**Manuals+** — User Manuals Simplified.

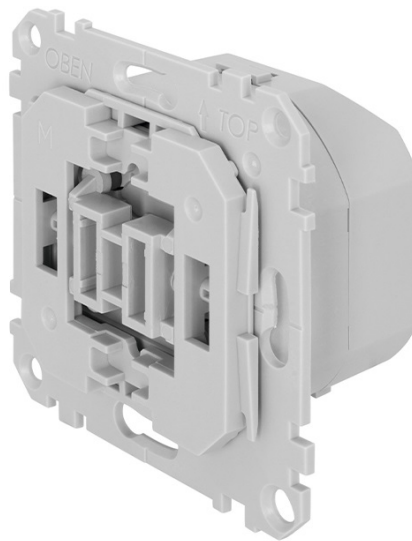# TechniSat 0x00-9499 Smart Flush Mounted Switch Instruction Manual

**TechniSat 0x00-9499 Smart Flush Mounted Switch Instruction Manual**

**Preface**

**Dear Customer,**

Thank you for choosing a Techni Sat Smart Home product. This instruction manual is intended to help you get to know the extensive functions that your new device offers and to make the best use of them. It will help you to use the product as intended and safely. It is intended for anyone installing, operating, cleaning or disposing of the device. Store the instruction manual in a safe place for later use.

A current version of the instruction manual can be found in the download area for your product on the Technic Sat website at **www.technisat.de**.

We hope you enjoy your
Techni Sat Smart Home product!

Your
Techni Sat Team

## Contents

## Safety instructions

**Signs and symbols used**

**In this instruction manual:**

⚠️ Indicates a safety instruction which can lead to serious injuries or death if not observed. Note the following signal words:

**DANGER** – Severe injury with fatal consequences
**WARNING** – Severe injury, possibly with fatal consequences
**CAUTION** – Injury

ℹ️ Indicates an important instruction which you absolutely should observe in order to avoid defects on the device, loss or misuse of data or unwanted operation. It also describes additional functions of your device.

⚠️ Beware of electrical voltage. Follow all safety instructions to avoid an electric shock. Do not open the device

under any circumstances.

**On the device:**

Indoor use – Devices with this symbol are only suitable for indoor use.

Protection class II – Electrical devices of protection class II are electrical devices with continuous double and/or reinforced insulation and no connection options for a protective conductor. The housing of an electrical appliance of protection class II enclosed using insulation material may partially or completely form the additional or reinforced insulation.

Your device bears the CE symbol and complies with all requisite EU standards.

Electronic devices/batteries must not be disposed of with household waste, but must be disposed of properly, in accordance with Directive 2012/19 / EU of the European Parliament and of the Council dated 04 July 2012 concerning Old Electrical and Electronic Equipment. Please return this device to the designated public collection point for disposal at the end of its service life.

**Intended use**

With the TechniSat off-switch, it is possible to switch a consumer (e.g. a light) on and off via Smart Home or on the device itself. Furthermore, the power consumption can be determined at the same time or entire scenes can be controlled via Smart Home. The off-switch may only be installed in suitable flush-mounted boxes (DIN 49073-1).

**Using Smart Home products safely**

Please observe the following instructions to minimize any safety hazards, prevent damage to the device, and help protect the environment. Please read all the safety instructions carefully and store them for future reference. Always follow all the warnings and instructions in this instruction manual and on the rear of the device.

**WARNING**
This device is only intended for installation.
Only trained personnel (electricians) may connect devices without plugs.
Risk of electric shock!

**WARNING**
The device may only be installed when disconnected from the mains. Switch off at the fuse and secure it against being switched on accidentally.
Risk of electric shock!

**WARNING**
Do not open the device under any circumstances!
Touching parts that conduct voltages can be fatal!

ℹ️ Observe all of the following instructions on the intended use of the device and to prevent device defects and personal injury.

