theben

EN   Astro Time Switch

SELEKTA 170 top3
1700130
SELEKTA 174 top3
1740130

307304

1. Basic safety information

> ⚠️ **WARNING**
>
> **Danger of death from 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)
- Power reserve (10 years) is reduced if memory card is inserted (using battery power)
- Corresponds to type 1 STU nach IEC/EN 60730-2-7

2. Proper use

- The astronomic time switch is used, for instance, for lighting equipment (roads, external staircases, display windows, entrances 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

Time switch installation

click

45° cable

DuoFix screwless terminal

Test tap

Plug-in screwless terminal NC contact

Bluetooth OBELISK top3 (9070130)
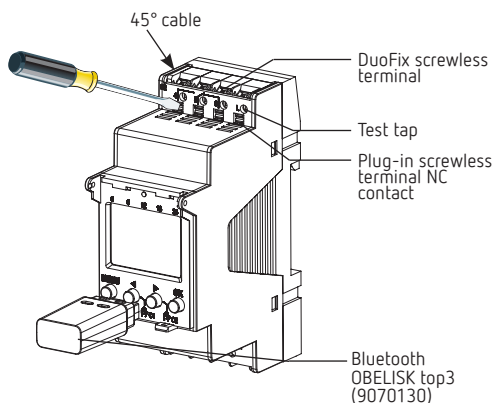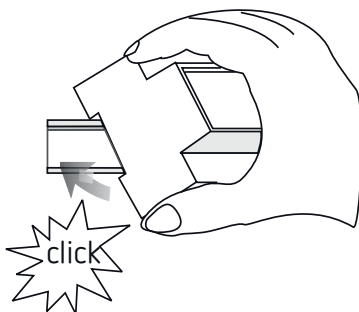
⚠️ Check the depth of the control cabinet when OBELISK top3 is connected. The depth must be > 94 mm.

➤ Install on DIN top hat rails (in accordance with EN 60715)
➤ Disconnect power source
➤ Cover or shield any adjacent live components
➤ Ensure device cannot be switched on
➤ Check absence of voltage
➤ Earth and bypass

Connecting the cable
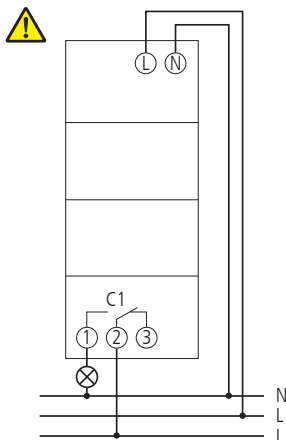
SELEKTA 170 top3   SELEKTA 174 top3
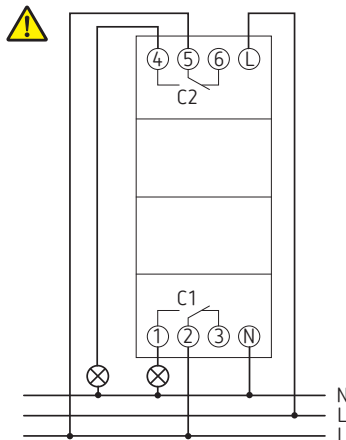
- ➤ Correct connection required for smooth zero- cross switching operation
- ➤ Strip cable to 8 mm (max. 9)
- ➤ Insert cable in the open DuoFix plug-in terminal at 45° (2 cables per terminal position possible)
- ➤ To open the DuoFix plug-in terminal, press screwdriver downwards

Disconnecting the cable

- ➤ Use the screwdriver to push the load line connection opener downwards

4. Device description

Display & buttons

Programmed ON times

Date display

Channel status
ON = On
OFF = Off

Sunrise/sunset display

Time display

Days of the week from 1 to 7

Anzeige der aktiven Tasten mit den jeweiligen Funktionen

➢ *MENU*

– Activate screen
– Open menu
– Cancel menu
– ESC (leave menu)

