somfy V2.0 Connect BMS Interface V2 User Guide

Contents

somfy V2.0 Connect BMS Interface V2

Specifications

- Product: Somfy Connect BMS Interface V2
- Version: 2.0 | August 2024
- Prepared by: Project Services

Product Information

Overview
The Somfy Connect BMS Interface V2 provides communication and control between Building Management Systems either as a Stand-alone Somfy Digital Network (SDN). The interface communicates through IP or serial connections to the Building Management System to send and receive signals.

Resources & Applications

- Refer to the Somfy Connect BMS Interface V2 product page for additional documentation: **Somfy Connect BMS Interface V2 Product Page**
- Use the Somfy Connect Field Server Toolbox to discover assigned IP addresses. For the latest version, visit: **Somfy Connect Field Server Toolbox**

System Requirements

- Somfy Connect BMS Interface latest firmware version
- Windows 10 PC or higher
- Supported Web Browsers:
  - Google Chrome Rev. 57 or higher
  - Mozilla Firefox Rev. 35 or higher
  - Microsoft Edge Rev. 41 or higher
  - Safari Rev. 3 or higher

- Note: Internet Explorer is no longer supported. Firewalls must allow Port 80 for Field Server Toolbox.

System Configuration
All motors must be fully operational and programmed with limits before BMS Interface programming. A fully commissioned SDN or animeo IP system is required.

System Limitations
Refer to Appendix C of the guide for a complete device object description. Use the Somfy Connect BMS Interface V2 Mapped Device Objects Calculator for device object calculation.

Product Usage Instructions

Installation

Connections & Indicators: [Add details here]

FAQ

- **Q: Where can I find the latest firmware version for the Somfy Connect BMS Interface V2?**
  A: You can find the latest firmware version at **https://www.somfypro.com/services-support/software**

PROGRAMMING GUIDE
SOMFY CONNECT BMS INTERFACE V2 for SDN and animeo® IP

INTRODUCTION

The Somfy Organization's strength has been demonstrated with 50 years of experience in motorization. As leaders in the shading industry with innovation and modernization solutions for homes and commercial buildings, Somfy offers the widest range of strong, quiet motors and controls for all types of applications and technologies.

Who is this Guide for?
This guide is aimed at providing support and guidance to installers and integrators for programming building management systems with Somfy Digital Network (SDN) motorized shading systems to create integrated projects operated using the Somfy Connect BMS Interface V2 for SDN and animeo® IP and industry standard BMS integration methods.

What does this Guide contain?
The sections of this guide contain walkthroughs and methods of programming BMS controllers to communicate with the Somfy Connect BMS Interface V2 to send and receive signals via IP of serial connections.
This guide discusses the programming of SDN or animeo IP systems to operate from BMS controls.
For questions or assistance please contact technical support: (800) 22-SOMFY (76639)
Get answers to your questions from our Somfy FAQ page: **www.somfysystems.com/en-us/support/faq** Follow the steps to access Service & Support.

How should this Guide be used?
This guide is intended to be used as a reference manual.

OVERVIEW

DESCRIPTION

The Somfy Connect BMS Interface V2 provides communication and control between Building Management Systems either as a Stand-alone Somfy Digital Network (SDN) installation or when part of an animeo® IP system. The interface communicates through IP or serial connections to the Building Management System to send and receive signals.

RESOURCE S & APPLICATIONS

- Refer to the Somfy Connect BMS Interface V2 product page for additional documentation: **https://www.somfypro.com/products/-/e-cat//1871168**
- Use the Somfy Connect Field Server Toolbox to discover assigned IP addresses:
- For the latest version go to: **https://www.somfypro.com/services-support/software**

SYSTEM REQUIREMENT s

- Somfy Connect BMS Interface's latest firmware version For the latest firmware version go to: **https://www.somfypro.com/services-support/software** Windows 10 PC or higher
- The following web browsers are supported: Google Chrome Rev. 57 or higher Mozilla Firefox Rev. 35 or higher Microsoft Edge Rev. 41 or higher Safari Rev. 3 or higher

NOTE: Internet Explorer is no longer supported as recommended by Microsoft. Computer and network firewalls must be opened for Port 80 to allow the Field Server Toolbox to function.

SYSTEM CONFIGURATION

All motors must be fully operational and programmed with limits prior to BMS Interface programming. Follow all installation guidelines found in this guide and product documentation. A fully commissioned SDN or animeo IP system is required.

SYSTEM LIMITATION

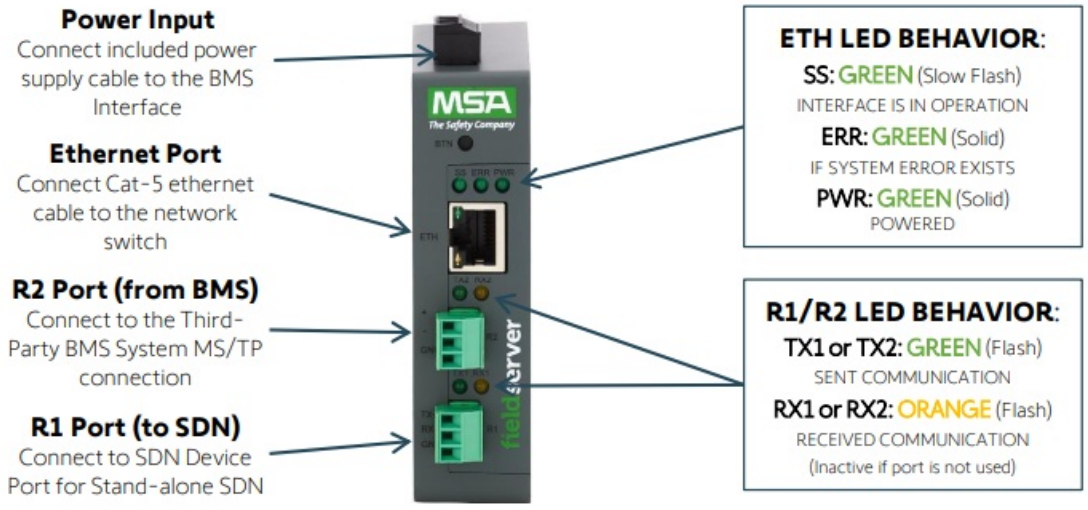
- The total number of device objects mapped to the Somfy Connect BMS Interface cannot exceed 4500
- If exceeding the limitation above, the system must be split into separate SDN systems, each with a separate Somfy Connect BMS Interface V2
- Only (1) BMS Interface can connect to Stand-alone SDN systems
- Multiple BMS Interfaces can connect to animeo IP

DEVICE OBJECT VALUES	
DEVICE	OBJECT VALUE PER DEVICE
Motor – SDN	3
Group – SDN	3
Sensor – Animeo IP	1.7
Remote – Animeo IP	18.2
Group – Animeo IP	3.5
Actuator – Animeo IP	19.2

Refer to Appendix C of this guide for a complete device object description.
Refer to the Somfy Connect BMS Interface V2 Mapped Device Objects Calculator for device object calculation.

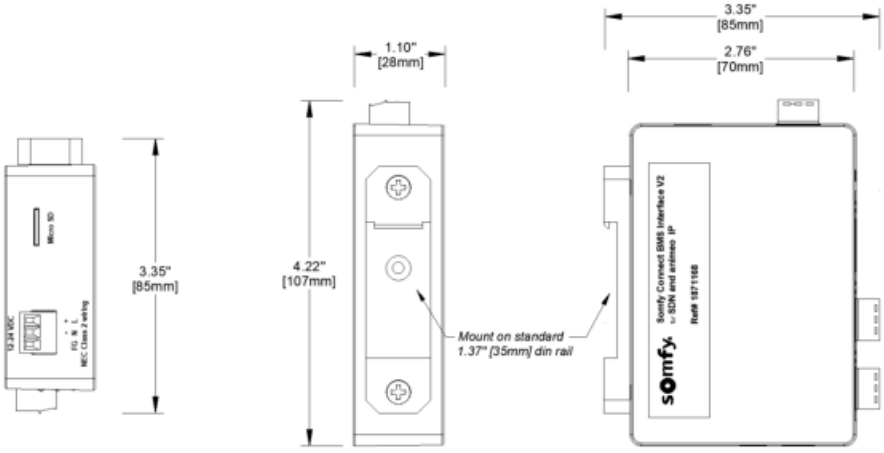
INSTALLATION

CONNECTIONS & INDICATORS



MOUNTING

- The BMS Interface V2 is mounted near the Building Management System, a network switch, or close to the beginning of an SDN network.
- This product features a DIN rail mounting bracket on the back of the unit.



POWER

1. 24V DC Wall Mount Power Supply #1822209 is included to power the Somfy Connect BMS Interface. The 24V DC Power Supply requires a dedicated 120V AC outlet.

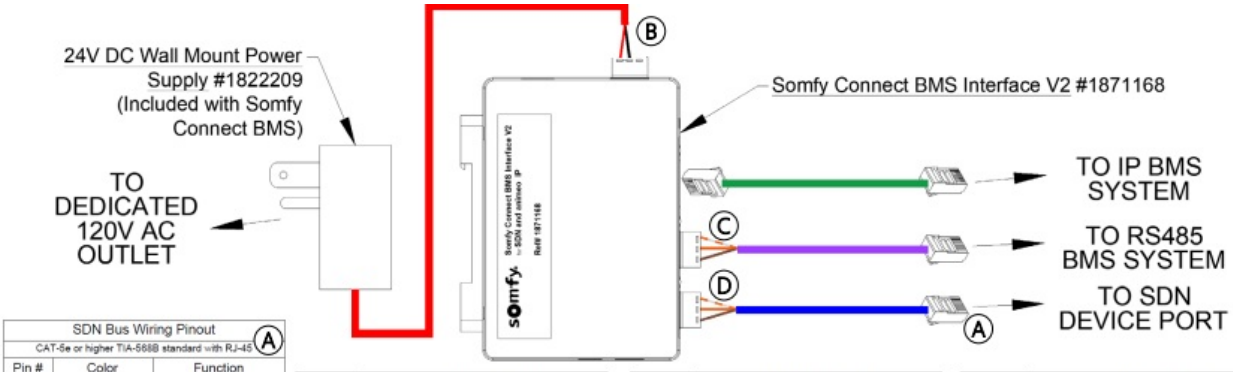
Power Connector
Removable power connector with screw terminals to connect included power supply

Power Supply
Plug-in transformer power supply with flying leads to connect to the power connector (Included with the BMS Interface)

WIRING TO SYSTEM FOR OPERATION
The Somfy Connect BMS Interface V2 integrates with BACnet/IP and BACnet MS/TP. Also available for Modbus RTU, Modbus TCP/IP or Metasys® N2 by JCI (Stand-alone SDN only).RS485 or IP connections are supported, but not both simultaneously.

SDN WIRING TO IP OR RS485 BMS SYSTEM:

1. Connect the BMS Interface V2 R1 Port to any SDN Device Port
2. Connect the BMS Interface V2 R2 Port to the RS485 BMS System or Ethernet Port to the IP BMS System
3. Connect the power supply to a dedicated outlet with proper grounding in place



SDN Bus Wiring Pinout (A)
CAT-5e or higher TIA-568B standard with RJ-45

Pin #	Color	Function
1	Orange White	SDN RS485 (+)
2	Orange	SDN RS485 (-)
3	Green White	Reserved
4	Blue	Power 24v DC
5	Blue White	Power 24v DC
6	Green	Reserved
7	Brown White	SDN RS485 Ground
8	Brown	SDN RS485 Ground

Power Connection (B)
3-pin Phoenix connector with Power Supply

Pin #	Pin Label	Function
1	L +	Power In (+)
2	N -	Power In (-)
3	FG	Frame Ground

BMS Connection (C)
3-pin Phoenix connector with CAT-5e or higher

Pin #	Pin Label	Function
1	+	BMS RS485 (+)
2	-	BMS RS485 (-)
3	GND	BMS Ground

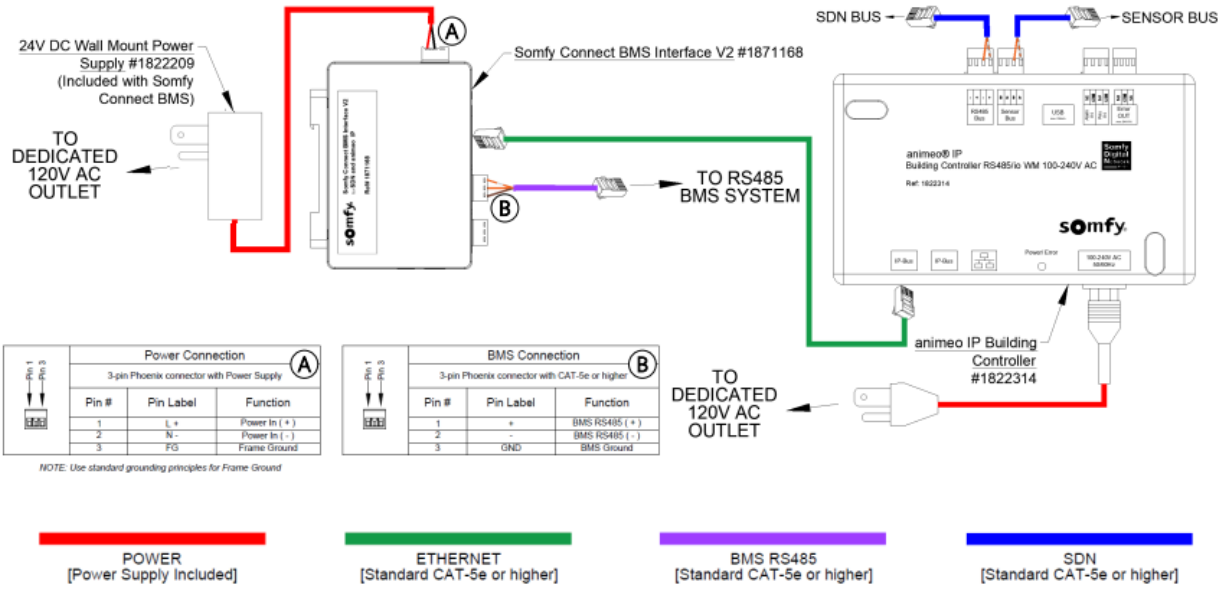
SDN Connection (D)
3-pin Phoenix connector with CAT-5e or higher

Pin #	Pin Label	Function
1	+	SDN RS485 (+)
2	-	SDN RS485 (-)
3	GND	SDN RS485 Ground

