Lutron Integration

Tech Note 104

www.screeninnovations.com | 512.832.6939 | Doc.#110-104a | Version 1.4 | 8 September 2021

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Introduction

This TECH NOTE 104 Lutron Integration Guide was developed for you, our Integration partner, and your clients. We have provided this simple guide to help assist in the design and integration of a Screen Innovation shade system, and to a provide some best practices which can help yield the best possible performance from deployments.

Control – your way, at Screen Innovations we provide complete control of all your shade and screen products via both wireless and wired technologies.

Screen Innovations® has developed the most innovative shade system available to the CEDIA® market. Our revolutionary Shade Builder tools, ultra-high-quality interior and exterior motorized shades and the most extensive control and power options in the industry with our SICON ecosystem will provide an unmatched level of performance. We built our shade products to a world class level and are the absolute best you can buy.

We engineered the system in Austin Texas, USA and our products are all engineered and manufactured in the USA. We have some exclusive partnerships with world class raw parts suppliers such as Somfy the world leader in motors. These partnerships combined with our innovations and patent pending technologies mean not only do our shade products look amazing in your client's home, but more importantly "they just work"

This Screen Innovation Tech Note will help with integration to a Lutron system. We provide step-by-step details and screen shots to enable rapid deployments and testing.

This Tech Note may also contain data sheets that may be helpful for your shade integration project. Scan the QR code at the top any page to download the latest datasheet(s).

For the latest information on our products please visit our website at http://www.ScreenInnovations.com or please call our technical support and sales teams for additional help and information...

How To Use This Tech Note

QR CODES – When you see this image, scan your phone or tablet and you will receive the latest version of the corresponding document.

Somfy® Wired Technology (WT) – When you see this logo, this product uses line (high) voltage to power the shade, and it may have GPIO, IR, RS-485 or RF control methods.

Somfy® Dry Contact Technology (DCT) – When you see this logo, this product uses dry contact closure(s) for control ofthe shade(s)

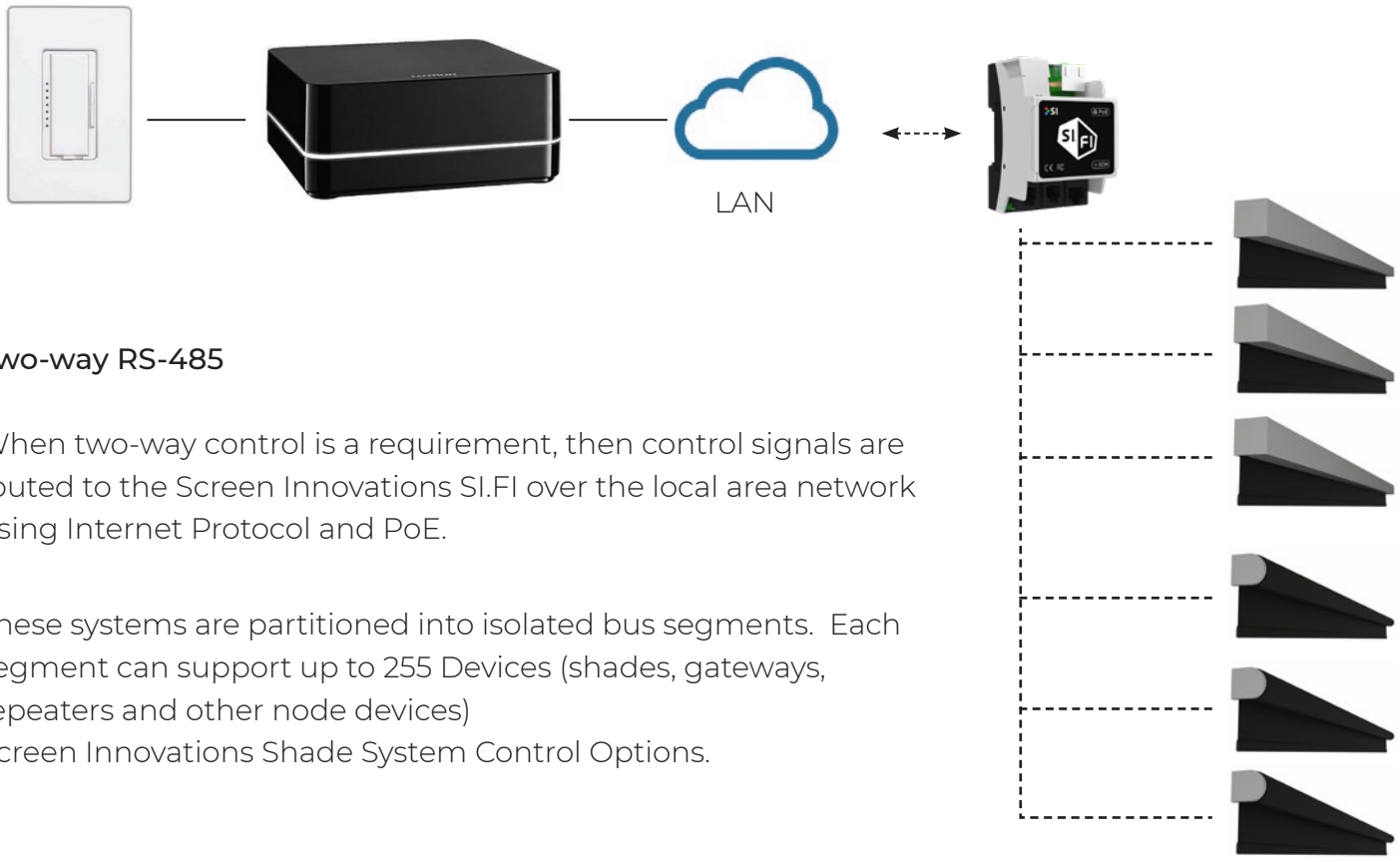
Somfy® Infrared Technology (IR) – When you see this logo, this product uses Infrared commands for control of the shade(s)

Radio Technology Somfy® (RTS) – When you see this logo, this product uses one-way Radio Frequency commands for control of the shade(s)

Somfy® Digital Network (SDN) – When you see this logo, this product uses an RS-485 network to allow full two-way control and status of the shade(s).

Common Control Nomenclature

The control system and user interface(s) generally are connected to the local area network and connect with our shades from one or both of the following networking topologies.

