected to the USB port marked **Storage/MIDI** at the rear of AstroLab, you can easily import Playlists created in Analog lab on a computer.

It's very simple. In Analog Lab, select any Playlist and right-click on it. Click on Export and locate your USB Drive. After exporting, plug your USB drive into AstroLab. Under Settings > USB Drive > Import Playlists, you'll find your Playlist.

> ♪ Your USB drive should be formatted as FAT32 or exFAT (both compatible with Windows and macOS) or NTFS (Windows only)

3.7.1.3. Wi-Fi

AstroLab comes with Wi-Fi built in. This is the page where you can set Wi-Fi Mode and connect. Of course, MIDI and Analog Lab communication also functions over USB, but sometimes wireless communication is more convenient.

More details on how to use Wi-Fi can be found in the Wireless Setup [p.62] chapter.

3.7.1.4. Bluetooth

AstroLab also comes with Bluetooth built in. On this page you can turn Bluetooth on and off and pair with other devices.

Using Bluetooth, you can stream audio from such devices as smartphones, tablets, and computers through AstroLab.

More details on how to use Bluetooth can be found in the Wireless Setup [p.62] chapter.

3.7.1.5. MIDI In/Out

- **Part 1 Input Channel** After clicking the Navigation Wheel, you can set the MIDI receive channel by rotating the wheel. Selecting **All** makes AstroLab listen to all MIDI channels.
- **Part 2 Input Channel** Same as above, but for Part 2. The two Parts in AstroLab can conveniently listen to separate channels, which is necessary when using Parts 1 and 2 as two separate presets.

> **Important note about the B-3 V organ:** When using B-3 V based Presets, the upper keyboard will respond to MIDI channel 1 only, lower keyboard to channel 2 only, and bass pedals to channel 3 only (here with only the lowest octave available for playing). If you set MIDI channels in any other way, the B-3 V won't produce any sound.

- **Keyboard Channel** Here you can set the MIDI Output channel of the AstroLab, i.e. what MIDI channel your keyboard transmits notes and data on. You may have to check the MIDI In channel settings at the receiving end.
- **MIDI Out Filter** These settings define what MIDI information is sent out from AstroLab's MIDI Out.
    - **Auto** When AstroLab and Analog Lab are **Linked**, the MIDI Out Filter switches to Keyboard Only.
    - **Keyboard only** Only the notes played on the AstroLab keyboard are transmitted via MIDI Out.
    - **All Notes** Played notes, arpeggiated/sequenced notes, chords, and scale quantized notes (processed MIDI) are transmitted.

3.7.1.6. Controls

- **Keyboard Velocity** Here you can set the overall velocity sensitivity of AstroLab's keyboard from **Light** to **Medium** to **Heavy**. Choose the setting that best suits your playing style.
- **Aftertouch Sensitivity** The desired amount of pressure needed to trigger aftertouch is highly individual. The settings are **Linear** (pressing the keyboard harder increases aftertouch accordingly), **Logarithmic** (less pressure is needed), and Exponential (more pressure is needed). Adjust the level to best suit your playing style.
- **Keyboard LED's Mode** AstroLab has a multi-color LED for every note on the keyboard. These can display keyboard split points in a Multi Preset, or the notes played by the Arpeggiator/Looper. Here you can choose to see the LEDs all the time, only when a split is active, or not at all.

3.7.1.7. Pedals

- **Sustain Polarity** A Sustain pedal is highly useful when playing anything that resembles playing a normal piano. Unfortunately, there is no global standard describing the polarity. If your pedal sustains note when the pedal is *not* pressed, change Sustain Polarity.
- **Expression Polarity:** Same as above, but for an Expression Pedal. If your pedal acts opposite to what it should, flip this switch.
- **Aux 1** / **Aux 2:** The two Aux sockets accept switching or continuous pedals. Here you can decide what actions they will perform. These functions include controlling the Arpeggiator, the Looper, Tap Tempo, Rotary speaker FX fast on/off, turning Effects on and off, and selecting Presets and Songs.
- **Aux 1** / **Aux 2 Polarity:** Change polarity to make pedals act as expected. Same as *Sustain/Expression Polarity* described above.

You can check out the list of compatible pedals in the FAQ section dedicated to AstroLab (AstroLab - Features details).

3.7.1.8. Utility

- **Click To Load**: With Click To Load turned off (default setting), you simply turn the Navigation Wheel to load the next or previous Preset. If Click to Load is enabled, turning the Wheel will show the next Preset in the display and you will then need to press the Wheel to load it. This is useful if you want to preview a Preset before you commit to playing it.
- **Tick Sound:** The Navigation Wheel can make a smooth ticking sound when rotated. Or not. You decide.
- **Type Button Load:** Here you can select what will happen when you press any of the Preset Type Buttons. This can call up the **First Preset** in each type or the **Last Used Preset** in each type.
- **Show CPU**: With this function turned on, the current CPU load in AstroLab is shown at the bottom of the Navigation Wheel display.
- **Initialize all Settings:** Select this menu if you want to reset AstroLab back to its factory settings. This will revert your preferences and disconnect AstroLab from your phone, but it won't delete your Presets, Playlists, or anything else. Select OK if you are sure you want to do this.
- **Version**: The current version number of your AstroLab package is shown here.

4. PRESET ARCHITECTURE AND EDITING

AstroLab comes packed with over 1,300 Presets curated from Analog Lab. If you've created your own or downloaded further Presets and Banks from the Arturia Sound store, that number can grow a lot larger.

An AstroLab Preset consists of:

- Either one or two Parts [p.29], each of which hosts an **Instrument**
- Two **Insert Effects** per Preset
- Send-based **Delay** per Preset
- Send-based **Reverb** per Preset
- Master EQ settings

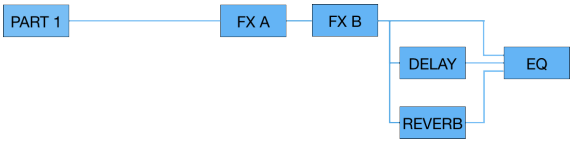
Settings for the following are also saved at the Preset level:

- Split points (if the Preset is a Multi and/or controls external zones)
- Scale
- Chord Mode
- Arpeggiator

The factory library includes classic sounds of each Instrument, must-have sounds for popular musical genres, Presets that layer or split two instruments, cinematic and moving soundscapes, and much more.

4.1. Single Presets

A Single Preset contains only one Instrument. Its signal flow looks like this:

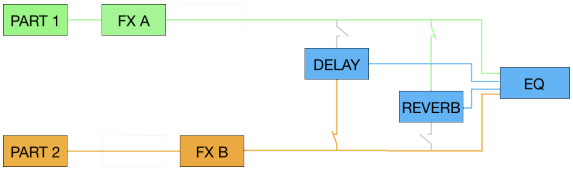


Part 1 hosts the Instrument, which feeds two insert Effects (FX-A and FX-B) routed in series. This means that the output of FX-A feeds the input of FX-B. The output of FX-B can then be sent independently to the Delay and Reverb effects. The outputs of FX-A and B, the Delay, and the Reverb then all feed the 3-band master EQ, the final output of which is controlled by AstroLab's master volume knob.

> ♪ Note that even in a Single Preset, some AstroLab instruments have multi-timbral capabilities in their own right.

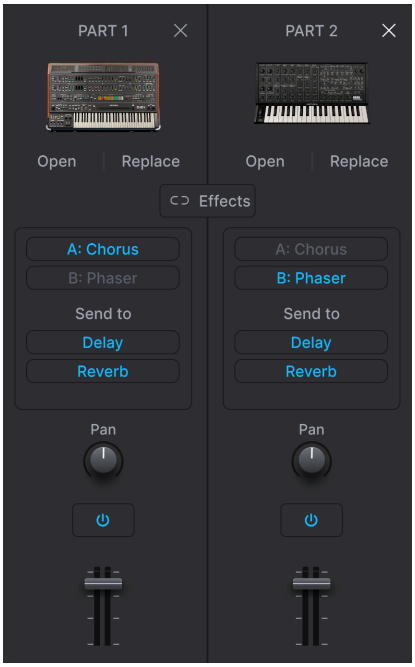
4.2. Multi Presets

A Multi Preset contains two Instruments, which may be split or layered. Its signal flow can look as follows:

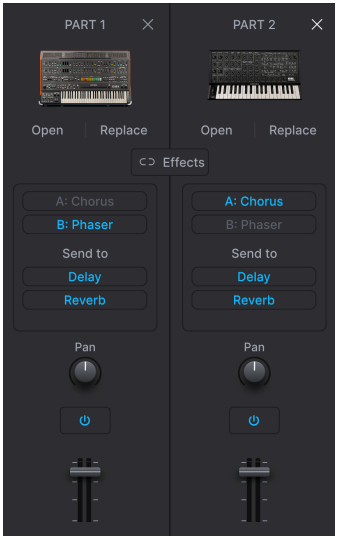


Parts 1 and 2 and their respective Instruments feed one insert effect or the other. The output of each insert effect can then be sent to the delay, reverb, or both. Four outputs are summed into the master EQ: Part 1 and its insert effect (pre delay and reverb), Part 2 and its insert effect (pre delay and reverb), Delay output, and Reverb output.

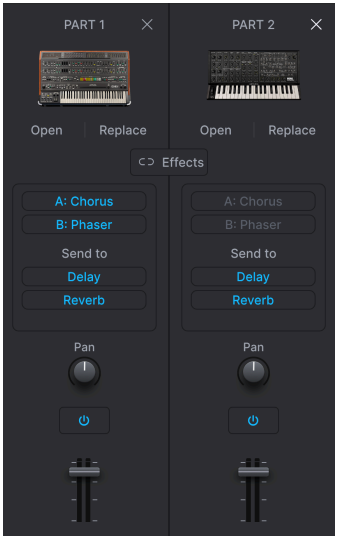
An important difference from a single Preset is that the parts share the two available insert effects. Please look at the following images; they make routings the easier to understand.



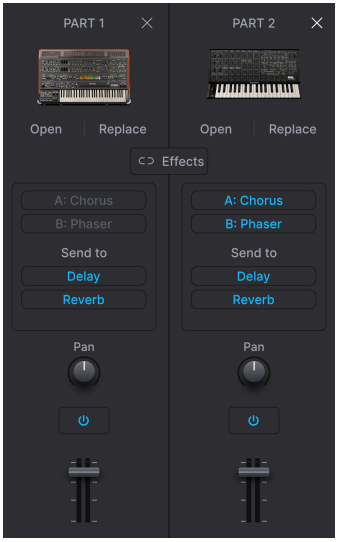
Part 1 uses FX A. Part 2 uses FX B.



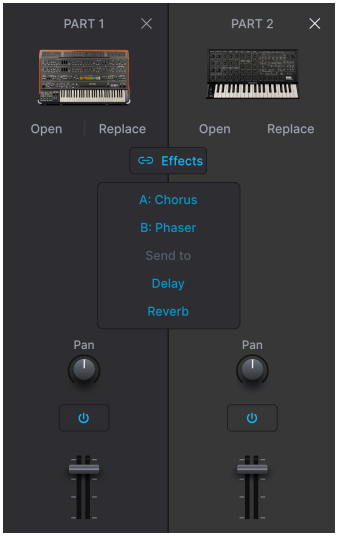
Part 1 uses FX B. Part 2 uses FX A.



Part 1 uses FX A and FX B. Part 2 uses no effect.



Part 1 uses no effect. Part 2 uses FX A and FX B.



Both Part 1 and Part 2 go through FX A and FX B (/in series).

See the Effects [p.40] chapter for more.

These routing options don't apply to the Delay and Reverb, as they are send-based, meaning you can send whatever amount (level) of either Part to both as you see fit.

4.2.1. The Part Buttons

The **Part 1** and **Part 2** buttons select which part in a Multi is affected when you perform other operations such as loading a Preset or turning the Macro [p.38] knobs. For now, it's most important to know how they affect loading a Preset.

- If neither Part 1 nor Part 2 is selected and you load a new Preset, the entire Preset is replaced. This means that a Single will override a Multi and Part 2's Instrument will disappear.
- If Part 1 or Part 2 is selected, only the Instrument for the selected Part will be replaced.
- Hold **Shift** and press the Part button to change only that part while keeping everything else about the Preset steady.

♪ The latter method is useful if, for example, you have a great synth bass locked down but are still searching for the right lead or pad to use with it in a Multi.

- You can **Remove** one Part in a Multi and turn the Preset into a Single Preset.
    - When in the Preset display mode, hold Shift while pressing one of the Part buttons.
    - Turning the Navigation Wheel to Remove Part 1 (or 2) will remove that part and turn the Preset into a Single Preset.

4.2.2. Quickly Create a Multi

To keep Part 1 intact when a Single Preset is displayed, follow these steps:

- Hold **Shift** and press **Part 2**. Release Shift and press the **Navigation Wheel** to confirm selection of Part 2.
- Use the Navigation Wheel to select and load a Preset. You may also press a Preset Type button and use the Navigation Wheel to select Part 2. Press the Wheel to confirm.

If the Part 2 Preset has effects, they are not loaded. Instead, Part 2 is routed by default to the Delay and Reverb (you can change this later).

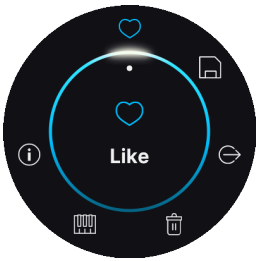
4.2.3. Other Part Actions

With the current Part displayed, press **Shift** plus the relevant **Part** button to enter a brief menu of utility functions for Parts: Like, Save, Move, Delete, Keyboard Settings, and Info.

4.2.3.1. Like/Unlike Preset

As in Analog Lab, you can "Like" Presets. In AstroLab, they become available in the *Liked* section of the Library.