NOTE: Use standard grounding principles for Frame Ground

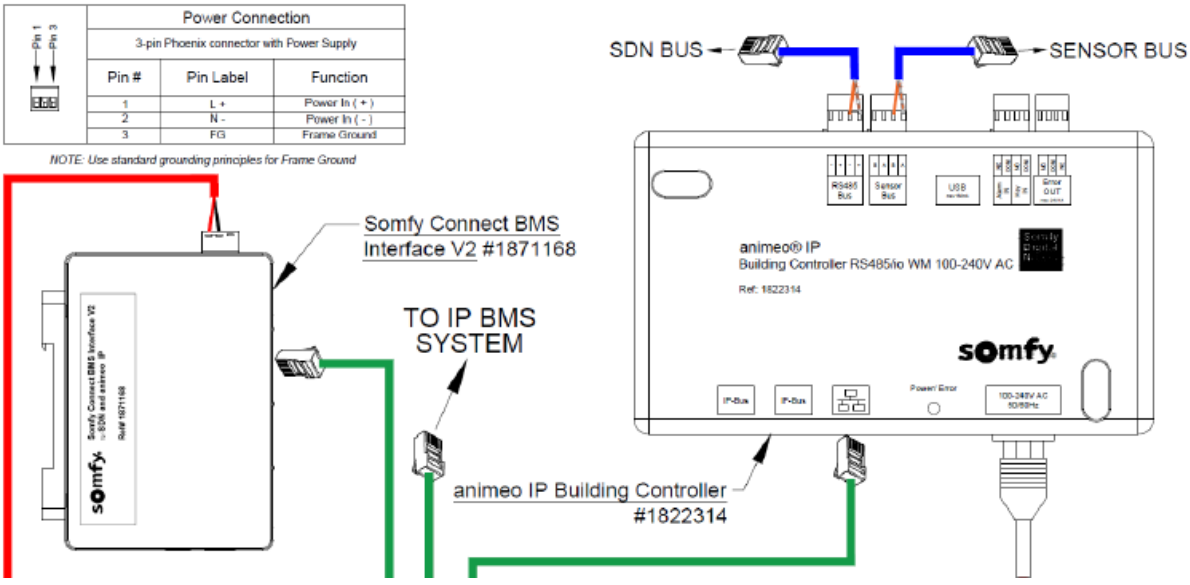
ANIMEO IP WIRING TO RS485 BMS SYSTEM:

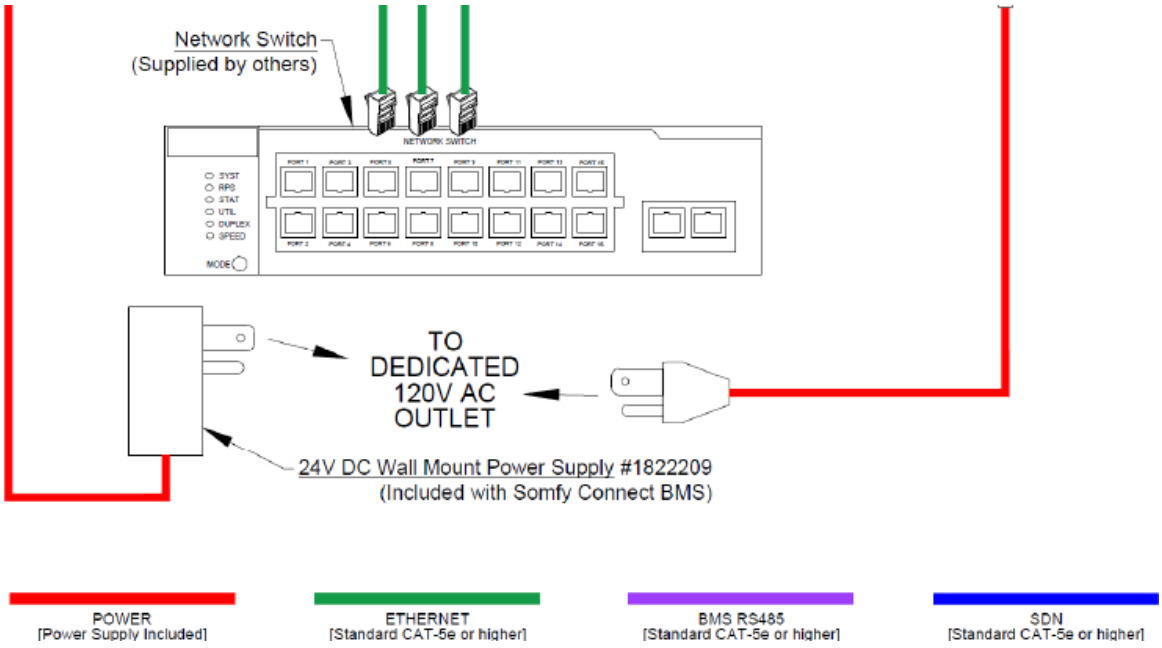
1. Connect the BMS Interface V2 Ethernet Port to the animeo IP Building Controller IP Bus Port
2. Connect the BMS Interface V2 R2 Port to the RS485 BMS System
3. Connect the power supply to a dedicated outlet with proper grounding in place



ANIMEO IP WIRING TO IP BMS SYSTEM:

1. Connect the BMS Interface V2 Ethernet Port to the Local Area Network Switch
2. Connect the power supply to a dedicated outlet with proper grounding in place
3. Connect the animeo IP Building Controller Network Port to the Local Area Network Switch
4. Connect the IP BMS System to the Local Area Network Switch



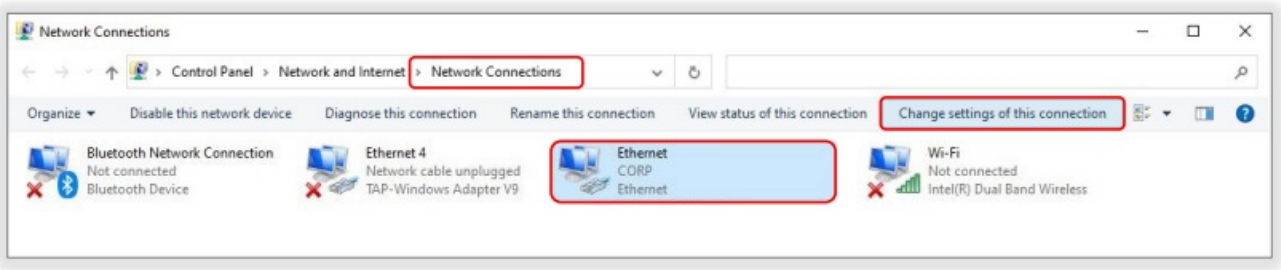


SET UP

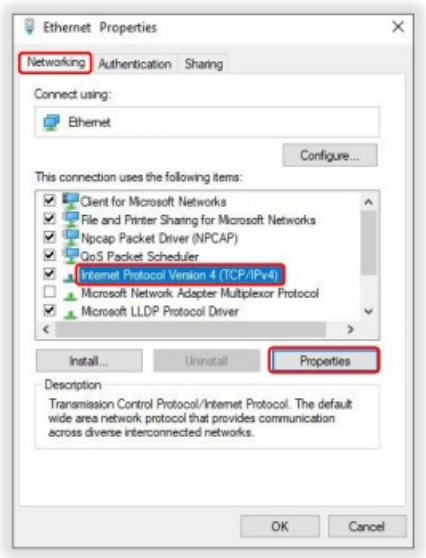
CONNECT PC

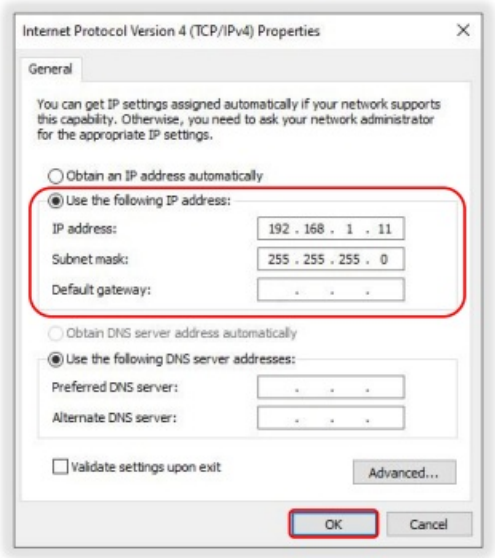
The default IP address of the BMS Interface is 192.168.1.24 and Subnet mask is 255.255.255.0. If the PC and BMS Interface are on different IP networks, temporarily assign a static IP address to the PC on the 192.168.1.x network. If the address has been changed to an unknown IP address, use the Somfy Connect Field Server Toolbox software to identify the device.

1. CONNECT a Cat-5 Ethernet cable between the BMS Interface Ethernet Port and a Windows PC Ethernet Port
2. From a Windows PC, NAVIGATE to Network Connections
3. SELECT the network device connected to the BMS Interface
4. SELECT “Change settings of this connection”



5. In the Ethernet Properties window Networking tab, SELECT “Internet Protocol Version 4 (TCP/IPv4),” then SELECT “Properties”
6. In the Internet Protocol Version 4 (TCP/IPv4) Properties
    - SELECT the “Use the following IP address:” radio button
    - ENTER the IP address: 192.168.1.x (x can be from 2 to 255 except for 24)
    - ENTER the Subnet mask: 255.255.255.0
    - SELECT “OK” on both windows to apply settings





7. OPEN a web browser to NAVIGATE and LOGIN to the BMS Interface http://192.168.1.24
    - Upon completion of the BMS Interface configuration, repeat Step 6 to revert previous settings.
    - In the Internet Protocol Version 4 (TCP/IPv4) Properties, SELECT the “Obtain an IP address automatically” radio button.

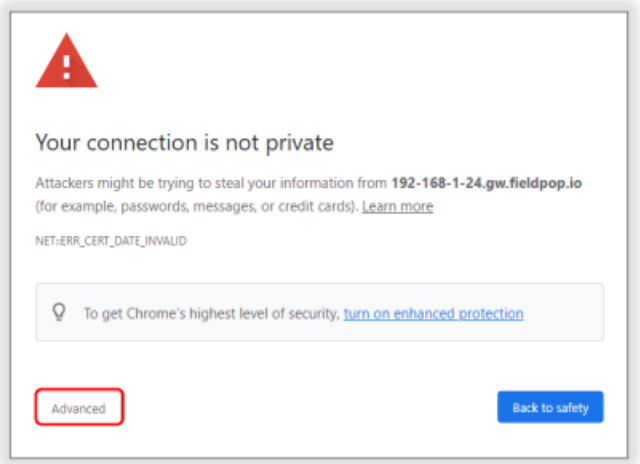
WEB SERVER SECURITY

The initial login to the BMS Interface will prompt that the web server security has not been configured. Coordinate with the Network Administrator for the appropriate web server security mode.

1. OPEN a web browser to NAVIGATE to the BMS Interface

   The default IP address of the BMS Interface is 192.168.1.24.
2. At the “Web Server Security Unconfigured” prompt, SELECT “Use HTTPS (Recommended)” or “Continue with HTTP”

3. At the “Your connection is not private” prompt, SELECT “Advanced”

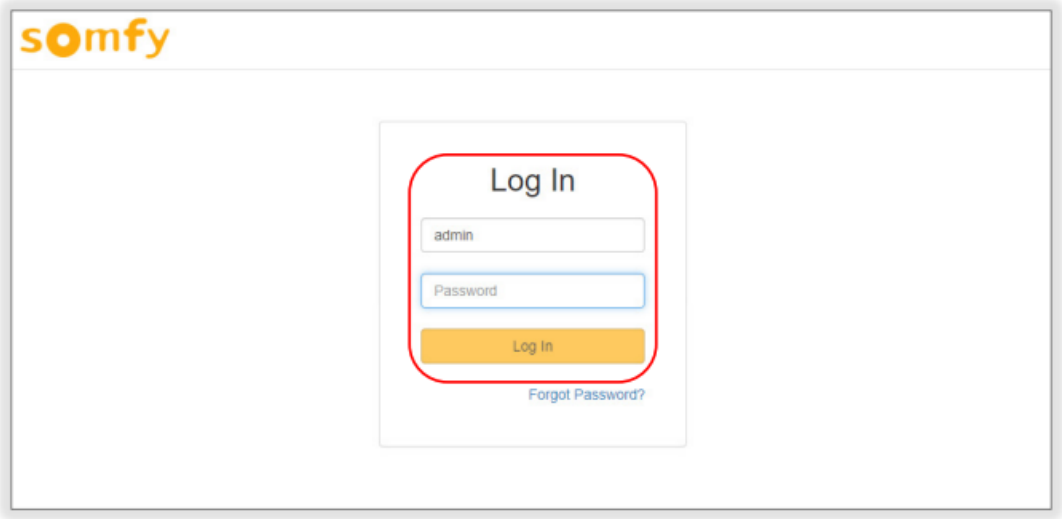


4. SELECT “Proceed to 192-168-1-24.gw.fieldpop.io (unsafe)”

   This prompt will vary according to the BMS Interface security certificate and IP Address.

5. At the Log In page, ENTER the Username and Password, then SELECT “Log In”

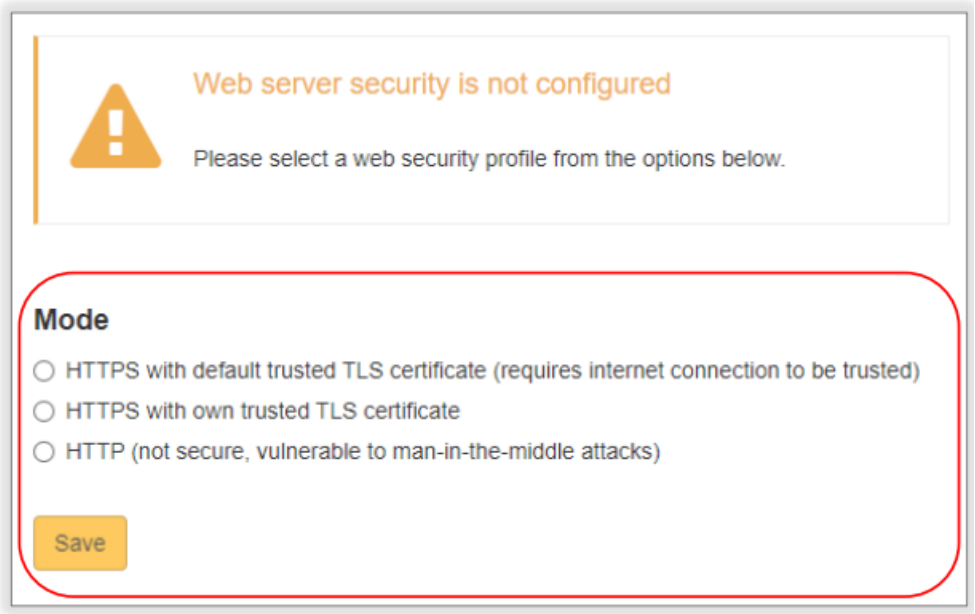
   The default username is “admin”. The password is located on the BMS Interface label. Scan the QR code on the label to display the unique default password.