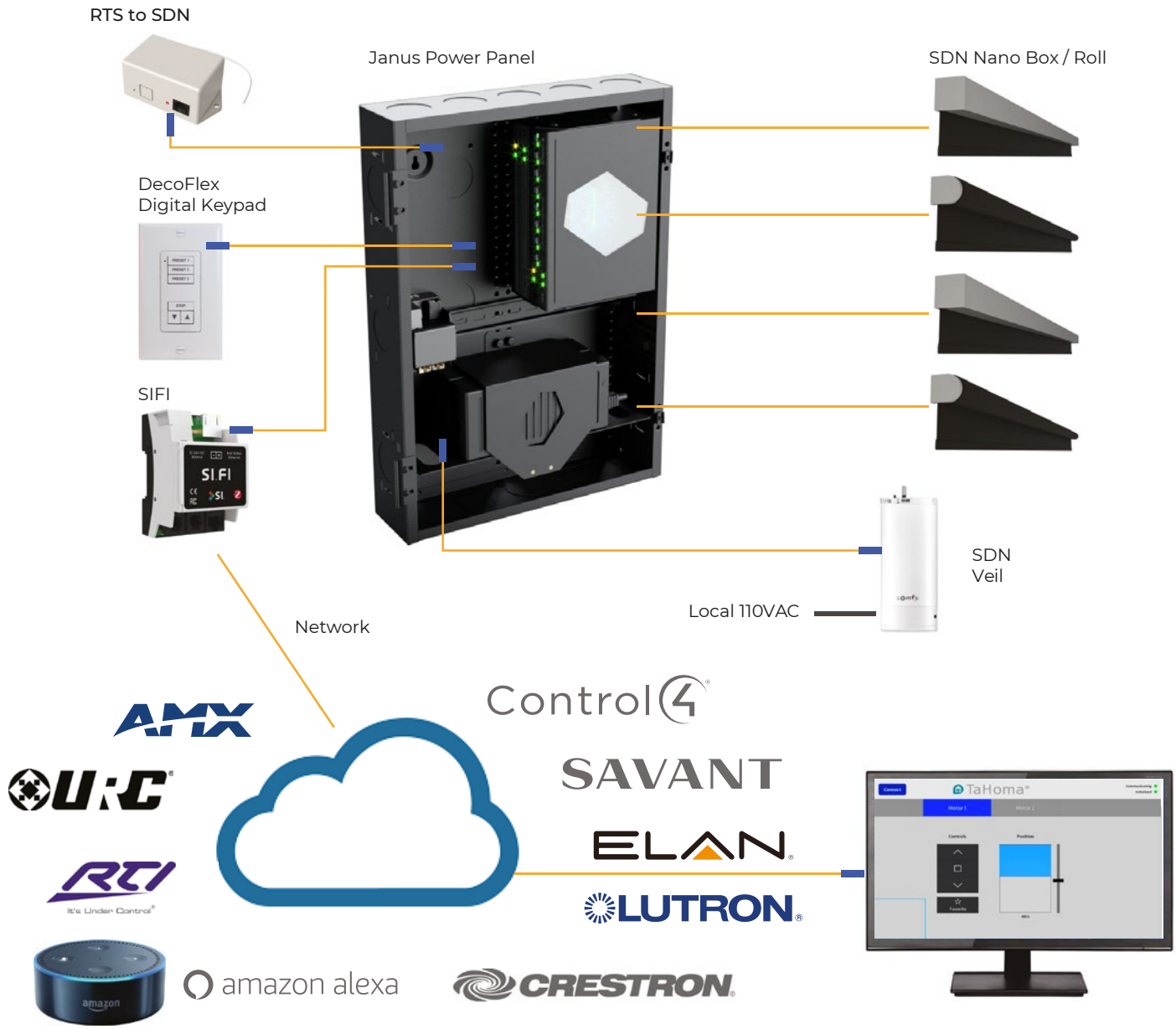


Two-way RS-485

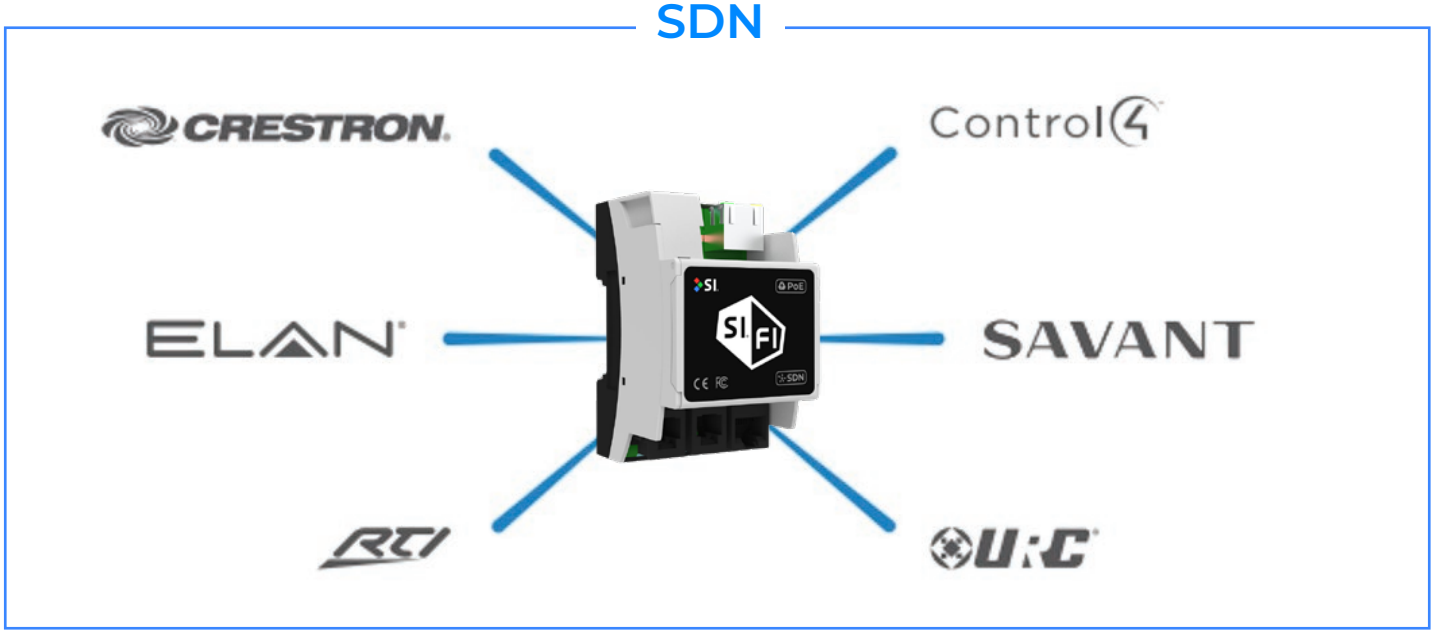
When two-way control is a requirement, then control signals are routed to the Screen Innovations SI.FI over the local area network using Internet Protocol and PoE.

These systems are partitioned into isolated bus segments. Each segment can support up to 255 Devices (shades, gateways, repeaters and other node devices)
Screen Innovations Shade System Control Options.

Screen Innovations Shade System Control Options

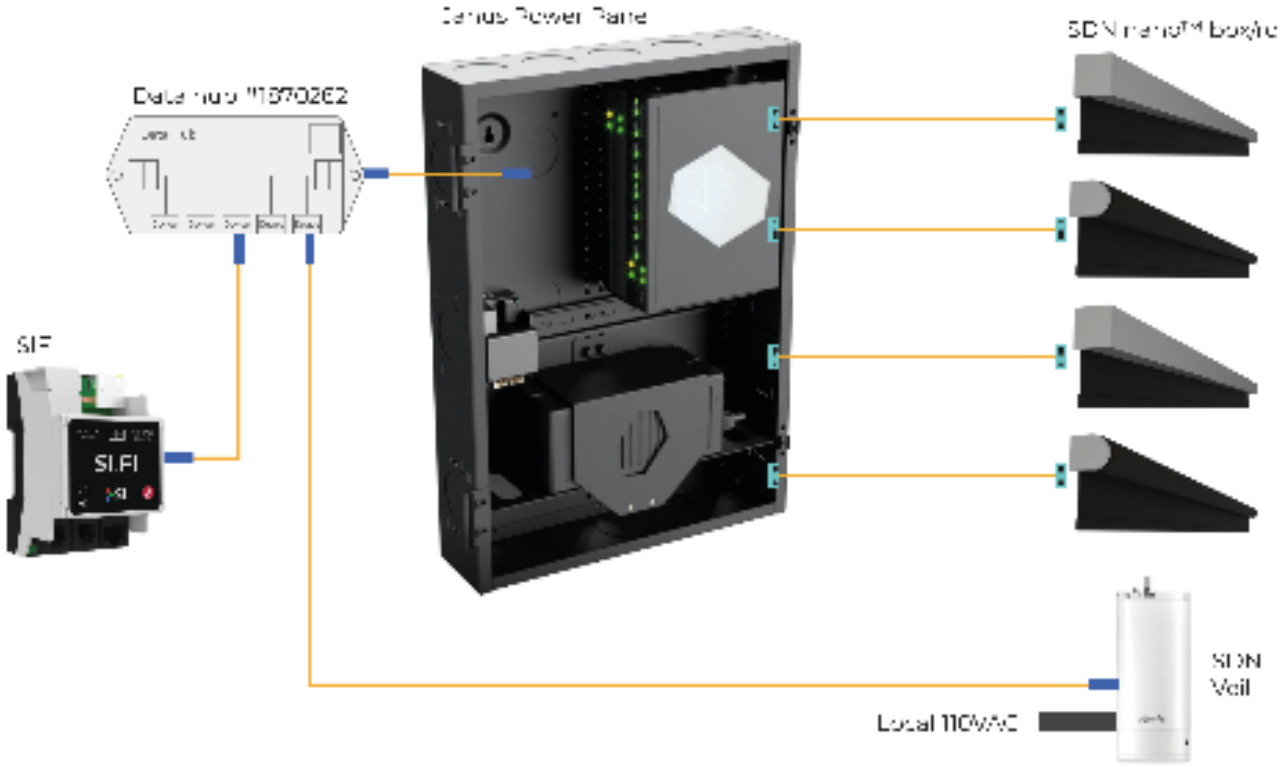


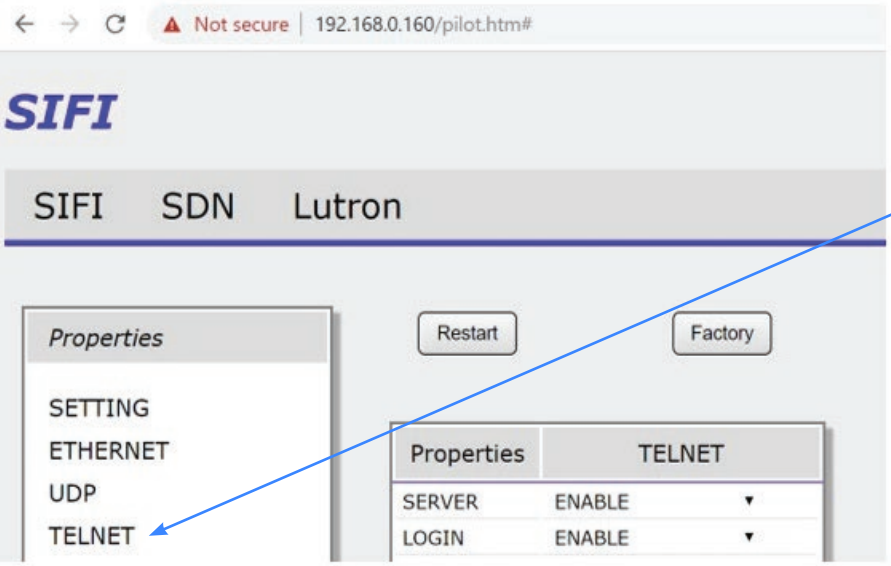
Integration with SDN



Before you begin your Integration with SDN

Requires a fully operational SI SDN system with all shade limits set (including the MY position if desired) and a fully commissioned SI.FI as well as a fully deployed Lutron HomeWorks system.