Here's how you Like a Preset in AstroLab when you are in Preset mode: **Long-press the Navigation Wheel** or **hold Shift while pressing the Wheel**. This will bring up a menu where you can Like the Preset.



If a Preset has been liked, a heart symbol at the lower part of the screen will be shown.

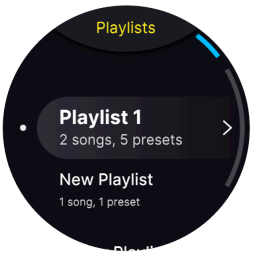
♪ You can Unlike a Preset by repeating the procedure above.

4.2.3.2. Save Preset

This duplicates the **Save** button functions described in the previous chapter. You are given the choice to save the preset with its current name or a new name.

4.2.3.3. Add to Playlist

Clicking here adds the current Preset to a Playlist. You'll be taken to a screen that lets you select Playlist and Song.



4.2.3.4. Delete Preset

Deletes the current Preset; prompts for "Are You Sure?" confirmation.

When AstroLab and Analog Lab are in **Link** mode, both reflect each other most of the time. However, this does **not** include deleting Presets.

- If you delete a Preset on AstroLab, the Preset remains untouched in Analog Lab.
- Deleting a Preset in Analog Lab does not affect its twin Preset in AstroLab.
- You can delete Factory presets on AstroLab but not on Analog Lab (or any synths from the V Collection).

4.2.3.5. MIDI

Here's how you enter the MIDI settings when you are in Preset mode: **Long-press the Navigation Wheel** or **hold Shift while pressing the Wheel**. From here, select MIDI.

You can also **hold Shift** and hit the **Split** button.

If your current Preset only has 1 Part, only the **Part 1** tab will be seen.

- **Inverse Split**: This option swaps the positions of Parts 1 and 2. Any keyboard split settings will remain the same, i.e., Part 1 will now have Part 2's range and vice-versa.
- **Part 1**: Here you can set the Low Note and High Note limits, MIDI input and output channels, and Octave and Semitone Transpose. There are also switches that let you decide if Part 1 will be affected by Pitch Bend, Mod Wheel, Aftertouch, Sustain and Expression Pedal or not.
- **Part 2**: Same as above, but for Part 2.

4.2.3.6. Info

- **Name**: Here you can rename the current Preset.
- **Type**: The Type and Subtype of Instrument used for this Preset can be seen here. The Type and Subtype can also be changed. Example: If you edit a piano to make it sound like an organ, you may want to refer to this Preset as an organ.

4.2.4. Splitting the Keyboard

AstroLab handles splits in a very straightforward manner.

- If you're using a Multi Preset, and the Keyboard LEDs are **blue**, Parts 1 and 2 are **layered** across the entire range of the keyboard. The Split button will be dim.
- If you're using a Multi Preset, and the Keyboard LEDs turn **orange and green**, the current Preset is in **Split mode**. The Split button will be fully lit.
- If you're playing a Single Preset and want to add another layer/part, hold **Shift** and press **Split**. Then press the Part 2 button and the Wheel immediately after. You will now be asked to **Add Part 2**. Press the Navigation Wheel and select a second Preset via the different criteria offered: Type, Instrument, Artist, and so on. When you're finished, press OK.
- If you're using a Multi Preset, and want to turn it into a Split Preset, simply press the **Split** button. The two Presets will now be split between the left and right part of the keyboard with the default split point C3. This can be changed later (see next section).
- Hold **Shift** and press **Split** and select **Inverse Split** to swap the zones of Parts 1 and 2.

4.2.4.1. Setting the Split Point

To set or change the Split point, hold the **Split** button and strike a key. The Keyboard LEDs will change accordingly.

4.3. Presets and Polyphony

AstroLab manages polyphony to ensure that you will never hear audio dropouts, no matter what Instrument or combination of Instruments you load. Since different Instruments have different DSP needs, this can vary. Luckily, most Presets are fully compatible with their Analog Lab counterparts. A few Presets sound a little bit different or have reduced polyphony, and some Presets are not compatible.

In practice, you should be able to play as you wish, except maybe laying two forearms across the keyboard with the sustain pedal pressed.

Available voices are:

Type	Instrument	Max voices	Comment
Poly Synths	ARP 2600 V3	16	
	CMI V	16	Used slots can reduce polyphony
	CS-80 V4	8	
	CZ V	8	Unison can reduce the polyphony
	DX7 V	8	
	Emulator II V	8	
	Jun-6 V	8	Unison can reduce the polyphony
	Jup-8 V4	8	Unison can reduce the polyphony
	Matrix-12 V2	12	
	Mini V3	16	
	Modular V3	8	
	OP-Xa V	8	Unison can reduce the polyphony
	Pigments *	8	Unison, Granular, and other features can reduce polyphony
	Prophet-5 V	16	
	Prophet-VS V	16	
	SEM V2	16	
	SQ80 V	8	
	Synclavier V	16	
	Vocoder V	8	
Mono Synths	Buchla Easel V	1	Convolution reverb is bypassed
	Korg MS-20 V	1	
	Synthi V	1	Convolution reverb is bypassed

Type	Instrument	Max voices	Comment
Pianos/ Organs	B-3 V2	48	Convolution reverb is bypassed
	Clavinet V	48	Convolution reverb is bypassed
	Farfisa V	48	Convolution reverb is bypassed
	Piano V3	48	Convolution reverb is bypassed
	Solina V2	16	Convolution reverb is bypassed
	Stage-73 V2	48	Convolution reverb is bypassed
	Vox Continental V2	48	Convolution reverb is bypassed
	Wurli V2	48	Convolution reverb is bypassed
Sampler	Sampler	32	
Augmented	Aug. Grand Piano *	8	Convolution reverb is bypassed, Unison, Granular and other features can reduce the polyphony
	Aug. Strings *	8	Convolution reverb is bypassed, Unison, Granular and other features can reduce the polyphony
	Aug. Voices *	8	Convolution reverb is bypassed, Unison, Granular and other features can reduce the polyphony

* = Some Presets may not sound the same or will have limited polyphony.

These instruments have an automatic voice limitation, meaning that if a new voice could lead to a CPU overload, this new voice is instantly stolen, making some patch have 3 or 4 voices of polyphony.

If you experience issues with silent voices, we recommend lowering the polyphony on Analog Lab, and exporting this new preset on your AstroLab.

These are voices *per part*, meaning that if you load, for example, a Multi consisting of a Mini V and Prophet-5 V, you can play 16 voices on each part.

For Instruments with Unison capability, the maximum is divided by the currently set unison voice count. The same goes for instruments that have their own multi-timbral slots for different sounds. Also, the 1-voice and 48-voice Instruments are loaded without their internal reverbs, saving DSP resources by using AstroLab's own reverb instead.

4.4. Instruments not Compatible with AstroLab

Here's a list of Legacy Instruments and Newer Instruments that do not work on AstroLab.

Type	Instrument
Legacy	Analog Lab 2/3/4 (Multis)
	ARP 2600 V1/V2
	B-3 V1
	CS-80 V1/V2/V3
	Jup-8 V1/V2/V3
	Matrix-12 V1
	Mini V1/V2
	Modular V1/V2
	Piano V1/V2
	Prophet V/VS
	SEM V1
	Solina V1
	Stage 73 V1
	Vox Continental V1
Newer	Acid V
	Augmented Brass
	Augmented Woodwinds
	Augmented Yangtze
	CP-70 V
	Mini V4
	MiniBrute V
	MiniFreak V

5. MACROS AND INSTRUMENT EDITING

Macros are one of AstroLab's most powerful features. They let you control multiple aspects of a Preset's sound with a single knob twist.

The four Macro knobs are Brightness, Timbre, Time, and Movement, which will be familiar names if you've worked with Analog Lab or any V-Collection Instrument. If not, don't worry. AstroLab's Presets are pre-programmed with musically useful control changes in each of these categories.

These four areas of sound transformation are non-technical and informal, but generally we use them to do the following:

- **Brightness:** Covers settings that tend to affect the treble or high harmonic content of the sound, such as the filter cutoff on a synth Instrument or higher drawbars on an organ.
- **Timbre:** Complementary to brightness, this can change the sound in a different way, or usually several at once. Examples include filter resonance, changing or blending oscillator waveforms, adding PWM or waveshaping, and much more.
- **Time:** Usually parameters related to the envelopes of a sound, such as attack, decay, and release.
- **Movement:** Adding modulation or evolving sequences – anything that makes the sound *move*.

> ♪ The MIDI Continuous Controller (CC) messages sent by the Macro knobs are, left to right: 74, 71, 76, and 77.

5.1. Macros in a Single Preset

Start getting familiar with the Macro knobs by selecting a single Preset and listening to how the sound changes as you turn the knobs. Your knob movement will appear in blue, and the display will show the value of the Macro knob you're turning.

5.2. Macros in a Multi Preset

With a Multi Preset, the Macro knobs can control Part 1, Part 2, or both – your choice.

- With neither Part button selected (or both), the Macro knobs control both Parts and their rings are lit in blue.
- With the **Part 1** button selected, the Macro knobs control Part 1 and their rings are lit in orange.
- With the **Part 2** button selected, the Macro knobs control Part 2 and their rings are lit in green.

5.3. More on Macros

Macros in Multi Presets act as offset on Part 1/2 Macros.

- In a Multi Preset, if a Macro settings is at a minimal value, min, you now choose to edit the Part 1 Macro and set it to max. Going back to Multi Macro, you won't be able to change the Part 1 Macro anymore since it's already to maximum value.
- Same example, but with a Part 1 Macro set to 50%, on your Multi Macro, going to min and max will make the Part 1 Macro go from 50% to 100% while the Part2 Macro will remain unchanged.

This can be useful, if you want to fine tune a position that goes too extreme, but can also be confusing because a Part's Macro will not respond.

> ♪ To dig deeper into the Macro department, and to edit Macros, please select the Cogwheel in the upper right corner of Analog Lab and select the Macro tab. The Macro concept is much easier to understand in that environment.

5.4. Part Volume and EQ

You can adjust each Part's volume and EQ here.

First, select a Part. Then, hold **Shift** and turn the **Brightness** knob to adjust the volume; turn the **Timbre**, **Time**, and **Movement** knobs to adjust the master **EQ**.

6. EFFECTS

AstroLab offers two assignable insert effect slots (also called FX) plus dedicated Delay and Reverb.

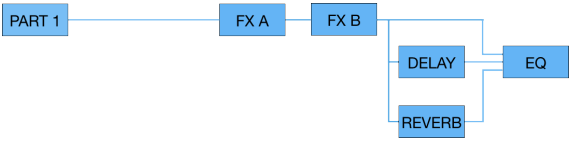
> ♪ To be clear, when we say "FX", we are talking about the Insert FX. When we say "Send FX" we're talking about the Delay and the Reverb. By design, this mirrors the effects chain in Analog Lab.

6.1. Effect Buttons

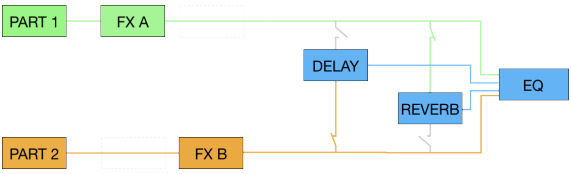
Use the **On/Off** button below each Navigation Wheel to engage or bypass each effect independently.

6.2. Effects Routing

On a Single Preset, the insert FX are routed in series. From there, the output can be sent independently to the delay and reverb, which are in parallel, like so:



The routing is the same for a Multi, except that FX A and B must be shared between the two Parts – each Part can have one or one Part can hog both, as introduced in Chapter 5 [p.28].



6.3. Assigning Insert FX

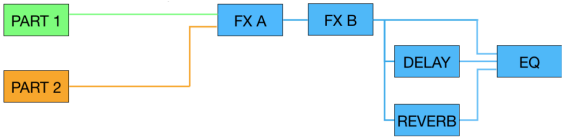
As you can see, there are a number of ways the 2 Insert Effects can be assigned to Parts 1 and 2 in a Multi Preset.

Select the Part you want to work on. While holding that Part button, press the FX button to add that Insert FX to the Part.

Now it's easy to swap Insert Effects between Parts or let one Part use both Insert Effects (while the other Part uses no FX).

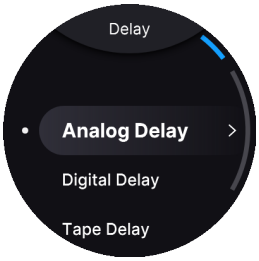
6.3.1. Grouping FX

If you're happy to have both Parts in a Multi use the same insert FX, you can group them so that the routing looks like this:



To do so, press **Part 1**, **Part 2**, and either Part's **On/Off** button at the same time.

6.4. Selecting Effects



To edit the Insert FX, Delay, and Reverb, long-press the corresponding the **On/Off** button.

Another method is to short-press any FX on/off button and then short-press the Navigation Wheel.

6.5. Insert FX

The insert FX in AstroLab correspond to those in – you guessed it – Analog Lab. Again, the benefit is that you can easily tweak effects in the software, then transfer everything into AstroLab with all your edits intact. Of course, you can also edit the FX parameters directly on AstroLab. The FX combine the interfaces of classic "stompboxes" with the audio quality of studio-grade rack equipment.

You can reach the Insert FX by long-pressing the **Effects On/Off** button of the desired slot. You can then make your selection with the Navigation Wheel. Another method is to short-press any FX on/off button and then short-press the Navigation Wheel.

The Effects are:

- None
- Multi Filter
- Parametric EQ
- Compressor
- Distortion
- Chorus
- Flanger
- Phaser
- Stereo Pan
- Analog Phaser
- Wah
- Twin Amp
- Rotary Speaker

For detailed information of all the parameters of these effects, please refer to the Supplement: Tables [p.44]

6.5.1. Controlling the FX

You select an FX by clicking the Navigation Wheel. You can now audition the FX by playing the keyboard. This is a quick and easy method to home in on the type of sound you're after.

