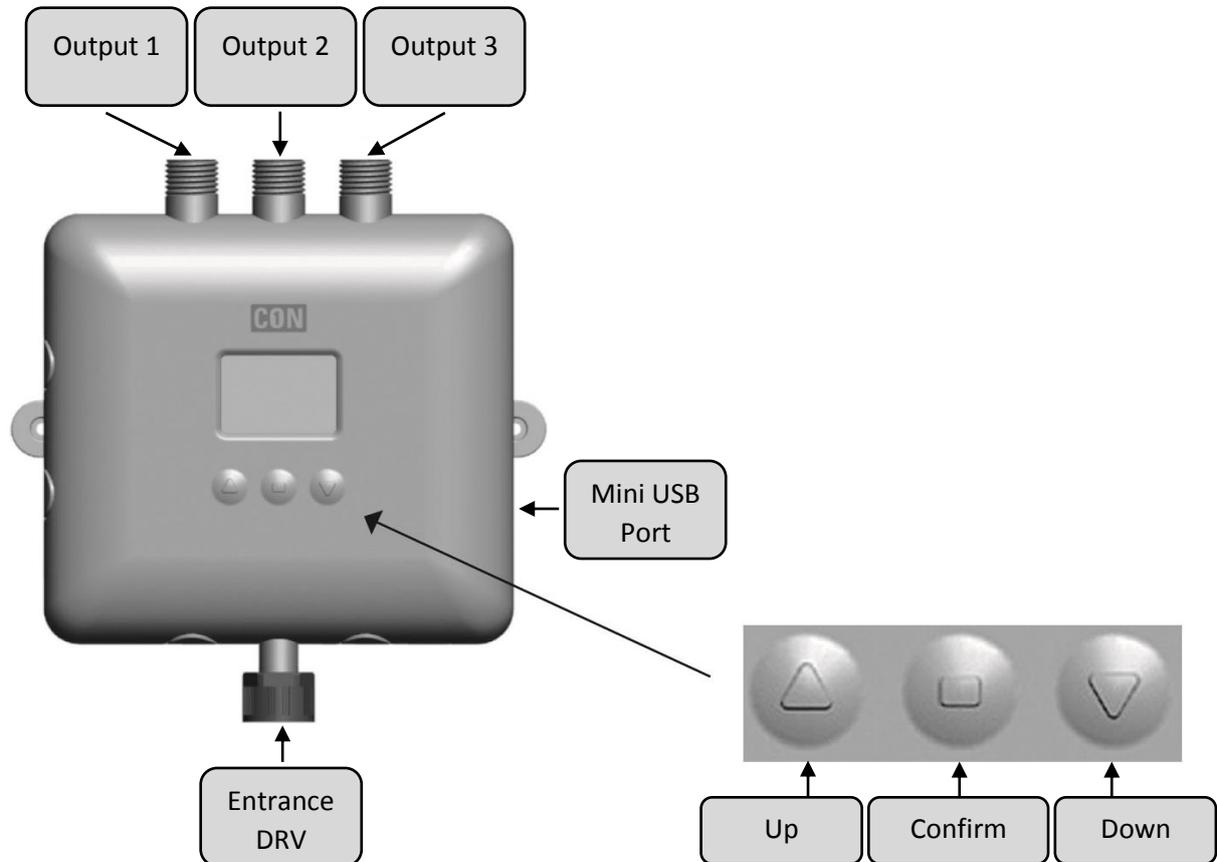


# **Manual for CON1**

Based on Firmware 1.3 to 1.5

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## 1. Connections and control panel



### Output 1-3

Connections for the following product range SolarRaptor® and SolarStinger® with 6-Pin plugs (refer to page 2 compatible products).

### Entrance

Connection for DRV (Switching Power Supply) with a 6-pin socket.

### Mini USB Port

USB Port for transferring firmware updates (available at <http://www.econlux.de/updates>).

### Control Panel

With the push button, „up „and „down“, you can navigate within the menu and respectively change values. The buttons „confirm „is there to choose various menu points and values and confirm them.

## 2. Compatible products

- SolarStinger® SunStrip 35 Fresh Series
- SolarStinger® SunStrip 70 Fresh & Marine Series
- SolarStinger® SunStrip 140 Marine Series
- SolarStinger® SunStrip WaterTube Day & Moon Series
- SolarRaptor® SunStrip 35 Reptile Series
- SolarRaptor® SunStrip 20 Day & Moon Series
- SolarRaptor® HeatStrip Series

The power of the connected product shall not exceed the maximum power of the DRV (switching power supply).

