PROMISE® TECHNOLOGY, INC.

SANLink2

8G FC/16G FC/10GBase-T/10G SFP+

Device driver software utility installation for Mac OS

Version 2.0

CONTENTS

INTRODUCTION

This installation guide describes how to install the device driver and software utility for the SANLink2 F2102 (8G FC), F2202 (16G FC), E2002t (10GBase-T) and E2002p (10G SFP+) on a Mac computer equipped with a Thunderbolt port. Download the driver and utility installation files from the PROMISE website. The device driver should be installed before connecting the SANLink2 to the Mac. After the driver is installed, go ahead and connect the SANLink2 according to the instructions in the **Quick Start Guide**.

An additional download, the SANLink2 utility, is available from the PROMISE website. It is used for monitoring device function and changing some settings such as port speed and topology. This is also available from the website. The utility is not required for the device to be operational since all device settings are auto-detect, and it is not necessary to manually change any setting for the SANLink2 to function.

To download the device driver and utility:

1.   Go to the PROMISE website at http://www.PROMISE.com/, click on **Support** near the top of the page, select the *Download Center* option.

2.   Use the two pull-down menus to first choose the *SANLink2* then the *SANLink2* option.

3.   Under the heading **Download search results below:**

   •   Click on the **Drivers** link and download the *SANLink2 Mac driver*.

   •   Click on the **Utilities** link and download the *PROMISE SANLink2 Utility*. (*Optional*)

INSTALL SANLINK2 DRIVER

The driver installation procedure is the same for the SANLink2 F2102 (8G FC), F2202 (16G FC), E2002t (10GBase-T) and E2002p (10G SFP+).

Download the *SANLink2 Mac Driver* from the PROMISE website at www.promise.com and follow the steps below to install the driver for the SANLink2. You can then proceed to connect the SANLink2 according to the instructions in the Quick Start Guide.

To install the SANLink2 driver:

1.   Unzip the *SANLink2 Mac Driver* file, open the folder and double-click on the driver package file.
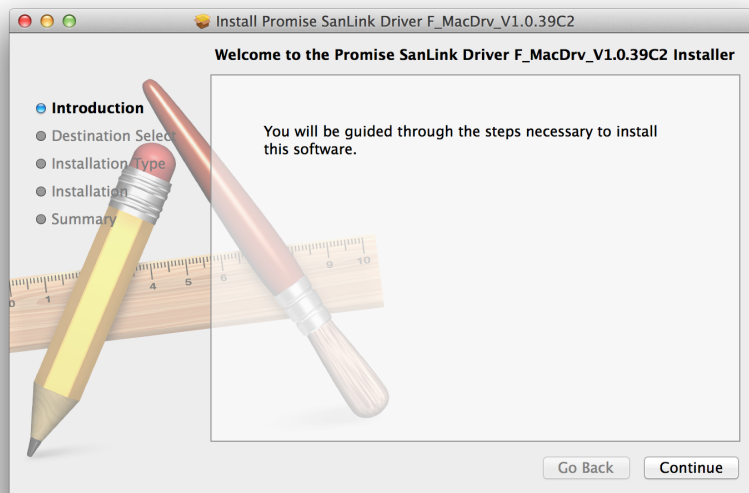
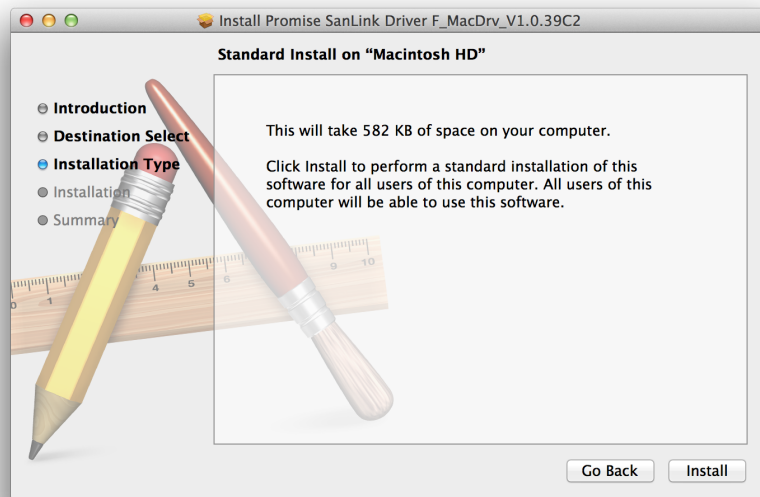   The driver installation file icon looks like this ⟶

