TECHNICAL DATA SHEET
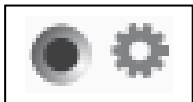
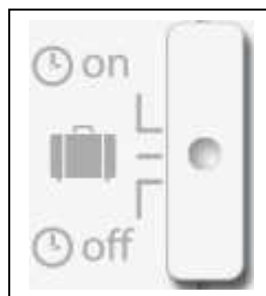| Designation	**Chronis io**
Reference	1805227 Chronis io (FR/DE) – 1805228 Chronis io 10L (DE – FR - EN – NL – IT – ES – EL – CS – PL – HU)
Range	**io**

FUNCTIONS

Front side
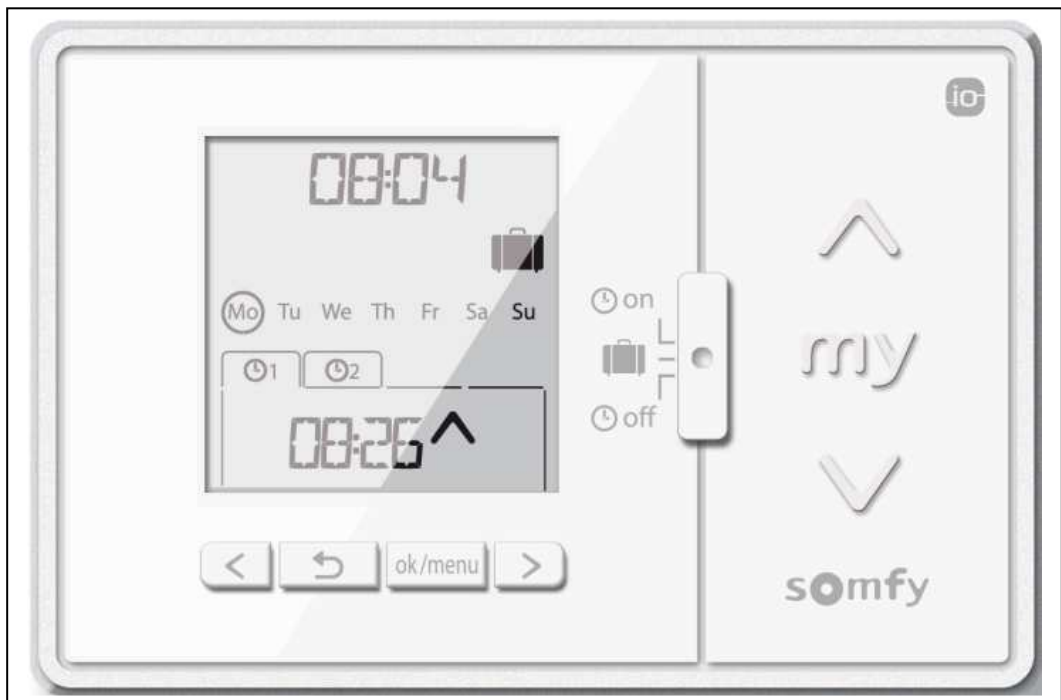
Back side

	Button to access the Instal mode		Button to store the actuators

➢ **Three user modes**

| Timer On |
| Presence simulation |
| Timer OFF |

o **Timer OFF**

Command available
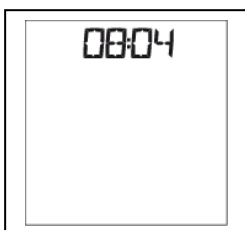
∧	Up order
my	Stop or My order
∨	Down order