Open a browser and connect with the IP address of your SI.FI and navigate to the TELNET tab. You will need this telnet user name and password for identification.

The HomeWorks integration works with Group of Shade Motors, it does not integrate directly with individual shade motors. If single shade control is required, then a simple group or one shade can be programmed.

Integration with SDN via SI.FI

The SI.FI SDN Gateway allows for commissioning and integrating a Somfy Digital Network™ (SDN) over Internet Protocol (IP).

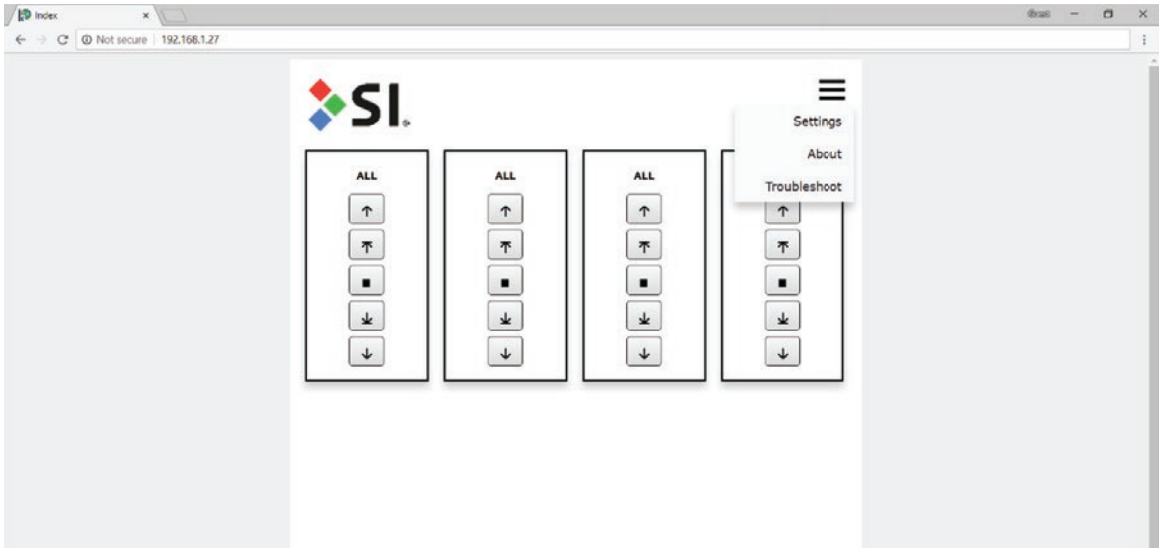
Embedded motor commissioning software streamlines SDN system configuration.

The SI.FI SDN Gateway is also compatible with the Somfy Synergy™ API as well as drivers from all popular home automation and control systems, making it easy to integrate custom automation programming.

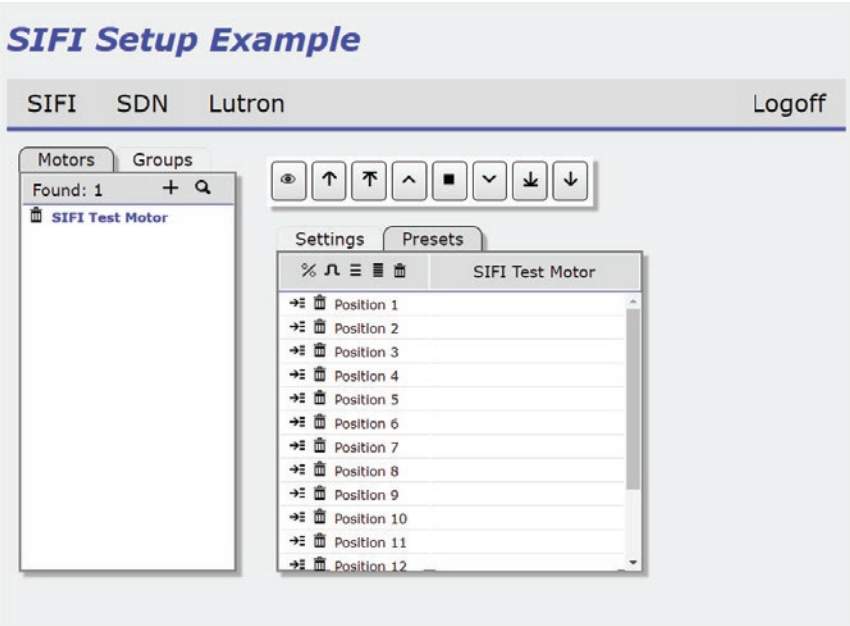
Step Process - To integrate SI.FI and Lutron

Before you begin please download the latest drivers from our site;
https://www.screeninnovations.com/accessories/si.fi

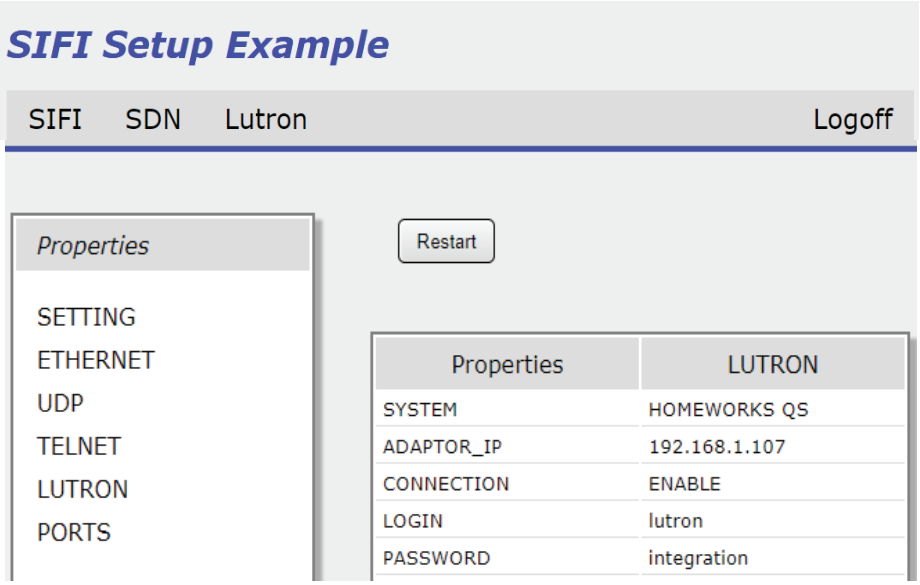
1. The HomeWorks integration works with Group of Shade Motors, it does not integrate directly with individual shade motors. If single shade control is required, then a simple group or one shade can be programmed.



2. Click on the “SDN” tab and then select the “Groups” tab to create the needed Groups for the project. Use the Plus sign (+) icon to create a new group in the Left-hand column of the menu, in the Right-hand side you can add the needed Motors to the new group by Right-Clicking the Motors in the menu and selecting the Group name from the list.