> **Note**
>
> The name of the driver installation package available from the website will change periodically to reflect the version as it is updated.
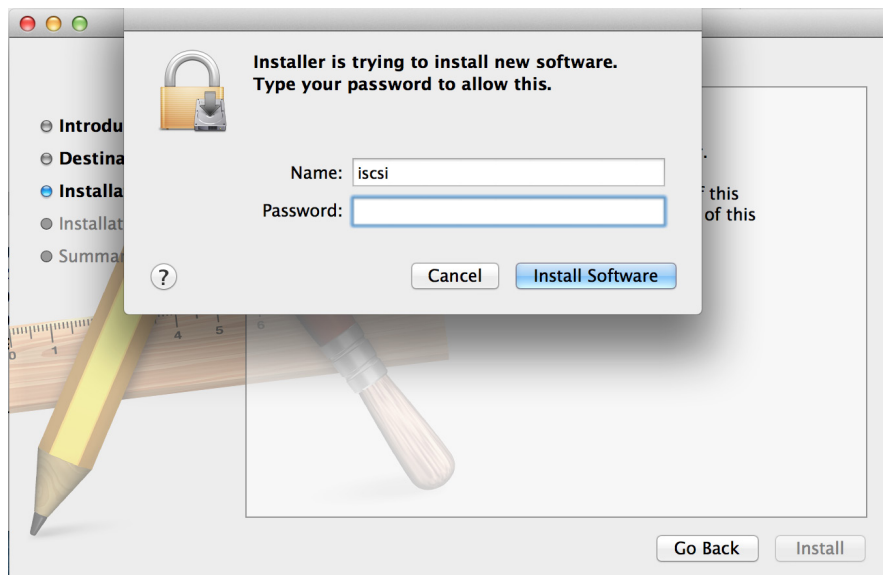
2.   The driver installation menu appears. Click the **Continue** button to proceed with the driver installation.
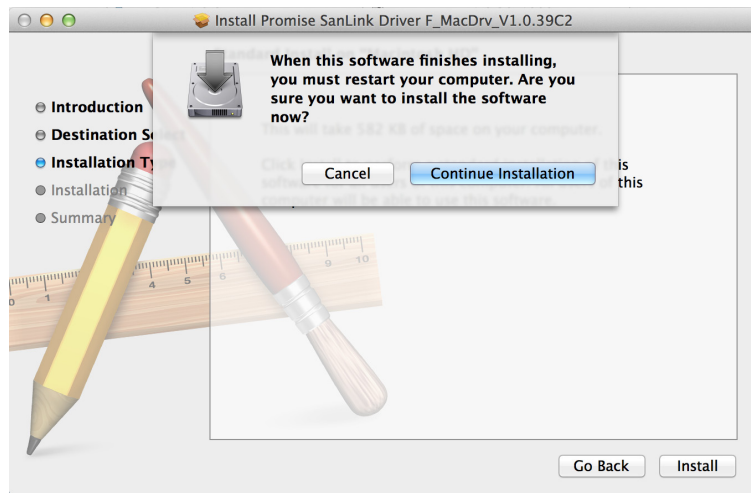
3.   The new menu appears listing the space required for the installation. *Note that you are not allowed to choose the destination for the installed files.* Click **Install** to proceed with the installation.
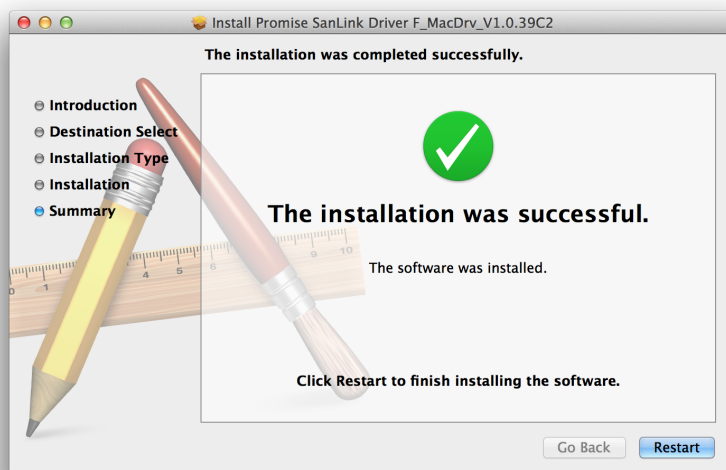

4.   Since this is a software installation, you will be required to enter the **Name** and **Password** information of the computer administrator. Enter this information and click on **Install Software** to start the process.