Navigation buttons
< ↻ ok/menu >

o **Timer ON**

```
 08:04

Mo Tu We Th Fr Sa Su
⏰1  ⏰2
    08:26 ^
```
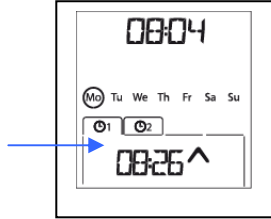
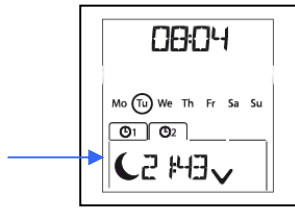▪ **Programming week**

```
(Mo) Tu We Th Fr Sa Su
```
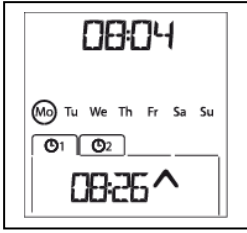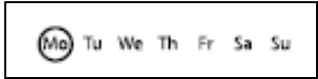
Typical pre-programmed week
Monday=> Friday: UP at 7h30, DOWN at twilight
Saturday-Sunday: UP at 8h00, DOWN at twilight

Be careful: Change Summer & Winter time
- If order between 2am and 3am
-> in winter there is a risk that is played 2 times
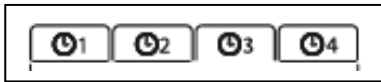-> in summer orders will not be played

• **Fixed time**

```
 08:04

Mo Tu We Th Fr Sa Su
⏰1  ⏰2
    08:26 ^
```

• **Twilight time**

```
 08:04

Mo (Tu) We Th Fr Sa Su
⏰1  ⏰2
 ☾2 1-13 ⌄
```

▪ **1 to 4 order per day**

```
⏰1   ⏰2   ⏰3   ⏰4
```

▪ **Programming Up or My or Down**

```
◇my
```

o **Presence Simulation**

```
 08:04
              💼
Mo Tu We Th Fr Sa Su
⏰1  ⏰2
    08:26 ^
```
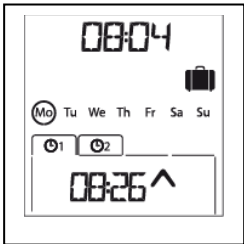
- The planned orders are played with a lag of 0 to 30 minutes.
- All orders scheduled between 23h31 and 23h 59 to be played later at 23h59 => we do not shift on the day after

- **No Backlight in this mode**

➢ **Icon battery lifetime in manual and automatic mode**

```
🔋
```

```
🔋 08:04

Mo Tu We Th Fr Sa Su
⏰1  ⏰2
    08:26 ^
```

```
🔋
   ((•))


    ^
```
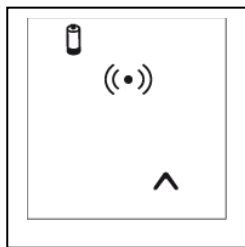
When the battery icon appears, the Backlight is cut off. (To save life time)

| Automatic mode | Manuel mode |

➢ **Instal mode**

o Mode choice to pilot (4 modes available)
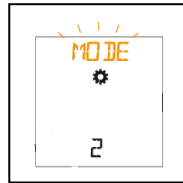
STD ⚙ 1	Mode standard 1 = for all product (0% - 100%) **selected by default** Behavior for all products: ⌃ = Go to Up (0%) my = Stop or go to my ⌄ = Go to Down (100%)

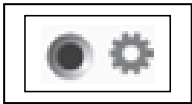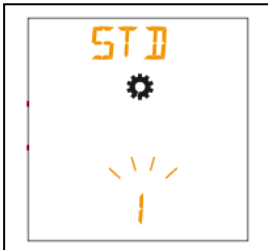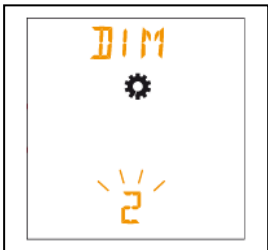|	
DIM ⚙ 2	Mode standard 2 = recommended for Heat & Light application Behavior: Short press <0.5s — Long press >0.5s ⌃ = Go to Up (0%) — = Dimming to X% in link with the during of the press my = Stop or go to my ⌄ = Go to Down (100%) — = Dimming to X% in link with the during of the press
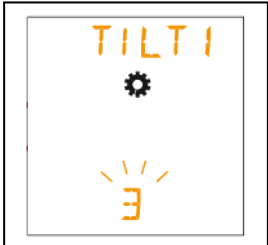
TILT1 ⚙ 3	Mode standard 3 = recommended for EVB application Behavior: Short press <0.5s — Long press >0.5s ⌃ = Orientation of the slats — = Go to Up (0%) my = Stop or go to my ⌄ = Orientation of the slats — = Go to Down (100%)
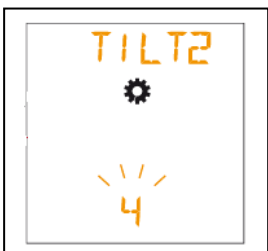
TILT2 ⚙ 4	Mode standard 4 = recommended for IVB application Behavior: Short press <0.5s — Long press >0.5s ⌃ = Go to Up (0%) — = Orientation of the slats my = Stop or go to my ⌄ = Go to Down (100%) — = Orientation of the slats