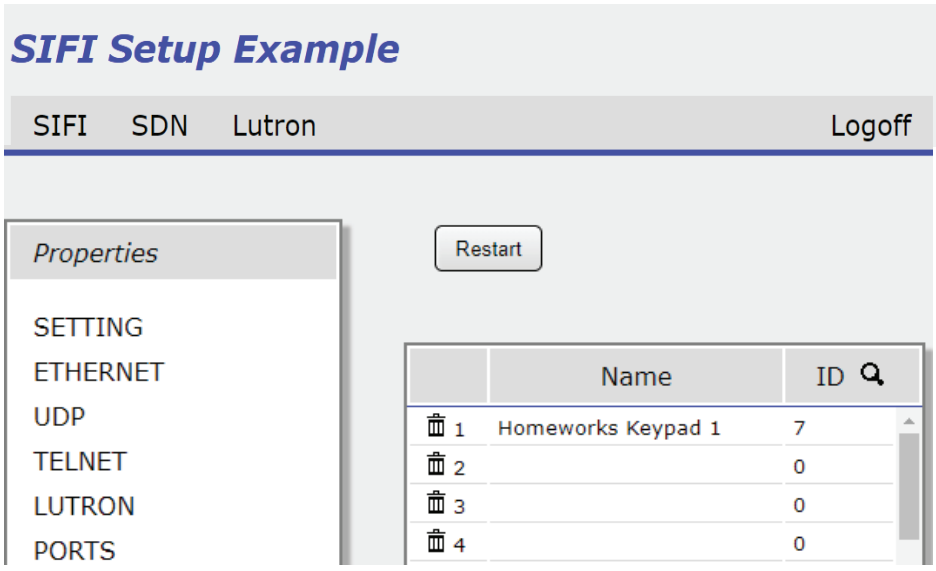


3. After All Groups have been created navigate back to the “SIFI” tab then Mouse-over the Lutron menu option and select the “Setup” option. Here we will Configure the SIFI with the Lutron Homeworks QS settings.



4. In the “LUTRON” column, Right-click the box next to “System” option and select the “Homeworks QS” option, in the “ADAPTOR_IP” box you will enter the Lutron Homeworks QS Processor IP Address, the “Connection” box will need to be set to “Enable” and then set the Lutron “Login” and “Password” settings accordingly (these will be created in the Lutron Config). After completing the changes, click on the “Restart” button to restart the SIFI.

5. Restarting the SIFI will return you to the Main Menu, Mouse-over the Menu option in the Top-Right-hand corner of the screen and select the “Settings” option. Mouse-over the Lutron menu option and select the “Devices” option. Here we will capture the Lutron Homeworks QS Button presses that will later be used with the previously configured Shade Groups.



6. Press a Button on a Lutron Homeworks QS keypad and then quickly press the “Find Device” icon in the “ID” column (icon is a Magnifying Glass) to capture the “Keypad Device ID”, if discovered properly the Device ID will populate in the next available slot in the “Name” column. You can now rename the Device ID to correspond with the correct Keypad.

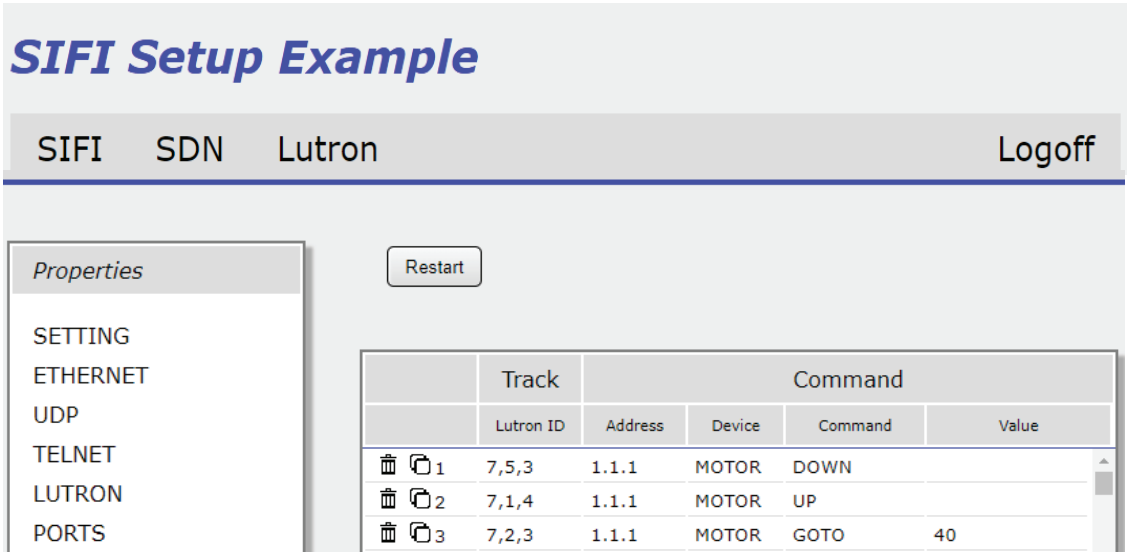
Note: This is a Keypad Device ID and does not correspond with the button pressed, it only signifies the Keypad itself. A cheat is included below that contains the Button Numbers assigned to the Lutron Keypads for later use.

7. After all needed Keypads have been captured and Identified we can now move on to the Keypad and Button configuration. Mouse-over the Lutron menu option and select the “Tables” option. In the Tables menu we will start with the “Lutron ID” column.

   a. Right-click in the first empty Box in the “Lutron ID” column and select a previously discovered Keypad from the list in the “ID” Drop-down menu.

   b. In the “Button” box enter the Keypads Button Number that you would like to associate with this function and then assign an “Action” as needed (default is “Press”).

   c. Click on the Add button to add this function to the Table (icon is an Arrow facing down).



8. In the “Address” column of the Tables menu we will need to assign the Group Address as needed for this function. These addresses can be found in the “SDN”>”Groups” section. The Group Addresses are created as: Group1 = 01.01.01, Group2 = 01.01.02, etc…, These addresses will need to be added in the Table as: 1.1.1 and 1.1.2 (the zeros are removed).

9. In the “Device” column, Right-click in the empty Box and select the “Motor” option.

10. In the “Command” column, Right-click in the empty Box and select the needed function. For the purpose of this document to show how to connect and configure the Shades with the Lutron Homeworks QS we are going to use the “UP” and “DOWN” commands.

    The last column in the Table is the “Value” column, this is used to apply a specific value to a function. E.g. If the “GOTO” function is selected in the “Command” column you could assign the “Value” of “40”, this will tell the selected Group to Move to 40 percent and Stop.

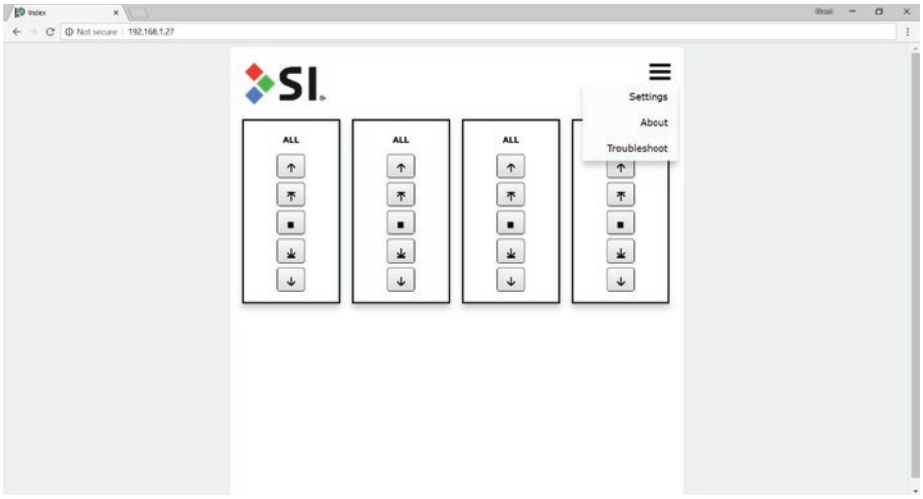
    After completing the creation of the needed Keypads and buttons we can now press the Keypad Buttons which we assigned earlier to test the Shade Groups for UP and DOWN functionality.

Note: Again as mentioned in the “Before you begin integration with SDN section of this document”, and before any attempts to Integrate the SIFI products, the SDN system will need to be completely setup including the Telnet User name and Password Information.