   If a user has 5 failed login attempts, a 10-minute lockout will occur. There is no time limit to enter a password. Refer to Appendix A of this guide to create users.

6. SELECT a web server security mode, then SELECT “Save”

   Refer to Appendix B of this guide for details of each option or to change the web server security mode.



7. LOGIN to the BMS Interface with the applied web server security mode

NETWORK SETTING

Coordinate with the Network Administrator for the appropriate network settings. If the IP Address of the BMS Interface changed, use the Somfy Connect Field Server Toolbox software to discover the device. The default IP Address of the BMS Interface is 192.168.1.24.

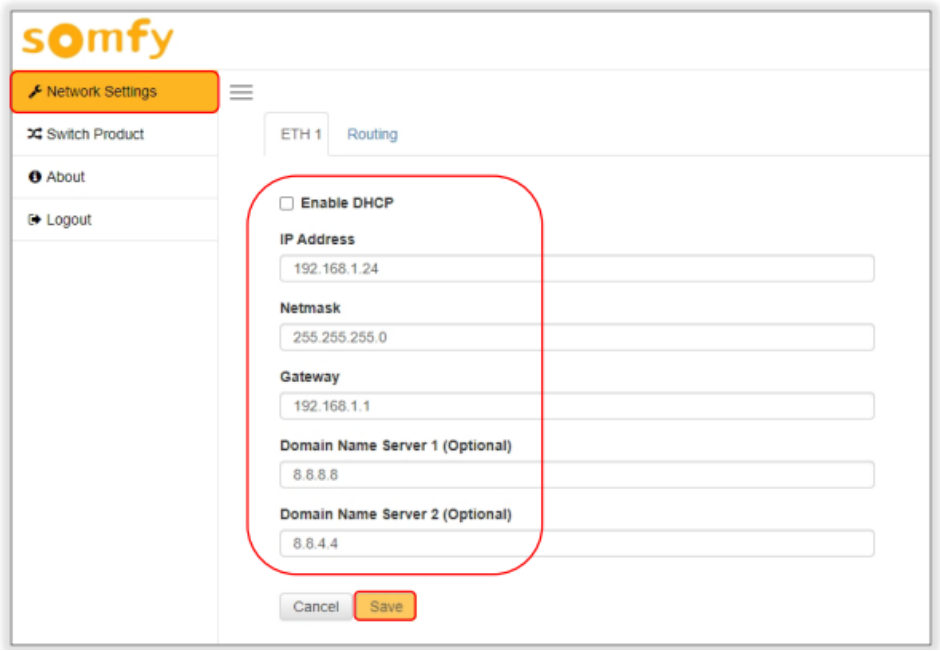
1. OPEN a web browser to NAVIGATE and log in to the BMS Interface
2. SELECT “Network Settings”
3. SELECT the required network settings

FOR A STATIC IP ADDRESS:

- In the ETH 1 tab, ENTER the required addresses
- SELECT “Save” to apply the Network Settings

FOR A DHCP ADDRESS:

- In the ETH 1 tab, SELECT “Enable DHCP”
  SELECT “Save” to apply the Network Settings

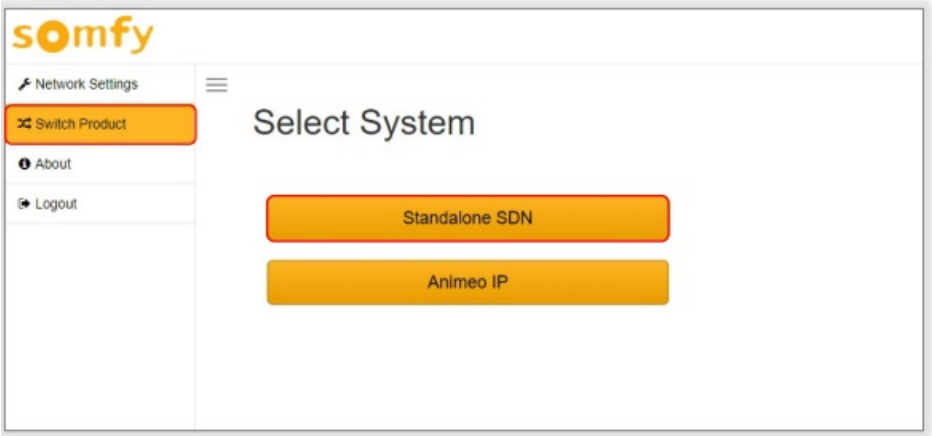


After the Network Settings have been applied, establish a fresh web browser connection to the new IP address and login.

CONFIGURE [STAND-ALONE SDN]

SDN SYSTEM SETTINGS
Coordinate with the Building Management System Manager for the appropriate protocol settings & requirements.

1. OPEN a web browser to NAVIGATE and LOGIN to the BMS Interface
2. SELECT “Switch Product”
3. SELECT “Standalone SDN”
4.



On the Profile Configuration page, SELECT “Profiles Configuration”

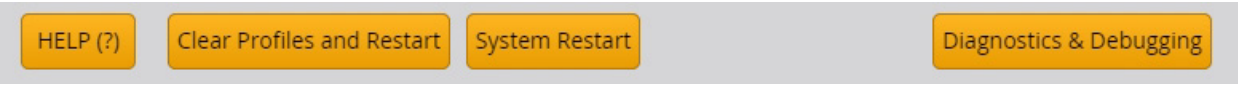
5. On the Configuration Parameters page, ENTER the Configuration Parameters required in each value field
6. SELECT “Submit” after entering each value

somfy

Configuration Parameters

Parameter Name	Parameter Description	Value
protocol_select	**Protocol Selector** Set to 1 for BACnet IP Set to 2 for BACnet MSTP Set to 3 for Metasys N2 Set to 4 for Modbus TCP/Modbus RTU	1 Submit
master_address	**Somfy Master Address** This sets the 3-byte address on the Somfy 485 network of this unit. Hexadecimal format.	ffff01 Submit
network_nr	**BACnet Network Number** This sets the BACnet network number of the Gateway. *(1 - 65535)*	50 Submit
node_offset	**BACnet Node Offset** This is used to set the BACnet device instance. The device instance will be sum of the Modbus device address and the node offset. *(0 - 4194303)*	50000 Submit
bac_ip_port	**BACnet IP Port** This sets the BACnet IP port of the Gateway. The default is 47808. *(1 - 65535)*	47808 Submit
bac_cov_option	**BACnet COV** This enables or disables COVs for the BACnet connection. Use COV_Enable to enable. Use COV_Disable to disable. *(COV_Enable/COV_Disable)*	COV_Disable Submit
bac_bbmd_option	**BACnet BBMD** This enables BBMD on the BACnet IP connection. Use BBMD to enable. Use - to disable. The bdt.ini files also needs to be downloaded. *(BBMD/-)*	- Submit
bac_virt_nodes	**BACnet Virtual Server Nodes** Set to NO if the unit is only converting 1 device to BACnet. Set to YES if the unit is converting multiple devices. *(No/Yes)*	Yes Submit
rte_net_num	**BACnet Router Network Number** This sets the BACnet router network number. Needs to be unique across the BACnet network. *(1 - 65534)*	50002 Submit
int_net_num	**BACnet Internal Network Number** This is used for internal BACnet traffic. Needs to be unique across the BACnet network. *(1 - 65534)*	50003 Submit

7. SELECT “System Restart” to apply the Configuration Parameters



After the Configuration Parameters have been applied, continue to the SDN Configuration section of this guide.

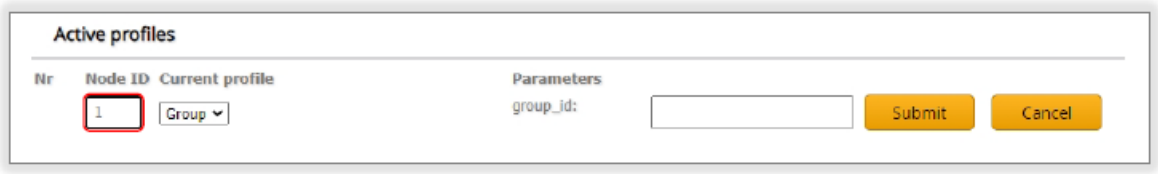
SDN CONFIGURATION

Refer to a generated Integration Report to identify the specific group addresses required, or use the Set pro by Somfy Configuration software to assign a specific group address to each SDN motor to be controlled.

1. On the Configuration Parameters page Active profiles section, SELECT “Add”

2. In the Node ID field, ENTER a number from 1 to 255 for the device
    - It is recommended to start with the number 1 and increase by 1 for each additional device
    - The Node ID number will be added to the BACnet Node Offset number set in the Configuration Parameters and will be assigned to the third-party BMS

      For example: If the BACnet Node Offset is 50000, then the first assigned Instance ID will be 50001.



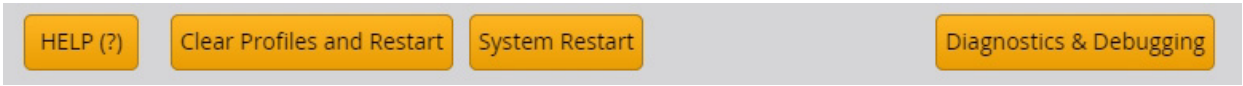
3. In the Current Profile dropdown, SELECT “Group” or “Motor”
    - SELECT “Group” if connecting to an SDN Group ID

      The Group ID is a 6-digit hexadecimal address programmed in each SDN motor to assign a group to multiple motors.
    - SELECT “Motor” if connecting to an individual SDN Motor ID

      The Motor ID is a 6-digit hexadecimal unique node ID for each SDN motor.

4. ENTER the Group or Motor ID in the field, SELECT “Submit” to save the profile
    - To delete an existing profile, SELECT “Remove.”

5. After entering all profiles, SELECT “System Restart”



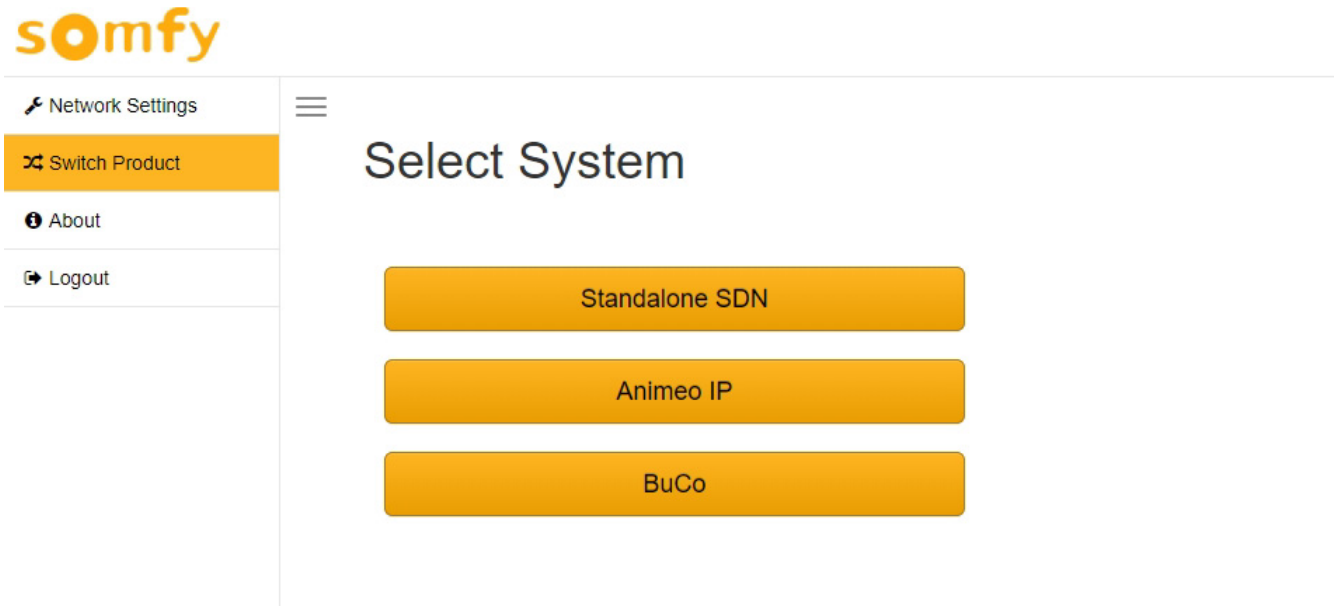
    - To delete all existing profiles, SELECT “Clear Profiles and Restart.”
    - To validate operation for BACnet, continue to the BACnet Explorer section of this guide.

CONFIGURE [ANIMEO IP]

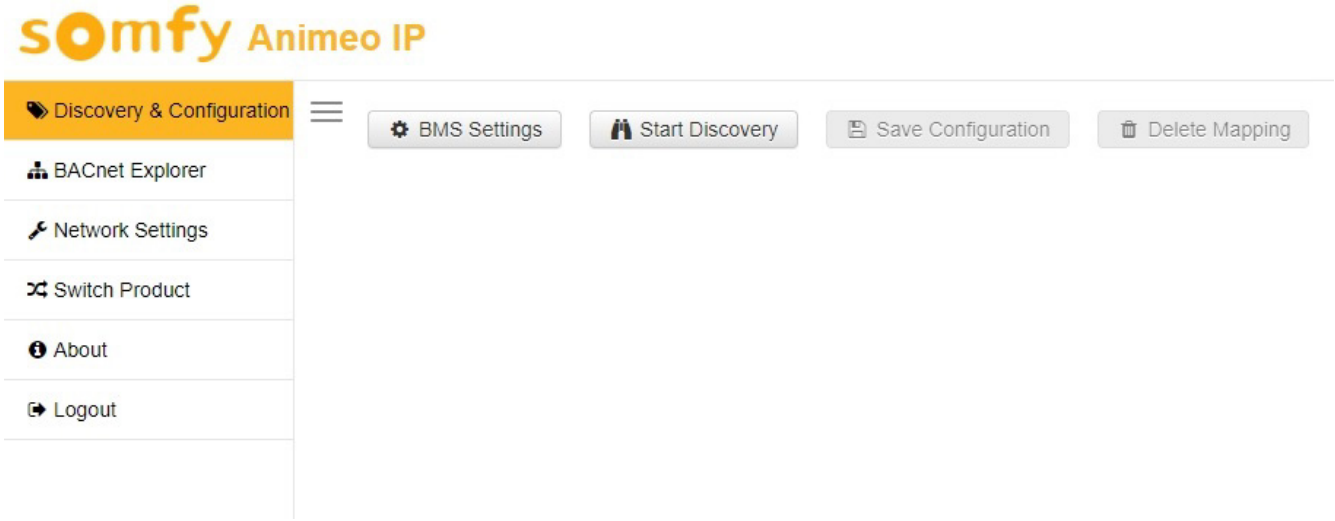
ANIMEO IP SYSTEM SETTINGS

Coordinate with the Building Management System Manager for the appropriate protocol settings & requirements.

