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Somfy Systems Inc.



**Somfy Connect UAI+**  
**Intelligent Motor Controller**  
**Models: Somfy Connect UAI+**

Version 2.0.36

## Intelligent Motor Controller (Somfy Connect UAI+)

<b>1</b>	<b>MOUNTING INSTRUCTIONS</b> .....	<b>1</b>
<b>2</b>	<b>EXTERNAL POWER INSTRUCTIONS</b> .....	<b>2</b>
<b>3</b>	<b>COMMUNICATION/ LOW VOLTAGE AND CS-BUS WIRING INSTRUCTIONS</b> .....	<b>3</b>
3.1	SOMFY SDN NETWORK WIRING DIRECTIONS .....	3
3.2	ETHERNET COMMUNICATION WIRING DIRECTIONS .....	4
3.3	RS-232C COMMUNICATION WIRING DIRECTIONS .....	4
3.4	CS-BUS CONNECTIONS (RESERVED) .....	4
<b>4.0</b>	<b>SOMFY CONNECT UAI+ VERSION DISCOVERY</b> .....	<b>5</b>
<b>5.0</b>	<b>SOMFY SDN MOTOR PROGRAMMING</b> .....	<b>7</b>
	<b>APPENDIX 1</b> .....	<b>29</b>
	<b>LUTRON/SOMFY UAI+ SYSTEMS INTEGRATION PROCESS</b> .....	<b>29</b>
	<b>APPENDIX 2</b> .....	<b>43</b>
	<b>TECHNICAL INFORMATION-TECHNICAL INFORMATION RS232C INPUT</b> .....	<b>55</b>
	<b>APPENDIX 3</b> .....	<b>54</b>
	<b>BACKGROUND ON ADDRESSING</b> .....	<b>54</b>
	<b>APPENDIX 4</b> .....	<b>57</b>
	<b>TROUBLESHOOTING</b> .....	<b>57</b>
	<b>APPENDIX 5</b> .....	<b>61</b>
	<b>UPDATING FIRMWARE ON SOMFY CONNECT UAI+</b> .....	<b>61</b>
	<b>APPENDIX 6</b> .....	<b>63</b>
	<b>COMMUNICATION SYNTAX</b> .....	<b>63</b>
	<b>APPENDIX 7</b> .....	<b>52</b>
	<b>SPECIFICATIONS</b> .....	<b>52</b>

### FCC Statement

The IMC-300MKII-xx Controllers have been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### ICES

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NNB-003 du Canada

### Models

#### Versions

Somfy Connect UAI+

#### Ratings:

##### Input:

*Somfy Connect UAI+ , 12vDC-24vDC 300ma*

#### Load Capacity:

ALL Models: Load is dependent upon specific motor supported.

### Documentation Revision History

Revision	Date	Description
2.00.35	4/3/2017	New features
2.00.35b	4/5/2017	New features
2.00.36	1/3/2018	Lock Feature/Glydea

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**Description:**

The Somfy Connect UAI+ is designed to commission and to control residential and commercial bi-directional blind, drapery and projection screen Somfy SDN intelligent motors through IP (Internet Protocol) and RS-232c serial communication.

The Somfy Connect UAI+ enables third-party control from popular third-party integration systems including those from AMX, Control4, Crestron, Elan, Lutron, OnControls, RTI, Vantage and others.

**TO BE INSTALLED AND/OR USED IN ACCORDANCE WITH APPROPRIATE ELECTRICAL CODES AND REGULATIONS****Important Information:**

- Carefully read the instructions appropriate for your needs.
- This control must be installed by a qualified electrician.
- For supply connections, use wires rated for at least 75 C.
- Use Copper or Aluminum Conductors.
- For indoor use only.
- Do not connect Low-Voltage to Line-Voltage Power.
- Article 725-54(a), (1) Exception No. 3 (NEC) or Canadian CE Code Handbook, Rule 16-212, Sub rule (4) requires segregation between line voltage and Class 2 (low voltage) circuits. Low Voltage/network wires should enter enclosure boxes through separated openings. Also, conductors shall be separated by at least ¼" or segregated by barriers. Check with your local electrical inspector or compliance with local/national codes and wiring practices.
- Earth Ground terminal connection must be made as shown in wiring diagrams.
- Proper short-circuit and overload protection must be provided at the circuit breaker distribution panel. You can use up to a 20A maximum circuit breaker with adequate short-circuit breaking capacity for your installation.

**1 Mounting Instructions**

Your controller may be mounted near a network switch, or anywhere close to the beginning of a SDN network. Typically, the device is mounted on a DIN-RAIL either near an automation system or network switch.

**Directions**

- a. Determine location for device. Location should be in a dry location.
- b. 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.

## 2 External Power Instructions

The Somfy UAI+ can receive power in one of two ways.

- Separate 12v DC wall adapter
- Power over SDN bus

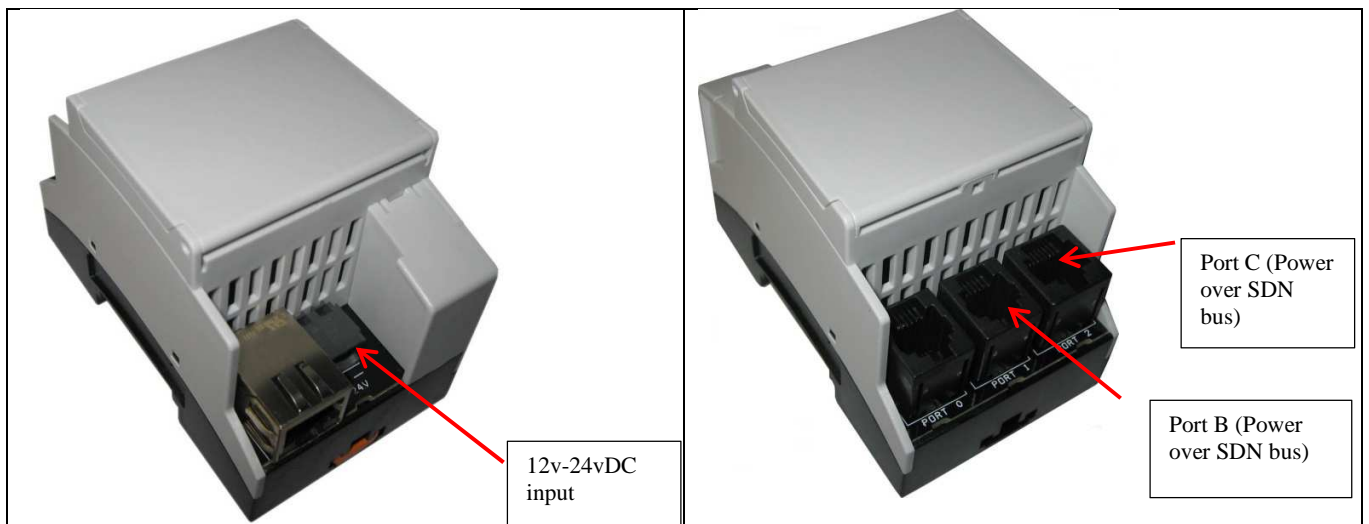


Figure 1

**IMPORTANT: MAKE SURE THAT THE AC POWER IS TURNED OFF PRIOR TO CONTINUING.**

### Directions

- If AC/DC adapter is being used, strip 1/4" (6mm) of insulation from end of DC output leads and connect to DC plug as shown in [Figure 2](#).
- If Power over SDN bus is being used alternatively, simply connect an Ethernet (CAT 5 or better) into either Port 1 or Port 2 of the Somfy Connect UAI+ and connect the other end to a Somfy Data Hub.

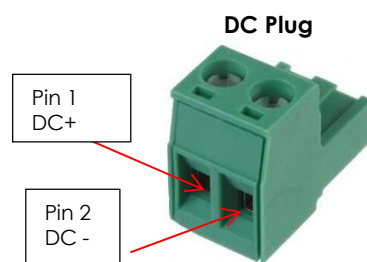


Figure 2

- Leave AC Power OFF to system until requested to turn ON.

### 3 Communication/ Low Voltage and CS-Bus Wiring Instructions

Multiple communication I/Os are available within the Somfy Connect UAI+ motor controller. Typically, only one form of communication should be used. The choice depends upon your specific integration platform. It is recommended that for most systems, Internet Protocol (IP) should be used. IP offers up to 328 ft. runs from the control system (as opposed to 50 feet runs with RS-232c), and remote diagnostics by Somfy is possible only using IP.

Please select the appropriate communication protocol desired from section 3.1 or 3.2 below then proceed to section 3.3 for additional systems low-voltage wiring for proper system integration.