## 3. Firmware updates

To update the CON1 firmware you need:

- Firmware tool & Firmware
- Mini USB cable
- PC ( with Windows XP or latest version)

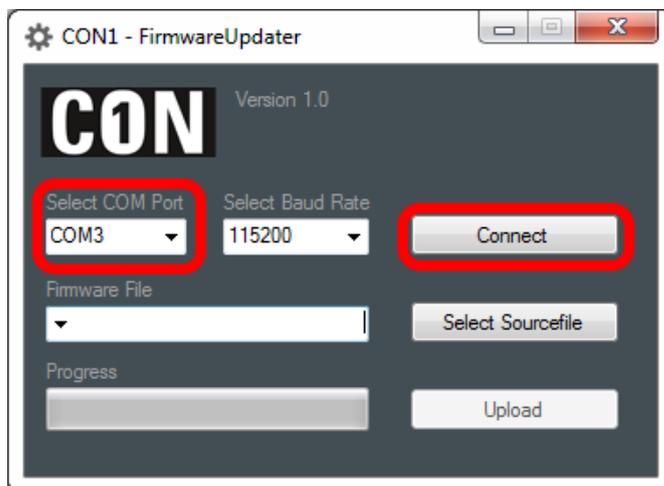
Remove all connected products and the DRV (switching power supply) from CON1 and connect to PC using the tiny USB cable.



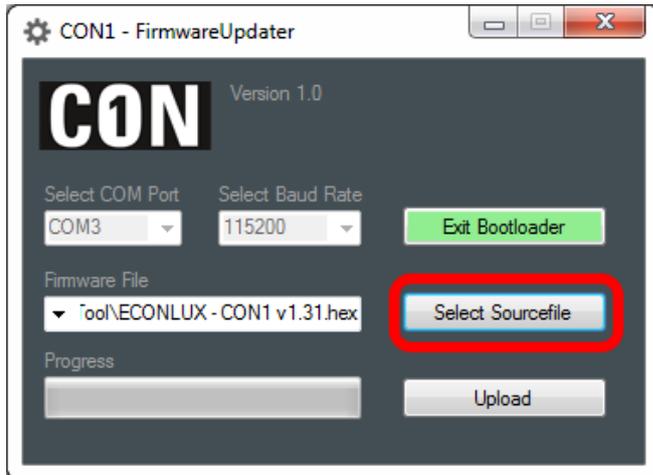
The only connection CON 1 should have right now is the USB cable one. The power supply during the update is done via the USB cable.

Should you connect CON1 for the first time with your PC, it is necessary to install the „CP210x VCP driver“ (<http://www.econlux.de/updates>). Now you can start the software with „CON1 - Tool“.

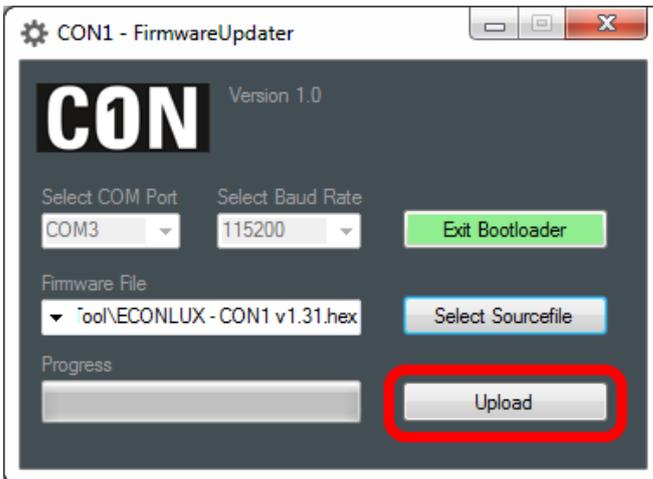
1. Please choose the COM port which is connected to the CON1 and click the button „connect“.



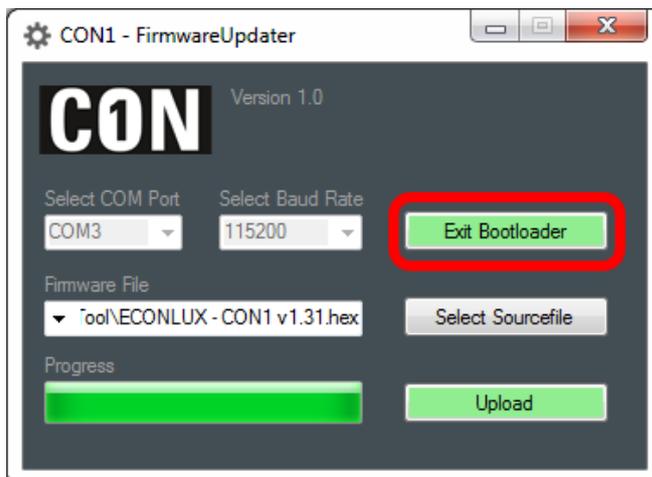
2. Please click on the button „Select Sourcefile“and chose the Firmware you like to install. („Firmware - CON1 v1.3.hex“).