o   Radio frames repetition (Repetitions are only applicable for "Timer ON" or "presence simulation").

If there is a radio problem in the installation, you can increase the number of repetition to be sure the actuators receive the orders.

Choose your radio frames repetition between 1, 2, 3, 4, 5.

First series of frames: Floating in a window between 0.1 and 0.8s

Second series of frames. 0.9s after the previous (Repeat always active)

Third series of frames: 0.9s after the previous

Fourth series of frames: 0.9s after the previous
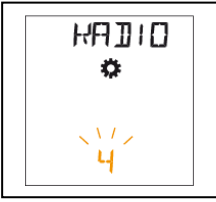
Fifth series of frames: 0.9s after the previous

Sixth series of frames: 0.9s after the previous

| 0.1s< | 0.9 s | 0.9 s | 0.9 s | 0.9 s | 0.9 s |

RADIO ⚙ 1

- « 1 » is selected by default
- First series of frames: Floating in a window between 0.1 and 0.8s.
- Second series of frames. 0.9s after the previous (Repeat always

RADIO ⚙ 2

- Third series of frames: 0.9s after the previous

RADIO ⚙ 3

- Fourth series of frames: 0.9s after the previous

RADIO ⚙ 4

- Fifth series of frames: 0.9s after the previous

RADIO ⚙ 5

- Sixth series of frames: 0.9s after the previous

o Solar motor. (If there are autonomous actuators in the house)

```
SOLAR    MOTOR
 ✿        ✿
 NO       NO
```
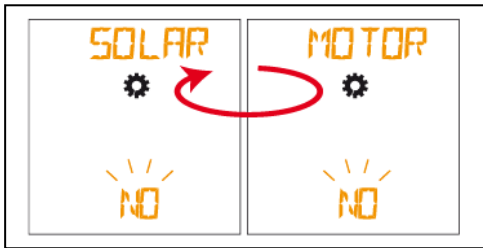
« NO » is selected by default

Autonomous motor is wake up regularly for short time. When the autonomous mode is activated, the duration of the transmission signal is sufficiently long to overlap a wakeup period of the autonomous motor.

```
SOLAR    MOTOR
 ✿        ✿
YES      YES
```
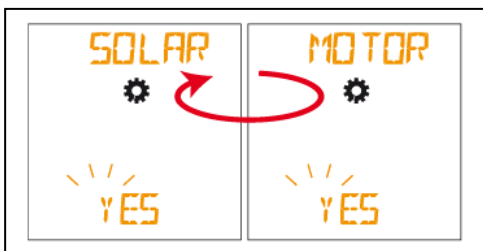
Be careful, in this mode the timer batteries life time is deteriorated significantly.

Long preamble

509,6 ms

Timer order

Motor wake up

500 ms
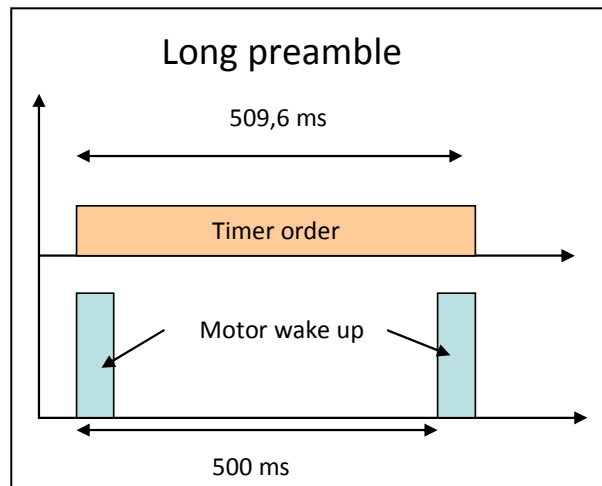
o Software version. (Information about the software version in the product)

```
SOFT
 ✿

149
```