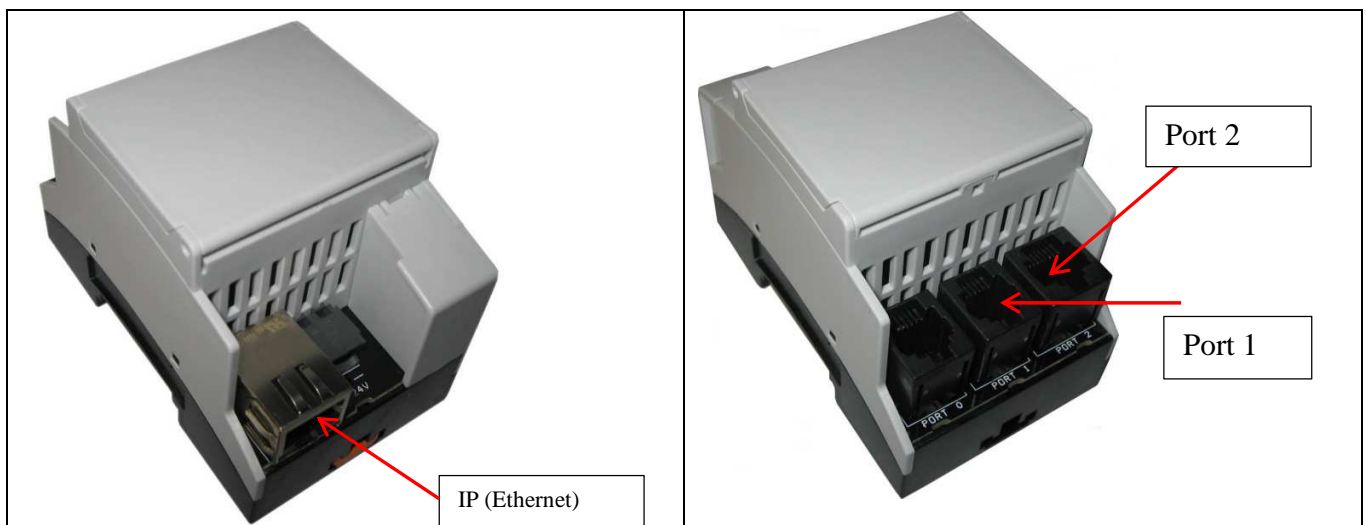


Figure 3

#### General Information:

- **For SDN Motor Bus Connections** – 22-24 AWG CAT 5 (or better) interconnect wires with maximum length of run of 328 feet (100m).
- **For Ethernet Connections** -- Use 22-24 AWG CAT5 (or better) interconnection wires with maximum length of bus less than 328 feet (100m) for Ethernet connections.
- **For Serial Connections** -- Use 22-24 AWG CAT5 (or better) interconnect wires with maximum length of bus less than 50 feet (15.25m).
- **For CS-Bus Connections** -- Use 22-24 AWG CAT5 (or better) interconnect wires with maximum length of bus less than 4000 feet (1219m) (if using 4 pair wire, simply do not use the Brown and Brown/White of 4<sup>th</sup> pair wires).

#### 3.1 Somfy SDN Network Wiring Directions (Internet Protocol). ([See Figure 3 above.](#))

##### Directions

- a. Prepare SDN communication wire (Cat5 or better) with RJ-45 connectors on each end. Do not exceed the maximum run of \_\_\_ feet (\_\_\_ meters) if running to a Somfy Data Hub.
- b. Plug one end of the above cable into the **Port 1** or **Port 2** on the Somfy Connect UAI+ and the other end to a Somfy Data Hub.

**3.2 Ethernet Communication Wiring Directions** (Internet Protocol). ([See Figure 3 above.](#))

**Directions**

- a. Prepare Ethernet communication wire (Cat5 or better) with RJ-45 connectors on each end. Do not exceed the maximum run of 328 feet (100 meters).
- b. Plug one end of the above cable into the **IP (Ethernet Port)** on the Somfy Connect UAI+ and the other end to a network switch through which control to a remote integration platform is connected.

**3.3 RS-232C Communication Wiring Directions** (Serial-RS-232c Protocol). ([See Figure 3 above.](#))



**Figure 4**

**Directions**

- a. Prepare CAT5 re-purposed communication wire (Cat5 or better) with RJ-45 connectors on each end. Do not exceed the maximum run of 50 feet (100 meters).
- b. Plug one end of the above cable into the **Somfy RJ-45 Dongle** (see Figure 4 above) and the other into Port 1 or **Port 2** on the Somfy Connect UAI+ (whichever is **not** being used for the SDN network connection).

**Note:** In case you wish to create your cable wire without using the Somfy dongle, use the pinout below:

RJ-45 (Somfy Connect UAI+ Plus)*	DB-9(F)	(from computer)
1 (blue)		Not required
2 (orange)		Not required
3 (black) Rx	3	PC Tx
4 (red)		Not required
5 (green)		Not required
6 (yellow) Tx	2	PC Rx
7 (brown) Ground	5	Ground
8 (white)Ground		Not required
		Not required

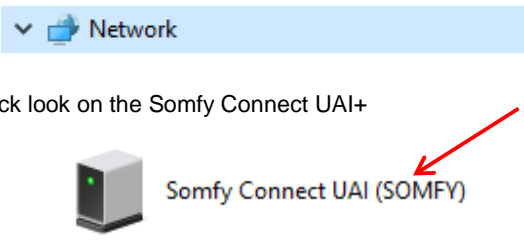

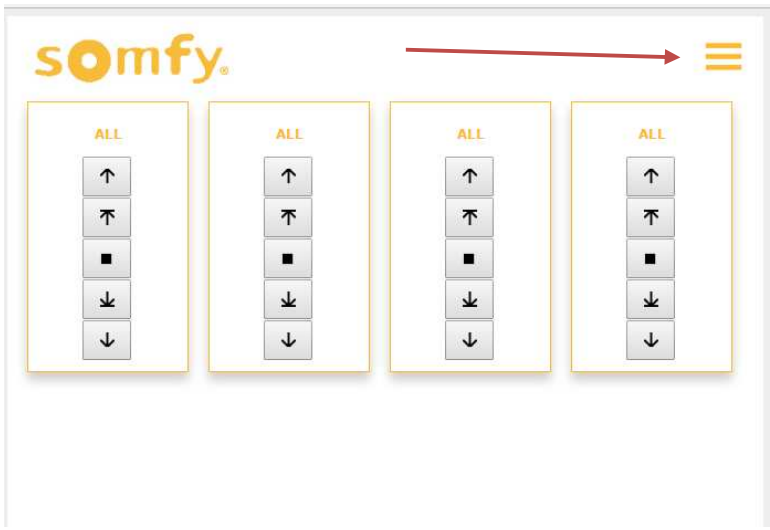
The serial parameters are as specified below

Baud	Data Bits	Parity	Stop Bits	Handshaking
9,600	8	N	1	none

**3.4 CS-Bus Connections (Reserved)**

## 4.0 Somfy Connect UAI+ Discovery

After low-voltage communication and power connections are made within Step 3 above, it is time to discover the Somfy Connect UAI+ and perform some simple network setup tasks. Follow the below instruction:

Step	Overview	Detail
UAI-1	Discover <b>Somfy Connect UAI+</b>	<p>If using a Windows Operating systems, using Windows Explorer, open the Network Tab,</p>  <p>and double click look on the Somfy Connect UAI+</p> <p><b>Note:</b> The Somfy Connect UAI+ is currently supported by the Google Chrome™ browser, should your computer use by default an alternative browser simply open the <b>Somfy Connect UAI+</b> discovered above with any browser and if it is not Chrome, simply copy the network address that presents itself at the top of the page into the Google Chrome address bar, open the web page and proceed to the next step.</p> 
UAI-2	Launch <b>Somfy UIA Settings/Configuration</b> software (embedded within <b>Somfy Connect UAI+</b> )	<p>Double click on the menu tab from the Somfy home page.</p> 
UAI-3	Configure Static (or DHCP) addressing	<p>Typically, static addressing is used with most third-party automation systems. By default for ease of discovery, the Somfy Connect UAI+ is factory configured with <b>DHCP Enabled</b>. To change it to Static addressing follow the below instructions.</p>



-Select the **ETHERNET** tab, and the following box should appear

**SOMFY**

**e-Node**

*Properties*

- ENODE
- ETHERNET**
- UDP
- TELNET
- LUTRON
- PORTS

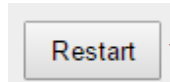
Restart

Properties	ETHERNET
IP_ADD	192.168.10.7
DHCP	ENABLE
STATIC_IP	192.168.10.36
NETMASK	255.255.255.0
GATEWAY_ADD	192.168.10.1
MAC_ADDRESS	00.1B.C5.00.02.27
PROTO_UPNP	ENABLE

-Review the **DHCP** entry, the factory default is ENABLE which means **DHCP** is activated. DISABLE for **DHCP** refers to static IP addressing. If you wish to set a **STATIC** IP address, enter the following variables *in the order specified below*:

<b>STATIC_IP</b>	xxx.xxx.xxx.xxx	Your new static IP address
<b>GATEWAY_ADD</b>	xxx.xxx.xxx.xxx	Typically the address of your network's gateway
<b>DHCP scheme</b>	Set to <b>DISABLE</b>	Now reboot the UAI e-Node for this to take effect.

-After making any network changes, select the **Restart** Button to activate the network changes.



**Note:** It is recommended that only STATIC addressing be used with most third-party integration platforms.

UAI-4 Ports Settings

-Select the Ports tab. Make sure a standard CAT5 cable is plugged between Port 2 of the Somfy Connect UAI+ and an available output RJ-45 port on a Somfy Data Hub.

-Verify that within the **e-Node/Ports** setup window, that **Port 2** is to set to Somfy (TBD).

