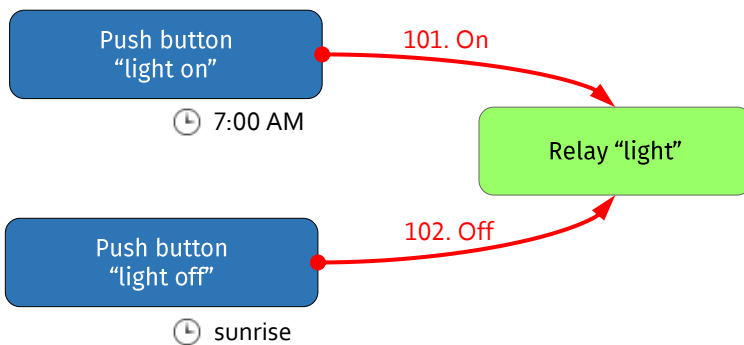


# FAQ: HOW DO I PROGRAM A LIGHT TO SWITCH ON AT 7 AM AND OFF AT SUNRISE, AND MAKE THIS WORK CORRECTLY IN ALL SEASONS?

## 1 SITUATION

- Relay 1 = light
- Push button 1 = light on
- Push button 2 = light off
- Program steps:
  - light on: every day at 7 AM
  - light off: every day at sunrise



Channel	Program	Recurrence	Action
light on (CH1)	Program 1	Every day at 7:00	0,25 sec.
light off (CH2)	Program 1	Every day at sunrise	0,25 sec.

This works perfectly as long as sunrise comes after 7 AM. But when sunrise comes before 7 AM, the light will be turned on at 7 AM and stay on the rest of the day.

## 2 SOLUTIONS

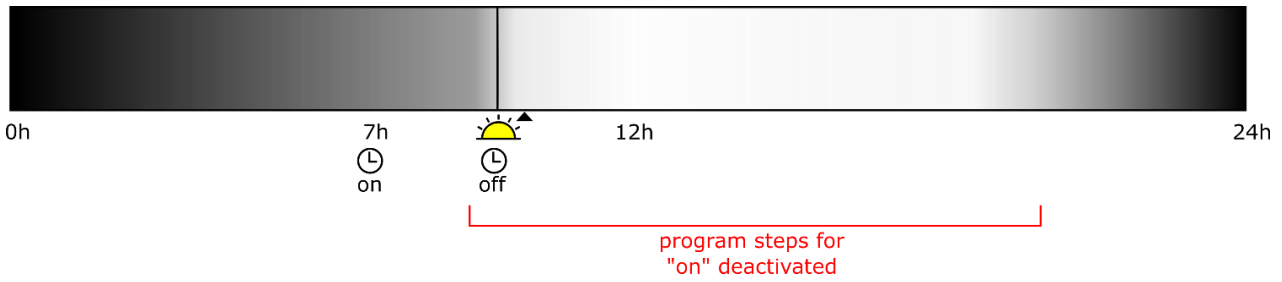
For a general explanation about Velbus, please consult the installation guide on [www.velbus.eu](http://www.velbus.eu).

Always use the latest version de Velbuslink, freely downloadable on [www.velbus.eu](http://www.velbus.eu) > Support > Downloads.

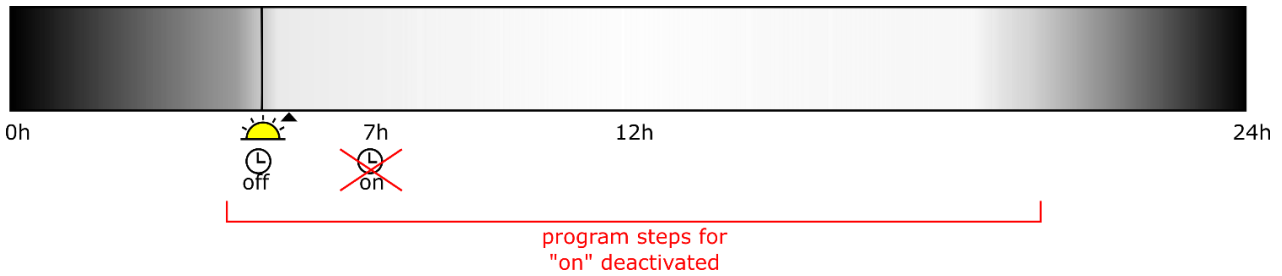
### 2.1 USING ACTIVATION/DEACTIVATION OF PROGRAM STEPS