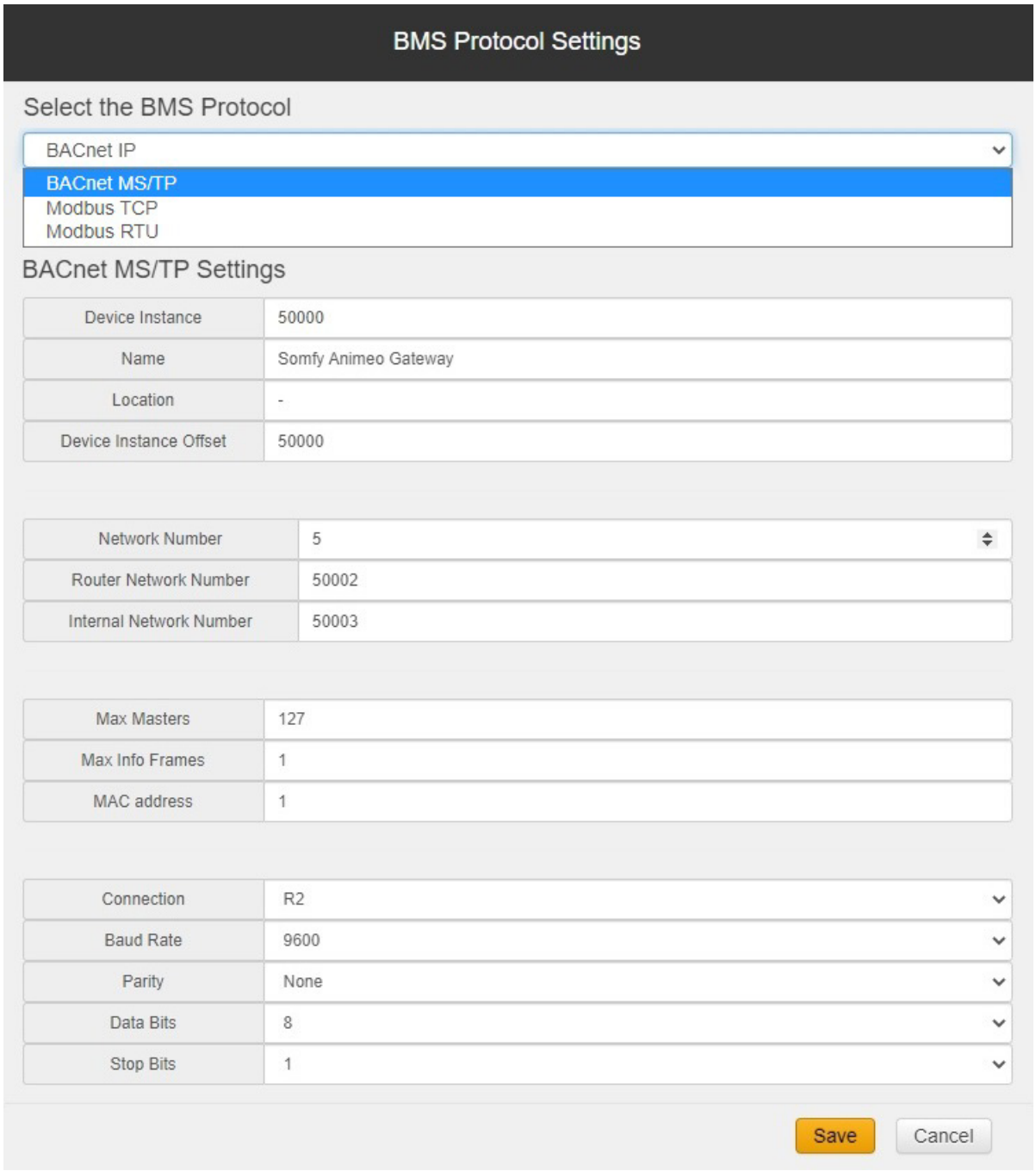
1. OPEN a web browser to NAVIGATE and LOGIN to the BMS Interface
2. SELECT “Switch Product”
3. SELECT “Animeo IP”



4. SELECT “Discovery & Configuration”
5. SELECT “BMS Settings”



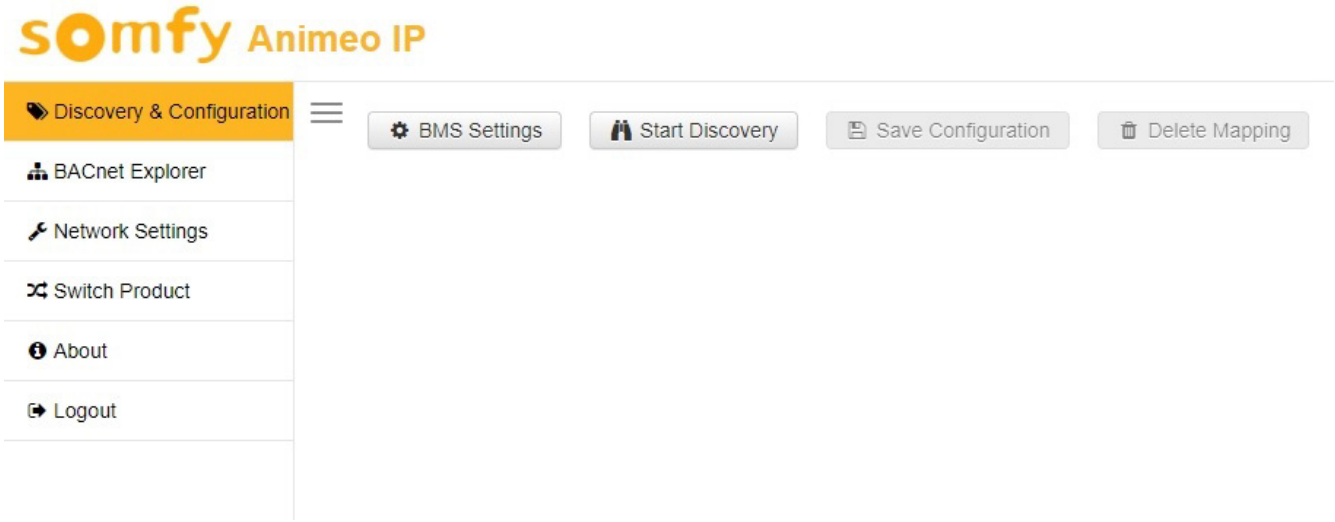
6. On the BMS Protocol Settings page, SELECT the BMS Protocol
7. ENTER the required BMS Protocol Settings in each field
8. SELECT “Save” to apply the BMS Protocol Settings
9. SELECT “Yes” when prompted “Save BMS settings and restart?”



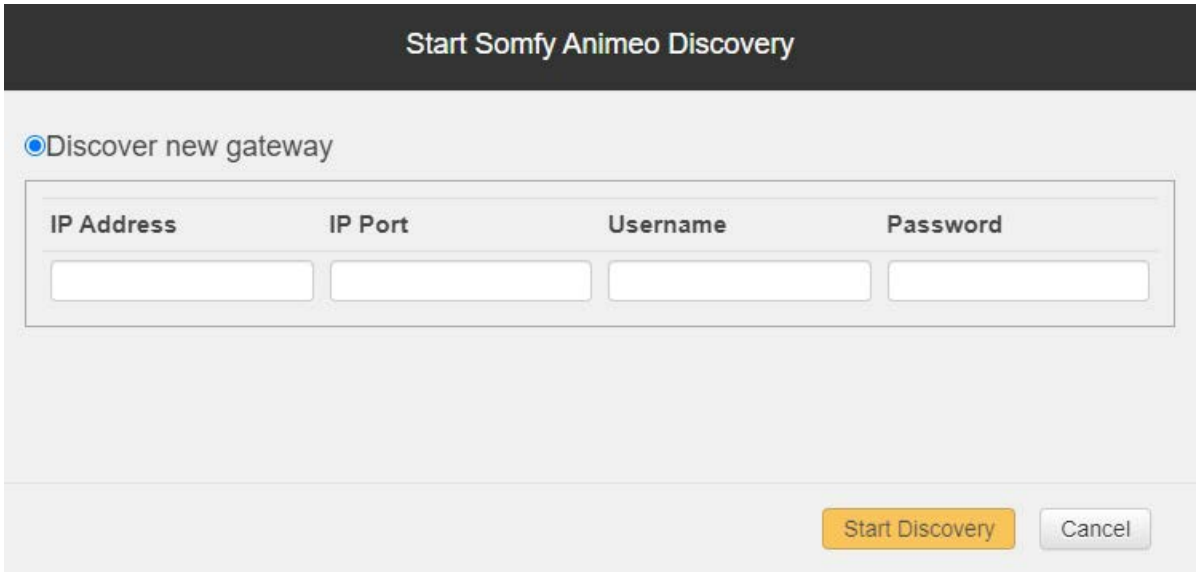
The Device Instances can range from 1 to 4,194,303. If the Device Instance Offset is 50000, then the first assigned Instance ID will be 50001. If more than one BMS Interface is installed, then all must have unique Network Numbers. If BACnet MS/TP, set the MAC address to a value from 1 to 127. Any device connected to the R2 Port must have matching COM settings.
After the BMS Protocol Settings have been applied, continue to the Animeo IP Configuration section of this guide.

ANIMEO IP CONFIGURATION
The animeo IP configuration should only be performed after the animeo IP programming is complete, otherwise a new discovery will be required. Credentials of an animeo IP Web User is required for the Somfy Connect BMS Interface to authenticate to the animeo IP Building Controller. Obtain the Web User username and password from the animeo IP Commissioning Agent.

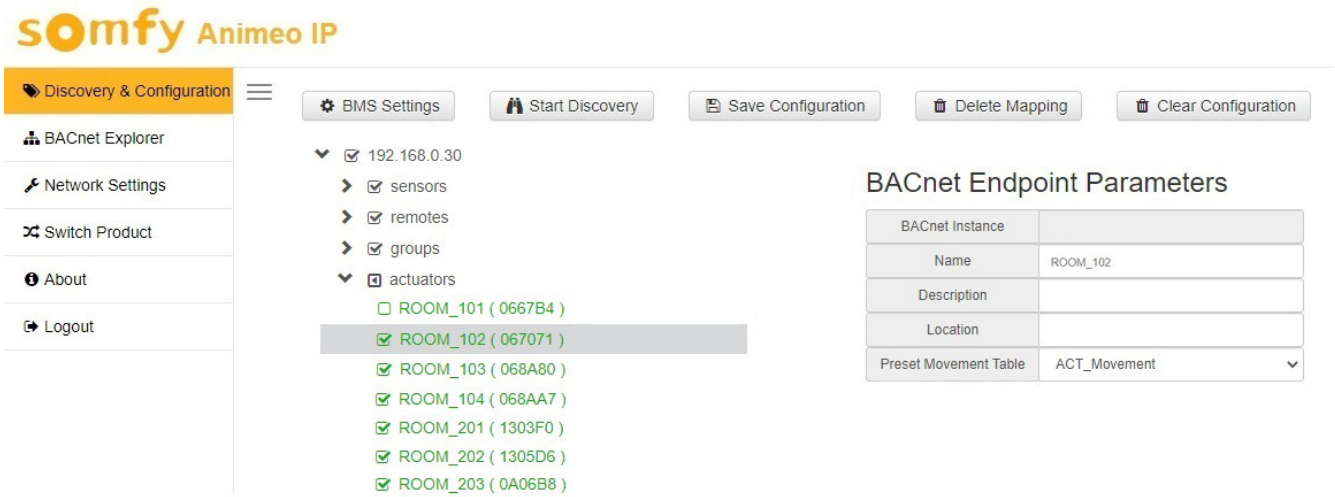
1. SELECT “Discovery & Configuration”
2. SELECT “Start Discovery”



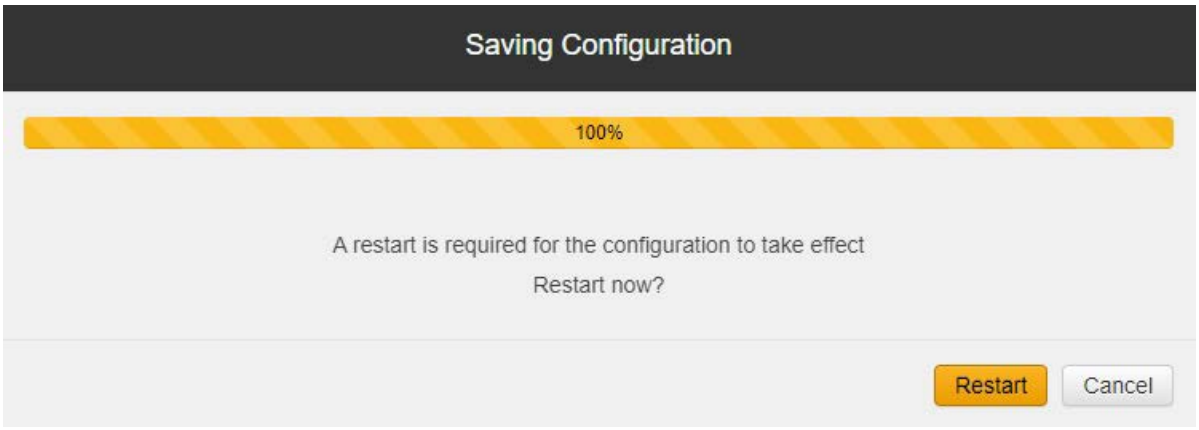
3. In the Start Somfy Animeo Discovery window
    - ENTER the IP Address of the animeo IP Building Controller
    - ENTER IP Port 80
    - ENTER the Username of the Web User configured in animeo IP
    - ENTER the Password of the Web User configured in animeo IP
    - SELECT “Start Discovery”