MENU ◄ ► *OK*

➢ ◄ ►
Selection options are displayed

➢ *OK*

– Store selection
– Confirm selection
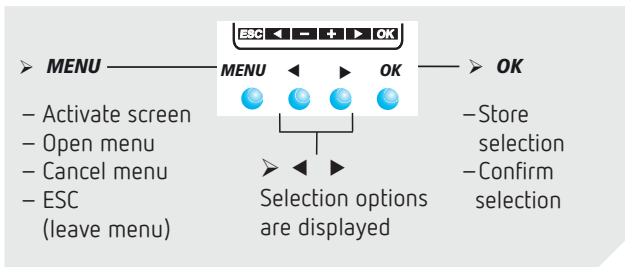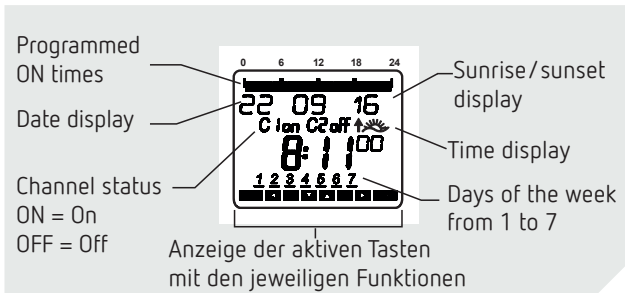
Operating instructions

1. Read text lines
   Flashing text/symbol
   is a prompt

2. Make a decision

YES
Confirmation

press
OK

NO
Change/
select
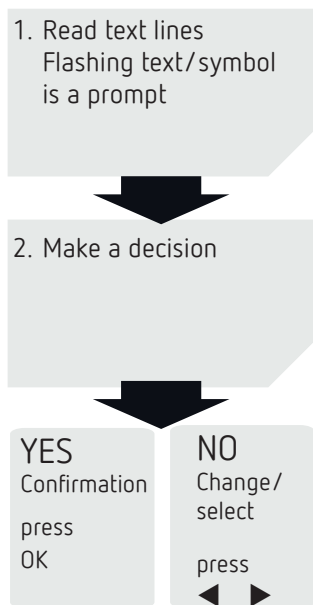
press
◀ ▶

Overview of menu selection

MENU

ASTRO	PROGRAM	TIME / DATE
ASTRO-TIMES	CHANNEL C1	TIME
TOTAL SIMULATION	NEW	SET DATE
OFFSET	CHECK	SU-WI
ASTRO-MODE	MODIFY	WEEK DAY
LOCATION	DELETE	FORM DATE
END	TOTAL SIMULATION	FORM TIME
	END	END

MANUAL	OPTIONS	END
CHANNEL C1	OPERATING HOUR	
PERM ON	LCD-ILLUMINATION	
PERM OFF	LANGUAGE	
OVERR ON	PIN	
HOLIDAY	FACTORY SETTINGS	
END	INFO	
	END	

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Initial start-up

MENU

GERMAN
ENGLISH
SPANISH
FRENCH
⋮

▶ RETAIN PROGRAMS
DELETE PROGRAM

▶ COUNTRY
COORDINATES

GERMANY
SPAIN
ESTONIA
FRANCE
GREAT BRITAIN
⋮

▶ STUTTGART
BERLIN
BREMEN
DRESDEN
DUESSELDORF
⋮

▶ FORM DATE
YEAR
MONTH
DAY
FORM TIME
HOUR
MINUTE
SUM-WI EUROPE

28 10 17
ON
9:40⁴⁶

➤ Set language, country, town/city, date, time as well as summer/winter time (SO-WI)

➤ Press any button and follow on-screen instructions (see figure)

5. Settings and functions

ASTRO menu

In the ASTRO menu astro times, complete simulation, offset, astromode as well as position (location) can be viewed or changed.

- Astro times
  Display of the astro times (including the offsets) for the current day
- Total simulation
  Display of the switching behaviour with a freely selectable Start date (the holiday program is not displayed)
- Offset
  The offset (adjustment value) can be used to shift calculated astro times +/− 120 min. This enables the Astro switch-on and switch-off times to be adapted to local circumstances (e.g. mountains, high buildings etc.) or to personal requirements.
- Astro mode
  – Evenings on, mornings off Switches: on at sunset, switches off at sunset (Example: street lighting)
  – Evenings off, mornings on Switches off: at sunset, switches on at sunrise (Example: terrarium).
  – Astro inactive: The astro times are ineffective (timer function only).

- Position
  - Location set by selecting a city or by coordinates (latitude/longitude, time zone). The Bluetooth OBE-LISK top3 allows up to 10 further cities (= favourites) to be entered.

