

SOLISYSTEME CONTROL UNIT (CP6V)

INSTRUCTIONS FOR INSTALLATION AND USE

Radio Technology Somfy[®]

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A. SAFETY RECOMMENDATIONS

Before installing this product, read the instructions carefully.

Pay special attention to the parts marked with this symbol.



This product must be installed by a qualified professional.

The installer must comply with the standards and legislation in the country where the product is to be installed and tell customers how the product is to be used and maintained.

All usage outside the scope of the application is forbidden. Such usage, together with the non-observance of the attached instructions will invalidate the guarantee and responsibility.



To reduce the risk of electric shock the operator power is to be provided from a weatherproof outlet in the case of attachment plug connection or weatherproof junction box in the case of permanent wiring per 314.15 of the National Electrical Code, NFPA 70.



Always check with your local authority for building/electrical codes and regulations prior to installation.



Ensure any and all supplemental materials (wiring, connectors, junction boxes, etc...) are approved for outdoor use and are up to your local building/electrical codes. If you are unsure, consult your local building/electrical authority.

B. FOREWORD

The adjustable slat pergola control unit uses RTS Somfy® technology.

IO transmitters are not compatible with this technology.



COMPATIBLE TRANSMITTERS

The use of the technology is guaranteed for the following SOMFY® remote controls.

Transmitter	References
Telis 4 RTS	1810651/1810638/1810631/1810644
Telis 4 Soliris RTS	1810648/1810906/1810907/1810957
Telis 4 for RTS variation	1810664/1810663/1810765
Telis 16 RTS	1811021/1811020

Transmitters are for local control use. The theoretical free path range is 160m for this application.

COMPATIBLE SENSORS

Only the sensors below are compatible with the control unit. No other sensors must be used.

Sensor	Brand	Name	Voltage	Reference
Wind	SOMFY®	EOLIS	-	9101480
Wind	SOMFY ®	EOLIS RTS	230V	1816068
Rain	SOMFY®	ONDEIS	24V	9016344
Temperature	NOVAL	-	-	NL1222

C. **DESCRIPTION**

FIELD OF APPLICATION

The purpose of the control unit is to control the 24V actuators, supplemental lighting and accessories for adjustable slat pergolas. The sensors can also provide control for weather conditions.

Automatic functioning is intended only for driving non-accessible moving parts.

TECHNICAL DESCRIPTION





- 1 Terminal block for mains connection
- 2 Power supply
- 3 Electronic board
- 4 Actuator / lighting outputs
- 5 Sensor inputs
- 6 Hard-wired control inputs

DIMENSIONS



CHARACTERISTICS

General power supply	110-240VAC / 50-60Hz
Output power	24VDC / 3A max
Usable temperature range	-4°F to +140°F
Protection rating	IP65
Class II	YES
Number of programmable remote controls	16 remote controls

FIXING THE CASE

1. Remove the control unit lid





2. Use the lid as a template to mark the fixing points on the vertical wall.





- 3. Drill the support
- 4. Fix the case to the support using the screws provided in the kit or suitable screws for the support on which the control unit is to be mounted (Ø4.2 max L20 min).







Check with your local authority for building/electrical to ensure cables, connectors and junction boxes are approved for outdoor use.



The case is waterproof. Never feed 2 cables through a single cable gland. Otherwise the case cannot be guaranteed to be waterproof.

The <u>maximum</u> length of cable between the control unit and the various actuators / lighting depends on the cross section used and the power rating of the actuator or lighting.

|--|

			Wire cross section (copper)					
			0.5mm ²	0.75mm ²	1mm²	1.5mm²	2mm ²	2.5mm ²
		12W	30m	44m	60m	90m	125m	156m
	Power rating	24W	15m	22m	30m	45m	62m	78m
		36W	10m	15m	20m	30m	41m	52m
		48W	7m	11m	15m	22m	31m	39m
		60W	6m	9m	12m	17m	25m	31m
		75W	5m	7m	10m	15m	20m	26m

WIRING THE CASE



The connections must be made by a qualified person and with the unit switched off.

