

# SI.FI

## Programming Guide



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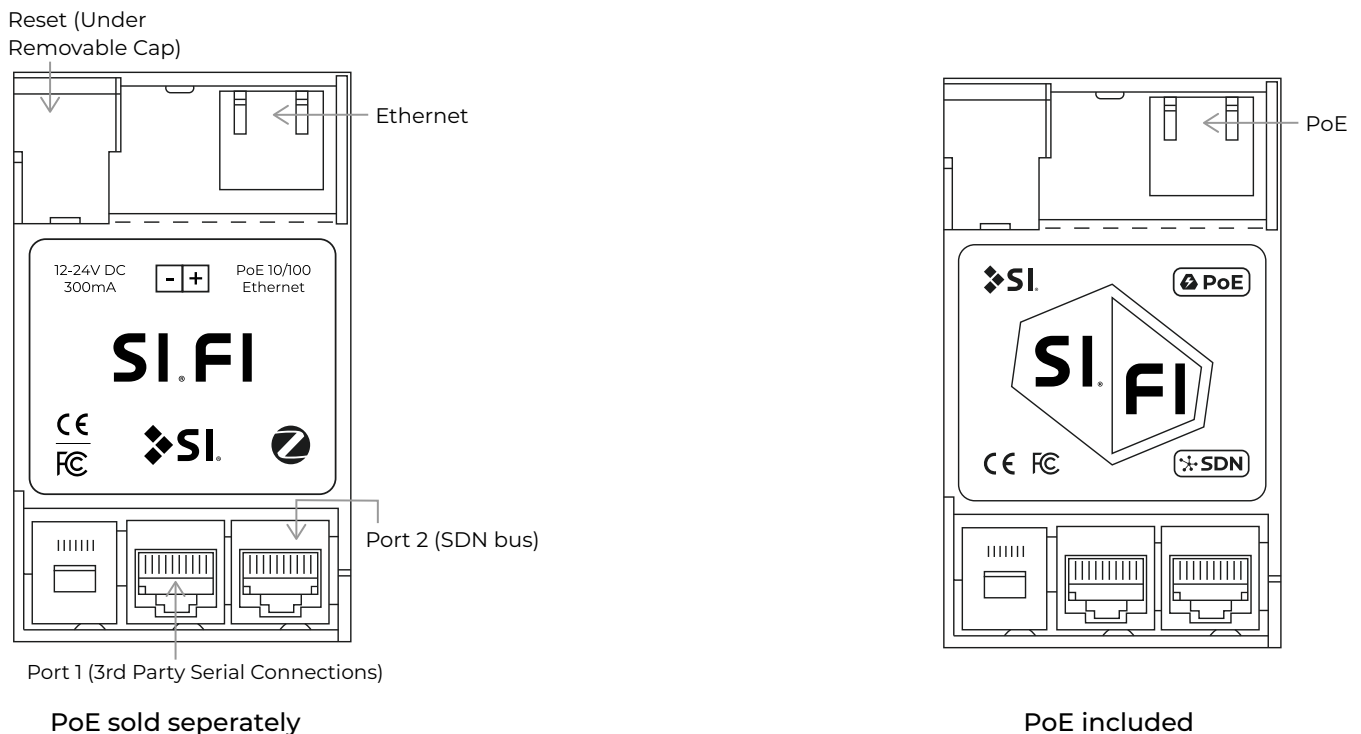
## OVERVIEW

SIFI is designed to commission and control residential and commercial Screen Innovations SDN Nano roller shades through IP and RS-232.

Commissioning includes auto motor discovery, limit adjusting, intermediate positions, motor grouping, and generating system reports.

### System Requirements:

A PC running Windows 7 or higher with Chrome 59.0.3071 or higher is required for motor commissioning and SIFI firmware updates. A mobile device can be used to control motors once commissioning is complete.



## INSTALLATION

### Mounting:

Your controller may be mounted near a network switch, or anywhere close to the beginning of an SDN network. Typically, the device is mounted on a DIN rail either near an automation system or network switch. If mounting on a DIN rail, extend one of the two DIN mounting ears with a small screw driver to enable the device to snap onto the DIN rail.

### Power with PoE sold separately:

SIFI receives power from the SDN bus line via a Bus Power Supply, or via a PoE switch into the ethernet port with the SIFI-PEC.

### Power with PoE included:

SIFI receives power from the PoE.

