



UNIVERSAL RTS INTERFACE II

Operating Instructions

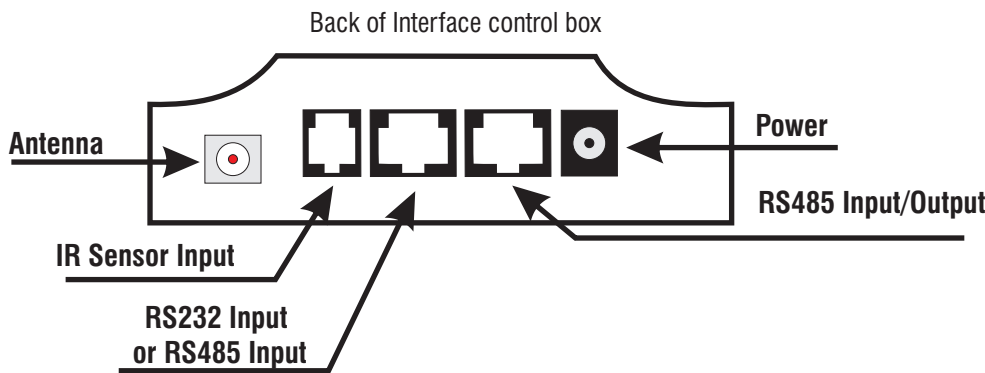
DESCRIPTION



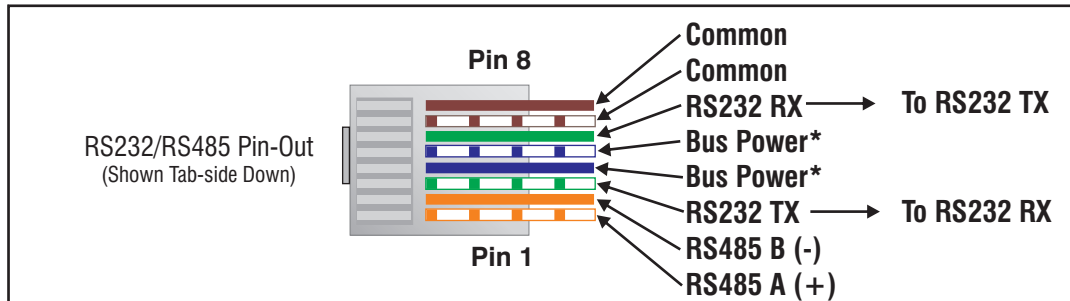
Part Number: 1810872

The addressable Universal RTS Interface II (URTSI II) can be used to communicate between home automation or other third party systems and SOMFY's RTS Motors and controls. It is capable of individual or group control, and can be operated via infrared remote, RS232 and RS485 serial communication. Once an input is activated, an RTS radio command is sent to the automated window treatment.

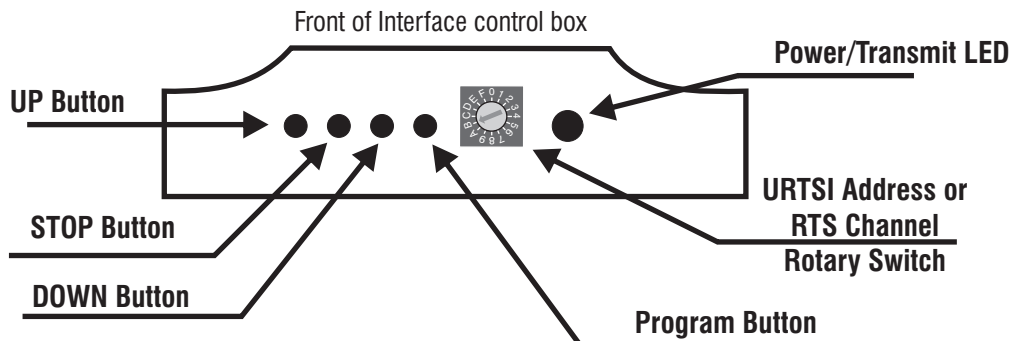
CONNECTION DIAGRAM



NOTE: Do Not remove antenna. If a new antenna is needed, it must be ordered from Somfy to ensure FCC requirements are maintained.



* As an option, power to the URTSI II can be supplied on leads 4 & 5. In this case, the plug-in transformer is not needed. In addition, the power can be daisy-chained to the next URTSI II over the CAT5 cable. The power supply should be sized based on the number of interfaces on the network segment.



OPERATION

A. INITIAL SETUP

1. Connect a 9v DC transformer (included) to the receptacle on the back of the control box. The LED will light green to indicate power.
2. Be careful not to mount or enclose Interface on or in metal, as this may effect radio reception.
3. Set the RTS Receiver or motor into its Programming Mode. Refer to the installation instructions of the relevant RTS receiver or motor for this procedure.
NOTE: for initial programming provide power only to the motor or control being programmed.
4. Using the rotary switch, select the channel to be programmed. Letters A through F stand for channels 10 through 15, 0 for 16. Briefly press the programming button (1 sec. max), the window treatment will jog to indicate the channel has been memorized.
5. Repeat the steps above for each channel or product to be memorized, up to 16.
6. To test the control operation, simply press the UP, STOP or DOWN buttons on the front of the control. The window treatment should move appropriately. The LED will flash red to indicate the radio signal has been transmitted.

