
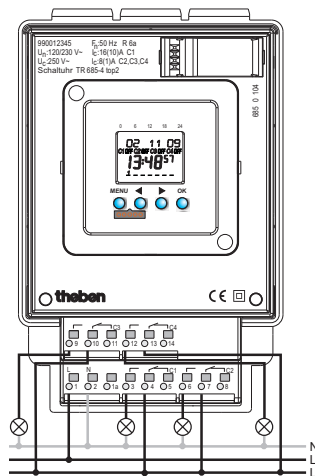


## TERMINA

TR 685-1 top2	685 0 101
TR 685-2 top2	685 0 102
TR 685-3 top2	685 0 103
TR 685-4 top2	685 0 104

-  **Installation and operating instructions**  
 Tariff time switch



TR 685-4 top2

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## Basic safety instructions



**WARNING**

**Danger of death through electric shock or fire!**

➤ Installation should only be carried out by a qualified electrician!

- The tariff time switch with 1, 2, 3 or 4 channels is suitable for installation on meter boards, meter terminal covers or on walls
- Device is subject to EN 62052-21/EN 62054-21 standard
- Power reserve (6 years) is reduced if memory card is inserted (in battery operation)

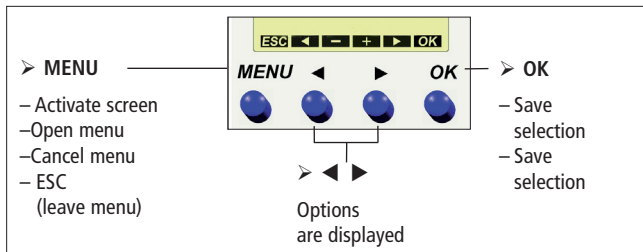
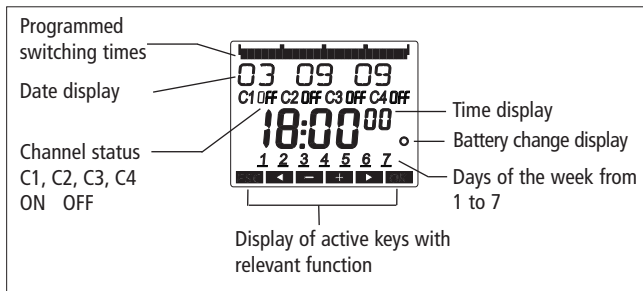
### Designated use

- if electricity consumption is calculated at varying rates at different times, a tariff time switch is used that can control different utility meters
- Only for use in closed, dry rooms