Change astro time/position

```
MENU
 ├─ ASTRO ──▶ ASTRO TIMES
              TOTAL SIMULATION
              OFFSET
              ASTROMODE
              LOCATION ──▶ COUNTRY ──▶
              END            COORDINATES
```

```
──▶ FRANCE ──▶ AJACCIO
    ESPANA      BAYONNE
    ESTONIA     BORDEAUX
    DEUTSCHLAND BREST
    GREAT BRITAIN CAEN
         ↓          ↓
```
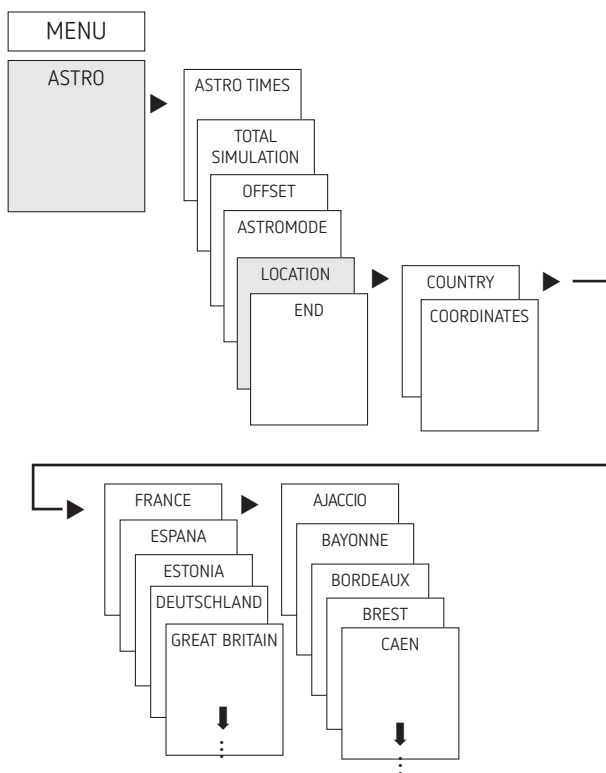
E.g. enter a different country, a different town/city
➤ Press MENU (see picture).

Setting the offset function
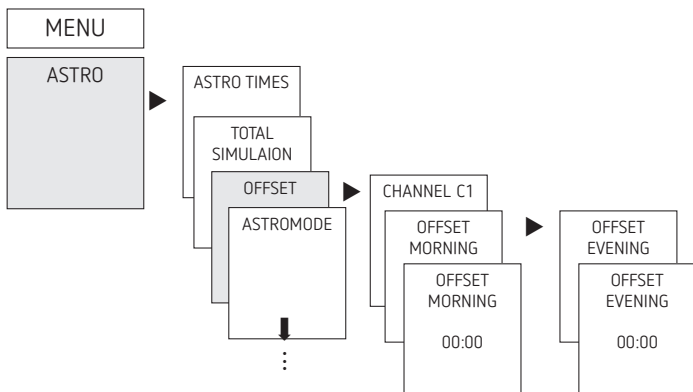
➤ Press MENU
➤ Select ASTRO and press OK to confirm
➤ Select OFFSET and press OK to confirm
➤ Select CHANNEL and press OK to confirm
➤ Select OFFSET MORNING or OFFSET EVENING and press OK
  to confirm
➤ Set the time and press OK to confirm

Set fixed switching time


```
MENU
PROGRAM  ▶  CHANNEL C1
             NEW        ▶  MEM FREE 56
             CHECK         NIGHT BREAK   or   LIGHT ON
             MODIFY           HOUR
             DELETE           MINUTE  ⎤
             TOTAL-           MONDAY  ⎦ Start
             SIMULATION       DURATION
             END              UNTIL
                              △  △
```

