SOMFY®

LT RTS CMO MOTOR
Programming and Limit Setting Instructions

Description

- The LT RTS CMO is designed for rolling blinds, awnings, and shutters.
- The LT RTS CMO must be programmed with the Inteo family of transmitters.
- The LT RTS CMO motors are compatible with a SOLIRIS and EOLIS RTS SENSORS.

Important Installation Tips

A. For initial programming provide power only to the motor being programmed.

B. All motor feedback (previously audible "beeping") is now replaced by a visual jog. A jog is a short Up & Down movement of the motor (0.5 second turn of the motor in each direction).

C. The LT RTS CMO motor in Factory Mode will not respond to any transmitter (as it did previously with RTS Motors) until a transmitter is assigned to communicate with the motor's receiver. To assign a transmitter press its UP & DOWN buttons simultaneously until the motor jogs.

D. Before pressing the programming button on the transmitter, verify the motor directions (if DOWN on the transmitter corresponds to DOWN on the end-product) and set the end limits of the motor. Refer to section 4.3 of this instruction.

E. The motor is packaged in "FACTORY MODE", and will remain in this mode until the programming button on the transmitter is pressed, thus putting it into "USER MODE". ROTATION DIRECTION CAN ONLY BE MODIFIED IN "FACTORY MODE".

F. A double power cut cannot be achieved if the motor is still in FACTORY or INSTALLER Mode. First program a transmitter into the memory of the motor.

G. **WARNING:** *For the EOLIS/SOLIRIS RTS SENSOR to function properly, the transmitter which is memorized into the motor's receiver must be configured correctly. The DOWN button MUST correspond to DOWN on the end-product. In the case of an awning, it will open or extend the awning. If the UP button extends the awning, the wind sensor will also extend the awning during windy conditions. THIS IS DANGEROUS! Damage and injury could occur. Do not proceed until proper operation of the transmitter is verified.*

1 Power Supply   120 VAC / 60 Hz

A. All wiring must conform to NEC (National Electrical Code) and local codes.

B. The LT RTS CMO motors can be wired in PARALLEL.
A means of disconnecting the power at each motor independently should be provided.

C. Power only needs to be supplied to the motor. The receiver is completely enclosed inside the motor tube.

D. The antenna is internal to the motor.

E. SOMFY Reserves the right to void the motor warranty if wiring recommendations are not followed.
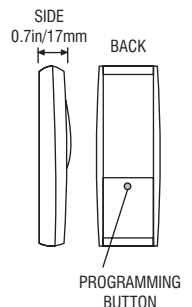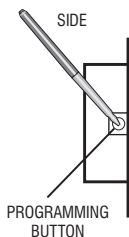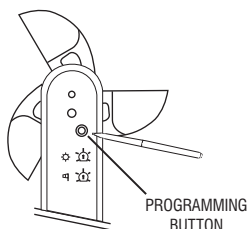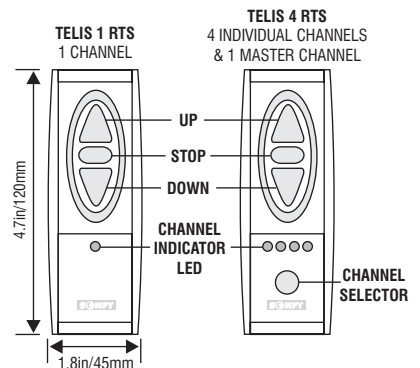
MOTOR WIRING COLOR CODE

| 120 VAC	CODE
BLACK	HOT
WHITE	NEUTRAL
GREEN	GROUND
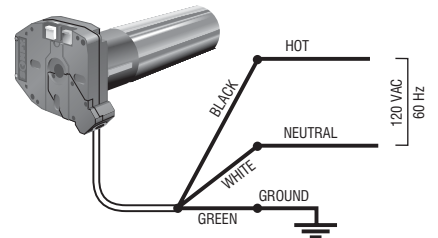
2 Transmitters