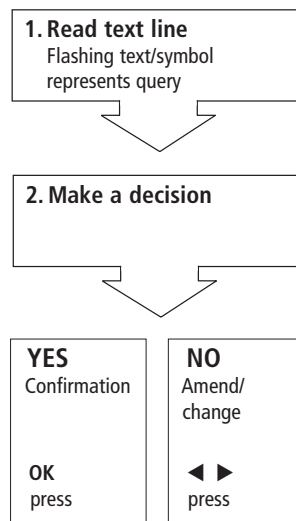
### Disposal

Dispose of device in environmentally sound manner

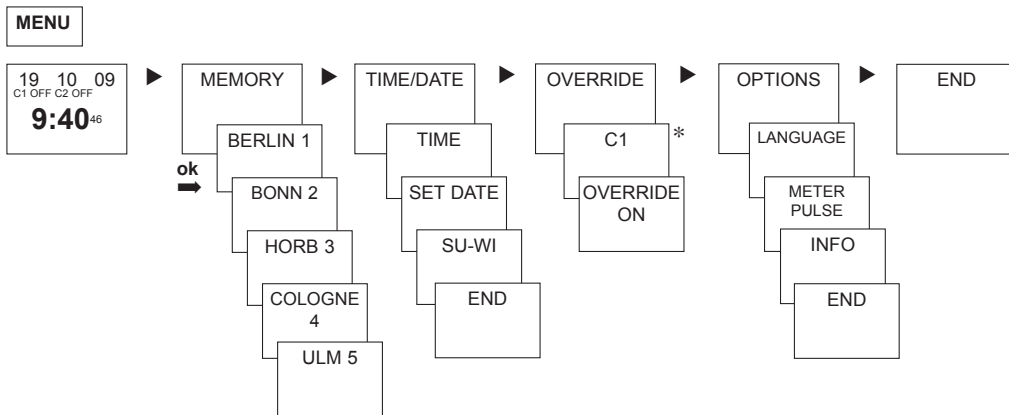
## Screen and keys



## Operating instructions



# Overview of menu selection



\* only for multi-channel time switch

# Connection/installation

## WARNING

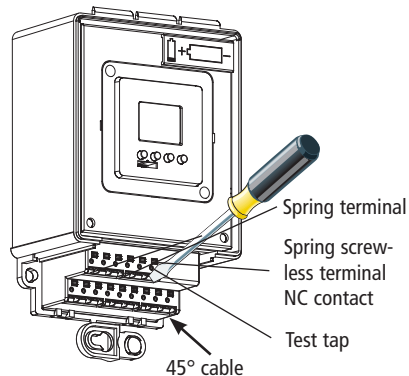


**Warning, danger of death through electric shock!**

- Must be installed by qualified electrician!
- Disconnect power source.
- Cover or shield any adjacent live components.
- Ensure device cannot be switched on!
- Check power supply is disconnected.
- Earth and bypass.

## Connect cable

- Strip cable by 8 mm (max. 9) .
- Insert cable at 45° in the open terminal (2 cables per terminal is possible).
- Only with flexible wires: Press screwdriver downwards to open spring terminal.

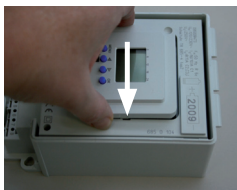


## Installation

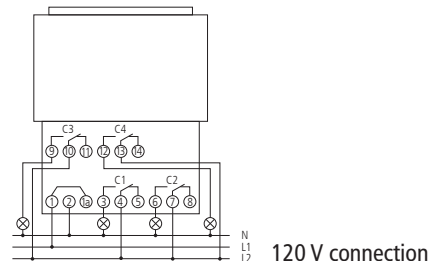
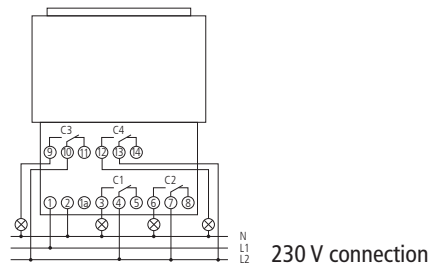
The tariff time switch clicks into position in frame.

Depending on installation site, it can be adjusted by 90° for easier operation.

- Release the tariff time switch by using a screwdriver on both side slots.



## Connection




## Change batteries

The current time is maintained in event of power failure. When batteries are changed (with power off), date and time are lost but switching times are retained.

- Lift battery cover using a screwdriver.
- Remove lithium battery with holder
- Push new battery holder with battery (907 0 216) into battery compartment until it clicks into position.



A symbol appears on the display if the battery needs to be changed .

## RESET

- Press the 4 buttons simultaneously.

All switching times and settings are retained after RESET. Date and time values equate to last power failure.

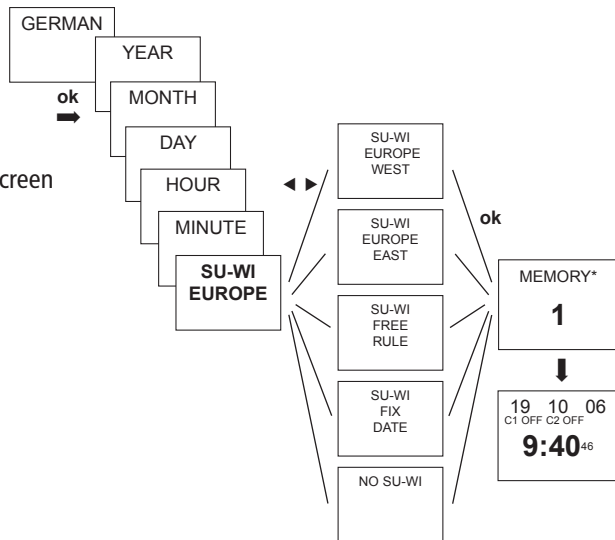


# Initial start-up

Activate tariff time switch

Set language, date, time and summer/winter time changeover

- Press desired button and follow on-screen instructions.