1. Connect the unit to the mains with a suitable cable. Use the gland marked in red on the diagram opposite.



2. Connect the power cable using the connectors in the case.





Characteristics of compatible actuators (pistons or rotary motors):

- Power supply 24VDC.
- Limited switches incorporated.
- Maximum load current 3A

Connections:

Connect the actuators to outputs S1, S2 and/or S3.



LIGHTING OUTPUT (S4)

Characteristics of compatible lighting:

- Power supply 24VDC
- Current consumption 4A (individual light or cumulatively over the whole installation)

Connections:

Connect the lighting to output S4 (Negative terminal on the left, positive terminal on the right).





Do not connect an actuator to this output.

HARD WIRED WIND SENSOR



WIRELESS WIND SENSOR



RAIN SENSOR



TEMPERATURE SENSOR



WIRED FUNCTIONING



The 4 outputs S1/S2/S3/S4 can be controlled via the wired inputs A/B/C/D on the electronic board.

To do this, connect the inputs to a pulse control system (switch, building management system interface etc.) as shown in the diagram opposite.

The outputs will function in flip-flop mode. Pressing the control button will move the actuator in one direction. Pressing a second time will stop it. Pressing again will move the actuator in the opposite direction.

ADJUSTING THE MICROSWITCHES



The control unit functions have to be configured using the micro-switches on the electronic circuit board.

MICROSWITCH 1: SIMULTANEOUS OR CASCADE FUNCTIONING OF OUTPUTS S1, S2 AND S3

The maximum power that the power supply can deliver is 100W. According to how the installation is configured (number of pistons, LED lighting power), the functioning mode must be set as simultaneous or cascade.

Simultaneous functioning	Cascade functioning		
If the total power of the actuators and the lighting <u>does not</u> <u>exceed 100W</u> .	If the total power of the actuators and the lighting exceeds $100W$.		
 All outputs can function at the same time Outputs S1, S2 and S3 can function together Output S4 can function permanently. All the commands are made together. 	 The outputs cannot function at the same time Outputs S1, S2 and S3 function one after another. Output S4 can function permanently. The commands are recorded and executed one by one. 		
Position of microswitch 1: OFF	Position of microswitch 1: ON		

MICROSWITCHES 2 AND 3: FUNCTIONING OF OUTPUT S2 AND OUTPUT S3

Outputs S2 and S3 can be used to actuate accessories other than electric pistons by connecting an interface unit (on option, contact us).

Functioning for actuators	Functioning for accessory relays	
The output functions at ±24V.	The output functions at ±+24V	
The sensors affect the output.	The sensors <u>do not</u> affect the output.	
Position of microswitch 2 and/or 3: OFF	Position of microswitch 2 and/or 3: ON	

MICROSWITCH 4: FUNCTIONING OF OUTPUT S4

Progressive functioning	ON / OFF functioning		
The lighting intensity from output 4 can be adjusted precisely and continuously from 0% to 100%	The lighting intensity connected to output 4 cannot be adjusted. The intensity is 0% or 100%.		
Position of microswitch 4: OFF	Position of microswitch 4: ON		
MICROSWITCH 5: SENSOR PRIORITIES			

Wind sensor has priority	Rain sensor has priority
In case of conflict between the wind and rain sensors, the wind sensor has priority (the slats come half open).	In case of conflict between the wind and rain sensors, the rain sensor has priority (the slats close completely).
Position of microswitch 5: OFF	Position of microswitch 5: ON

MICROSWITCH 6: FROST PROTECTION FUNCTIONING

Frost protection functioning can be parameterised. The slats can be allowed to move or not.

Movement allowed	Movement disabled
The slats can be oriented but cannot close completely (to protect the joints) Position of microswitch 6: OFF	Once the slats are in the vertical position, they can no longer be oriented until the temperature is above frost range again. Position of microswitch 6: ON

MICROSWITCHES 7 AND 8: DEACTIVATION OF THE ACTION OF SENSORS S2 AND S3

The sensors for outputs S2 and S3 can be deactivated (e.g. if accessory blinds are used).