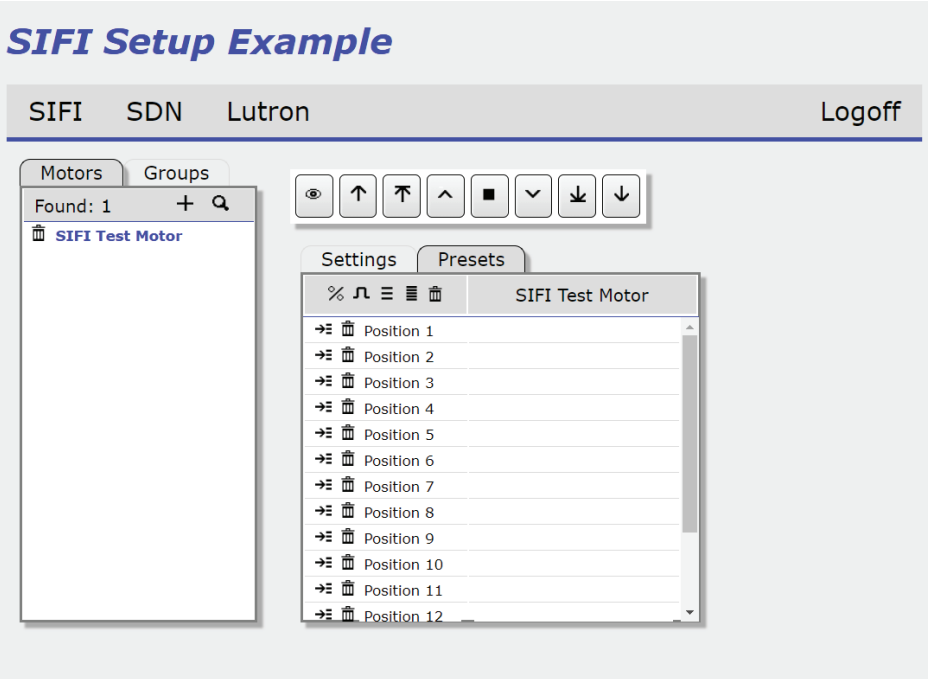
Step Process - To integrate SI.FI and Lutron Radio RA2

Before you begin please download the latest drivers from our site; https://www.screeninnovations.com/accessories/si.fi

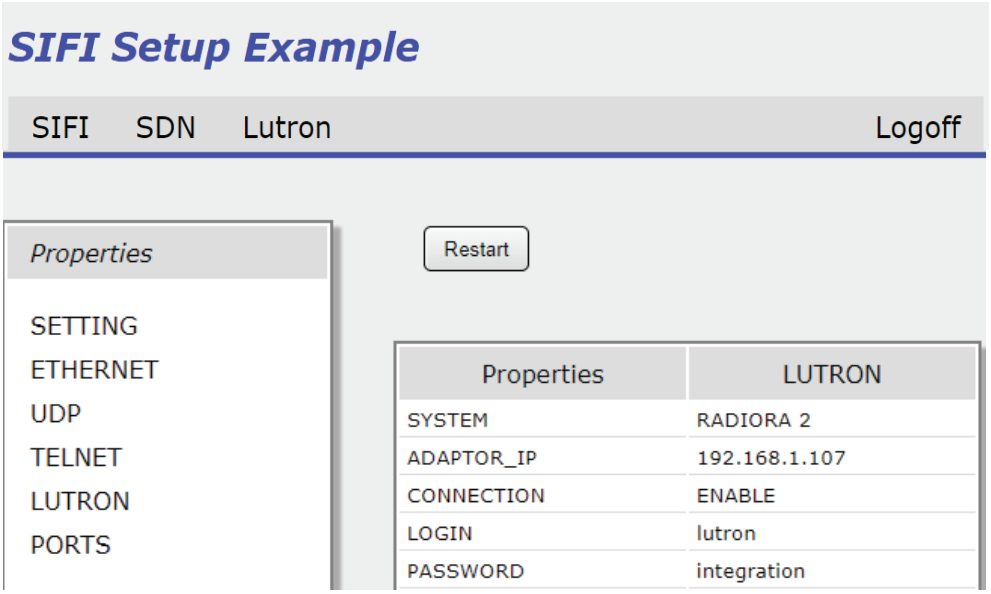
1. Navigate to the SI Pilot by entering the device IP Address into a web browser. Mouse-over the Menu option in the Top-Right-hand corner of the screen and select the “Settings” option.



2. Click on the “SDN” tab and then select the “Groups” tab to create the needed Groups for the project. Use the Plus sign (+) icon to create a new group in the Left-hand column of the menu, in the Right-hand side you can add the needed Motors to the new group by Right-Clicking the Motors in the menu and selecting the Group name from the list.

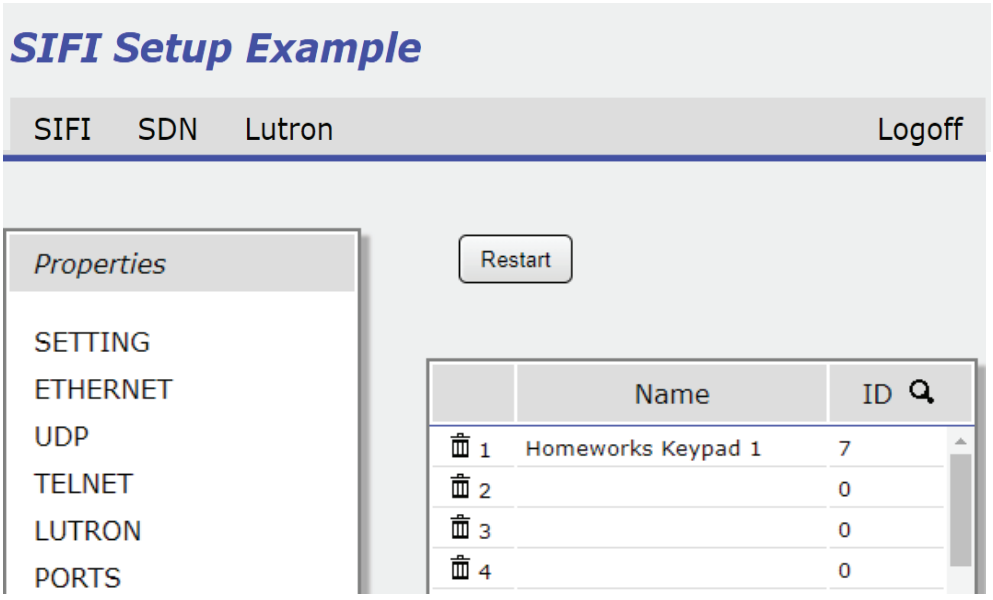


3. After All Groups have been created navigate back to the “UAI Plus” tab then Mouse-over the Lutron menu option and select the “Setup” option. Here we will Configure the SIFI with the Lutron Homeworks QS settings.



4. In the “LUTRON” column, Right-click the box next to “System” option and select the “RADIORA 2” option, in the “ADAPTOR_IP” box you will enter the Lutron Radio Ra2 Processor IP Address, the “Connection” box will need to be set to “Enable” and then set the Lutron “Login” and “Password” settings accordingly (these will be created in the Lutron Config). After completing the changes, click on the “Restart” button to restart the SIFI.

5. Restarting the SIFI will return you to the Main Menu, Mouse-over the Menu option in the Top Right-hand corner of the screen and select the “Settings” option. Mouse-over the Lutron menu option and select the “Devices” option. Here we will capture the Lutron Radio Ra2 Button presses that will later be used with the previously configured Shade Groups.



6. Press a Button on a Lutron Radio RA2 keypad and then quickly press the “Find Device” icon in the “ID” column (icon is a Magnifying Glass) to capture the “Keypad Device ID”, if discovered properly the Device ID will populate in the next available slot in the “Name” column. You can now rename the Device ID to correspond with the correct Keypad.

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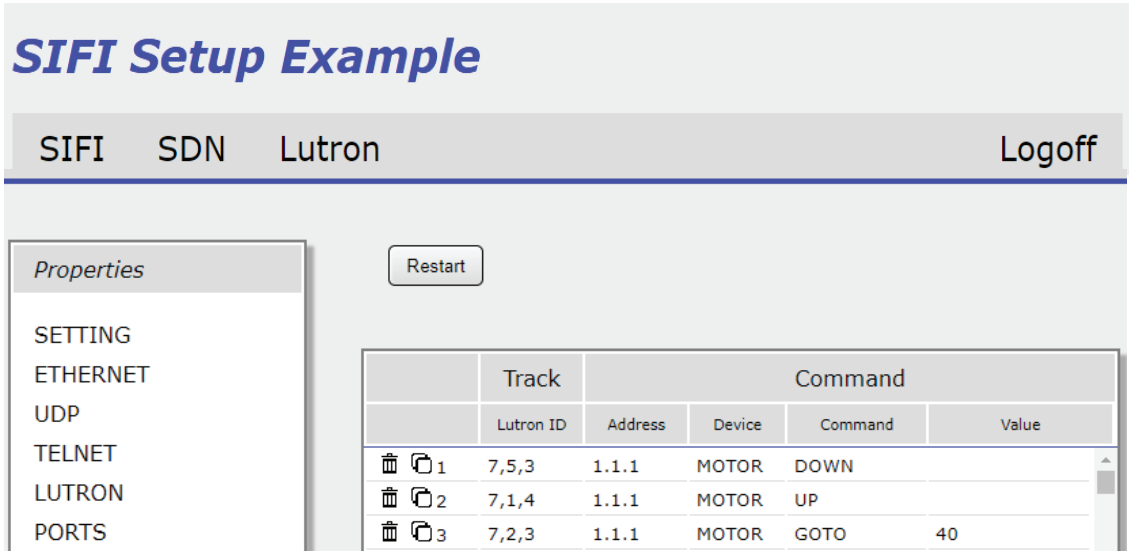

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After completing the creation of the needed Keypads and buttons we can now press the Keypad Buttons which we assigned earlier to test the Shade Groups for UP and DOWN functionality.

