

# theben

## LUNA 118 top

Ref. Nr. 118 0 702/752

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Ref. Nr. 119 0 702

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310 978  
Teil 1 von 2



LU 110



LU 112



LU 113



LU 126star



LU129star-time



SEL 173 DCF



TR 612 top

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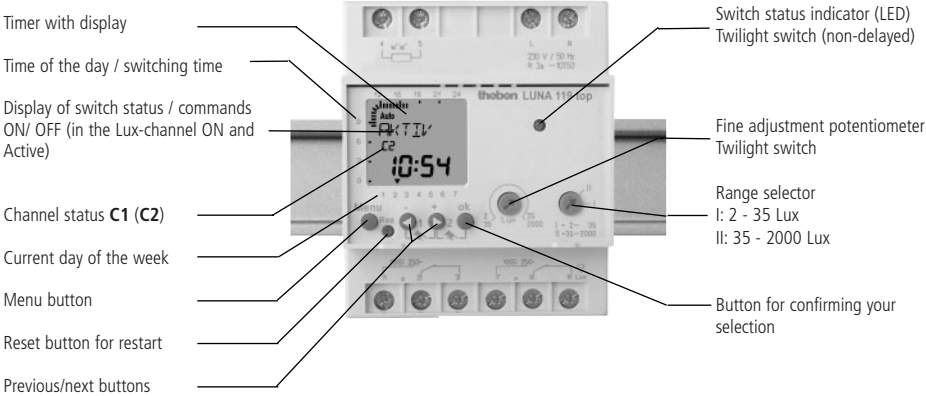
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## 1.0 Features

- Combination of a twilight switch and integrated timer for automatically switching the lighting ON / OFF.
- Timer with weekly and holiday program
- Preselection control and permanent control
- Two ranges of light intensity with fine adjustment
- Switching delay for protection against erroneous switching
- External light sensor (can be installed at up to a distance of 100 m from the device)

2. Description

LU 118top / LU 119top



### 3.0 Installation



Electrical devices may only be installed and mounted by a qualified electrician.

Manipulation and modification of the switch will result in loss of warranty.

#### Installing the control unit

- Rail mounting with quick-action profile rail fixture.
- Surface mounting with special mounting kit – order no. 907 0 049.

#### Installation of the light sensor (No. 907 0 008)

The light sensor is installed on the outer wall of a building, on a pole or similar support.

In the case of street lighting, the light entry window should face east and near show case or workshop lighting it should face north. The light sensor and the control unit must be connected using a 2-wire cable with a maximum length of 100 m. Please avoid routing in parallel to power lines (min. line cross-section  $2 \times 0.75 \text{ mm}^2$  ).

### 4.0 Electrical Connection

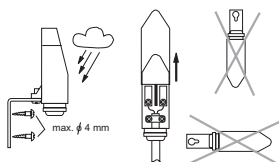


**Note:** In spite of an internal safety measures, extraordinarily strong magnetic fields can cause interference in the microprocessor-controlled timers. Interference can be avoided by observing the following items during installation:

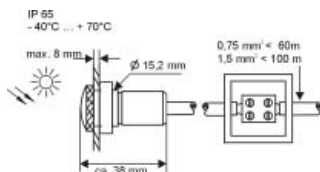
- The device must not be installed in the vicinity of inductive consumers.
- Provide a separate line for the mains supply (if necessary, use a line filter)
- Suppress the interference of inductive consumers (varistor, RC element)

After suppressing the interference, the time switch must be reset (**Reset**).

## Light Sensor

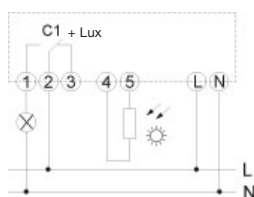


**Installing the  
surface-  
mount light  
sensor  
(9070008)**

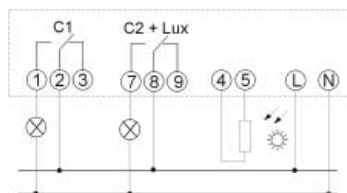


**Installing the  
fittable light  
sensor  
(9070011)**

## Connection Diagrams



**Luna 118top**



**Luna 119top**

Observe the connection diagrams above and notes to deviating special voltages on the type label.