5.   Another pop-up dialog let's you know that a system restart will be necessary. Click **Continue Installation** to proceed.

6.   When the driver is installed, a message appears letting you know that the installation succeeded. Click on **Restart** to reboot the Mac.

Upon restarting, you can either install the utility or go ahead and connect the SANLink2 to your Mac according to the instructions in the Quick Start Guide.

INSTALL SANLINK2 UTILITY

Download the *SANLink2 Utility* file (.dmg) from the PROMISE website at www.promise.com and follow the steps below to install the utility for the SANLink2.

To install the SANLink2 utility, double-click on the **SANLink2 Utility.dmg** file.

The drag to install menu appears.

Drag the *SANLink Utility* icon into the **Applications** folder to install it.
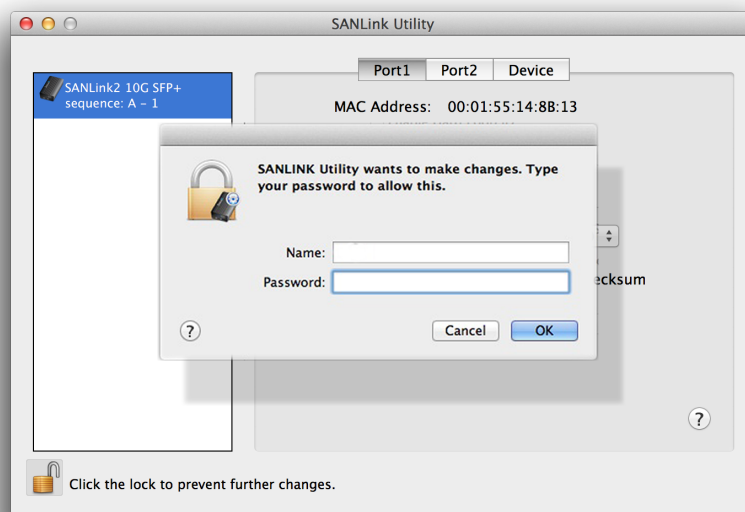
USING THE SANLINK2 UTILITY

Note

The menu options for the SANLink2 Utility for the E2002t (10GBase-T) and E2002p (10G SFP+) are different than the menu for the F2102 (8G FC) and F2202 (16G FC).
Therefore the description of the utility for the F2102 (8G FC) is presented in a separate section.

Using the SANLink2 Utility for 10GBase-T and 10G SFP+

To launch the application, open the **Applications** folder and double-click on the **SANLink Utility** icon.

By default, the application settings are locked. To view the connection status or to change settings you will be required to enter the **Name** and **Password** information of the Mac administrator.

Once unlocked, the utility displays the connection status and topology for each port and allows the user to change settings.
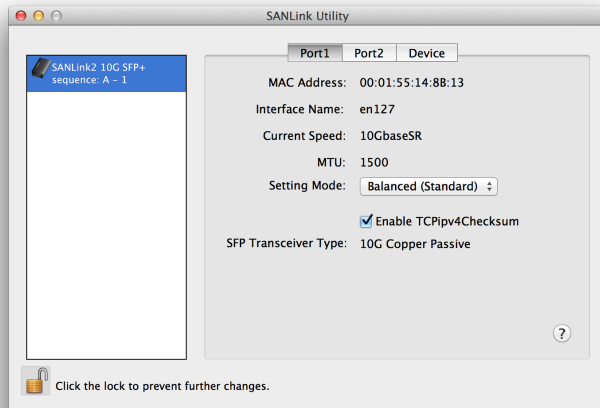
Note