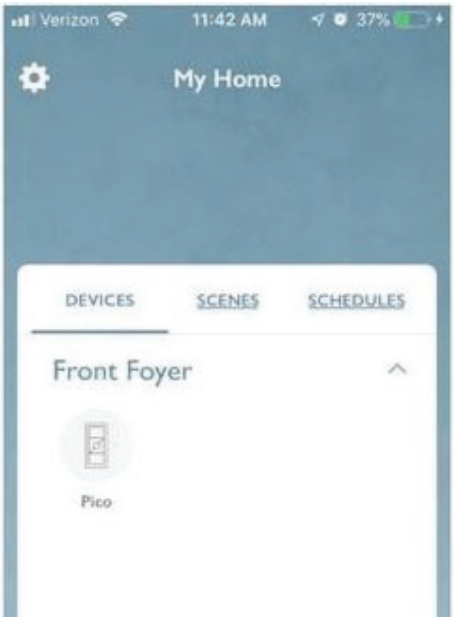
Note: Again as mentioned in the “Before you begin integration with SDN section of this document”, and before any attempts to Integrate the SIFI products, the SDN system will need to be completely setup including the Telnet User name and Password Information.

Step Process - To integrate SI.FI and Lutron RA2 Select

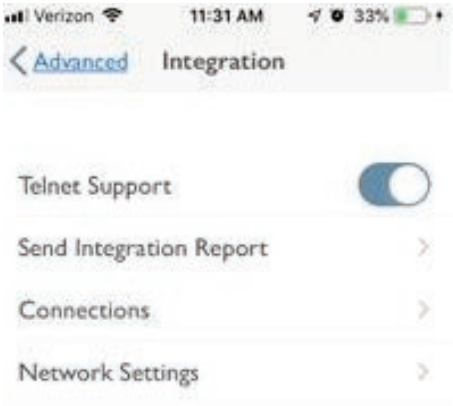
Note: These directions assume that you have already set up your Lutron App to integrate all keypads and triggering devices to might be used to control connected SIFI devices.

Before you begin please download the latest drivers from our site; https://www.screeninnovations.com/accessories/si.fi

1. Launch the Lutron Caséta and RA2 Select App



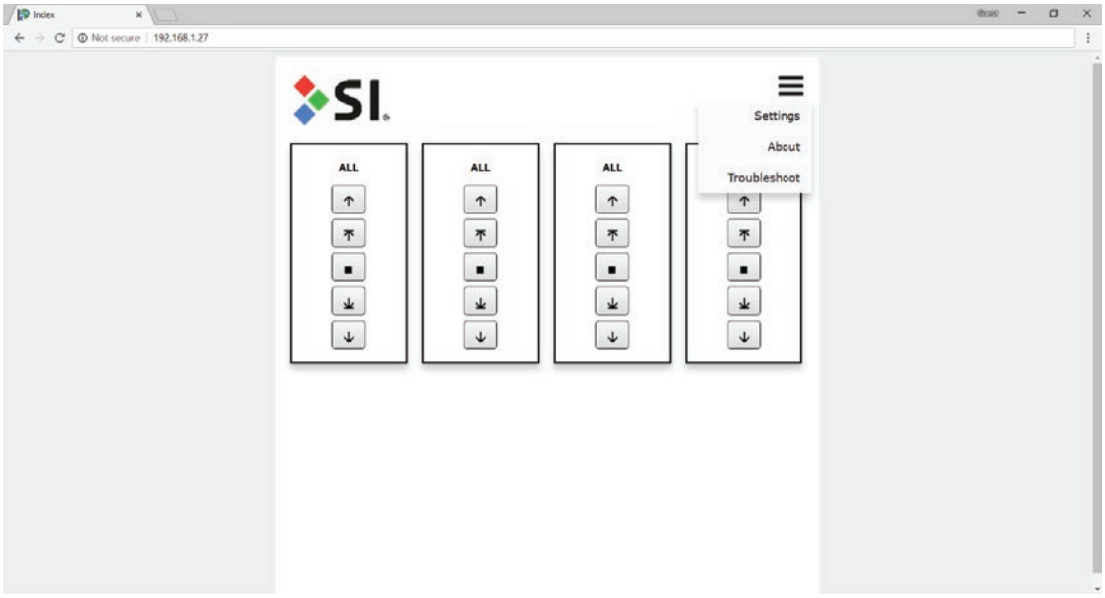
2. Within the Lutron App, select the Tools icon and select Advanced/Integration to reveal this screen.



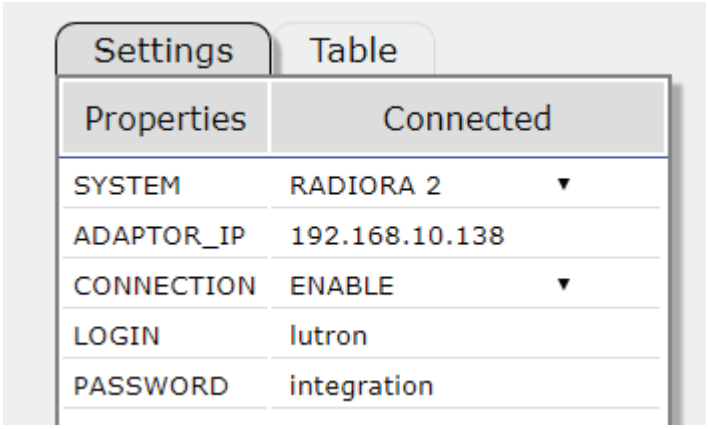
3. Turn on Telnet Support (this turns on a single Telnet socket that can be used with the Converging Systems e-Node).

Note: There is only 1 Telnet socket available in RA2 Select. Only one 3rd application can connect to RA2 Select at one time.

4. Navigate to the SI Pilot by entering the device IP Address into a web browser. Mouse-over the Menu option in the Top-Right-hand corner of the screen and select the “Settings” option.



5. Scroll to the Lutron Tab/Settings and select RadioRA2.



6. Enter the RA Select Main Repeater’s IP Address next to Adaptor IP

   For LOGIN and PASSWORD enter above values

7. For CONNECTION select ENABLE

   Wait for Status indicator to signal “Connected”

   Select the Lutron/Devices Tab within the SIFI Webpage

8. Press any button on an activated Lutron device (that has already been integrated within the RA2 App).

9. Select the Spyglass icon within the SIFI web app and discover the first activated Lutron device.

10. Proceed to discover each subsequent Lutron connected device to which you would desire control with SIFI Connected devices

Note: All devices discovered will appear as shown below. Feel free to click on any device to give it a new alias.

Next, select the Lutron/Table tab and start entering Motor or Lighting Commands linked to any particular Lutron Device ID/Button number

Note: Again as mentioned in the "Before you begin integration with SDN section of this document", and before any attempts to Integrate the SIFI products, the SDN system will need to be completely setup including the Telnet User name and Password Information.

Integration FAQ

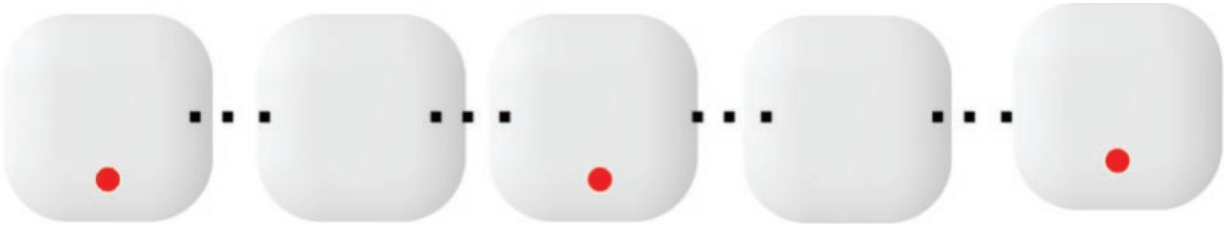
What do the different colors on the Link Pro LED indicate?

Blinking red to solid red indicated Link PRO is scanning for WiFi networks & will stop blinking when scan is complete. Rescan WiFi by clicking on setup button

Solid Green: Connect to the configured WiFi.

Slowly blinking Green: Link Pro is trying to connect to the configured WiFi network but cannot connect or has been disconnected.

Quick Red Flash: Link PRO is transmitting using the 433MHz radio



Solid Amber: Firmware is being updated.

Should I choose 2.4GHz or 5GHz for Link PRO?

