Synclavier³ Quick Troubleshooting Guide

This guide describes several quick tests you can perform to verify your Synclavier³ hardware and software installation.

Begin by getting a System Report on your Mac (Menu, "About This Mac").



First check the **PCI** hardware information. You should see a card identified as "**pci494f,c61**". That is the AccesIO PCIe-DIO-48 card that is used with Synclavier³.

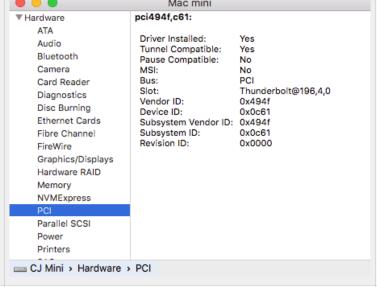
If the card is not listed, check for obvious problems like the Thunderbolt cable and chassis power. It is also possible the card has come loose within the chassis, or perhaps is not seated all the way in your PCI-Express PowerMac.

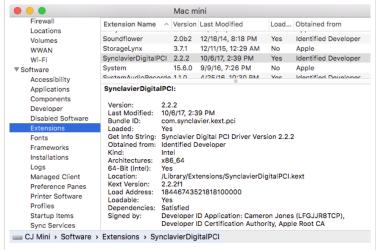
Next check the "**Driver Installed**" line. If that does not say "Yes" then your kernel extension is not installed, or perhaps the "Virtual" kernel extension is installed in its place. In Mac OS Sierra you have to specifically approve third-party kernel extensions (see technote).

Secondly, check the **Extensions** section under **Software**. You will have to scroll down to find the **SynclavierDigitalPCI** extension.

The Get Info String line will differentiate between the "PCI Driver" and the "Virtual PCI Driver". The PCI Driver will indicate "Loaded: Yes" if it was properly matched up with the AccesIO PCIe-DIO-48

The Virtual PCI Driver, if installed, is loaded in all cases.





Next, launch the Synclavier³ application **while you are holding the shift key**. Holding the shift key will prevent the Synclavier[®] Real Time Software from automatically starting up.

Look at the **Control** menu, and you should see a menu option to **Launch BTB1 Test**. Launch the BTB1 Test from the Control Menu.

The **BTB1 Test** performs a low-level data transfer between your Mac and your Synclavier® hardware. The test opens up in its own window using the Mac OS Terminal application.

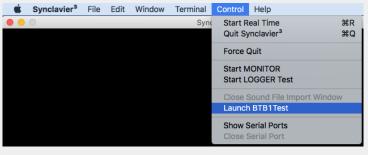
If your Synclavier® hardware is powered off you will see the message No M512k card found for M512k cable test and No poly memory available for test.

The Registers Test would fail, for example, if the BTB-1 Bus Transceiver was not connected the Accesio PCI-DIO-48 Digital I/O Card.

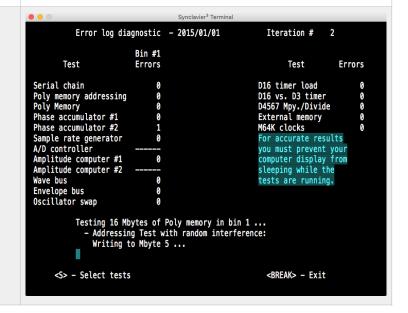
In some cases the read and write timings may need to be adjusted. Factors such as power supply voltage and bus loading affect the timing requirements.

The **Logger** performs a detailed self-test of the Polyphonic Sampling hardware in your system.

The **Logger** test will occasionally report a small number of errors with one of the "Phase Accumulators". This is due to microscopic timing differences between your Mac and your Synclavier® hardware and is not indicative of an actual hardware problem.



```
Start of BTB1Test Program (OS X 8/1/2015)
Looking for PCI/PCIe cards...
Vendor ID 494f Device ID 0c61
BTB-1 revision 1 identified
OK: Board pci494f,c61 found; beginning tests...
   Testing the Registers on board pci494f,c61...
   Registers OK
OK: Cycle times in use:
   poly_read_time
   poly_write_time
                    6
   generic_read_time 10
   generic_write_time 10
OK: Preparing for Cable Test
   Performing Cable Test using M512k Memory...
   Cable OK
OK: Looking for Polyphonic Synthesizer for Cable Test
   Performing Cable Test using Polyphonic Synthesizer
   Cable OK
OK: Looks like a poly system is available for testing
  Note: Test will run forever. Halt test with ctrl-c
                        14 Write MB/Min: 52 Read MB/Min: 18
   Time: 0:00:45 Megs:
```



The **Software Version** identified in the different **Get Info** panels does not provide a consistent guide to identifying compatible software modules.

The only practical method to assuring the proper software installation is to **run the installer** and then **use the Synclavier**³ application **from the same downloaded disk image**.

A new version numbering scheme will be introduced in 2018 to provide a more accurate guide to software compatibility between modules.



Synclavier³

Version 1.0.52 (52)

With special thanks to:

All the wonderful Synclavier® users over the years who have contributed to the success of this musical instrument.

And also special thanks to:

- Mitch Marcoulier for contributing vast hours of assistance throughout this project; and
- Brandon Amison for providing sounds and sequences for me to test with; and

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