The sensors affect the associated output.		The sensors do not affect the associated output	
The sensors affect outputs S2 and S3.		The sensors do not affect outputs S2 and S3.	Province of the second
Position of microswitch 7 and/or 8: OFF	60000	Position of microswitch 7 and/or 8: ON	60000 E

F. PROGRAMMING THE CONTROL UNIT

Outputs 1, 2 and 3 can be set in a simple or advanced way. Advanced setting is <u>obligatory if the following functions are to be used</u>:

- Snow function
- Precise orientation of the slats with the thumbwheel
- Partial opening of the slats (20%)
- Manoeuvrability of the slats in wind
- Manoeuvrability of the slats in frost



In each phase of setting, you are advised to ensure that the sensors cannot be triggered accidentally.

SIMPLE SETTING OF OUTPUTS 1, 2 AND 3

Step 1: Select the channel and the output to be programmed

1.1 On your 4-channel transmitter, select the channel that you want to use to configure output S1, S2 or S3 by pressing several times on the channel change button on the remote control.

1.2 On the control unit, select the output to be configured

ADVANCED SETTING OF OUTPUTS 1, 2 AND 3

Step 1: Select the channel and the output to be programmed

Step 2: Pairing the remote control

- Press the PROG button on the electronic board for 2 seconds. •
- Select the required output by pressing the PROG button.
- A brief up-down on the selected output will identify the associated actuator.

configure output S1, S2 or S3 by pressing several times on the channel change button on the remote control.

Press the "PROG" button on the back of the transmitter. The associated actuator will make a brief up/down movement to confirm successful pairing of the remote control.



The output is now programmed and functional. Repeat this procedure for all the outputs with actuators.

1.1 On your 4-channel transmitter, select the channel that you want to use to



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000





1.2 On the control unit, select the output to be configured

- Press the PROG button on the electronic board for 2 seconds.
- Select the required output by pressing the PROG button.
- A brief up-down on the selected output will identify the associated actuator.



2.1 Simultaneously press \uparrow and $\downarrow.$ The actuator will make a brief up/down movement to confirm the input in programming mode.



Step 3: Checking the direction of movement control

3.1 Check the direction of movement of the actuator wired to the output.

For the control unit to work correctly, it is essential that the \uparrow button on the remote control correspond to opening of the pergola and the \downarrow button to closing.

3.2 To invert the control direction, press for 5 seconds on the My button.

The associated actuator will make a brief up/down movement to tell you he directions have been inverted.



Step 4: Setting the closed position

4.1 Set the pergola slats to the maximum desired closed position with the \downarrow key. If the actuator has built-in limit switches, release the button as soon as the actuator stops.













GENERAL CONTROL

To parameterise a general control, all the outputs must have been configured according to the above procedures.



Repeat the operation for the other channels that you want to associate with the general control by each time choosing the same channel in step 2.1.

EXTRA SETTINGS

ACTIVATING THE ACTIVATION/DEACTIVATION FUNCTION OF THE RAIN SENSOR

To use the activation/deactivation function of the rain sensor (compatible only with Telis 4 Soliris remote controls), an output must be paired with channel 4 (****) on the remote control.

USING AN RTS WIND SENSOR

If an EOLIS RTS wind sensor (reference 1816068) is used in the installation, pair it with the control unit as explained below. The trigger threshold level is adjusted on the sensor (see specific sensor documentation).

- 1. On the control unit, select output S1
 - Press the PROG button on the electronic board for 2 seconds.
 - LED S1 will wink and the actuator connected to output S1 will make a brief up/down movement



PROG

- 2. On the sensor, press the PROG button under the sensor.
 - The actuator connected to output S1 will make a brief up/down movement to confirm pairing of the wind sensor.
 - The sensor is now paired with all the control unit outputs (functioning identically to the hard-wired wind sensor)

Go through the same operation to remove the wind sensor.

LIMIT SWITCH ADJUSTMENT

Resetting the closed position



Go through the same procedure for the open position, with the pergola at maximum opening position.

HOW TO ADD A NEW TRANSMITTER

Method 1: from the control unit (if the first transmitter is no longer available)

1.1 On the control unit, select the output to be configured

- Press the PROG button on the electronic board for 2 seconds.
- Select the required output by pressing the PROG button.
- A brief up-down on the selected output will identify the associated actuator.