o Reset.

```
RESET
 ✿

YES
```
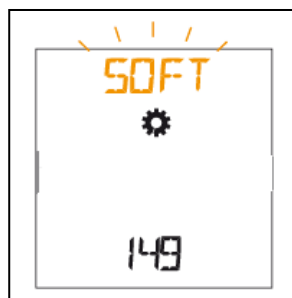
Restore factory mode: the date, time, twilight, programming weeks, the time change automatically (W / S), the control mode used, the number of repetitions and the mode "solar motor". **The actuators remain stored!**

TECHNICAL SPECIFICATIONS

Box	Material	ABS & PC
	Color	Pure
	Size	120 x 80 x 21 mm
	Protection factor against solid & splashproof	IP 20
Battery	Voltage	1.5V
	Type	LR03 AAA (not compatible with rechargeable batteries)
	Number	x2
Battery lifetime (at ambient temperature in typical conditions) (4 automatic orders, 2 manual orders per day without repetition and solar mode)		24 months
Radio frequency		868,95Mhz +/- 1Khz
EIRP (Equivalent Isotropically Radiated Power)		+10 dBm
Modulation type		FSK deviation ± 19.2 KHz
Protocol		io-homecontrol
Antenna		Integral
Range (minimum garanteed)		20 m through 2 concrete walls
Temperature range	Storing	-20°C / +60°C
	Working	0°C / +60°C
Drop test		Installation: at 0°C 1/face (height : 1,2m) Using: at 20°C 1/face (height : 1,2m)
Weight		145 g (including battery)
Standard (CE)		EN 61000-4-3 (immunity) EN 61000-4-2 (immunity) EN 300220-1 (Radio)

COMPATIBILITIES

Compatible with all io product for basic order (0% - 100%)
Except:
- with Alarm profil not compatible

Special Funtionnality:
All profils (actuators) that support the management of the linear speed
⇨ Automatic Orders will be played at slow speed
⇨ Manual orders will be played with normal speed

See Matrix compatibility io

BEHAVIOR

Schedule collision:
- If two orders are scheduled at the same time, only the second order will be played in relation to their position in time slots.
- A manual command has priority over an order issued automatically.
  If a manual command is requested at the same time as the launch of an automatic time range, then it will be played in releasing the button

Random time:
The scheduled times are triggered randomly within a window of 30 minutes after the normal release schedule:
Special case: If the time between two events <4 minutes, the first hour is played in normal mode.

Timming sreen display ON and Backlight:
- TIMER ON INIT: screen display ON= 10 min, backlight = 5s
- TIMER OFF INIT: screen display ON= 2 min, backlight = 5s
- INSTAL mode: screen display ON= 2 min, backlight = 5s
- Submenu SET: screen display ON= 2 min, backlight = 5s
- Submenu PROG: screen display ON= 2 min, backlight = 20s
- Demo mode: screen display ON during demo mode, backlight = 5s at each launching of scenario
- TIMER ON: screen display ON= 1 min, backlight = 5s
- TIMER ON SIMUL: screen display ON= 1 min, backlight = 5s
- TIMER OFF: screen display ON= 1 min, backlight = 5s
- ERROR: screen display ON= 1 min, backlight = 5s
Automatic orders
- TIMER ON: screen display ON= 1 min, backlight = 5s
- TIMER ON SIMUL: screen display ON= 1 min, backlight = 5s

Battery lifetime:
When the icon appears, the backlight doesn't light ON
The low battery indication is filtered, when the threshold is detected, it remains valid
(pictogram display) to change the battery
 Low battery threshold = 2.53V
Out battery threshold = 2.43V

!!! It is possible to still have the low battery indicator after changing the battery (even with new batteries). To solve this problem remove the batteries, press a button and replace the batteries.

