PROGRAMMING GUIDE

SOMFY DIGITAL NETWORK™
MOTOR CONFIGURATION SOFTWARE

somfy Building happiness

PROGRAMMING GUIDE

SDN MOTOR CONFIGURATION SOFTWARE

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I. OVERVIEW

The Somfy Digital Network™ (SDN) Motor Configuration Software is used to program functions to all SDN RS485 Motors.

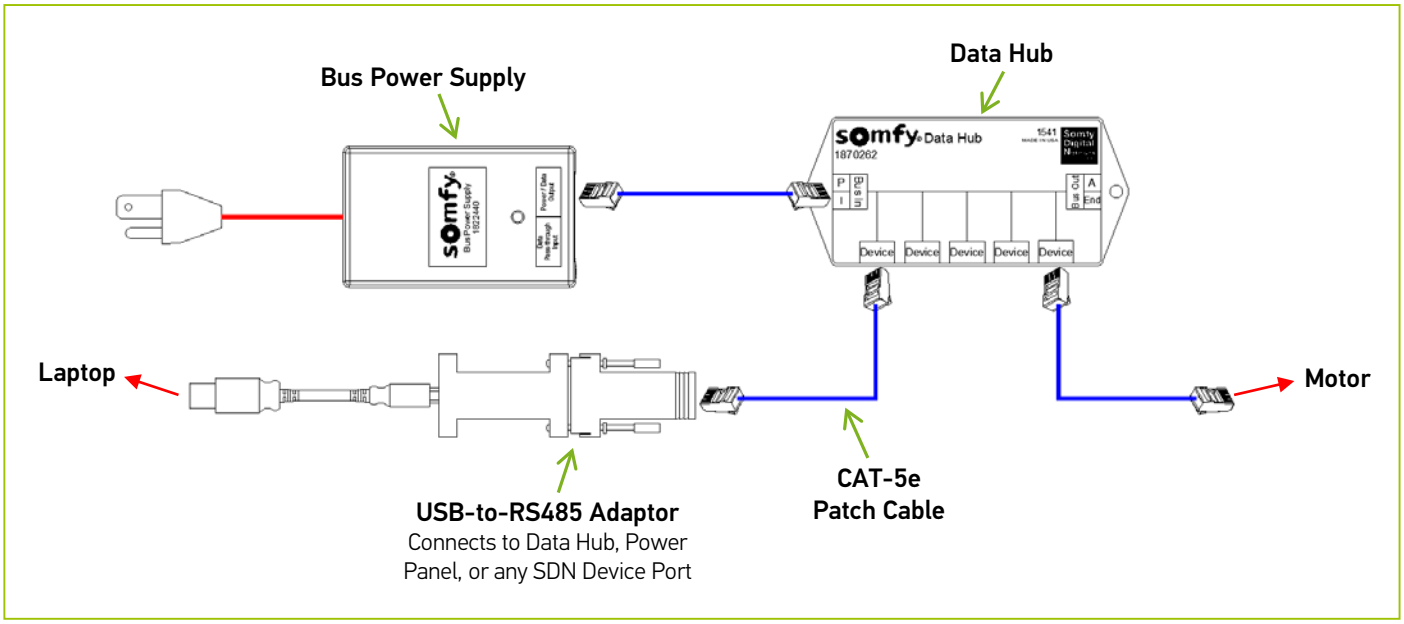
PARTS NEEDED

SOFTWARE

- Somfy Digital Network™ (SDN) Motor Configuration Software

HARDWARE

- Any SDN RS485 AC or DC Motor
- USB-to-RS485 Adaptor
  Somfy Part #9015260
- Any Device Port on the SDN System
- CAT-5e or higher patch cable terminated TIA 568B - Suitable length to connect PC to SDN Device Port
- Laptop PC



II. INSTALLATION

1. Download the latest SDN Motor Configuration software.

   ** When possible, install as administrator.*
   This can be downloaded from: https://www.somfypro.com/services-support/software

2. Connect the USB-to-RS485 Adaptor to any USB port on your laptop.

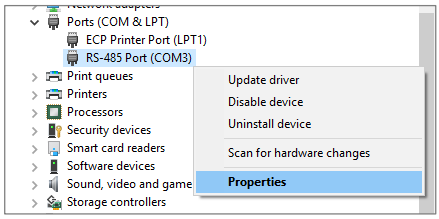
3. Go to Windows Start menu and search for Device Manager and open the program.