1.2 On the transmitter that you want to add, select the channel you want to pair with the output.

1.3 Press the "PROG" button on the back of the transmitter. The actuator associated with the output will make a brief up/down movement to confirm the addition.

Method 2: from an already paired transmitter

2.1 Select the already paired transmitter at whose output you want to pair the new transmitter.

2.2 Select the output.

2.3 Press the "PROG" button on the back of the transmitter for 2 seconds. The actuator will make a brief up/down movement to confirm the input in programming mode.

2.4 On the <u>new</u> transmitter, select the channel you want to pair.

2.5 Press the "PROG" button on the back of the transmitter. The actuator/lighting associated with the output will make a brief up/down movement to confirm the addition.



0000 *****000 0*00 00*0

s1 O PROG s2 O S3 O

my

0000 **#**000

0**₩**00 00**₩**0

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HOW TO REMOVE A TRANSMITTER

Method 1: from the electronic board

1.1 On the control unit, select the output to be configured

- Press the PROG button on the electronic board for 2 seconds.
- Select the required output by pressing the PROG button.
- A brief up-down on the selected output will identify the associated actuator.

1.2 Select the channel you want to remove.

1.3 Press the "PROG" button on the back of the transmitter. The actuator associated with the output will make a brief up/down movement to confirm the removal.

Method 2: from a transmitter

with the output.

2.1 Press the "PROG" button on the back of the transmitter <u>that you do not</u> <u>want to remove</u> for 2 seconds. The latter must be associated with the corresponding output.

The actuator will make a brief up/down movement to confirm the input in programming mode.

2.2 On the transmitter that you want to remove, select the channel associated

2.3 Press the "PROG" button on the back of the transmitter. The actuator associated with the output will make a brief up/down movement to confirm the removal.











2sec



RETSTORING THE CONTROL UNIT FACTORY SETTINGS

To reset the control unit and restore the factory settings, press the PROG button on the electronic board for 7 seconds, until the LEDS wink rapidly.

N.B. This operation will delete all pairings and settings made.



G. FINISHING THE INSTALLATION

Once the control unit has been set and tested, replace the cover of the case and tighten the screws with a suitable flat bladed screwdriver.



H. USING THE CONTROL UNIT

USING THE REMOTE CONTROL





Functioning is identical to the favorite slat position. The addition/modification/deletion of favorite lighting intensity is confirmed by 3 lighting flashes.

6 Using the thumbwheel

If your remote control has a thumbwheel (TELIS 4 RTS for variation), this can be used for:

- precisely orienting the pergola slats (1 notch = 3% of total movement)
- precisely adjusting the lighting intensity



STEPWISE FUNCTIONING

This enables stepwise movement of the blades during the day, at a rate set by the user.

- 1. Orient the pergola slats to the desired initial position.
- 2. According to the desired direction, press "My + \uparrow " or "My + \downarrow " for 2 seconds to start the automatic movement of the slats. The command is confirmed by a brief up/down movement of the slats.
- 3. Functioning is now automatic. A movement lasting 0.5 seconds is made every 10 minutes, in the requested direction.

 Automatic movement of the slats is stopped while a sensor is acting (wind, rain or temperature), or when one of the 3 buttons (My, ↑ or ↓) is pressed or when the actuator reaches its limit.

To restore stepwise functioning, repeat steps 2 to 4.



FUNCTIONING BY SENSORS



*authorization or non-authorization of settings is configured during the installation. Contact your installer for more information.

I. TROUBLESHOOTING

MEANING OF THE LEDS

LED	Meaning	Slow Winking	Fast Winking	Fixed
s	Status	STANDBY	ACTION IN PROGRESS	-
_	Fault		[for 5 seconds]	[for 5 seconds]
D		-	A sensor is preventing the actuator from moving	Overconsumption on one of the outputs
	Wind	-	The wind threshold was exceeded less than 15 minutes ago and safety setting is still active.	The wind threshold has been exceeded
00000 00000	Rain	-	The rain sensor was deactivated less than 15 minutes ago.	The rain sensor has been triggered
	Temperature	-	Delay after frost conditions (2°C <t<4°c)< th=""><th>Frost conditions (T° < 2°C)</th></t<4°c)<>	Frost conditions (T° < 2°C)
	Sun	-	-	-