- Do not repair the device yourself. Repairs may only be carried out by trained specialists. Contact our customer service department.
- The device should only be operated under the intended environmental conditions.
- Do not expose the device to dripping or splashing water (protection class IP20). If water has penetrated the device, switch it off and inform the service department.
- Do not expose the device to heat sources which could heat it up more than normal use will.
- In the event of any device defect, the production of an odour or smoke, significant malfunctions, or damage to the housing, notify the service department immediately.
- The device must only be connected to a mains voltage of 230 V~, 50 Hz (+/- 10 %). Never try to operate the device at a different voltage.
- If the device shows signs of damage, it must not be put into operation.
- Do not put the device into operation in the vicinity of bath tubs, showers, swimming pools or running/splashing water (protection class IP20). There is a risk of electric shock and/or device defects. Bathroom installations may only be carried out by trained specialists in compliance with the applicable standards and regulations.
- Foreign bodies, e.g. nails, coins, etc. must not be allowed to fall inside the device. Do not touch the connection contacts with metal objects or your fingers. This may cause a short circuit.
- Never allow children to use the device unsupervised.
- Modifications to the device are prohibited.

**Legal notices**

ℹ️ Techni Sat hereby declares that the off-switch radio equipment complies with Directive 2014/53/EU.  The full text of the EU conformity declaration is available at the following Internet address:
**http://konf.tsat.de/?ID=22943**

ℹ️ TechniSat is not liable for damage caused by external influences, wear and tear or improper use, unauthorized repairs, modifications or accidents.

ℹ️ Subject to change for amendments and printing errors. Version 03/21 Duplication and reproduction only with the publisher's approval. You can find the current version of the manual in PDF format in the download area of the TechniSat home page at **www.technisat.com**.

ℹ️ Techni Sat is a registered trademark of:

Z-Wave and Z-Wave Plus are registered trademarks of Silicon Laboratories.
Names of the companies, institutions or brands mentioned are trademarks or registered trademarks of their respective owners.

**Service instructions**

 This product is quality-tested and comes with the statutory warranty period of 24 months from the date of purchase. Please keep your receipt as proof of purchase. In the event of warranty claims, please contact the product dealer.

 For questions and information, or if there is a problem with this device, please contact our technical hotline:
Mon. – Fri. 8:00 am – 6:00 pm at tel.:
+49 (0) 3925 9220 1800.

 Repair orders can also be placed directly online at **www.technisat.de/reparatur**.

If the device needs to be sent to us for any reason, please only use the following address:

**TechniSat Digital GmbH**
Service Center
Nordstr. 4a
39418 Stassfurt, Germany

## Special features

- Flush-mounted on-/off-switch
- Energy consumption measurement
- Scene control switch
- Z-Wave Plus
- Security S2
- Smart Start
- Overload protection
- Compatible with multiple German switch system manufacturers*:
- Merten – M1 series,
- Busch-Jaeger – Duro 2000 series,
- Gira – System 55 series,

This device can be operated in any Z-Wave network and with other Z-Wave certified devices from other manufacturers. Non-battery powered devices within the Z-Wave network act as repeaters, regardless of manufacturer, to increase the range and reliability of the network.

This device is a secured Z-Wave Plus product that can communicate with other secured Z-Wave Plus products via encrypted Z-Wave Plus messages.

Depending on the model, see label on page 1.