Pictured below are all compatible controls

- **Motor's memory capacity with Telis, Decora RTS, Telis Soliris: maximum of 12 transmitters plus an additional 3 RTS sensors.**
- The Master Channel on a 4 channel transmitter can be used as an additional individual channel for a total of 5 channels, without the option of master control of all motors
- Range: Up to 65 feet from the motor

TELIS 1 RTS
1 CHANNEL

TELIS 4 RTS
4 INDIVIDUAL CHANNELS
& 1 MASTER CHANNEL

UP
STOP
DOWN
CHANNEL INDICATOR LED
CHANNEL SELECTOR

4.7in/120mm
1.8in/45mm

SIDE
0.7in/17mm
BACK

SOLIRIS SENSOR RTS

EOLIS SENSOR RTS

SIDE

PROGRAMMING BUTTON

DECORA RTS 1 SWITCH

DECORA RTS 4 SWITCH

TELIS 1 RTS TRANSMITTER

TELIS 4 RTS TRANSMITTER

TELIS SOLIRIS RTS TRANSMITTER

PROGRAMMING BUTTON

3 Installation Requirements

- **If the installation is made up of several RTS motors, only one RTS motor must be powered during programming, all other motors must be disconnected. This will avoid interferences during the initial programming of each motor.**
- **The mounting distance between 2 motor heads should not be less than 19 inches between RTS motor heads, to avoid possible interference.**
- **Use only SOMFY RTS radio controls.**
- **In order to avoid water penetration, form a "drip loop" with the power cable and use a hood when required.**
- **Use SOMFY accessories (adaptors, brackets, plug ends,...), rated for the motor torque and total weight of the installation.**

HOOD
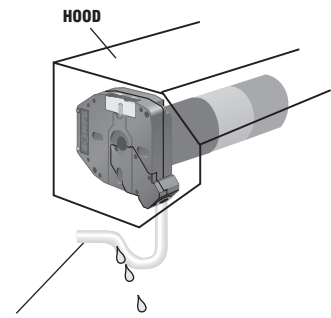
The motor cable should not act as a direct conduit for the water to enter the head of the motor (form drip loops).

NOTE: SOMFY motors conform to IP44 requirements and as such must be protected against direct weather elements such as rain, sleet,...etc.

4 Factory Mode

This mode allows for rotation direction modification and setting of the end limits

CONTROLLING THE LT RTS CMO MOTOR WHEN SWITCHING POWER ON FOR FIRST TIME

1) **Two positions have to be set, the UP and DOWN limits. This is achieved with the mechanical CMO limit switch unit. Provide power to the motor. Notice the motor will not respond to any transmitter until a transmitter is assigned to communicate with the motors receiver.**
   - **A) Remove the protective cap covering the limit setting buttons on the motor head, (replace when finished).**
   - **B) Depress fully both limit switch buttons. They will automatically lock in the down position.**

A   B

2) **Assign the transmitter to communicate with the motor's receiver, push the UP and DOWN buttons on the transmitter SIMULTANEOUSLY.**
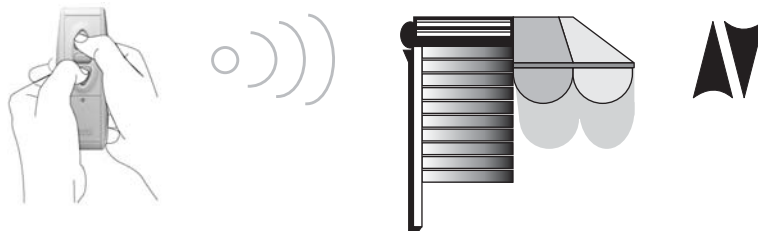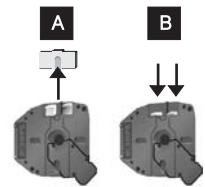
Release both buttons after the end-product jogs briefly UP/DOWN indicating that this transmitter can operate the motor during programming. The LT RTS CMO motor will now operate in a momentary fashion.

* In case of problems with FACTORY MODE, turn the power off to the motor for 2 sec. and then back on in order to reset it.

