



# TECH CONTROLLERS STT-869 Wireless Electric Actuator User Manual

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## WARRANTY CARD

TECH company ensures to the Buyer proper operation of the device for the period of 24 months from the date of sale. The Guarantor undertakes to repair the device free of charge if the defects occurred through the manufacturer's fault. The device should be delivered to its manufacturer. Principles of conduct in the case of a complaint are determined by the Act on specific terms and conditions of consumer sale and amendments of the Civil Code (Journal of Laws of 5 September 2002).

### THE DEVICE IS NOT INTENDED TO BE OPERATED BY CHILDREN.

Activities related to setting and regulation of the controller parameters described in the Instruction Manual and parts wearing out during normal operation, such as fuses, are not covered by warranty repairs. The warranty does not cover damages arising as a result of improper operation or through the user's fault, mechanical damage or damage created as a result of fire, flood, atmospheric discharges, overvoltage or short-circuit. The interference of an unauthorized service, wilful repairs, modifications and construction changes cause the loss of Warranty. TECH controllers have protective seals. Removing a seal results in the loss of Warranty.

The costs of unjustifiable service call to a defect will be borne exclusively by the buyer. The unjustifiable service call is defined as a call to remove damages not resulting from the Guarantor's fault as well as a call considered unjustifiable by the service after diagnosing the device (e.g. damage of the equipment through the fault of the client or not subject to Warranty), or if the device defect occurred for reasons lying beyond the device. In order to execute the rights arising from this Warranty, the user is obliged, at his own cost and risk, deliver the device to the Guarantor along with a correctly filled-in warranty card (containing in particular the sale date, the seller's signature and a description of the defect) and sales proof (receipt, VAT invoice, etc.). The Warranty Card is the only basis for repair free of charge. The complaint repair time is 14 days.

When the Warranty Card is lost or damaged, the manufacturer does not issue a duplicate.

.....  
seller's stamp

.....  
date of sale

## Safety

Before using the device for the first time the user should read the following regulations carefully. Not obeying the instructions included in this manual may lead to personal injuries or controller damage. The user's manual should be stored in a safe place for further reference. In order to avoid accidents and errors it should be ensured that every person using the device has familiarized themselves with the principle of operation as well as security functions of the controller. If the device is to be sold or put in a different place, make sure that the user's manual is there with the device so that any potential user has access to essential information about the device. The manufacturer does not accept responsibility for any injuries or damage resulting from negligence; therefore, users are obliged to take the necessary safety measures listed in this manual to protect their lives and property.

We are committed to protecting the environment. Manufacturing electronic devices imposes an obligation of providing for environmentally safe disposal of used electronic components and devices. Hence, we have been entered into a register kept by the Inspection For Environmental Protection. The crossed-out bin symbol on a product means that the product may not be disposed of to household waste containers. Recycling of wastes helps to protect the environment. The user is obliged to transfer.

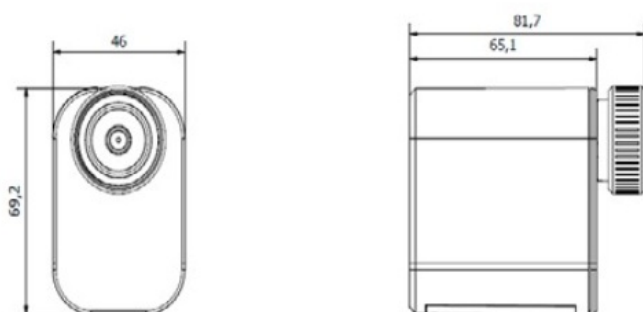
## **WARNING**

- The device should be installed by a qualified electrician.

## **Description**

STT-868 wireless electric actuator allows the user to easily and efficiently manage the temperature in particular heating zones of a building. The system controlling the actuator ensures optimum heating comfort and contributes to significant energy saving. This type of actuator may be used in heating systems. It is compatible with such controllers as EU-L-4, EU-L-8, EU-L-9r, EU-WIFI 8S, etc.

## **Technical data**



Output M30x1,5 nut

Communication wireless

Frequency 868MHz

Power supply 2x AA 1,5V batteries it is advisable to use high volume batteries (over 2500mAh).

## **How to register the actuator**

In order to register the actuator in a given zone, select <Registration> in the main controller (see: instruction manual of the device) and press the communication button. Release it and observe the control light:

- if the green light flashes twice, it indicates successful registration
- if the green light flashes once – press again the communication button on actuator
- if the red light goes on for a while, it indicates registration failure – it is necessary to conduct registration again.

## **Registration in mounting position**

When the actuator is in mounting position, select <Registration> in the main controller (see: instruction manual of the device) and hold the communication button until the control light changes from green to red.

## **Connectivity test**

In order to check the connection with the main controller, press the communication button and hold it until the control light flashes twice. Release the button and observe the control light:

- if the green light flashes twice, it indicates successful communication
- if the red light goes on for a while, there is no connection with the main controller.

Connectivity test enables the user to identify the controller and the zone in which a given actuator is registered. The main controller displays appropriate message.

## How to reset the actuator

In order to reset the actuator, press the communication button and hold it until the control light flashes three times. After releasing the button, actuator will move to 100% open position and initiate calibration. Actuator registration after this step is not necessary.