## Wiring to System for Operation:

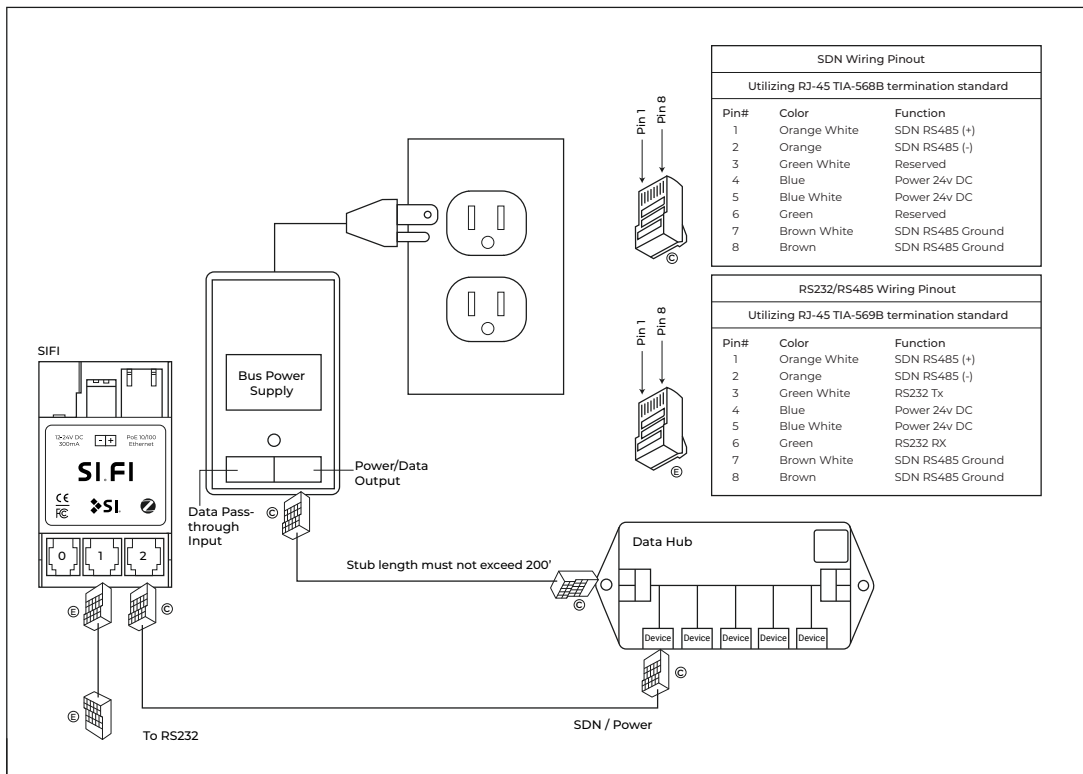
### Serial Integration (RS232/RS485)

- Connect Port 1 to system serial port
- Connect Port 2 to Data Hub or device port on Power Panel

### IP Integration

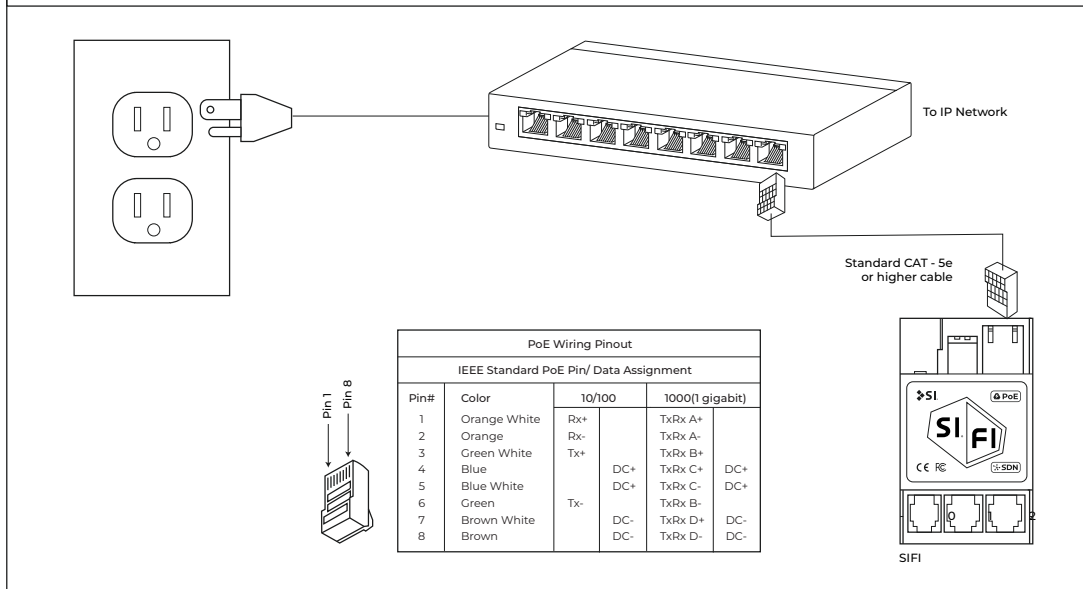
- Connect Ethernet Port to the building IP network to which the 3rd Party System is also connected (optional) or directly to a 3rd party IP port.
- Connect Port 1 to system serial port
- Connect Port 2 to Somfy Device Port on a Data Hub