*Properties*

- ENODE
- ETHERNET
- UDP
- TELNET
- LUTRON
- PORTS**
- PORT-0
- PORT-1
- PORT-2

Restart

Properties	PORTS
TYPE	SOMFY


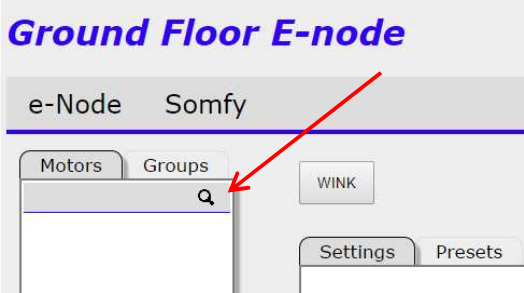
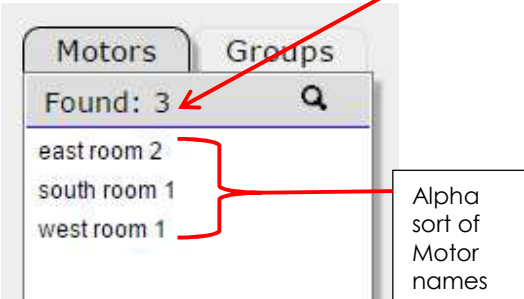
## 5.0 Somfy SDN Motor Programming

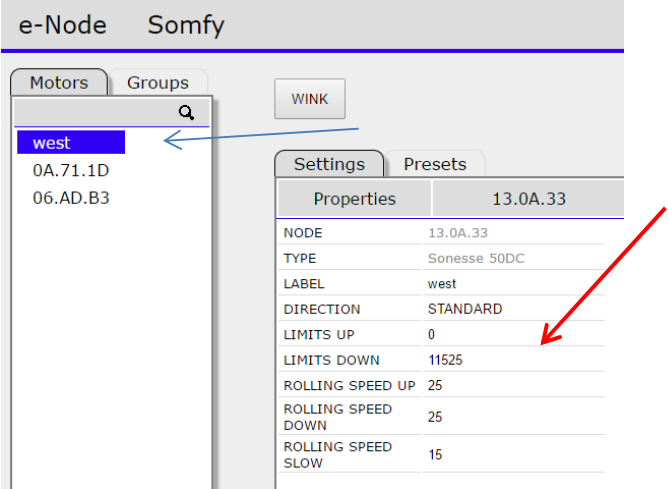
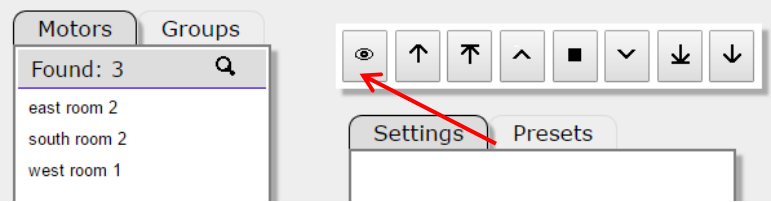
Before an SDN motor can be controlled by a third-party automation system or lighting system, each motor must be (i) initially discovered and (ii) its limit stops set.

Then, motors must be assigned to one or more Groups that will be used as a control address by a third party automation systems. And, motor labels (or aliases) should be set for ease of identification when programming. Optionally, Intermediate Presets can be set as well as additional linkages of motors to additional Linked Groups. These steps are summarized below. All **Mandatory** steps should be completed initially. **Optional** steps can be completed at any time.

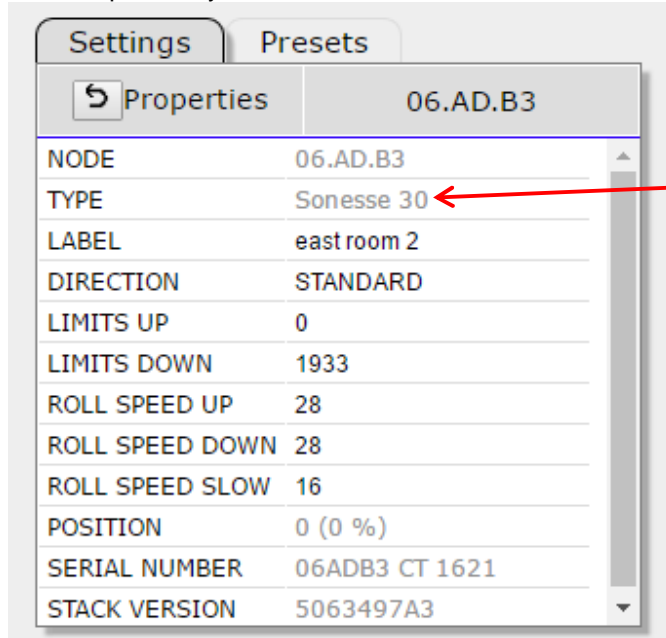
Step	Requirement	Section
Motor Discovered and Settings Displayed	<b>Mandatory</b>	<a href="#">Section 1 Steps MD-1-MD-2</a>
Limit Stops Set	<b>Mandatory</b>	<a href="#">Section 1 Steps MD-5</a>
Set Motor Direction	<b>Mandatory</b>	<a href="#">Section 1 Steps MD-4</a>
Motor Assigned to at least one Group	<b>Mandatory</b>	<a href="#">Section 2 Steps GA1-GA2</a>
Motor Assigned to overlapping or multiple Groups	Optional	<a href="#">Section 2 Steps GA3-GA4</a>
Motor Label (or alias) assigned	<b>Mandatory</b>	<a href="#">Section 1 Step MD-3</a>
Intermediate Presets assigned	Optional	<a href="#">Section 3 Step IP-1to IP-2</a>
Intermediate Presets Aligned to Groups	Optional	<a href="#">Section 3 Step IP-3</a>

### Section 1-Motor Discovery and Limit Stop Setting

Step	Overview	Detail
MD-1	Discover all Motors on SDN Network	<p>-Select the <b>Somfy</b> Tab and then the <b>Motor</b> tab on the Left Selection Window and click on the <b>Spyglass</b>  icon</p>  <p>-All discovered motors on the SDN network will populate within the Left Selection Window. If motors are discovered for the first time, the HEX address (i.e. 13.0A.33 as seen below) for each motor will appear. After a scan of motors has occurred in Step xx below, the alias of each motor will appear instead (i.e. "east"). Those entries will automatically sort in alpha format. In addition a motor count will automatically appear below the Motor tab entry.</p> 

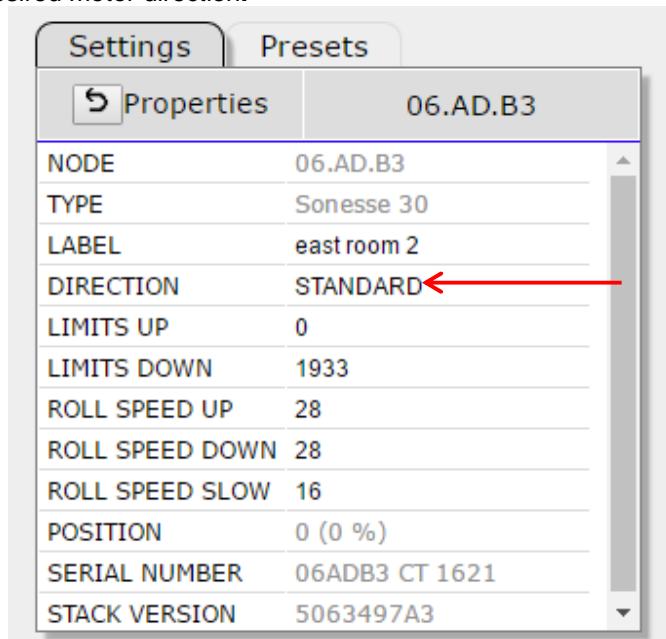
		<p>Provided that Motor Labels have been assigned in Step MD-xx below, any subsequent opening of the above Motor window will display the Motor Label names (Alias Name) in lieu of the Hex entries shown above.</p> <p><b>Other Tools:</b> Various other operations are also possible.</p> <ul style="list-style-type: none"> <li>TBD.</li> </ul>
MD-2	Discover additional detail/settings for each motor sequentially	<p>-Select within the <b>Motors/Left Discovery Window</b> the first motor or any motor that you wish to discover additional detail/settings.</p> <p>-Click on the <b>HEX</b> address (or alias name if already set) and within a few seconds all discoverable detail for that motor will appear within the <b>Settings/Right Data Window</b>. Once that information is made available within the <b>Settings/Right Data Window</b>, the information is temporally stored within a short term cache within the Somfy Connect UAI+ Web Server and be accessed more quickly in the future (provided the Somfy Web Server has not been closed) (TBD)</p>  <p>-If you simply want to see all available information on another motor (or all motors), simply select the targeted motor within the <b>Motors/Left Discovery Window</b> and proceed until all motors have been discovered and information cached within the Web Server.</p>
MD-3	Set Motor Label (alias name)	<p><b>Background.</b> Often within installations, duplicate motors of the same type may exist. A special command called <b>Wink</b> is available to quickly jog up and down (“wink”) a specific motor for a few seconds to verify its particular location before an applicable alias should be assigned. Within the <b>Motors/Left Discovery Window</b>, select the Motor to be identified, and click on the Wink button.</p> 

-Within the **Settings/Right Data Window** enter a recognizable name under label. After this name is entered, the HEX representation of that motor will be replaced by the motor label.



MD-4 Set **Direction** of Motor

-Within the **Settings/Right Data Window** select from available choices the desired motor direction.