Display next order:
Next order is displayed only if the current day
Twilight
The time is displayed on a rotating week.
Eg: today is Wednesday, Monday and Tuesday time corresponds to next Monday and Tuesday, not yesterday

Prog button:
Prog button is not available in submenu PROG, submenu SET, demo mode and in INSTAL mode

BEHAVIOR with actuators

Lighting NIKO
- With an automatic order ➜ Progressive lighting.
- With manual order➜ Instant lighting.

Lighting Velux
- No feedback when pairing

Dual Roller Shutter
- Impossible to stop the product if we are in mode 4
- Impossible to drive actuator if we are in mode 2

If Solar MOTOR = YES
- microbreaks when piloting in dead man (Altus Gradhermetic(X07)VR HOLLA (X10), VR TEBA(X07), Bridge EVB(A08))
- No feedback with Lighting receiver (X1.14)

GO (X07) with card <X08: Mode 1 with photocell
- Impossible to drive GO with automatic orders
- No pedestrian opening with manual orders

GDO (X40) with card <X08 without photocell
- **!!!! Possible to manage GDO in automatic orders ➜ Non-compliance with the standard EN12453**

BEHAVIOR with My

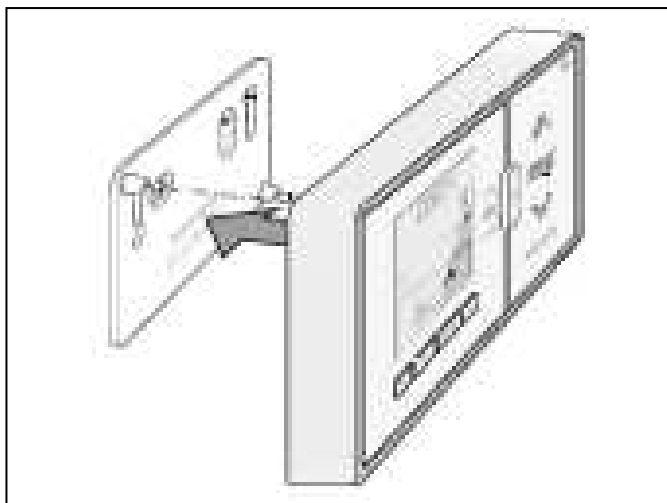| Actuators profiles and Sub-profiles	Product	Manufacturer	Timer io V007	
			Manual order	Automatic order (LOW SPEED on lift)
1. Interior Venetian Blind	IVB	Somfy	OK	OK
	IVB / Other	Velux / Other	OK	Management favorite position on lift and tilt Low speed
2. Roller Shutter / Roller Shutter (Man. ID : Velux)	Oximo io / Short motor io	SOMFY / SOMFY	OK	OK
	VR100	SOMFY	OK	OK
	VR - SSL / VR - SML / Other	Velux / Velux / Other	OK	Management favorite position on lift
2.1. Adjustable slats rolling shutter	Oximo Gradhermetic / TEBA (Salteo A)	SOMFY	OK	OK
	VR Olla (Slateo B)	SOMFY	OK	OK
	Other	Other	OK	Management favorite position on lift and tilt
2.2 Projection Rolling Shutter	Twipso	SOMFY	OK	OK
3. Vertical Exterior Awning	Awmio screen / Sunilus Screen / Pergola Screen	SOMFY / SOMFY / SOMFY	OK	OK
	Other	Other	OK	Management favorite position on lift Low speed
4. Window opener	Other	Other	OK	Management favorite position on lift Low speed
	Window Opener	Velux	OK	OK
4.1. Window opener with integrated rain sensor	Window Opener / Other	Velux / Other	OK	Velux: OK / Others: Management favorite position on lift Low speed
5. Garage door opener	Dexxo PRO / GDO Hormann / Other	SOMFY / Hormann / Other	manage by actuator OK	OK
5.58 GDO Open Close	Rolixo	SOMFY	OK last version	OK
6. Light	Spot lights / Led receiver	Velux / Niko / Somfy	Niko: ? / Velux NOK	Management of the favorite brightness with Slow gradient
	Other	Other	OK	Management of the favorite brightness with Slow gradient