B. INFRARED OPERATION

1. The RTS Interface is compatible with Somfy's multichannel transmitter. Connect an infrared sensor to the appropriate connector on the back of the Interface.
2. Each individual motor is activated by first aiming the transmitter at the sensor and pressing the desired unit number on the transmitter and then pressing the UP or DOWN buttons. Press the center button to STOP the window treatment at any time.
3. The Infrared Channel stays active for 3 minutes. After that, the channel must be reselected.

C. RS232 OPERATION

1. The Somfy RS232 interface uses the following communications settings: **9600 Baud, 8 Data Bits, 1 Stop Bit, No Parity**
2. Set the rotary switch to position 1.
3. The basic format for communication is as follows: **URTSI ADDR MOTOR CHAN DIR**
The URTSI II address is 01.
The motor channel should be 2 digits from 01 to 16.
The directional commands are: U = Up D = Down S = Stop (Must be Capital letters)

4. Examples:

Motor 1 UP:	0101U	(TEXT)
Motor 5 DOWN:	0105D	
Motor 12 STOP:	0112S	

D. RS485 OPERATION

1. The Somfy RS485 interface uses the following communications settings: **9600 Baud, 8 Data Bits, 1 Stop Bit, No Parity**
2. With RS485, it is possible to connect 16 Universal RTS Interfaces on one network. Each Interface will have its own address. To select the address, set the rotary switch to the desired number. Letters A through F stand for addresses 10 through 15, 0 for 16.
3. The basic format for communication is as follows: **URTSI ADDR MOTOR CHAN DIR <CR>**
The URTSI II address should be 2 digits from 01 to 16.
The motor channel should be 2 digits from 01 to 16.
4. The directional commands are: U = Up D = Down S = Stop (Must be Capital letters)
5. For tilting commands, each increment is approximately 1/10th second of motor movement. The tilt commands are below:

Tilt UP 10 increments: 9	Tilt DOWN 10 increments: <shift>9 [equivalent = (]
Tilt UP 9 increments: 8	Tilt DOWN 9 increments: <shift>8 [equivalent = *]
Tilt UP 8 increments: 7	Tilt DOWN 8 increments: <shift>7 [equivalent = &]
Tilt UP 7 increments: 6	Tilt DOWN 7 increments: <shift>6 [equivalent = ^]
Tilt UP 6 increments: 5	Tilt DOWN 6 increments: <shift>5 [equivalent = %]
Tilt UP 5 increments: 4	Tilt DOWN 5 increments: <shift>4 [equivalent = \$]
Tilt UP 4 increments: 3	Tilt DOWN 4 increments: <shift>3 [equivalent = #]
Tilt UP 3 increments: 2	Tilt DOWN 3 increments: <shift>2 [equivalent = @]
Tilt UP 2 increments: 1	Tilt DOWN 2 increments: <shift>1 [equivalent = !]
Tilt UP 1 increment: 0	Tilt DOWN 1 increment: <shift>0 [equivalent =)]
6. A command is available to be used as a delay between successive commands. The format for this is Wx. X is a 1/2 second multiplier. Valid commands are W1 - W9 or 1/2 second to 4.5 second delay.

COMMAND EXAMPLES (TEXT)

Unit 1, Motor 3 UP:	0103U<cr>
Unit 2, Motor 10 DOWN:	0210D<cr>
Unit 1, Motor 2, Tilt UP 5 increments:	01025<cr>
Unit 3, Motor 5, Tilt DOWN 6 increments:	0305<cr>
Unit 1, Motor 3 UP; Wait 1/2sec; Unit 2, Motor 5 Down:	0103;W1;0205D<cr>
Unit 2, Motor 12 Tilt UP 25 increments:	02129;02129;02125<cr>
Unit 3, Motor 11, Tilt DOWN 3 increments; Wait 2sec; Unit 3 Motor 6 UP:	0311@;W4;0306U<cr>

PROGRAMMING NOTES

- The URTSI II can process up to 5 successive commands without needing a WAIT command.
- The URTSI II can process up to 3 movement commands and 2 WAIT commands in a single command line.
- It is mandatory to use the WAIT command when more than one URTSI II are connected together using RS485 communication.

MECHANICAL SPECIFICATIONS

Overall Dimensions: L: 3 in. W: 4 in. D: 1 3/8 in.

Typical Range (Optimal Conditions): 65 ft.

ELECTRICAL SPECIFICATIONS

Power: 9 - 15 V DC, 200mA
20mA draw for each Universal Interface

Frequency: 433.42 Mhz

ORDERING INFORMATION

Description	Part Number	Description	Part Number
Universal RTS Interface II	1810872	DB9 to RJ45 Adapter for RS232	9015028
MultiChannel Infrared Transmitter	1810498	DB9 to RJ45 Adapter for RS485	9015029
IR Sensor	9015078	USB to RS485 (RJ45) Converter	9015260

FCC INFORMATION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including that which may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. 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:

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

WARNING

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.



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