Copy switching to other days of the week. The day of the week always relates to a start time ➡ COPY   SAVE   ⬅ Switching time for one day
                                                    ADD TUESDAY
                                                    SAVE
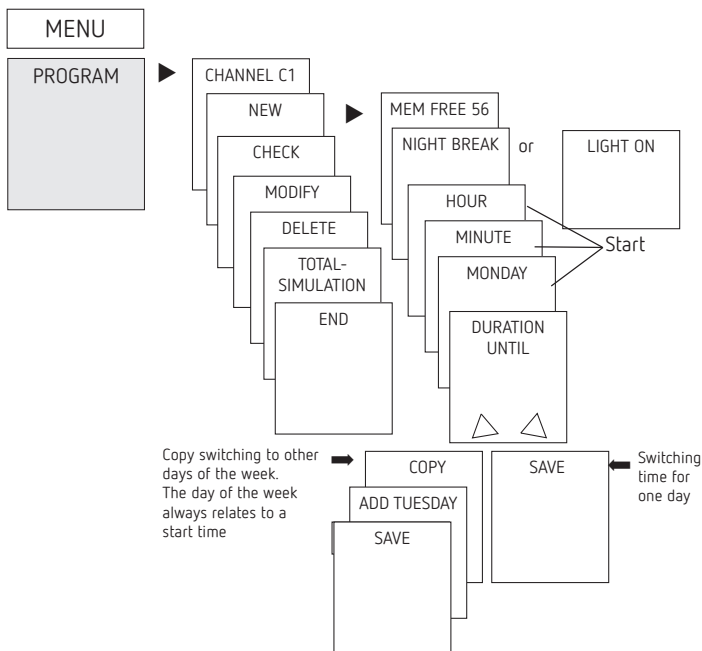
ⓘ A switching time always consists of a start time and an end time (LASTS UNTIL). e.g. night switch-off on Monday 23:00 – 05:00 hrs

ⓘ There are 56 memory cells available

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➤ Press MENU
➤ Select PROGRAM and press OK to confirm
➤ Select CHANNEL and press OK to confirm
➤ Select NEW and press OK to confirm
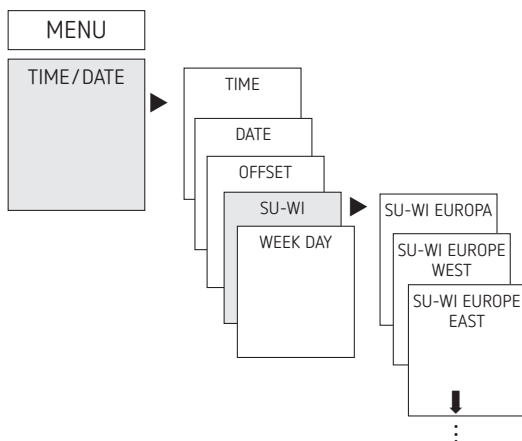➤ Select NIGHT SWITCH OFF or DAY SWITCH ON and press OK
  to confirm
➤ Set selected switching times (hours, minutes, day) and
  press OK to confirm
➤ Select COPY or SAVE
➤ To save press ▶ and press OK to confirm
➤ To copy press OK

Setting summer/winter time

```
┌──────────┐
│  MENU    │
└──────────┘
┌──────────┐   ┌──────────┐
│ TIME/DATE│ ▶ │  TIME    │
│          │   ├──────────┤
│          │   │  DATE    │
│          │   ├──────────┤
│          │   │  OFFSET  │
│          │   ├──────────┐   ┌──────────────┐
│          │   │  SU-WI   │ ▶ │ SU-WI EUROPA │
│          │   ├──────────┤   ├──────────────┤
│          │   │ WEEK DAY │   │ SU-WI EUROPE │
│          │   │          │   │    WEST      │
│          │   │          │   ├──────────────┤
└──────────┘   │          │   │ SU-WI EUROPE │
               │          │   │    EAST      │
               └──────────┘   └──────────────┘
                                      ⬇
                                      ⋮
```
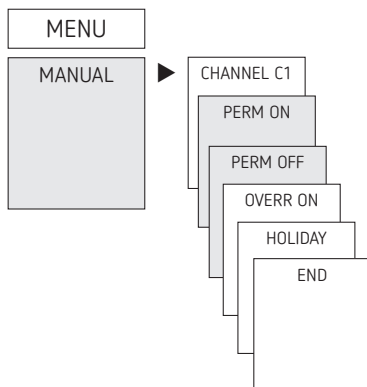
➤ Press MENU
➤ Select TIME/DAT and press OK to confirm
➤ Select SO-WI and press OK to confirm
➤ Select region for the SO-WI time and press OK to confirm