## Illustrations

**Front** (using Busch-Jaeger as an example)
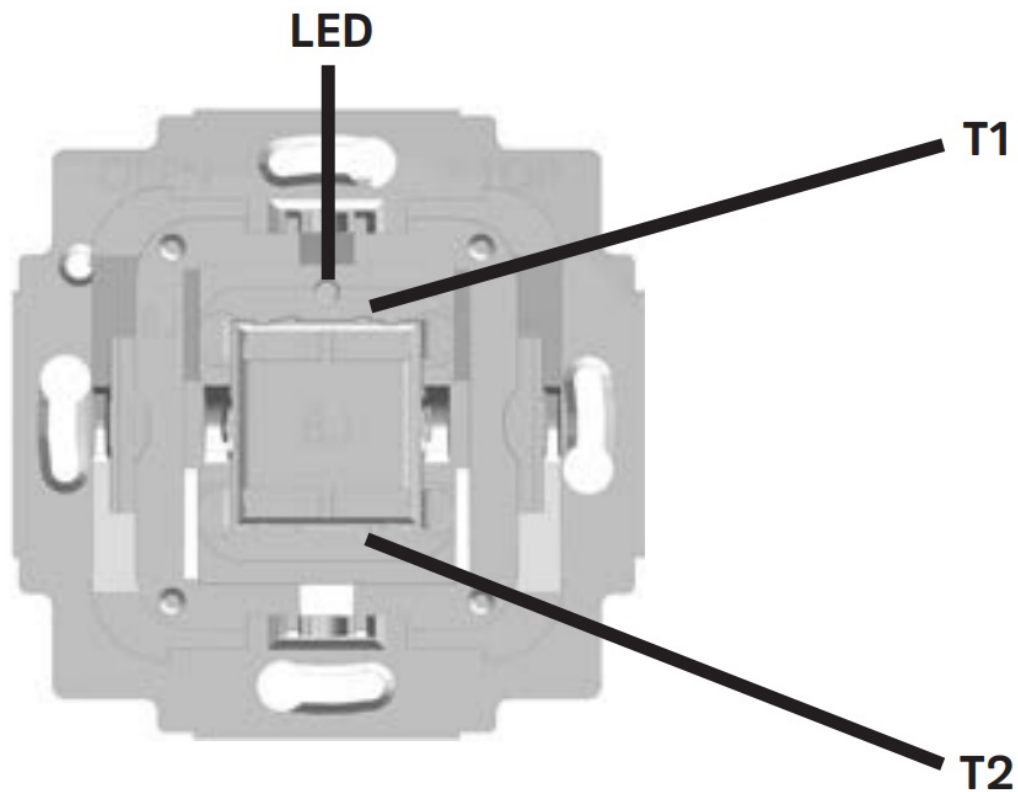


**LED** Status LED
**T1** Upper push-button position
**T2** Lower push-button position

**Rear**



**L** Phase
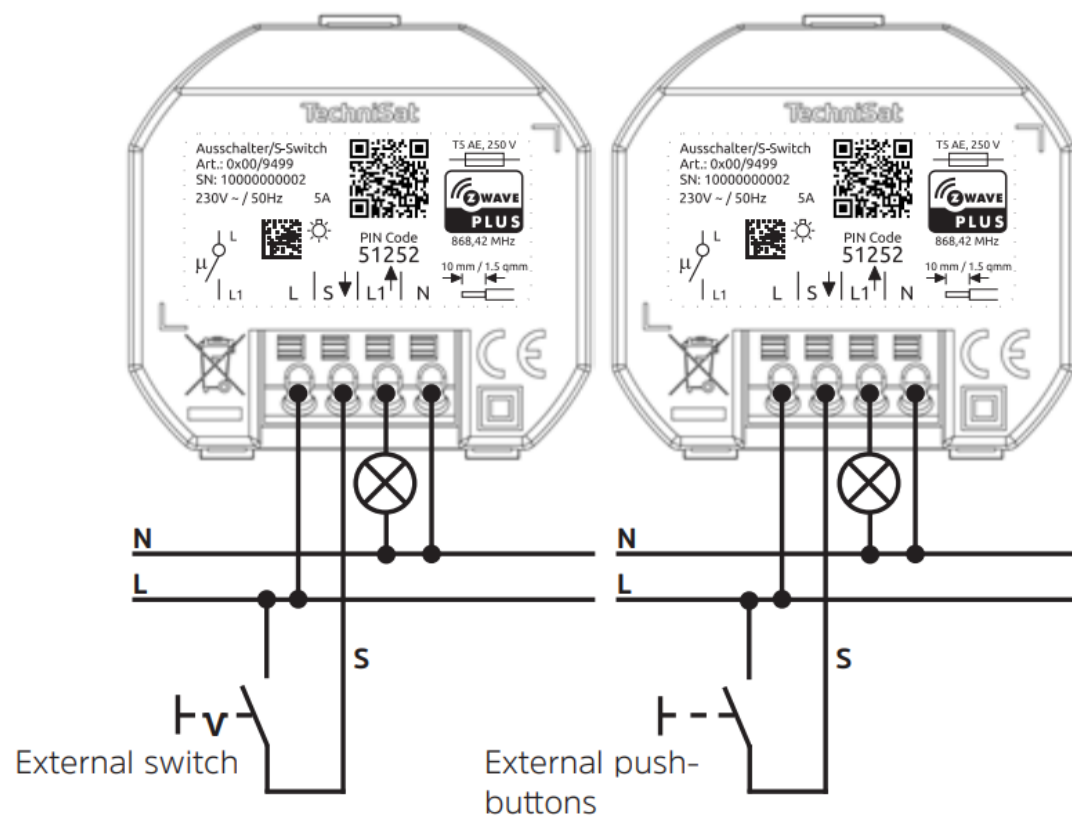**L1** Switched output (to consumer)