\*NOTE: If the building IP Network is not available during Setup, see Connect section for Setup Connection Options .



SIFI SDN and Serial Integration Wire Detail

**NOTE: consuming 6 Power Units from the BUS connection**

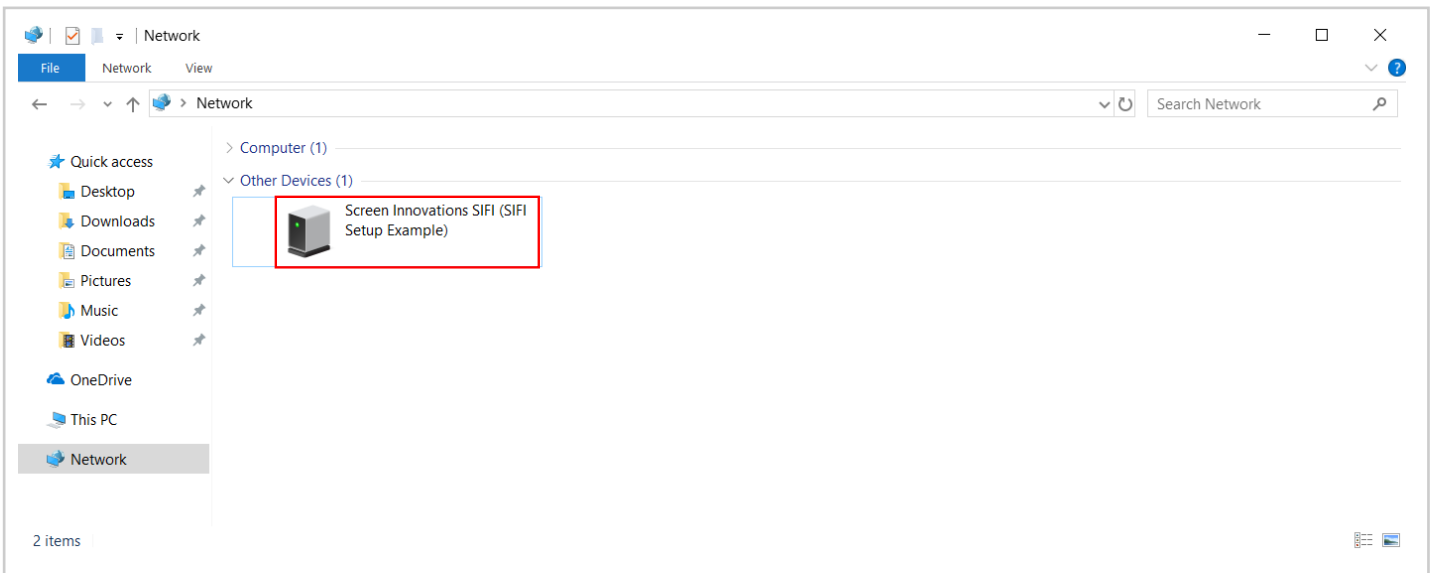


SIFI PoE Integration Wire Detail

**NOTE: Providing 40 Power Units to the BUS connection**

## CONNECT

- a. Connect your computer to the same Network as the SIFI.
  - If a wireless or wired network connection is not available, connect your PC to the ethernet port on the SIFI.
- b. Open the File Explorer on your laptop and double click the Network folder.