4. Go to Ports and click to expand it.

5. Make note the COM Port number listed for the RS485 port.

   Note: *If RS485 Port is not listed under "Ports", you must install the driver for the USB-to-RS485 Adaptor.*
   This can be downloaded from: https://support.advantech-bb.com/download?product_model_name=BB-485USB9F-2W-LS#Driver

6. Right click on the RS485 Port and click Properties.



7. Click the tab for Port Settings, and confirm the Settings are as follows:

   Bits per second: 4800

   Data Bits: 8

   Parity: Odd

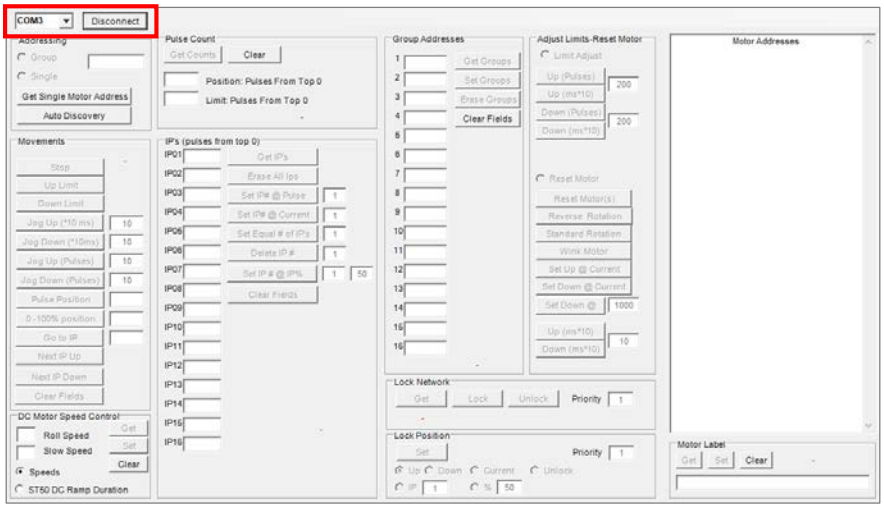
   Stop Bits: 1

   Flow Control: None

8. Open the Somfy Digital Network™ (SDN) Motor Configuration Software from the Desktop icon or Windows Start menu.

9. At the top left of the window, select the COM port that you noted from the Device Manager and click on the "Connect" button. You are now connected to the COM port.

   Note: *If there is no COM ports listed in the dropdown box, close the software and make sure the USB cable is connected, and then reopen the software. If there still is no COM port listed, reinstall the driver for the USB-to-RS485 Adapter. Be sure the Motor Config is the only software running on your computer. Also, if you can not connect to the COM port, make sure that no other software is using that COM port.*



III. FEATURES

ADDRESSING

- ***Group*** radio button – Select to communicate with a Group Address that is entered in the field to the right
- ***Single*** radio button – Select to communicate with the single Motor Address that is entered in the field to the right
- ***Get Single Motor Address*** – Get the Motor Address of the single Motor (when connected to only one Motor)
- ***Auto Discovery*** – Get the Motor Addresses of all found Motors (when connected to an entire SDN system)

A. Discover a single Motor: Click the ***Get Single Motor Address*** button.

- The Node ID of the Motor found will populate the field under the Addressing section.

B. Discover all Motors on an SDN System: Click the ***Auto Discovery*** button.

- The Node ID's of the Motors found will populate the field under the Motor Addresses section.