Click the Navigation Wheel to edit the FX. Scroll through the parameters and select the one you want to edit by clicking again. Edit the FX by turning the Navigation Wheel. Exit editing this parameter by hitting the Back button.

> ♪ To hear any of the Effects you're tweaking, make sure the corresponding **Dry/Wet** knob is not at its zero position (mixed all the way down).

6.6. Editing Insert Effects

To edit the parameters of any effect, long-press the **On/Off** button of the desired slot. You can then use the Navigation Wheel to edit parameters as follows:

- Turn until the desired parameter is in focus.
- Click to select it. A small up/down arrow will indicate you are now in Edit mode.
- Turn again to change the value.
- Click again to confirm the value.
- Press **Back** to exit to the previous menu.
- If you regret your edit, just press Back. This will undo your edit.

6.7. Editing Delay

One of the two send effects in AstroLab is a delay with three options:

- Analog: Old-school, warm, and good for pitch-shifting effects.
- Digital: Clean and modern, with stereo ping-pong capability.
- Tape: Vintage tape echo for vibey repeating effects.

Instead of adjusting the dry/wet mix, turning the **Delay** knob adjusts the send level, that is, the amount of signal downstream of the Insert FX that is sent through the delay. Pressing **Shift** and turning the knob adjusts the delay time. Each type of Delay has different parameters, which are listed at the end of this chapter.

6.8. Editing Reverb

AstroLab comes with a whopping 14 options for its Reverb for different musical applications:

- Digital Reverb
- Small Piano Room
- Soft Room
- Small Studio
- Large Studio
- Jazz Club
- Small Concert Hall
- Large Concert Hall
- Bright Room
- Bright Space
- Factory Hall

- Small Plate
- Large Plate
- Spring

Again, this is a send-based effect and it runs in parallel with the Delay. Pressing **Shift** and turning the knob adjusts the reverb decay. Each type of Reverb has different parameters, which are listed at the end of this chapter.

6.8.1. Effects Presets

All effects in AstroLab have presets, not to be confused with AstroLab's individual sound Presets. These let you select a quick combination of settings to get "most wanted" sounds from the effects right away.

To audition these Effects Presets, long-press the On/Off button of the desired slot and use the Navigation wheel to browse the effects.

> ♪ Since reaching the Effects presets menu is only a button-press away, you can easily enhance a live performance by adding an unexpected Effect. Then add dimension to your solo by turning the Effects knob in the upper right of the panel.

6.9. Tempo Sync

Some time-based effects sync to AstroLab's tempo if their *Sync* parameter is engaged. Find out more about sync in the Settings chapter [p.54].

6.10. Master EQ

The final link in AstroLab's signal chain is a 3-band master EQ. (This is separate from the Equalizer option in the Insert FX.) It can be ideal for sculpting your tone to a particular room you're playing a gig in, not stepping on the bass player, *being* the bass player, and much more. Hold **Shift** and then turn one of these three Macro knobs to adjust the corresponding band:

- **Timbre:** Bass
- **Time:** Midrange
- **Movement:** Treble

The boost/cut range of each band is -10 to +10 dB.

6.11. Supplement: Tables

These tables list all parameters, and what they do, for all of AstroLab's Insert FX as well as Delay and Reverb types.

The best way to learn the pedal-style Insert Effects is simply to experiment and play with them. However, for reference, here is a complete list of the effects and their individual parameters.

♪ For each of the FX, the parameter changed when you turn the Intensity [p.12] knob is listed in **bold**.

♪ Each Effect menu starts with an **Enable On/Off** switch at the top.

6.11.1. MultiFilter

This is like having a multi-mode synth filter in pedal form.

Control	Description
Mode	Chooses the filter type: Low-pass, High-pass, Band-pass, and Comb Filter (feedforward and feedback)
Cutoff	Sets cutoff or center frequency of filter
Q	Increases or decreases the amount of emphasis at the corner frequency / frequencies
Slope	Select the filter steepness (LP/HP/BP only)
Dry/ Wet	Controls the balance between the input signal and the effected signal

6.11.2. Parametric EQ

This is a 3-band parametric EQ with adjustable bandwidth for the mid band (Peak) and shelving curves for the high shelf (HS) and low shelf (LS) bands.

Control	Description
Gain (x3)	Boosts or cuts each band
Frequency (x3)	Adjusts the frequency of each band
Q	Adjusts the bandwidth of the mid band
Scale	Controls the gain of all EQ stages at the same time

6.11.3. Compressor

A compressor is generally used to maintain a consistent level of sound, though there are many other ways to use one. For example, it can keep the attack transients of a sound from overloading the input of the next effect. It can also help a sound which would normally decay quickly not to fade away as quickly.

Control	Description
Threshold	Sets the level where compression will begin
Ratio	The amount of compression to be applied once the threshold is reached
Attack	Adjusts the speed with which the compression will be applied once the threshold is reached
Release	Sets the release curve of the compressor
Output Gain	Compensate for reduction in volume if compression lowers the output level
Make Up	Enables automatic control of the output level
Dry/Wet	Balances the input signal and the compressed signal

6.11.4. Distortion

This versatile distortion pedal packs several sound-mangling techniques into one pedal, including analog overdrive and lo-fi digital bit crushing.

Control	Description
Type	Selects Overdrive, BitCrusher, Overdrive Legacy, Wavefolder, or Waveshaper
Drive	Sets the pre-gain of the distortion
Level	Adjusts the output level of the effect
WF Type	Adjusts the shape of wave folding in Wavefolder mode only
Bitdepth	Reduces the bit depth in BitCrusher mode only
Downsample	Reduces the sample rate in BitCrusher mode only
Dry/Wet	Balances the input signal and the distorted signal

6.11.5. Chorus

Stereo chorus is an essential effect in any rig.

Control	Description
LFO Freq	Adjusts the speed of the chorus
Depth	Controls the depth of the chorus
Feedback	Adjusts the amount of chorused signal that is fed back in to the effect
Delay	Sets the amount of delay applied to the input signal
Voices	Selects the number of delay lines the chorus uses, with a different starting phase for each voice
Stereo	Switches the chorus between mono and stereo output
Shape	Toggles modulation LFO between sine and square waveforms
Dry/Wet	Controls the balance between the input signal and the chorused signal

6.11.6. Flanger

Flanging works by mixing two identical signals together, with one signal delayed by a small and gradually changing period. This produces a swept "jet engine" effect.

Control	Description
LFO Freq	Controls the modulation rate for the flanger
Depth	Sets the flanging depth
Feedback	Adds feedback for a harsher or "ringing" sound. Maximum is 0.990 to avoid runaway feedback
Stereo	Will switch the flanger output between mono and stereo
Phase Invert	Inverts the phase of the flanged signal relative to the input
HP Filter	This determines the amount of low-frequency content that the flanger effect will receive
LP Filter	Use this to define the amount of high-frequency content that will enter the flanger effect
Dry/Wet	Controls the balance between the input signal and the flanged signal

6.11.7. Phaser

Phasers split the incoming signal, change the phase of one side, and recombine it with the unaffected signal. Modulation of this signal results in the familiar "whooshing" sound.

Control	Description
Frequency	Sets the harmonic center for the modulation effect
N Poles	Determines the steepness of the filter frequency response
Feedback	Controls the amount of phaser resonance
Stereo	Gradually changes the phaser from mono to stereo output
Sync	When on, the Rate becomes rhythmic divisions of the master tempo
Rate	Controls the speed of the phaser effect
LFO Amount	Determines the depth of the phaser effect
Dry/Wet	Controls the balance between the input signal and the phase-shifted signal

6.11.8. Stereo Pan

This simple effect bounces the signal between the left and right stereo channels.

Control	Description
Sync	When on, the Rate becomes rhythmic divisions of the master tempo
Rate	Sets the rate of panning
Shape	Chooses the wave shape of the panning to make the effect more gradual or abrupt
LP Mono	When on, exempts low frequencies from the panning effect for a more stable bass end
Dry/Wet	Controls the balance between the input signal and the panned signal

6.11.9. Analog Phaser

Here's a mini version of Arturia's BI-TRON phaser.

Control	Description
Rate	Sets the speed of phaser effect
N Poles	Sets the steepness of the filter frequency response
Feedback	Controls the amount of phaser resonance
Depth	Determines the depth of the phaser effect
Stereo	Toggles between stereo and mono output
Sync	When on, the Rate becomes rhythmic divisions of the master tempo
Dry/Wet	Controls the balance between the input signal and the phaser signal

6.11.10. Wah

The wah-wah was one of the first pedal effects that became available to musicians in the mid-sixties. The name implies the sound it creates.

Control	Description
Manual	Sets the tonal range of the effect; more wide range at lower values
Sensitivity	Sets the level needed to kick the Wah effect into action, like an auto-wah. With sensitivity at 0, you control the frequency using the manual setting
Rate	Sets the rate of the wah effect
Depth	Sets the wah-wah depth
Dry/Wet	Controls the balance between the input signal and the wah signal

6.11.11. Twin Amp

A classic guitar amplifier combo.

Control	Description
Drive	Simulates the input gain, where more drive equals more distortion
Bass	Controls the low frequencies
Treble	Controls the high frequencies
On Axis	The position of the microphone in front of the speaker alters the overall sound
Bright	For extra treble
Output Gain	Use this knob to compensate for louder volume caused by the Drive knob
Dry/Wet	Controls the balance between the input signal and the guitar amp signal

6.11.12. Rotary Speaker

Playing any instrument through a Leslie cabinet can create interesting and unexpected results. When all else fails, try this!

Control	Description
Model	A selection of classic Leslie models
Stereo	Gradually narrow or widen the stereo image
Balance	Adjust the balance between the bass speaker and treble driver in a cabinet
Fast	Activate the fast rotor speed of a Leslie cabinet
Brake	This simulates the rotary speaker rotors being stopped
Dry/Wet	Controls the balance between the input signal and the rotary signal

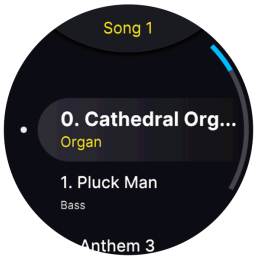
7. PLAYLISTS

Playlists are lists of Presets, which are further organized into Songs. They are ideal for organizing set lists for a gig.

You typically build those Playlists in your home studio or rehearsal room. Then, while on stage, you can enjoy a totally stress-free life by simply clicking your way through the Songs and Presets as the show progresses.

7.1. Playlist Hierarchy

Playlists in AstroLab are divided into Songs, each of which in turn can contain up to 128 Presets.

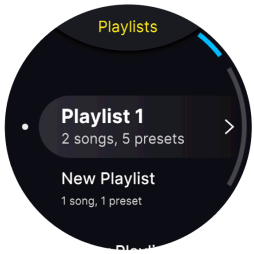


Think of Playlists, the top level of the hierarchy, as corresponding to different kinds of gigs. You might have one for your gig with a cover band, another for your solo electronica act, another for playing at a worship service, another for recording sessions, and so on. Then, Songs correspond to the songs in your set list. Finally Presets cover the different sounds you might need throughout playing a tune.

> ♪ Here's an example: Think of a **Playlist** as a band or an artist you play with. Each Playlist contains a number of **Songs**, typically arranged in the order you perform them. Each Song holds all the **Presets** for that Song. By preparing your Playlists, you don't need to scan your entire AstroLab for a particular sound.

7.2. Navigating the Playlists

To enter Playlist mode, press the **Playlist** button and then the **Back** button twice. The top of the screen will read **Playlists**.



♪ To get you started, AstroLab comes with a Demo Playlist.

You are now able to scroll through the Playlists and select one of them by pressing the Navigation Wheel. By doing so, you enter **Song Mode**.

In **Song Mode**, select one of the Songs and you'll be greeted by a list of **Presets**. You can now easily step through the Presets of that Song like this:

- Use the Previous/Next buttons or the Navigation Wheel.
- You can also select from the first ten Presets in a Song by using the Preset Type buttons 0-9.

7.3. Exiting Playlist Mode

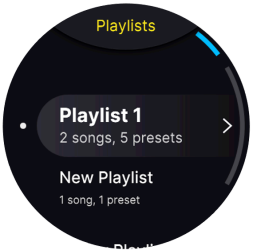
When in Playlist mode, press the **Playlist** button again to return to the regular Preset View. The last Preset that was used before you entered Playlist mode will be loaded.

The next time you enter Playlist mode, the most recently used Playlist, Song, and Preset are reloaded.

7.4. Creating a New Playlist

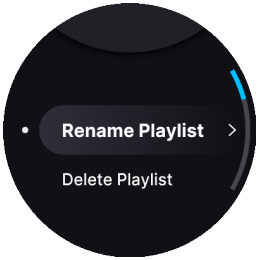
The most convenient way to create Playlists is to use Analog Lab. If that app is not within your reach, you can create Playlists directly on AstroLab or in the AstroLab Connect mobile device app.

First, navigate to the Playlist page from the Home Screen. Alternatively, press the **Playlist** button and then the **Back** button twice. If a Playlist is open, you can simply press the **Back** button:



Turn the Navigation Wheel clockwise until you see the "**+ New Playlist**" option. Choose it, and a new empty playlist is created. **Long-press** or **Shift-press** the **Navigation Wheel** to name the Playlist.

> ♪ On this page, you will also be able to Delete a Playlist.

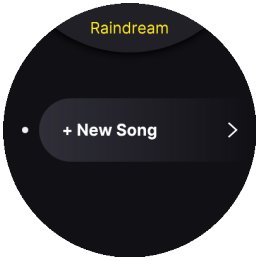


Enter a name by using the onscreen text editor [p.23]. Once you've confirmed the name, the display will read "Success!".