The menu displays for the E2002t (10GBase-T) and E2002p (10G SFP+) are nearly identical. For simplicity, the examples here show only one version of the SANLink2 Utility except where the parameters displayed are different, then both versions of the menu are provided in the examples.
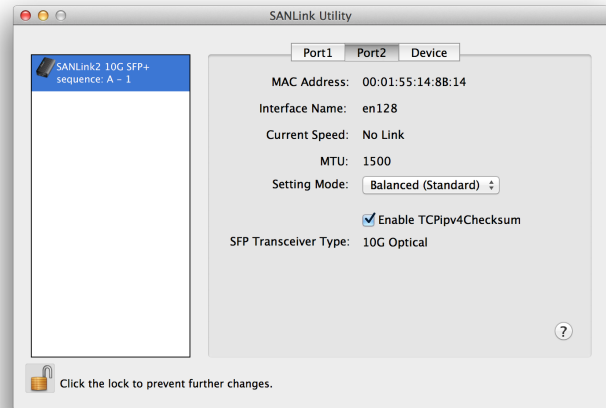
Port1 and Port2 menu tabs

The port menus for the SANLink2 E2002t (10GBase-T) and E2002p (10G SFP+) present read only information including **MAC Address**, **Interface Name**, **Current Speed**, **MTU** (maximum transmission unit*) and SFP Type (*10G Copper* or *10G Optical*)

SANLink2 E2002t (10GBase-T) port menu   *SANLink2 E2002p (10G SFP+) port menu*

*The maximum transmission unit (MTU) is the size (in bytes) of the largest data unit allowed to pass onwards. To change this setting in Mac OS, open **System Preferences**, click on the **Network** icon, click on the **Advanced** button. In a new menu, select the **Hardware** tab and choose the *Manually* option for **Configure**, then set **MTU** as desired. Keep in mind that the relevant switches and clients on the network will need to change this parameter to match or exceed the value chosen.

The two parameters that can be changed by the user are **Setting Mode** and **TCP checksum** for IP version 4 (RFC 793).

The TCP checksum for IPv4 is enabled by default. To disable it, click the option ***Enable TCPv4 checksum*** to remove the check mark.

The **Setting Mode** is used for tweaking throughput performance to suit specific applications. Specifically it changes some parameters such as buffer size and interrupts that can be more or less taxing to the CPU. The options are as follows:

Balanced: This is the default setting. It is configured for balanced receiving and transmitting with little or no load on the CPU. For general use, not specific to an application.

Low Latency: This will add some load to the CPU but provide faster updates. This setting is appropriate for network gaming or applications with low latency requirements.
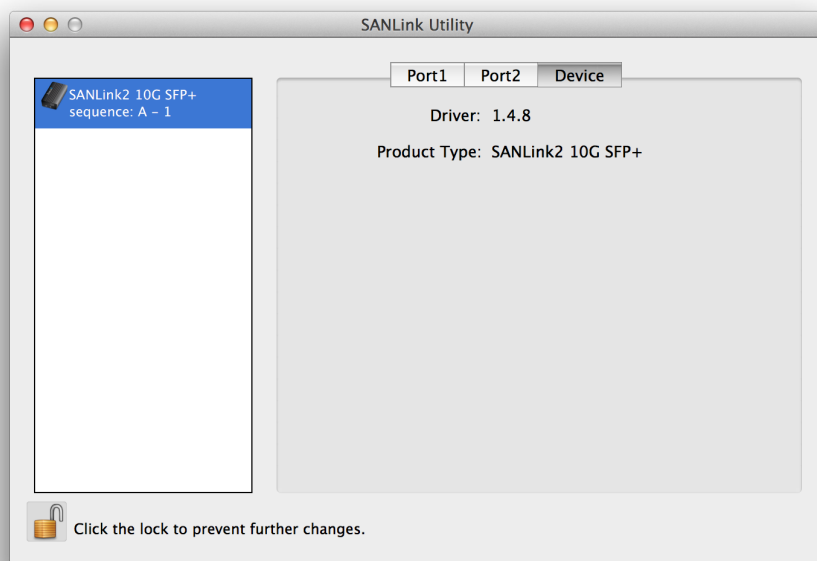
High Throughput: This is optimized for very high transmitting and high receiving. This is place some load on the CPU but less than Low Latency. This is appropriate for applications that require high transmit rates for a single (or very few) connection.

Server: This is configured for multiple client connections, video server, backup server, file server, etc.