3) **Check direction of operation. The DOWN button must correspond to DOWN on the end-product. In the case of an awning, it will open or extend the awning. If the direction is wrong, change the direction as shown.**

UP
STOP
DOWN

Press the stop button for more than 5 seconds
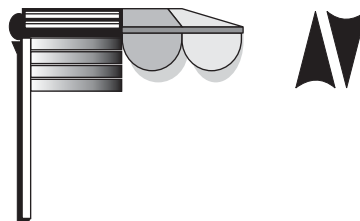
Release the STOP button when the end-product jogs briefly UP/DOWN indicating that the change has been memorized in the motor. Verify that the change took place before proceeding.

WARNING: *For the **EOLIS/SOLIRIS RTS SENSOR** to function properly, the transmitter which is memorized into the motor's receiver, must be configured correctly. The DOWN button MUST correspond to DOWN on the end-product. In the case of an awning, it will open or extend the awning. If the UP button extends the awning, the wind sensor will also extend the awning during windy conditions. **THIS IS DANGEROUS!** Damage and injury could occur. Do not proceed until proper operation of the transmitter is verified.*

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4) Set the UP and DOWN Limits.

*1. Identify the UP limit switch push button, on the CMO motor head.
Press the UP button of the transmitter and let the end-product reach
the required UP position, then stop it.*
2. Unlock the UP limit switch push button by pressing and releasing it.
3. Repeat the above operation to set the DOWN end limit.
4. Replace the protective cap.

1

White Button

Yellow Button

2 **3** **4**
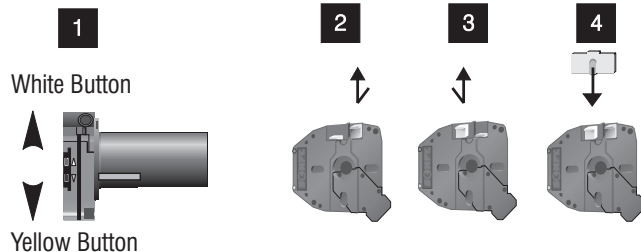
5 Installer Mode

This mode allows for readjusting of the end limits and final programming

IMPORTANT
If the installation is made up of several LT RTS CMO motors, <u>only one LT RTS CMO motor must be powered during programming.</u>
This will avoid interference with the first programming of each LT RTS CMO motor. If several motors are connected on the same power supply, please refer to the Warning note in Section 6.6 - "Resetting motors back to USER MODE".

*If the INSTALLER MODE directly follows FACTORY MODE, with no power interruption to the motor, go directly to Section 5.3

1) Provide power to the LT RTS CMO motor. Press <u>SIMULTANEOUSLY</u> on the <u>UP</u> and <u>DOWN</u> buttons of the RTS transmitter in order to take control of the motor. Then check that the LT RTS CMO motor is in INSTALLER MODE.
In this mode the LT RTS CMO motor runs when a directional button on the transmitter is <u>pressed and held</u> (momentary fashion).
2) If the end limits need to be readjusted, please refer to section - 4.3 and 4.4
3) Record the first Transmitter or Channel. On 4 channel transmitters, verify the desired channel selection before pressing the the programming button.

Press the programming button
on the RTS transmitter
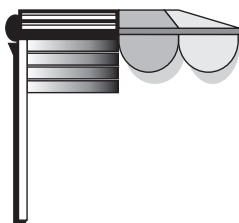
Release it when the end-product jogs briefly UP/DOWN
indicating that the transmitter has been memorized
into the motor. The motor is now in USER MODE

6 User Mode

This mode is for operating the motor by the end user

Two intermediate postions (IP1 & IP2) can be programmed into the LT RTS CMO motor. IP1 is set using the UP limit as a
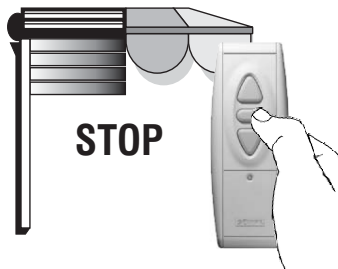reference, and IP2 is set from the DOWN limit as a reference.