7.5. Creating Songs in a Playlist

To enter Playlist mode, go to the **Home** page and select **Playlist**. Alternatively press the **Playlist** button and then the **Back** button twice. The top of the screen will read **Playlists**.

Select **New Playlist**, and you'll land on a screen that says Playlist 1 (or 2 or 3 etc.). Pressing Playlist 1, takes you to **New Song**.



Pressing the Navigation Wheel will create a new Song. **Long-press** or **Shift-press** the **Navigation Wheel** to name the Song properly.

On the **Rename Song** page, you will also be able to **Move Song** or **Delete Song**.

7.6. Populating a Song with Presets

Clicking on the Song you just created will present a screen saying **No Preset**. That's because you haven't added any Presets to that Song yet. So let's do that.

You enter Presets to your Song by **holding Shift** and **pressing Back**. You will then land on the **Home Screen** (the menu where you can filter Presets). An alternate method is to press the **Back** button 3 times.

When you've found a Preset that suits a particular Song, Shift-press or long-press the Navigation Wheel. Now, turn the Wheel and select **Add to Playlist**.

Pressing the Wheel takes you to the **Playlists** page. Select a Playlist and press the wheel. You will now be able to **add your Preset to any Song** in that Playlist. From there you can continue to add Presets to your Song.

7.7. Moving a Preset from within a Song

Whilst in Song mode and playing a Preset that belongs in a Song, you can easily remove that Preset from that Song. Simply long-press or Shift-press the Navigation Wheel.

You can now choose to **Move** that Preset to another Song or **Delete** it from the Song you're in.

8. TEMPO, MIDI LOOPER, AND ARPEGGIATOR

AstroLab includes a full-featured arpeggiator and MIDI loop player/recorder, as well as a metronome. This chapter covers these features, as well as settings that govern tempo and tempo sync throughout AstroLab.

8.1. Tempo Settings

Tempo affects the Arpeggiator, MIDI Looper, and any effects [p.40] that have a Sync option.

8.1.1. Tempo Sync

Since many of the Instruments in AstroLab (and Analog Lab) have their own tempo-generating clocks, AstroLab lets you decide whether to leave it up to the Preset to determine tempo, or use the master tempo source.

Press and hold **Shift** and then **Play**. After a second or two, you will see the Tempo Sync screen.

Tap here to

- *On:* Tempo follows AstroLab's global master clock or an external clock depending on the Sync Source [p.55] setting.
- *Off:* Tempo is determined Preset by Preset.

Press **Shift** plus **Back** to go to the Home screen (if you're not already there), then press Settings and General. Scroll down a bit to edit Tempo and Sync.

8.1.2. Adjusting the Tempo

Press **Shift** plus **Play**, then turn the Navigation Wheel to adjust the master tempo manually. The display above persists for about two seconds after you're done making an adjustment.

Tempo range is 30 to 240 beats per minute.

8.1.2.1. Tap Tempo

The tap tempo function is ideal for matching tempo to a source that's not synced up electronically, such as a drummer or other musicians in a band. Simply hold **Shift** and tap the **Play** button to the beat at least four times. A pop-up tempo display will momentarily show the new tempo based on your taps.

You can also configure one of your **Aux Pedal** inputs to Tap Tempo.

> ♪ The above settings are all saved at the Preset level. So, one Preset might use its own tempo while the next uses AstroLab's master tempo.

8.1.3. Sync Source

AstroLab can use its internal clock for master tempo or be synced to an external source.

Hold **Shift** and press **Back** to get to the Home screen. Navigate to **Settings** → **General** → **Tempo Sync Source**.

The options are:

- *Internal:* AstroLab uses its own master clock.
- *USB:* AstroLab syncs to incoming MIDI clock over USB.
- *MIDI:* AstroLab syncs to incoming MIDI clock over the 5-pin MIDI input.
- *Auto:* AstroLab chooses a source automatically (see below).

8.1.3.1. Auto Sync

If *Auto* is selected, AstroLab makes a determination using the following roadmap.

- If external clock is not detected, internal tempo is used.
- If external clock is detected over any connection, AstroLab syncs to it.
- If multiple clocks are detected, AstroLab chooses USB above 5-pin MIDI.
- If a MIDI stop message or clock interruption is detected, the MIDI looper (if playing) pauses.
- If a MIDI start message is detected, playback resumes synced to the external clock.

8.2. MIDI Looper

AstroLab's MIDI Looper records any performance played on the keyboard. As the name implies, you can use it for creative looping, but also for recording a linear performance in real time.

The Looper records all MIDI notes with velocity as well as Pitch Bend, Modwheel, and Aftertouch.

The MIDI Looper is upstream of the Arpeggiator, Chord, and Scale functions.

♪ The MIDI Looper can be a practical tool when setting up before a gig. You may want to make adjustments to the sound system or check the sound of your instrument from elsewhere in the room. Simply record a sequence into the Looper and let it play while you make adjustments.

8.2.1. Record a Loop

It's easy to get started making a loop. Simply press **Record** (the button with the red dot). If count-in is enabled, you will hear a metronome countdown before recording begins.

Play in your performance, then press **Record** to play back the loop or press **Play** (the green arrow) to stop recording.

When your recording is finished, the lower part of the display will read **Edit**. Pressing here opens a dialogue where you can name [p.23] and save your recording. AstroLab can store up to 127 MIDI recordings internally.

♪ The simplest way to reach the Looper edit page is to long-press the **Play** or **Record** button.

8.2.2. Loop Record Settings

Long-press **Play** or **Record** to access the Record Settings menu. Alternatively, you can also press **Play** or **Record**, then the Navigation Wheel.

- *File:* Opens the MIDI loop list where recordings can be loaded, named, and saved.
- *Loop:* If On, the performance is looped during playback. If Off, it plays through once.
- *Fixed Length*: When Off, recording stops when **Record** is pressed. When on, recording jumps to the start and begins looping.
- *Length*: Specifies the Fixed Length: 1, 2, 4, 8, 16, or 32 bars.

From the *File* submenu (i.e., the loop list) in Record Settings, you can also select options to create a new recording file (this also happens when you finish a recording and are prompted to save it), load an existing recording, and delete recordings.

8.3. Arpeggiator

AstroLab includes a classic synth-style Arpeggiator. Turning it on is as simple as pressing the **Arp** button. Now, held chords will be arpeggiated according to the Arpeggiator settings.

8.3.1. Hold

Press **Shift** plus **Arp** to toggle Hold mode. When active, arpeggiation will continue after you remove your fingers from the keys. Hold can also be activated by the Sustain pedal or added as a function to an Aux pedal.

8.3.2. Arpeggiator Settings

Long-press the Arpeggiator button to enter its settings menu.

Available settings are:

- *Arpeggio*: Turns the Arpeggiator on and off (duplicates the Arp)
- *Hold*: On, Off (duplicates Shift+Arp button press).
- *Type*: The order in which notes are played
    - Up
    - Down
    - Ordered (follows order in which you struck notes)
    - Reversed (reverse order in which notes were played)
    - Inc (up and down, top and bottom notes repeated)
    - Exc (up and down, top and bottom notes not repeated)
    - Random (random order)

- *Octave Range*
    - *Range*: 1-5 octaves.
- *Rate*
    - When **Synced**, playback rate is based on subdivision of a musical bar. The range goes from 1 Bar to 1/64th of a Bar.
    - When **Not Synced**, the rate of the arpeggio can be set between 15 and 600 BPM.
- *Sync*
    - When synced, the Arpeggiator syncs to the MIDI clock or the Internal clock. Playback rate is based on subdivisions of a musical Bar.
    - When not synced, playback rate is set to the BPM.
- *Part Selection*: Determines which Part is affected when Arpeggiator is used with a Multi Preset: All, Part 1, or Part 2.

8.4. Chord Mode

In Chord mode, pressing a single note plays an entire chord, determined either by the keyboard or Chord Settings. Press the **Chord** button to enter Chord mode.

8.4.1. Record a Chord

To set up a chord for playing when Chord mode is active, hold **Chord** and play some notes. (The MIDI Looper and Arpeggiator will not be available at the same time.) If you want to play a big chord, just play the notes across the keyboard, on by one; they don't have to be played at once.

Also, there is a limit of up to 8 notes per Part or 16 notes when 2 Parts are used.

The lowest note played is considered the root. Now, your chord will be transposed with any single note you play as the root.

8.4.2. Chord Settings

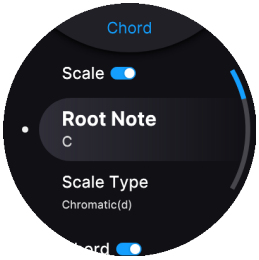
Long-press the Chord button to enter its settings menu. Here you will be able to gain deeper control over Chord mode.

- *Chord*: Turn Chord mode on or off.
- *Chord Type*: Major (default), Major 7, Major 9, Major 11, Custom, Octave, Fifth, Suspended, Minor, Minor 7, Minor 9, and Minor 11.
- *Part Selection*: Determines which Part is affected when Chord is used with a Multi Preset: All, Part 1, or Part 2.

8.5. Scale Mode

You turn on Scale mode by **holding Shift** and pressing **Chord**.

To enter Scale edit mode, long-press the Chord button.



Scale mode constrains the notes played on the keyboard as well as by the MIDI Looper and Arpeggiator. Specify a musical scale, and it becomes effectively impossible to hit a "wrong" note.

8.5.1. Setting Up a Scale

There are two components to a scale: the *root note*, and the *type of scale* it is. Both components are accessed in the Scale settings by long-pressing the Chord button. These are the options:

- *Scale*: Turn Scale mode on or off.
- *Root Note*: C (default), C#, D, D#, E, F, F#, G, G#, A, A#, B.
- *Scale Type*: Major (default), Minor, Harmonic Minor, Melodic Minor, Lydian, Mixolydian, Dorian, Phrygian, Locrian, Japanese, Gypsy, Arabic, Freygish, Pentatonic Major, Pentatonic Minor, and Blues.

> ♪ It's important to understand, that both Root Note and Scale Type need to be set correctly. For example, if you're about to play a solo in a blues song in the key of E, Root Note should be E and Scale Type Blues. Or, if the song has more of a major tonality, you could use Root Note E and Scale Type Mixolydian. Explore!

8.5.1.1. Scale Indicator

You don't have to be a music theory expert to make use of these scales, because AstroLab shows you exactly what notes each one encompasses.

Select a Scale, and you'll see the Keyboard LEDs (directly behind every note) indicate the available notes of any particular Scale in any particular key.

8.6. Metronome

Last but not least, AstroLab includes a metronome. It can be used when the Looper is recording or playing. To turn it on and off, press **Shift** plus **Record**. Press the same buttons to turn the Metronome off again.

8.6.1. Metronome Settings

Long-press **Record** to get to the Metronome settings.

The parameters are simple:

- *On/Off*: Toggles the Metronome on or off.
- *Metronome Volume*: Sets the level of the Metronome beep.

The Metronome time signature is the same as that set in the Record Settings of the MIDI Looper. To indicate the time signature, the first beat in the bar uses a different sound than the rest of the beats.

Metronome settings are global to AstroLab.

9. WIRELESS SETUP

AstroLab comes with Wi-Fi and Bluetooth built in. Using **Bluetooth**, you can stream audio from such devices as smartphones, tablets, and computers through AstroLab. Using **Wi-Fi**, your mobile device becomes a remote control to AstroLab via the AstroLab Connect app.

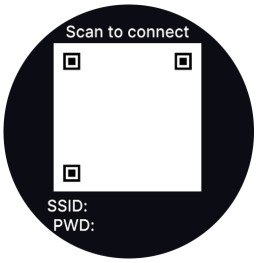
9.1. Wi-Fi Setup

AstroLab can connect to your existing Wi-Fi network, but also function as a Wi-Fi hotspot itself.

9.1.1. Connecting to a Wi-Fi Network from a Mobile Device

First, on your AstroLab, go to Home → Settings → WIFI → Start WIFI Pairing. A QR code will appear.

AstroLab Connect is the phone and tablet companion for your AstroLab. It lets you browse and edit its sounds and Playlists, and allows you to get new sounds from the Sound store. Simply scan the QR code displayed on the screen, and you'll be able to Sync your AstroLab with the app.



To connect AstroLab to an existing Wi-Fi network, follow these steps.

- Download and install **AstroLab Connect** on your phone or tablet.
- Start the app, and it will try to connect to an AstroLab on the same network.
- Tap on **Start Wi-Fi Pairing**. The app will ask for permission to use the camera on your device (and if you're on Android, it also asks for localization access). Press okay.
- On your AstroLab, go to Home → Settings → WIFI → Start WIFI Pairing. A QR code will appear.
- Point the camera of your device to the QR code and allow AstroLab Connect to connect to Wi-Fi network AstroLab-XXXX.
- On the following page, select your network (must be 2.4 GHz) and enter the network password. Tap Continue. From there you can also choose **not** to join a network. The only difference is that your AstroLab will stay on hotspot. You will also be able to browse within sounds, Playlists etc, but you won't be able to display the sound store, as you won't be connected to the Internet.
- The Navigation Wheel display will now show **Connected to network XXX**.

9.1.2. Connecting to a Wi-Fi Network from AstroLab

Here is an alternate method to connect to Wi-Fi using AstroLab's Navigation Wheel.

- Use the Navigation Wheel to navigate to *Settings* > *WIFI* > *WIFI Mode*.
- Select *Connect to local network*.
- Click the Navigation Wheel and scroll down to *WIFI Network*.
- Click the Navigation Wheel and you'll see a list of local networks in range. Select the desired network.
- If your network requires a password, AstroLab will prompt you to enter and confirm it on a text editor [p.23] screen.
- Once the password is entered, AstroLab will connect to the chosen network.