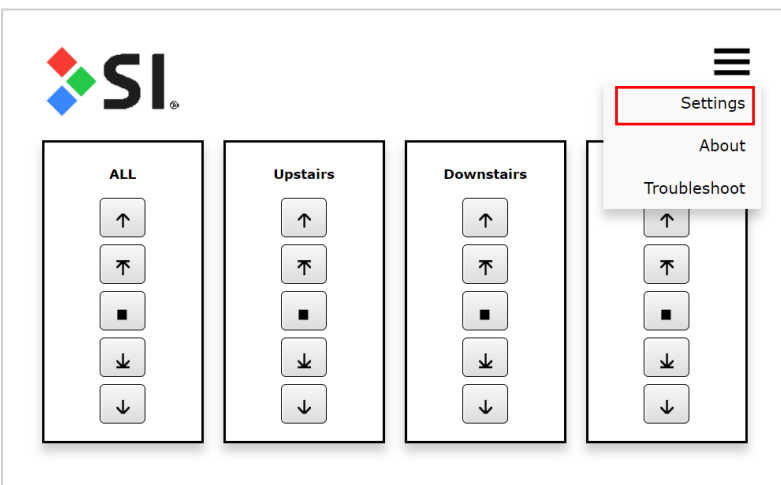


## UPDATE

### How to update Firmware

\*NOTE: Please make sure that the SIFI is updated to the most current firmware before installing it on the SDN system.

You may need to run the update process multiple times until it is up to the latest version.



SIFI Homepage

- a. Connect your device and open the SIFI homepage.
- b. Hover your mouse over the three bars on the top right of the homepage and open the “Settings” tab.
- c. You can find the current firmware version next to “VERSION\_FW”, and then click the square and triangle button which will bring you to the “Firmware Update” page.
- d. Choose to download the most recent firmware through the web.
- e. Repeat the process until it tells you that it is running the most current firmware version.

## SIFI Setup Example

Properties	SETTING
NAME	SIFI Setup Example
TYPE	e-Node 2014
MODE	SDN
OPTION	DISABLE
VERSION_HW	03.02
VERSION_FW	02.01.27
PASSWORD	
FIRMWARE	USER
SERIAL_NO	10052054

SIFI Setting Page

## E-Node

Firmware Update Page

## VIRTUAL KEYPADS

### Setup and Functions

#### Test & Control Up to Four Different Groups:

- When at the SIFI homepage left click on the "ALL" (Fig. 2.0)

Virtual Keypad

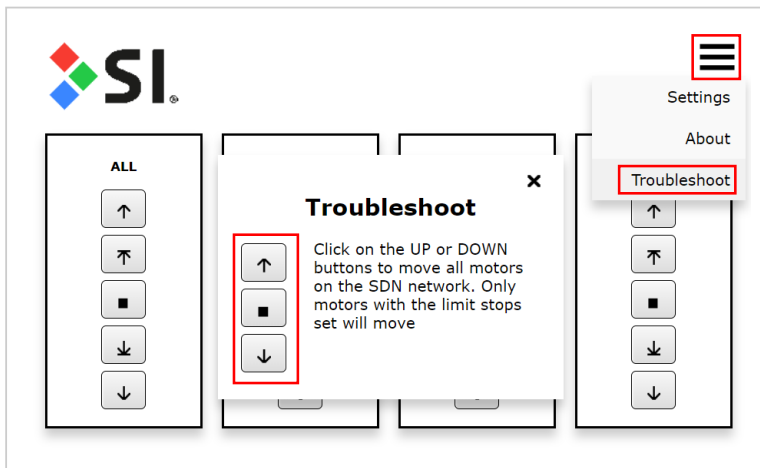
- It will list all of the groups that are programmed on the SIFI
- Select the group that you want to assign to that keypad
- The buttons below the group name do the following

Virtual Keypad

1. Arrow up will move the group to it's upper limit
2. Arrow up with line above it will move group up to it's next Intermediate Position if it has any set, if not it will go to upper limit
3. Square button will stop the group when moving
4. Arrow down with line under it will move the group down to it's next Intermediate Position if it has any set, if not it will go to lower limit
5. Arrow down will move the group to it's lower limit

**Test Keypad for Troubleshooting:**

- a. This virtual keypad sends a broadcast command to verify that every motor in the system is functioning properly.
- b. Click on "Troubleshoot" in the dropdown menu
- c. Up, Down and Stop buttons will control all motors on the system



Troubleshooting Keypad

## PROPERTIES

### Properties Menu

- a. Hover your mouse over the three bars on the top right of the homepage and open the "Settings" tab.
- b. In the Properties menu you will find the following options:

**Setting:**

- \* NAME – current name and allows you to change the name
- \* TYPE – the hardware type
- \* NODE – the Node type
- \* OPTION – (Not used)
- \* VERSION\_HW – the hardware version
- \* VERSION\_FW – the firmware version
- \* PASSWORD – Displays the password if set and allows you to set/change the password
- \* FIRMWARE – (Do not change) type of firmware installed
- \* SERIAL\_NO – SIFI serial number

**Ethernet:**

- \* IP\_ADD – current IP address

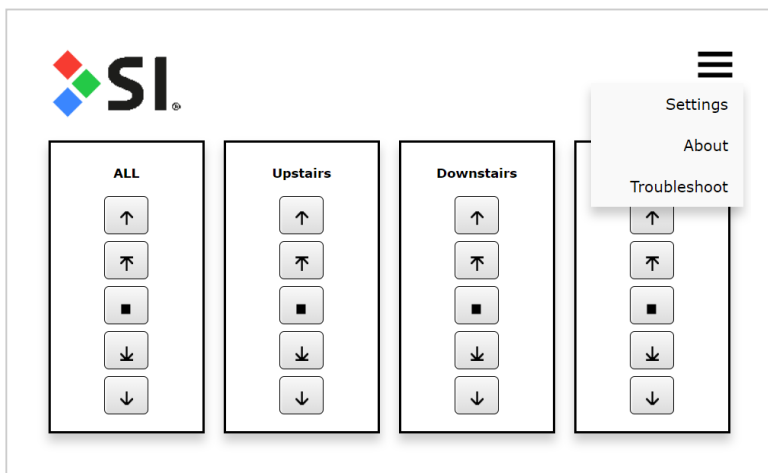
- \* DHCP – current setting and allows you to change by clicking ENABLE/DISABLE
- \* STATIC\_IP – Assign the static IP when DHCP is disabled above
- \* NETMASK - Set the subnet mask when DHCP is disabled above
- \* GATEWAY\_ADD – Set the default gateway when DHCP is disabled above
- \* MAC\_ADDRESS – MAC address of the SIFI
- \* UPNP – Shows if Plug and Play is enabled or disabled

**UDP:**

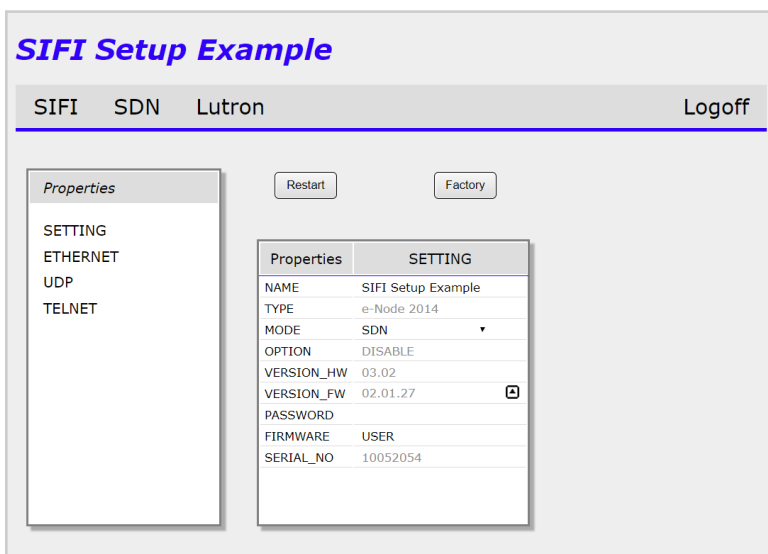
- \* SERVER –Enable/disable UDP server mode
- \* LISTEN\_PORT – Shows the port it is listening on and allows you to change it
- \* SEND\_PORT – Displays the port it sends on and allows you to change it

**Telnet:**

- \* SERVER – enable/disable Telnet server mode
- \* LOGIN – enable/disable Telnet logins
- \* USER 1,2,3,4 – Shows Telnet user names and allows you to change them
- \* PASSWORD 1,2,3,4 – Shows Telnet passwords and allows you to change them