#### 4.0 Adjusting the Twilight Switch

##### Select the setting range via the rotary switch

- I = approx. 2 - 35 Lux (e.g. for outdoor lighting)
- II = approx. 35 - 2000 Lux (e.g. for indoor lighting)

##### Adjust the response value (if possible at dusk)



- Slowly turn potentiometer to the right until the red switch status indicator (LED) lights up.

The device features delayed **ON/OFF** switching of approx. 80 s to avoid interference e.g. caused by flashes of lightning or headlights.



The contact will connect only if **ACTIVE** is shown on the timer display and the red switching status **LED** is permanently lit for more than 80 s.



The switching status **LED** lights up only if a time-controlled program was programmed and activated (**ACTIVE** is shown on the display) or if manual switching (manual preselection)  or permanent switching  was activated (in this case, **ACTIVE** is also shown on the display).

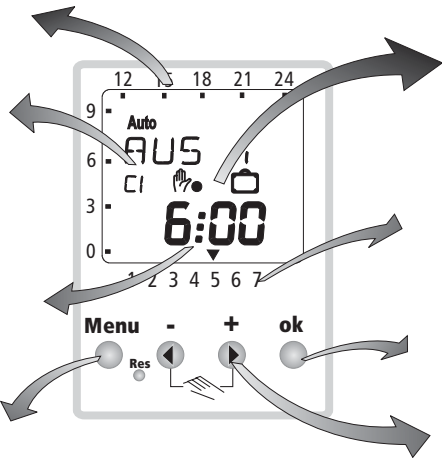
5.0 Adjusting the Timer




**Daily overview** of the programmed switching times

**Channel status**  
**ACTIVE** and **OFF** are displayed in the lux-channel only

**Service voltage OK**  
two floating dots  
**Power reserve mode**  
three floating dots

**Selection**  
z. B. Auto, Prog ... Man  
**Abort input**



Manual ON/OFF   
Permanent ON/OFF   
Holiday program active 

**Current day of the week**  
**1 = Monday, 2 = Tuesday**

The decision **YES** confirms the selection or programming

The decision **No** means continue

## 5.1 Taking the Switch into Operation

The timer is delivered in what is referred to a "sleep mode".

**Activation without service voltage.** Briefly press the **Menu** button.

### Activation with service voltage

Connect the timer to the service voltage. If the timer has already been programmed with the current time, the day of the week and the summer/winter time rule, the time and status display will be shown after you have selected the national language.

### If the timer is not preprogrammed,

select your national language and then enter the current date and time.

**Activating the timer,** selecting the national language

Press the **+** or **-** key to select your national language.

Then set the current year, date and time using the **+** and **-** keys.

Store the individual selections by pressing the **OK** key.

You can now start programming. Press the **Menu** key to call the programming and query routines. Text displays prompt you to make a decision.

- The decision **Yes** confirms the selection or programming (press **OK**).
- The decision **No** means continue.

Press the **+** or **-** key to make settings or changes.

### Programming, querying, changing or deleting Always read the text display first.

#### Menu selection

Select Prog. by pressing the **Menu** key. Confirm by pressing **OK**. Press the **+** key to select the desired menu, e.g. Neu (new), Abfragen (query), Ändern (change) or Löschen (Delete).

Confirm your selection by pressing **OK**.

Making or changing settings

Press **+** or **-**. Store your settings by pressing **OK**.



### Displaying the switching times

In the Abfragen (query) menu, press the **OK** key several times.

### In emergency situations only

If you RESET the timer, all **stored data will be deleted**. The timer, however, will restart with the language and the summer/ winter rule most recently selected. Press the **RES** key for approx. 1 second using a pointed object.

## 5.2 Programming the Switching Times

### Forming day groups

Identical switching times that are to be active on several days of the week occupy just one memory location. **42** memory locations are available.

**e.g.:** Monday – Friday 7.30 hrs **ON**.

### Forming groups

When the prompt Kopieren (Copy) is displayed, press **OK** to copy the switching time to another day of the week. When programming an identical time for activation and deactivation, e.g. 9 p.m., the deactivation on 9 p.m. always has priority over the activation.

### Program review

Following programming, the timer initiates a program review back to midnight and then sets the correct switching status.

### Example

**Switching on the lighting of a sports hall on Mon., Tues., Thurs. and Fri. from 7.30 a.m. to 12 p.m.**

Select Prog by pressing the **Menu** key.  
Confirm your selection by pressing the **OK** key.  
Select New by pressing the **+** or **-** key.  
Confirm your selection by pressing the **OK** key.

