spondooliestech

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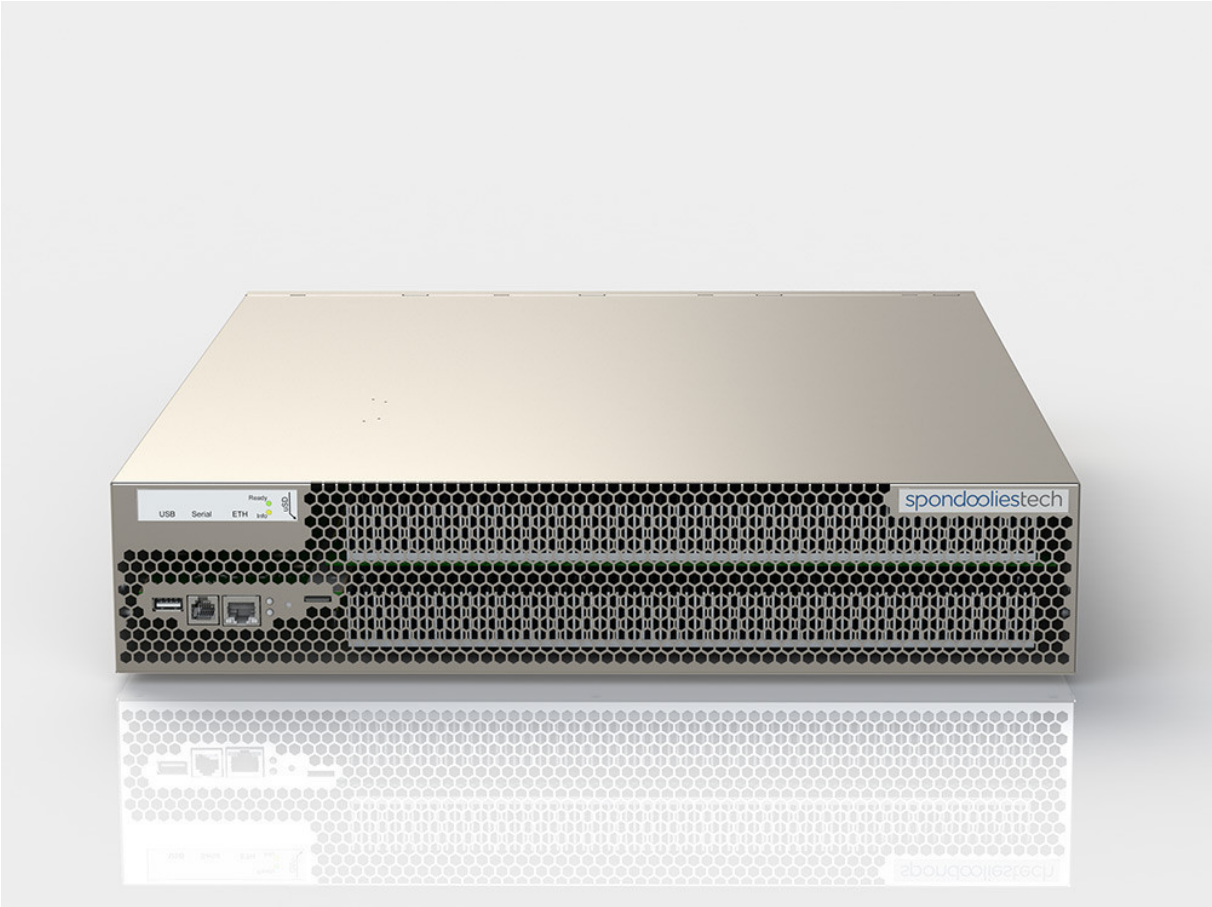
SP31

User Guide



January 2015
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REVISION HISTORY

Date	Revision	Description
September 2014	01	First Release
November 2014	02	Software updates
January 2015	03	Software updates

Table of Contents

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1 Introduction

The SP31 is the most powerful Bitcoin miner available in the current market. The SP31 is enclosed in a slim 2U case suitable for both home and data center hosting, with remarkably low power consumption and amazing 4.9 ±10% TH/s hash power.

1.1 Scope

This guide describes additional configuration procedures for the SP31 following installation and initial configuration, as described in the SP31 Quick Start Guide.

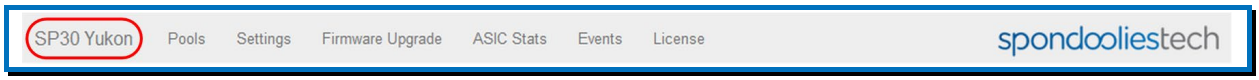
1.2 Related Documents

- SP31 Quick Start Guide
- SP3x Rack Installation Guide

2 Using the SP31 Dashboard

The dashboard gives you a summarized overview of the important information you need to know about your SP31.

To reach the dashboard from anywhere in the management console, in the menu click **SP31 Yukon**:

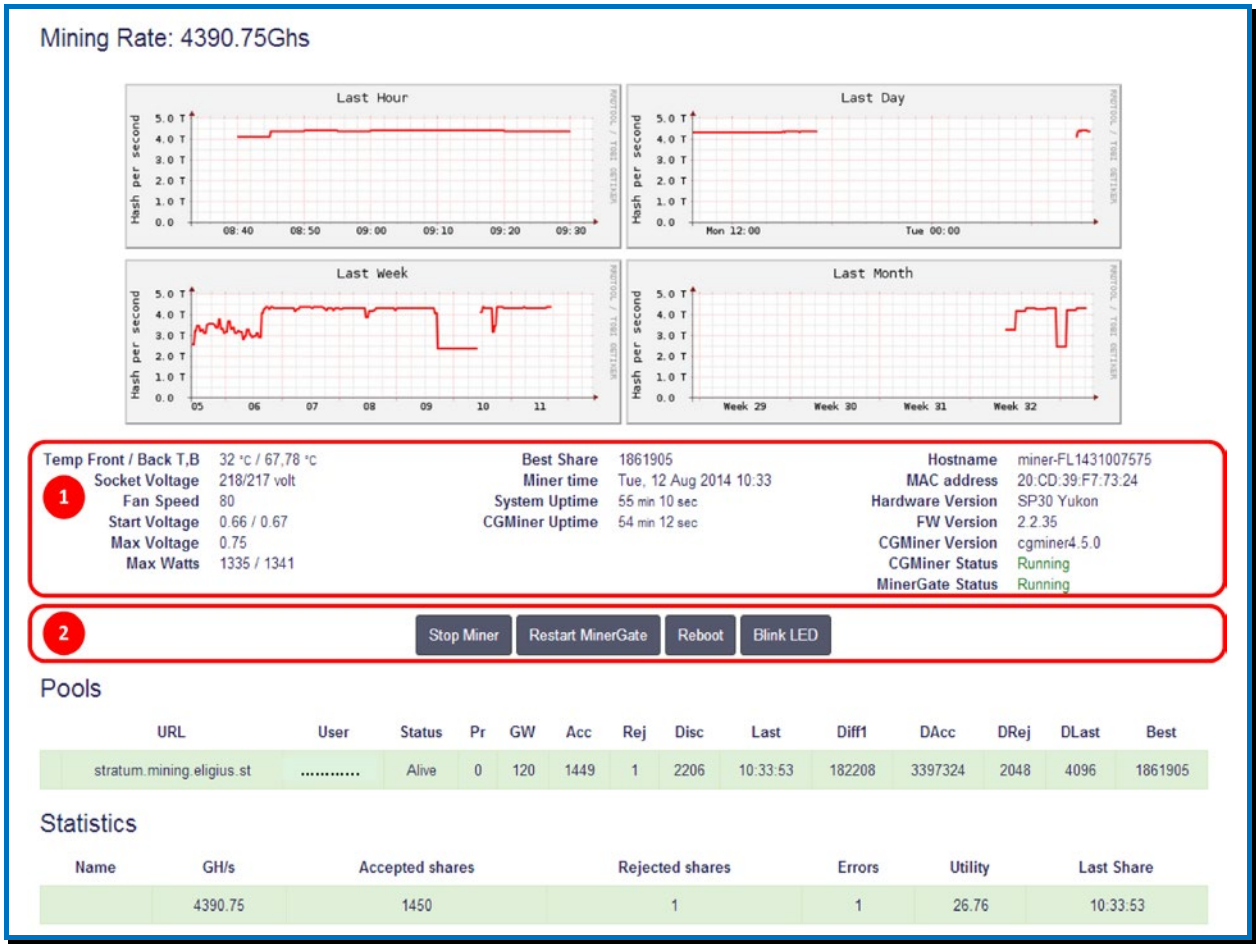


2.1 Viewing Mining Information

1. **Mining Rate** – displays four graphs showing you the rate of the mining process over different durations.
2. **Pools Information** – lists the pools you have entered and their status, in addition to different mining statistics for each pool.
3. **Statistics** – displays a brief summary of the mining statistics from all pools.

2.2 Controlling Units

The unit section displays essential information for your SP31 and allows you to perform basic actions.



1. Unit Information - displays a summary of SP31 import information and unit status.
2. Control Buttons – enables you to perform the following actions:
   - **Stop Miner** – stops miner activity.
   - **Restart MinerGate** – restarts the mining software only.
   - **Reboot** – performs a power reset.
   - **Blink LED** – identifies the SP31 to which you are currently connected by flashing its front panel LED (useful if you have multiple units).

3 Administrative Management

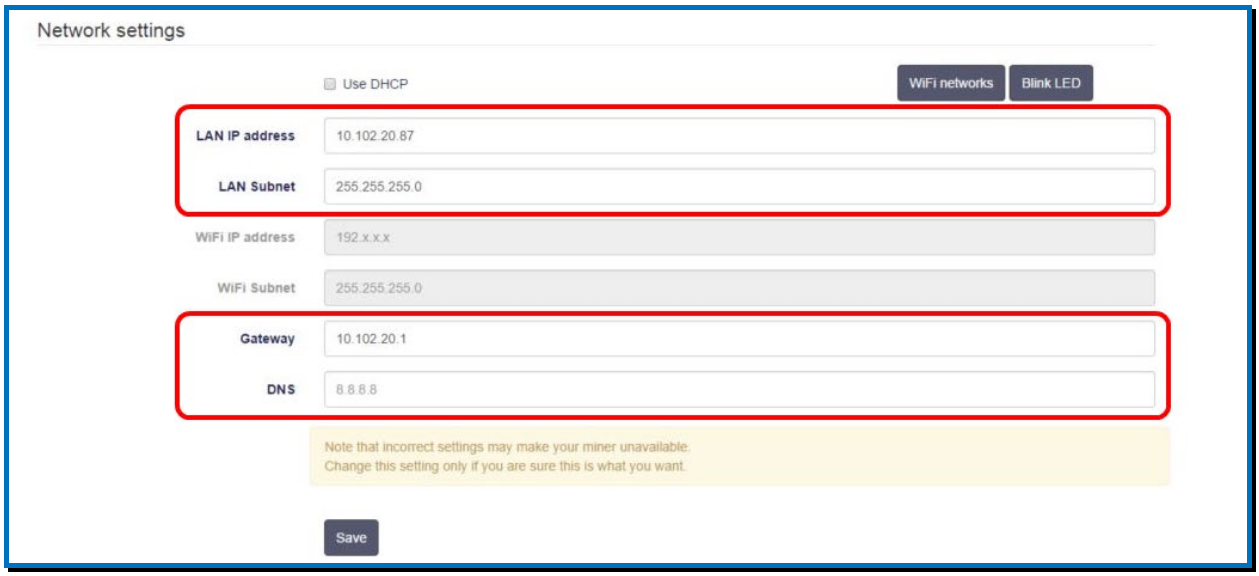
3.1 Configuring Manual LAN Settings

By default, the unit automatically receives the network settings from DHCP.

To set network settings manually:

1. In the menu, click **Settings**.
2. In the **Network settings** section, remove the selection mark from the **Use DHCP** checkbox.

The following options appear:



3. Fill in the fields as follows:
   - **LAN IP Address** – the IP Address you want to set for the SP31.
   - **LAN Subnet** – the Subnet mask of your network. (By default: 255.255.255.0)
   - **Gateway** –the IP Address of the router in your network (which connects to the internet)
   - **DNS** – the address of the DNS server you want to use (by default: same as your router)
4. Click **Save**. The SP31 will restart with the new network settings.