**(T1** – T2)
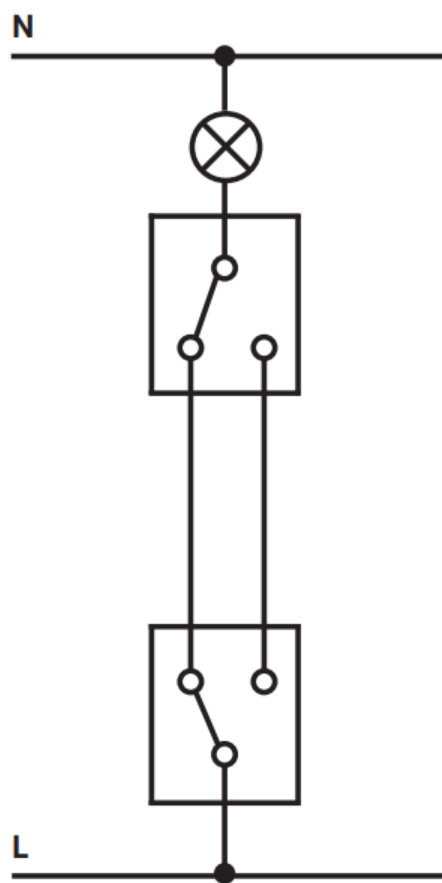**N** Neutral
**S** Auxiliary input

## Connection diagram

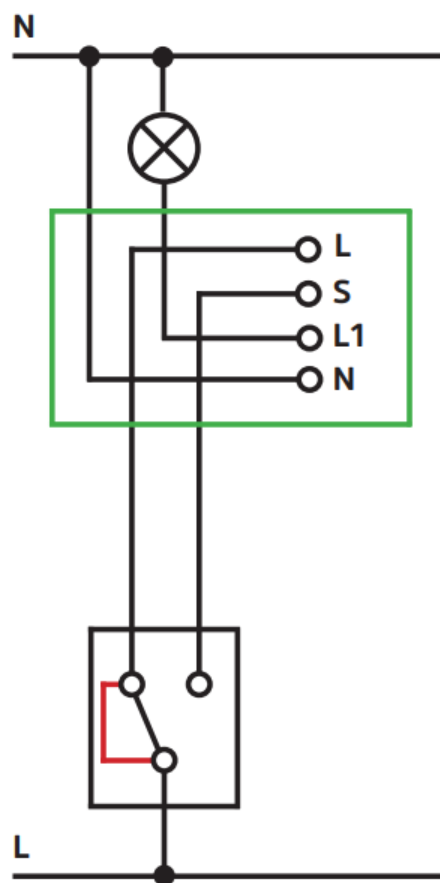**Connection examples:**



![info icon] Note the configuration of parameter 5 on page 21. This determines whether you use a push-button or a switch at the auxiliary input.