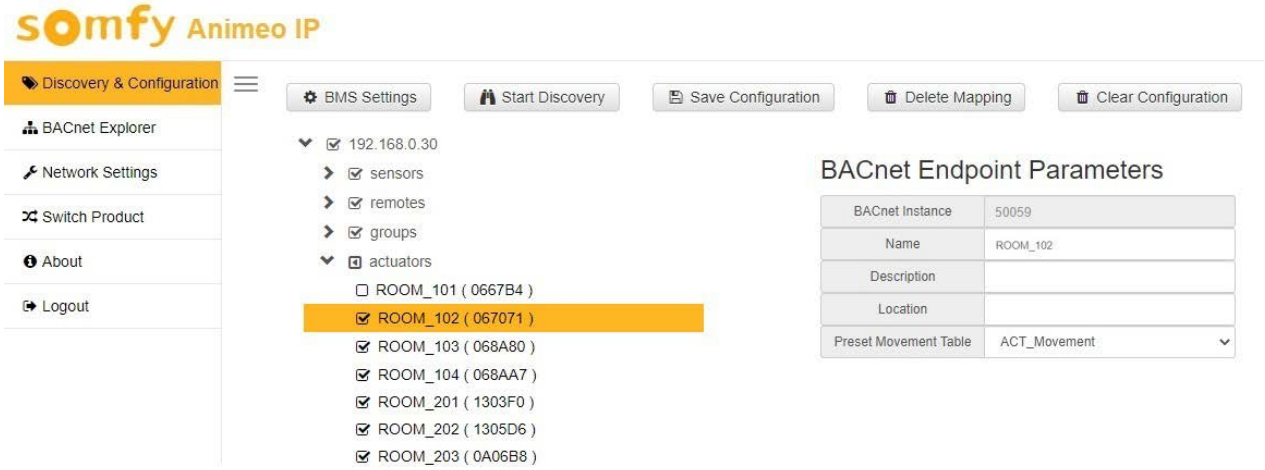
    - The animeo IP discovery may take a few minutes depending on the quantity of discovered devices.
    - After the discovery process is complete, a device tree will display. Selecting the right facing arrows next to the devices will expand the view of each. Selecting an individual device will display the endpoint parameters. Depending on the protocol, some fields are editable.
4. SELECT the devices to be monitored or controlled by the Building Management System by marking a check next to each Most Building Management Systems control large groups rather than individual motors. Groups can not be polled for feedback. It may be necessary to select (1) actuator/motor from each group to provide motor feedback of status and position.
5. DESELECT all other devices
6. SELECT “Save Configuration”



7. SELECT “Restart” when prompted



8. CONFIRM the configuration
    - The devices will change in color from green to black, confirming the saved configuration. Instance IDs will populate for all configured devices in the Endpoint Parameters.

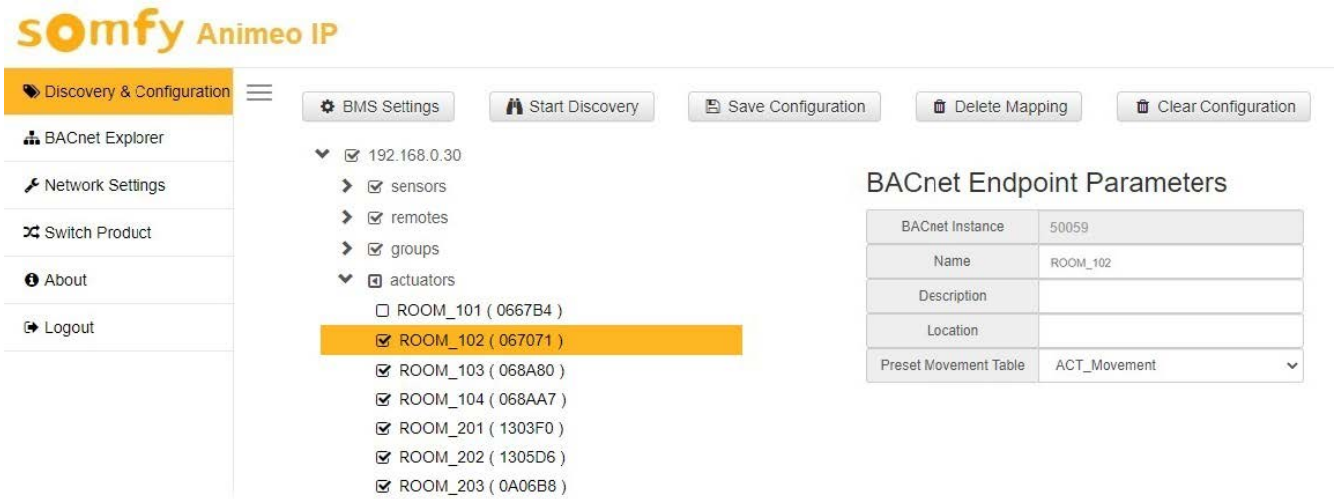


    - To validate operation for BACnet, continue to the BACnet Explorer section of this guide.

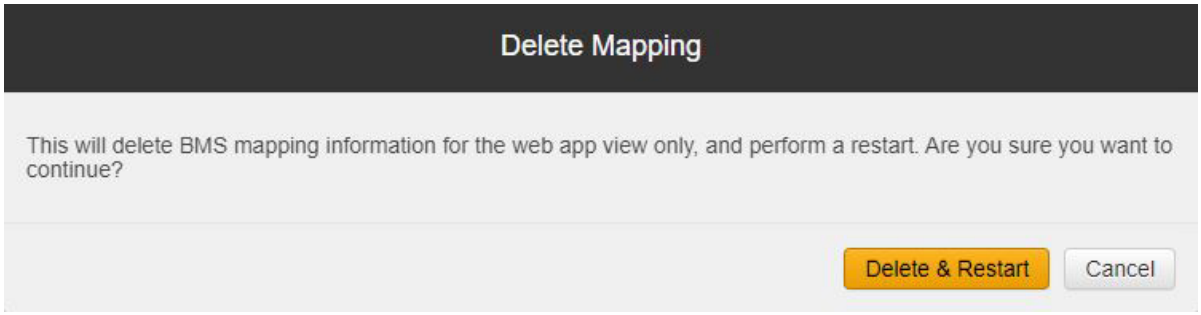
DELETE MAPPING

The delete mapping feature allows a user to edit a saved configuration, removing the previous device mapping. While this process will remove all device instance IDs, it will retain the previously selected devices, preserving the user’s work. If the animeo IP programming and device list have changed, follow the Clear Configuration section of this guide.

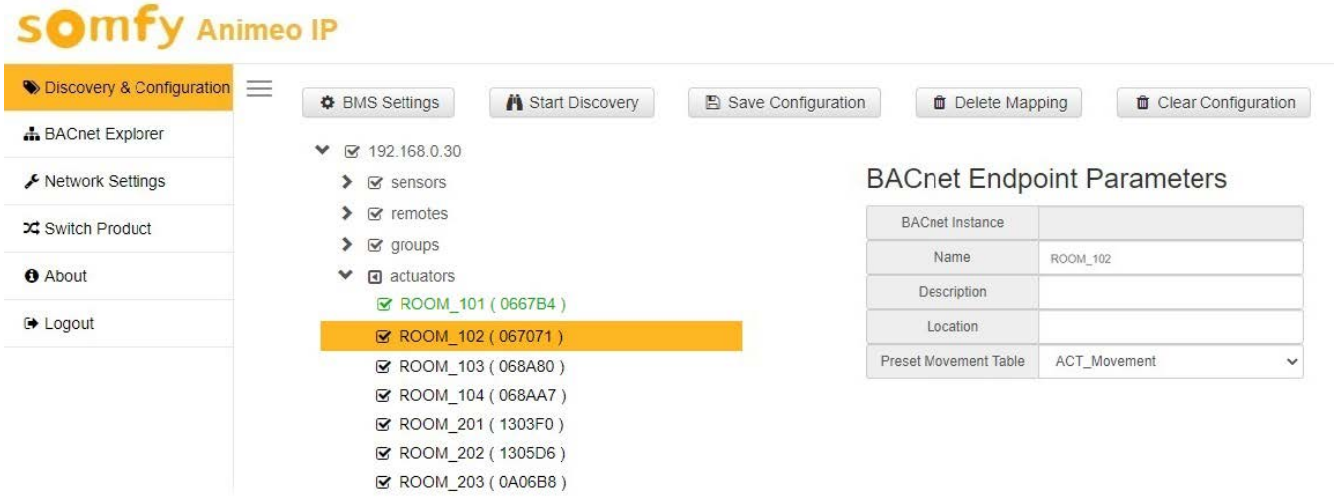
1. On the Animeo IP Discovery & Configuration page, SELECT “Delete Mapping”



2. SELECT “Delete & Restart” when prompted



   - After the system restart, all previously selected devices will display in BLACK and no longer have mapped Instance IDs. All other devices will display in GREEN.
3. SELECT the devices to be monitored or controlled by the Building Management System by marking a check next to each
4. DESELECT all other devices
5. SELECT “Save Configuration”

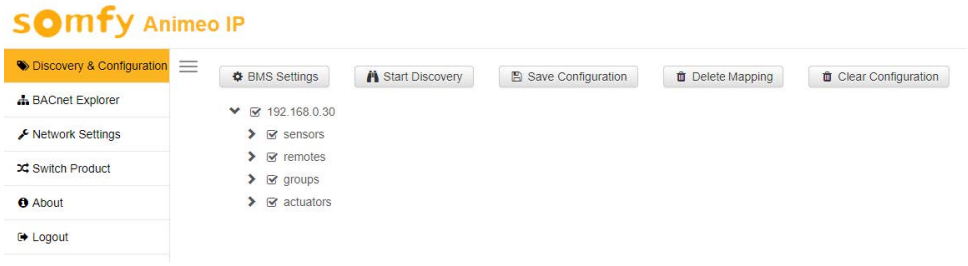


6. SELECT “Restart” when prompted
7. CONFIRM the configuration
   - To validate operation for BACnet, continue to the BACnet Explorer section of this guide.

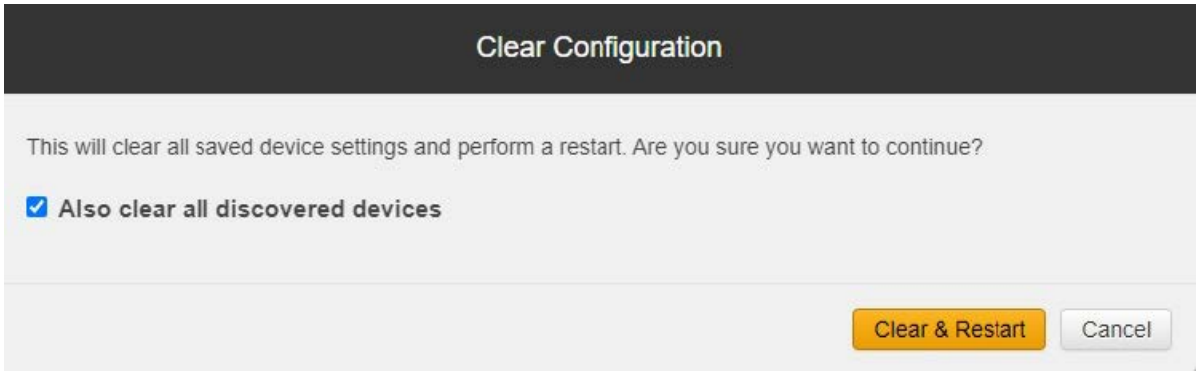
CLEAR CONFIGURATION

If the animeo IP programming and device list have changed, then a clear configuration is required. All previously discovered devices and their mapping will be cleared. Clearing a configuration does not remove the Network or BMS Settings.

1. On the Animeo IP Discovery & Configuration page, SELECT “Clear Configuration”



2. SELECT “Clear & Restart” when prompted
    - The Clear Configuration window will display an option to “Also clear all discovered devices” selected by default. Deselect this option, if necessary, otherwise all discovered devices will be removed.



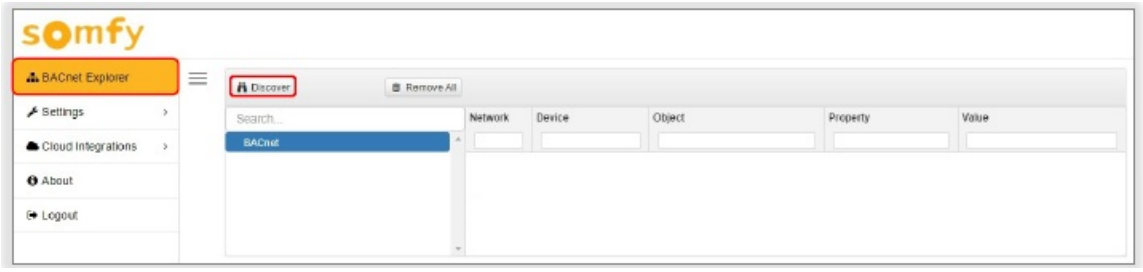
After the system restart, the animeo IP configuration will be cleared. To start a new animeo IP discovery, continue to the Animeo IP Configuration section of this guide.

BACNET EXPLORER

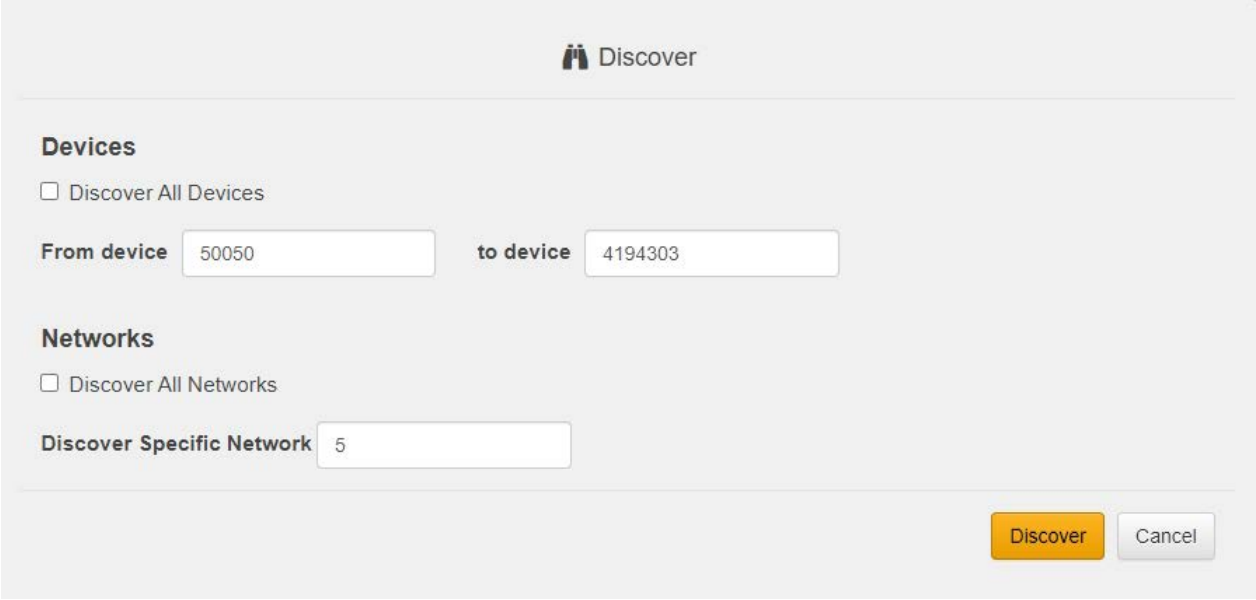
USING THE BACNET EXPLORER TOOL

The embedded BACnet Explorer Tool allows a Shade Commissioning Agent to validate the BMS Interface is operating correctly without requiring the BMS Integrator to test the device. After a configuration is saved on the BMS Interface, the BACnet Explorer will be available.

