307253



EN Time switch

TR 610 top3 6100130 TR 612 top3 6120130





1.	Basic safety information	4
2.	Proper use	4
	Disposal	4
3.	Installation and connection	5
	Mounting the time switch	5
	Connecting the cable	7
	Disconnecting the cable	7
4.	Device description	8
	Display & buttons	8
	Operating instructions	9
	Overview of navigation menu 1	0

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	Initial operation	11
5.	Settings and functions	12
	Set switching time	12
	Change switching times	14
	Delete switching program	15
	Setting holiday function	16
	Activating PIN code	17
	Setting manual or permanent switching	: 17
	Hour counter	18
	Using Bluetooth OBELISK top3	18
	Connect time switch, Bluetoo OBELISK top3 and smartphon (via app)	
	Resetting the time switch	22

6. Technical data	23
7. Contact	24



# 1. Basic safety information



#### **WARNING**

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

- Installation should only be carried out by a qualified electrician!
- The device is designed for installation on DIN top hat rails (in accordance with EN 60715)
- The device corresponds to type 1 STU in accordance with IEC/EN 60730-2-7
- Power reserve (10 years) is reduced if memory card is inserted (using battery power)

# 2. Proper use

- The time switch is used for lighting, ventilation and flushing applications etc.
- Only for use in closed, dry rooms



Do not use on safety devices, e.g. escape route doors, fire safety equipment etc.

## Disposal

➤ Dispose of device in environmentally sound manner

## 3. Installation and connection

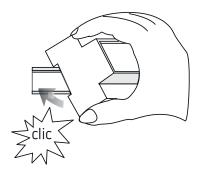
## Mounting the time switch



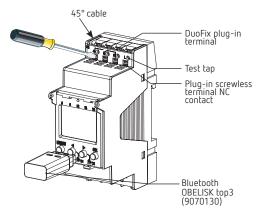
#### ↑ WARNING

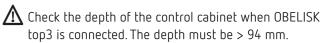
Danger of death through electric shock or fire!

Installation should only be carried out by a qualified electrician!







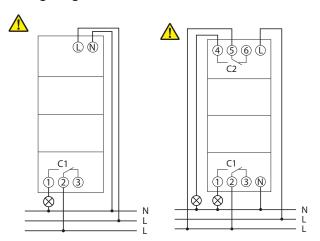


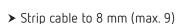
- ➤ Mount on DIN top hat rails (as defined in EN 60715)
- ➤ Switched voltage-free
- > Ensure device cannot be switched on
- ➤ Check absence of voltage
- ➤ Earth and bypass
- ➤ Cover or shield any adjacent live components



## Connecting the cable

#### Wiring diagrams 6100130 / 6120130





- ➤ Insert cable in the open DuoFix plug-in terminal at 45°
- ② 2 cables per terminal position possible
- To open the DuoFix plug-in terminal, press screwdriver downwards

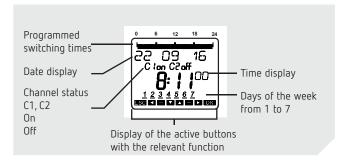
## Disconnecting the cable

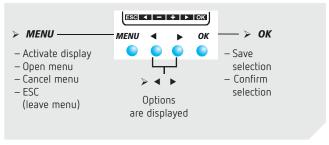
 Use the screwdriver to push the load line connection opener downwards



# 4. Device description

## Display & buttons







# Operating instructions

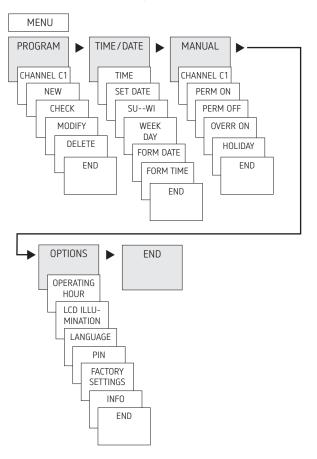
1. Read text line
text/symbol
represents query

2. Make a decision

YES
Confirmation
Modify/
Change
Press
OK
Press

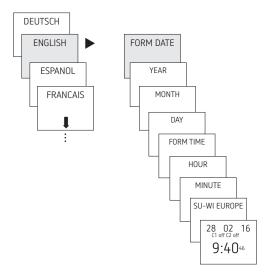


## Overview of navigation menu





## Initial operation

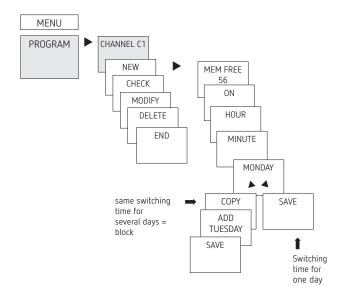




- ➤ Set language, date, time as well as summer/winter time (SU-WI)
- > Press any button and display follows on screen (see figure)

# 5. Settings and functions

## Set switching time



- ① A switching time always consists of a start time and an end time
- There are 56 memory cells available
   Example: Switch on sports hall lighting from Mon−Fri, 7:30 to 12:00 hrs