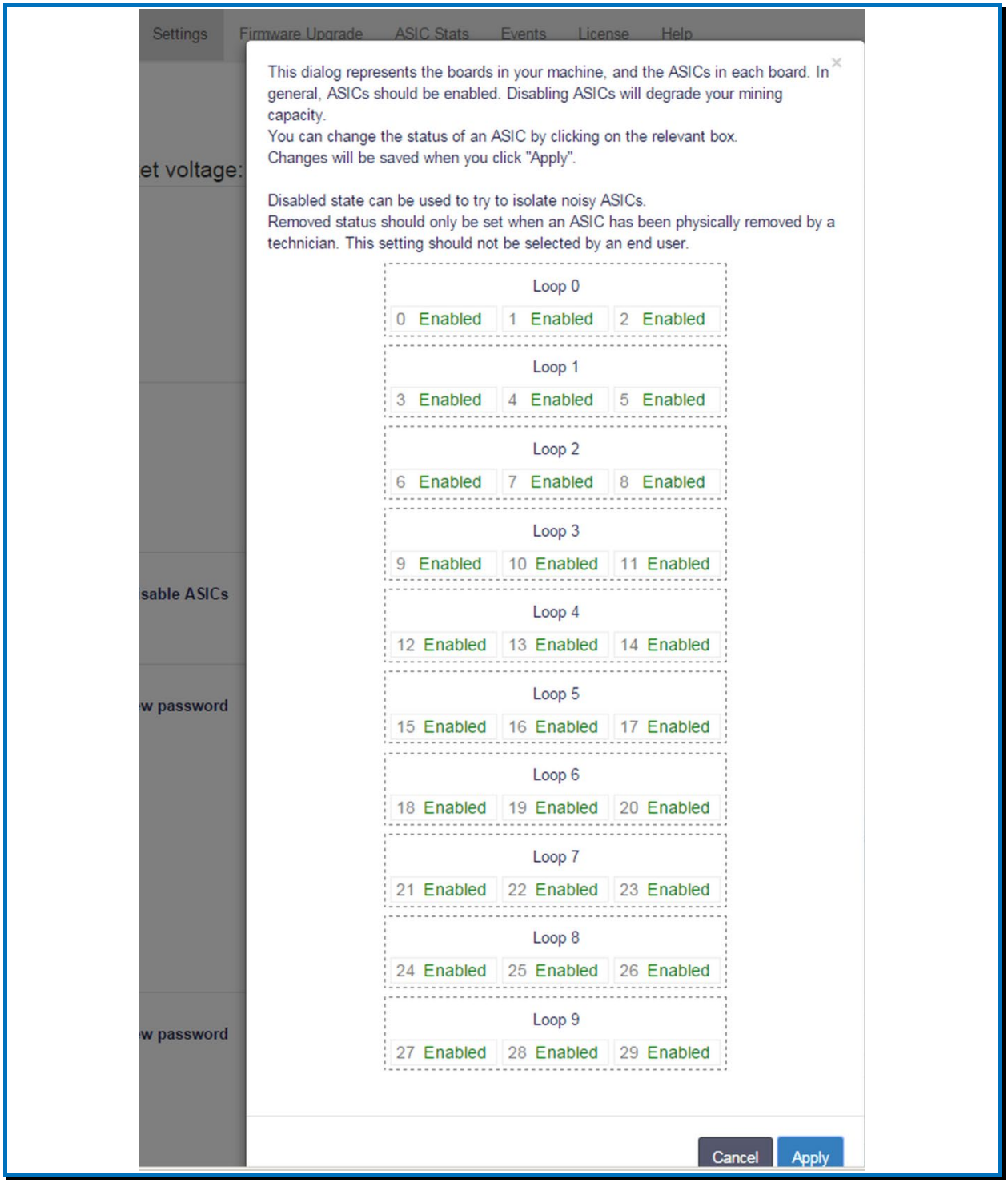
3.2 Controlling ASICs Operation

You can control the operation of individual ASICs in order to isolate a faulty or noisy ASIC.

To control individual ASIC operation:

1. In the menu, click **Settings**.
2. In the **HW Control** section, click **ASICS Control Panel**.

3. The following dialog window appears. The ASICS are numbered 0 – 29, in ten loops (boards) numbered 0 – 9.



4. Click the ASIC you want to disable.

	Do not set an ASIC to a status of **Removed.** This status should only be used by a Spondoolies-Tech technician in case an ASIC has been physically removed from the board. Selecting this option otherwise may damage your unit.

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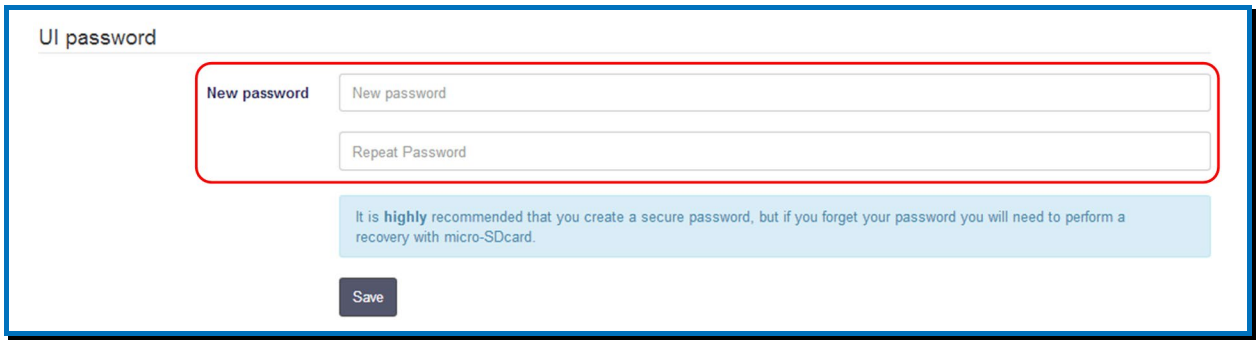
3.3 Changing Administrator Password

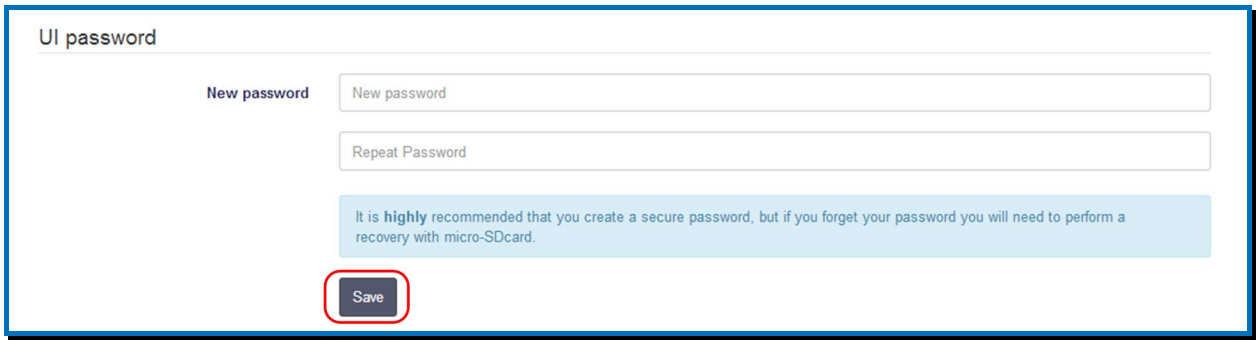
It is highly recommended that you set a secure password in order to keep your SP31 and data safe.

To change the Administrator Password:

1. In the menu, click **Settings**.
2. In the **UI password** section, in the **New password** fields, enter the new password you want to set in both fields.



3. Click **Save**.

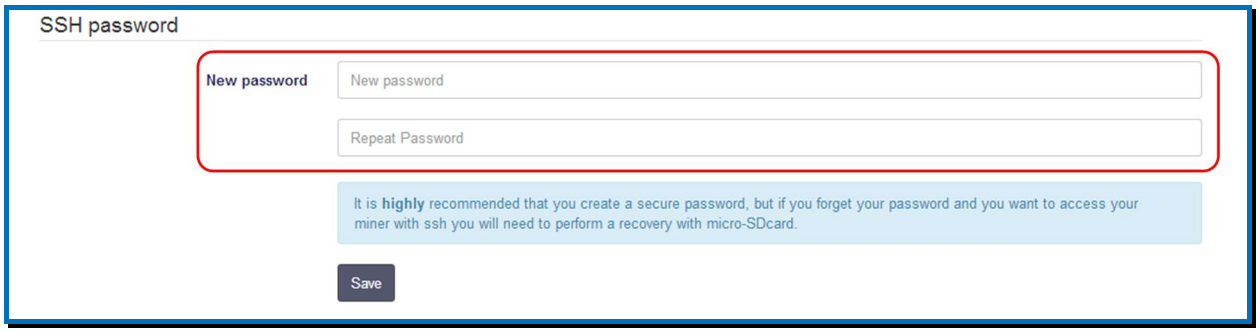


3.4 Changing SSH Password

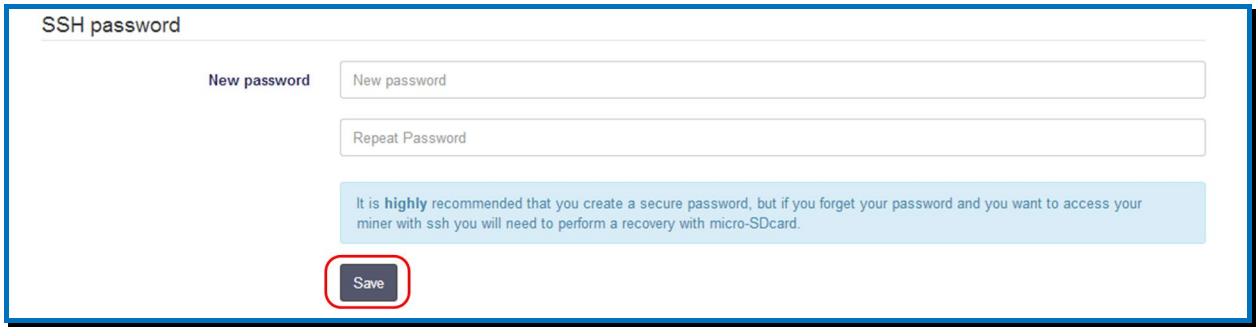
The SP31 supports SSH connections from the network. It is highly recommended that you set a secure password in order to keep your SP31 and data safe.