Switch Permanent ON / OFF
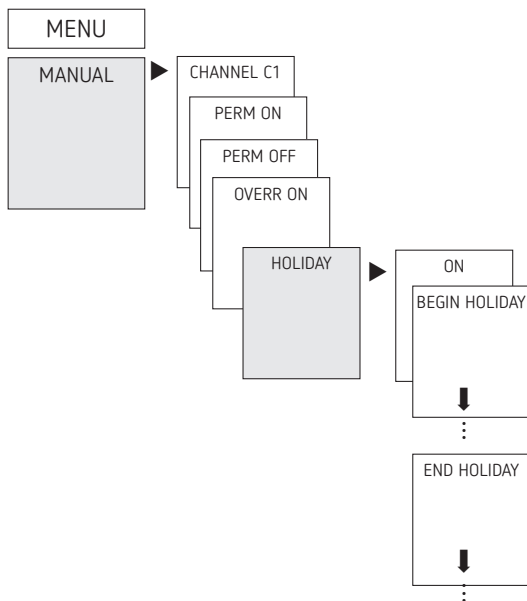
MENU
MANUAL

▶ CHANNEL C1
PERM ON
PERM OFF
OVERR ON
HOLIDAY
END

➤ Press MENU
➤ Select MANUAL and press OK to confirm
➤ Select CHANNEL and press OK to confirm
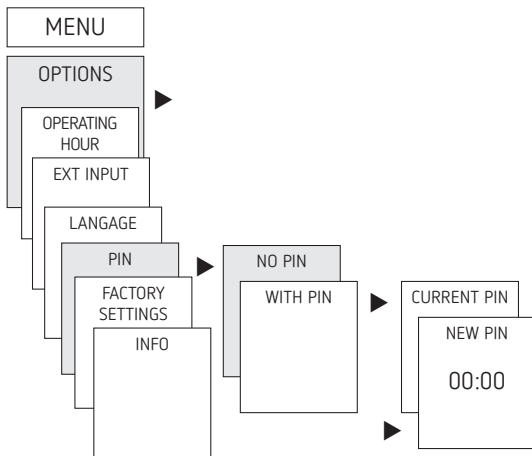➤ Select PERMANENT ON or PERMANENT OFF and press OK to confirm

Setting holiday function

```
┌─────────────┐
│    MENU     │
├─────────────┤   ┌──────────────┐
│   MANUAL    │ ▶ │  CHANNEL C1  │
│             │   ├──────────────┤
│             │   │   PERM ON    │
│             │   ├──────────────┤
│             │   │   PERM OFF   │
│             │   ├──────────────┤
│             │   │   OVERR ON   │
│             │   ├──────────────┐
│             │   │   HOLIDAY    │ ▶ │      ON       │
└─────────────┘   │              │   ├──────────────┤
                  │              │   │ BEGIN HOLIDAY │
                  │              │   │              │
                  │              │   │      ⬇       │
                  └──────────────┘   │      ⋮       │
                                     └──────────────┘
                                     ┌──────────────┐
                                     │  END HOLIDAY │
                                     │              │
                                     │      ⬇       │
                                     │      ⋮       │
                                     └──────────────┘
```

➤ Press MENU
➤ Select MANUAL and press OK to confirm
➤ Select CHANNEL and press OK to confirm
➤ 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

Activate PIN-Code

The PIN code is set in OPTIONS via the menu.

ⓘ If you have lost the PIN, please call the Theben Hotline.

ⓘ Have the serial number ready!

```
┌─────────────┐
│    MENU      │
└─────────────┘
┌─────────────┐
│   OPTIONS    │ ▶
├─────────────┤
│  OPERATING   │
│    HOUR      │
├─────────────┤
│  EXT INPUT   │
├─────────────┤
│   LANGAGE    │
├─────────────┤
│     PIN      │ ▶  ┌───────────┐
├─────────────┤    │  NO PIN    │
│  FACTORY     │    ├───────────┤
│  SETTINGS    │    │ WITH PIN   │ ▶  ┌──────────────┐
├─────────────┤    │            │    │ CURRENT PIN  │
│    INFO      │    │            │    ├──────────────┤
│              │    │            │    │   NEW PIN    │
│              │    │            │    ├──────────────┤
│              │    │            │    │    00:00     │
│              │    │            │ ▶  └──────────────┘
└─────────────┘    └───────────┘
```

Setting manual or permanent switching

Manual and permanent switching can be set using the menu in MANUAL or (in the automatic screen) by key combination (see fig).