SIFI Home Page



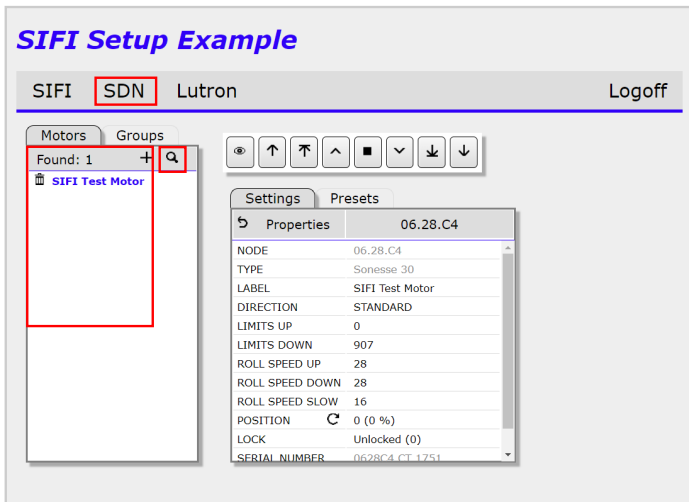
Properties



# PROGRAM

## How to Discover & Program Motors

1. The SDN tab will bring you to the SDN commissioning page
2. Click on the magnifying glass to auto discover all of the motors found on the SDN system (May need to do this more than once to discover all motors)



SIFI SDN Commissioning Page

3. All discovered motor Node IDs will populate in the left box under the Motors tab
4. Click any of the found motors to get the following options

### Settings Tab:

- \* NODE – Motor Node ID
- \* TYPE – Motor Type
- \* LABEL – Displays the motor name (can be changed by clicking on it)
- \* DIRECTION – Sets the rolling direction of the motor to either standard or reverse
- \* LIMITS UP – Shows the upper limit pulse count and allows you to adjust it by right clicking on it
- \* LIMITS DOWN – Shows the lower limit pulse count and allows you to change but right or left clicking it
- \* ROLL SPEED UP – Shows the roll up speed and allows you to change it by left clicking it
- \* ROLL SPEED DOWN – Shows the roll down speed and allows you to change it by left clicking it
- \* ROLL SPEED SLOW – Shows the slow down speed and allows you to change it by left clicking it
- \* POSITION – Shows the current pulse count and % of the motor and allows you to change it by left clicking it
- \* LOCK – Shows if the motor is currently locked/unlocked
- \* SERIAL NUMBER – Shows the motor's Serial Number
- \* STACK VERSION – Shows the motor's stack version number

### Presets Tab:

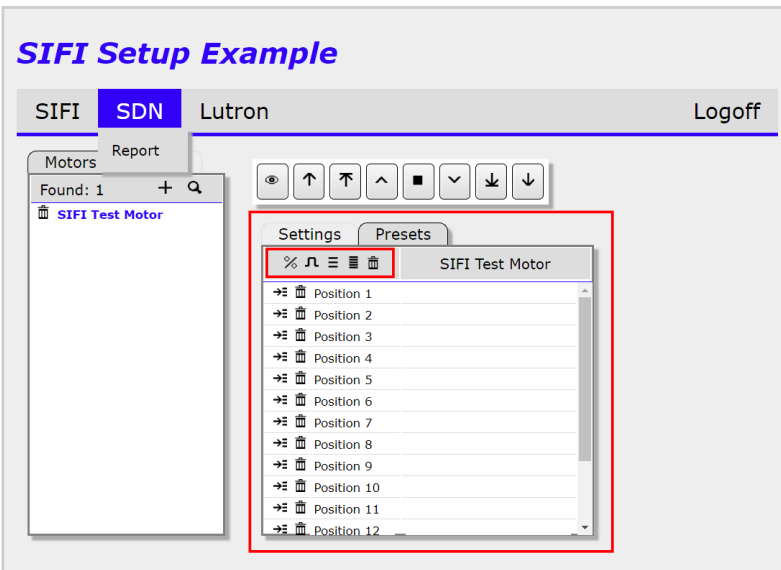
- \* PRESETS - Shows all of the presets programmed in to the motor and lets you set them by left clicking on it

5. Click on the "Groups" tab to create, delete and edit motor groups, as well as add individual motors to groups
  - Click the + sign to add a new group
  - Click the pencil and paper to edit a group name
  - Click the garbage can to delete a group. DO NOT DELETE THE ALL GROUP
  - Click the Links tab to the right to open a grid listing all the motors. To add a motor to a group, drag a group from the left column to any group space next to the motors. You can also right click in the group column and select the group that you want to add the motor to.