To Change SSH Password:

1. In the menu, click **Settings**.
2. In the **SSH password** section, in the **New password** fields, enter the new password you want to set in both fields.



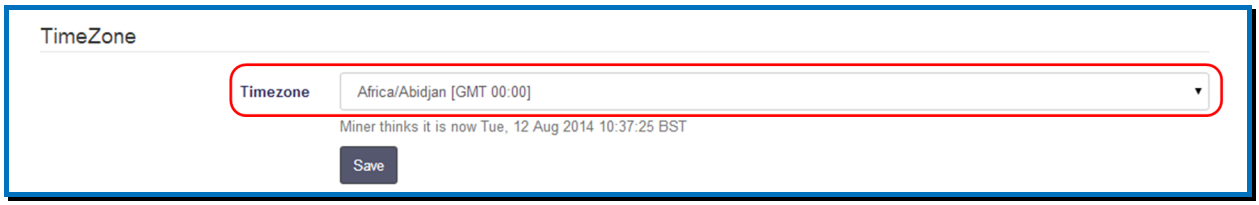
3. Click **Save**.



3.5 Setting Time Zone

To set your time zone:

1. In the menu, click **Settings**.
2. In the **Time Zone** section, select your time zone from the dropdown list.

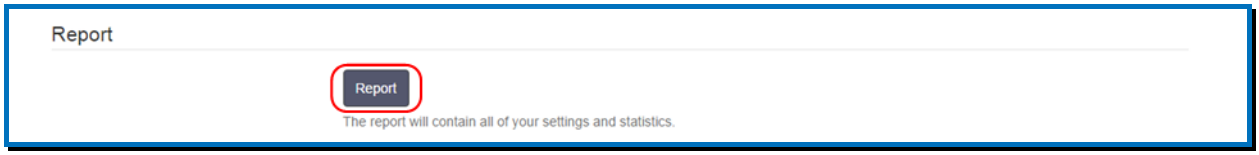


3. Click **Save**.

3.6 Report

To generate a report of your settings and statistics:

1. In the menu, click **Settings**.
2. In the **Report** section, click **Report**.



The report will be produced as a file for download (depending on your browser preferences, you will be either asked to save the file to a location to your choice, or it will be automatically saved in your default downloads folder).

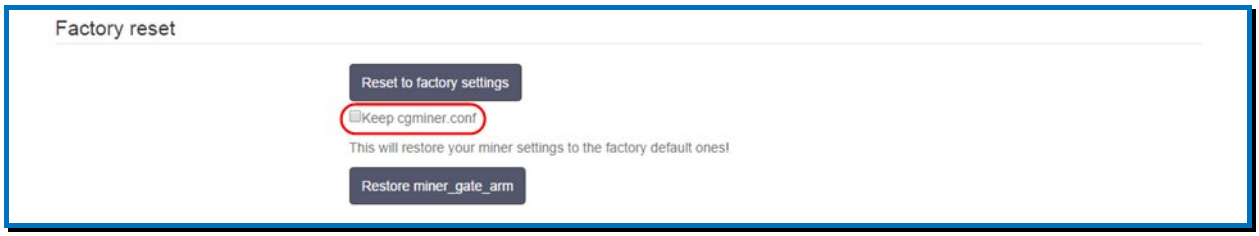
3.7 Factory Reset and Restore

3.7.1 Reset to Factory Settings

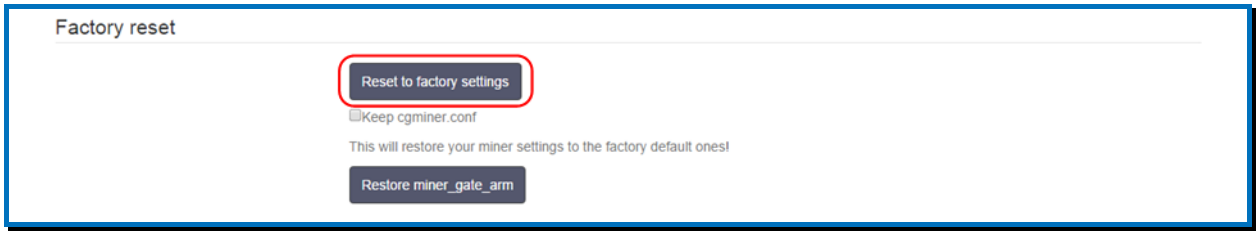
To reset the unit to its factory settings:

1. In the menu, click **Settings**.
2. In the **Factory reset** section, select one of the following options:
   - To reset only unit configuration and keep your pool and mining settings, select the **Keep cgminer.conf** checkbox.

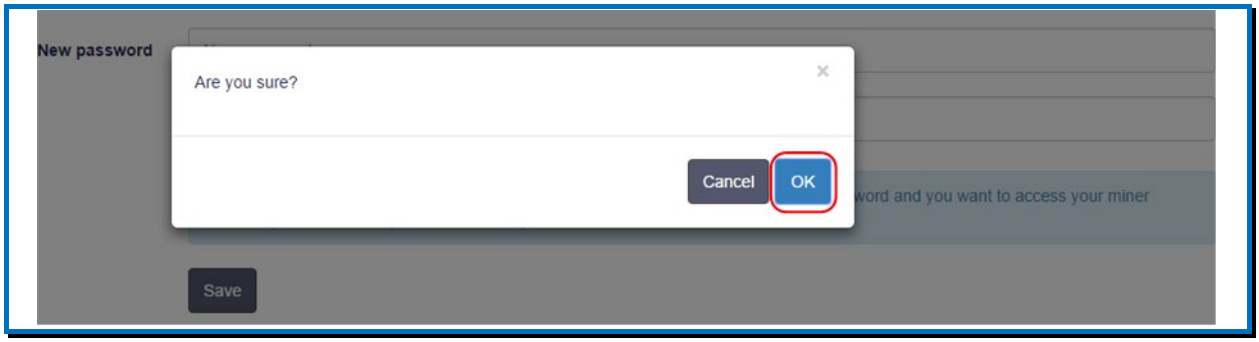
   - For a complete configuration and data reset, make sure that the **Keep cgminer.conf** checkbox is NOT selected.



3. Click **Reset to factory settings**.



4. A dialog box appears. Click **OK**.



The SP31 will restart with the new settings.

NOTE

If a factory reset in this method did not work for you, refer to the procedure in http://www.spondoolies-tech.com/blogs/technical-blog/13098521-sp10-sp30-recovery-sd-card-boot-sd-card-creation-instructions.