! AstroLab can only be connected to 2.4 GHz Wi-Fi networks.

The next time AstroLab is powered on within range, it will remember that network as its default and not require reconnection.

! Your router must be set to broadcast its network name (SSID) for initial connection to work. Most routers do by default, but some users hide their network names for security reasons. Once AstroLab has connected, you may re-hide your SSID.

9.1.3. Using AstroLab as a Wi-Fi Hotspot

To use AstroLab's own hotspot functionality, follow these steps.

- Use the Navigation Wheel to navigate to *Settings* > *WIFI* > *WIFI Mode* and select *Start WiFi Hotspot*.
- On your device (computer, phone, or tablet), go to Wi-Fi settings to show available Wi-Fi networks.
    - Select the network "AstroLab-XXXX" in your computer's network preferences. The exact name of your AstroLab can be seen (and edited) just below *Wi-Fi Mode*.

By default, AstroLab as a hotspot does not require a password. However, you can specify one under *Password*.

9.2. Bluetooth Pairing

Use the following steps to pair AstroLab with a Bluetooth-equipped device:

- Ensure Bluetooth is activated on the device (computer, phone, or tablet) you wish to pair.
- Hold **Shift** and press **Back** to bring up the Home Screen, then use the Navigation Wheel to navigate to *Settings* > *Bluetooth*.
- If necessary, click the Navigation Wheel to turn *Bluetooth On*.
- Select this option to make AstroLab discoverable as a Bluetooth device.
- On your Bluetooth device, navigate to the Bluetooth settings. AstroLab should appear in the list of pairable devices.
- As an alternate method, select *Pair a new Device* in AstroLab.
- Select AstroLab on your device to complete the pairing process.
- When AstroLab's screen shows "Connected to YOUR DEVICE NAME," the pairing process is complete.

9.2.1. Bluetooth Audio Streaming

On computers, you may now need to select AstroLab as the audio output in your system preferences. On phones and tablets, this should happen automatically. You can now stream audio from your device to use AstroLab (plus whatever amplification or headphones it is connected to) as a listening system. This is great for playing along with your favorite songs or learning new songs that reside on your phone or computer. If you're an arranger, you will clearly see the benefits here.

The audio from your device is mixed with AstroLab's audio output. Use your device's volume control to adjust the balance between the two.

Note that streamed audio does not go through AstroLab's sound engine, so you cannot use Bluetooth to process external audio through its synths and effects. However, you can certainly process external audio using AstroLab's hardware audio inputs.

10. ASTROLAB CONNECT

Most of us take the convenience of being able to connect to our gadgets wirelessly for granted. With Wi-Fi and Bluetooth having become so reliable, it was only natural to implement these means of communication between AstroLab and your device(s).

You may find editing Playlists easier on the keyboard of your handheld. Entering Preset names is easier on your phone. The bigger screen of your device provides better visual feedback when editing sounds and EQ. When playing live or in the studio, you will always be able to download fresh Sound Banks from the Sound Store. The list goes on.

To get started, head over to the App Store or Google Play and search for the **AstroLab Connect** app.

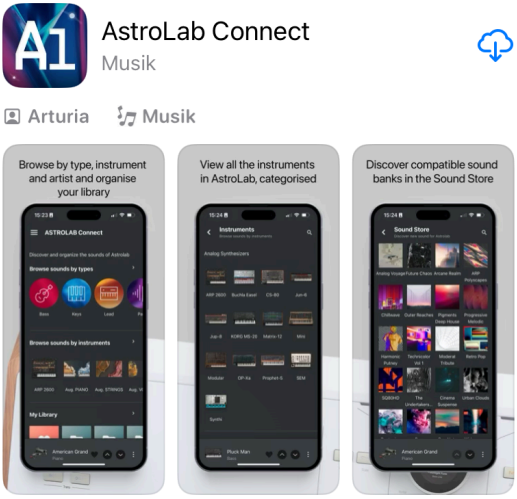
10.1. First steps

It is **absolutely essential**, that your mobile device is on the same network as AstroLab. AstroLab will only connect to 2.4 GHz Wi-Fi, and most routers provide both 2.4 GHz and 5 GHz networks. If both the 2.4 GHz and the 5 GHz networks have the same name, you may accidentally try to connect AstroLab to an unreachable network.

It could be a good idea to rename those networks to e.g. *Mynet_2.4* and *Mynet_5*. That way it will be easy for you to make sure both AstroLab and your mobile device are on the same network.

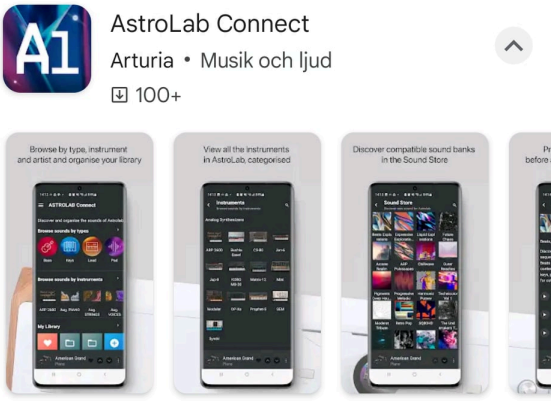
10.1.1. Installing AstroLab Connect for iOS Users

First, head over to the App Store and search for the **AstroLab Connect** app.



10.1.2. Installing AstroLab Connect for Android Users

Start by going to the Google Play store and search for the **AstroLab Connect** app.



10.1.3. Setting up AstroLab as a Wi-Fi Hotspot

To use AstroLab's own hotspot functionality, follow these steps.

- Use AstroLab's Navigation Wheel to go to *Settings* > *WIFI* > *WIFI Mode* and select *Start WiFi Hotspot*.
- On your device (computer, phone, or tablet), go to Wi-Fi settings to show available Wi-Fi networks.
    - Select the network "AstroLab-XXXX" in your computer's network preferences. (XXXX are the last 4 characters of your serial number.)

> ♪ The 4 last characters in the AstroLab network name indicate the unique ID of that particular instrument. This is useful info, if there are several AstroLabs in the room.

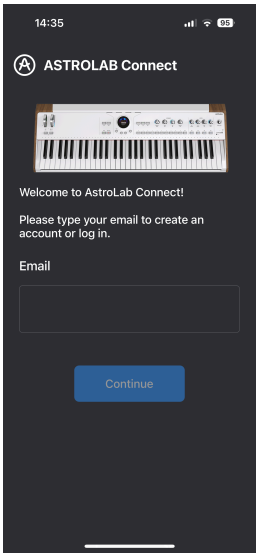
By default, AstroLab as a hotspot does not require a password. However, you can specify one in the AstroLab Settings area of Analog Lab.

> ♪ The app can only connect to your AstroLab, if AstroLab is **not** linked to Analog Lab. Read more about AstroLab and Analog Lab integration in Chapter 12 [p.89].

10.1.4. Setting up your Mobile Device

First, ensure your AstroLab is set to Wi-Fi Hotspot Mode and that your mobile device can see it. You may need to toggle Wi-Fi off/on on your device to succeed.

Then, when starting AstroLab Connect on your phone or tablet, you'll be prompted to log in with your Arturia Account. You can also create an account directly in the app.



Your device will now scan for an AstroLab in the room. You will be asked to scan a QR code to establish a first connection between your device and AstroLab. To access this QR code on AstroLab's screen, go to *Settings* > *WIFI* and select **Start WIFI Pairing**.

Wait a few seconds and then scan the QR code. If you get an error message, please check if AstroLab can be seen as a Wi-Fi hotspot by your mobile device. Again, you may need to toggle Wi-Fi off on on your mobile device.

10.1.5. Scanning the QR Code

While still in the AstroLab Connect app, scan the QR code. You will be asked to join the AstroLab Wi-Fi hotspot. You may also be asked for some authorization regarding localization and connection to your local Wi-Fi network.

After a few seconds, you'll be prompted to enter your local Wi-Fi password. After this, AstroLab should be connected to your local network.

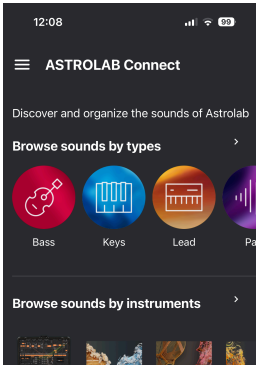
Once done, you'll see AstroLab connecting to your local network. In the app, you'll be back to the home page, and synchronization will start shortly after.

You can remain in hotspot mode only and still sync to the app, but the Arturia Store will not be available.

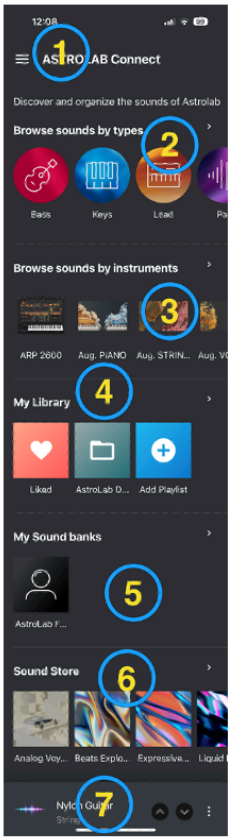
> ♪ Only **2.4 GHz networks** are supported! If your network is sharing 2.4 GHz and 5.0 GHz bands under the same network name, you may encounter issues connecting. Using separate names (e.g. "Net*24*" *and Net5*") can be a good idea.

10.2. The Home Page

Once the AstroLab Connect app and your AstroLab keyboard have been properly connected, you can start using the two together.



The first screen you'll see is the **Home page** shown below. Let us walk you through its content.



1. The **Hamburger** icon in the top left lets you move on to Sound Edit page, to Settings, to Logout, or back to the Home page.

2. **Browse sounds by types**

   - Tap on a Type icon to select it.
   - Scroll to the right to see all Types.
   - Tap on "Browse sounds by types" or the arrow to see all Types on one page.

3. **Browse sounds by instruments**

   - Tap on an Instrument icon to select it.
   - Scroll to the right to see all Instruments.
   - Tap on "Browse sounds by instruments" or the arrow to see all Instruments on one page.

4. **My Library**

   - Tap on a Library icon to select it.
   - Scroll to the right to see all Libraries.
   - Tap on "My Library" or the arrow to see all Playlists and Liked Presets on one page.

5. **My Sound banks**

   - Tap on a Sound Bank icon to select it.
   - Scroll to the right to see all Sound Banks.
   - Tap on "My Sound banks" or the arrow to see all your Sound Banks on one page.

6. **Sound Store**

   - Tap on a Bank icon to select it.
   - Scroll to the right to see all Banks.
   - Tap on "Sound Store" or the arrow to see even more Sound Banks in the Store.

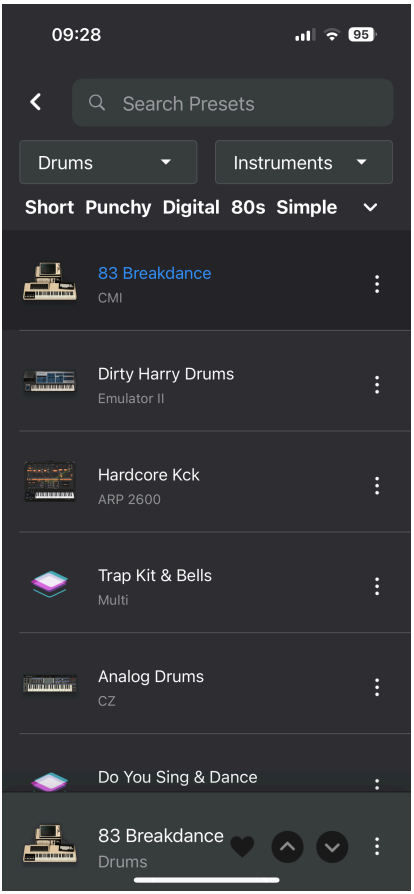
7. In the **lower part** of the screen the **name** of the current Preset is shown. The up and down **Arrows** allow you to go to the previous or next Preset. The 3 vertical dots open up a menu:

   - **Like (or Unlike) Preset**
   - **Edit sound**
   - **Add (preset) to Playlist**

> ♪ The last item on this page looks different if e.g. you have loaded a Preset from a Playlist. If so, you will also be able to Move Preset to another Song, Rename the Preset, or Delete it.

10.3. The Explore View

AstroLab contains a vast amount of Presets. It is vital to be able to navigate them. There are numerous ways to do that, and they all lead to this view, the Preset page.

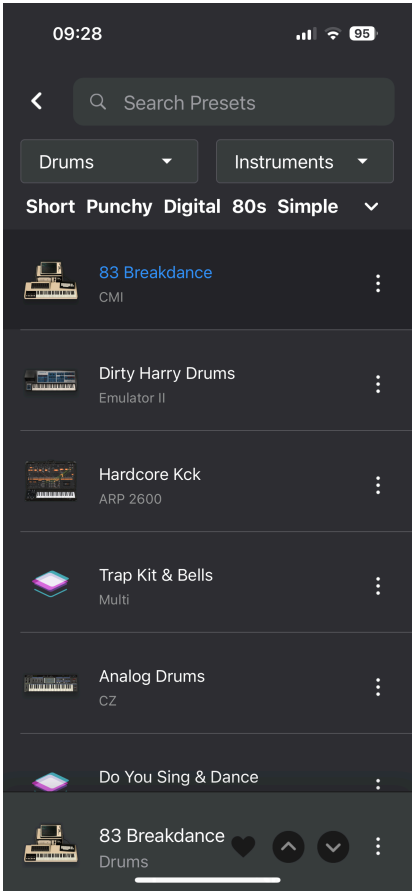


You can reach this page by browsing sounds by **Type**, **Instrument**, or from the list of **Sound Banks**.

Once you see this list, you can tap on any Preset to select it. If your device is connected to an AstroLab, the same Preset will be selected there.

10.3.1. Search Preset

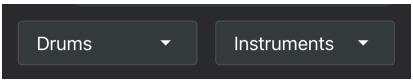
At the top of this page is a search field. Here you can search for Presets that correspond to the Filter categories listed directly below.



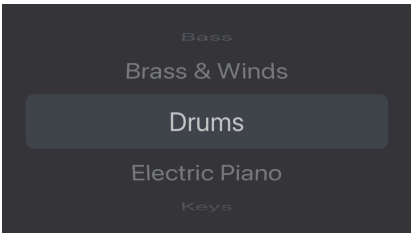
You can search by name, even if you only know part of the name.

10.3.2. Using Filters

Near the top of this page you'll find 2 Filters.



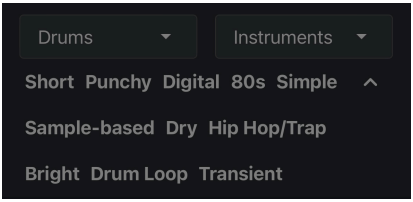
The first filter says Drums, because we happen to be in the **Drum Type** category.



Tap on "Drums" to quickly scroll to another Type of sounds.

Likewise, the right filter says Instruments. Tap on "Instruments" and scroll to, say, DX7. You will now see all DX7 Presets listed.

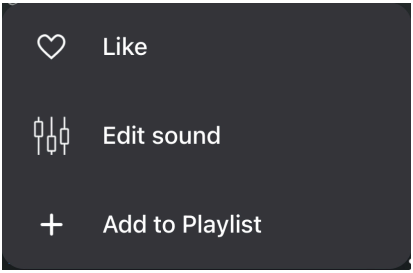
Directly below is a row of characteristics or tags, e.g. Short, Punchy, et cetera. arrow



Tap the downward pointing for further filtering using these characteristics or tags.

10.3.3. The 3 Vertical Dots

To the right of every Preset is a **3 vertical dots** icon. Tapping on it will allow you to perform some useful tasks.



- **Like**. By liking a Preset, you will add it to your favorites. A filled heart will indicate a liked Preset.
- **Edit sound**. Tapping here takes you to a page where you can edit Brightness, Timbre, Time, Movement, Volume, and EQ.
- **Add to Playlist**. Adding Presets to Playlists and Songs is a great way to organize your sounds and access Presets instantly. More about that in this section [p.21].

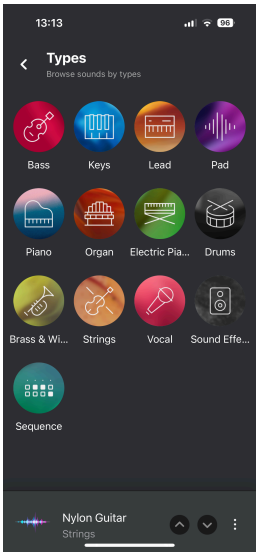
10.4. Using Filters to Find Presets

Among the most helpful features of AstroLab Connect are the many methods of finding the right Preset. The **Preset Page** and its Filters have already been described in the previous section.

The Home Page provides further Filters to browse sounds by Type, Instrument and more. Let's take a look.

10.5. The Types Page

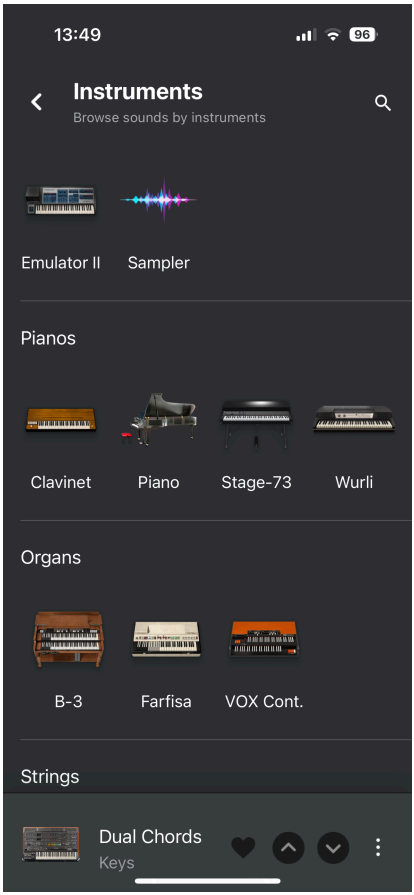
While on the Home page, tapping on **Browse sounds by types** takes you to this page. Here you can see all Types at a glance.



Tapping any Type icon will show all the Presets of that particular Type. You can select any Preset here by tapping on it. Doing so will take you to the Preset page described in the previous section.

10.6. The Instruments Page

From the Home page, tapping on **Browse sounds by instruments** takes you to this page, where you can see all Instruments at once.

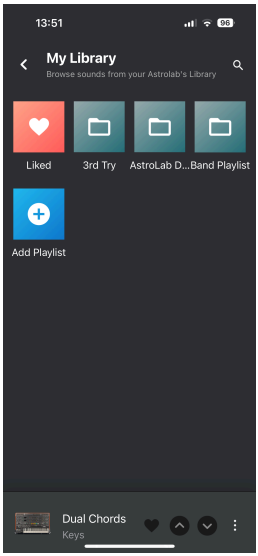


Tapping any Instrument icon will reveal all the Presets using that Instrument. You can select any Preset here by tapping on it.

This will take you to the Preset page described in this section [p.70].

10.7. The My Library Page

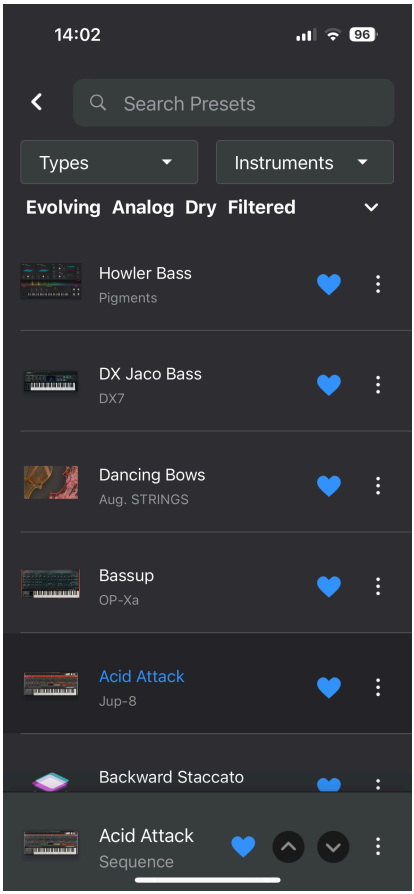
Tapping on **My Library** (on the Home Page) takes you to this page, where you can see all Playlists and Liked Presets at once.



Tapping an icon will take you a list of **Liked Presets** or **Playlists**.

10.7.1. Liked Presets

Select any liked Preset by tapping on it. The 3 vertical dots menu will let you **Unlike** or **Edit** a Preset or add it to a **Playlist**.

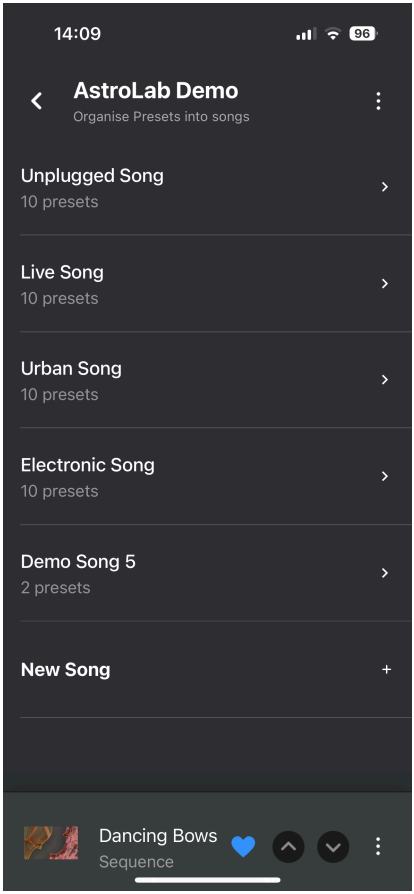


Remaining functionality on this page is described in the Preset Page section [p.70].

10.7.2. Songs: AstroLab Demo

By default, AstroLab comes with a **Playlist** called **AstroLab Demo**. It contains a number of demo **Songs**. These will help you get a feel for how Playlists and Songs can be used to simplify your life, especially in a rehearsal or live situation.

From the Home Page, tapping **My Library** and then **AstroLab Demo** will reveal 4 factory-made example Songs. Select any Song and see a list of Presets that go with that Song.

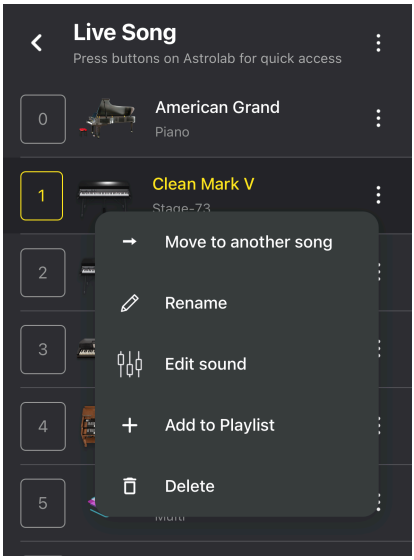


Move over to your AstroLab keyboard and start playing. One of the Presets in the chosen Songs will already be loaded. Imagine you're about to play the second song of the performance. Pressing the down and up Arrow Keys on AstroLab lets you conveniently go to though the Presets as the performance progresses.

> ♪ You can also use the Pad Keys 0-9 to select any of the first 10 Presets of a Song.

10.7.2.1. More Functionality on the Song Page

To the right of each Preset in a Song list is an icon with 3 vertical dots. Tapping on it opens up a menu:



- **Move (preset) to another song**
- **Rename (preset)**
- **Edit sound**
- **Add (preset) to Playlist**
- **Delete (preset)**

10.7.2.2. Renaming or Deleting a Song

When you are in a Song, there's an icon at the top right with 3 vertical dots.

Tapping on it gives you two choices:

- **Rename**: Give the current Song another name.
- **Delete**: Delete this song.

10.7.3. Creating a New Song

The last entry in the list of Songs is called **New Song**. Tap here and you'll be asked to name the new Song.

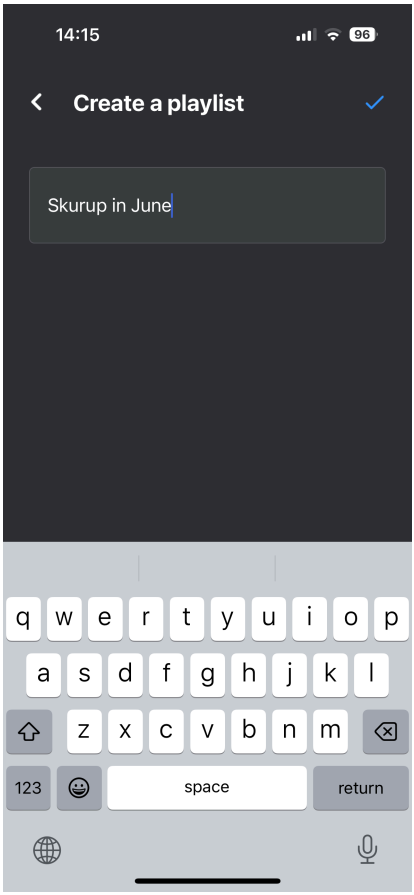
10.7.4. Adding Presets to a Song

Select any Preset. At the bottom of the screen, tap the 3 dots icon and select **Add to Playlist**. You will then be able to select what **Playlist** the song should belong to and then the **Song** where the Preset fits.

There is another method of adding a Preset to a Song. When you're in a Song and you decide that the current Preset is also suitable in another Song and/or Playlist, tap on the 3 vertical dots. Select **Add to Playlist**, select the playlist and the Song. The current Preset will now be added at the end of said Song.

10.7.5. Adding a Playlist

From the Home Page, tapping **My Library** will reveal an icon called **Add Playlist**. Click here, and you'll be asked to enter a name for the Playlist.



Once that's done, you can add a Song to the Playlist. Type the name for the new Song.

You will now be asked to add Presets for this Song. Please read the section above on how to add Presets to a Song [p.79].

10.8. My Sound Banks

When on the Home Page, scroll down to **My Sound banks**. Tapping that title takes you to a page that shows all your Sound Banks. Here you can browse Presets by Sound Banks.

If you've just bought an AstroLab, and if you haven't yet created any Sound Banks in Analog Lab, this page will contain only one entry: AstroLab Factory.

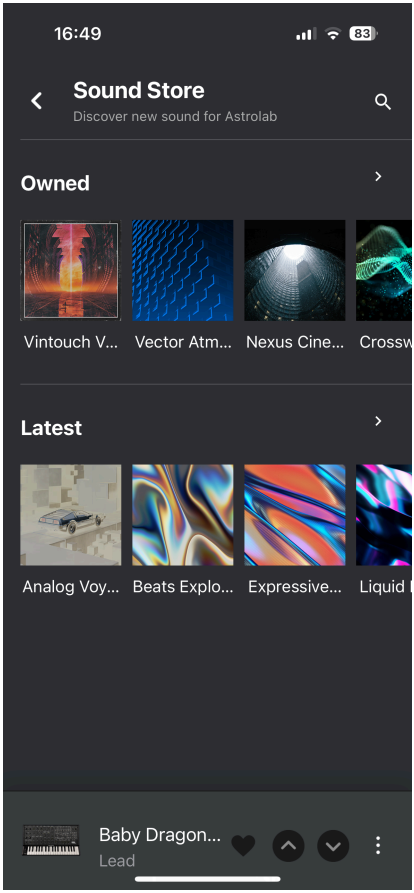
If you have bought additional Sound Banks from the Sound Store, they will also be seen on this page.

By tapping on a Sound Bank, you'll be able to play any Preset on your AstroLab. Just tap a Preset in AstroLab Connect, and soon after you'll be able to play it on your AstroLab keyboard.

Remaining functionality on this page is described in the Explore view section [p.70].

10.9. Discovering more Sounds

From the Home Page, you reach this page by scrolling down a bit and tap on **Sound Store**.



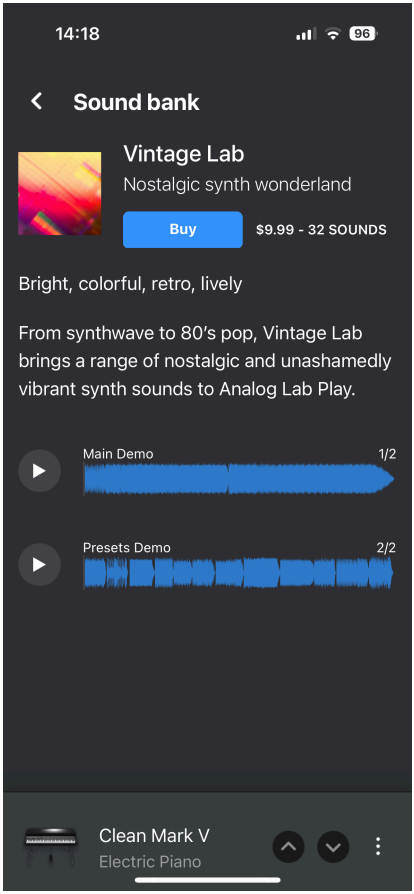
There are two categories here: **Owned** (those you have bought from the Sound Store) and **Latest** (Sound Banks yet for you to explore).

If you have owned Analog Lab and bought Sound Banks for it, those Sound Banks will appear in the app, ready for installation in AstroLab.

> ♪ Please note, that the Sound Store is not available when AstroLab is connected as hotspot to mobile device.

10.9.1. Installing a Sound Bank in AstroLab

Tapping on a Sound Bank icon will take you to a new page, where you'll be given the option to buy and install it in AstroLab. Tapping Install starts the installation process.

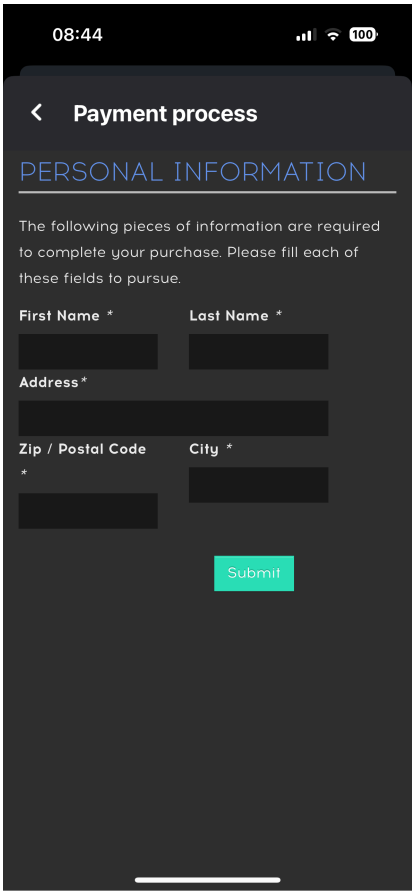


On this page you'll also find info about the Sound Bank and options to pre-listen to it in the app.

> ♪ The **Install** button will change to **Uninstall** after installation. This is handy if you want to uninstall a Sound Bank.

10.9.2. Buying a Sound Bank in the Sound Store

Sound Banks offer a cost-effective way to expand your palette of useful sounds. After having read about and listened to the Sound Bank in the app, press **Buy** to start a purchase.



On the next page, you'll be asked to fill in your personal information. By pressing **Submit** you'll be taken to a page with payment details. After accepting the terms and tapping **Pay Now**, your purchase will be processed.

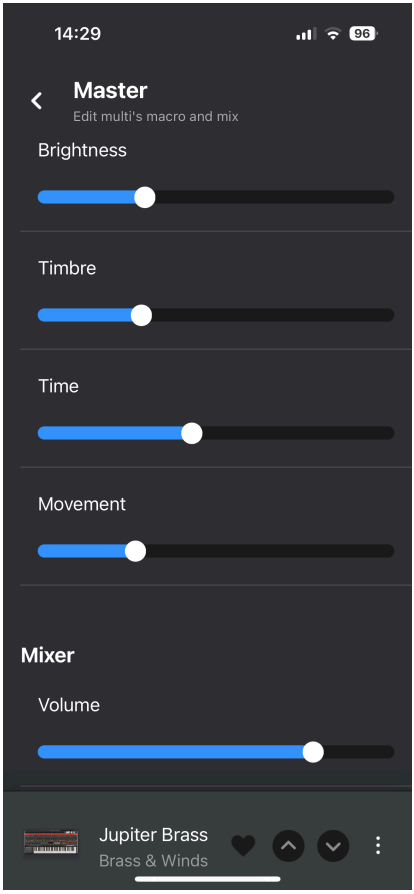
After the purchase, tap the **Install** button. In AstroLab, press **Back** until you reach the Home Page. Select **Sound Banks** and find your new Sound Bank there.

10.10. Editing Sounds in AstroLab Connect

You can enter sound edit mode in two ways.

- When you see your Preset listed at the bottom of the app, tap the 3 vertical dots and select **Edit Sound**.
- While on the Home Page, tap the hamburger icon and go to **Sound Edit**.

Tapping on **Master** takes you to the edit page for the Macros and Mixer/EQ section.



♪ The controls in the app and the knobs in AstroLab are interactive. When moving a slider in the app, you'll hear the sound change in AstroLab. Turning a knob on the keyboard will make the sliders in the app move accordingly.

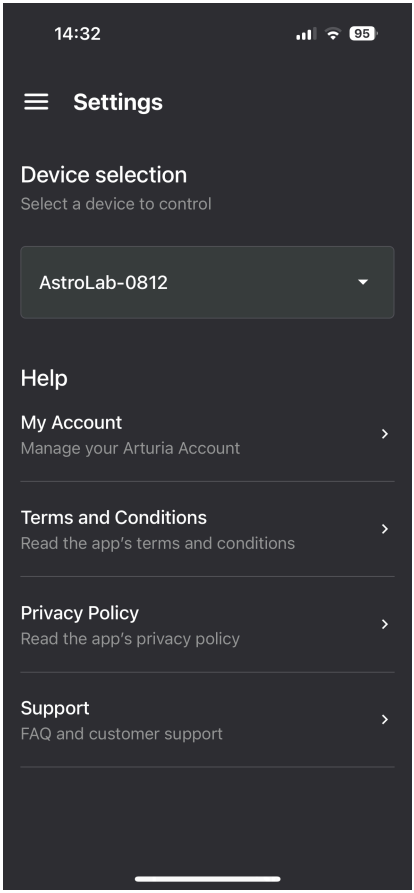
For more detailed information about the Sound Edit controls, please have a look at chapter 7 [p.38].

10.11. Logout

When you need to log out from AstroLab Connect, tap the hamburger icon in the top left and select Logout.

10.12. Settings

The last item in the hamburger menu is Settings. This is where you'll find utilities concerning your AstroLab and your Arturia account.



10.12.1. Device Selection

The first line indicates what AstroLab instrument you're currently connected to. If you own several AstroLabs, you'll be able to decide which one to connect to here.

10.12.2. Help

Various account settings are listed here. This is also your quick link to Arturia Support.

- **My Account**: Here you can create an Arturia account or sign in if you're already a member. If you haven't registered your Arturia product yet, you can do so here.
- **Terms and Conditions**: Read the app's terms and conditions.
- **Privacy Policy**: All the details about Arturia's privacy policy.
- **Support**: When you get stuck and need help, Arturia's support are always within reach. You will also find manuals and an FAQ here.

11. SPECIFICATIONS

11.1. Physical specifications

Product measurements	
Dimensions	935 x 327 x 99mm
Weight	10 kg

11.2. Electrical specifications

Power source	
Type of power supply	Switching Mode Power Supply

INPUT: 100V - 240V ~50/60Hz 1A

OUTPUT: 12.0V ⎓ 3.0A 36.0W Max

11.3. AstroLab MIDI Implementation

Section	**Parameter**	**MIDI CC**	**Sending**	**Receiving**
MIDI	Mod Wheel	1	Always	Always
Master	Master Volume	7	Never	Never
	Expression	11	Always	Always
	Aux 1	12	Always	Always
	Aux 2	13	Always	Always
	Reverb	16	Not linked	Always
	FX B	18	Not linked	Always
	Delay	19	Always	Always
Pedals	Sustain	64	Always	Always
	Timbre	71	Not linked	Always
	Fader 4	72	n/a	Always
	Fader 1	73	n/a.	Always

Section	Parameter	MIDI CC	Sending	Receiving
Instrument	Brightness	74	Not linked	Always
	Fader 2	75	n/a	Always
	Time	76	Not linked	Always
	Movement	77	Not linked	Always
	Fader 3	79	n/a	Always
	Fader 5	80	n/a	Always
	Fader 6	81	n/a	Always
	Fader 7	82	n/a	Always
	Fader 8	83	n/a	Always
	Fader 9	85	n/a	Always
Effects	FX A	93	Not linked	Always
Functions	Previous Preset	102	Never	Always
	Next Preset	103	Never	Always
	Previous Song	104	Never	Always
	Next Song	105	Never	Always
	Arp On/Off	106	Never	Always
	Arp Hold	107	Never	Always
	Start Record	108	Never	Always
	Play / Stop	109	Never	Always
	Tap Tempo	110	Never	Always
	Rotary Fast On/Off	111	Never	Always
	FX A On/Off	112	Never	Always
	FX B On/Off	113	Never	Always
	Delay On/Off	114	Never	Always
	Reverb On/Off	115	Never	Always

12. ASTROLAB AND ANALOG LAB INTEGRATION

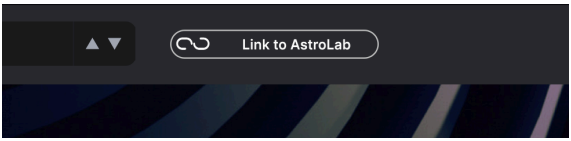
AstroLab and Analog Lab have a Mothership-Satellite relation – you decide which one is which. The roles of AstroLab vs. Analog Lab may also vary according to the situation, for example if you're on stage, in the studio, editing presets, or similar.

With Analog Lab installed on your computer, and AstroLab connected via USB, the two units are able to communicate. This integration is extremely powerful, as you will soon see.

> ♪ The Link to AstroLab button will only be visible in Analog Lab version 5.10 or higher.

12.1. Connecting AstroLab to Analog Lab

Near the top of the Analog Lab screen, is a Link/Unlink button labeled **Link to AstroLab**.

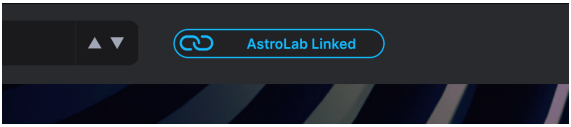


If you can't see the AstroLab Link icon at the top or the AstroLab Settings section in the Settings panel, please make sure your AstroLab keyboard is turned on and connected to your computer.

> ♪ The Link to AstroLab button will only be visible if AstroLab is **connected to your computer** and **powered on**.

12.2. AstroLab Link

When AstroLab is linked to Analog Lab running on your computer, a completely new workflow will become available. You'll be able to do the following.



- When you load a preset on AstroLab, the same Preset is loaded in Analog Lab.
- Loading a preset in Analog Lab, the same Preset is loaded on your AstroLab.
- Changes made in AstroLab's Macro and Effects controls are sent to Analog Lab.
- Changes made in Analog Lab's control panel are sent to AstroLab.
- Changes made in Analog Lab's Studio and Instrument Views are **not** sent to AstroLab.

♪ The **Link** functionality differs slightly if you use Analog Lab as a **standalone** instrument in your computer or as a **plugin instrument** in your DAW:

- At the first Link activation when Analog Lab is used as a standalone, AstroLab sends the currently loaded Preset to Analog Lab.
- At the first Link activation when Analog Lab is used in a DAW, Analog Lab sends the currently loaded Preset to AstroLab.

Read more about editing AstroLab presets from Analog Lab in this [p.90] section.

12.3. Editing AstroLab Presets in Analog Lab

Once an AstroLab Preset has been loaded in Analog Lab, you can use the convenience of a mouse, computer keyboard, and screen to edit all the Preset parameters. These edits include:

- Customizing Macros from the Side panel
- Edit keyboard Settings parameters
- Edit Studio View parameters (part mix, effects, eq)
- Edit the Preset Name, Type, Style, Bank, and Description
- Edit all Instrument parameters in the Instrument View (provided you own the instrument in question)

Please note, that those changes are not updated in real time on AstroLab, so AstroLab and Analog Lab will sound different until the preset is sent to AstroLab.

Once a Preset has been modified, save the Preset to send the changes to AstroLab.

♪ Please refer to the Analog Lab User manual to learn about all the sound design features available in Analog Lab. The manual can be downloaded from the Arturia website.

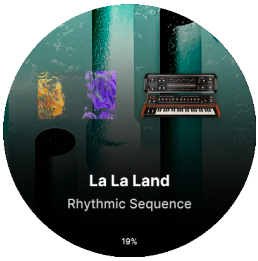
12.3.1. Using an Analog Lab Preset in AstroLab

To load an Analog Lab Preset into AstroLab, first make sure that Analog Lab's **AstroLab Link** is **on**.