Device menu tab

The presents read only information including **Driver** version and **Product Type** (which model SANLink2 is connected).
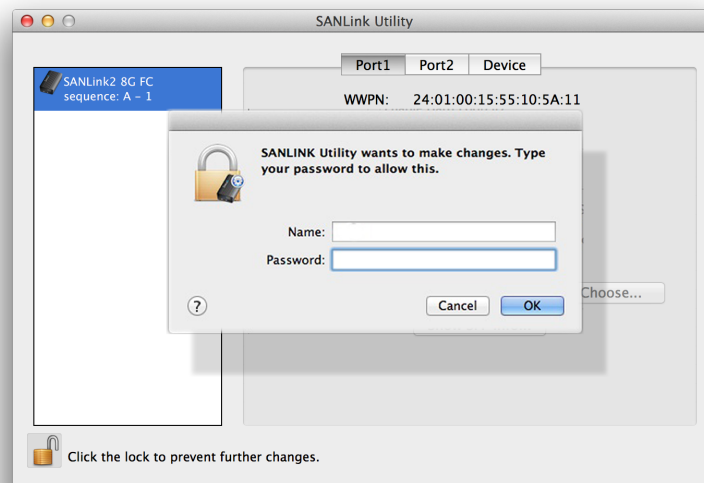
SANLink2 Device menu

Using the SANLink2 Utility for 8G and 16G FC

To launch the application, open the **Applications** folder and double-click on the **SANLink Utility** icon.
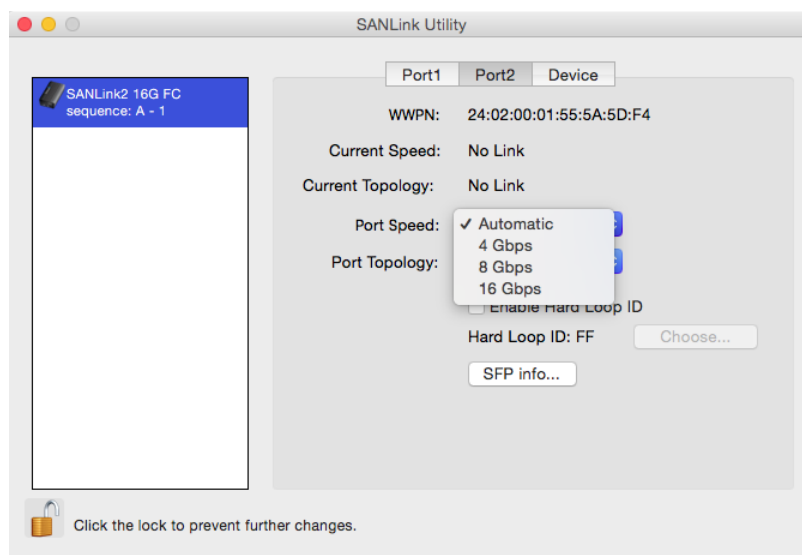
By default, the application settings are locked. To view the connection status or to change settings you will be required to enter the **Name** and **Password** information of the Mac administrator.

Once unlocked, the utility displays the connection status and topology for each Fibre Channel port and allows the user to change settings.

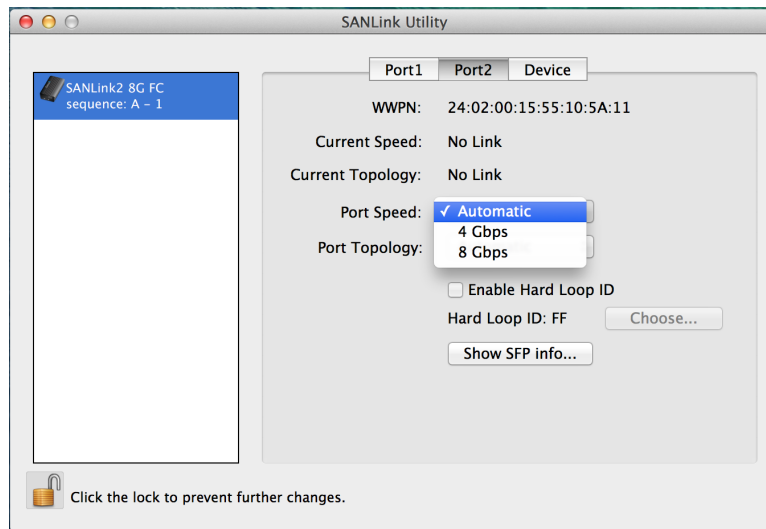**Port1 and Port2 menu tabs**

The port menus for the SANLink2 F2102 (8G FC) and F2202 (16G) present read only information **WWPN**, as well as the status of configurable parameters **Current Speed**, and **Current Topology**. See the pages that follow for information about changing port settings.