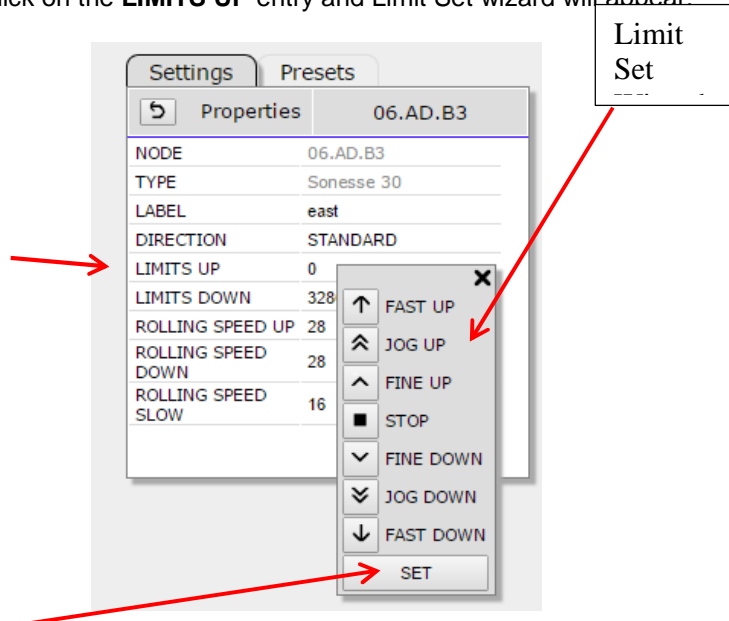


MD-5 Set Limits Stops of Motor (UP and DOWN)

**Background.** If the Limit Stops of a motor have not been set, you will see some larger numbers populated under **LIMITS UP** and **LIMITS DOWN** (65536 or similar). Until the Limits (UP and DOWN) **are both set**, it will be impossible to actually control the motor from a third-party automation system or from the Virtual Keypad. Typically the Motor LIMITS UP (Upper Limit) is set first and then the LIMITS DOWN (Lower Limit) is set thereafter. Since the Motor is usually mounted in

the rolled-up position, setting the LIMITS UP as the first operation is intuitive and most logical.

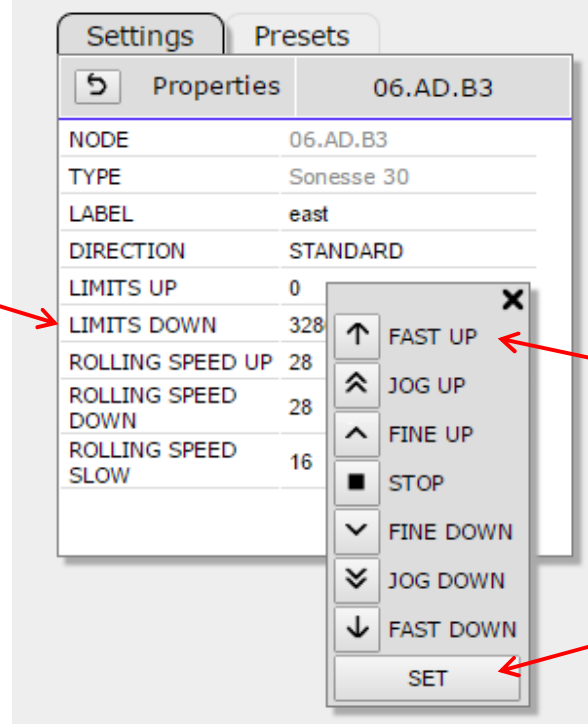
-Right click on the **LIMITS UP** entry and Limit Set wizard will appear.



-Select from the various navigational commands to move the motor to the appropriate **LIMITS UP** position. When satisfied with setting, select **SET**.

**Note:** Depending upon the motor, you may need to select a directional button numerous times to locate the window/door fabric to the desired LIMIT UP or LIMIT DOWN position.

-Next select the **LIMITS DOWN** entry and again the **Limit Set Wizard** will appear. Select from the various navigational commands to move the motor to the appropriate Lower Limit. When satisfied with setting, select **SET**.

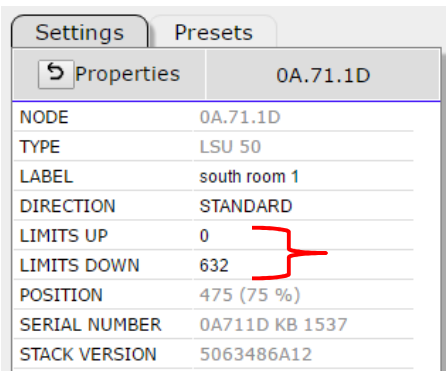


**Note:** if the Motor appears unresponsive it may be necessary to select the Reset Motor selection (↻) next to the Properties label and re-start the process as described above. Remember that once you select the Motor reset button, all stores alias names, group addresses, and all other customized entries will be reset. Be careful here.

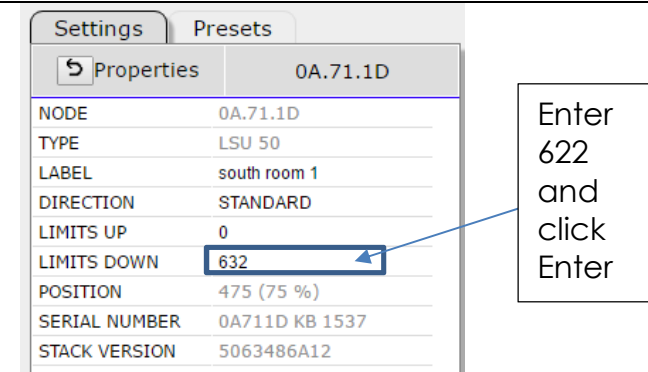
MD-6 Alternative method of setting Limit Stops

**Background.** The traditional manner documented in Step MD-6 above is quite suitable for most **LIMIT UP/DOWN** applications. However occasionally, it might be useful to be able to adjust **LIMIT** Stop(s) with actual pulse counts entries. This step describes this process

In this example, it will be assumed that LIMIT stops have already been assigned in MD-5 above and as a consequence their settings appear below (i.e. Limits Up=0 and Limits DOWN=632).



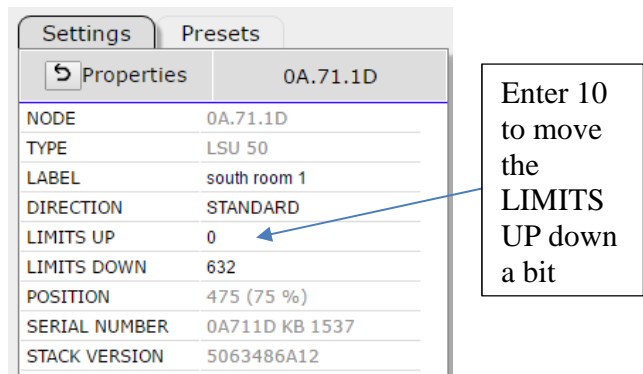
-In order to adjust a previously set LIMIT DOWN entry, click on that entry until you see a blue data entry box surround the current settings. Simply enter in pulse counts a new number. Let's assume we want to bring up the bottom (LIMIT DOWN) a little bit (i.e. by 10 pulse counts). Here just enter 622 (632-10) and click enter.



The new **LIMITS DOWN** will not be stored as 622 , or just a little bit higher for the LIMIT DOWN setting.

-Next, let us try to change a previously set **LIMITS UP** setting. Please understand, that *whatever number is entered will internally be stored within the targeted Somfy motor*. However, for display purposes in the User Interface (GUI), the LIMITS UP GUI entry will remain as “0” although the LIMITS DOWN entry will automatically change by the amount of the entered change. The concept here is that the LIMITS UP will always be “0” but if it is changed, the LIMITS DOWN will appear in the GUI as an autogenerated number (non-user entered number).

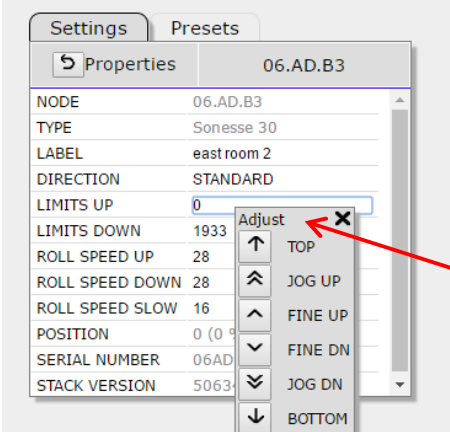
For this example, let us change the LIMITS UP enter by a delta of 10 in the downwards direction. Enter 10 in the LIMITS UP box and hit Enter.



See the table below to show the impact of making Pulse position entries using this manual method.

Examples of Manual Changes	New Manual Setting	Setting sent to Motor	Setting displayed in GUI
<b>LIMITS DOWN</b> Initial Setting= <b>632</b>	<b>622</b> (a little up from the original position)	A delta (up) of <b>10</b> pulses for LIMIT DOWN	<b>622</b>

		<p><b>LIMITS UP</b> Initial Setting=<b>0</b></p>	<p>10 (to <b>lower</b> the UP Stop by <b>10</b> pulses)</p>	<p>A delta of <b>+ 10</b> pulses for LIMIT UP</p>	<p><b>0</b> for LIMIT UP but a corresponding LIMIT DOWN of minus 10 (622 goes to 612)</p>
		<p><b>LIMITS UP</b> Initial Setting=<b>0</b></p>	<p><b>-10</b> (to <b>raise</b> the UP Stop by <b>10</b> pulses)</p>	<p>A delta of <b>- 10</b> pulses for LIMIT UP</p>	<p><b>0</b> for LIMIT UP but a corresponding LIMIT DOWN of minus 10 (612 goes to 622)</p>
MD-6	Set Custom motor Variables (if available)	Depending upon the type of motor, additional customized variables may be available to set. Examples of these customized variables include “Rolling Speed [direction]” as well as other related motor variables.			
MD-7	Special Note about setting Limits subsequent to their being initially set	<p>Special logic within Somfy motors “remembers” if Limits have been previously set. If stretching of the fabric or other eventualities necessitates the subsequent changing of Limits, a <b>special Limit Wizard</b> will appear which will override previously let Limit settings. You will know that you have entered this special menu by the appearance of an “Adjust” menu (see figure below).</p> <p>-Continue to update Limits as initially programmed (e.g. first set LIMITS UP by moving motor to fully up position, the set LIMITS DOWN by first moving the motor all the way down and then set LIMITS DOWN settings. Select “Set”: to save.</p>			



**Section 2-Group Addressing**

**Background on Somfy Addressing.** Currently, up to 250 motors can be discovered on a Somfy SDN network and up to 250 User Interface Name/Addresses (**UINA**) can be created through which control of all Somfy motors becomes possible.