1. OPEN a web browser to NAVIGATE and LOGIN to the BMS Interface
2. SELECT “BACnet Explorer”
3. SELECT “Discover”

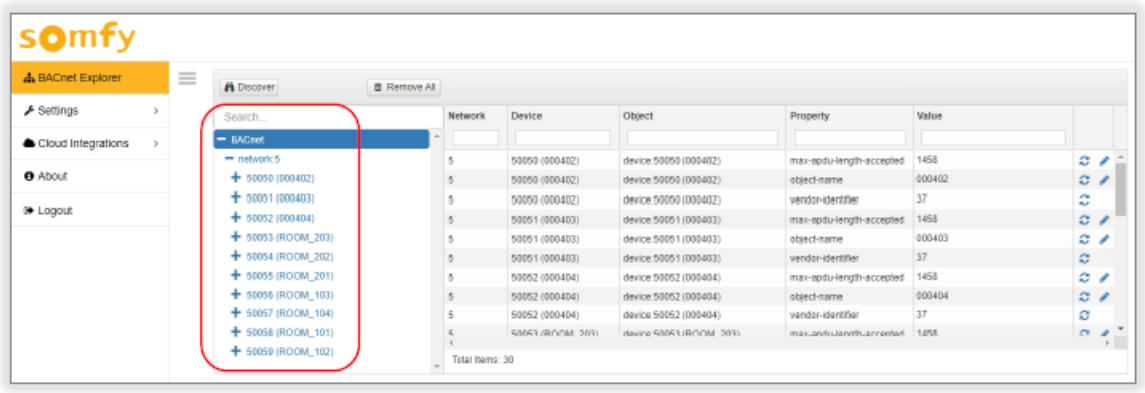


4. SELECT “Discover”
    - Discover All Devices and Discover All Networks is selected by default. Deselect these options to discover a specific range of BACnet devices and/or a specific BACnet network.

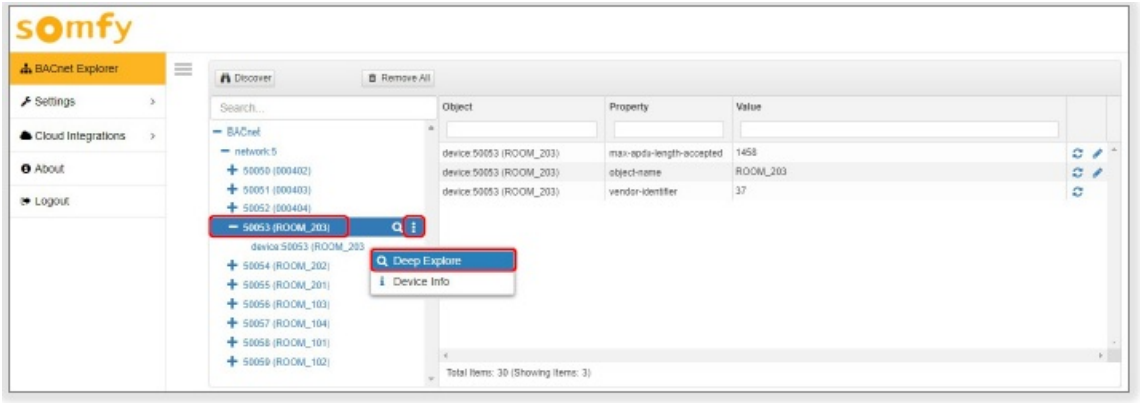


- Allow the devices to populate before interacting with the device list. Any discovery or explore process will display a GREEN message in the upper right corner of the browser to confirm the action is complete.
- This list will not be saved. A new discovery must be performed if the browser session has ended.

5. VIEW the discovered device list or SEARCH to find devices based on the device instance ID
   - The device list tree has 3 levels that correspond to the BACnet network number, device by Instance ID, and device object properties.



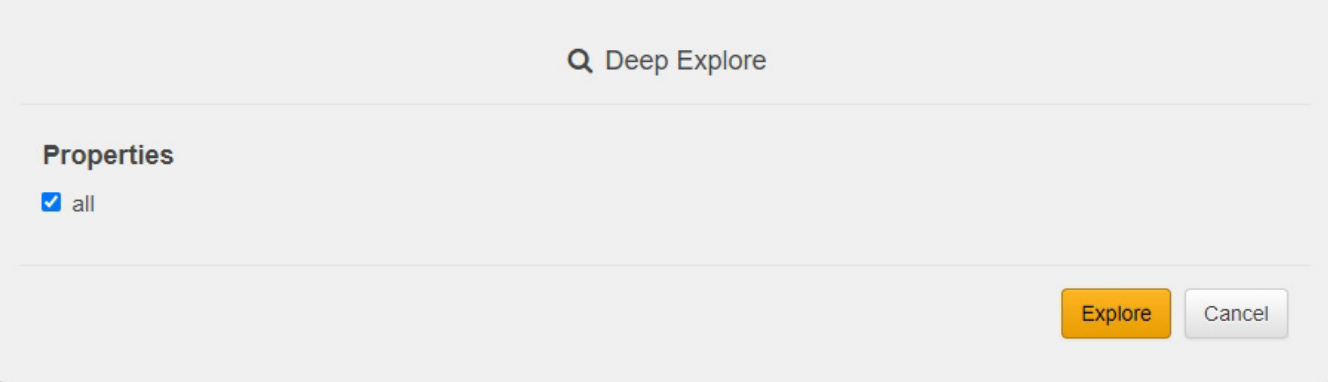
6. SELECT and expand a device in the list to view or control
7. SELECT the Options icon, to the right of the device
8. SELECT “Deep Explore”
9.



In the Deep Explore window, SELECT “Explore”

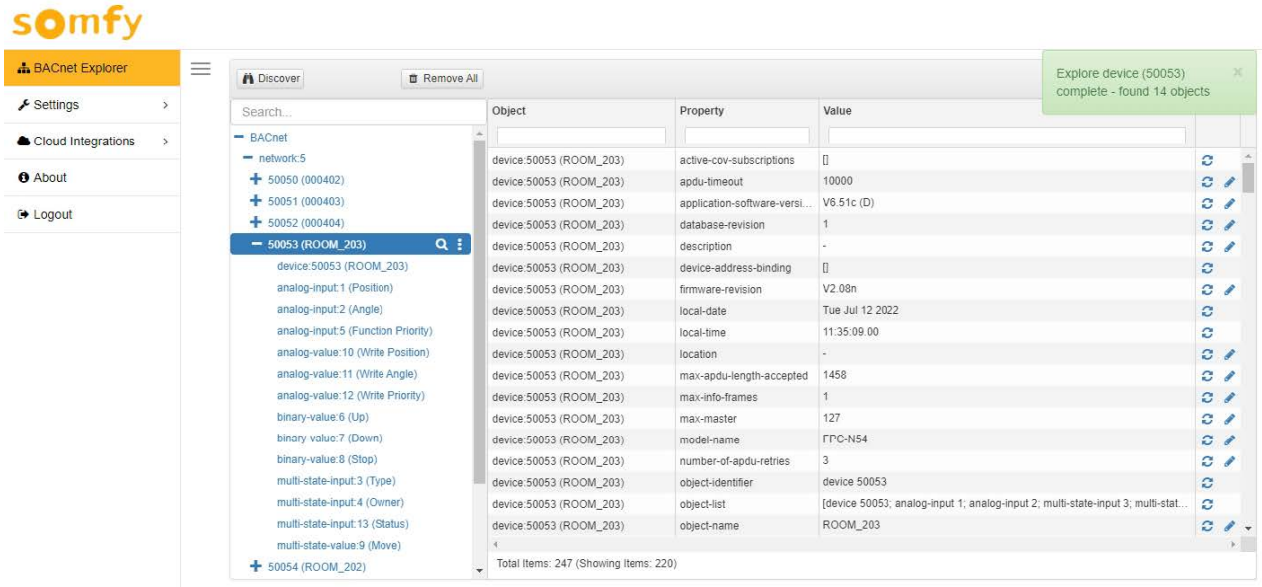
- Selecting to deep explore all device properties will also discover the device “present-value” and “status-flags.”

10.

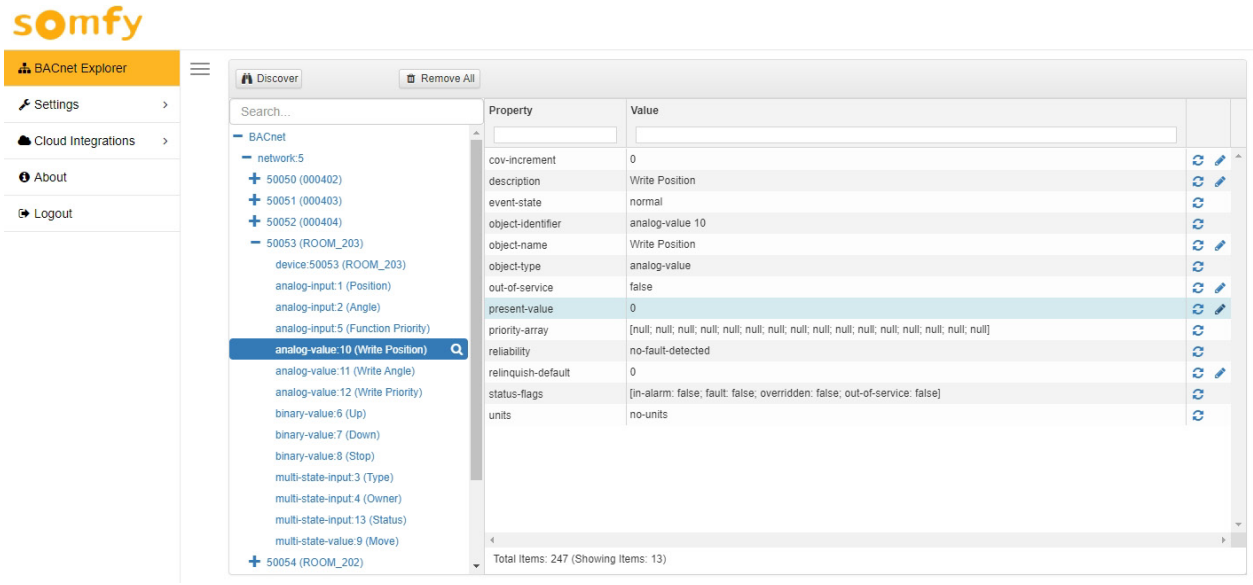


VIEW the device object details

- The full list of devices and object details will display. If changes are expected since the last explore, SELECT the Refresh icon to the right of the individual object properties to update the values.

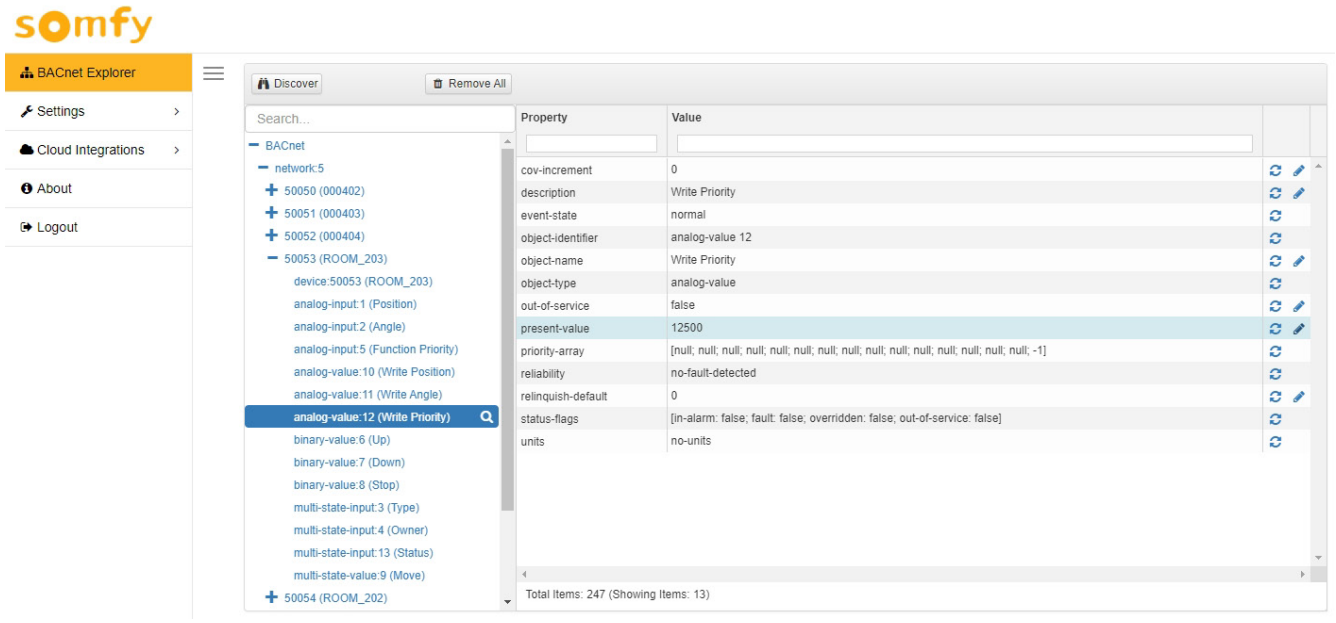


11. Refer to Appendix C of this guide for a complete device object description.
    - SELECT a device in the left pane
    - In the example below, the Shade Commissioning Agent will validate operation of the Room 203 motor in an animeo IP project by sending a Write Position command and move the shade to 50%.
12. SELECT the present-value Pencil icon in the right pane
    - The only recommended fields to read from or write to via the BMS Interface are the device “present-value” fields. Other BACnet properties are editable (such as object name, object description, etc.); however, this is not recommended. The Somfy Connect BMS Interface is not a Building Management System.



