TECH CONTROLLERS Sterowniki Two State with Traditional Communication User Manual

TECH CONTROLLERS

Sterowniki Two State with Traditional Communication

User Manual

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Safety

Before using the device for the first time the user should read the following regulations carefully. Not obeying the rules 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.

 **WARNING**

- High voltage! Make sure the regulator is disconnected from the mains before performing any activities involving the power supply (plugging cables, installing the device etc.)
- The device should be installed by a qualified electrician.
- Before starting the controller, the user shoud measure earthing resistance of the electric motors as well as the insulation resistance of the cables.
- The regulator should not be operated by children.

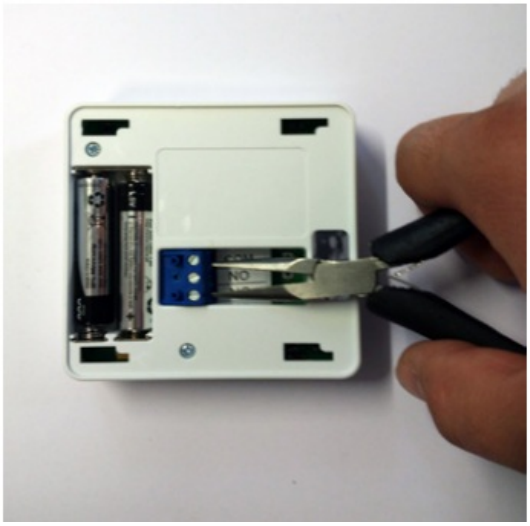
Description

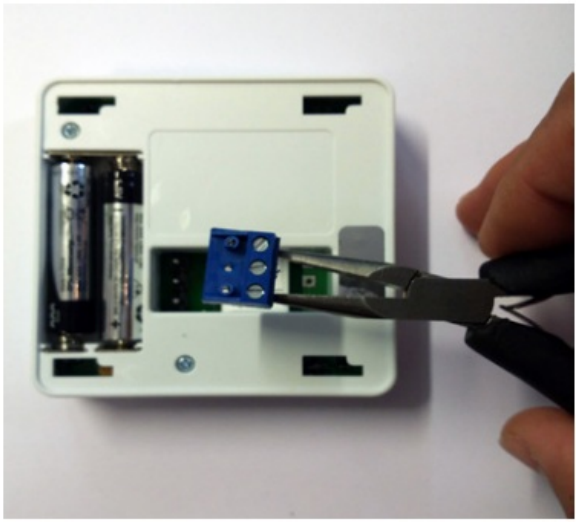
EU-294 room regulator is intended for controlling the heating or cooling device (e.g. gas, oil or electric furnace or the CH boiler controller).
Its main task is to maintain the pre-set temperature in the flat by sending a signal to the heating/cooling device (contact opening) when the desired temperature is reached.
EU-294 v1 has a built-in voltage-free contact and it communicates with the heating device via a wire. EU-294 v2 uses radio signal to send the open/close request to EU-290 M1 module which is connected to the heating device.

Installation

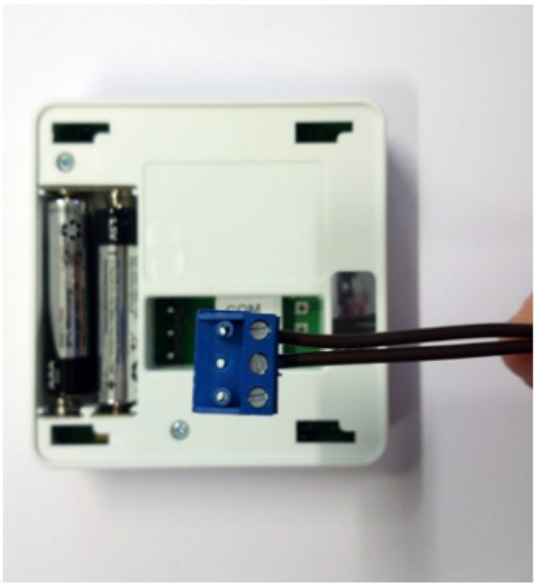
The controller should be installed by a qualified person.
WARNING
Risk of fatal electric shock from touching live connections. Before working on the controller switch off the power supply and prevent it from being accidentally switched on.
WARNING
Incorrect connection of the wires may damage the controller!