Port Speed

To change the port speed of a Fibre Channel port, in the port menu tab, use the pull-down menu to choose *4Gbps*, *8Gbps, 16Gbps (SANLink2 F2202 only)* or *Automatic* (default).
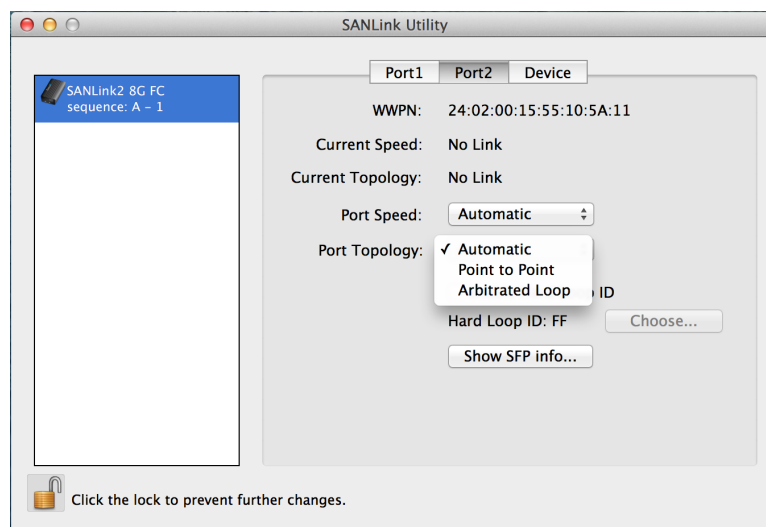
Note that the port speed must be compatible with the port to which it is connected. If the other port is hard set, the hard setting of the SANLink2 must match, if the other port is set to Auto it just has to be at a speed it supports.
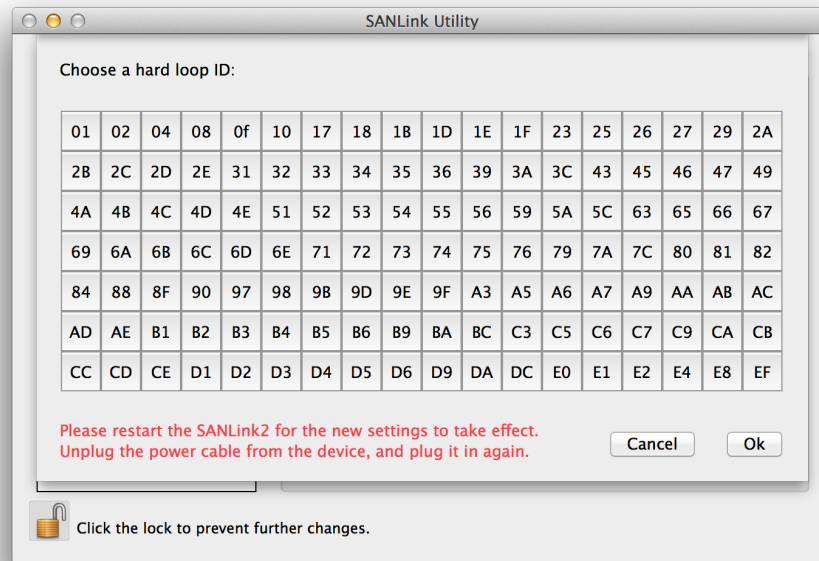

Topology

To change the topology of a Fibre Channel port, in the port menu tab, use the pull-down menu to choose *Point to Point*, *Arbitrated Loop* or *Automatic* (default).

Note that the topology must match of the topology of the device to which it is connected or the connection will fail.