Conversion of existing circuit with 2x toggle switches to 1x toggle switch and 1x Techni Sat off-switch.

Before:
2x toggle switches

After:

The existing toggle switch must be bridged in this connection example.

**Installation**

Rocker switch

Frame

Flush-mounted box
(DIN 49073-1)

Balancing frame

TechniSat
Off switch
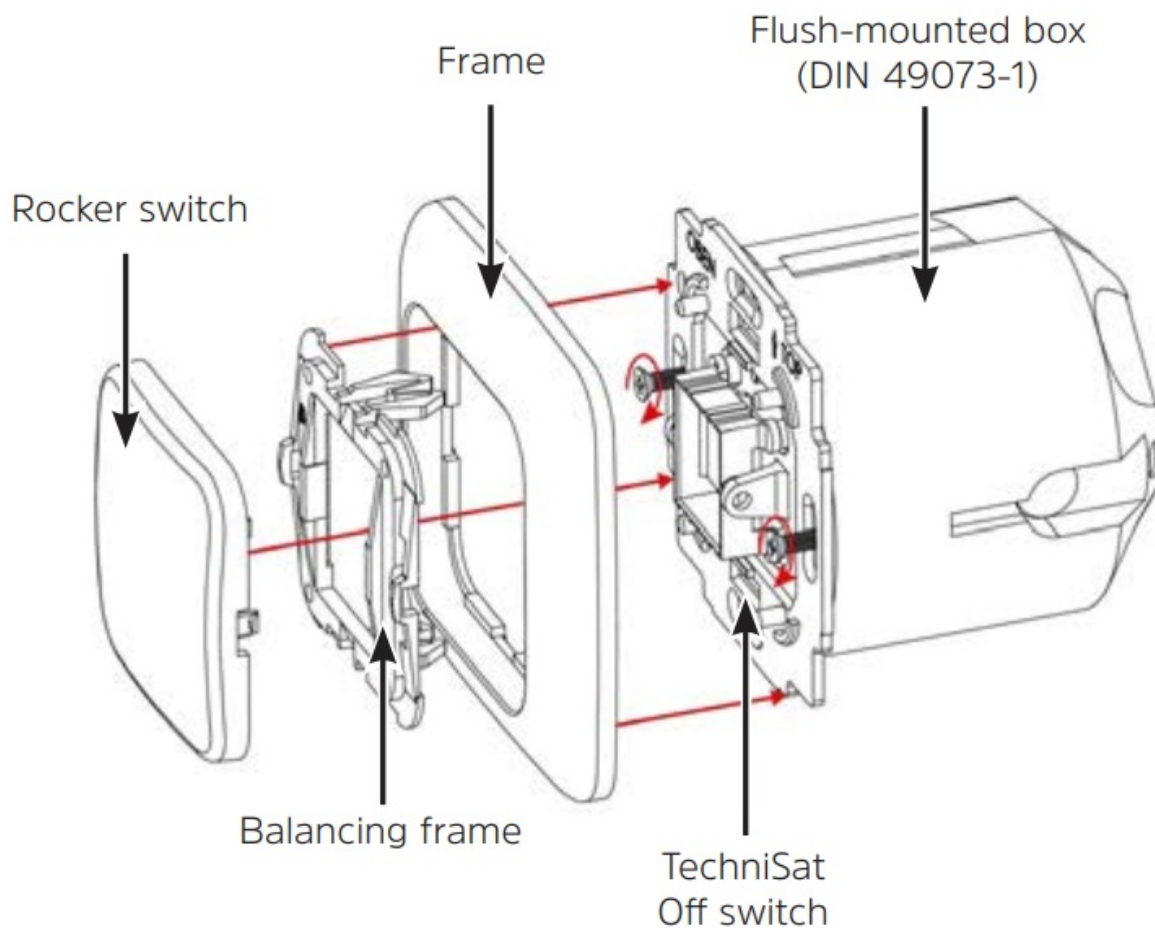
**Terminal connection**

The terminal on the off-switch is designed for cables of 1.5 mm² (fixed) or 1 mm² (flexible with clamping sleeve).
The conductor must be stripped by 10 mm.
The conductor can be connected and disconnected again by pressing the push-button with a suitable tool, e.g. a slotted screwdriver 2.5 x 0.4 mm.