1) Record the INTERMEDIATE POSITION (IP1) referenced from the UP LIMIT of the end-product
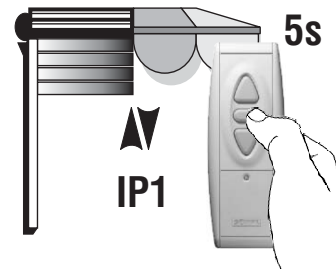
STOP

5s

IP1
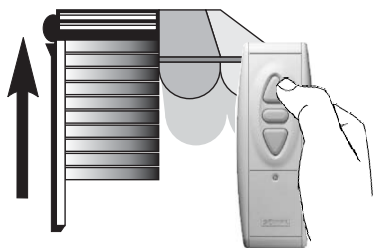
Set the end-product at
its UP limit with the
RTS transmitter
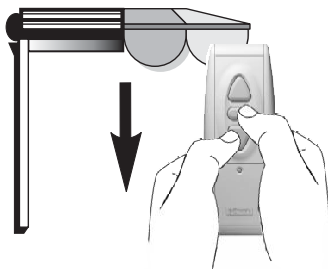
Push simultaneously on the
STOP and DOWN button of
the RTS transmitter and release
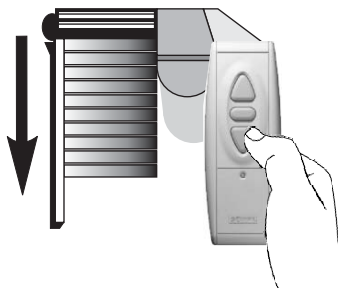them when the end-product begins
to move.

Stop the end-product at the
intermediate position (IP1) you
wish to achieve (if necessary,
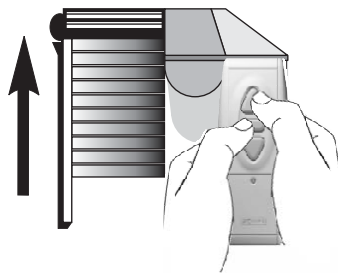adjust this position with UP and
DOWN push buttons).

Push the STOP button of the
RTS transmitter for five seconds.
*The end-product jogs
briefly UP/DOWN indicating
that the LT RTS CMO motor
has memorized the first
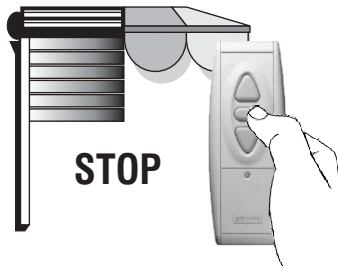intermediate position (IP1)*

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2) Record the INTERMEDIATE POSITION (IP2) referenced from the DOWN LIMIT of the end-product
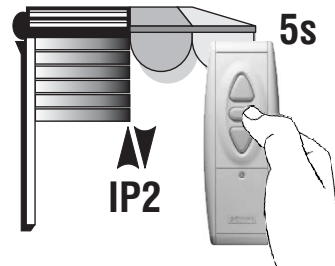
5s

STOP

IP2

Set the end-product at its DOWN limit with the RTS transmitter

Push simultaneously on the STOP and UP button of the RTS transmitter and release them when the end-product begins to move

Stop the end-product at the intermediate position (IP2) you wish to achieve (if necessary, adjust this position with UP and DOWN push buttons).