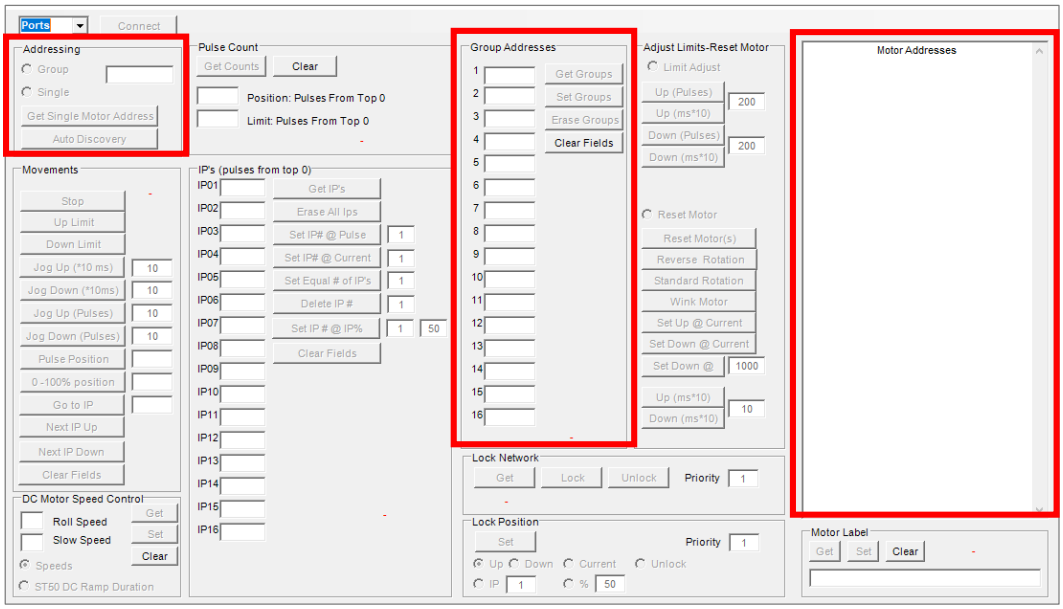
GROUP ADDRESSES

- ***Slots 1-16*** – Displays the Group Addresses currently programmed in the Motor; assign Motor to new Groups here
- ***Get Groups*** – Shows all of the Groups the Motor belongs to
- ***Set Groups*** – Assign Groups to the Motor
- ***Erase Groups*** – Erase all Groups currently assigned to the Motor
- ***Clear Fields*** – Clears all fields in the Group Addresses section (does not erase assigned Groups from the Motor)

Create a Group of Motors:

1) Enter a Node ID in the blank field under the Addressing section.
2) Select the ***Single*** radio button to communicate with that single Motor.
3) Use slots 1-16 under the Group Addresses section to add the Motor to Groups:
   - Create a new Group Address: enter 6 hexadecimal (0-9 and/or A-F) characters in one of the slots and then click the ***Set Groups*** button.

   Note: The RS485 Module for Drapery is limited to 6 Groups per Module; all other RS485 Motors can be added to up to 16 Groups per Motor.
4) Repeat steps 1-3 for all of the previously found Node ID's.
5) Type the Group Address in the blank field under the Addressing section.
6) Select the ***Group*** radio button to communicate with all of the Motors in that Group.



MOVEMENTS

- ***Stop*** – Stops the Motor when it is moving.
- ***Up Limit*** – Takes the Motor to its Upper Limit.
- ***Down Limit*** – Takes the Motor to its lower limit.
- ***Jog Up (*10ms)*** – Moves the Motor up by 10 milliseconds times the number entered in the box next to it.
- ***Jog Down (*10ms)*** – Moves the Motor down by 10 milliseconds times the number entered in the box next to it.
- ***Jog Up (Pulses)*** – Moves the Motor up by the number of pulses specified in the box next to it
- ***Jog Down (Pulses)*** – Moves the Motor down by the number of pulses specified in the box next to it
- ***Pulse Position*** – Moves the Motor to the specified pulse count entered in the box next to it.
- ***0-100% Position*** – Moves the Motor to the specified percentage that is entered in the box next to it.
- ***Go to IP*** – Moves the Motor to the specified IP entered in the box next to it (If motor has IPs set).
- ***Next IP Up*** – Moves the Motor up to the next IP if available (If motor has IPs set).
- ***Next IP Down*** – Moves the Motor down to the next IP if available (If motor has IPs set).
- ***Clear Fields*** – Clears all fields in the Movements section.