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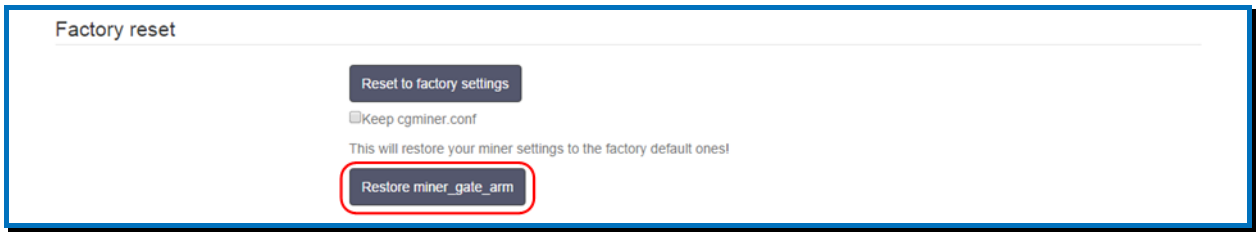
3.7.2 Restore miner_gate_arm

To restore miner_gate_arm:

1. In the menu, click **Settings**.
2. In the **Factory reset** section, click **Restore miner_gate_arm**



3.8 Device Registration

By default, the device is configured to send device data to Spondoolies-Tech.

To disable\enable device registration:

3. In the menu, click **Settings**.
4. In the **Device Registration** section, unmark the checkbox to disable device registration or mark the checkbox to enable it.

4 Overclocking

4.1 Overview

When the operating environment allows (in terms of surrounding temperature), you can adjust various power settings to run the ASICs at a higher performance level. Alternatively, you can adjust overclocking settings to lower values if you want the SP31 to consume less power.

The fan speed affects the power consumption and the noise that the SP31 produces, but also affects the mining rate. The higher the speed, the more power the unit will consume and the more noise it will produce. However, setting the fan to a low speed will result in lower mining rate.

You can either choose one of three basic pre-configured operating modes or you can manually set the voltage values in advanced voltage settings.

	Overclocking causes the SP31 to generate more heat, therefore make sure that sufficient cooling is used and pay attention to the temperatures in the dashboard.

	• Changes to overclocking settings are your responsibility only. Although the SP31 shuts down automatically in case of over heating, incorrect overclocking settings may result in damage to your SP31. • Pay careful attention to temperature changes after changing overclocking settings.

4.2 Configuring Overclock Settings

4.2.1 Basic Voltage Settings

To change basic voltage settings:

1. In the Main Menu, click **Settings**.
2. In the **over-clocking** section, select one of the three operating modes.

3. Click **Save**.

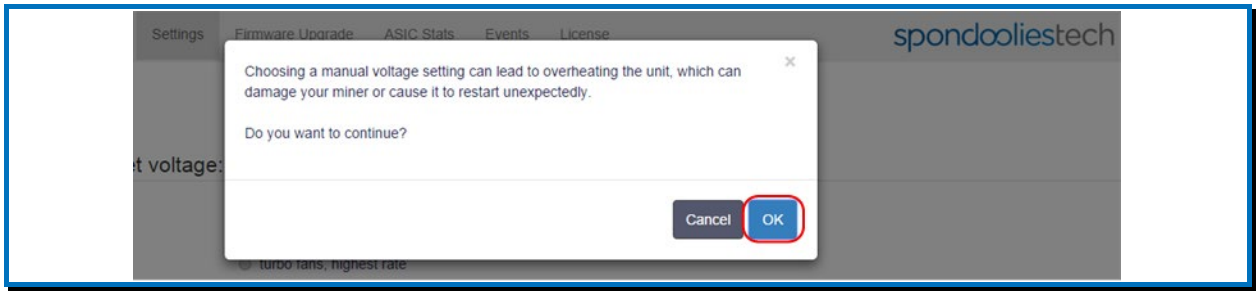
4.2.2 Advanced Voltage Settings

	• Advanced voltage settings are intended for advanced users and are your responsibility only. Although the SP31 shuts down automatically in case of over heating, incorrect overclocking settings may still result in damage to your SP31. • Pay careful attention to temperature changes after changing overclocking settings.

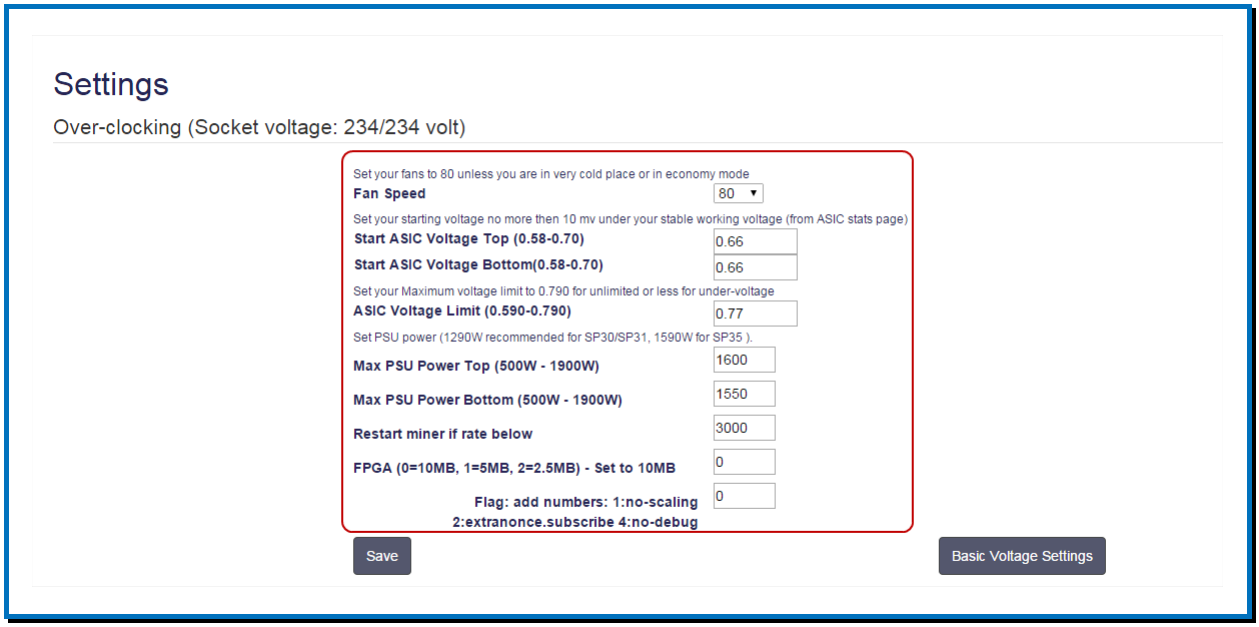
To change advanced voltage settings:

1. In the Main Menu, click **Settings**.
2. In the **over-clocking** section, click **Advanced Voltage Settings**.

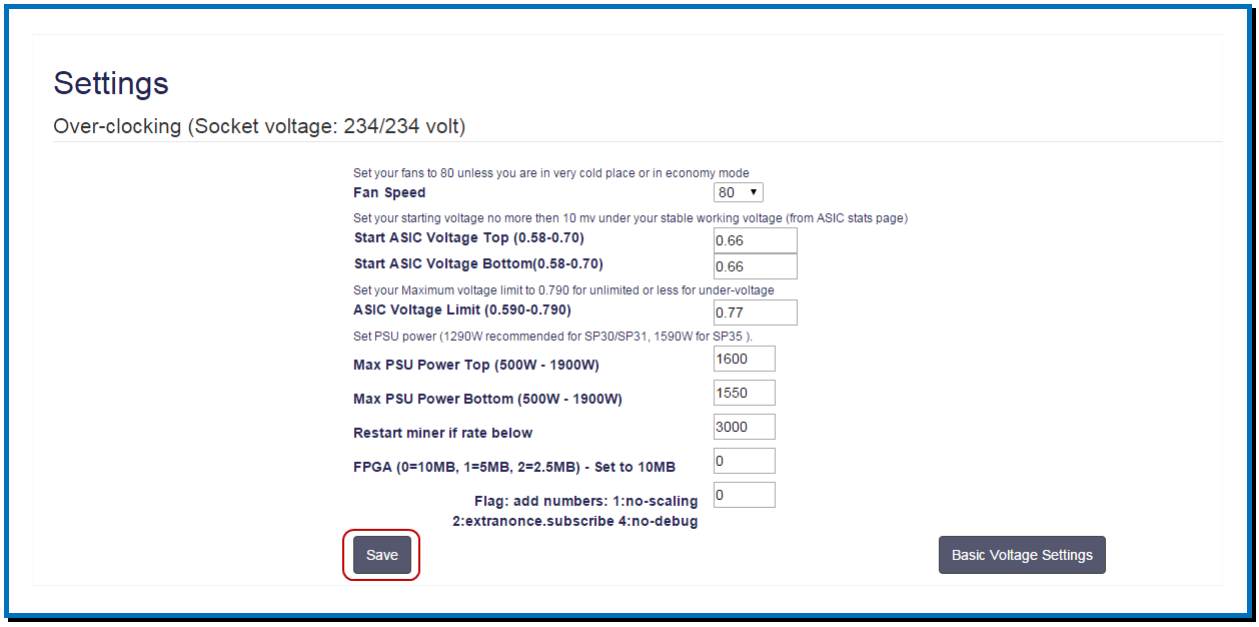
3. A dialog box appears. Read the message carefully and approve by clicking **OK**.



4. Set the required values in the appropriate fields.



5. Click **Save**.



6. After changing overclocking settings, watch the temperatures in the dashboard to make sure they remain within the valid range.

Appendix A. Upgrading Your Firmware

Spondoolies-Tech Ltd releases firmware upgrades for the SP31 as required.

You can upgrade your firmware in two ways:

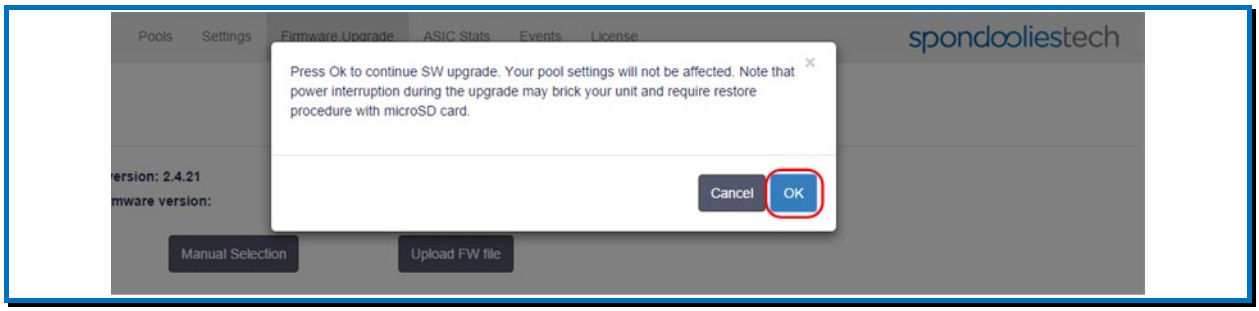
- Automatic Upgrade – automatically downloads and installs the newest stable version of firmware for your unit if a newer version exists.
- Manual Upgrade (for advanced users) - allows you to choose a specific version to install from a list of older versions and test versions.

A.1. Automatic Upgrade

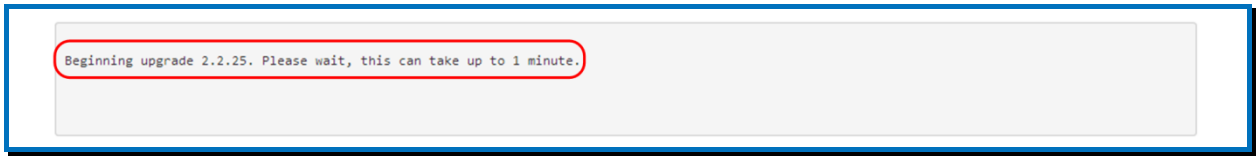
To upgrade the unit firmware automatically:

1. In the menu, click **Firmware Upgrade:**
2. Click **Upgrade**.

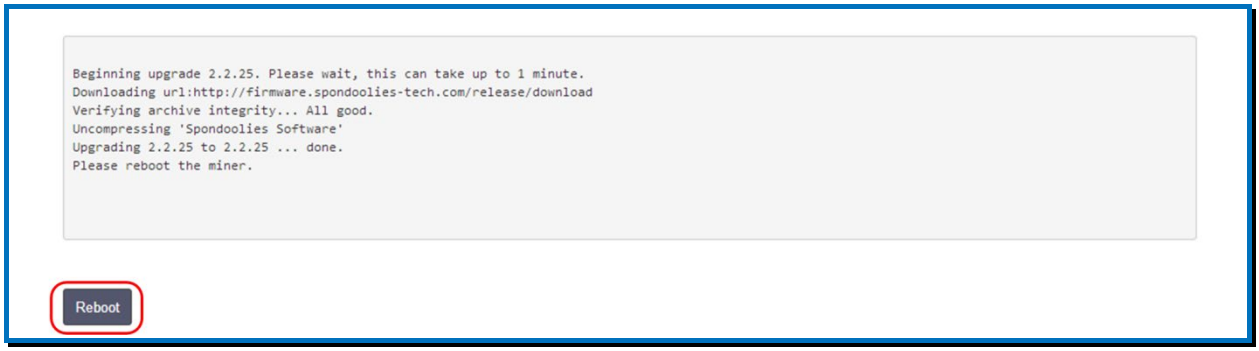
3. A dialog window appears. Click **OK**.



4. The SP31 will check if a newer version for the unit is available. If found, it will be automatically downloaded and installed. Progress is displayed in the status box at the bottom. Upgrading can take up to one minute.



5. When the upgrade successfully completes, a message appears in the status box. Click **Reboot**

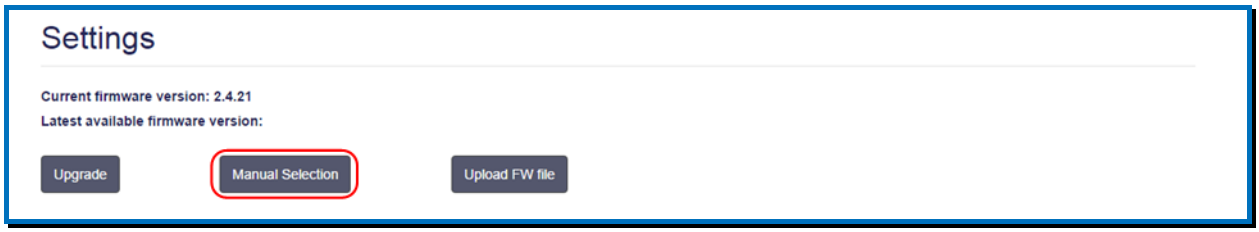


6. The miner reboots with the new version.

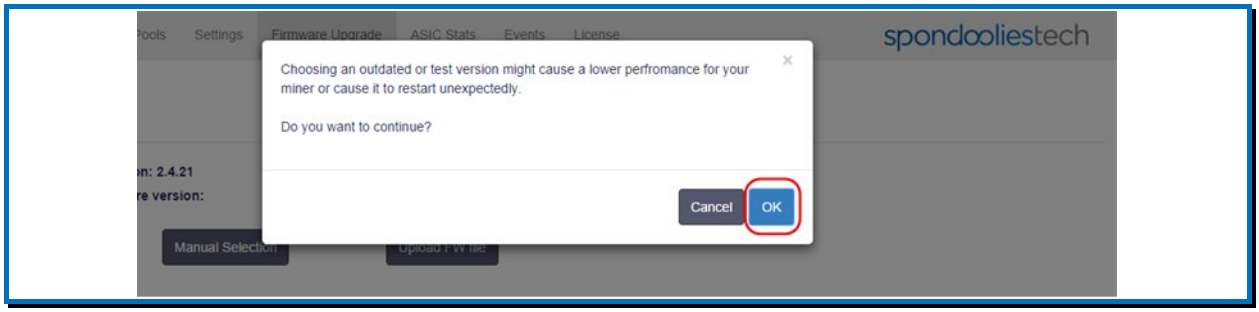
A.2. Manual Selection Upgrade

To upgrade the unit firmware manually:

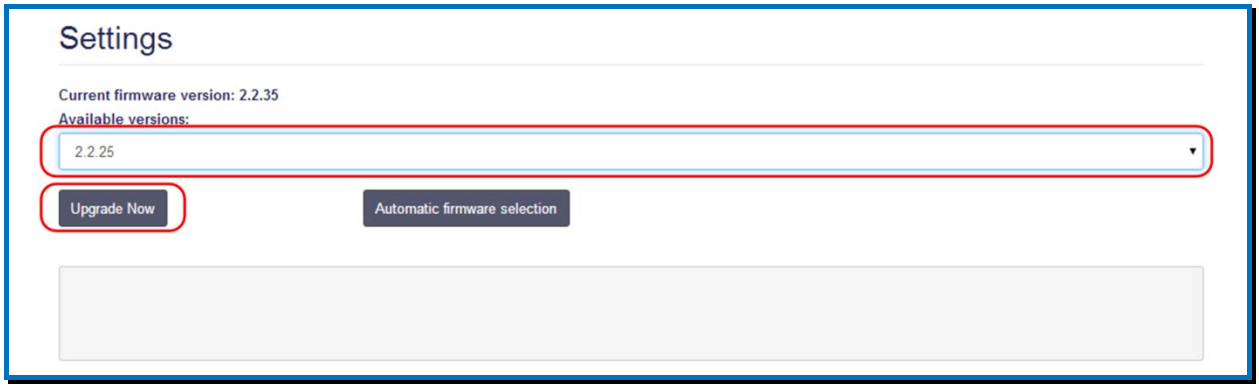
1. In the menu, click **Firmware Upgrade**:
2. Click **Manual Selection**:



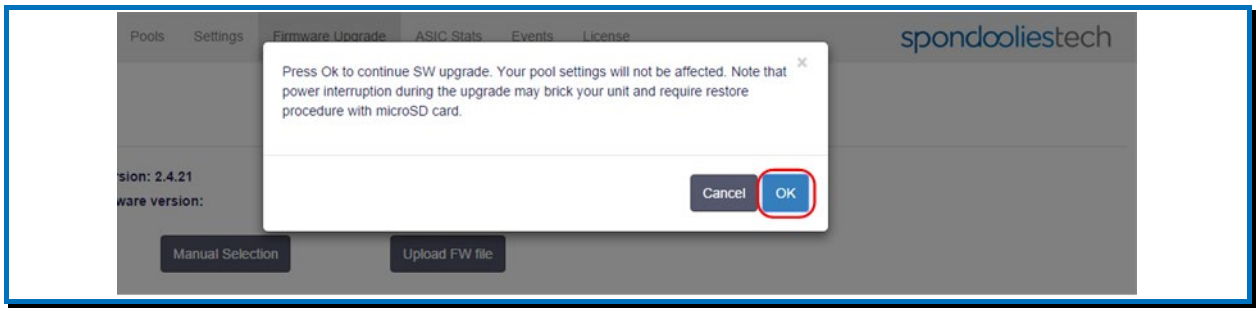
3. A notification appears, read the notification and approve by clicking **OK**.



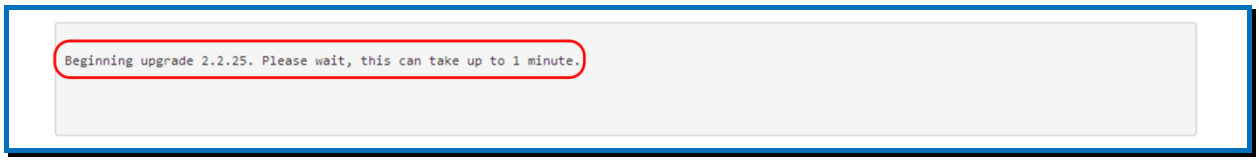
4. In the dropdown list, select the required firmware version and click **Upgrade Now**:



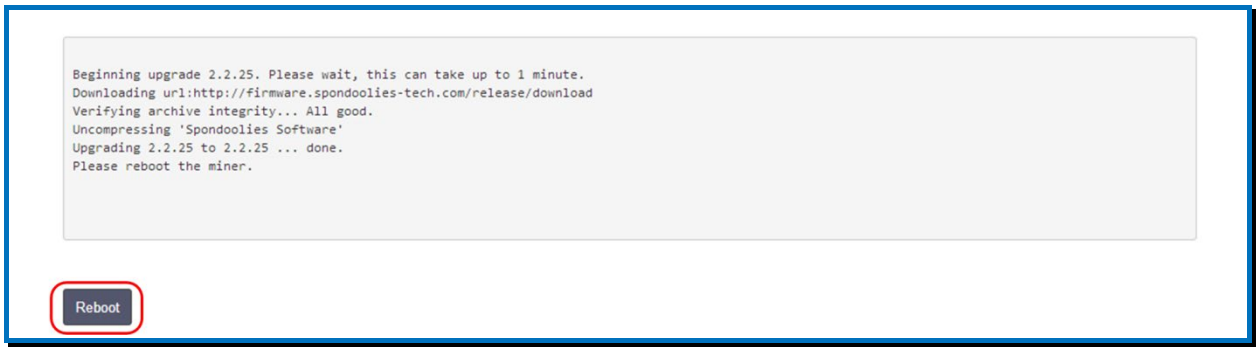
5. Another notification appears. Read through the notification and approve by clicking **OK**.



The upgrade will start. The progress is displayed in the status box at the bottom. Upgrade can take up to one minute.



6. When upgrade completes successfully a message appears in the status box. Click **Reboot**



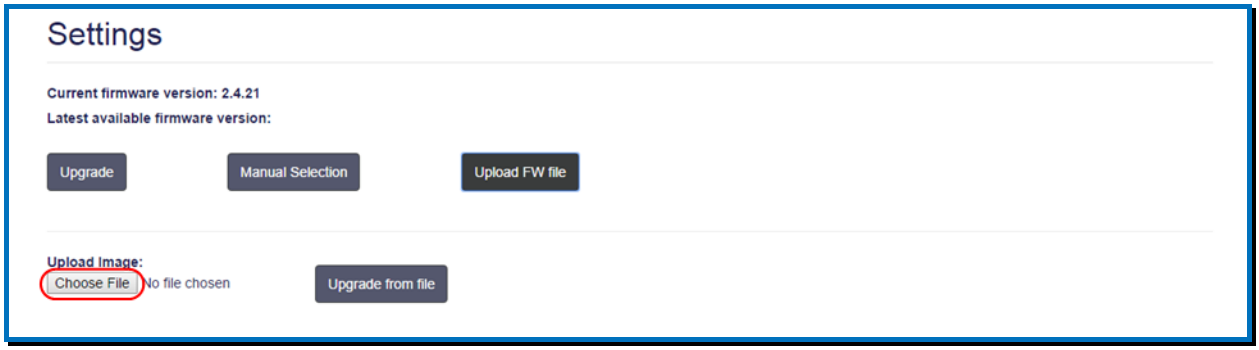
7. The miner reboots with the new version.