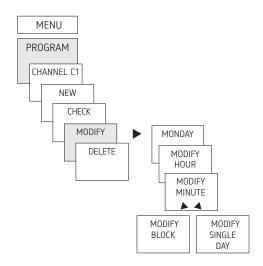


- > Press MENU
- ➤ Select PROGRAM and press OK to confirm
- ➤ Select CHANNEL C1 or C2, confirm with OK
- > Select NEW and press OK to confirm
- Select ON (for turn-on time) or OFF (for turn-off time), confirm with OK
- ➤ Set required turn-on time (Mo-Fr, 7:30), confirm with OK
- > Select COPY, confirm with OK
- ➤ ADD TUESDAY is displayed, confirm by pressing OK and also confirm the days We, Th, Fr by pressing OK.
- ➤ Continue with ➤ until SAVE is displayed.
- > Confirm by pressing OK.

Repeat all steps for the turn-off time, however instead of selecting ON with ▶ select OFF and enter 12:00 for hour and minute.



## Change switching times



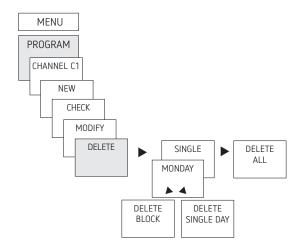


You can either change or delete a block, i.e. a switching time copied for several days (e.g. Mon-Fri) or a single switching time

#### Change individual switching times

- ➤ Press MENU
- > Select PROGRAM and press OK to confirm
- ➤ Select CHANNEL C1 or C2, confirm with OK
- ➤ Select MODIFY, confirm by pressing OK
- ➤ Select day, confirm with OK
- ➤ MODIFY HOUR, use the + or − buttons to change hour and minute and confirm with OK.
- To change several switching times, select MODIFY BLOCK, confirm with OK

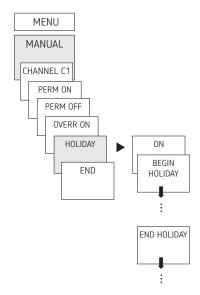
## Delete switching program





- ① You can either delete a block, i.e. a switching time copied for several days (e.g. Mon-Fri) or a single switching time
- ➤ Press MENU
- > Select PROGRAM and confirm with OK
- > Select CHANNEL C1 or C2, confirm with OK
- > Select DELETE, confirm with OK
- ➤ INDIVIDUAL is displayed (with ► DELETE ALL), confirm with OK
- ➤ MONDAY is displayed, confirm with OK
- > Select DELETE BLOCK, confirm with OK
- ➤ With ► DELETE MONDAY etc. individual days can also be cleared.

## Setting holiday function



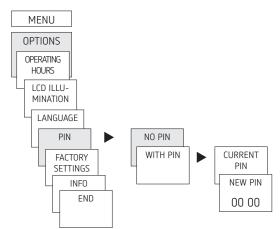


- ➤ Press MENU
- > Select MANUAL and press OK to confirm
- > Select CHANNEL C1 or C2, confirm with OK
- ➤ Select HOLIDAY and press OK to confirm
- > Select ON and press OK to confirm
- ➤ Select START HOLIDAY and press OK to confirm
- > Enter YEAR, MONTH, DAY, HOUR and press OK to confirm
- ➤ Select END HOLIDAY and press OK to confirm
- ➤ Enter YEAR, MONTH, DAY, HOUR and press OK to confirm

## Activating PIN code

The PIN code is set in OPTIONS via the menu.

- ① If you have forgotten your PIN, call the Theben Hotline.
- ① Have the serial number ready.



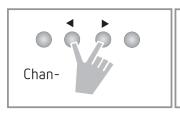


## Setting manual or permanent switching

Manual or permanent switching can be set via the menu in MANUAL or (in the automatic screen) by button combination (see picture).

- Manual control:
   Reversing the channel status to the next automatic or programmed switching.
- Permanent switching:
   As long as a permanent switching (on or off) is activated,
   the programmed switching times are ineffective







#### Activating manual control

> Briefly press both buttons simultaneously

#### Activating permanent switching

> Press both buttons simultaneously for 2 seconds

#### Cancelling manual/permanent switching

➤ Press both buttons simultaneously

#### Hour counter

The operating hours of the channel (relay) are displayed and deleted in the OPTIONS menu. If the number of operating hours exceeds the value set in the Service menu, SERVICE will appear in the display.

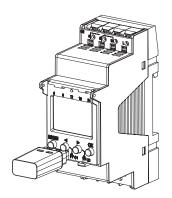
Example: Replace a lamp after after 5,000 h.

➤ Delete operating hours or set a higher value in Service (e.g. to 10,000 h)

#### Using Bluetooth OBELISK top3

All functions can also be transferred to the time switch using the Bluetooth OBELISK top3 memory card (9070130).





#### Copying OBELISK → TIME SWITCH

This copies the switching program and optionally all time switch settings (e.g. external input, time format etc.) from the memory card in the time switch.