6. The buttons just under the Settings tab allow you to do the following:
  - a. The percent sign changes the information listed below to motor percentages
  - b. The pulse sign changes the information listed below to motor pulse counts
  - c. The 3 horizontal lines will set the first 3 presets to 25%, 50%, and 75%
  - d. The 5 horizontal line will set the first 5 presets to 17%, 33%, 50%, 67%, and 83%
  - e. The garbage can will delete all presets in the motor

Just to the left of the Positions the buttons are:

- a. The arrow and 3 lines will set the preset at the motor's current position
- b. The garbage can will delete this position

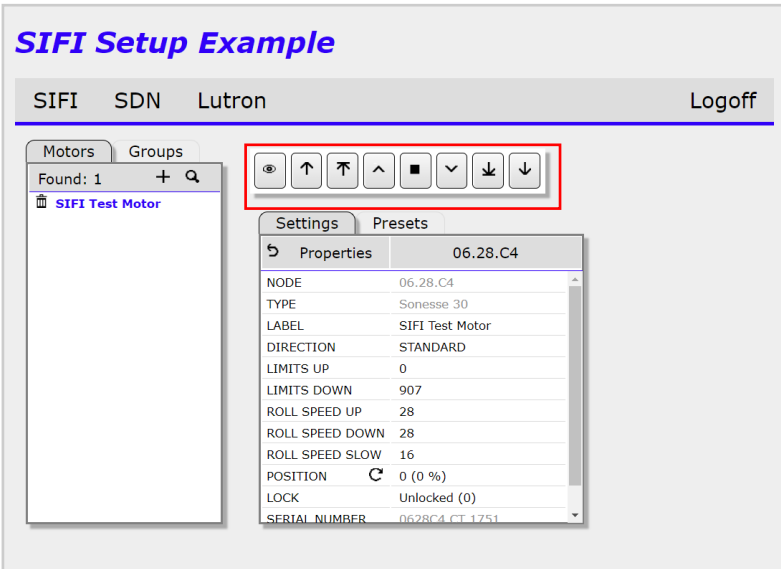


Movements

## MOVEMENTS

### How to move the motors

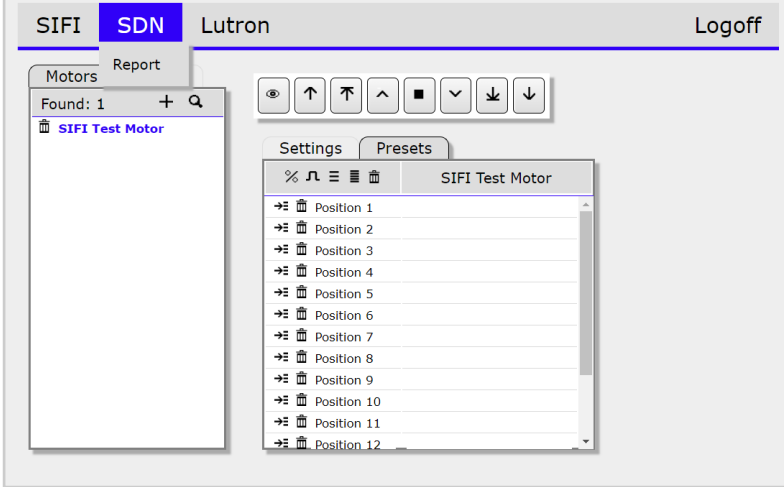
1. Click on any motor or group
2. Use the control buttons (refer to the image on the next page).
  - a. The button with an eye on it is to wink the motor or group
  - b. The arrow facing up moves the motor or group to the upper limit
  - c. The Arrow with a line above it moves the motor or group up to it's next Intermediate Position if set or its upper limit if none are set
  - d. The upward facing caret is a jog up button that moves the motor or group up a few pulses
  - e. The square stops all movements for the motor or group
  - f. The downward facing caret is a jog down button that moves the motor or group down a few pulses
  - g. The Arrow with a line below it moves the motor or group down to its next Intermediate Position if set or it's lower limit if none are set.
  - h. The arrow facing down moves the motor or group to the upper limit