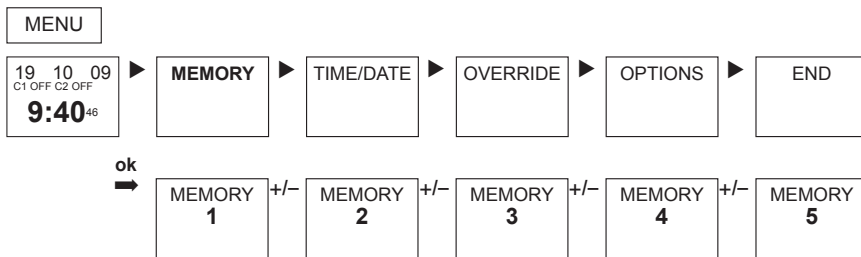


\*Text is entered in OBELISK top2 software.

## Select MEMORY

You can choose one of **5 MEMORY** slots each with 200 memory locations. A memory location can store a switching time or date range allocated to a channel. One program memory is always active.

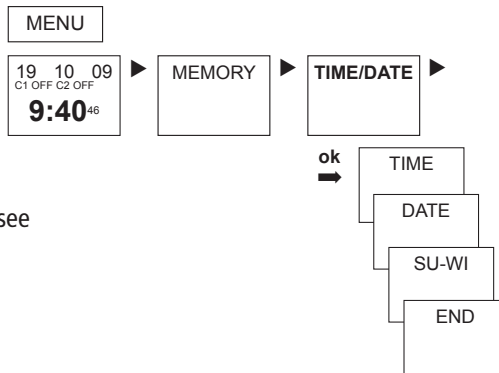
➤ Press **MENU**.



➤ Use + or – to select desired memory and confirm by pressing **OK**.

## Set date, time and summer/winter time changeover

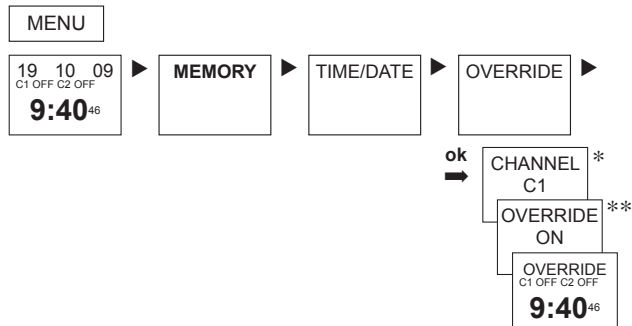
- Press **MENU**.
- Use ◀ ▶ to select desired (TIME/DATE) setting.
- Confirm by pressing **OK**.



For information on the various date rule options, see the **initial start-up** chapter.

## Set manual control

- Press **MENU**.
- Use ◀ ▶ to select desired (OVERRIDE) setting.
- Confirm by pressing **OK**.