A first possibility is to deactivate the program steps for “light on” between sunrise and sunset. A graphical representation follows below:

#### Situation 1: 7 AM comes before sunrise



**Situation 2: 7 AM comes after sunrise**

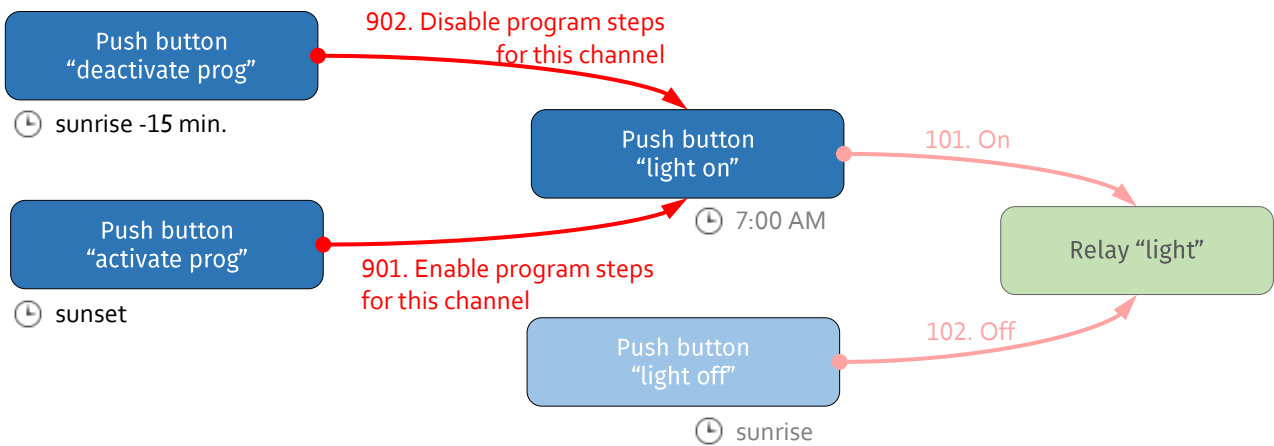


In both cases it will work correctly.

To realize this configuration, do the following:

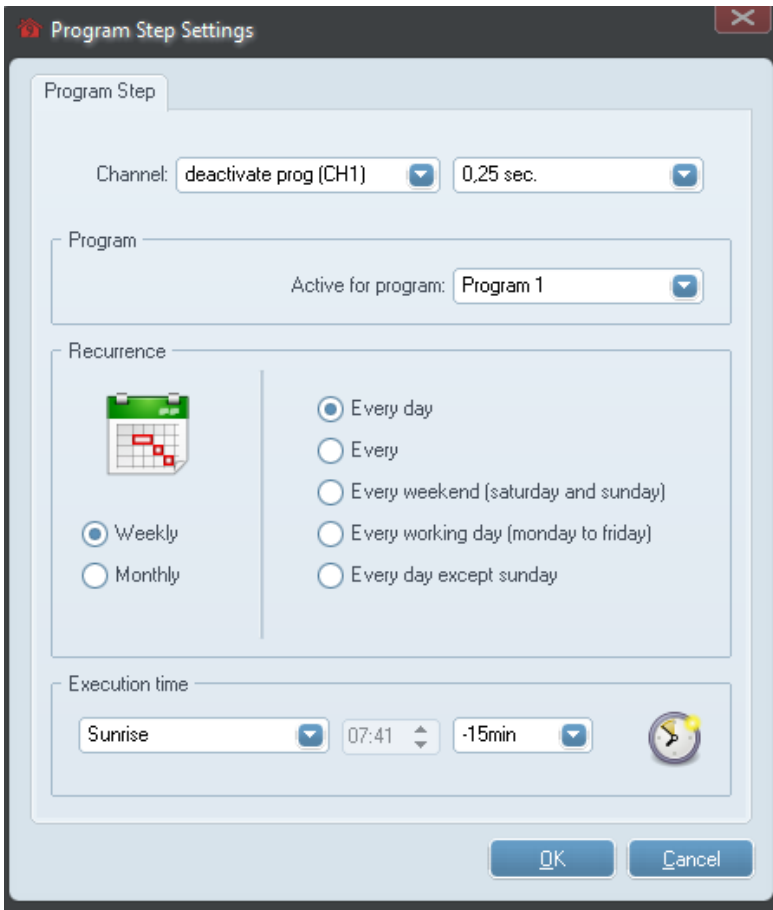
Choose two unused push buttons (eg. on a glass control module, a push button interface, ...) and call them “deactivate prog” and “activate prog”.