ADJUSTING OF MICROSWITCHES

Microswitches 1 Functionning of outputs S1 to S4	OFF : Simultaneous functionning (total Power < 100 W)	ON : Cascades functionning (total Power > 100 W)	
Microswitches 2	OFF : Functionning for the actuators (1 ou 2 actuators) => the functionning depends of the choice of the microswitch 1	ON: Functionning for accessory relays (Leds, heating) => the functionning do NOT depends of the choice of the microswitch 1	
runctionning of the output 52	Functionning at ± 24V	Functionning at 0 / +24 V	
	The sensors affect the outputs	The sensors do NOT affect the outputs (The lighting intensity is not possible)	
Microswitches 3	OFF : Functionning for the actuators (1 ou 2 actuators) => the functionning depends of the choice of the microswitch 1	ON: Functionning for accessory relays (Leds, heating) => the functionning do NOT depends of the choice of the microswitch 1	
Functionning of the output S3	Functionning at ± 24V	Functionning at 0 / +24 V	
	The sensors affect the outputs	The sensors do NOT affect the outputs (The lighting intensity is not possible)	
Microswitches 4 Functionning of the output S4 (leds connections)	OFF : The lighting intensity from output can be adjusted precisely and contnuously from 0% to 100 %	ON : The lighting intensity connected to output cannot be adjusted, The intensity is 0% OR 100%.	
Microswitches 5 adjusting of the priority of the wind/rain sensor	OFF : In case of conflict between the wind and rain sensors, the wind sesnor has priority (the louvers come half open)	ON : In case of conclict between the wind and rain sensors, the rain sensor has priority (the louvers close completely)	
Microswitches 6 adjusting frost protection	OFF : The louvers can be oriented but cannot close completely (to protect the joints)	ON : Once the louvers are in vertical position, they can no longer be oriented until the temperature is above frost range rain.	

The maximum power that the power supply can deliver is to 100 W

	Tatal Davias				
Output 1	Output 2	Output 3	Output 4	Total Power	
1 motor 25W			18 leds	97W	
1 motor 25W	1 motor 25W		12 leds	98W	
1 motor 25W	1 motor 25W	1 motor 25W	6 leds	99W	
2 motors 50W			12 leds	98W	
2 motors 50W	1 motor 25W		6 leds	99W	
2 motors 50W	2 motors 50W			100W	

	Total			
Output 1	Output 2	Output 3	Output 4	Power
1 motor 25W	1 motor 25W		18 leds	97W
1 motor 25W	1 motor 25W	1 motor 25W	18 leds	97W
2 motors 50W	1 motor 25W		12 leds	98W / 73W
2 motors 50W	2 motors 50W		12 leds	98W
2 motors 50W	2 motors 50W	1 motor 25W	12 leds	98W / 73W
2 motors 50W	2 motors 50W	2 motors 50W	12 leds	98W

4 W

Spot Led power

1 motor on 1 output

Power motor

2 motors on 1 output

The lighting intensity of the leds connect to the output 4 can be adjusted (0% TO 100%)

Instead of the leds, we can command an accessory (heating system) with a relay

25 W

On the free outputs 2 and 3, we can command an accessory (heating system) with a relay The leds can be repart on different outputs for create 2 or 3 but the lighting instensity cannot be adjusted (0[°]% OR 100%)



J. GUARANTEE AND AFTER-SALES SERVICE TERMS

This product is guaranteed for 3 years from the date of delivery against any manufacturing defect provided it is used normally and observing the conditions of use.

The guarantee does not cover damage arising from abnormal or abusive use, or damage due to mains over-voltages or lightning. Modification of the product by the user or the installer nullifies the guarantee.

The responsibility of SOLISYSTEME is limited to the repair or exchange of products recognized to be defective, but not because of consequences resulting from their implementation, use, functioning or bad maintenance.

If the equipment malfunctions, it should be returned suitably packaged to the following address, stating the type of defect observed.

SOLISYSTEME

11 route de la cours d'Hénon 86170 AVANTON France

K. END OF LIFE AND DISPOSAL



Consult the rules and methods of disposal and recycling required to observe the standards in force for this type of product.



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