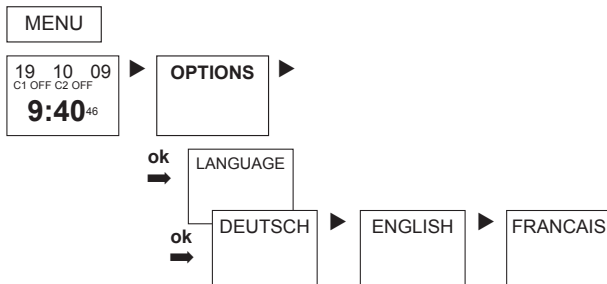


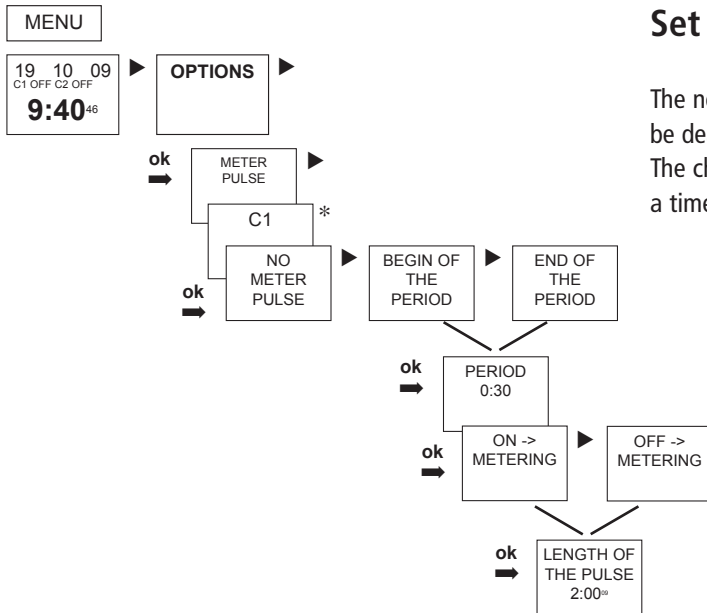
\* only for multi-channel time switch

\*\* OVERRIDE OFF appears when relay is switched on. If manual switching has already been programmed and is to be deleted, END OVERRIDE appears on screen.

## Set language

- Press **MENU**.
- Use ◀ ▶ to select desired setting  
(LANGUAGE)
- Confirm by pressing **OK**.





## Set meter pulse

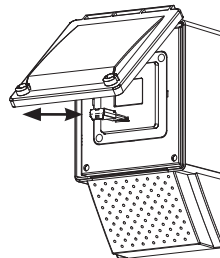
The normal switching program can be deactivated via the meter pulse. The channel is only programmed as a timer for a load profile meter.

\* only for multi-channel time switch

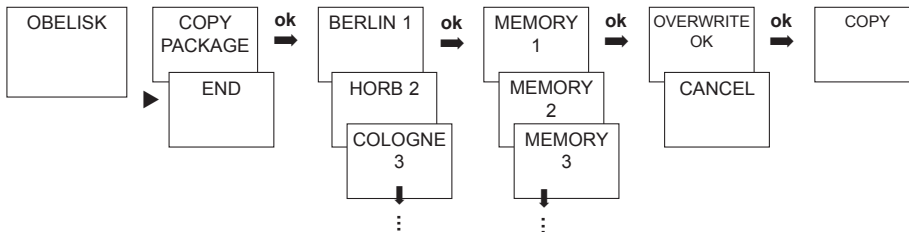
## OBELISK top2 memory card

### Using memory card

- Insert memory card in the tariff time switch.
- Copy stored data.
- Remove OBELISK top2 (No. 907 0 894) memory card after taking reading etc.



The program can only be entered in the tariff time switch via this OBELISK interface.



## Technical data

- Operating voltage: 230 V~ +15 %/-20 %  
120 V ~ +15 %/-20 %
- Frequency: 50 Hz
- Power consumption: max. 6 VA
- Switch output: floating
- Gap: <3 mm ( $\mu$ )
- Contact material: AgSnO<sub>2</sub>
- Switching capacity max.: **channel 1:** 16 A, 250 V~,  $\cos \varphi = 1$   
(10 A, 250 V~,  $\cos \varphi = 0.6$ )  
**channel 2-4:** 8 A, 250 V~,  $\cos \varphi = 1$   
(1 A, 250 V~,  $\cos \varphi = 0.6$ )
- Switching capacity min.: 10 mA/230 V AC  
100 mA/12 V AC/DC  
20 mA/120 V AC
- Time accuracy:  $\leq \pm 0.25$  s/day at +23 °C
- Power reserve: approx. 6 years
- Set operating range: -10 °C ... +50 °C  
(Class 3K5, modified)

- Protection class: II in accordance with EN 62052-21 for designated installation
- Protection rating: IP 54 in accordance with EN 60529

## Service address/Hotline

### Service address

#### Theben AG

Hohenbergstr. 32  
72401 Haigerloch  
GERMANY  
Telephone +49 (0) 74 74 6 92 0  
Fax +49 (0) 74 74/6 92-150

#### Hotline

Telephone +49 (0) 74 74 6 92 -369  
Fax +49 (0) 74 74/6 92-207  
hotline@theben.de

**Addresses, telephone numbers etc.**  
**[www.theben.de](http://www.theben.de)**