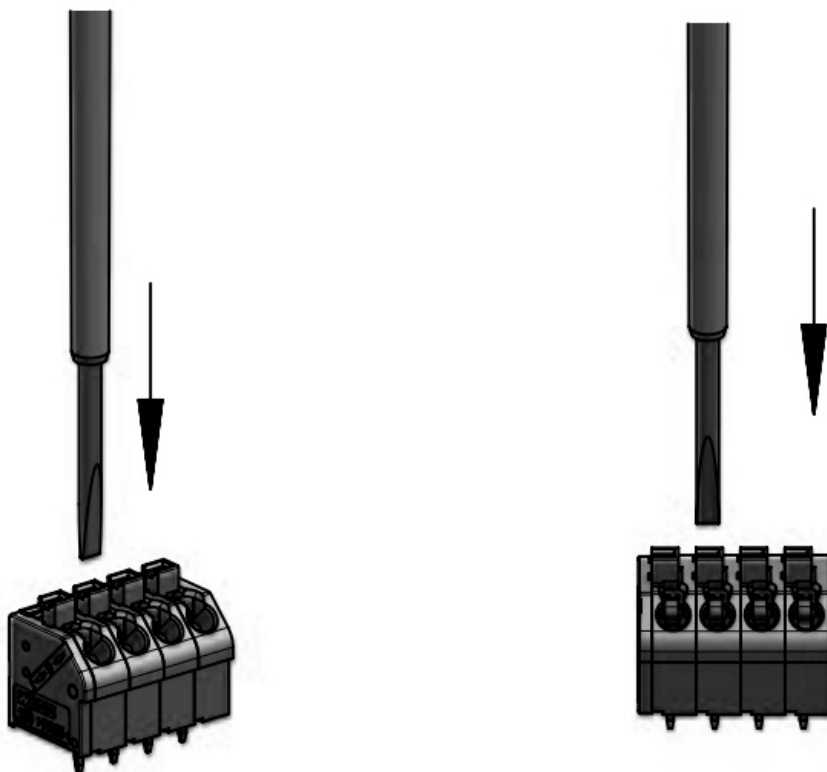# Integration into the Z-Wave network (Adding /I nclusion)

## Smart Start setup

Smart Start technology enables you to add your Z-Wave product to your Z-Wave network by scanning a QR code. The QR code is located on the back of the product, on the front of this manual or on the device box and is scanned via the primary Z-Wave controller and smartphone camera. After scanning, it may take up to 10 minutes for your new device to be added to your Z-Wave network.

1. The Z-Wave SmartStart QR code can be found on the back of the TechniSat off-switch, on the front of this manual or on the device box.
2. Activate the SmartStart function in your primary Z-Wave controller and follow the operating steps to add a device.

   **WARNING**

   Only trained personnel (electricians) may connect devices without plugs.

   Risk of electric shock!
3. Install the TechniSat off-switch in its intended position.

   **WARNING**

   The device may only be installed when disconnected from the mains. Switch off at the fuse and secure it against being switched on accidentally.

   Risk of electric shock!
4. After the wiring and power supply have been properly set up, switch the fuse back on.
5. After restoring the power supply, it may take up to 10 minutes for the TechniSat off-switch to be added to your Z-Wave network.

## Manual set-up

**WARNING**
Only trained personnel (electricians) may connect devices without plugs.
Risk of electric shock!

1. Install the Techni Sat off-switch in its intended position.

   **WARNING**

   The device may only be installed when disconnected from the mains. Switch off at the fuse and secure it against being switched on accidentally.