UINA address in numerical **Somfy JSON** format (i.e. "010101") are used thereafter to control single, banks, or entire networks of Somfy Motors. These addresses can be revealed in two locations:

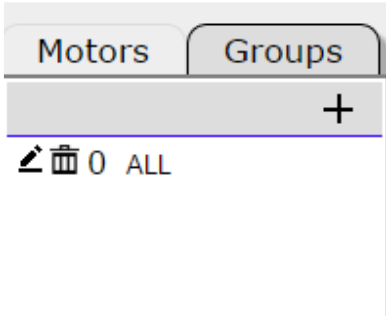
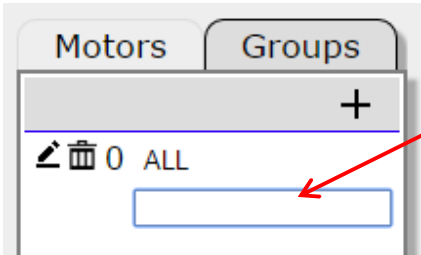
- They can be **easily** gleaned from the Integration Report (see xx) within Somfy Connect UAI+-IP version, in addition,
- They can be **intelligently** gleaned from simply a 1 or 2 digit number (e.g. “1” or “10” up “250”) that appears in the **Somfy/Groups Left Addresses** window (see Figure 6 below) .



A number of programming cases are available which are described below which should easily adapt to any field programming requirements. See the Table below for the exact case that best represents your needs.

**Type of Operation**

Shorthand Topic	Type of Operation	Step	Required?
Initial setup for all possible <b>UINAs</b>	Add <b>User Interface Name/Address ("UINA")</b> (unique addresses to be used by third party automation systems to control any Somfy motor) <b>Note:</b> this is in effect a Triggering Address for any Somfy motor operation	<a href="#">GA-1</a>	mandatory
1 <b>UINA</b> to 1 motor	Link a single <b>UINA</b> to a single motor (to control that single motor)	<a href="#">GA-2</a>	mandatory
2 (or more) <b>UINA</b> to 1 motor	Adopt a secondary (or additional) <b>UINA</b> to control a single motor	<a href="#">GA-3</a>	Optional
Whole House Control	Adopt a Whole House <b>UINA</b> to control all motors	<a href="#">GA-4</a>	Optional

Step	Overview	Detail
<b>GA Section 1--Add User Interface Names/Address</b>		
GA-1	Generate UINA entries	<p>-Within the <b>Somfy/Groups/Left Discovery Window</b>, select the "+" mark to add the first <b>UINA</b> (User Interface Name/Address ) that will be used to in later steps control one or more Somfy motors.</p>  <p>-Within the placeholder box, enter a new <b>UINA</b> name and after completing the entry, hit to <b>Enter</b> keyboard key to save and to proceed.</p>  <p>-Continue adding additional <b>UINA</b> entries by once again selecting the "+" mark, enter the new <b>UINA</b> name, and hitting the keyboard <b>Enter</b> key until all <b>UINA</b>'s have been entered.</p> <p>Here is an example where three <b>UINA</b> entries have been entered.</p>

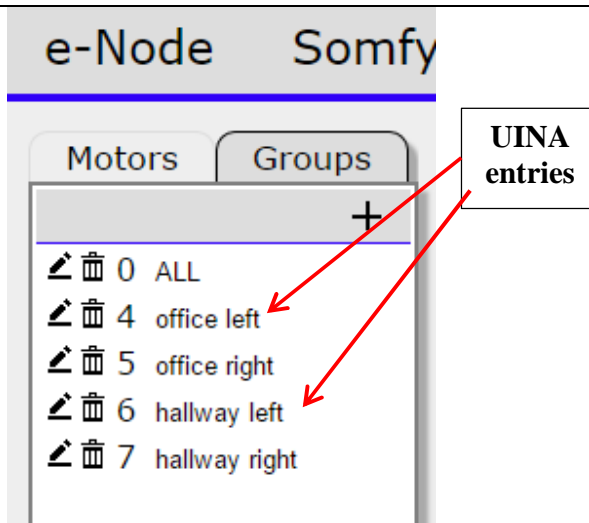


Figure 5

**Background on UINA entries with respect to Addresses.** Note that the number in front of the newly added **UINA** is a shorthand representation of an automatically assigned numerical address for that particular UINA. The representation of “1” indicates a **Zone/Group/Node** address of 01.01.xx, where xx refers to the displayed address (of “1” above). Depending upon the third-party system that will control the SDN network, the group address should be entered in a format compatible with that platform (which can also be found in the Integration Report (see xxx) .

See the table below for the proper characterization of the **Zone/Group/Node** auto assigned address.

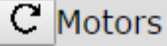
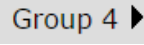
**Example for Group 1 (Ocean) above**

Integration Platform	Addressing Scheme)	Example for “Group 1 above
Crestron/Control4/Elan and all others supporting Somfy JSON drivers	ZZ GG NN (spaces provided for clarity only)	01 01 0 <b>1</b>
Lutron RadioRA2, HomeworksQS and Homeworks Illumination using the Lutron wizard	Z.G.N (periods between Z.G.N required)	1.1. <b>1</b>

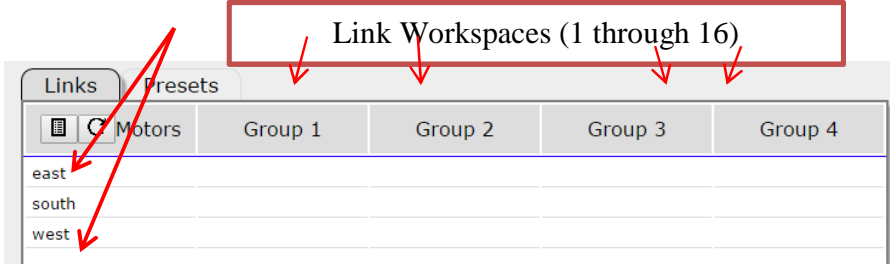
**Example for Wildcard Addressing (to enable all motors to move in unison)**

Integration Platform	Addressing Scheme)	Example for “Group 1 above
Crestron/Control4/Elan and all others supporting Somfy JSON drivers	ZZ GG NN (spaces provided for clarity only)	01 01 0 <b>0</b>
Lutron RadioRA2, HomeworksQS and Homeworks Illumination using the Lutron wizard	Z.G.N (periods between Z.G.N required)	1.1. <b>0</b>

**Other Tools:** Various other operations are also possible.

		<ul style="list-style-type: none"> <li>  <b>Motors</b> If you have closed or powered off Somfy Connect UAI+ and you wish to recall any stored Group names within motors, select this icon and the data will be quickly retrieved.         </li> <li>  <b>Group 4</b> Up to 16 Link Workspace Columns are available with 4 able to be displayed at any one time. Scroll right or left to reveal additional Workspace Columns.         </li> <li>TBD</li> </ul> <p><b>Note:</b> Documentation will be updated to indicate a Store/Recall Group name that will store that data for easy retrieval. Currently, when the Web Server is closed, all customized Group Labels are lost although Group numerical addresses are preserved.</p>
--	--	--

**GA Section 2: Link a single UINA to a single motor (to control that single motor)**

GA-2	<p><b>Link</b> any discovered motor to a <b>unique</b> Group</p>	<p>The act of assigning a UINA (address) to control one or more motors is called a <b>Link</b>. Even though motors can be discovered until they are <b>Linked</b>, they cannot be controlled from third-party automation systems. (Just remember <b>No Link... No Control</b>) and that is why this step is mandatory.</p> <p>In this first step, we will Link a single discovered motor with a previously entered <b>UINA</b>. When a command from a third-party system integrates that UINA into its command stream, the Link motor will respond.</p> <p>-Select the <b>Somfy/Groups/Left Window</b> tab, and then the <b>Links/Right Data Window</b> tab. All discovered motors with either (i) their unlabeled <b>Hex</b> address or (ii) their Motor label (if labeled and discovered previously), will appear under the <b>Links/Motors</b> tab (in Figure 2 below).</p>  <p style="text-align: center;"><b>Figure 6</b></p> <p>In this case, we have entered from Step GA-1 above four (4) User Interfaces (<b>UINA</b>) and their names appear under "Groups" below (in Figure 3 below).</p>
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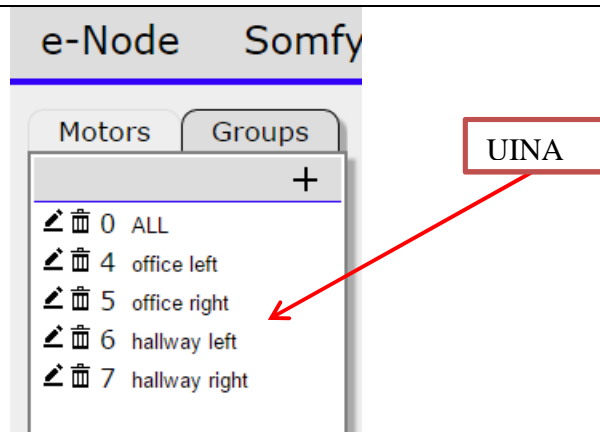
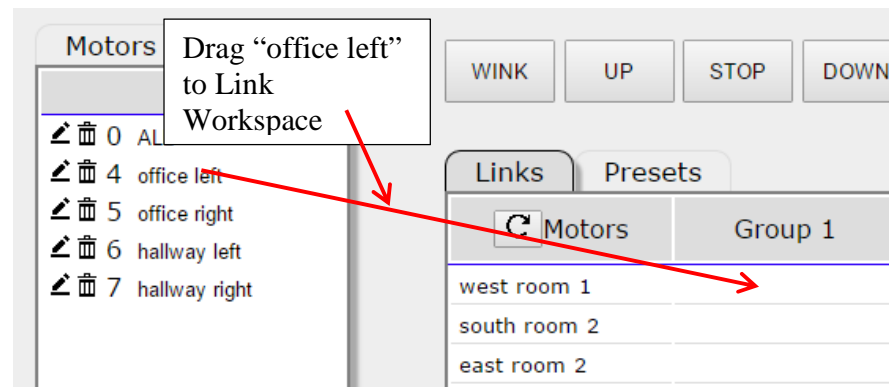
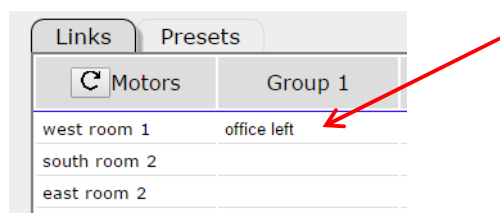