DC MOTOR SPEED CONTROL

- ***Roll Speed*** – Shows the main roll speed.
- ***Slow Speed*** – Shows the Start and stopping speed.
- ***Get*** – Gets the current speed setting of the Motor.
- ***Set*** – Sets the speed to the Motor.
- ***Clear*** – Clears the windows, but does NOT clear the Motor settings

LOCK

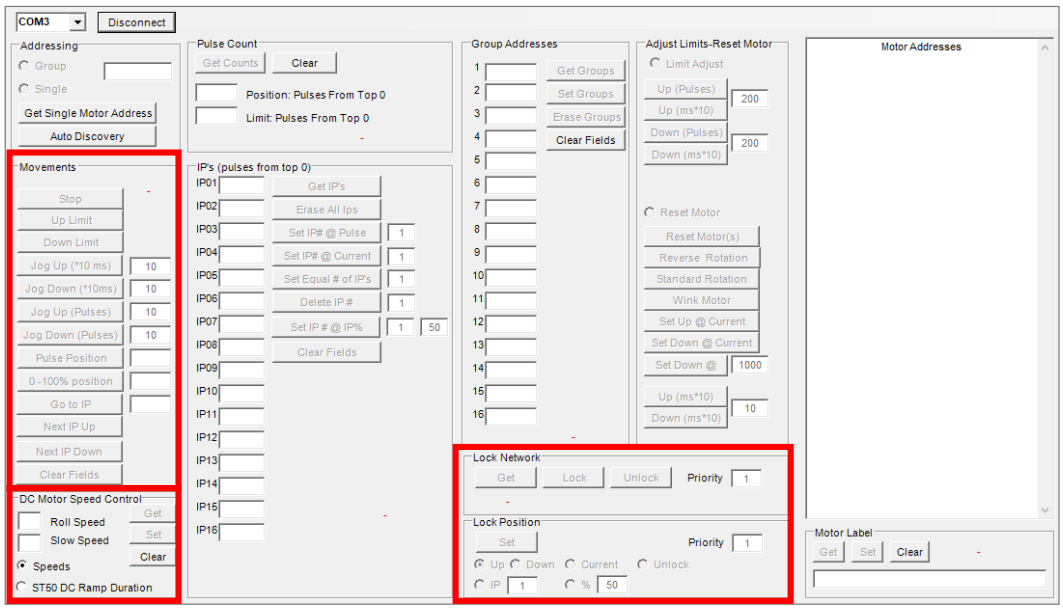
Lock Network:

- ***Get*** – Shows if the Motor is locked and at what priority value.
- ***Lock*** – Lets you lock the Motor off the network at the priority value that is in the box to the right.
- ***Unlock*** – Lets you unlock the motor from the network using a value equal to or greater than what the Motor is locked with.

Lock Position:

- ***Set*** – Lets you lock the Motor from moving until it is unlocked with a priority value that is equal to or greater than what it is locked with.

Note: When locked at a priority, it can only be unlocked with a priority equal to or greater than the lock priority. 1 is the lowest and 255 is the highest.



PULSE COUNT

- A Pulse Count is a unit of measurement to determine the distance between the hem bar location at it's Upper Limit and the current location of the hem bar; pulse Counts will always be 0 for open and 1000 for closed.
    - ***Get Counts*** – Display the Motor's current Pulse Count
    - ***Clear*** – Clear the Pulse Counts from the screen (does not clear anything from the Motor)
    - ***Position: Pulses From Top 0*** – The Pulse Count of the hem bar location at it's current position.
    - ***Limit: Pulses From Top 0*** – The Pulse Count of the hem bar location at it's Lower Limit.