Select channel C1 or C2 by pressing **+** or **-** (only with LU 119top). Confirm your selection by pressing **OK**.

Select ON or OFF by pressing **+** or **-**. Confirm your selection by pressing **OK**. Set the HOUR and MINUTE by pressing the **+** or **-** key. Confirm each of your selections by pressing **OK**.

#### **To store one day of the week only**




Select the desired weekday by pressing **+** or **-**. Confirm your selection by pressing **OK**. Select STORE by pressing **+**. Confirm your selection by pressing **OK**.

#### **To copy to other days of the week**

Confirm COPY by pressing **+**. Select the weekday by pressing **+** or **-**. Confirm your selection by pressing **OK**. To leave out a day of the week, skip it by pressing the **+** key. Select the STORE display by pressing **+**. Confirm your selection by pressing **OK**.

### **5.3 Permanent ON/OFF, Holiday Program**

#### **Always read the text display first!**


In the **Man** menu select the Manual , Permanent or  Holiday  function by pressing the **+** or **-** key. Confirm your selection by pressing the **OK** key.

#### **To cancel a function**

Select the Clear function. Confirm your selection by pressing **OK**.



#### **Only in the AUTO menu!**

##### **Manual preselection**

Press the two keys **+** and **-** simultaneously for approx. 1 s. Channel C1 alternately switches **ON / OFF** or **OFF / ACTIVE** (for LU 119 top channel C2 use **+** and **OK**). The  icon appears.

The stored program corrects the manual preselection again.

### Permanent ON or OFF

Press the two keys **+** and **-** simultaneously for approx. 2 s. Permanent ON  or OFF  .  
(for LU 119top use **+** and **OK** ).


**Cancelling manual preselection/permanent switching:** Briefly press the two keys **+** and **-** .  
(for LU 119top use **+** and **OK** ).

### Holiday program

The holiday program has the effect that the timer does not switch on the connected consumer between the programmed start and end (stipulation of year, month and day). Start and end of the program is always midnight of the day that is programmed.

**Example:** March 23, national holiday.


**Programming:** start 3/25 finish 3/25.

If the holiday program is active, the corresponding channel and holiday icon  are displayed flashing in the automatic menu.

## 5.4 Setting Correcting the Date and Time

### Automatic summer/winter time correction

Depending on the version, the timer may be preprogrammed ex-works with the summer/winter time rule. If you wish to switch off or change the automatic correction, please read the text display first.

Select the  icon using the **Menu** button.

Confirm your selection by pressing the **OK** key. Now use the

**+** or **-** keys to select the year, the date, the time and the summer/winter time and confirm your selections by pressing **OK** .

### Summer/winter time setting freely programmable

By entering the month and week, e.g.:

Month 3 = March

Week 4 = 4th week of the month

Week 5 = last week of the month

## 6.0 Technical Data

Operating voltage:	230 V~, ± 10 %
Mains frequency:	50 Hz
Own consumption:	approx. 5 VA
Breaking capacity:	10 A/ 250 V~, cos $\Phi$ = 1 6 A/ 250 V~, cos $\Phi$ = 0,6
Filament lamp load:	2300 W
Halogen lamps 230 V~:	2300 W
Fluorescent lamps:	uncompensated/ compensated in series 2300 VA compensated in parallel 800 VA leag-lag circuit 2300 VA
High pressure discharge lamps	use contactor
Brightness range:	2 ... 2000 Lux in 2 ranges
Time base	quartz
Shortest possible switching interval:	1 min
Switching accuracy	precise to the second
Accuracy	± 1 s/ day at 20° C

Power reserve  
Permissible ambient temperature:  
Class of protection

Type of protection

3 years at 20° C  
control unit: - 10° C ... + 50° C  
light sensor: - 40° C ... + 70 ° C  
control unit: II if properly mounted  
light sensor: III  
**control unit:** IP 20 in compliance with EN 60529  
**Surface-mount light sensor:** IP 54  
with cable connection below the sensor  
**Fittable light sensor:** IP 65

The time switches comply with the directives 73/23/EEC (Low-Voltage Directive) and 89/336/EEC (EMC Directive). If the time switches are used in an installation in combination with other devices, make sure that the overall installation does not cause radio interference.

Please observe all the special deviating voltages specified on the device

All changes reserved.

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