- 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.
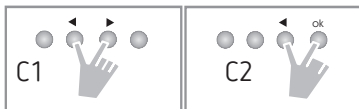
Activate manual switching

➤ Briefly press both keys simultaneously

Activate permanent switching

➤ Simultaneously press both keys for 2 seconds

Cancelling manual/permanent switching

➤ Press both keys simultaneously

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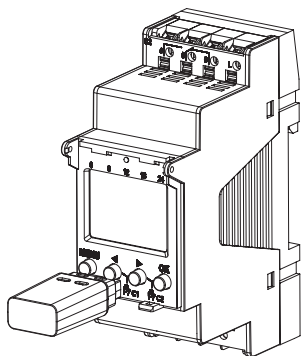Example: Replace a lamp after 5,000 h.

➤ 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).

Copy OBELISK → Time switch

Copies all switching programs and settings from the time switch to the memory card. Starting OBELISK program

Copy Time switch → OBELISK

Copies all switching programs and settings from the time switch to the memory card.

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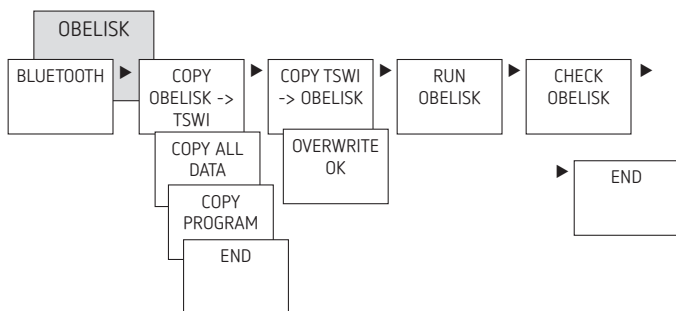
Connect time switch, Bluetooth OBELISK top3 and smartphone (via app)

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" ⬆

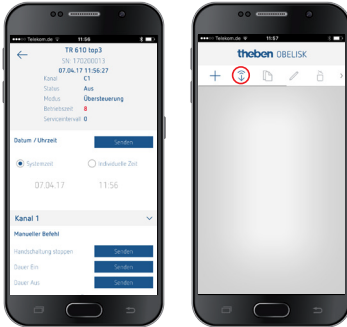 → Device / device list appears on the display.

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➤ Press „Connect"

➤ Press OK on the time switch
    → 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.
   → You can choose between RETAIN PROGRAM and DELETE
     PROGRAM.

6. Technical Data

Operating voltage:	230 V AC +10 % / −15 %
Frequency:	50−60 Hz
Standby:	0,4 W
Max switching capacity.:	16 A (at 250 V AC, cos φ = 1)
Switching capacity:	10 A (at 250 V AC, cos φ = 0,6)
Min. switching capacity:	10 mA/230 V AC 100 mA/24 V AC/DC
Switch output:	switching of any phase is permitted (SELEKTA 174 top3)
SELEKTA 170 top3:	suitable for switching SELV (Safe Extra-Low Voltage)
Protection rating:	IP 20 in accordance with EN 60529
Protection class:	II in accordance with EN 60730-1 subject to designated installation
Operating temperature:	−30 °C ... +55 °C
Power reserve:	10 years at +20 °C (without Bluetooth OBELISK top3)
Switching accuracy:	accurate to the second
Time accuracy (typical)	± 0,25 s/day (25 °C)
Rated impulse voltage	4 kV
Pollution degree	2
Contact	two way switch, contact μ

Max. switching cycles with 16 A resistive load	50 000
Incandescent lamp load	2600 W
Halogen lamp load	2600 W
Fluorescent lamps (LLB low-loss ballasts): uncorrected series-corrected parallel-corrected	2600 VA 2600 VA 1300 VA (130 µF)
Compact fluorescent lamps (EB)	1100 W
LED-lamps (< 2 W)	50 W
LED-lamps (> 2 W)	600 W
Bluetooth OBELISK top3: − Protection rating: − Temperature: − Range:	IP 40 −30 °C to +55 °C 15 m on open air test site

ⓘ 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