#### Copying TIME SWITCH $\rightarrow$ OBELISK

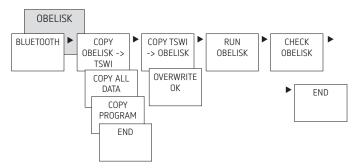
This copies all switch programmes and settings from the time switch to the memory card.

#### Starting OBELISK program

Takes on the switching times that are programmed on the memory card.

As soon as the memory card is removed, the switching times of the time switch are re-activated.





# Connect time switch, Bluetooth OBELISK top3 and smartphone (via app)

The devices in the top3 range can be programmed using an app (for Android, iOS) on a mobile end device. Communication takes place via Bluetooth OBELISK top3. Switch programmes are transferred and direct switch commands are sent to the device

 Download the OBELISK top3 app from the App Store or Google Play Store



- Bluetooth connection only possible in automatic mode, not in manual mode like OPTIONS etc.
- ➤ Open the app and activate using one of the 3 commands, by pressing "Download" ♀ , "Manual command" ⋓ or "Upload"

ightarrow Device/device list appears on the display.





➤ Press "Connect"





- ➤ Press OK on the time switch
  - ightarrow The display shows BLUETOOTH ACTIVE
- ➤ Press "Close" in the app within 30 s







Now, for example, projects can be created and uploaded.





## Resetting the time switch

- ➤ Press the 4 buttons simultaneously
  - ightarrow You can choose between KEEP PROGRAM and DELETE PROGRAM



# 6. Technical data

Frequency:50-60 HzStandby:0,4 WMax switching capacity:16 A (at 250 V, cos φ = 1)switching capacity:10 M (at 250 V, cos φ = 0,6)Min. switching capacity:10 mA/230 V AC 100mA/24 V AC/DCSwitch output:switching of any phase is permitted (TR 612 top3)TR 610 top3:suitable for switching SELV (Safe Extra-Low Voltage)Shortest switching time:1 minSwitching accuracy:accurate to the secondProtection rating:IP 20 in accordance with EN 60529Protection class:II in accordance with EN 60730-1 subject to designated installationOperating temperature:-30 °C +55 °CPower reserve:10 years at +20 °C (without Bluetooth 0BELISK top3)Time accuracy (typical):±0,25 s/day (25 °C)Rated impulse withstand voltage:4 kVPollution degree:2Contact:two way switchGlow lamp load:2600 WHalogen lamp load:2600 WFluorescent lamp load: uncorrected:2600 VASeries corrected: Compact fluorescent tubes (EVG):1100 WLED lamps (> 2 W):50 WLED lamps (> 2 W):600 W	Operating voltage:	230 V AC +10 % / -15 %
Max switching capacity:16 A (at 250 V, cos φ = 1)switching capacity:10 A (at 250 V, cos φ = 0,6)Min. switching capacity:10 mA/230 V AC 100mA/24 V AC/DCSwitch output:switching of any phase is permitted (TR 612 top3)TR 610 top3:suitable for switching SELV (Safe Extra-Low Voltage)Shortest switching time:1 minSwitching accuracy:accurate to the secondProtection rating:IP 20 in accordance with EN 60529Protection class:II in accordance with EN 60730-1 subject to designated installationOperating temperature:-30 °C +55 °CPower reserve:10 years at +20 °C (without Bluetooth OBELISK top3)Time accuracy (typical):±0,25 s/day (25 °C)Rated impulse withstand voltage:4 kVPollution degree:2Contact:two way switchGlow lamp load:2600 WHalogen lamp load:2600 WFluorescent lamp load: uncorrected:2600 VASeries corrected: parallel-corrected:2600 VACompact fluorescent tubes (EVG):1100 WLED lamps (< 2 W):50 W	Frequency:	50-60 Hz
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Halogen lamp load:  Fluorescent lamp load: uncorrected:  Series corrected:  parallel-corrected:  Compact fluorescent tubes (EVG):  LED lamps (< 2 W):  2600 VA 2600 VA 1300 VA (130 μF) 1100 W 50 W	Contact:	two way switch
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Series corrected:2600 VAparallel-corrected:1300 VA (130 μF)Compact fluorescent tubes (EVG):1100 WLED lamps (< 2 W):	Halogen lamp load:	2600 W
LED lamps (< 2 W): 50 W	Series corrected:	2600 VA
	Compact fluorescent tubes (EVG):	1100 W
LED lamps (> 2 W): 600 W	LED lamps (< 2 W):	50 W
	LED lamps (> 2 W):	600 W



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Bluetooth OBELISK top3:	
<ul><li>Protection rating:</li></ul>	IP 40
– Temperature:	-30 °C to +55 °C
– Range:	15 m on open air test site

① The time switch display is only fully functional at temperatures from +5 °C - +55 °C.

# 7. Contact

Theben AG Hohenbergstr. 32 72401 Haigerloch GERMANY Tel. +49 7474 692-0 Fax +49 7474 692-150

#### Hotline

Tel. +49 7474 692-369 hotline@theben.de Addresses, telephone numbers etc. www.theben.de

