

Staircase time switch



ELPA 540 APP BN
5400008

1. General Information

- Silent staircase time switch for installation in a flush-mounted box
- Suitable for retrofitting and new construction
- Complies with EN 60669-2-1 when installed as intended
- All lamps can be controlled
- Multiple timer functions that have push button or switch operability
- Settings are configured via the app; operation is via the connected push button or the app
- Commissioning and programming via mobile devices using the Theben 540 Series app
- Wireless networking via Bluetooth Mesh 5.0 for multiple staircase light timers
- App default setting: Switch-off pre-warning on: 3 min, can be turned off early

2. Security



Assembly and installation must only be carried out by a qualified electrician or a person with appropriate professional training, knowledge, and experience to recognize and avoid the dangers posed by electricity.



Disconnect the mains voltage before installation/removal and ensure it remains disconnected.



Read and follow the operating instructions completely before commissioning and using the product.

3. Intended use

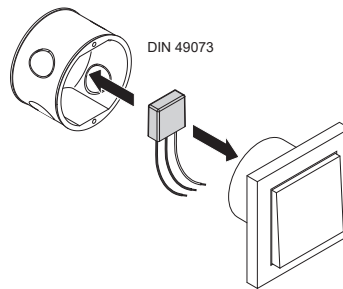
- The ELPA 540 APP BN staircase time switch is an electric time relay that turns off the lighting in stairwells or hallways after a preset time; short-term switching is also possible, and a countdown timer is available.
- The ELPA 540 APP BN can be controlled via a push button, a switch, or via an app using Bluetooth Mesh 5.0.

- With a neutral conductor for switching capacitive, inductive, and resistive loads.
- Suitable for flush-mount installation in enclosed spaces (in private and public residential buildings).

4. Installation and connection

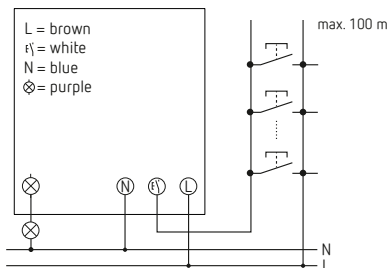
Installing the staircase time switch

- ① Install the **Theben 540 Series** app before use the configuration.
- ② A push button/switch must always be connected.



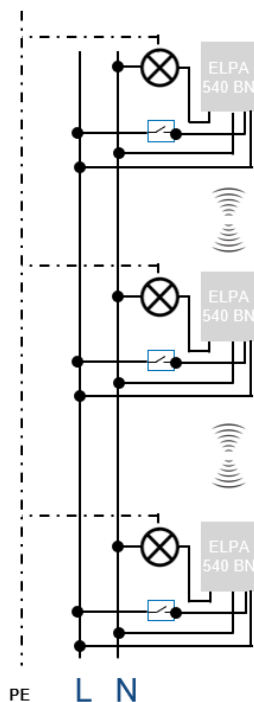
- Install the staircase time switch in a flush-mounted box behind a standard push-button switch or in a separate flush-mounted box (in accordance with DIN 49073).

Connecting the staircase time switch



Lighting in the stairwell/hallway

The staircase time switch with Bluetooth Mesh allows you to replace an existing two-way connection with a timer that is networked via BLE Mesh.



Guidelines based on room size

up to 8 m ²	10–15 min
8–15 m ²	15–30 min
15–25 m ²	30–60 min

*For fan capacities of 60–100 m³³/h

6. Operation via the app

Terms used in the app

Group: A group comprises all staircase light timers that are controlled together.

with secondary switching: While the light is still on, pressing the push button resets the set timer.

switch-off pre-warning: Shortly before the set time has elapsed and the light turns off, the lighting flashes as a warning before it goes dark.

time delay: The time delay for a stairwell light should be set so that residents can safely reach their destination (apartment door or the nearest light switch) without feeling rushed (usually 2–5 min).

extended function: For moving or cleaning, a continuous light can often be activated (duration 1–24 hours).

Falling edge: falling signal after releasing the switch

Rising edge: rising signal after the switch is pressed

Connect the staircase time switch to a mobile device (plus app)

The staircase time switch can be programmed using the Theben 540 Series app via mobile devices (Android version 13 or higher, iOS version 16 or higher). Communication takes place via Bluetooth Mesh 5.0.

① Bluetooth must always be enabled on the mobile device!

① **To perform the initial operation of the app, you must create a group.**

① A group can consist of different floors, etc.