6.1 Light with color handling	Other		OK	Management of the favorite brightness with Slow gradient
6.58 Light only supporting ON/OFF	Lighting receiver / 230v light / Other	SOMFY / Niko / Other	OK	OK
7. Gate opener	GO / Other	Horrman / Other	OK	OK
	GO	SOMFY	OK last version	OK
7.58 Gate opener only supporting Open-Close	Ixengo / Axovia	SOMFY	OK last version	OK
9. Door Lock	Lock driver / Other	SOMFY / Other	OK	OK
9.1 Window Lock	Window lock actuator / Other	Secuyou / Other	OK	OK
10. Vertical Interior Blinds / Vertical Interior Blinds (Man. ID : Velux)	Other	Other	OK	Management favorite position on lift
	no existing product	SOMFY	manage by actuator	OK
	VIB - DSL	Velux	OK	Management favorite position on lift
13. Dual Roller Shutter	Velux dual roller shutter	Velux	OK	Management favorite position on lift
14. Temperature Control Interface			OK	OK
15. On/Off switch	Plug / Plug / Plug	Velux / SOMFY / Other	OK	OK
16. Horizontal awning	Awmio store / Sunilus	SOMFY / SOMFY	OK	OK
	Other	Other	OK	Management favorite position on lift
16.1 Pergola Rail Guided Awning	Pergola io	SOMFY	OK	OK
	Other	Other	OK	Management favorite position on lift
17. Exterior Venetian blind	J4 io / EVB Bridge	SOMFY	OK	OK
	Other	Other	OK	Management favorite position on lift
18. Louver blind	no existing product	SOMFY		OK
	no existing product	Other	OK	Management of the favorite displacement position
19. Curtain track	no existing product	SOMFY		OK
	no existing product	Other	OK	Management of the favorite displacement position
20. Ventilation point			OK	Management of the favorite Air demand
20.1 Air intlet			OK	Management of the favorite Air demand
20.2 Air transfer			OK	Management of the favorite Air demand
20.3 Air outlet			OK	Management of the favorite Air demand
21. Exterior heating	no existing product	SOMFY		OK
	no existing product	Other	OK	Power management of favorite heater
21.58 Exterior heating	no existing product	SOMFY		OK
	no existing product	Other	OK	Power management of favorite heater
22.Heat Pump	Heat Pump	CIAT	OK	OK
24. Swinging shutters	no existing product	SOMFY		OK
	no existing product	Other	OK	Management favorite on the opening position.
24.1 Swinging shutters with independant handling of the leaves	no existing product	SOMFY		OK
	no existing product	Other	OK	Management favorite on the opening position.
24.58 Swinging shutters	no existing product	SOMFY		OK
	no existing product	Other	OK	Management favorite on the opening position.

Installation

Two brackets are available:
- one for screws diameter 4mm
- another for screw diameter 3mm
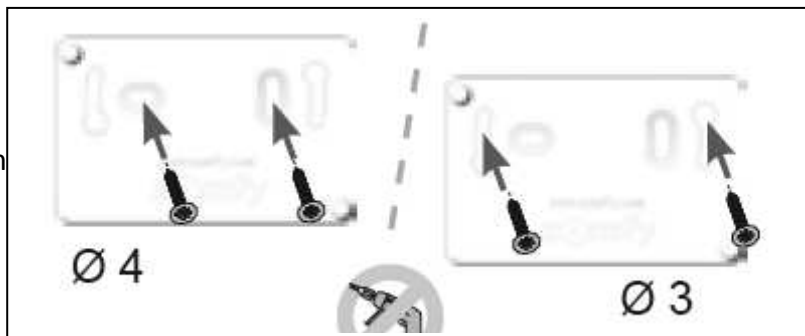
Keeping the product on the bracket is secured to a mounting plane with a drop <0.5 mm