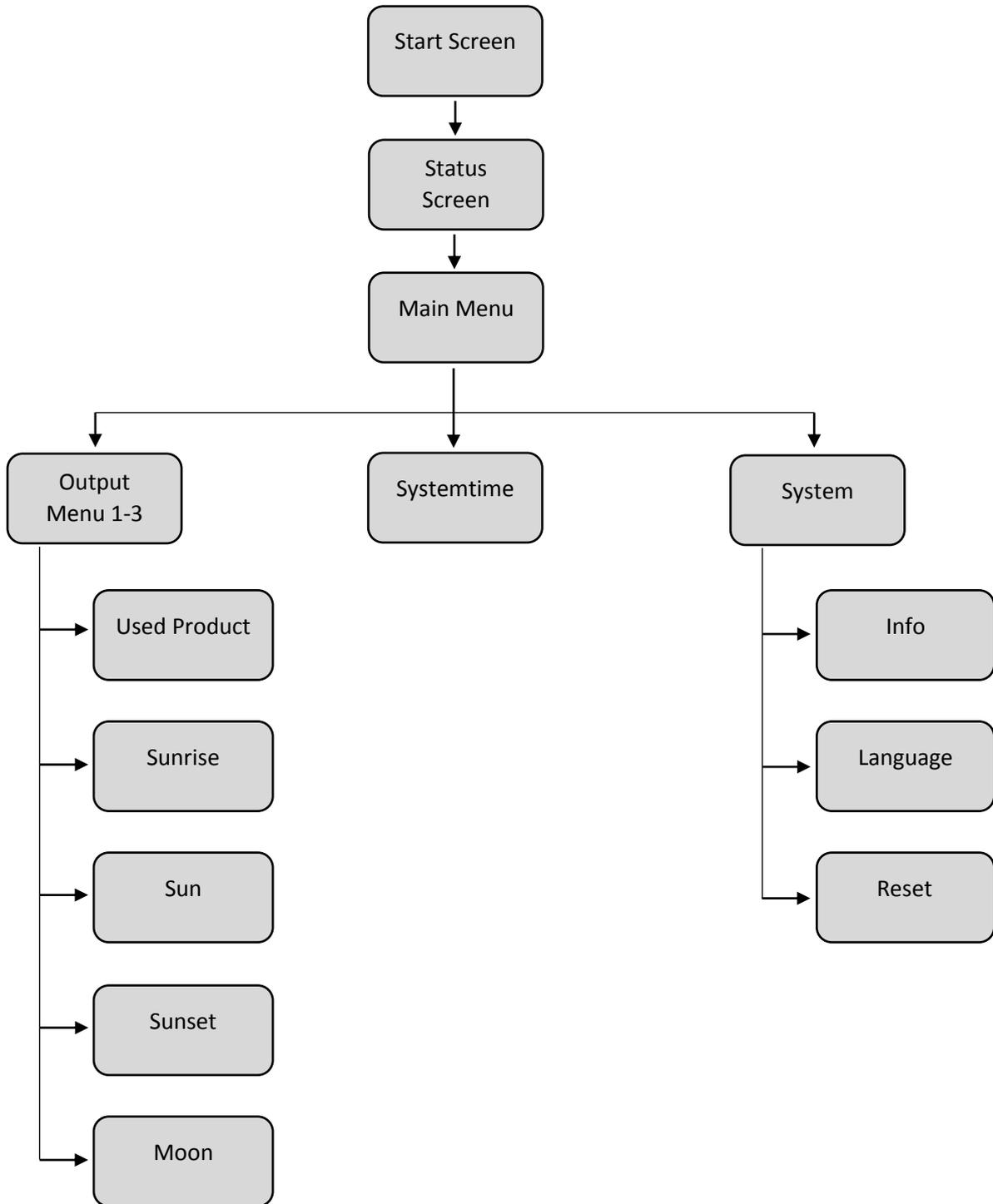
3. Please click the button „Upload“



4. Following the successful transfer of the data please click the button „Exit Bootloader“.



## 4.1 Menu structure FW 1.3



## **4.2 Start Screen**

The main screen appears approximately five seconds after connection of the power supply. The hard- and software version of the device are displayed, additionally, in background, the stored data is loaded. Then the calibration of the buttons takes place.