① A group can include multiple staircase time switches that communicate with each other; other devices cannot be integrated. All devices respond to a connected push button/switch.

① If a program is sent from one device to the group, it is adopted by all devices, regardless of which floor they are on.

5. Functions

The functions of the ELPA 540 are the standard staircase lighting functions, which can be set either with the push button or with the switch.

Operation via push button

① The functions are executed by all connected push buttons.

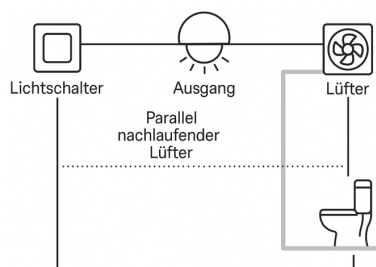
The push buttons control all Mesh devices on each floor.

For details on the individual functions, see the section „Setting via push button“ auf Seite 4.

Operation via switches

The ELPA 540 also supports conventional switches, allowing delay controls to be precisely adjusted via rising and falling current edges. This short-term function is frequently used to control fans in interior bathrooms (10–30 min, especially in Southern Europe).

① If an existing two-way connection in the stairwell is replaced, the connection can be retained with this function, see Function 4, Chapter „Setting via switch“ auf Seite 5.



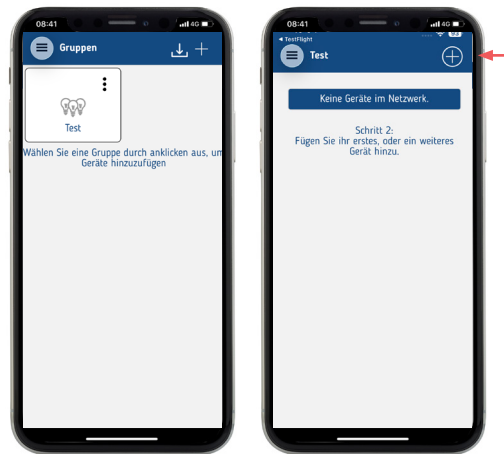
System limitations for a group

Mixed groups consisting of ELPA devices and other devices from the 540 series are not permitted. This means:

- If an ELPA device is in a group, only additional ELPA devices can be added.
- If other devices from the 540 series (e.g., DIMAX, TR, OKTO) are in a group, no ELPA device can be added.

This restriction protects people by preventing stairwell lighting from being accidentally turned off completely. This prevents people from suddenly finding themselves in the dark.

➤ App Theben 540 Series from the store.



→ All stairwell light timers in the vicinity are searched for and listed.

- Tap the desired staircase time switch to install it. Before that, during the initial operation, you will be asked if your location may be used.

Initial operation – create group

- Open the app and tap ⊕ to create a new group.
 - Give the group a name and tap OK.
- A new group is created.

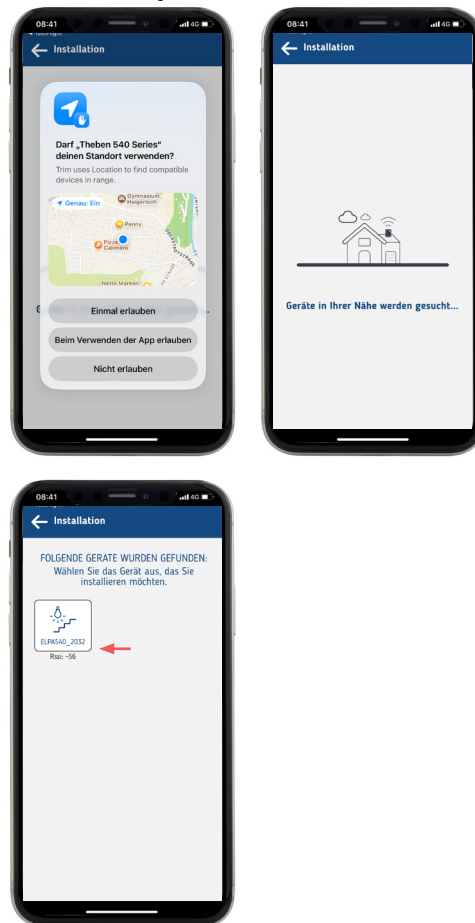


- Repeat these steps to create additional groups.