## How to install the actuator

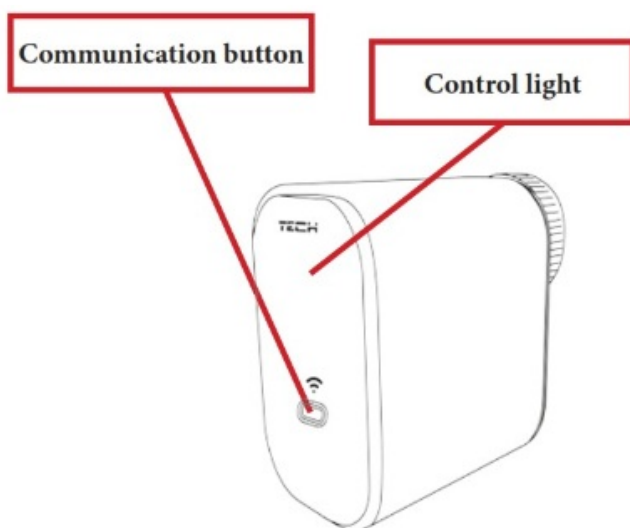
Follow these steps while installing the device:

1. Insert the batteries. The actuator moves into mounting position making it easier for the user to screw it. Once the actuator is in mounting position, the control light flashes green. The actuator remains in mounting position for 2 minutes.

### NOTE

2. Depending on settings, it may take the actuator even 1,5 minutes to get into the mounting position.
3. Screw the actuator to the radiator. Actuator calibration is initiated after pressing the button or automatically after 2 minutes.

## How to replace batteries



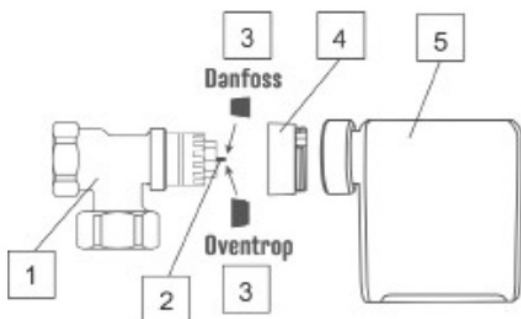
1. Remove the cover
2. Remove the batteries
3. Press the communication button in order to release the residual electricity

4. Insert new batteries

#### **NOTE**

Always use two new batteries of the same brand.

### **Installation with Danfoss or Oventrop valve**



1. Danfoss RAN (click) or RTD-N valve or Oventrop
2. Valve pressure pin
3. Pressure pin cap Danfoss or Oventrop
4. Danfoss RAN (click) or RTD-N adapter (only for the valve Danfoss)
5. STT-869 actuator

It is necessary to put the cap on the valve pressure pin if we want ST-869 and Danfoss or Oventrop valve to work properly.

### **Main controller alarms connected with actuator operation**

If the main controller supporting STT-869 actuator informs about one of the following alarms, follow the steps described in the table below:

Type of alarm	Possible cause	How to fix it
Error #1 – Calibration error 1 – Moving the screw to the mounting position took too much time	– The limit switch sensor is damaged	– Calibrate actuator again by holding the communication button until the third flash of green light – Call the service staff
Error #2 – Calibration error 2 – The screw is maximally pulled out. No resistance while pulling out	– The actuator has not been screwed to the valve or has not been screwed completely – The valve stroke is too big or the valve dimensions are not typical – Actuator current sensor is damaged	– Check if the controller has been installed properly – Replace the batteries – Calibrate actuator again by holding the communication button until the third flash of green light – Call the service staff
Error #3 – Calibration error 3 – The screw has not been pulled out enough – the screw meets resistance too early	– The valve stroke is too small or the valve dimensions are not typical – Actuator current sensor is damaged – Low battery level	– Replace the batteries – Call the service staff
Error #4 – No feedback	– The master controller is switched off – Poor range or no range in the master controller – Radio module in the actuator is damaged	– Check if the master controller is on – Reduce the distance from the master controller – Call the service staff
Error #5 – Low battery level	– The battery is flat	– Replace the batteries
Error #6 – Encoder is locked	– The encoder is damaged	– Calibrate actuator again by holding the communication button until the third flash of green light – Call the service staff
Error #7 – Too high voltage	– Unevenness of the screw, the thread etc. may cause excessive resistance – Too high resistance of gear or motor – Current sensor is damaged	
Error #8 – Limit switch sensor error	– Limit switch sensor damaged	

## EU DECLARATION OF CONFORMITY

Hereby, we declare under our sole responsibility that STT-869 manufactured by TECH, headquartered in Wipers Biala Druga 31, 34-122 Wipers, is compliant with:

- Directive 2014/53/EU of the European parliament and of the Council of 16 April 2014. on the harmonization of the laws of the Member States relating to the making available on the market of radio equipment;
- Directive 2009/125/EC establishing a framework for the setting of eco-design requirements for energy-related

products;

- the regulation by the Ministry of Economy of May 8, 2013 'concerning the essential requirements as regards the restriction of the use of certain hazardous substances in electrical and electronic equipment', implementing provisions of ROHS directive 2011/65/EU.

For compliance assessment, harmonized standards were used: PN-EN IEC 60730-2-9 :2019-06 art. 3.1a Safety of use ETSI EN 301 489-1 V2.2.3 (2019-11) art.3.1b Electromagnetic compatibility  
ETSI EN 301 489-3 V2.1.1:2019-03 art.3.1 b Electromagnetic compatibility  
ETSI EN 300 220-2 V3.2.1 (2018-06) art.3.2 Effective and coherent use of radio spectrum  
ETSI EN 300 220-1 V3.1.1 (2017-02) art.3.2 Effective and coherent use of radio spectrum

Wiper, 30.05.2022

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## Documents / Resources



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STT-869 Wireless Electric Actuator, STT-869, Wireless Electric Actuator, Electric Actuator, Actuator

## References

- [User Manual](#)

[Manuals+.](#) [Privacy Policy](#)

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