Figure 7

-Now, let us Link our first **UINA** to a motor. Place your cursor over a **specific** UINA name (any UINA shown above) to which a motor will be linked. **Drag** that **UINA** name to the first unused Link **Workspace Column** ("LWC"), in this Group 1. Now when the address of that UINA is triggered, then that motor associated with that UINA will move.

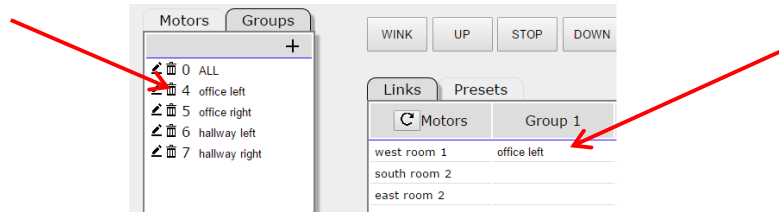


After the drag under Group 1 in the Link Workspace Column, you will see this display.



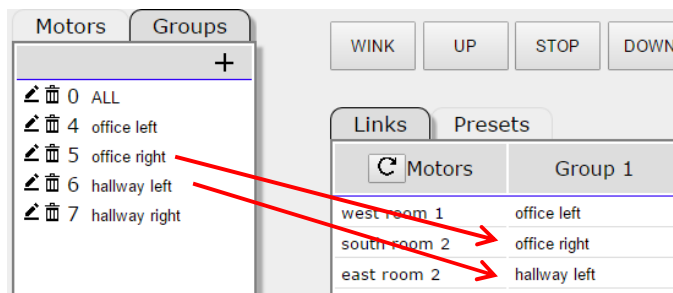
Example 1

In this first example, the **Office left (UINA)** address of “4” (i.e. “010104”) will cause the “west room 1” motor to move. You have now established your first **Link**.



**Example 2**

While we are in the single motor/single UINA control section, feel free to drag any additional UINA into separate motor positions as shown below.



Once you have Linked at least one UINA into the Group 1 columns to the right of each motor, then you have **Linked** each motor to a unique Address (UINA). Consequently, every motor can be triggered with a unique Address (UINA).

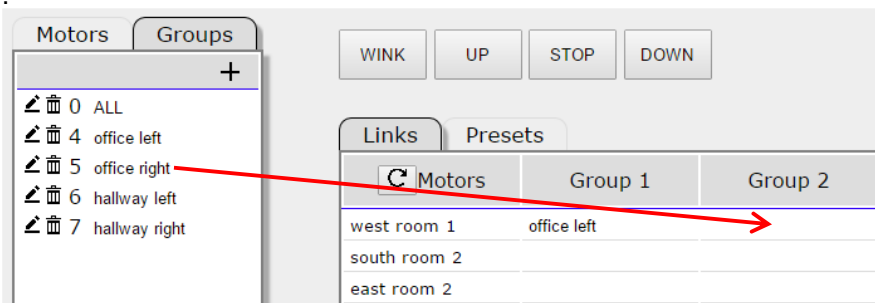
You are ready to proceed.

**GA Section 3 Adopt a secondary (or additional) UINA to control a single motor**

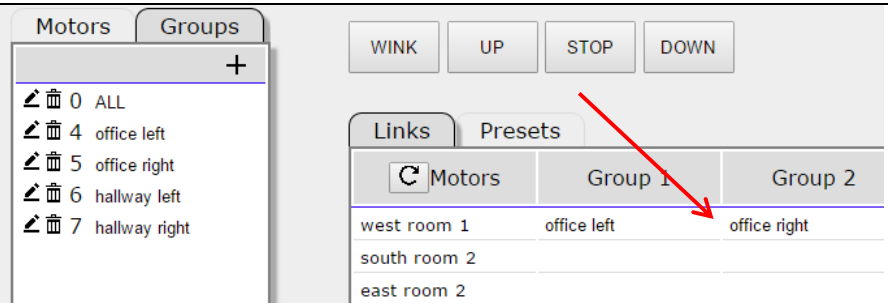
GA-3 Adopt a secondary (or additional) **UINA** to control a single motor **Link** any discovered motor to an **overlapping** Group

Now, let us Link a second (or additional) **UINA** to a motor that already has an alternative UINA assigned to it. This case is particularly useful in cases where you have two wall controls within a space controlling the same single motor.

- Place your cursor over the second UINA name (any UINA shown above) for which duplicate control of a single motor is designed and drag that UINA into the next available Link Workspace Column (LWC) (in this case Group 2)



After the drag operation, here is what you will see.



What this programming workspace shows is that both the “office left” keypad (through its address of “4” or 010104) and the “Office right” keypad (and its related address of “5” or 010105) will both operate the “west room 1” motor regardless of which button is pressed.

**Note:** For astute readers you may also realize that an alternative to the above would be to simply use the same UINA address of “4” (or 010104) for both user interfaces. But the above example is designed to show the range of flexibility this programming language offers.

-Continue this operation to Link whatever secondary UINA devices are desired to control a single motor in your project.

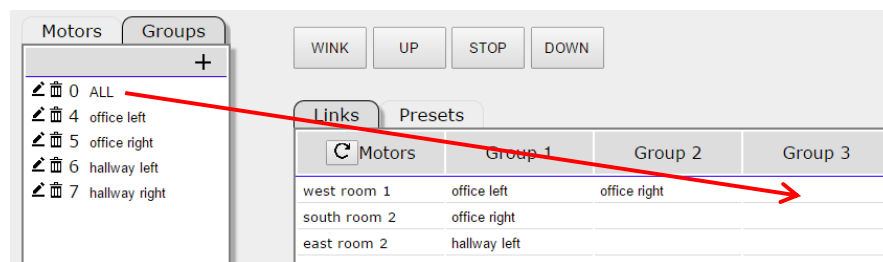
You are now ready to proceed.

#### GA Section 4: Adopt a Whole House UINA to control all motors

GA-4

Now, let us Link a Whole House Control (HWC) to all motors to allow simple control of all motors discovered on the network. This case is particularly useful where whole facility privacy (or lack thereof) is desired.

- Place your cursor over the top **UINA** name (“**ALL**”) and drag it into an available Link Workspace Column (LWC) (in this case Group 3)



After all of the ALLs are dragged over to the available Group column (e.g. Group 3 in this case), here is what will appear.

Motors	Group 1	Group 2	Group 3
west room 1	office left	office right	ALL
south room 2	office right		ALL
east room 2	hallway left		ALL

The All address of "0" or (010100) will cause all motors assigned to the ALL UINA entry to move in unison.

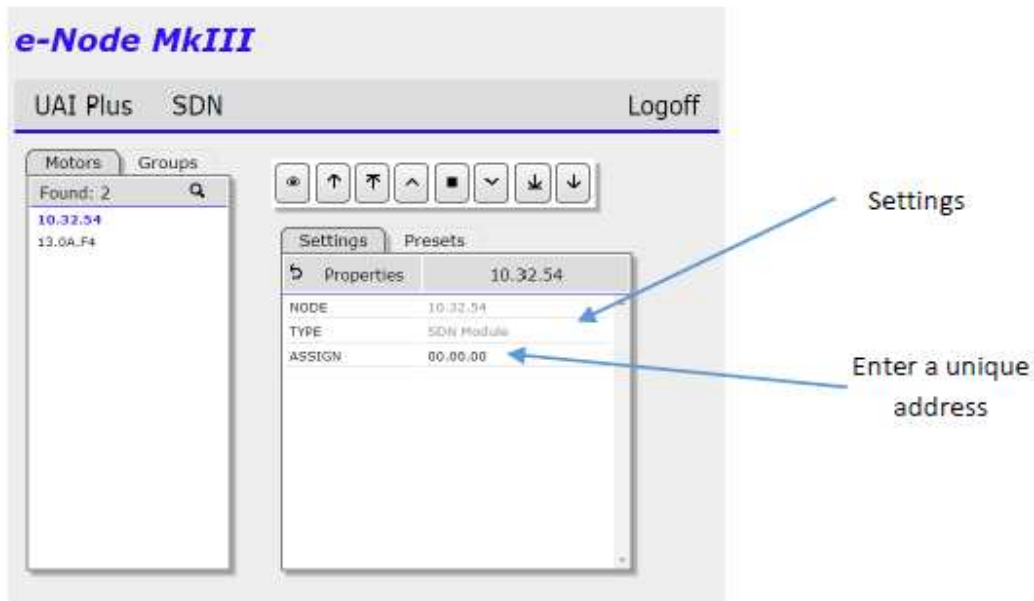
### Section 2.1- SDN Modules (Glydea Card)

The web configuration on the UAI+ will allow commissioning of SDN modules used for drapery control. Since the node address of the SDN module is not unique **only one module can exist on the bus at a time in a non-commissioned mode**. Using the search icon, a SDN module can be discovered.