Push the STOP button of the RTS transmitter for five seconds. *The end-product jogs briefly UP/DOWN indicating that the LT RTS CMO motor has memorized the second intermediate position (IP2)*

REACH THE INTERMEDIATE POSITIONS

To reach one of the intermediate positions, set the end-product at its UP (for IP1) or DOWN (for IP2) limit, then press the STOP button briefly on the RTS transmitter. *The end-product will move and stop at the programmed intermediate position.*

IP1
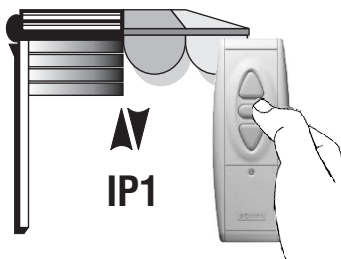
DELETE AN INTERMEDIATE POSITION

To delete an intermediate position, press the STOP button briefly on the RTS transmitter to reach the intermediate position you wish to delete, then press the STOP button for five seconds. *The concerned intermediate position is deleted. The product will jog briefly to confirm the intermediate position has been deleted.*
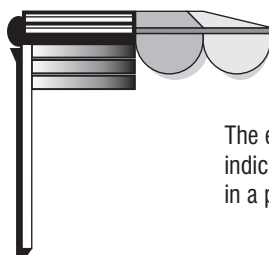
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3) Add or Delete an additional transmitter in the memory of LT RTS CMO motor. The procedure is the same for adding or deleting an additional transmitter/channel. If the transmitter/channel has not been previously memorized it will be added instead of deleted.

> 2 Seconds

⚠️ **Transmitter previously recorded**

Activate the LT RTS CMO memory by pressing the programming button for more than 2 sec. of the transmitter/channel already recorded in the motor's memory.
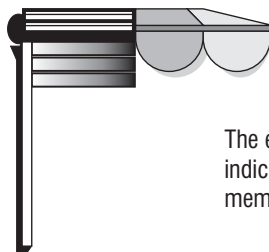
The end-product jogs briefly UP/DOWN indicating that the LT RTS CMO motor is in a programming state.

⚠️ **New Transmitter**

Select the transmitter/channel you wish to memorize in the LT RTS CMO motor.
Press briefly on the programming button of the new RTS transmitter you wish to assign or delete. Repeat this procedure for each additional transmitter/channel you wish to add or delete.

The end-product jogs briefly UP/DOWN indicating that the transmitter has been memorized or deleted in the LT RTS CMO motor

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4) Add or Delete an EOLIS or SOLIRIS Sensor RTS in the memory of LT RTS CMO motor
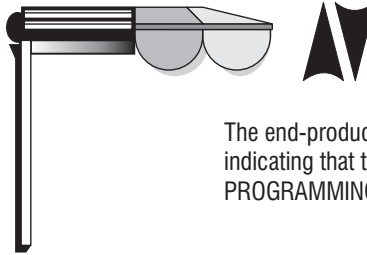
a) Enter the "PROGRAMMING STATE"
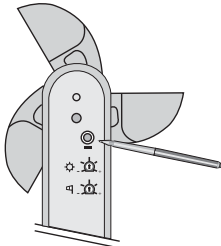
> 2 Seconds

⚠ **Transmitter previously recorded**

Press for more than 2 seconds on the programming button of an RTS transmitter/channel which is already recorded in the motor.
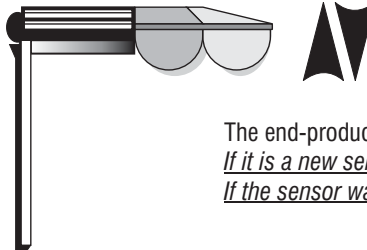
The end-product jogs briefly UP/DOWN indicating that the LT RTS CMO motor is in PROGRAMMING STATE.

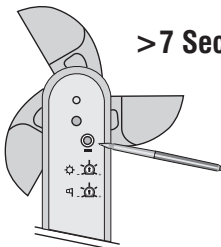### b) To record or delete a sensor

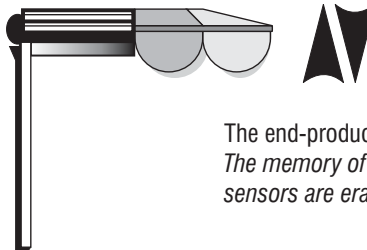Press BRIEFLY on the programming button of the SOLIRIS RTS sensor.