Choose 2.4GHz if the home construction is concrete, or multi-floor, or stucco walls. Choose 5GHz if single floor, no concrete or stucco walls and if the project has a high noise floor at 2.4GHz or many other networks such as Zigbee or large 2.4 WiFi deployments. For more information on this please consult with the RTS DESIGN GUIDE available at www.screeninnovations.com

Which SI Shade products can I control with Lutron?

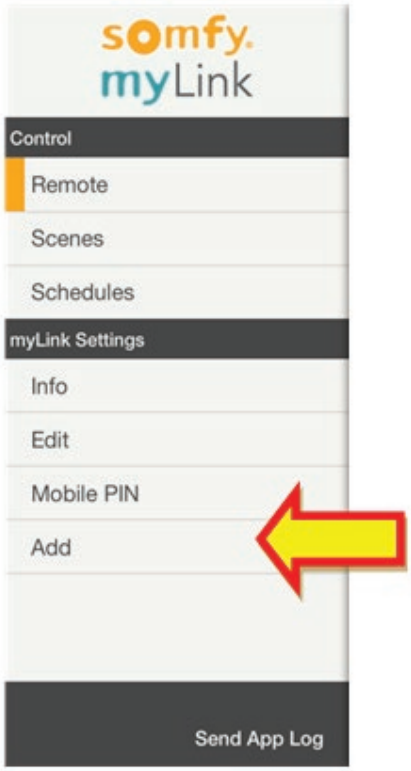
All SI Shade products including Nano and Zen 2 can be controlled with Lutron.

Which ports are needed for Link PRO control on my network?

55050
44040
40045
20000
44100
44200
1902

How do I update a Link PRO Network Settings to match my Control System?

- In the myLink App Open the Menu 
- Select ADD under “myLink Settings”



- Follow the instructions shown on your device to connect to your Link Pro

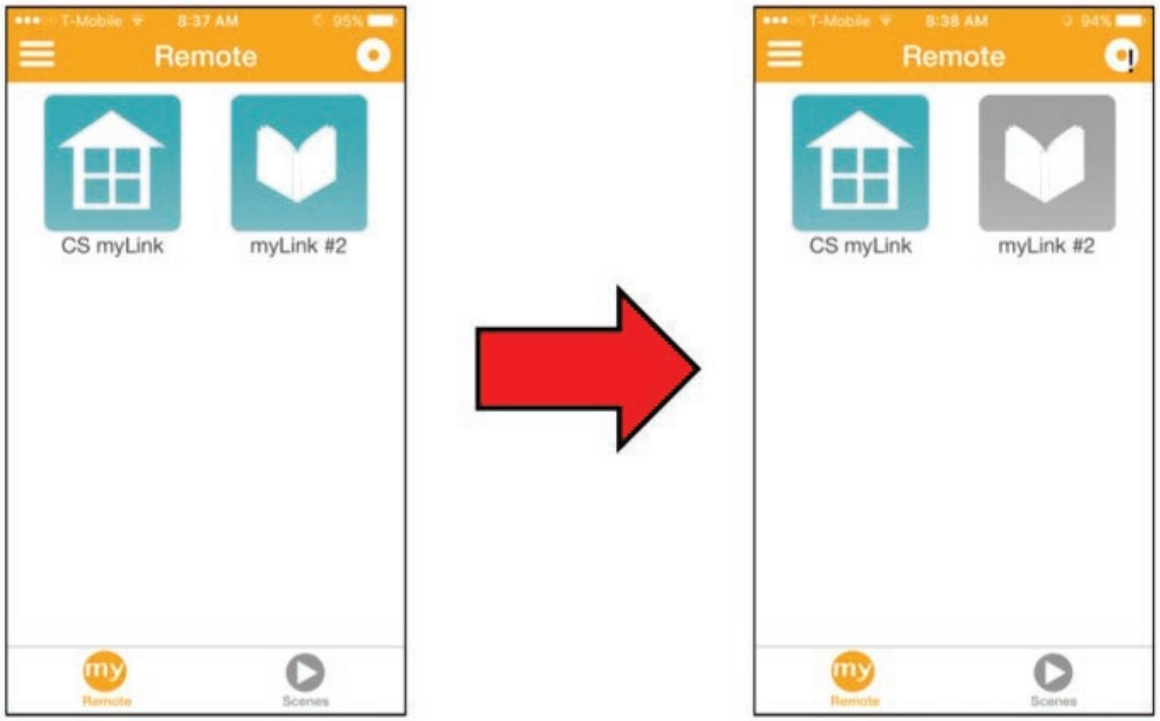
- After you select “Search for myLink”, you will need to select your network & current password for your network.

- Once you complete that and the Auto Configuration steps are finish, you will be asked if you would like to Erase or Continue.
- Select Continue, then you will see the icon for current Link PRO device.
  - Select Next, then you will see all your current channels.
  - Finally select Done as all your programming is still existing.

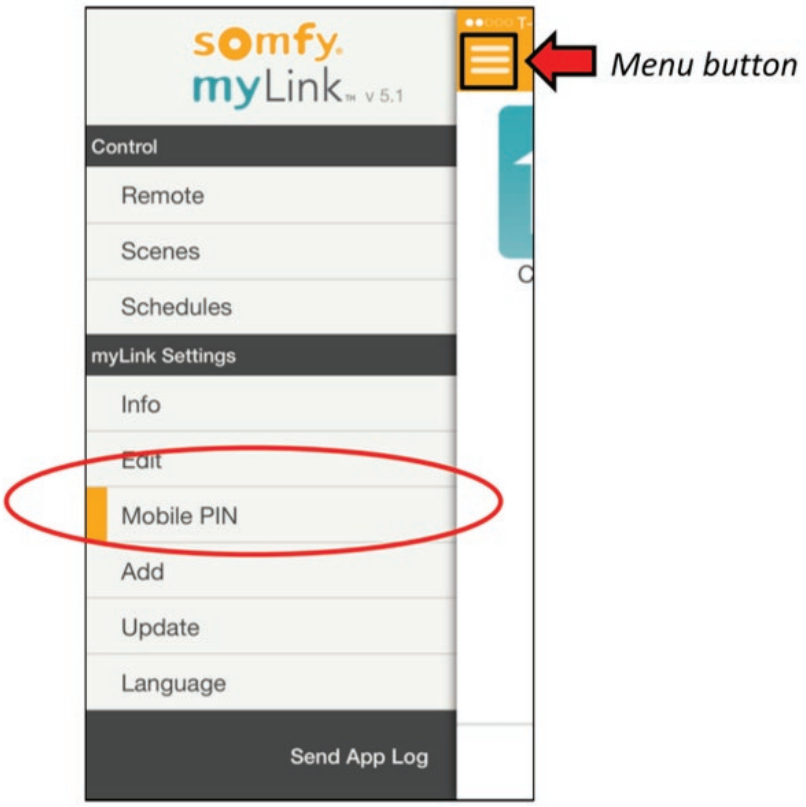
Once the first Link PRO has been successfully added, repeat the process to add the rest of the Link PROs.

How can I delete a Link Pro from the myLink app?

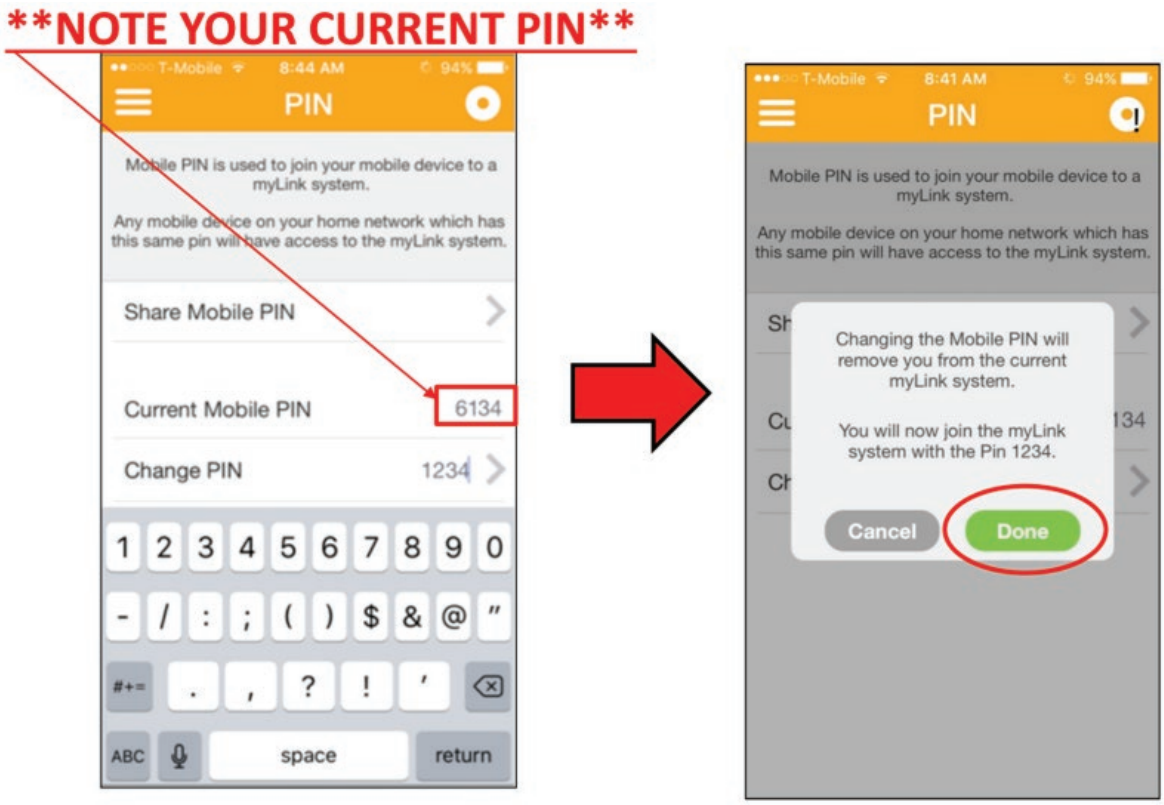
- Unplug Link Pro, and the Icon for it will go from Blue to Gray