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Enable Hard Loop ID

To set a Hard Loop for the topology, in the port menu tab, click the ***Enable Hard Loop*** box to check mark it, then click on the **Choose** button to select a Hard Loop ID in a new menu.
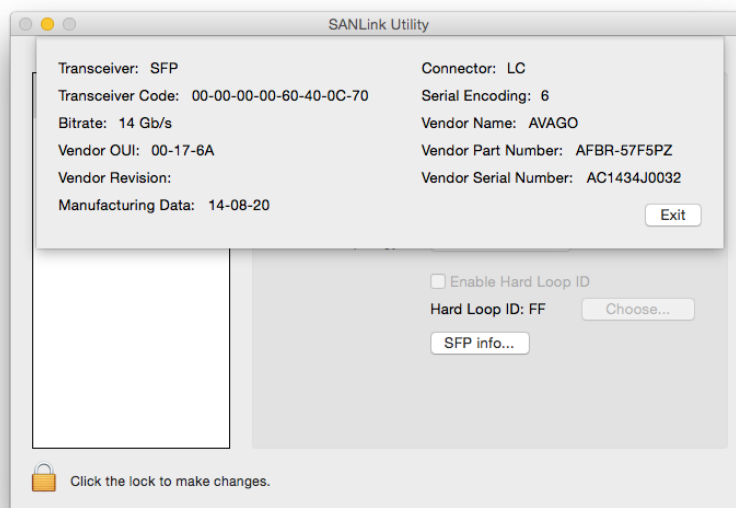

SFP Information

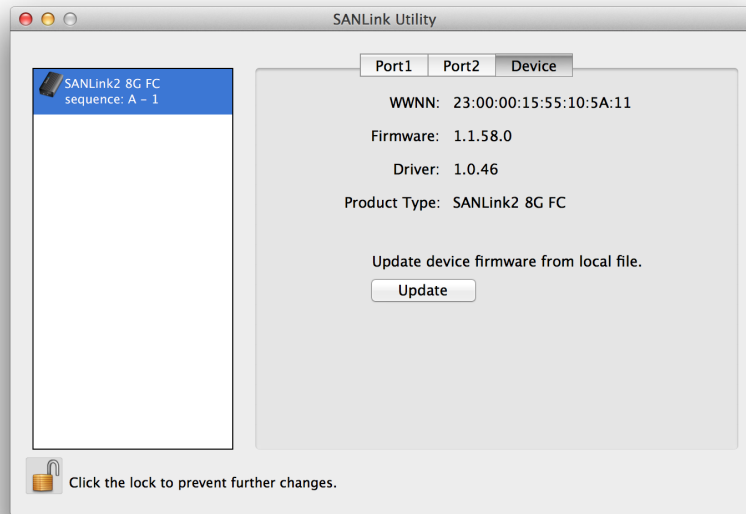To view basic information about the SFP+ module that is installed, click on the **Show SFP Info** button.

Click the **Exit** button to close the SFP information display.

Note that if the SFP+ module is changed, the SANLink2 will need to be restarted to refresh the information displayed here.
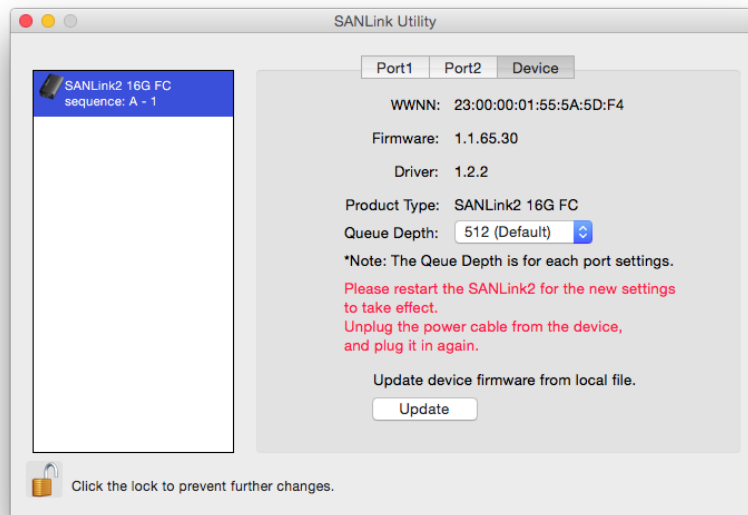
Firmware

To update the SANLink2 firmware, first download that latest firmware from PROMISE. Then use the utility to update it. **Note that all I/O function will cease and any drives attached through the SANLink2 ports will be unmounted when the firmware is updated.** So unmount any drives that will be affect before proceeding to update the firmware.