13. In the Write Property window
    - ENTER “50” in the present-value field
    - SELECT “Write”

14. VERIFY the shade position
    - Since the Write Position command was emulating a Building Management System controlling the animeo IP project, the motor will stay in the 50% position until this higher priority external command is properly released. All BMS Interface validation commands must be released by sending a Write Priority command of -1. The levels of priority only apply to animeo IP and not Stand-alone SDN configurations. There is no need to release BMS Interface commands for Stand-alone SDN projects.
15. SELECT the device “Write Priority” in the left pane
16. SELECT the present-value Pencil icon in the right pane



17. In the Write Property window
    - ENTER “-1” in the present-value field
    - SELECT “Write”

18. VERIFY the shade returns to a position determined by the animeo IP programming
    - The animeo IP Visual Configuration Software will display motor status according to the Comfort Zone Functions programmed. If the animeo IP Visual Configuration Software displays the motor
    - Active Function under “External Command,” then perform the above Write Priority -1 command for the associated device.
    - Refer to Appendix C of this guide for a complete device object description.

APPENDIX

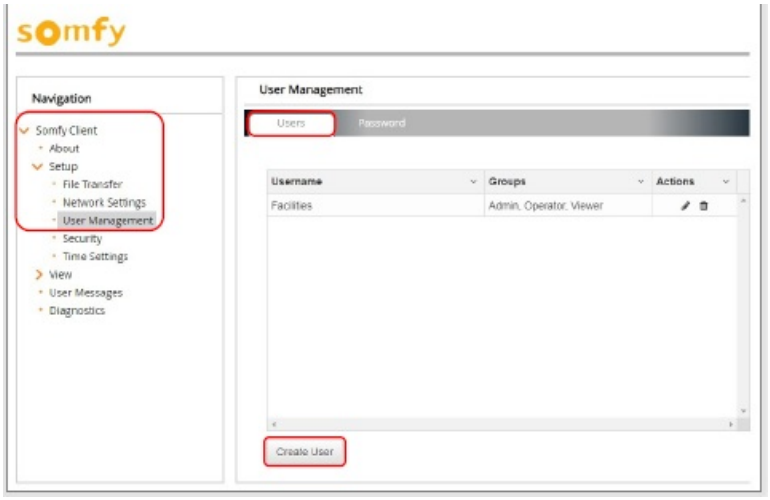
[APPENDIX A] CREATE USERS

There are 3 User Groups for the Somfy Connect BMS Interface: “Admin” can modify and view settings, “Operator” can modify and view data, and “Viewer” can view settings or status of the BMS Interface. If passwords are lost, a factory reset is required to reinstate the default Admin user and unique password on the device label. All other user information and configurations will be removed.
Refer to Appendix F of this guide to factory reset the BMS Interface.

To create or edit users of the Somfy Connect BMS Interface:

1. OPEN a web browser to NAVIGATE and LOGIN to the BMS Interface
2. SELECT “Diagnostics” at the bottom of the page

3. From the Somfy Client page, SELECT “Setup,” SELECT “User Management,” SELECT “Users,” then SELECT “Create User”



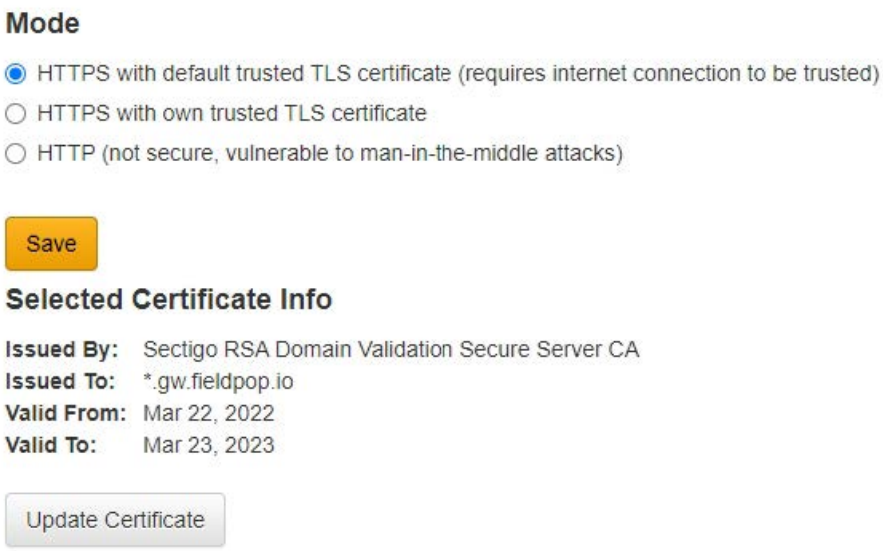
4. In the Create User window, ENTER the Username, SELECT the Security Groups, ENTER and CONFIRM a Password SELECT “Generate Password” to auto-generate a strong password.
5. SELECT “Create”
6. SELECT “Copy Password” to copy and save the password, then SELECT “OK”
    - The new user will be listed in the Users list. To edit a user, SELECT the Edit User icon. To delete a user, SELECT the Delete User icon. Users currently logged in to the BMS Interface can change their own password in the User Management Password tab.

[APPENDIX B] WEB SERVER SECURITY MODES

The initial login to the Somfy Connect BMS Interface will prompt that the web server security has not been configured. Coordinate with the Network Administrator for the appropriate web server security mode.

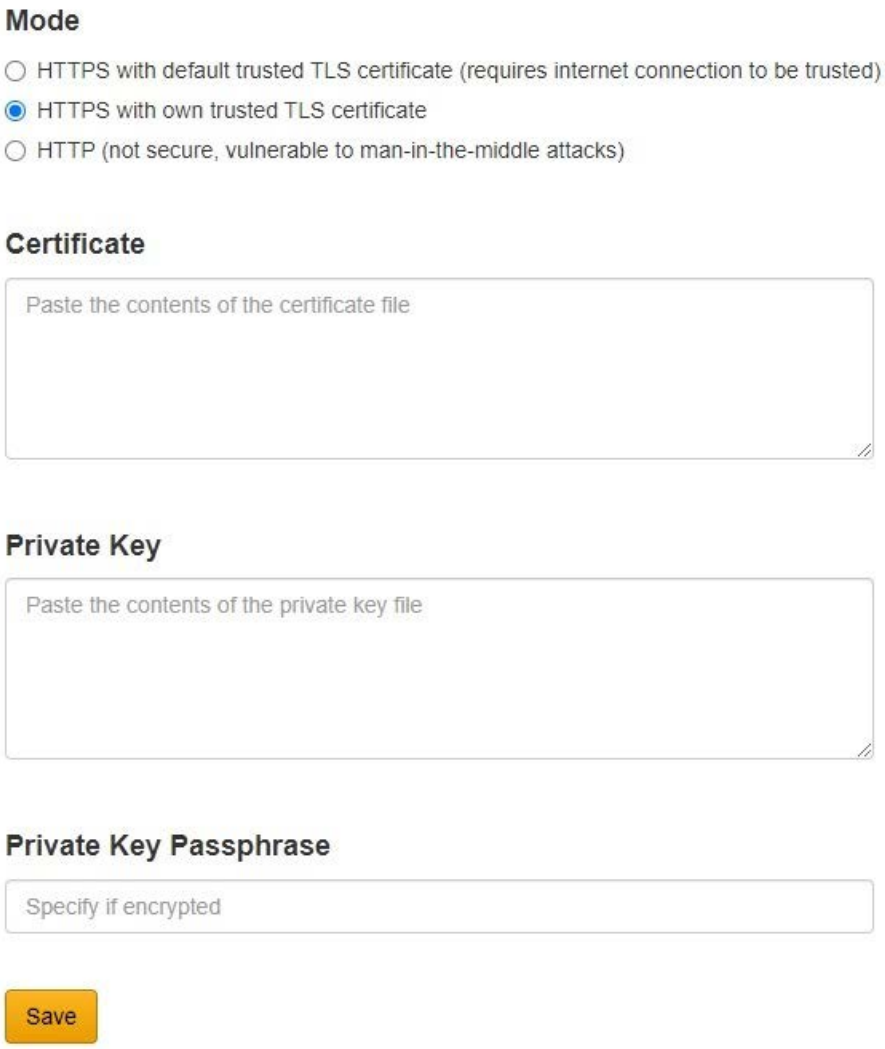
To change the web security mode after the initial setup of the Somfy Connect BMS Interface:

1. NAVIGATE and LOGIN to the BMS Interface
2. SELECT “Diagnostics” at the bottom of the page
3. From the Somfy Client page, NAVIGATE to “Setup,” SELECT “Security,” SELECT the “Web Server” tab
4. SELECT a Mode and follow the steps below:



For HTTPS with trusted TLS certificate (Default)

- SELECT “HTTPS with default trusted certificate (requires internet connection to be trusted)” SELECT “Update Certificate” to browse for a valid certificate.
- SELECT “Save” A “Redirecting” message will display, then the browser will return to the Log In page.

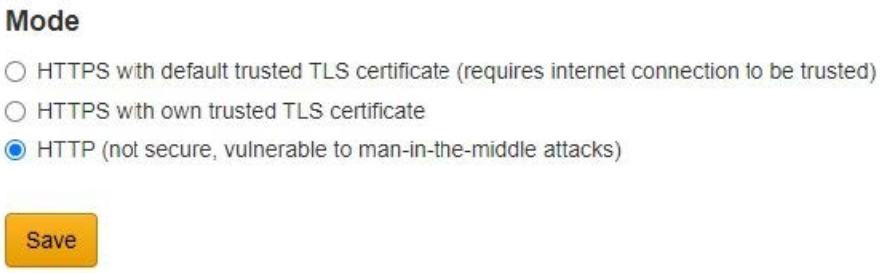


For HTTPS with own trusted TLS certificate (Recommended most secure)

- SELECT “HTTPS with own trusted TLS certificate”
- COPY & PASTE the Certificate and Private Key text and Private Key Passphrase into their respective fields Obtain this TLS certificate from the Network Administrator or IT Manager.
- SELECT “Save” A “Redirecting” message will display, then the browser will return to the Log In page.

For HTTP (Not secure)

- SELECT “HTTP (not secure, vulnerable to man-in-the-middle attacks)”
- SELECT “Save” A “Redirecting” message will display, then the browser will return to the Log In page.



[APPENDIX C] DEVICE OBJECT DESCRIPTION

The Somfy Connect BMS Interface can support up to 4500 mapped device objects. The number of devices each BMS Interface can support will depend on the type of Stand-alone SDN or animeo IP devices configured. Refer to the System Limitation section of this guide for each device object value. Each device property includes a read and/or write capability from the BACnet Explorer Tool. Refer to the BACnet Explorer section of this guide for use. The following is a description for each device object.

STAND-ALONE SDN DEVICES:

GROUP DEVICE	*Read not available for Group devices*	
DEVICE OBJECT PROPERTY	CAPABILITY	DESCRIPTION
Position (Percent)	Write	Write the “present value” to move a group to a specific percent position
Position (Absolute)	Write	Write the “present value” to move a group to a specific pulse count position
Intermediate Position	Write	Write the “present value” to move a group to an intermediate position
Up	Write	Write the “present value” as “active” to move a group to the upper limit
Down	Write	Write the “present value” as “active” to move a group to the lower limit
Stop	Write	Write the “present value” as “active” to stop a group during movement

MOTOR DEVICE		
DEVICE OBJECT PROPERTY	CAPABILITY	DESCRIPTION
Position (Percent)	Read / Write	Read the “present value” of a motor current percent position OR Write the “present-value” to move a motor to a specific percent positio n
Position (Absolute)	Read / Write	Read the “present value” of a motor current pulse count position OR Write the “present-value” to move a motor to a specific pulse count position
Intermediate Posit ion	Write	Write the “present-value” to move a motor to an intermediate position
Up	Write	Write the “present value” as “active” to move a motor to the upper limit
Down	Write	Write the “present value” as “active” to move a motor to the lower limit
Stop	Write	Write the “present value” as “active” to stop a motor during movement

ANIMEO IP DEVICES:

SENSOR DEVICE		
DEVICE OBJECT PROPERTY	CAPABILITY	DESCRIPTION
Value	Read	Read the “present-value” of current: Sunlight illuminance in lux Wind Speed in meters per second Wind Direction in degrees Precipitation Temperature in degrees Celsius
Value Temp Deg F	Read	Read the “present value” of current Temperature in degrees Fahrenheit
Value Windspeed mph	Read	Read the “present value” of current Wind Speed in miles per hour
Value Windspeed kn	Read	Read the “present value” of current Wind Speed in knots per hour
Value Windspeed kmh	Read	Read the “present value” of current Wind Speed in kilometers per hour

VIRTUAL KEYPAD (REMOTE) DEVICE		
DEVICE OBJECT PROPERTY	CAPABILITY	DESCRIPTION
Position	Read	Read the “present value” of a local zone current percent position
Angle	Read	Read the “present value” of a local zone current tilt angle
Function	Read	Read the “present value” of a local zone current function owner
Function Priority	Read	Read the “present value” of a local zone current function priority level
Up	Write	Write the “present value” as “active” to move a local zone to the upper l imit
Down	Write	Write the “present-value” as “active” to move a local zone to the lower l imit
Stop	Write	Write the “present-value” as “active” to stop a local zone during movement
Move	Write	Write the “present value” to move a local zone to a preset position
Write Position	Write	Write the “present-value” to move a local zone to a specific percent po sition
Write Angle	Write	Write the “present value” to move a local zone to a specific tilt angle
Reset	Write	Write the “present value” as “true” to release a local zone from control