Create the following actions and program steps.

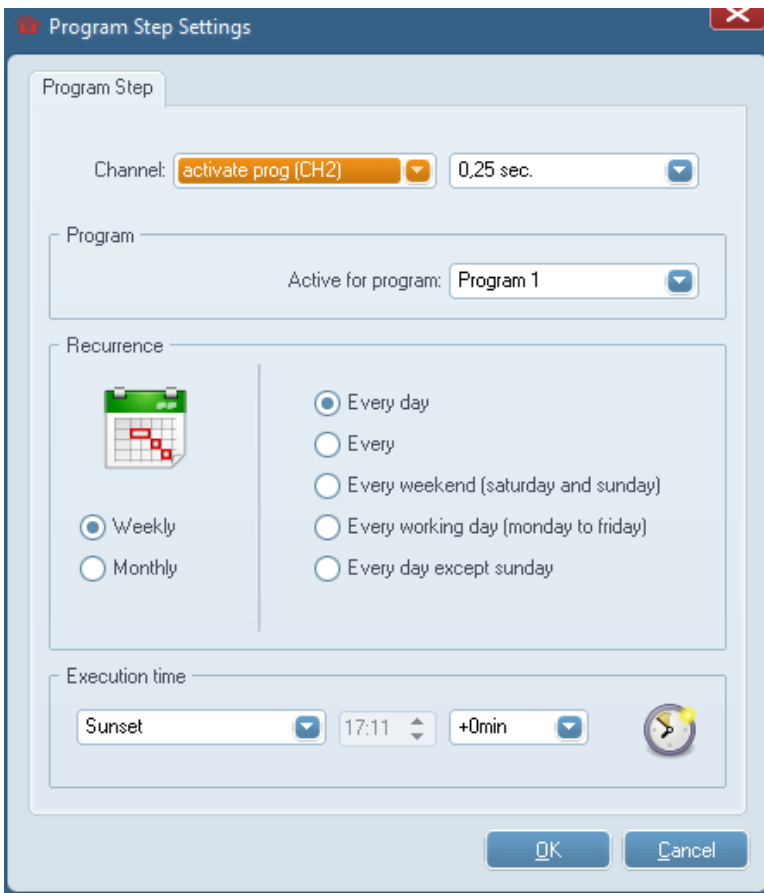


The program steps in detail are as follows:

- Push button “deactivate prog”, 0,25s, every day at sunrise -15 min. (The offset prevents problems if sunset should be at exactly 7 AM)