Click the **Update** button and follow the menu prompts to locate the firmware file you downloaded and install it in the SANLink2.

Queue Depth

SANLink2 F2102 and F2202 include Queue Depth configuration located in the Device tab of the utility menu. This allows the user to set a maximum on the number of unexecuted commands from the OS that are allowed to queue.

To change the **Queue Depth**, use the pull-down menu to select a maximum number of OS commands allowed to queue. Note that it is necessary to restart the device for the new setting to take effect.

Important

The Queue Depth setting on the storage must be equal to, or greater than the Queue Depth setting on the SANlink2 device.
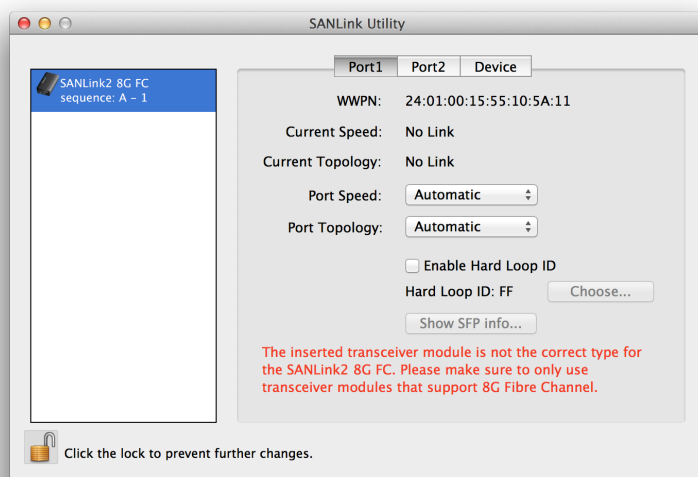
Changing the SFP+ module

The SFP+ modules for the two ports on SANLink2 can be changed in the case of a module failure or, in the case of optical Ethernet, to change the type of fiber optical cable used. If you do change the module, first make sure it is compatible with the SANlink2 you are using.
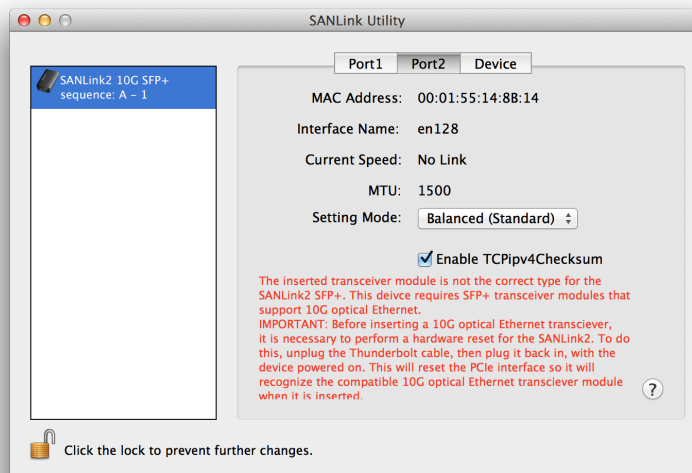
Inserting the wrong SFP+ type

If you do happen to insert an incompatible SFP+ module into a receptacle on the SANLink2, you will see an error message when you launch the SANLink2 Utility. The message that appears is different for the Fibre Channel models F2102 and F2202 than the message that appears if you insert the wrong type of module in either the E2002p (10G SFP+) or E2002t (10GBase-T).

Wrong module type warning for SANLink2 8G FC/16G FC

Wrong module type warning for SANLink2 10G SFP+

CONTACTING TECHNICAL SUPPORT

PROMISE Technical Support provides several support options for PROMISE users to access information and updates. We encourage you to use one of our electronic services, which provide product information updates for the most efficient service and support.

Promise offers local Phone Support for SANLink2 during normal business hours Monday to Friday.

Please check the **Contact Us** page for phone numbers of local Phone Support and other contact information.

PROMISE E-Support: https://support.PROMISE.com

PROMISE web site: http://www.PROMISE.com//

When you contact us, please have the following information available:

- Product model and serial number
- BIOS, firmware, and driver version numbers
- A description of the problem / situation

Return the product to your dealer or retailer or contact Promise technical support for instructions before shipping the product.