## **4.3 Status Screen**

The main screen displays the actual status of the lighting and the time.

After about one minute the display is turned off, when pressing the enter button (middle button) the display is again available for a minute.

When pressing the enter button (middle button) when the display is active, the main menu appears.

## **4.4 Main Menu**

From the main menu one can access, by pressing the navigation buttons, the following menu points:

- Output Menu 1-3
- System Time
- System

## **4.5 Outout Menu**

The output menu includes the following menu points:

- Connected product
- Sunrise
- Sun
- Sunset
- Moon

### **Output Menu – Connected product**

In this menu you can chose the connected product. The outputs are allocated as follows: (please see here picture on page 1, connectors and panels):

Left - Output 1

Middle - Output 2

Right - Output 3

Main Menu – Sunrise

The menu option has four points (Start time, starting performance, end time and final output).

The sunrise begins at the pre-programmed time with the corresponding starting power and ends at the pre-programmed end time with the related final performance.

Output Menu – Sun

The sun menu consists of the sub menu points „Info „and „Break“.

The menu point info displays the pre-programmed start- and end time of the sun. There is no need to program these times precise, as they result from the end time of the sunrise and the start time of the sunset!

With the menu point break you can interrupt the sun phase at any time. If this is not desired, no further adjustments have to be made for this point, as it is deactivated upon delivery.

The menu point “break“, has four subtopics (Start time, end time, ramp, performance).

Start- and end times define the time frame of the breaks; the value ramp indicates how long it takes to adjust the actual sun-value to the programmed value of the break.

Output Menu – Sun set

The menu option has four points (Start time, start performance, end time and end performance).

The sun set starts at the programmed start time, with the set start time and the corresponding start performance; it ends at the programmed end time and the corresponding end performance.

Output Menu – Moon

The moon menu has the sub points „Info „and „Break“.

The menu point info displays the programmed start- and end time of the sun. There is no need to program these times, they result from the end time of the sunset and the start time of the sunrise!

With the menu point „break“ you can interrupt the moon phase at any given point in time. If this is not desired, no further programming of this point is necessary as he has been deactivated upon delivery.

The menu point „break „has four sub points (Start time, end time, ramp, performance).

With the start- and end time one defines the time of the breaks, the value „Ramp“ informs you how long it takes to adjust the present moon value towards the programmed value of the break.

#### **4.6 System time**

In menu point „System time “ it is possible to set the time and time format. One can choose to display the time in a 24-hour format or in 12-hour format.

#### **4.7 System**

In this menu option system related settings can be made and retrieved.

##### Info

Hard- and software version from the controller can be retrieved.

##### Language

In this menu point you can choose the language (German/English),

##### Reset

This menu item allows you to reset CON1 towards the delivery status.

## **5. Example**

Sunrise:	08:00 a.m.	Light colour: white (0-100%)
Sun:	08:30 a.m. until 07:00 p.m.	Light colour: white (100%)
Sunset:	07:00 p.m.	Light colour: white (100-0%)
Moon:	07:30 p.m. until 10:00 p.m.	Light colour: blue (1,1%)
	06:00 a.m. until 08:00 p.m.	Light colour: blue (1,1%)

Info: The values for the sun phase result from the value end time of sunrise and start time of sunset. The values for the moon phase result from the value end time of sunset and start time of sunrise.

1. Choose from the „Main Menu“ the output, where the configured lamp is connected.
2. Choose now from the menu point „Connected Product“ the connected product.
3. Go to the menu point „Sunrise“. Adjust the start time to 08:00 a.m., the RGB-blue value to 1, 1% and the value from white to 0%. The end time adjust to 08:00 p.m., the value from white to 100% the value RGB-blue to 0%.

Now the sun rise starts at 08:00 a.m. and dims within 30 minutes, the blue RGB canal from 1,1% to 0% and the white canal from 0% to 100%.

4. Please go now to the menu point „Sunset“. Adjust the start time to 07:00 p.m., the value from RGB-blue to 0% and the value from white 100%. Program the end time, here 07:30 p.m., the value from white to 0% and the value RGB-blue to 1, 1%.

Now the sunset starts at 07:00 p.m. and dims within 30 min the blue RGB canal from 0% to 1, 1% and the white canal from 100% to 0%.

5. Please go now to the menu point „Moon“ and here to the submenu point „break“. Here you program the start time to 10:00 p.m., the end time to 06:00 a.m., the ramp time to 5 minutes, the RGB-blue value to 0% and the switch break needs to be on.

At 10:00 p.m. the moon light is dimmed within 5 minutes from 1,1% to 0% and at 05:55 a.m. within 5 minutes again from 0% to 1,1%.