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> CONTROLLERS

## EN-13 **USER'S MANUAL**

# CONTROLLERS

### 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

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.

date of sale

### 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.

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.

- 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.



### WARNING

- 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.



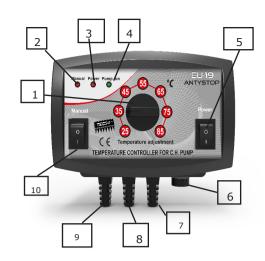
**Description EU-19** antystop is intended for controlling the central heating pump (CH). The pre-set temperature is defined using a potentiometer. The main task of the controller is to activate the pump when the pre-set temperature value is reached and deactivate it when the CH boiler temperature drops by 20 C below the pre-set value. Such characteristics prevent unnecessary pump operation, which saves electricity, extends the life of the pump and enhances its reliability. ST-19 controller also has an additional feature – ANTI-STOP, which prevents CH pump stagnation outside the heating season ( the pump is activated every 10 days for 1 minute).

Controller functions:
• controlling CH pump

- anti-stop

Controller equipment:

- CH temperature sensor
- Potentiometer for setting the desired temperature



Principle of operation

**EU-19** antystop is intended for controlling the central heating pump (CH). The main task of the controller is to activate the pump when the pre-set temperature value is exceeded and deactivate it when the CH boiler cools down (due to damping). Such characteristics prevent unnecessary pump operation, which saves electricity (up to 60% depending on the CH boiler

use), extends the life of the pump. It also enhances its reliability and reduces the maintenance costs.

ST-19 controller offers anti-stop function which prevents CH pump stagnation. The pump is activated every 10 days for 1 minute. Additionally, every hour the time data is saved in non-volatile memory (FEPROM), which ensures that the timing is continued even in the event. (EEPROM), which ensures that the timing is continued even in the event of voltage failure.

How to configure parameters

Pump activation temperature is adjusted using the potentiometer within the range of 25°C - 85°C. The pump is disabled when the actual temperature drops by 2°C below the pre-set value (set up using the potentiometer). It prevents periodical pump switching due to slight temperature fluctuation as it would have a negative impact on the life

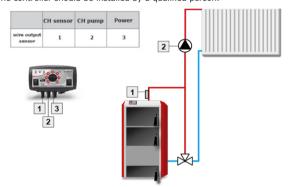
temperature fluctuation as it would have a negative impact on the pump.

Apart from the potentiometer, the regulator also has two switches - one for activating the device (indicated by the power supply light) and the other for manual pump activation (indicated by the manual operation

- 1.Potentiometer
- