QUICK START GUIDE
for Synclavier Knob

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The legendary **Synclavier® VPK**

"the authentic experience of **Synclavier® II**…"

Synclavier® KNOB

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1. Introduction

So, you've bought a knob, but what to do with it?

Firstly, thank-you. You are now the owner of (possibly) the most sophisticated single-purpose knob in the world. Maybe the most expensive one too.

The Knob is compatible with our other products, Synclavier Go! (for iPad), Synclavier Pocket! (for iPhone), Sync³ Remote (for iPad, previously referred to as Synclavier Touch), and Synclavier Regen (desktop synthesizer).

Synclavier's knob has always been the master control for every synthesizer setting. Why have lots of fiddly knobs when you can have one really good one? At any time, whichever parameters active on Synclavier are controllable via the knob.

Swipe a row of harmonics and turn the knob clockwise, all the coefficients for those harmonics will increase. It's as simple as that. But there's a lot of complicated wizardry underneath that simplicity.

1.1. Detailed Info

Synclavier Knob is a hand-built precision rate-of-change controller. It's spring-loaded, so it returns to the center. When you start to turn it, it will affect whichever parameter you have selected on the red button panels. You'll see the value in the VK-display start to notch up or down.

As you turn the knob further, the tension you feel increases, and so does the rate at which the parameter increases or decreases. So, you can quickly and precisely get to your desired value, and it feels natural to use.

The knob has been designed intelligently too. The same hysteresis algorithms on the original are built into this new incarnation. But the software is additionally smart. Depending on which parameter is selected, dictates how the knob changes its value. I.e., tens, units, decimals, and the knob knows how to increment (or decrement) each parameter in a sensible fashion. Plus, there is a fine button on Synclavier Go! which makes the knob even more sensitive.

It doesn't stop there, however. One of the great things about the Synclavier systems, is that you can select multiple parameters at once. The knob has this covered too. If you turn it clockwise, the values are all nudged up in concert, until the highest value selected reaches its celling, at which point it's maxed out. The algorithms get even more complex when parameters of different kinds are selected. For instance, select Release and Peak from the Envelope settings with a swipe of a finger. Release is in milliseconds and Peak is in percentage so when you turn the knob, it modifies both in appropriate increments, to increase the envelope of the sound vertically and horizontally.

The speed of use, but also the naturalness of use, is why people love this form of input. On a computer screen or touch screen, a knob is modelled as press and slide, or a weird press and rotate thing, but a hardware knob is always a knob – you turn it – it's physical. Using the hardware knob encourages you to perform sound design by ear. You're less concerned about the exact number on the display, and you're more concerned about how it sounds – great, it sounds fantastic there – not dissimilar to the experience of tuning in an analog FM radio until there is no hiss, or focussing an SLR camera on a subject. You know when you get it.

When designing a sound using Synclavier Knob, you're not trying to hit some arbitrary decimal number, but you're getting the sounds you want. Typically, a user will keep his or her left hand on the knob and the right hand will go back and forth between the red buttons and the keyboard, letting the sound guide them.

1.2. Further Info

This Getting Started Guide outlines the basics, but further useful information can be found on our website from the Support page — https://www.synclavier.com/manuals/

The Connection Guide details how to connect Synclavier Go! / Pocket! in different configurations. Also the Ableton Live DAW walkthrough features Synclavier Knob. And the Regen manual makes mention of it too.

Plus, you can contact us through the Contact Us form on our website — https://www.synclavier.com/contact/ — with questions and feedback.

2. Warranty Information

This special version of Synclavier Knob is sold as test apparatus. We really appreciate each and every purchaser of the knob at this stage in its development.

We believe this is a truly wonderful product, and it meets our own high-quality standards — indeed each one is hand-built by us — but since we are testing new waters with this product, the initial production run has been low volume. As such, it was impractical for us to get CE and FCC certifications.

At some future date, it may be feasible to evolve the Knob into a full commercial product. But regardless, make no mistake: what you own now is a very valuable tool in your arsenal of sound design and music production.

So, the knob hasn't undergone formal emissions testing, but the unit is very low wattage, and you shouldn't experience any interference with other electrical products in the vicinity.

Synclavier Knob comes with a 90 day warranty, from date of purchase, which covers manufacturing faults. If you buy a knob from a reseller, you should return the unit to them. If you bought the unit from this website, please return to our address for repair or replacement — use the contact form to initiate this process.

Please note: Our warranty does not cover misuse or accidental damage, such as coffee spills. If properly cared for, your Synclavier Knob should give you years of service.

To protect against tarnishing or finger printing, it is advised you occasionally clean your knob. The wheel can be lightly polished with a metal polish, such as Mothers, and a soft cloth. The front and back panels can be wiped with a soft micro-fibre cloth. If you want to use a wax for cleaning and protection, make sure it is a non-abrasive variety, and test it on the inside of a panel first.

3. Connecting your Knob

There are two main configurations that the Knob can be used in:
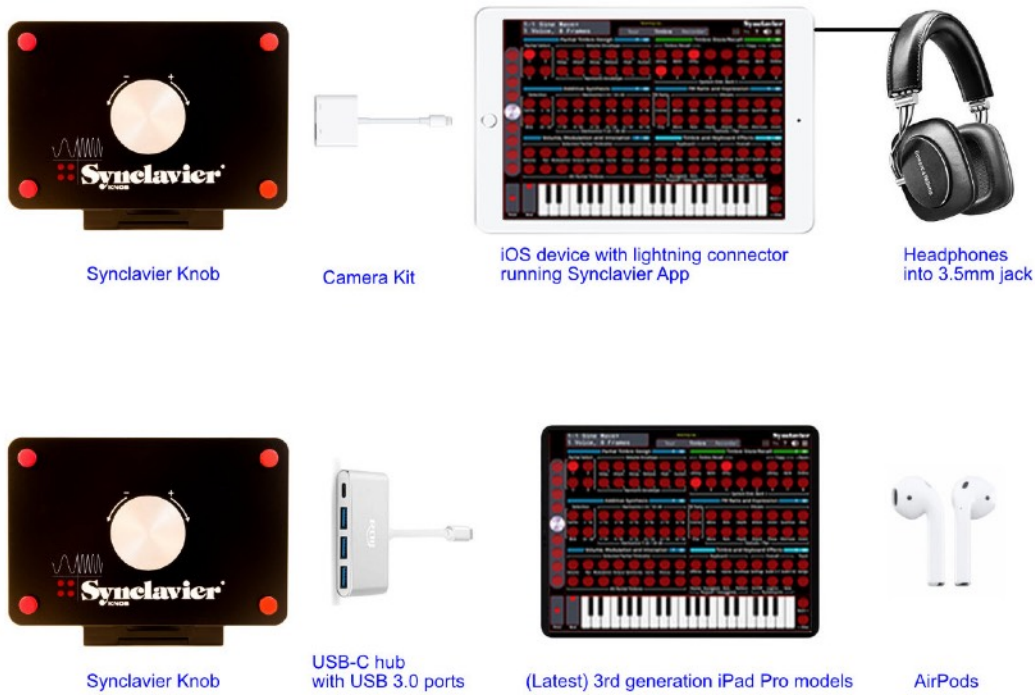
1. Direct communication to iPad (or iPhone) or Synclavier Regen.

2. Communication through a computer

If your workflow is based around a DAW such as Logic, you will use Synclavier Go! as an external hardware synth box. In which case, when using Synclavier Knob, you will route its MIDI messages through your DAW.

In all other cases, you will route Synclavier Knob into your iOS device or Regen.

3.1. Direct communication to iPad (or iPhone / iPod Touch)

The simplest way to connect a knob to your iPad (or iPhone) is to use a camera kit, or for the newer iPad Pros, a USB-C to USB 3.0 hub or cable/adapter.

Synclavier Knob   Camera Kit   iOS device with lightning connector running Synclavier App   Headphones into 3.5mm jack

Synclavier Knob   USB-C hub with USB 3.0 ports   (Latest) 3rd generation iPad Pro models   AirPods

You might also want to connect power to your iPad through the camera kit, or the USB-C, so it doesn't lose charge over long Synclavier sessions. Camera Kits and USB-C hubs are available from Apple, Amazon, etc.

So, this configuration is enough to test that your knob is working. When you plug it in, a message will pop up on your iPad, "MIDI In: Synclavier Knob…" You can also check the MIDI connections window at any time from the Tracks Tab or the shortcut button ⇆. It should list Synclavier Knob under MIDI Inputs.

And of course, if you turn the knob, you should see the knob on the iPad screen turn in unison.

You can continue to add components to this portable set-up. For instance, a bluetooth keyboard. Or, given a USB hub, you could add a MIDI keyboard. And the addition of a USB Audio Interface can add possibilities for outputting audio.

Additionally, iPads can participate in a WiFi network. Synclavier Go! supports the communication of Ableton Link data, as well as MIDI and audio data over a network.

A note about AUv3

When using the Synclavier Go! AUv3 client, the messages from the knob will be routed through the host app (for example, Garage Band, Nano Studio 2, Beat Maker 3). In this case, if you wish to undertake sound design within the AUv3 unit, you will likely want your knob mapped to the virtual knob. If you quickly tap on the virtual knob icon within the AUv3 unit, an image of the hardware knob will appear and he presto, your knob will work as per usual.

Without mapping your knob, the host app interprets the MIDI messages coming from the knob as pitch bend messages and that's what is passed to the AUv3 client. With the knob mapped, pitch bend messages from *all* external hardware are interpreted as knob value adjustments, but pitch bend messages from the virtual keyboard are intact as pitch bend operations.