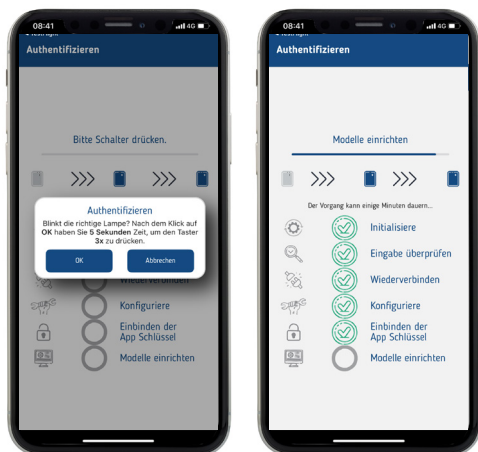
Assign individual staircase time switches to a group

You must now assign various staircase time switches to the group.

- Tap the desired group.
- "No devices on the network" appears.
- To add a staircase time switch to this group, press ⊕.



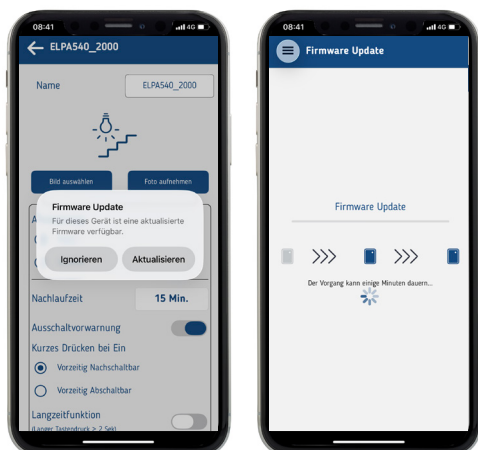
→ The light flashes and the initialization process begins.



- Press OK **and** quickly press the push button 3 times.
- Press **Next**.
 - The initialization process is complete. You can now set the desired functions.
- If you want to assign additional staircase time switches to a group, you must follow the steps above.

Firmware update

Before you can configure the staircase time switch, you may be asked if you want to update the firmware.



Edit, export, or delete a group

After you have created the group, you can edit or delete it.

- Tap the three dots.



You can also **export** a group. This is a JSON file that can be sent via email, etc.

Import a group (file)



You can transfer files in JSON format (functions) from one mobile device to another.

- ❗ Images created within a group are not transferred.
- ❗ When importing, Admin Mode (default) is disabled and must be re-enabled.
- ❗ If device settings are changed on a mobile device, these changes are applied to other staircase time switches.

Configure staircase time switches

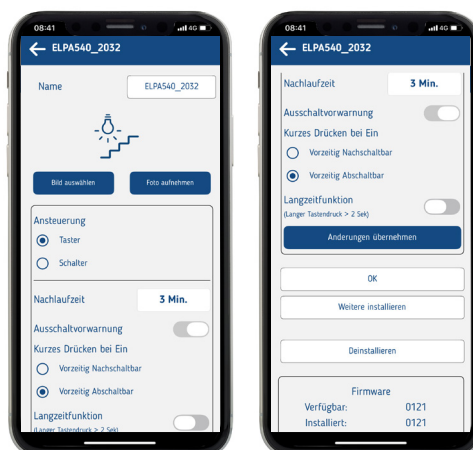
You can select a photo/image for each staircase time switch or take a photo.

Setting via push button

If you have selected "Control via push button," you can

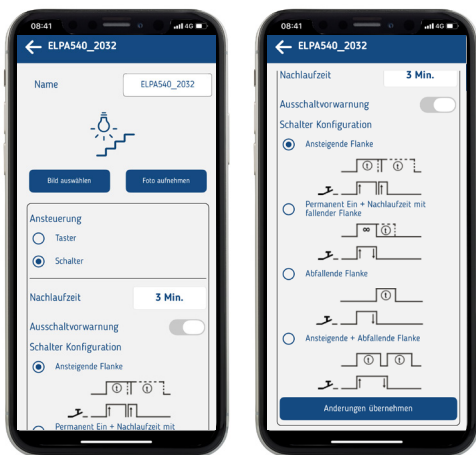
- activate or deactivate the deactivate
- Time delay from 30 s to 1 hour (usually 2–5 min) and/or the
- extended function (1 to 24 hours). You can also select "with secondary switching" and
- "early switch-off".

- ❗ **Default setting:** Switch-off pre-warning on: 3 min, can be switched off early



- Press "Apply changes."