Then select a Preset from Analog Lab's Browser. The same Preset will now be loaded in AstroLab.

- If the Preset already exists in AstroLab, the Preset is loaded as usual.
- If the Preset is **not** in AstroLab, the Preset and its samples are sent to AstroLab **temporarily** to avoid filling up AstroLab's memory.

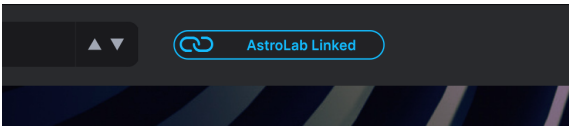
When loaded, the AstroLab screen will display the Preset name.



♪ Some Analog Lab Presets are not compatible with AstroLab. Please refer to the Preset Compatibility and Limitations [p.91] section.

12.3.2. Using an AstroLab Preset in Analog Lab

To load an AstroLab Preset into Analog Lab, first make sure that Analog Lab's **AstroLab Link** is **on**.



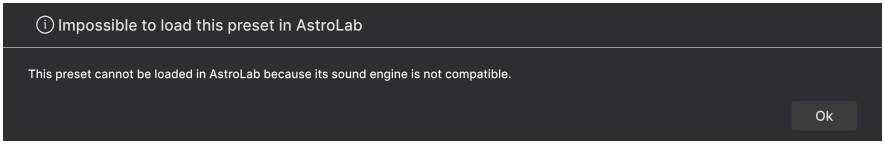
Then select a Preset in AstroLab. The Preset will now be loaded in Analog Lab and its name will be shown in the Analog Lab Preset Bar.

12.3.3. Preset Compatibility and Limitations

Most of the Instruments included in Analog Lab will run on the AstroLab. However, some Analog Lab Presets are not compatible with AstroLab (see list below).

Also, V Collection and Pigments owners can load any compatible Preset in AstroLab, but polyphony might be reduced and some features may be disabled (see list below).

When Analog Lab and AstroLab are **Linked**, selecting an incompatible Preset will display a warning in Analog Lab. You will also notice that those incompatible Presets will be greyed out in Analog Lab.



12.3.4. List of Analog Lab Presets with Issues in AstroLab

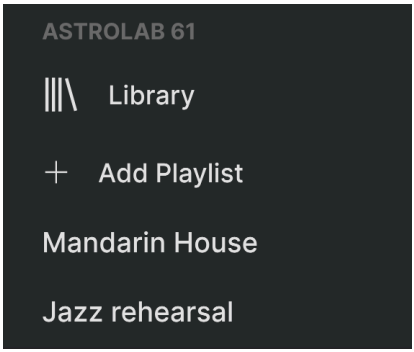
In order for the AstroLab hardware to always be able to safely deliver excellent audio quality and full playability, some Analog Lab Presets have limitations when used in AstroLab.

Issue	Description
Polyphony limit	Polyphony is limited on most instruments to avoid CPU overload. • 8 voices for poly synths • 48 voices for pianos and organs
Sound limitations	Some instruments can have an even more limited polyphony on some presets depending on CPU-intensive features. Instruments concerned: • Pigments (unison, granular engine, harmonics number, effects) • Augmented Series (granular engine, active engines)
Convolution reverb	Some instruments have a convolution reverb built in. For performance reasons, this convolution is bypassed and replaced by Analog Lab's convolution reverb. Instruments concerned: • Augmented series • Solina • B-3 • Farfisa • Stage-73 • Clavinet • Piano V
Mellotron samples and naming	The original tape recordings used in Mellotron V are not available in AstroLab. The most iconic tapes have been re-recorded and provided as presets of the Sampler.
Legacy instruments	Some Presets are using legacy (old) versions of Instruments that are not compatible with AstroLab. Instruments concerned: • Piano V1 and V2 • B-3 V1 • Stage-73 V1 • Prophet V/VS • CS-80 V1, V2, and V3 • Jup-8 V1, V2, and V3 • Analog Lab 2/3/4 (multis)

Issue	Description
New instruments	The latest instruments are not compatible yet with AstroLab and will be integrated soon in an update, as they need to be fully validated for live performance use. Instruments concerned: • Mini V4 • MiniBrute V • CP-70 • Augmented Brass • Augmented Woodwinds • Wurli V3 • MiniFreak V • Acid V

12.3.5. Library Management in AstroLab

When Analog Lab and AstroLab are **linked**, the AstroLab Presets are listed in Analog Lab's left panel below **My Playlists**. In this scenario, you will be able to:

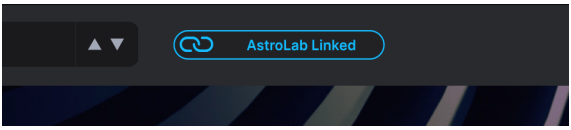


- **Save:** Saves modifications as an AstroLab or Analog Lab Preset.
- **Save As:** Saves modifications as an AstroLab or Analog Lab Preset.
- **Add to Playlist:** Adds the preset to a Playlist.
- **Delete:** Removes the Preset from AstroLab's Library.

12.3.6. Browsing AstroLab Presets in Analog Lab

When using Analog Lab's Library View or one of the Playlists in the left panel, you can browse AstroLab Presets.

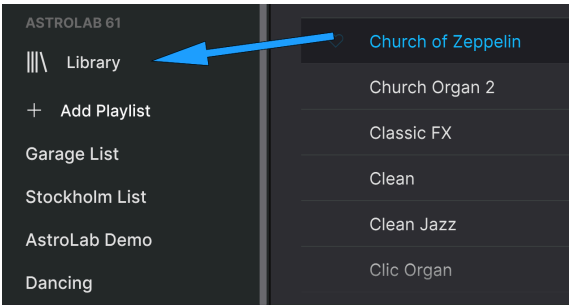
First, make sure AstroLab is connected via USB. AstroLab Link must be **on**.



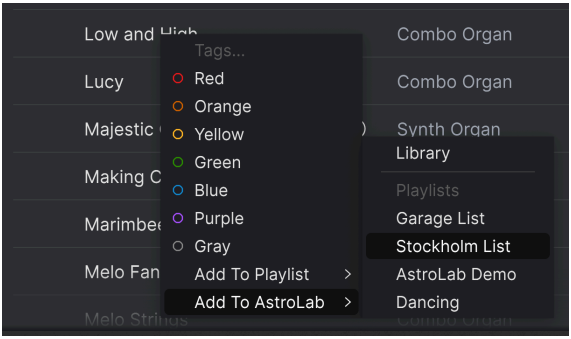
In Analog Lab, open the AstroLab Library or Playlist and click on a Preset. Both AstroLab and Analog Lab will load the Preset.

12.3.7. Adding a Preset to AstroLab's Library

With Analog Lab and AstroLab connected, you can add Analog Lab presets to AstroLab's Library. Simply grab an Analog Lab Preset and drag it to AstroLab's Library on the left side.



Alternatively, you can right-click on an Analog Lab Preset and Add it to AstroLab's Library or any of its Playlists.



12.3.8. Removing a Preset from AstroLab's Library

In Analog Lab, right-click on any Preset in the AstroLab Library or Playlist and select Delete.

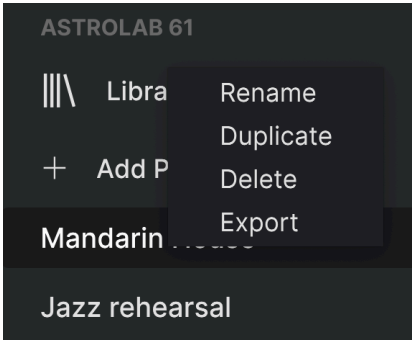
12.3.9. Adding a Preset to AstroLab's Playlist

With Analog Lab and AstroLab linked, you can add Analog Lab presets to any Playlist in AstroLab. Simply grab an Analog Lab Preset and drag it to an AstroLab Playlist in the left panel.

Alternatively, you can right-click on an Analog Lab Preset and Add it to any Playlist in AstroLab.

12.3.10. Exporting a Playlist to AstroLab

You can export an Analog Lab Playlists to AstroLab. However, when exporting a Playlist, custom samples are not included.



In order to make sure a Playlist will be imported properly with all its samples into AstroLab, you need to check that all the Presets in the Playlist exist in AstroLab. This is to ensure that all the necessary samples were already on AstroLab. If Presets in the Playlist are missing on your AstroLab, you first need to send those Presets to AstroLab.

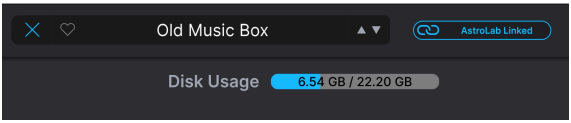
Just Export a Playlist onto a USB dongle connected to your computer, then insert the dongle into AstroLab's USB-A port (labeled Storage/MIDI).

> ♪ A Playlist is really only a list of Presets. Exporting a Playlist from Analog Lab does not include exporting the samples themselves, only the Preset names.

12.3.11. AstroLab Memory Management and CPU

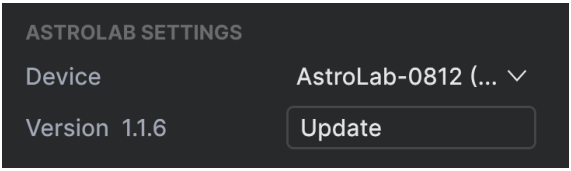
It's easy to keep track of how much disk storage is currently used in AstroLab. First, make sure Analog Lab and AstroLab are in **Link** mode.

In Analog Lab, open Explore View. In the left panel, click on **AstroLab Library**. Now the top center of the screen will display a graph showing the amount of Disk Memory used.



12.3.12. Updating AstroLab

Clicking the Gear icon in the top right corner of the Analog Lab screen will open and close the Settings Panel, where you'll find 4 tabs. The first tab is called Settings.

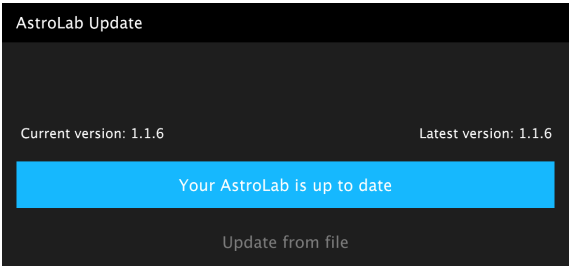


At the top of this panel is the AstroLab Settings section. Next to Device, you can select AstroLab as a device, and if you have several AstroLabs, select one of them.

> ♪ Only one AstroLab at a time can communicate with Analog Lab. When multiple AstroLab units are connected via USB, the Device Selection button allows users to select which device Analog Lab is communicating with.

Below there is a readout of the current AstroLab firmware version number, i.e. 1.1.1. By clicking on Update, you will be able to install a more current version of the AstroLab package.

The menu that appears gives you two choices.



- Update the AstroLab package directly in Analog Lab (click on the Cogwheel to get to the Settings page).
- Install an update file you've already downloaded to your computer. Those update files have a filename that ends with .**astro**.

During an update installation, please leave your computer and AstroLab to do their thing. Both Analog Lab and AstroLab show a Progress Bar during install. Updating can take a long time and your synthesizer may restart several times.

> ♪ If something goes wrong during the update (USB cable disconnected, computer turned off etc), the AstroLab will show a Blue Screen or will start in Service Mode when booting. More info in the Recovery Mode chapter below.

12.3.12.1. Recovery Mode

If something wrong happens during the update (USB cable disconnected, computer turned off) the AstroLab will show a Blue Screen or will start in Service Mode when booting.

Don't worry, you will simply need to retry the update in Recovery Mode. Please follow the steps below.

- Make sure your AstroLab is turned off and connected to your computer with a USB cable.
- **Turn On** your AstroLab while **holding the Oct- and Oct+ buttons**.
- As soon as the screen starts, right before it shows the Arturia Logo, **short press both Oct- and Oct+ buttons**. Reopen Analog Lab.
- In Analog Lab, under the Settings gear icon, click the Update button under the AstroLab Settings section. It will open the Update window and allow you to update directly from Arturia's servers or from a file, as explained in the previous chapter.

13. DECLARATION OF CONFORMITY

13.1. FCC

WARNING: DO NOT MODIFY THE UNIT!

Any modifications or other changes to this unit not approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Responsible Party in USA: Zedra, 185 Alewife Brook Parkway, #210, Cambridge, MA 02138, United States T: +1 857 285 5953

Trade Name: ARTURIA, Model Number: AstroLab

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

13.2. CANADA

This class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada

13.3. CE

This device has been tested and found to comply with the limits of the European Council Directive on the approximation of the laws of the member states relating to Radio Equipment Directive 2014/53/UE.

13.4. UKCA

This device has been tested and complies with the essential requirements of the Radio Equipment Regulations 2017 (S.I. 2017/1206).

13.5. ROHS

This device has been produced with lead free solder and fulfills the requirements of the ROHS directive 2011/65/EU.

13.6. WEEE

This symbol indicates that the electrical and electronic equipment should not be disposed of as general household waste at its end-of-life. Instead, the products should be handed over to the applicable collection points for the recycling of electrical and electronic equipment for proper treatment, recovery, and recycling in accordance with your national legislation and the Directive 2012/19/EU (WEEE – Directive on Waste Electrical and Electronic Equipment). For more information about collection points and recycling of these products, please contact your local municipal office, your household waste disposal service, or the shop where you purchased the product.

13.7. CHINA

本设备包含型号核准代码为：CMIIT ID:2020AJ8307(M) **的无线电发射模块。**

The mains plug is used to disconnect the device.
The socket-outlet shall be installed near the equipment and shall be easily accessible.

RECYCLING

This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment. User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.

The symbol indicates class II equipment

The symbol indicates AC voltage

The symbol indicates DC voltage

For indoor use only

The symbol indicates energy efficiency marking

The symbol indicates polarity of d.c. power connector