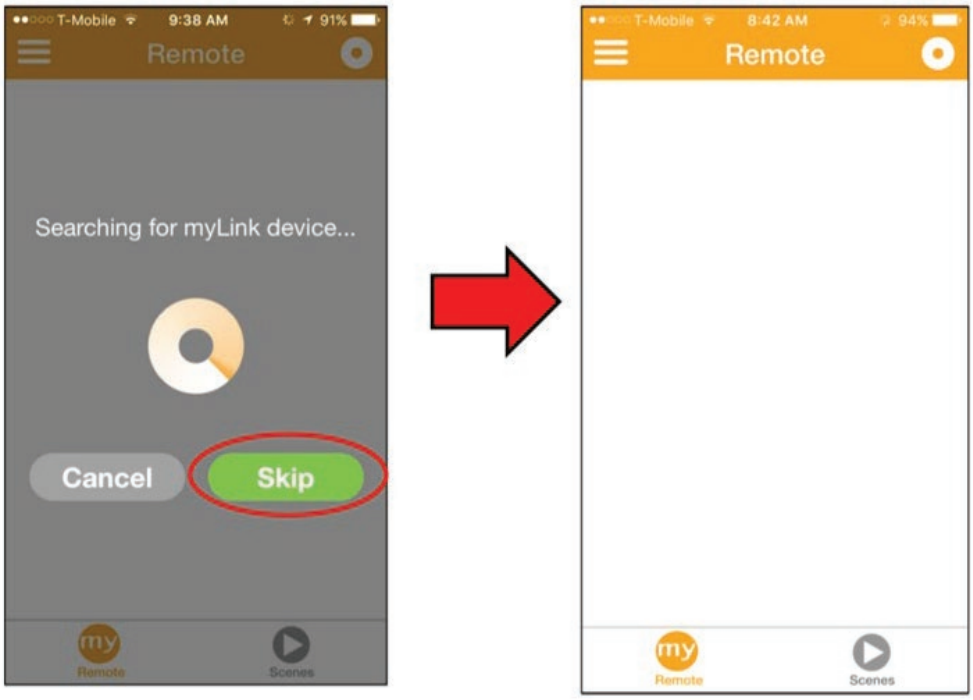
- Click Menu button, and select Mobile PIN.



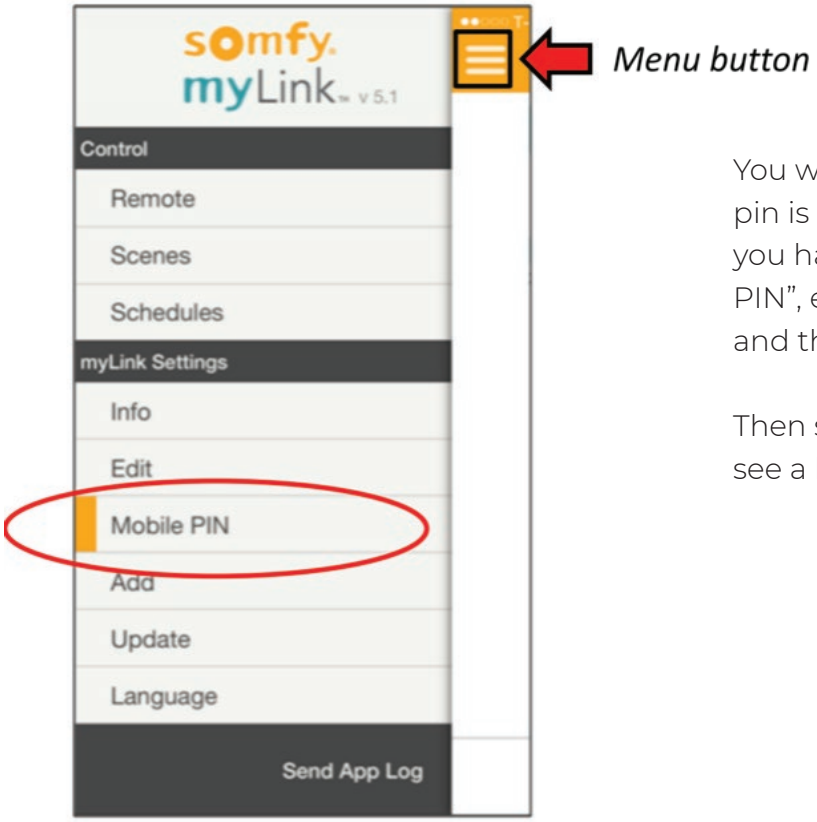
- Under “Change PIN”, enter random 4-digit number and select return. The select DONE



- Select Skip then you will see a blank page.



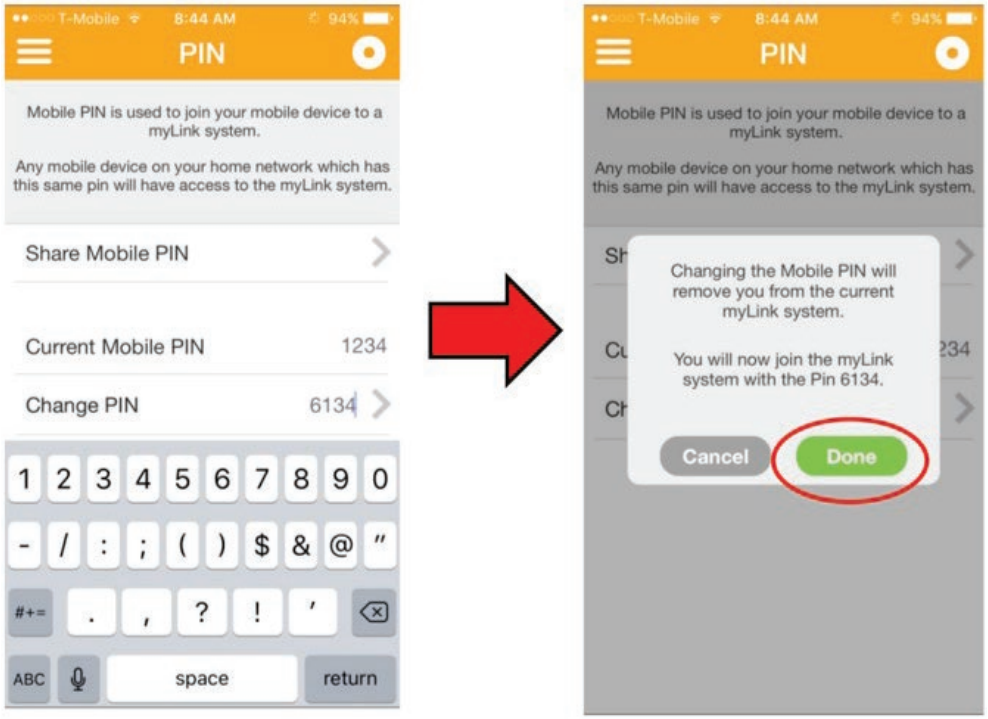
- Click Menu, select Mobile PIN.



You will see that the current mobile pin is now the different number that you had just entered. Under “Change PIN”, enter what your 4-digit PIN was, and then hit return.

Then select DONE. SKIP, then you will see a blank Remote page.

After selecting DONE, you will ONLY see your active Link Pro devices listed.



Screen Innovations Integration Support

https://www.somfypro.com/services-support/software

For more information and design help please call us at **512.832.6939**
or contact us at **www.screeninnovations.com**

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