# ZigBee® to Digital Motor Interface (ZBDMI)

DESCRIPTION

The Somfy ZigBee® to Digital Motor Interface (ZBDMI) is a ZigBee routing device that resides as an endpoint within a designated ZigBee control network. It receives ZigBee transmissions and converts them to motor control commands for Somfy's line of ILT2 (AC) motors, and the Sonesse 30 RS485 (DC) motor. The interface also receives feedback information from these motors and distributes it to the ZigBee network.

ZigBee® to Digital Motor Interface
1870220

WIRING DIAGRAMS

Typical Sonesse 30 RS485 Motor Connection

Adaptor Cable

*RS485 Com Cable

24V DC in
From Power Supply

*24V DC to motor

* Included with ZigBee to ILT2 Interface
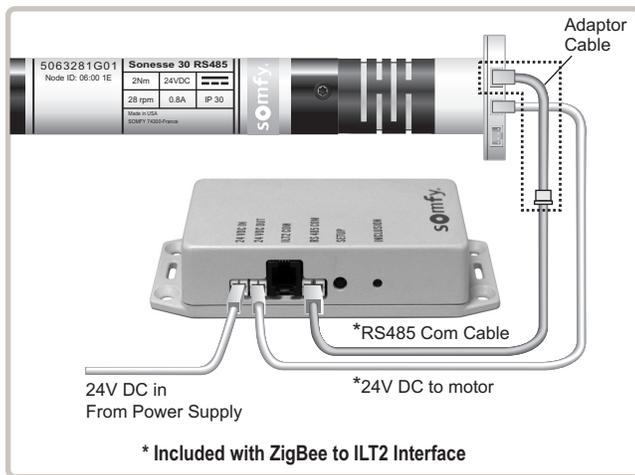
Note: For Sonesse 30 RS485 motors revision H and higher, the adaptor cable must be used as shown above.

Typical ILT2 Motor Connection
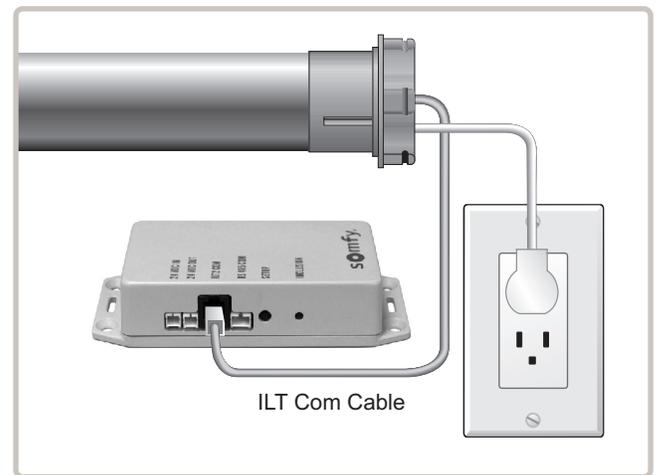
ILT Com Cable

GENERAL REQUIREMENTS

- When installing the ZBDMI with a Sonesse 30 RS485 motor, apply +24V DC to the white wire and -24V DC to the black wire.

- When installing the ZBDMI with a Sonesse 50 ILT2 motor, the interface is powerd by the ILT Com cable once the motor is connected to 120V AC.

- The interface must be mounted within thirty (30) feet of each motor head and attached by a Com cable to its respective modular communication port.

- Sonesse 30 RS485 revision H and higher have a modified RS485 data port that requires the RS485 adaptor cable (part no. 9019192) included with the ZBDMI.

- One interface is used for each Somfy Sonesse 50 ILT2 and Sonesse 30 RS485 motor.

+24 VDC
-24 VDC

somfy®
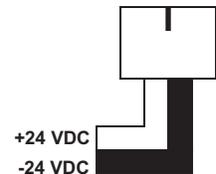
ZIGBEE CERTIFICATION

Certification by the ZigBee Alliance is pending.