A.3. Upgrade from a Firmware File.

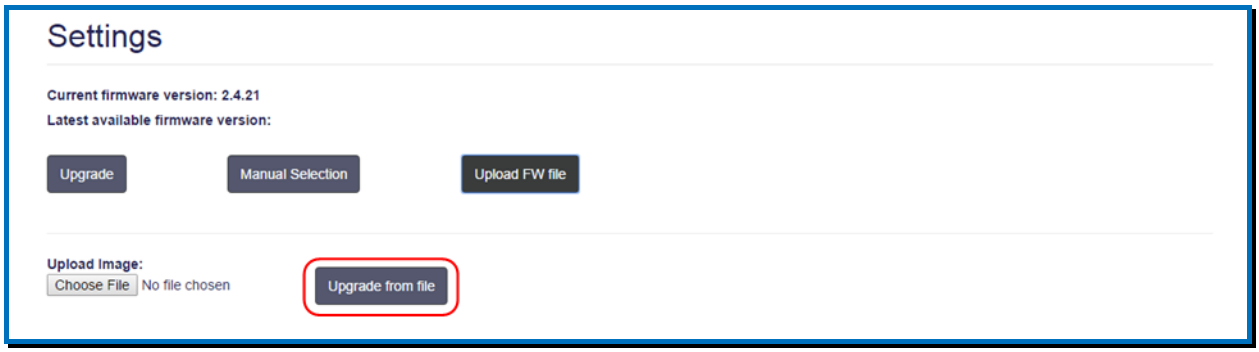
To upgrade the unit firmware from a file:

1. In the menu, click **Firmware Upgrade**:
2. Click **Upload FW file**:

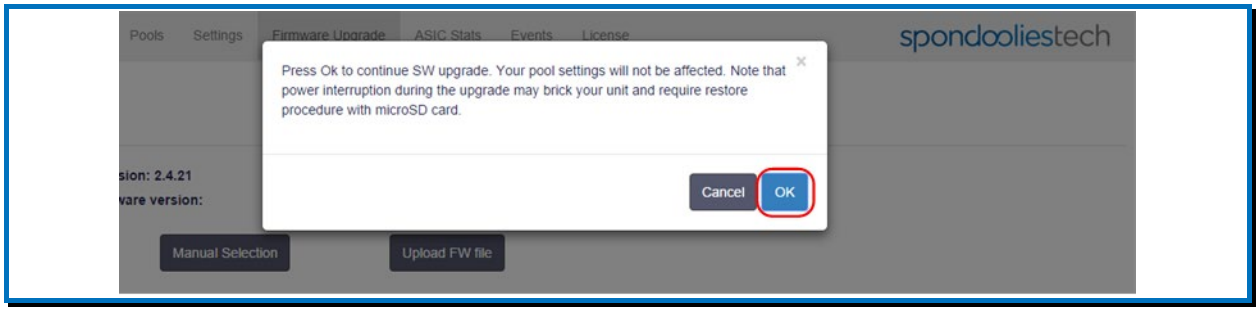
3. The following buttons appear. Click **Choose File**.



4. A dialog window opens. Navigate to the FW file you want to upload and select it.
5. Click **Upgrade from File**.



6. A notification appears. Read through the notification and approve by clicking **OK**.



The upgrade will start. The progress is displayed in the status box at the bottom. Upgrade can take up to one minute.

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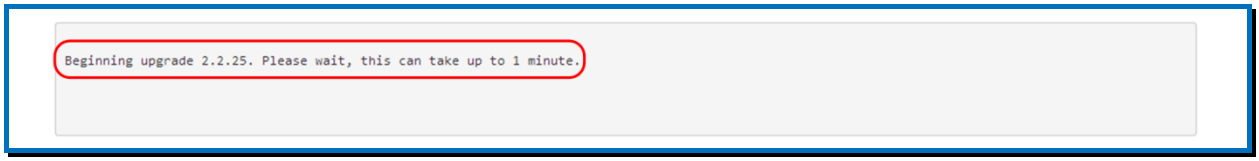
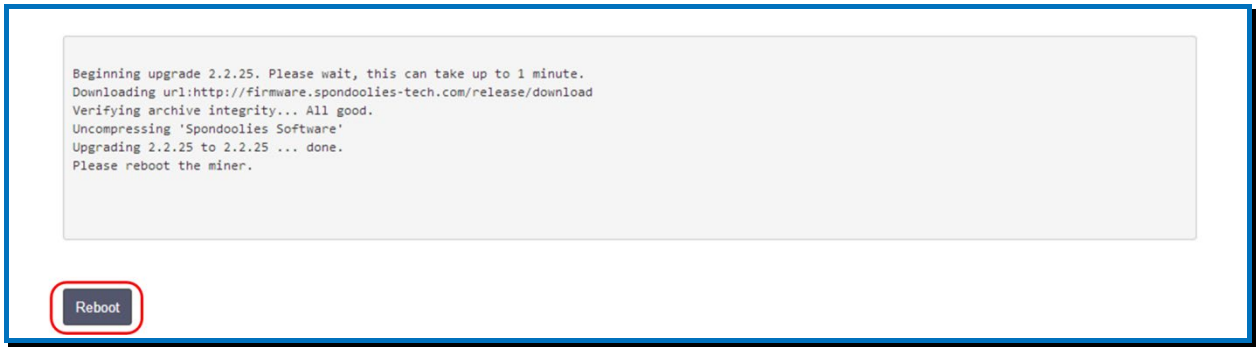


7. When upgrade completes successfully a message appears in the status box. Click **Reboot**



8. The miner reboots with the new version.

Appendix B. Find Your Unit IP Address

If you connected the SP31 to your network but cannot open the management console by typing **myminer.io** in the browser (see the SP31 Quick Start Guide), you can enter the unit IP address instead.

To find the IP address you can use one of the following methods:

Router Management Console
Log into your router management console and find the list of connected devices with their IP address. In the list of connected devices, look for an entry beginning with "**miner**" and enter its IP address in the browser.

IP Scanner
Run an IP scanner to scan for devices connected to your network. You can download Angry IP Scanner from http://angryip.org/download (or use any other IP scanner of your choice). In the list of devices, In the list of connected devices, look for an entry beginning with "**miner**" and enter its IP address in the browser.

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Appendix C. Viewing ASIC Statistics

The **Statistics** window displays detailed information about the unit and for each ASIC separately. This information is especially important when configuring overclocking (in order to check temperatures).

The list of ASICs is divided into groups represented in the log as **LOOP**s:

- Loops 0-4 contain the ASICs on the top board front to back (0 – front; 4 – back)
- Loops 5-9 contain the ASICs on the bottom board front to back (5 – front; 9 – back).

Each ASIC temperature is displayed in the column marked in the following figure:

Appendix D. Viewing Events

To view system events:

1. In the menu, click **Events**

The events are divided into two logs:

2. **System Recovery Log** –Displays events related to the mining software only. Data on this log is not saved, it is deleted upon reboot.
3. **System Log** – Displays general system events (including mining software events). Data on this log is saved and will remain after a reboot.