## INTEGRATION REPORT

1. The Integration Report is downloaded as a .csv file.
2. To generate a report for your records: Hover over the SDN tab and click on "Report"
3. It can be opened with Excel.
4. The report will show:
  - a. The IP address of the SIFI
  - b. The MAC address of the SIFI
  - c. The Firmware that the SIFI is running
  - d. All Telnet Usernames and Passwords that are set up on the SIFI
  - e. All motor IDs that have been discovered
  - f. The motor's label (name) that it was given in the SIFI
  - g. All of the groups that each motor belongs to
  - h. All of the Groups that were created in the SIFI
  - i. The Group's Hexadecimal address
  - j. The Group's inverted address which is used when programming the Somfy DecoFlex keypads using the Somfy Keypad Configuration software (Software can be found here: <https://www.somfysystems.com/support/tools/configuration-tools-software> )
  - k. The Group's name that it was given in the SIFI

# SIFI Setup Example



## Integration Report

The screenshot shows an Excel spreadsheet with the following data:

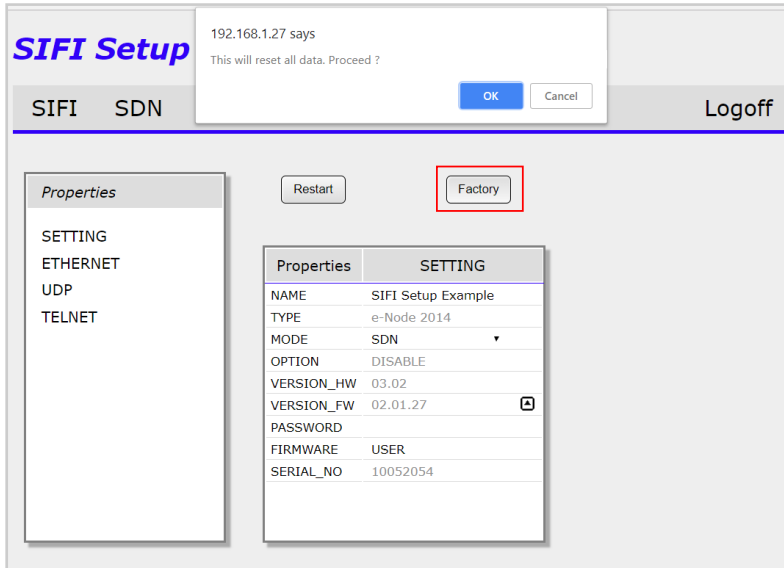
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	SIFI IP Address	192.168.1.27																			
2	MAC Address	00.1B.C5.00.05.78																			
3	SIFI Firmware Version	02.01.27																			
4	Telnet Users	Telnet 1	Telnet 2	Telnet 3	Telnet 4																
5	Telnet Passwords	Password 1	Password 2	Password 3	Password 4																
6																					
7																					
8	Motors	LABEL	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9	Group 10	Group 11	Group 12	Group 13	Group 14	Group 15	Group 16			
9	0628C4	SIFI Test Motor																			
10																					
11																					
12	GROUPS	INVERTED	NAME																		
13	010100	FFFEFE	ALL																		
14	010101	FEFEFE	Upstairs																		
15	010102	FDFEFE	Downstairs																		
16																					
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## Download Excel File

## RESET SCREEN

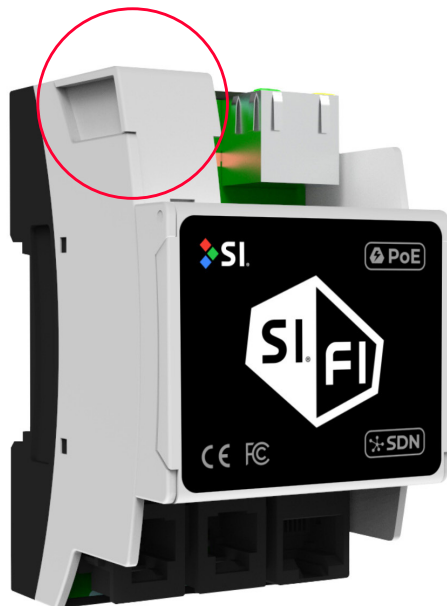
Below are two ways to factory reset the SIFI

1. On the settings page there is a "Factory" button
  - a. When you press this button it will prompt you that it is about to reset all data. Press OK to proceed
  - b. The SIFI will reboot with the factory settings



Reset Screen

2. There is a physical factory reset button on SIFI
  - a. Close all browser windows that are connected to the SIFI
  - b. Pull up to remove the cover over the blue reset button
  - c. Hold down the blue reset until the green LED blinks 3 times
  - d. Once the SIFI reboots, reconnect using the steps in the Connect section.



Reset Button