Press the search icon

Default SDN Module address

Click on the address and the setting will be shown



Create a new assigned address and press enter.

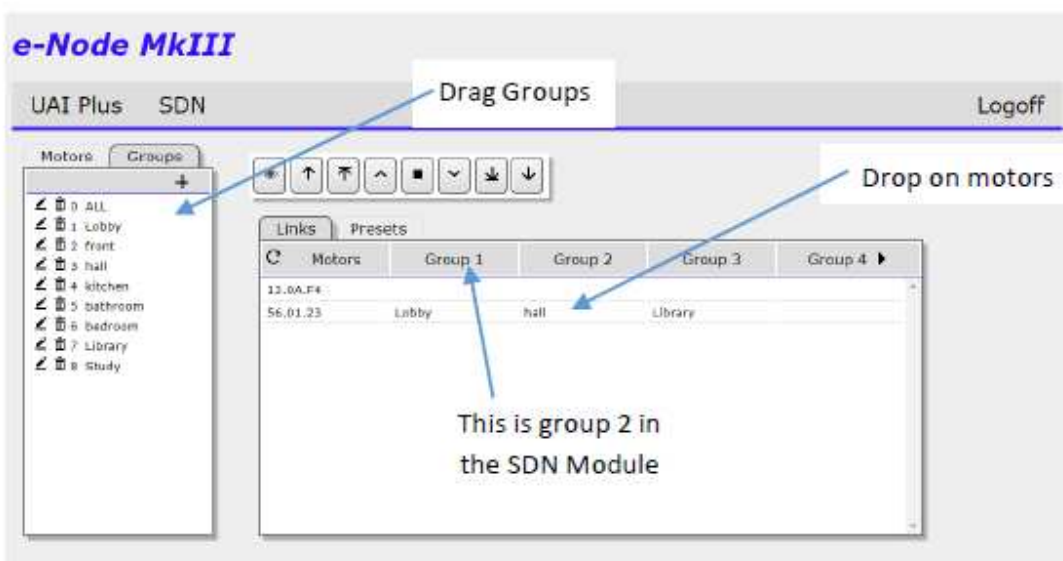
The address will be placed in the SDN module as a group setting 1.

The list of motors will be updated to reflect the new address.

Group addresses can be added in the same way as SDN motors.

List all the groups and drag and drop group names to the required motors








The SDN module supports 5 group assignments. Since the group 1 is taken up with the unique address, group 2 through 6 can be assigned. **For consistency, groups 2 through 6 are shown on the UAI screen as Group 1 through 5.**




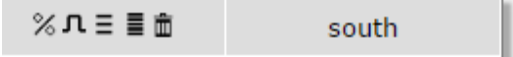









### Section 3-Intermediate Presets

Depending upon the specific Somfy SDN motor, various built-in features exist to either automatically or manual set one or more intermediate presets. However, a motor has to be first discovered (see [Section 1](#) above) before this step can be followed. Intermediate Presets can be entered as pulses from the top or as a percentage from the top. Up to 16 Intermediate Presets can be entered. Pulses can be entered manually or automatically using two Intermediate Preset Smart Wizards

Step	Overview	Step
IP-1	Set <b>Intermediate Presets</b> Automatically	<p>-Select the <b>Motors/Left Discovery Window</b> and if all motors present on the SDN network are not discovered, once again select the Spyglass to discover those motors (or that motor for which you wish to set an Intermediate Preset).</p> <p><b>Note:</b> In case you have just re-launched the Web Server software, you may need to (i) click on the specific motor that you wish to program with Intermediate Presets and then click on the <b>Settings /Right Data Window</b> to re-populate all the available data fields.</p> <div data-bbox="687 801 1246 1115" data-label="Image"> </div> <p>-In order to launch the Intermediate Preset wizard, select either the</p> <ul style="list-style-type: none"> <li>• three position auto-generation wizard , or the</li> <li>• five position auto-generation wizard </li> </ul> <p>Note: Not all SDN motors currently support auto-generation of Intermediate Presets. If your particular motor does not support this feature, the Somfy Connect UAI+ will automatically generate those and “deposit” them into the relevant motor without any additional user intervention (<b>TBD</b>). Alternatively, you can also manually set the Intermediate Presets using the Pulse  or  tools. (Gray out icon-TBD)</p> <p>After you select one of the two wizards, intermediate presets will auto-populate within the Position 1 to 3 or within the Position 1 to 5 fields.</p> <p><b>Other Tools:</b> Various other operations are also possible.</p> <ul style="list-style-type: none"> <li>•  If you wish to see the pulse equivalencies for the auto-generated entries, simply select this icon and the percentage entries will automatically convert to pulse counts.</li> <li>•  If you wish to go back to percentage entries, select this icon and the pulse entries will automatically convert back to percentage entries.</li> <li>• If you wish to simply delete all the auto generated entries for this motor, select the  and start again within the Gray bar.</li> </ul>

IP-2	Enter <b>Intermediate Presets</b> manually	<p>-In order to manually enter Intermediate Presets (from 1 to 16), select either the</p> <ul style="list-style-type: none"> <li>•  entry and enter a percentage from 0 to 100%, or</li> <li>•  icon and enter an applicable pulse count from the Limit Up value (typically 0) to the Limit down value (read from the Settings Window)</li> </ul> <p><b>Other Tools:</b> Again, if you simply wish to delete all entries for this motor, select the</p> <ul style="list-style-type: none"> <li>•  icon <b>WITHIN THE GRAY BAR</b> to delete all Intermediate presets for the specified motor.</li> </ul>  <ul style="list-style-type: none"> <li>•  entry before a specific Position x label to delete only the entry within that Intermediate Preset.</li> </ul> 																						
IP-3	Set <b>Intermediate Presets to Align Groups</b>	<p><b>Background-Special Case.</b> In environments where a number of similar motors are all installed on the same wall and it is desired to set common Intermediate Presets for all of these motors, it may be useful to set Intermediate Presets for these motors at one point (which save a tremendous amount of installation time).</p> <p>This step provides documentation for this operation.</p> <p>-First make sure that you have assigned a common <b>UINA</b> to all motors that you wish to control and program in unison. In this example, both motors in Room2 (i.e. west room 2 and south room 2 Motors) are Linked together (into Group 2) under the “new2” common <b>UINA</b>. Now any operation performed on “new2” will apply automatically to all motors in the new2 <b>UINA</b>.</p> <div style="text-align: right; border: 1px solid gray; padding: 2px; margin-bottom: 10px;">Common UINA</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Links</th> <th colspan="3" style="text-align: left;">Presets</th> </tr> <tr> <th style="text-align: left;"> Motors</th> <th style="text-align: left;">Group 1</th> <th style="text-align: left;">Group 2</th> <th style="text-align: left;">Group 3</th> </tr> </thead> <tbody> <tr> <td>east room 2</td> <td>hallway left</td> <td></td> <td>ALL</td> </tr> <tr> <td>south room 1</td> <td>office right</td> <td>new2</td> <td>ALL</td> </tr> <tr> <td>west room 1</td> <td>office left</td> <td>new2</td> <td>ALL</td> </tr> </tbody> </table> <p>-Next, under the <b>Groups</b> tab, select the <b>UINA</b> specified above (“new2”)</p> <p>-Select the <b>Presets</b> tab, then select the applicable type of Intermediate Preset function available. As an example, if you selected a Somfy motor that currently supports automatic generation of Intermediate Presets (LSU 50 or Sonesse 50DC), here is what will show under each of those motors under the <b>Preset</b> Tab</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 50%;">West room 1 motor Presets</td> <td style="width: 50%;">south Room 1 motor presets</td> </tr> </table>	Links	Presets			 Motors	Group 1	Group 2	Group 3	east room 2	hallway left		ALL	south room 1	office right	new2	ALL	west room 1	office left	new2	ALL	West room 1 motor Presets	south Room 1 motor presets
Links	Presets																							
 Motors	Group 1	Group 2	Group 3																					
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south room 1	office right	new2	ALL																					
west room 1	office left	new2	ALL																					
West room 1 motor Presets	south Room 1 motor presets																							

IP-4	Test Intermediate Presets	<p>-Select a <b>Motor</b> or a Group (<b>UINA</b>) in the Left Motors/Groups window.</p> <p>-Select <b>Presets</b> in the Right Window.</p> <p>-Hover, over any Preset Position Line and enter either a number with percentage or a number. Select Enter and the <b>Motor</b> or <b>Group</b> will move accordingly.</p>	<div data-bbox="1230 790 1422 981" style="border: 1px solid black; padding: 5px;"> <p>Hover and enter a % or an actual number</p> </div>

**Somfy SDN Virtual Keypad(s)**

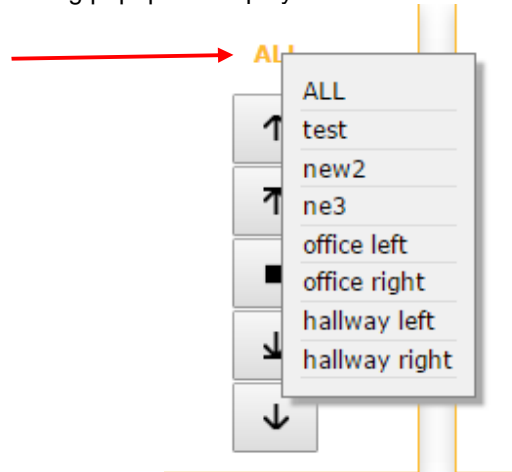
Only after SDN motors have had their LIMITS (Upper and Lower) set as per Steps MD-5 above will various Virtual keypads available within Somfy Connect UAI+ version become operational. Several virtual keypads are available. See the documentation below for various options.