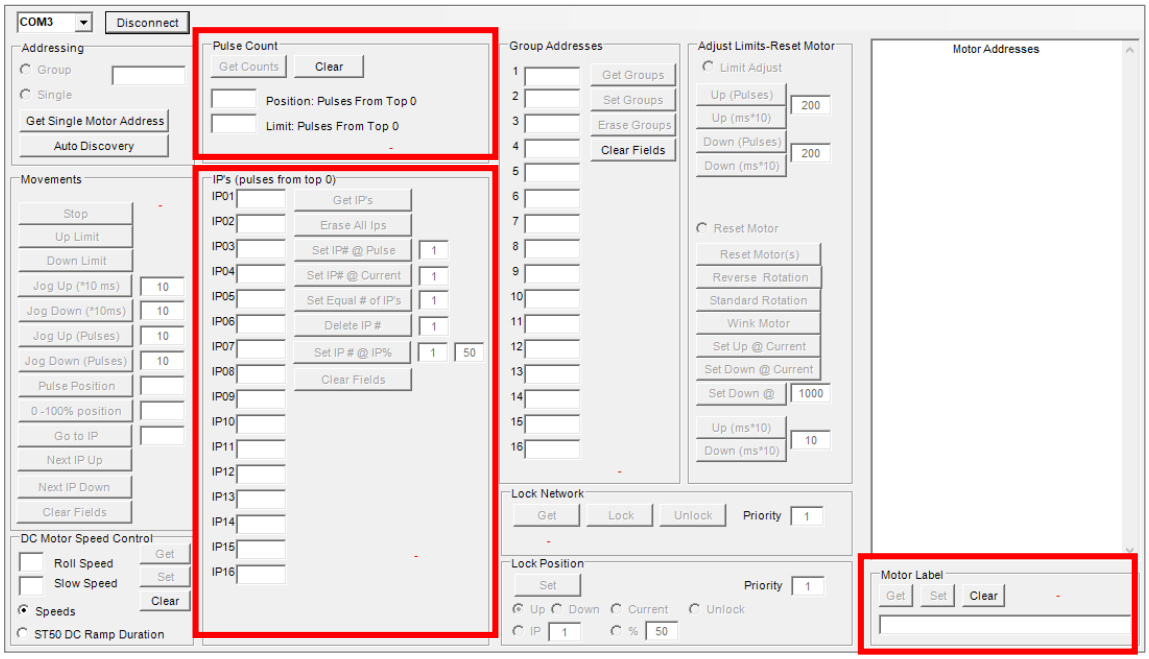
IP's

- An Intermediate Position is a specified position between 0-100%.
    - ***Get IP's*** – Display all of the set IP's of the Motor.
    - ***Erase All IP's*** – Delete all of the set IP's in Motor; will NOT erase Upper or Lower Limits.
    - ***Set IP# @ Pulse*** – Set an IP# to a specific Pulse Count; enter a Pulse Count number next to an "IP#" field, and enter the IP# in the field to the left and click to set.
    - ***Set IP# @ Current*** – Set an IP# to the current Pulse Count of the Motor; enter the IP# in the field to the left and click to set.
    - ***Set Equal # of IP's*** – Takes the total Pulse Count from top to bottom and sets an equal Pulse Counts between each specified total of IP#'s; enter the desired total of IP#'s in the field to the left and click to set.

        Note: This option will always start with "IP01". If the desired total of IP#'s is going to be three, then IP's "IP01" through "IP03" will automatically be used as the host, whether they have previously been set or not.
    - ***Delete IP #*** – Delete an IP#; enter the IP# in the field to the left and click to set.
    - ***Set IP # @ IP%*** – Set an IP# to a specific percentage; enter the IP# next to the empty field left of the button, and a desired % in the field to the left and click to set.
    - ***Clear Fields*** – Clear all "IP#" fields from the screen; will NOT delete anything from the Motor.

MOTOR LABEL

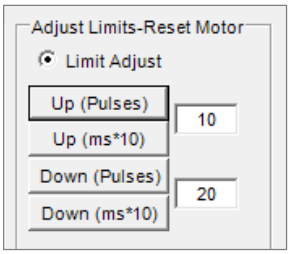
- ***Get*** – Will get the Motor Name/Label assigned to the Motor if available.
- ***Set*** – Sets the Motor Label to the name entered in the text box below.
- ***Clear*** – Clears the text box below, but does not clear the Label from Motor.



ADJUST LIMITS

- ***Up (Pulses)*** – Moves the Motor up by the number of Pulses (specified in the field to the right).
- ***Up (ms*10)*** – Moves the Motor up by the number of milliseconds times 10 (specified in the field to the right).
- ***Down (Pulses)*** – Moves the Motor down by the number of Pulses (specified in the field to the right).
- ***Down (ms*10)*** – Moves the Motor down by the number of milliseconds times 10 (specified in the field to the right).