NETWORK SETUP

In order for the ZBDMI to become fully operational, all connections must be properly made according to the wiring diagram, and the electronic limits of the motor must first be set. Please refer to the respective motor instructions on how to set the electronic limits.

Identifying the ZBDMI into a Network

1. Upon power-up, the INCLUSION LED will turn on for five (5) seconds then turn off. When the LED turns off, press and release the SETUP button a few times to verify that the motor moves. This will indicate a good electrical connection between the ZBDMI and the motor.

2. Select the IDENTIFY command on your ZigBee controller.

3. Press and hold the SETUP button for five (5) seconds to identify the ZBDMI in the network. Verify that the INCLUSION LED turns on within 10-15 seconds. When the LED is on, the ZBDMI is identified in the network.
   NOTE: If inclusion is unsuccessful, reset the interface according to the factory reset instructions on the following page and try again.

Disconnecting the ZBDMI from a Network

1. Select the DISCONNECT command on your ZigBee controller.

2. The ZBDMI will be disconnected from the network when the INCLUSION LED turns off.

3. To manually disconnect the ZBDMI from the network, press and hold the SETUP button for five (5) seconds. The ZBDMI will be disconnected from the network when the INCLUSION LED turns off.

OPERATION BY CONTROLLER

The ZBDMI interface can be operated by 3rd party automation, hand-held and PC based controllers, or manually by pressing the SETUP button. The following convention is used when operating from either 3rd party automation or controllers:

- Light ON = Window Covering UP.

- Light OFF = Window Covering DOWN.

- Light DIM & BRIGHTEN = Window Covering OPEN at a percentage where 0% = Window Covering CLOSED at its lower limit, and 100% = Window Covering OPEN at its upper limit.

- Lighting percentage values between 0% and 100% = 99 intermediate window covering positions.

MANUAL OPERATION

The SETUP button can be used to manually operate the motor at any time as follows:

Repeatedly pressing and releasing the SETUP button within ½ second will drive the motor in a sequence of UP-STOP-DOWN-STOP. For example, while the motor is at rest, press and release the SETUP button to drive the motor up. Press and release the SETUP button again to STOP the motor. Pressing and releasing the SETUP button once more will drive the motor DOWN, and a subsequent press and release will STOP the motor.

FACTORY RESET

Sonesse 30 RS485 Motor

1. Remove the 24V DC power from the interface.

2. Press and hold the SETUP button while plugging the 24V DC power back into the interface. Continue holding the SETUP button until the INCLUSION LED begins to flash.

3. Upon flashing of the LED, release the SETUP button. The LED will turn off to show that the ZBDMI has been reset.

ILT2 Motor

1. Unplug the motor's communication cable from the interface.

2. Press and hold the SETUP button while plugging the communication cable back into the interface. Continue holding the SETUP button until the INCLUSION LED begins to flash.

3. Upon flashing of the LED, release the SETUP button. The LED will turn off to show that the ZBDMI has been reset.

ZBDMI ELECTRICAL SPECIFICATIONS

- Voltage Input: Requires Regulated +24V DC.
- Voltage Output: Regulated +24V DC, passed through from the Input Voltage.
- Power Consumption: 50mA @ 24V DC.

ORDERING INFORMATION

Description	Part Number	Description	Part Number
ZBDMI Interface	1870220	24V DC Plug-in Wall Mount Transformer	1822209
Sonesse 30 RS485 Motor	1000658	24V DC Plug-in Table Top Transformer	1822116
Sonesse 50 ILT2 Motor (Star head)	1030094	Dry Contact Wall Switch (White)	1800219
Sonesse 50 ILT2 Motor (Round head)	1030077	Dry Contact Wall Switch (Ivory)	1800220
Power Cable (supplied)	9016020	Com Cable (supplied)	9016021
Sonesse 30 RS485 Adaptor Cable	9019192		

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