- Push button “activate prog”, 0,25 sec, every day at sunset

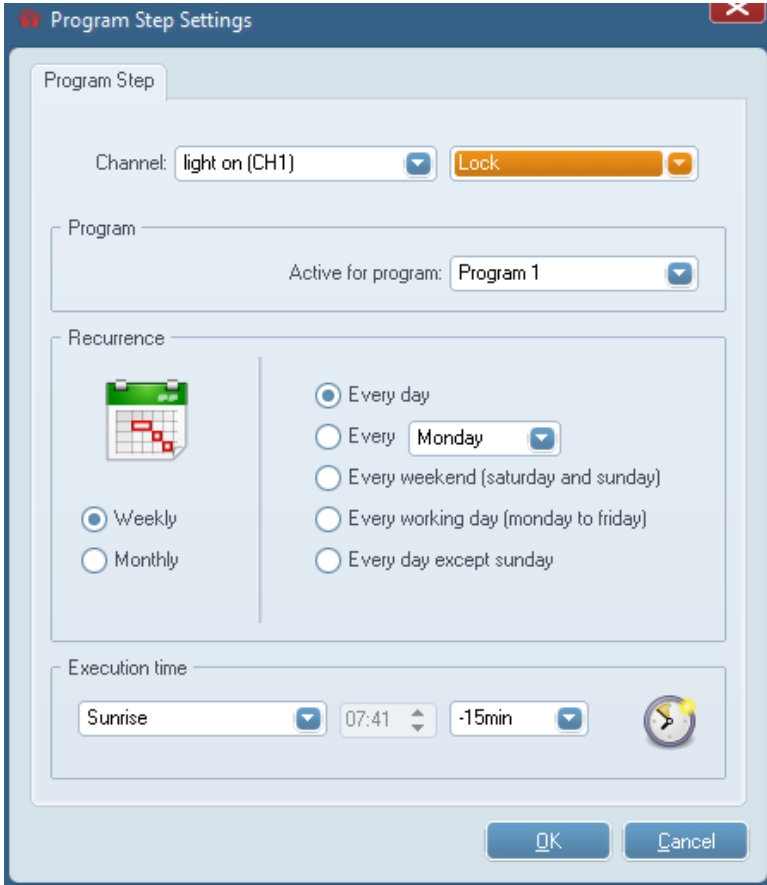


## 2.2 USING LOCKING/UNLOCKING OF CHANNELS

A second possibility is to lock the push button “light on” between sunrise (-15 minutes) and sunset. In that case it is not necessary to define extra push buttons. Channels can be locked and unlocked directly by their own program steps.

Create, starting from the situation at the beginning of this document, the following program steps:

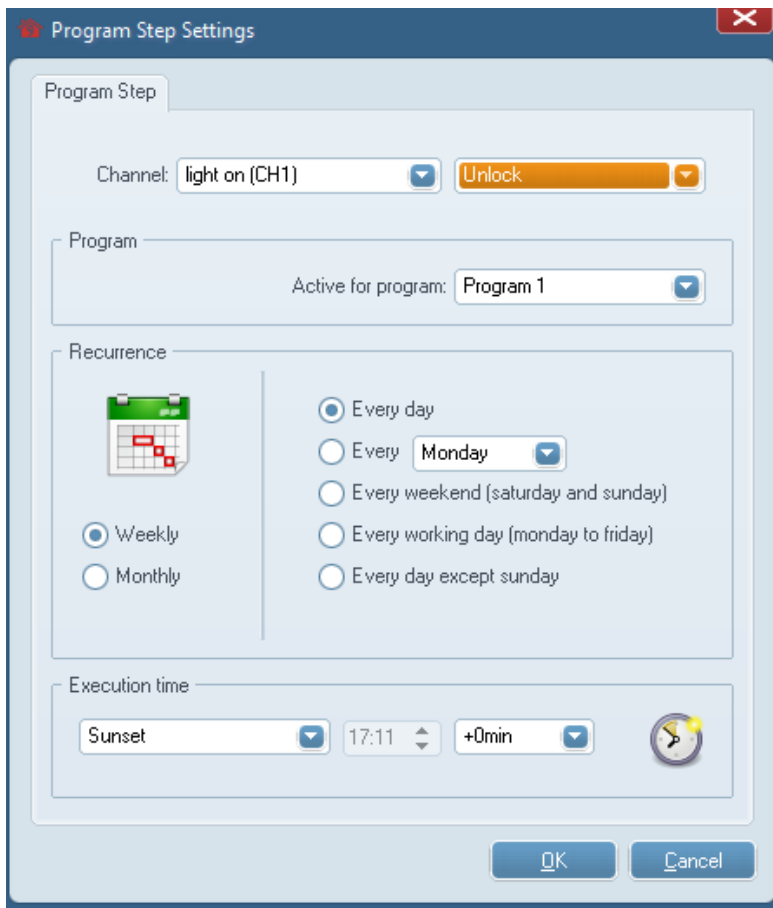
- push button “light on”, lock, every day at sunrise -15min



The screenshot shows the 'Program Step Settings' dialog box with the following configuration:

- Channel:** light on (CH1)
- Action:** Lock
- Program:** Active for program: Program 1
- Recurrence:**
  - Weekly
  - Monthly
  - Every day
  - Every Monday
  - Every weekend (saturday and sunday)
  - Every working day (monday to friday)
  - Every day except sunday
- Execution time:** Sunrise, 07:41, -15min

- push button “light on”, unlock, every day at sunset



### 2.3 DIFFERENCE BETWEEN SOLUTIONS A AND B

An important difference between solutions A and B is the following:

- using solution B, the “light on” push button will be locked and cannot be operated between sunrise and sunset
- using solution A, only the program steps are deactivated, and the push button itself can still be operated.