Enable Limit Adjust Mode:

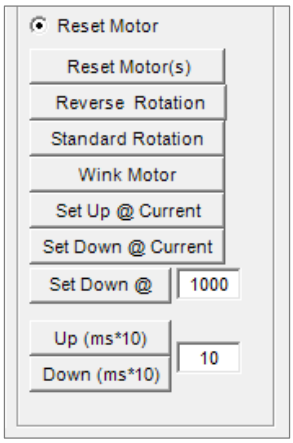


1) Send the Motor to it's Up or Down Limit
2) Select the ***Limit Adjust*** radio button.
3) A pop-up window will appear with a warning that you are about to enable the Limit Adjust Mode; click OK.
4) Adjust the chosen Limit:
   - [Higher] Start by entering "10", "20" or "50" in the top empty field and click the ***Up (Pulses)*** or ***Up (ms*10)*** button; this will adjust the limit slightly higher.
   - [Lower] Enter "10", "20", "50", etc., in the bottom empty field and click the ***Down (Pulses)*** or ***Down (ms*10)*** button; this will adjust the limit slightly lower.
5) Once the limit has been adjusted accordingly, disconnect and then reconnect the Motor Configuration Software; Discover the Motor, send it Up or Down, and then send it to the Limit that was adjusted to confirm the change has been set.

RESET MOTOR

- ***Reset Motor(s)*** – Resets all the Limits that are set on the Motor.
- ***Reverse Rotation*** – Sets the Motor to run in the reverse direction.
- ***Standard Rotation*** – Sets the Motor to run in the standard direction.
- ***Wink Motor*** – Jogs the Motor up and down.
- ***Set Up @ Current*** – Sets the Upper Limit to the current position that the Motor is in.
- ***Set Down @ Current*** – Sets the Down Limit to the current position that the Motor is in.
- ***Set Down @*** – Sets the Down Limit at the Pulse Count entered in the box next to it.
- ***Up (ms*10)*** – If the Motor has no Limits set, this button will allow you to move the Motor up by the number of milliseconds specified in the box next to it, times 10.
- ***Down (ms*10)*** – If the Motor has no limits set, this button will allow you to move the Motor down by the number of milliseconds specified in the box next to it, times 10.

Enable Reset Motor Mode:



1) Select the ***Reset Motor*** radio button.
2) A pop-up window will appear with a warning that you are about to enable the Reset Motor Mode; click OK.
3) Use the buttons under the Reset Motor section to adjust the Motor accordingly.

IV. PROGRAMMING & TESTING

PROGRAM AN AC MOTOR FOR BASIC FUNCTIONS

1. Connect the USB-to-RS485 Adaptor to the computer's USB port
2. Connect a CAT-5e or higher cable to the USB-to-RS485 Adaptor and an open device port on the SDN bus line
3. Open Somfy Digital Network™ (SDN) Motor Configuration Software
4. Click the dropdown and select the correct COM port and click Connect
5. *Discover your Motors and then enter the Motor Address of the Motor (that you want to communicate with) in the small empty field under the Addressing section.
6. *Select the *Single* radio button; enter the Group Addresses (that you want this Motor to belong to) in to the 1-16 empty fields under the Group Addresses section and click the ***Set Groups*** button
7. Under the IP's section, find the ***Set IP# @ IP%*** button; in the empty field to the right of that button, create three Intermediate Positions (IP's):
    a) Enter "1" in the first box, "25" in the second box and then click the ***Set IP # @ IP%*** button *[IP01]*
    b) Enter "2" in the first box, "50" in the second box and then click the ***Set IP # @ IP%*** button *[IP02]*
    c) Enter "3" in the first box, "75" in the second box and then click the ***Set IP # @ IP%*** button *[IP03]*

Your Motor now belongs to Groups and has custom Intermediate Positions.

TEST A PROGRAMMED AC MOTOR

1. In the blank field under the Addressing section:
    - Enter the Node ID of a Motor and select the ***Single*** radio button

    or

    - Enter a Group Address and select the ***Group*** radio button
2. Use the buttons under the Movements section to send the Motor(s) to the Upper Limit, Lower Limit, and Intermediate Positions (IP1, IP2, & IP3)

** See Programming Guide Section III [Features] for further details on Discovery & Addresses*

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