This function is analogous to the knob mapping button in the Go! standalone app which routes specific controller's pitch bend messages to be interpreted as virtual knob changes. Defaulted to on when you connect a Synclavier Knob directly to your iPad, it gives you the option of using other devices as knobs. Of course, the experience of using a keyboard pitch bend varies tremendously, and it's more difficult to dial in the desired values. Nevertheless, in a pinch, it works.

3.2. Direct communication to Synclavier Regen

You can use one of the four USB A ports on the back of Synclavier Regen to connect your Knob. It does not draw much power, so an external USB hub is not necessary.

Ensure that Regen is configured in Controller mode. To find this setting, tap **Home** then **Setup** and it is the setting titled USB Input. More information can be found in the Regen documentation about the different modes including some connection diagrams.

Once connected, your Synclavier Knob will appear under the list of MIDI controllers. Tap **Home** then **Setup** then the keyboard icon to go there. You have the option on this list to enable or disable each MDI input.

Almost all parameters on Regen can be controlled with Synclavier Knob as if you're using the in-built **Swiper** (which will continue to operate normally).

3.3. Communication through Computer (DAW-routing)

If you're using Synclavier Regen, Synclavier Go! (or Pocket!) with your DAW, then you can connect the knob directly to your computer's USB port (or through a hub) and then route the MIDI messages through your DAW out to your iPad or Regen.

Computer running favourite DAW

USB cable

Synclavier Knob

iPad / iPhone

MIDI keyboard
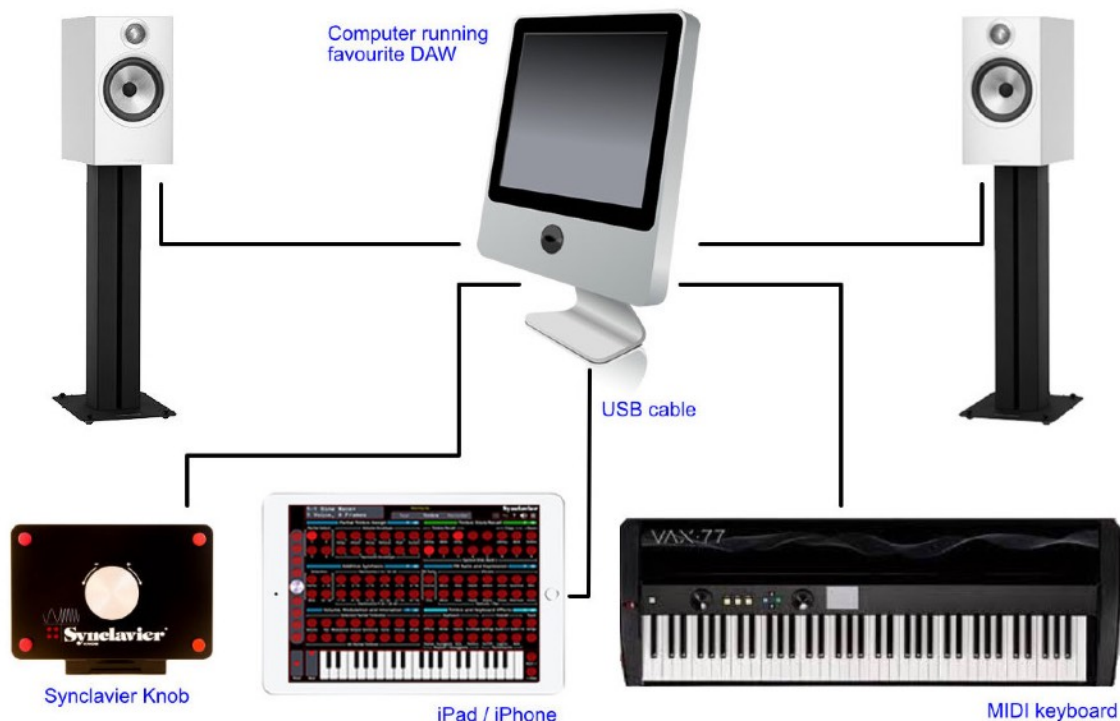
Synclavier Knob outputs MIDI that represents pitch-bend messages. Most DAWs allow you to add a track for this *Control Surface* and then output it to an external device, but the instructions on how to do this will differ from DAW to DAW. Our website has a walkthrough for Ableton Live which detail this process for Synclavier Go! It will be similar for Regen. If you have a different DAW, their website should have instructions on how to map MIDI devices.

iPad as an outboard synth/device to a DAW

When using an iPad with your DAW, you will have to enable the iPad for IDAM using the Audio MIDI Setup program on your Mac. If you look at the MIDI Settings window on Go! (shortcut button ⇆), there should be an entry under MIDI Inputs such as

"IDAM MIDI Host." MIDI information from your DAW will enter through this device. If you're using a Synclavier Knob, connected through your Mac, you will want to ensure the *map pitch-bend messages to knob* setting is switched on. This is the red button with a knob icon. Ensure that it is lit, or the pitch-bend messages from that device will be treated as pitch-bend instructions.

For more information, please see the support area of our website at synclavier.com