   Risk of electric shock!
2. After the wiring and power supply have been properly set up, switch the fuse back on.
3. Set your primary Z-Wave controller to Inclusions mode (adding) and follow the operating steps.
4. Press the upper push-button position (T1) 3 times within one second.
5. The LED lights up red while the TechniSat off-switch is being added to the Z-Wave network.
6. If the set-up has been successful, the LED lights up green for 5 seconds.

## Removing the device from the network

1. Set your primary Z-Wave controller to Exclusions mode (removing) and follow the operating steps.
2. Press and hold the upper push-button position (T1) for at least 10 seconds.

3. The LED lights up red while the unlearning process is running.
4. The LED lights up green after the device has been successfully removed from the Z-Wave network.

**Resetting the device**

Only use the reset in the event that a primary Z-Wave controller is missing or no longer functional

The reset process erases the device's memory, including the Z-Wave network controller information.

1. Press and hold the lower push-button position (T2) for at least 20 seconds.
2. the set-up has been successful, the LED lights up alternately red/ green for about 5 seconds.

## Configuration

The following settings can be made. The configuration is carried out via the primary Z-Wave controller.

| Parameter | Description | Size (bytes) | Value | Default |
|-----------|-------------|--------------|-------|---------|
| 1 | Activated/Deactivated: Central scene notification Press 2 to 5 times | 1 | 0 – Deactivated<br>1 – Activated | 1 |
| 2 | Current power consumption message interval | 2 | 0 – Deactivates unrequested messages<br><br>3 – 8640<br><br>(30 seconds – 1 day) | 3 (30 s) |
| 3 | Current energy consumption message interval | 2 | 0 – Deactivates unrequested messages<br><br>10 – 30240 (10 minutes – 3 weeks) | 60<br>(1 hour) |

| Parameter | Description | Size (bytes) | Value | Default |
|---|---|---|---|---|
| 4 | Function of push- button positions T1 and T2 | 1 | 0 – T1 switches output L1 on,<br><br>0 – T2 switches output L1 off.<br><br>1 – T1 & T2 switch L1 on/off. | 0 |
| Parameter | Description | Size (bytes) | Value | Default |
| 5 | Switch configuration at auxiliary input S | 1 | 0 – Switch<br>1 – Push button | 0 |
| 6 | Central scene assignment to auxiliary input S | 1 | 1. applies S to the T1 central scene<br>2. applies S to the T2 central scene<br>3. applies S to its own central scene | 1 |

## Supported association groups

| ID | Name | Maximum group members | CC commands |
|---|---|---|---|
| 1 | Lifeline | 1 | • Device reset locally notification<br>• Central scene notification<br>• Meter report<br>• Switch binary report<br>• Notification report |
| 2 | Switch State | 10 | • Basic set |

## Basic command class

Members of association group 2 are controlled with Basic_Set commands of the basic command class.
If the Techni Sat off-switch is switched on, a Basic_Set (0 x FF) command is sent to members of association group 2.
If the Techni Sat off-switch is switched off, a Basic_Set (0 x 00) command is sent to members of association group 2.

## Notification command class

| Notification | Event | Description |
|---|---|---|
| Power management (0 x 08) | Inactive (0 x 00) | No event detected / event cancelled |
| | Overload detected (0 x 08) | The maximum permissible load on L1 was exceeded |

## Supported Z-Wave command classes

| Command class | Version | Required Z-Wave safety levels |
|---|---|---|
| Association | 2 | highest permitted |
| Association group information | 1 | highest permitted |
| Basic | 2 | highest permitted |
| Binary switch | 1 | highest permitted |
| Command class | Version | Required Z-Wave safety levels |
| Central scene | 3 | highest permitted |
| Configuration | 1 | highest permitted |
| Device reset locally | 1 | highest permitted |
| Firmware update meta data | 4 | highest permitted |

| | | |
|---|---|---|
| Manufacturer specific | 2 | highest permitted |
| Meter | 4 | highest permitted |
| Notification | 8 | highest permitted |
| Power level | 1 | highest permitted |
| Security 0 | 1 | none |
| Security 2 | 1 | none |
| Supervision | 1 | none |
| Transport service | 2 | none |
| Version | 3 | highest permitted |
| Z-Wave Plus info | 2 | none |

## Central scene command class

The TechniSat off-switch can also be used as a scene switch.
In the default configuration (page 20, parameter 1), the off-switch sends Z-Wave command class central scene trigger notifications to the primary Z-Wave controller when push-button positions T1 and T2 are pressed multiple times.