Setting via switch



If you have selected "Switch control," you can choose between 4 functions:

1. Function 1: Rising edge

Application: light in bathroom/toilet, fan with time delay (classic); the bathroom light turns on, the fan turns on for x minutes

2. Function 2: permanently on + time delay with falling edge

Application: fan in the bathroom starts (with time delay if applicable) when the light is turned on; the time delay starts when the light is turned off

Advantage: the fan always runs (with a time delay) when the bathroom is in use

3. Function 3: falling edge

Various use cases for a fan

- Fan starts after leaving the room (light off)
- While the light is on, it should be quiet (e.g., at night)
- When the light is turned off, the fan starts and runs for e.g., 5–10 min
- Advantage: operation is quiet; ventilation only turns on afterward

4. Function 4: rising + falling edge

Various applications in stairwells (classic two-way connection)

If you are modernizing old two-way connections and not installing push button switches, use the "Rising + Falling Edge" function. This is the only way the system will respond reliably with every switch and start the time delay.

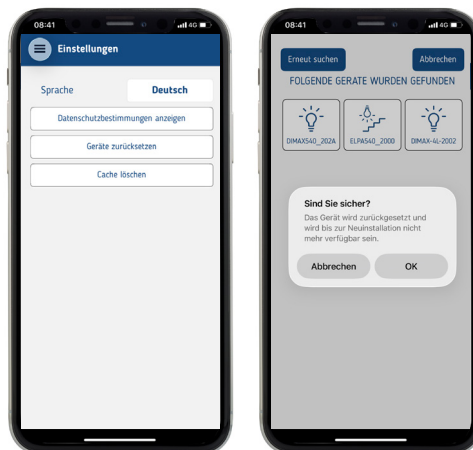
Settings: Reset devices

- ① If devices – and thus their parameters – are reset, they can be reassigned to a group.



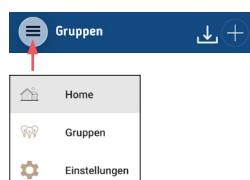
- Then press **Settings**.
- In the settings, press **Reset devices**.

- The staircase time switches are searched for and listed.
- Select the desired staircase time switch.
- **Important:** 3 x **quickly** push the push button (within 20 s) and select **OK**.
- The staircase time switch is no longer connected to the group and can now be added to a new group.

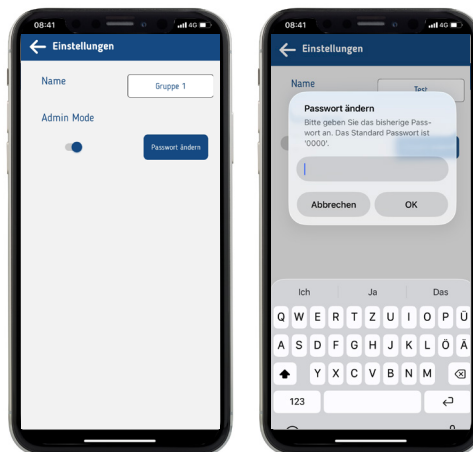


Set Admin password

- ① Admin Mode must be enabled.



- Tap **Groups**, then tap the 3 dots.
- Tap **Edit**.
- Here you can change the password.



7. Technical data

Parameter	Value
Operating voltage	230 V AC
Frequency	50/60 Hz
Minimum load	2 W
Standby power	0.2 W
Operating temperature	– 10 °C ... + 45 °C
Incandescent lamp load	250 W
LED lamps	150 W
Lamp load	max. 250 W

Parameter	Value
Protection class	II after proper installation in the flush-mounted box
Switching capacity	60 W (at 230 V AC, $\cos \varphi = 0.6$)
Degree of soiling	2
Rated impulse voltage	4 kV
Software class	A
Max. cable length	100 m
BLE - Radio frequency/transmission power - range	BLE 2.4 ... 2.48 GHz, max. +4 dBm Typical range: 25 m in open space, 15 m indoors; multiple devices extend the range

Theben AG hereby declares that this type of radio equipment complies with Directive 2014/53/EU. The full text of the EU Declaration of Conformity is available at the following web address:

www.theben.de/red-konformitaet

Cleaning and maintenance

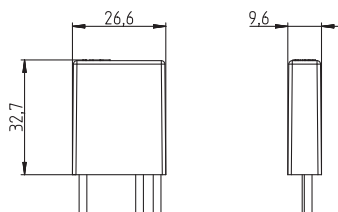
- Clean the device surface only with a dry, soft cloth.
- Do not use cleaning agents or solvents.

Disposal



Dispose of the device separately from household waste at an official collection point.

8. Dimensions diagrams



9. Contact

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