Note: "Wink" always works regardless of Limit Stop settings.

Step	Overview	Detail
VK-1	Control SDN Motors through a web interface-Home Page	<p>-Return to the <b>Home page</b> of the Web Server by either selecting the (i) Logoff tab or the (ii) upper left Somfy logo.</p>

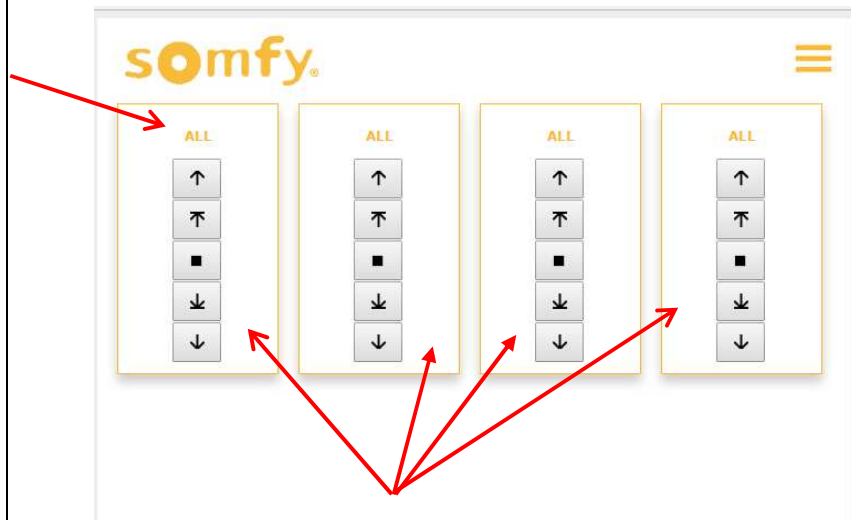
**Background.** Within the Home Page, four virtual keypads are displayed with a capability of selecting a specific Group address(UINA) for each keypad. To select the desired group, click on the current Group name which will cause a popup to display.

-In this example, select any keypad's "ALL" or current group address (UINA) and the following popup will display.



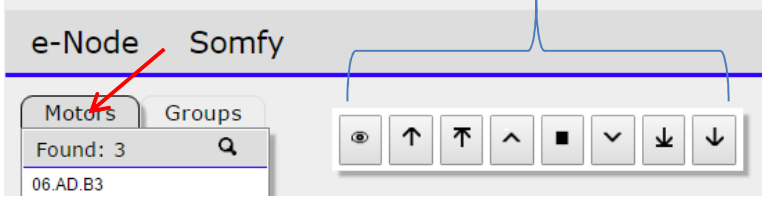

























If a particular motor has been assigned to one or more Groups (UINA), you can select that name from the pop-off and then control that motor. If multiple motors have been assigned to a Group, then all members of the Group will respond.

**Note:** Only motors previously assigned to particular Group or UINA can be controlled through these keypads. For instance, if all motors have been assigned to the "ALL" group, set the Group address to ALL to control all motors.



-Utilize the navigational buttons for the virtual keypad for which a Group has been picked above.

**Note:** This is a very good way to allow a home owner with access to a smart phone or tablet to immediately control Groups of shades without a third-party integration systems. This also is a great tool for the installer to test motors while walking around a job site.

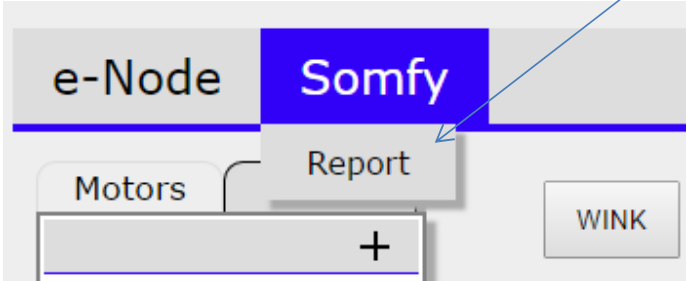
<p>VK-2</p>	<p>Control SDN Motors through the Somfy Motors tab (within the password protected Settings space)</p>	<p><b>Background.</b> Occasionally for testing purposes it becomes desirable to control a specific motor in addition to Groups of motors. This capability exists within the Settings section of the Somfy Connect UAI+ software.</p> <p><b>Note:</b> Until a motor has had its limit stops set, only on the Wink function will operate</p> <p>-Select a discovered SDN motor through the <b>Somfy/Motors/Left Window</b>          -Click on the appropriate Motor directional button</p>  <p>The functionality of these buttons operate as follows:</p> <table border="1" data-bbox="528 786 1444 1525"> <thead> <tr> <th>Icon</th> <th>Name</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td></td> <td>Wink</td> <td>Moves motor (regardless if its limit stops have been set) a few pulses up and down. This is useful to identify a motor</td> </tr> <tr> <td></td> <td>Fully Up</td> <td>Moves motor fully up</td> </tr> <tr> <td></td> <td>Up to next Intermediate Preset</td> <td>Moves UP to next pre-programmed Intermediate Preset (only if programmed)</td> </tr> <tr> <td></td> <td>Jog Up</td> <td>Jog Up. This moves a small amount for fine tuning motor location</td> </tr> <tr> <td></td> <td>Stop</td> <td>Stops motor</td> </tr> <tr> <td></td> <td>Fully Down</td> <td>Moves motor fully down</td> </tr> <tr> <td></td> <td>Down to next Intermediate Preset</td> <td>Moves down to next pre-programmed Intermediate Preset (only if programmed)</td> </tr> <tr> <td></td> <td>Jog Down</td> <td>Jog Down This moves a small amount for fine tuning motor location</td> </tr> </tbody> </table>	Icon	Name	Function		Wink	Moves motor (regardless if its limit stops have been set) a few pulses up and down. This is useful to identify a motor		Fully Up	Moves motor fully up		Up to next Intermediate Preset	Moves UP to next pre-programmed Intermediate Preset (only if programmed)		Jog Up	Jog Up. This moves a small amount for fine tuning motor location		Stop	Stops motor		Fully Down	Moves motor fully down		Down to next Intermediate Preset	Moves down to next pre-programmed Intermediate Preset (only if programmed)		Jog Down	Jog Down This moves a small amount for fine tuning motor location
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<p>VK-3</p>	<p>Control SDN Motors through pre-programmed <b>UINA</b> addresses to stimulate keyboard actions of third party automation systems.</p>	<p>- Select an available <b>UINA</b> entry and press one of the directional buttons. Any UINA already programmed within Steps GA will move accordingly. (WIP)</p> 																											
<p>VK-4</p>	<p>Monitor SDN Motor position through the Settings Window</p>	<p>-Select the Motor/Settings window after any motor movement, and select the Refresh icon. The software will query the motor for its current location.</p>																											

Settings		Presets
5 Properties	0A.13.75	
NODE	0A.13.75	
TYPE	LSU 50	
LABEL		
DIRECTION	STANDARD	
LIMITS UP	0	
LIMITS DOWN	373	
POSITION	200	



**Somfy SDN Integration Report**

Setup and Configuration information setup through UAI-IP Version Software Setup can be referenced through the Web Server in order to facilitate interconnection with third-party control systems. Currently this report can only be viewed on-screen

Step	Overview	Detail																		
IP-1	Run Integration Report	<p>-Hover over the Somfy tab, and the "Report" sub-tab will appear. Which will automatically download into your computer "Download" directory a complete listing of motor names, and assigned addresses that can be printed out from Excel or Notepad or similar application (i.e. file is in CSV format).</p>  <p>Note on Addresses generated. The Somfy device drivers for third party integration systems that utilize the JSON command language support addresses in the following format without periods</p> <table border="1" data-bbox="716 1048 1072 1111"> <thead> <tr> <th>Zone</th> <th>Group</th> <th>Node</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>01</td> <td>01 to 256</td> </tr> </tbody> </table> <p>Note on Lutron Wizard. The Lutron wizard supports a similar <b>Zone/Group/Node</b> addressing scheme with the following changes</p> <table border="1" data-bbox="541 1200 1353 1294"> <thead> <tr> <th>Z(one)</th> <th>delimiter</th> <th>G(roup)</th> <th>delimiter</th> <th>N(ode)</th> <th>delimiter</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>.</td> <td>1</td> <td>.</td> <td>1 to 250</td> <td>.</td> </tr> </tbody> </table>	Zone	Group	Node	01	01	01 to 256	Z(one)	delimiter	G(roup)	delimiter	N(ode)	delimiter	1	.	1	.	1 to 250	.
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Z(one)	delimiter	G(roup)	delimiter	N(ode)	delimiter															
1	.	1	.	1 to 250	.															
IP-2																				
IP-3																				
IP-4																				