When the respective push-button position is pressed multiple times, the following trigger notifications are sent:

| Push-button position | T1 | T2 | S (Switch at auxiliary input) |
|---|---|---|---|
| triggered scene number | 1 | 2 | 1, 2 or 3, depending on the configuration of parameter 6 (page 21) |

The following push-button attributes are used for all scene numbers in trigger notification:

| Push-button position (T1 / T2 / S) pressed | Z-Wave push-button attribute |
|---|---|
| twice | Push-button pressed twice |
| three times | Push-button pressed three times |
| four times | Push-button pressed four times |
| five times | Push-button pressed five times |

## Firmware update

The firmware for the TechniSat off-switch can be updated via the Z-Wave network. For safety reasons, an update must be confirmed manually on the TechniSat off-switch.

Proceed as follows to update the firmware:

1. Observe all instructions and pop-ups on your primary Z-Wave controller.
2. Perform a firmware version query for the Techni Sat off-switch on your primary Z-Wave controller.
3. The LED on the TechniSat off-switch lights up red for about 10 seconds once the firmware version query has been received.
4. Press T1 or T2 while the LED is lit red to confirm the update request.
   The LED now lights up green for about 10 seconds.
5. While the LED is lit green, you can start updating the firmware for the Techni Sat off-switch on your primary Z-Wave controller.

## Technical data

| | |
|---|---|
| Special features | Z-Wave Plus Security S2 Smart Start Overload protection Compatible with multiple German switch system manufacturers*: Merten – M1 series, |
| | Busch-Jaeger – Duro 2000 series, Gira – System 55 series, |
| Power supply | 230 V AC +/- 10 % |

| | |
|---|---|
| Frequency | 50 Hz +/- 10 % |
| Extension input | 230 V AC / ≤ 0.15 mA |
| Output nominal load current | 5 A |
| Output performance Apparent power | 1,150 W<br>1,150 VA |
| Power consumption (with no load) | < 0.4 W |
| Switch element | µ, relay with contact opening width<br>< 3 mm |
| Operating height | < 2,000 m NN |
| IEC protection class | II |
| Protection type (housing) | IP20 |
| Measurement accuracy (performance)<br><br>1 W – 10 W<br>10 W – 50 W<br>> 50 W | ±0.3 W<br>±0.4 W<br>±3 % |
| Status LED | Red = device is logged into the network.<br>Flashing red = overload detected.<br>Green (5 seconds) = device successfully logged in. |
| Z-Wave frequency Transmission capacity | 868.42 MHz 4 dBm |

| | |
|---|---|
| Ambient conditions In operation | Temperature: +5 °C – +35 °C Humidity: 10 % – 75 % RH |
| Ambient conditions Storage & transport: | Temperature: -20 °C – +60 °C Humidity: 5 % – 90 % RH non-condensing |
| Dimensions (W x H x D) | 70 mm x 70 mm x 45 mm |

Depending on the model, see label on page 1.

## Documents / Resources

 **TechniSat 0x00-9499 Smart Flush Mounted Switch** [pdf] Instruction Manual
0x00-9499, Smart Flush Mounted Switch, Flush Mounted Switch, Mounted Switch, 0x00-9499, Switch

## References

- ☺ **konf.tsat.de/?ID=22943**
- ☺ **TechniSat: Please select your area | DE**
- ☺ **TechniSat: Digitale Sat-Technik, TV-Geräte, Radios & Receiver Made in Germany | DE**
- ☺ **TechniSat: Digitale Sat-Technik, TV-Geräte, Radios & Receiver Made in Germany | DE**