The end-product jogs briefly UP/DOWN
If it is a new sensor: it will be recorded in the motor.
If the sensor was previously recorded: it will be deleted.

c) To Erase all the sensors and record a new one

> 7 Seconds

Press for more than 7 SECONDS on the programming button of the new SOLIRIS RTS sensor.

The end-product jogs briefly UP/DOWN
The memory of the receiver is cleared (all the previous sensors are erased) and the new sensor is recorded.


LT RTS CMO motors will memorize up to 3 RTS Sensors

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5) Resetting the motor's memory and recording a new transmitter when the only transmitter is lost.
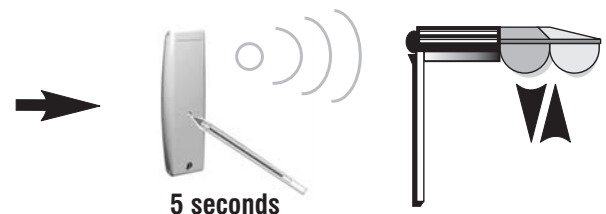
⚠ **NEW TRANSMITTER**

**A. Perform a power cut in the following sequence:
1. Power-off - 2 sec. Minimum
2. Power-on - 5 to 15 seconds
3. Power-off - 2 sec. minimum
4. Power-on

The end product moves for 5 seconds in one direction, to indicate that the double power cut has been recorded. The motor is in INSTALLER MODE for 2 minutes.
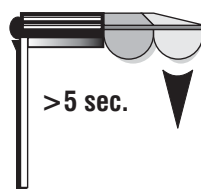
> 5 sec.

5 seconds

B. Press more than 5 seconds on the programming button of the NEW RTS transmitter. The end-product jogs briefly UP/DOWN indicating that the transmitter has erased the previous transmitter and recorded the new one.

NOTE: A double power cut cannot be achieved if the motor is still in FACTORY or INSTALLER Mode. First program a transmitter into the memory of the motor.

**RESETTING MOTORS BACK TO USER MODE

WARNING: This type of power cut affects all the LT RTS CMO motors on the same power line. To avoid resetting of non-concerned motors, press briefly any button of their assigned transmitter/channel. (UP, STOP, or DOWN) The non-concerned motors will exit INSTALLER MODE and return to USER MODE.

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6) Back to the factory configuration (to reset completely the LT RTS CMO motor's memory)

**A. Perform a power cut in the following sequence:
  1. Power-off - 2 sec. minimum
  2. Power-on - 5 to 15 seconds
  3. Power-off - 2 sec. minimum
  4. Power-on

The end product moves for 5 seconds in one direction, to indicate that the double power cut has been recorded. The motor is in INSTALLER MODE for 2 minutes.

**RESETTING MOTORS BACK TO USER MODE

WARNING: **This type of power cut affects all the LT RTS CMO motors on the same power line. To avoid resetting of non-concerned motors, press briefly any button of their assigned transmitter/channel. (UP, STOP, or DOWN) The non-concerned motors will exit INSTALLER MODE and return to USER MODE.**
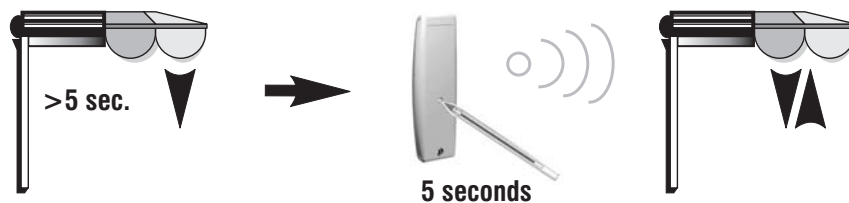

⚠️ **PREVIOUSLY RECORDED TRANSMITTER**

>5 sec.

5 seconds

B. Press more than 5 seconds on the programming button of the PREVIOUSLY recorded RTS transmitter/channel. The end-product jogs briefly UP/DOWN indicating that the LT RTS CMO motor has been completely cleared.

NOTE: **A double power cut cannot be achieved if the motor is still in FACTORY or INSTALLER Mode. First program a transmitter into the memory of the motor.**