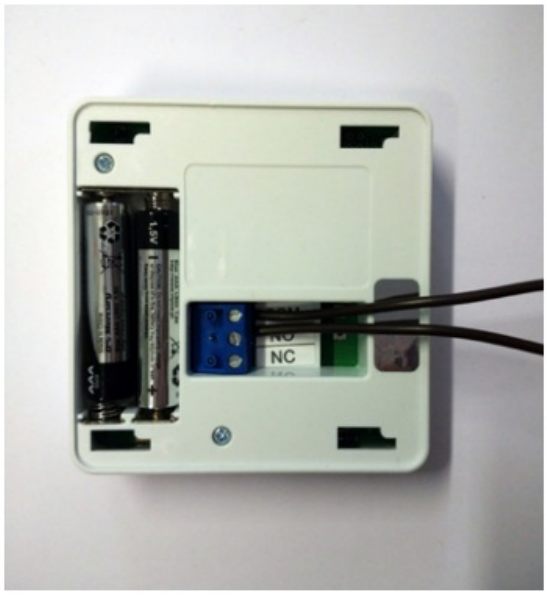
Remove the mounting base. Take out the terminal block:



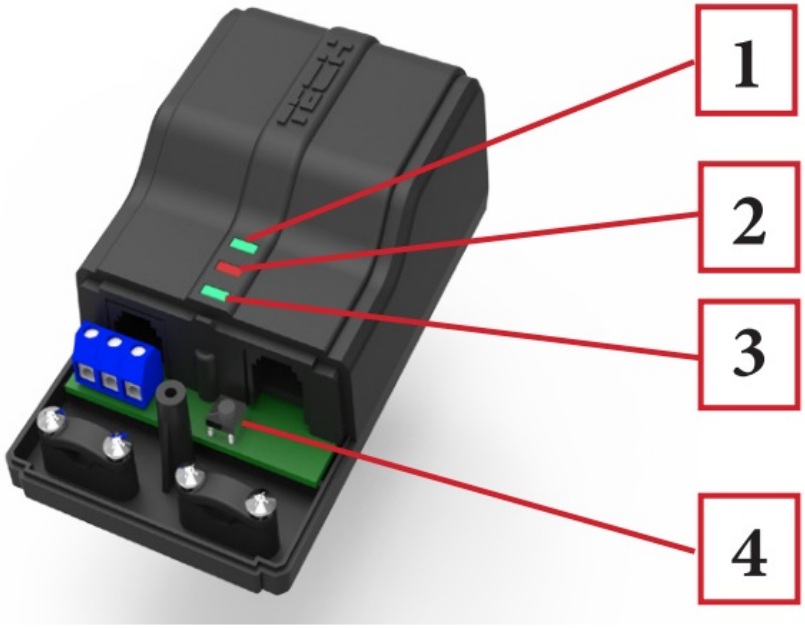


Connect the wire to the terminal block. Insert the terminal block into the regulator.





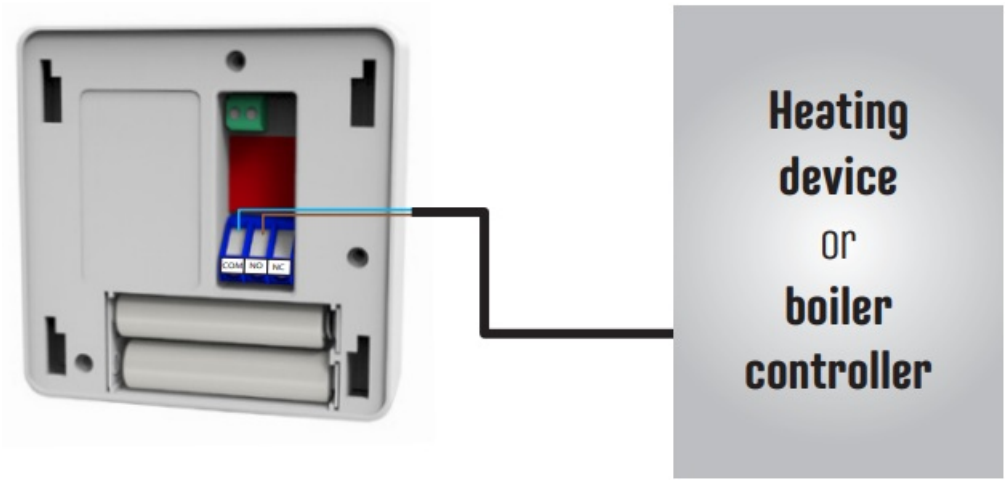
EU-294v2 room regulator is sold in a set including M1 wireless module:



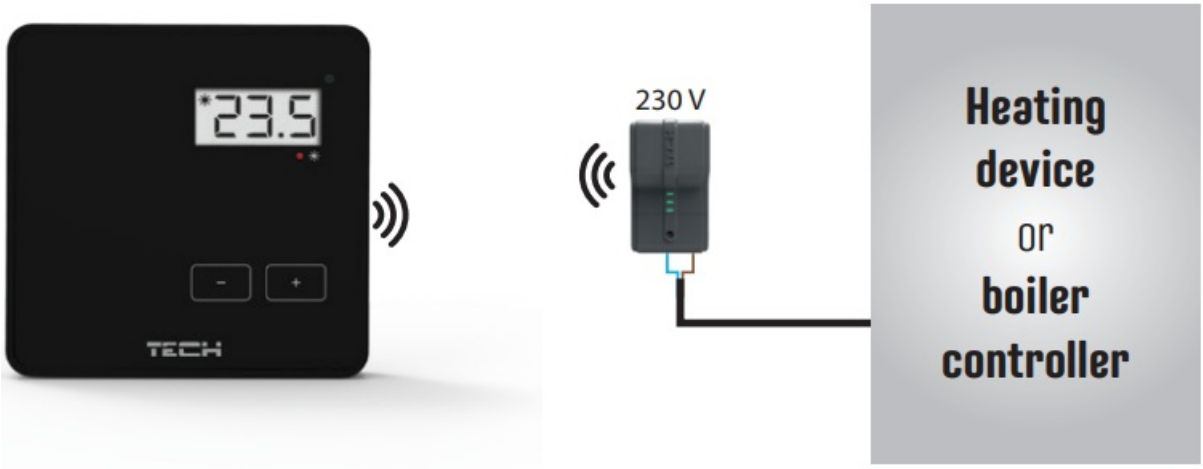
1. Green control light 1 – indicates data reception, goes on during channel change;

2. Red control light – indicates receiver operation;
3. Green control light 2 – goes on when the room temperature fails to reach the pre-set temperature – the heating device is switched on.
4. Channel change button

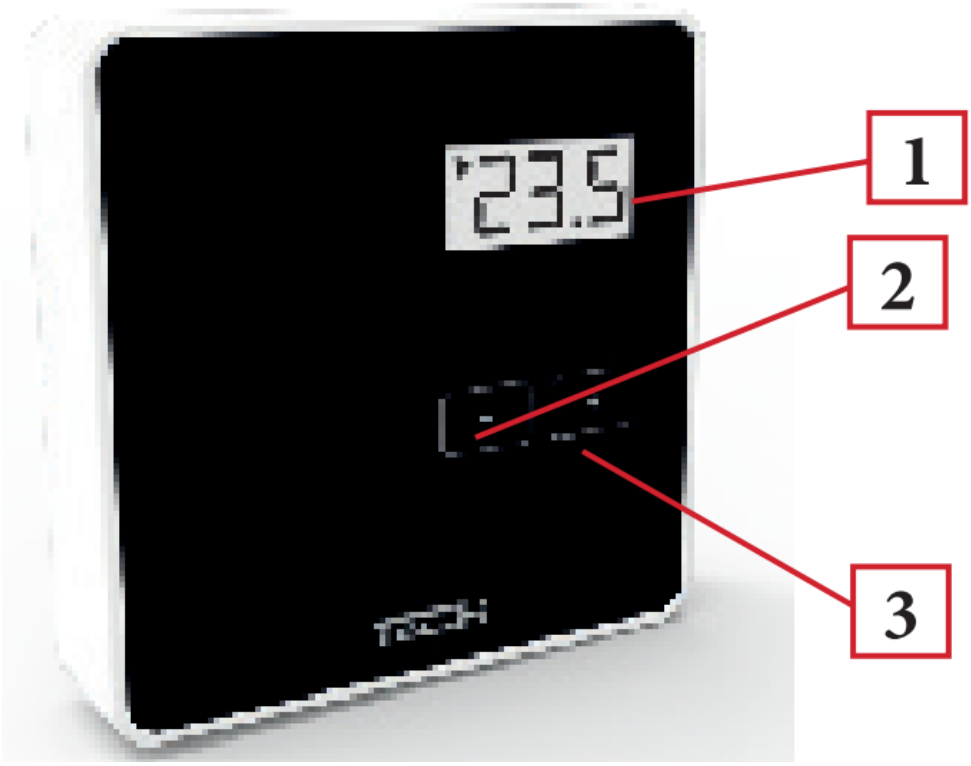
Controller EU-294v1:



Controller EU-294v2:



How to use the controller



1. Display
2. PLUS button
3. MINUS button

How to change communication channel

It is necessary to select the same communication channel in the room regulator and EU-290 M1 wireless module. Channel “35” is the default communication channel in both devices. It may be easily changed (if the current channel is used by other devices). To change the channel, follow these steps:
STEP 1
Press and hold the channel change button on EU-290 M1 wireless module (found under the cover) until the green control light 1 goes on.
STEP 2
Press the channel change button on the room regulator (found on the back side of the regulator).
STEP 3
Use PLUS and MINUS button to select desired communication channel.
When the number stops flashing (about 3 seconds after the last change), the change has been confirmed. The green control light in EU-290 M1 should go off indicating that the channel change process has been successful

Description of the functions available in the menu:
To enter the controller menu, press and hold PLUS and MINUS buttons.
These buttons can be used to switch between menu options.

1.  **Select operation mode**

   ‚OUT’ function enables the user to choose the regulator operation mode between heating (‚HEA’) and cooling (‚Coo’). After selecting the ‚OUT’ function, the screen flashes for 3 seconds and then shows the operation modes available: (Coo, HEA). Use PLUS or MINUS to select the mode. Wait 3 seconds to confirm. Next, the display shows a temperature setting screen, enabling the user to adjust the temperature using PLUS and MINUS buttons. Wait 3 seconds to confirm.

NOTE

This option is available only in the case of the ST-294v1 regulator.

2.  **T1/T2 Min/max parameters of pre-set temperature**

This function enables the user to set the minimum T1 and the maximum T2 value of the pre-set temperature. After selecting this function, the screen flashes for 3 seconds. Use PLUS and MINUS buttons to select desired value. It will be confirmed automatically after 3 seconds.

3.  **Auto-lock**

‚Loc' function enables the user to activate the key lock. After selecting this function, the screen flashes for 3 seconds. Next, the user is asked if they want to activate the key lock (yes/no). Select the answer using PLUS and MINUS button. Wait 2 seconds to confirm. When the lock is active, the keys are locked after 10 seconds of inactivity. To unlock, press and hold PLUS and MINUS buttons. ‚Ulc' message informs that the keys have been unlocked.

4.  **Software version**

This option enables the user to view current software version.

5.  **Factory settings**

‚Def' function enables the user to restore factory settings. After selecting this function, the screen flashes for 3 seconds. Next, the user is asked if they want to restore factory settings (yes/no). Select the answer using PLUS and MINUS button. Wait 3 seconds to confirm.

6.  **Exit the menu**

After selecting ‚Ret' option, the screen flashes for 2 seconds and exits the menu.

7.  **Hysteresis**

Hysteresis defines the pre-set temperature tolerance in order to prevent undesired oscillation in case of small temperature fluctuation within the range of 0,2 ÷ 4°C.

Example:

Pre-set temperature: 23°C Hysteresis: 1°C

The room temperature is considered too low when it drops to 22°C.

In order to define the hysteresis value, press PLUS and MINUS simultaneously and hold it for about 1 minute. Use the buttons to set desired value. When the temperature stops flashing (about 3 seconds after the last change), the change has been confirmed.

8.  **Battery**

‚Bat' function enables the user to monitor the battery level (%). After selecting this option, the screen flashes for 3 seconds. Next, it displays the battery level given in percent.