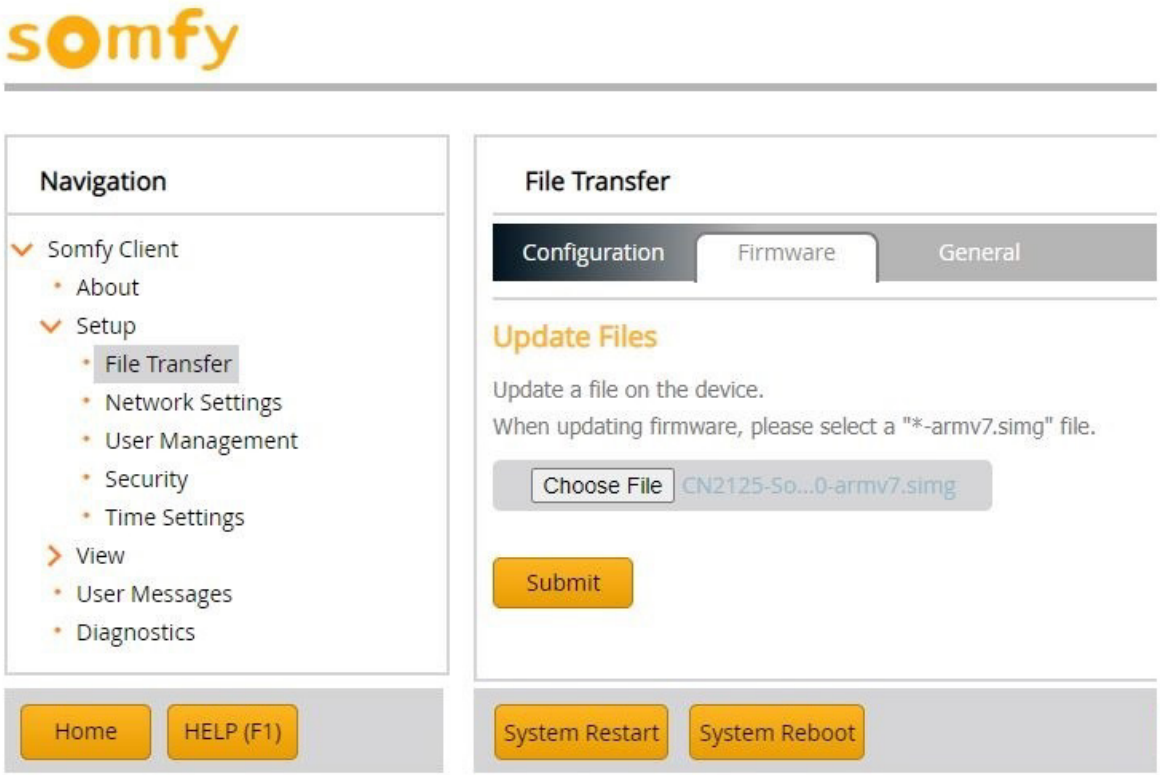
GROUP DEVICE	*Read not available for Group devices*	
DEVICE OBJECT PROPERTY	CAPABILITY	DESCRIPTION
Up	Write	Write the “present value” as “active” to move a group of motors to the upper limit
Down	Write	Write the “present value” as “active” to move a group of motors to the l ower limit
Stop	Write	Write the “present value” as “active” to stop a group of motors during movement
Move	Write	Write the “present-value” to move a group to a preset position
Write Position	Write	Write the “present-value” to move a group to a specific percent positio n
Write Angle	Write	Write the “present value” to move a group to a specific tilt angle
Write Priority	Write	Write the “present value” as “-1” to release a group from control

MOTOR (ACTUATOR) DEVICE		
DEVICE OBJECT PROPERTY	CAPABILITY	DESCRIPTION
Position	Read	Read the “present-value” of a motor current percent position
Angle	Read	Read the “present-value” of a motor current tilt angle
Type	Read	Read the “present-value” of a motor current type of control
Owner	Read	Read the “present-value” of a motor current control owner
Function Priority	Read	Read the “present-value” of a motor current function priority level
Up	Write	Write the “present-value” as “active” to move a motor to the upper limit
Down	Write	Write the “present-value” as “active” to move a motor to the lower limit
Stop	Write	Write the “present value” as “active” to stop a motor during movement
Move	Write	Write the “present-value” to move a motor to a preset position
Write Position	Write	Write the “present-value” to move a motor to a specific percent positio n
Write Angle	Write	Write the “present-value” to move a motor to a specific tilt angle
Write Priority	Write	Write the “present value” as “-1” to release a motor from control
Status	Read	Read the “present value” of a motor’s current status

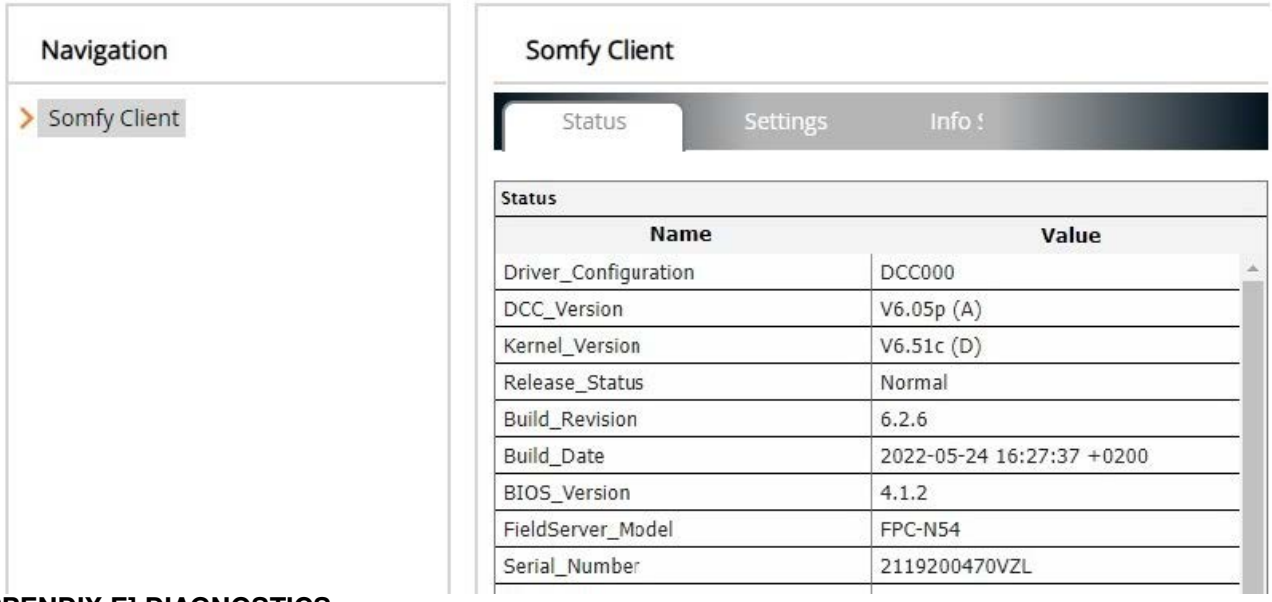
[APPENDIX D] UPDATE FIRMWARE

Prior to updating firmware, download the appropriate firmware for the Somfy Connect BMS Interface V2. The model and BIOS version are located on the device label.

To update the firmware of the Somfy Connect BMS Interface:

1. OPEN https://www.somfypro.com/services-support/software to download the latest Somfy Connect BMS Interface firmware, then SAVE and extract the “armv7.simg” file to a known folder location
2. OPEN a web browser to NAVIGATE to the BMS Interface
3. SELECT “Diagnostics” at the bottom of the page
4. From the Somfy Client page, NAVIGATE to “Setup,” “File Transfer,” “Firmware tab,” then SELECT “Choose File”
5. BROWSE to SELECT the “armv7.simg” file extracted in Step 1, then SELECT “Submit”
   During the firmware update process, do not reload or navigate away from this page nor power cycle the BMS Interface until the firmware update is complete.
6. SELECT “System Restart” when prompted
7. 

   After the system restart, return to the Somfy Client page, then SELECT “Status”
8. VERIFY the Build_Revision, Build_Date, and BIOS _Version are current

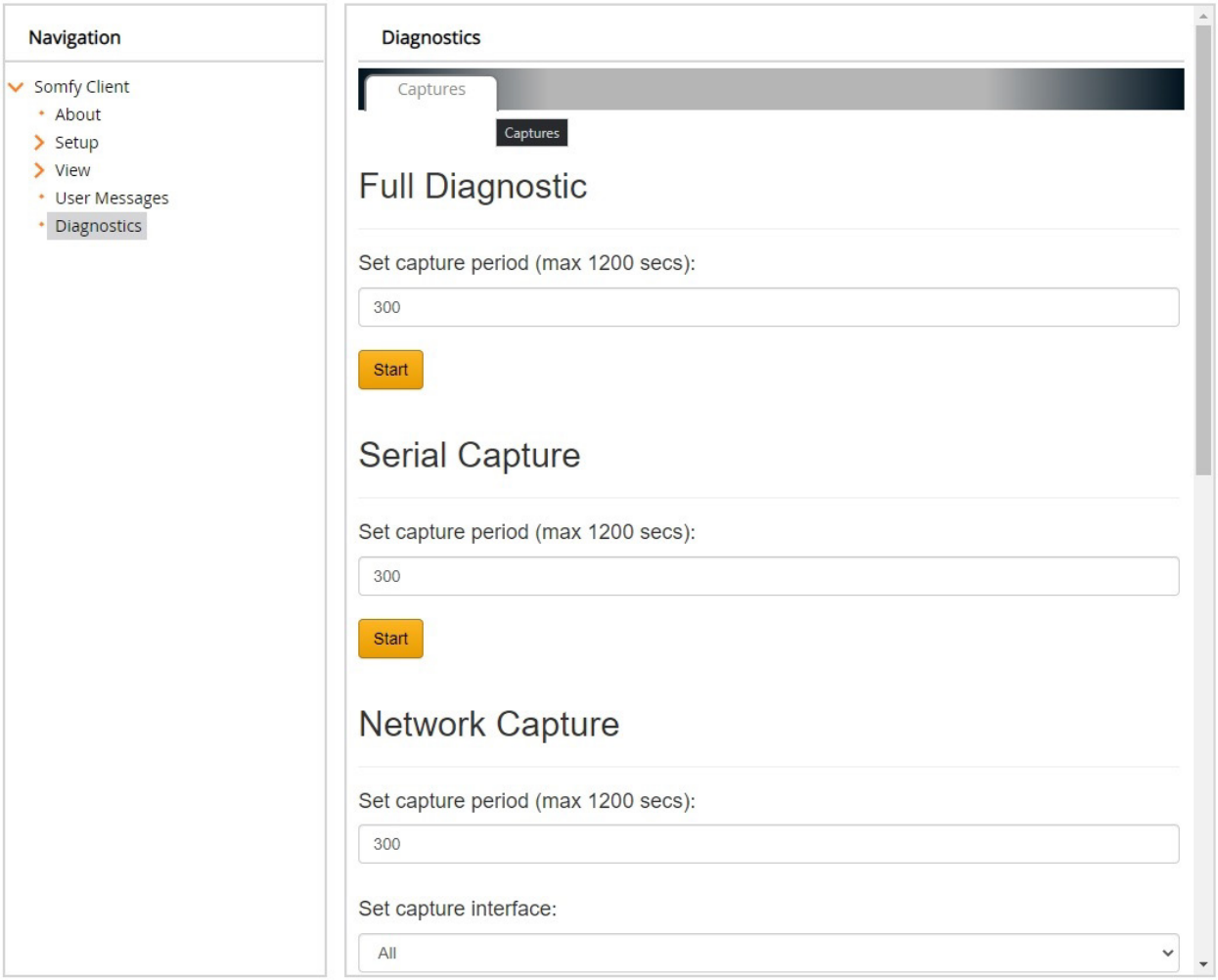


[APPENDIX E] DIAGNOSTICS

If a problem occurs with the Somfy Connect BMS Interface, perform a full diagnostic capture before contacting Somfy Technical Support to expedite diagnosis of the problem. Ensure having the appropriate connections from the Building Management System to the BMS Interface. Replicating the issue during the diagnostic is recommended.

To perform a full diagnostic capture of the Somfy Connect BMS Interface:

1. OPEN a web browser to NAVIGATE and LOGIN to the BMS Interface
2. SELECT “Diagnostics” at the bottom of the page
3. From the Somfy Client page, NAVIGATE to “Diagnostics,” SELECT “Captures”
4. In the Full Diagnostics section
    - ENTER a capture period
    - SELECT “Start” A progress bar will display.



5. SELECT “Download” when the capture is complete
    - The diagnostic.zip file will download to the Windows default Downloads folder. Diagnostic captures of BACnet MS/TP communication are output in a “.PCAP” file extension which is compatible with Wireshark.
6. Forward the diagnostic file to technical support

[APPENDIX F] FACTORY RESET

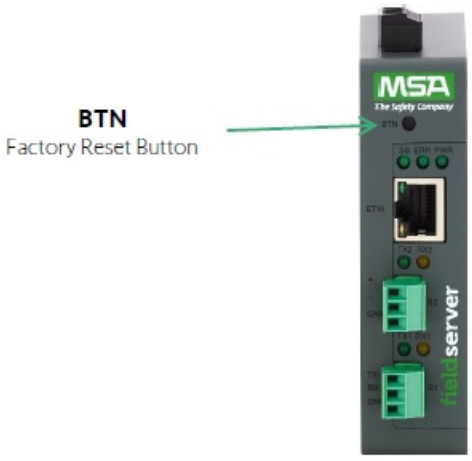
Do not perform a factory reset unless directed to by Somfy Technical Support. This operation will remove all configurations, customization files, and users from the Somfy Connect BMS Interface.

To factory reset the Somfy Connect BMS Interface:

1. Disconnect Power from the device
2. PRESS & HOLD the BTN Button while powering on the device
3. Continue to HOLD the BTN Button until the ERR LED is solid GREEN (approximately 20 – 30 seconds)

- Do not disconnect power during this process.

4. The factory reset is complete once the SS LED flashes GREEN



FOR QUESTIONS OR ASSISTANCE PLEASE CONTACT TECHNICAL SUPPORT: 800) 22-SOMFY (76639)
Get answers to your questions from our Somfy FAQ page: **www.somfysystems.com/en-us/support/faq** Follow the steps to access Service & Support.

About Somfy®
For over 50 years, Somfy has been pioneering innovative motorization and automated solutions for window coverings and exterior shading products. With comfort, ease of use, security, and sustainability in mind, our seamless and connected solutions are designed to help people make the move to living spaces impactful for humans and with a reduced impact on nature.

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- F: **949-727-3775**

PS-PG15 V2.0

Documents / Resources

	somfy V2.0 Connect BMS Interface V2 [pdf] User Guide V2.0 Connect BMS Interface V2, Connect BMS Interface V2, BMS Interface V2, Interface V2, V 2

References

- Somfy FAQ for Motorized Blinds, Shades, Awnings & More
- User Manual