9.  Calibration

‚Cal' function enables the user to calibrate the sensor within the range of -10°C to +10°C. After selecting this option, the screen flashes for 3 seconds. Next, it displays calibration setting. Use PLUS and MINUS to edit the

value.

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). CAUTION! THE TEMPERATURE SENSOR CANNOT BE IMMERSED IN ANY LIQUID (OIL ETC). THIS MAY RESULT IN DAMAGING THE CONTROLLER AND LOSS OF WARRANTY! THE ACCEPTABLE RELATIVE HUMIDITY OF THE CONTROLLER'S ENVIRONMENT IS 5÷85% REL.H. WITHOUT THE STEAM CONDENSATION EFFECT. 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.

Technical data

Room temperature adjustment range……..50C-350C
Power supply……batteries 2xAAA 1,5V
Potential-free cont. nom. out. load (EU-294v1)…….. 230V AC / 0,5A (AC1) * 24V DC / 0,5A (DC1) **
Measurement error……+/-0,50C
Frequency (EU-294v2)……..868MHz

Declaration of conformity

Hereby, we declare under our sole responsibility that EU-294 v1 manufactured by TECH STEROWNIKI, head-quartered in Wieprz Biała Droga 31, 34-122 Wieprz, is compliant with Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits (EU OJ L 96, of 29.03.2014, p. 357), Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of Member States relating to electromagnetic compatibility (EU OJ L 96 of 29.03.2014, p.79), Directive 2009/125/EC establishing a framework for the setting of ecodesign requirements for energy-related products as well as the regulation by the MINISTRY OF ENTREPRENEURSHIP AND TECHNOLOGY of 24 June 2019 amending the regulation concerning the essential requirements as regards the restriction of the use of certain hazardous substances in electrical and electronic equipment, implementing provisions of Directive (EU) 2017/2102 of the European Parliament and of the Council of 15 November 2017 amending Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (OJ L 305, 21.11.2017, p. 8).

For compliance assessment, harmonized standards were used:
PN-EN IEC 60730-2-9:2019-06, PN-EN 60730-1:2016-10.

Paweł Jura Janusz Master

Prezesi firmy

Wieprz, 08.04.2020

Radio module specifications EU-294v2

Power supply…….230V/+/-10%/50Hz
Operation temperature……..50C-500C
Frequency……868MHz
Potential-free cont. nom. out. load…….. 230V AC / 0,5A (AC1) * 24V DC / 0,5A (DC1) **
* AC1 load category: single-phase, resistive or slightly inductive AC load.
** DC1 load category: direct current, resistive or slightly inductive load.

Declaration of conformity

Hereby, we declare under our sole responsibility that EU-294 v2 manufactured by TECH STEROWNIKI, head-quartered in Wieprz Biała Droga 31, 34-122 Wieprz, is compliant with Directive 2014/53/EU of the European parliament and of the Council of 16 April 2014 on the harmonisation 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 ecodesign requirements for energy-related products as well as the regulation by the MINISTRY OF ENTREPRENEURSHIP AND TECHNOLOGY of 24 June 2019 amending the regulation concerning the essential requirements as regards the restriction of the use of certain hazardous substances in electrical and electronic equipment, implementing provisions of Directive (EU) 2017/2102 of the European Parliament and of the Council of 15 November 2017 amending Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (OJ L 305, 21.11.2017, p. 8).

For compliance assessment, harmonized standards were used:
PN-EN IEC 60730-2-9 :2019-06 art. 3.1a Safety of use
PN-EN 62479:2011 art. 3.1 a 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

Paweł Jura Janusz Master

Prezesi firmy

Wieprz, 08.04.2020

WARNING

- The device may be damaged if struck by a lightning. Make sure the plug is disconnected from the power supply during storm.
- Any use other than specified by the manufacturer is forbidden.
- Before and during the heating season, the controller should be checked for condition of its cables. The user

should also check if the controller is properly mounted and clean it if dusty or dirty.

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 their used equipment to a collection point where all electric and electronic components will be recycled.

Documents / Resources

	TECH CONTROLLERS Sterowniki Two State with Traditional Communication [pdf] User Manual Sterowniki Two State with Traditional Communication, Sterowniki Traditional Communication, Two State with Traditional Communication, Traditional Communication, Communication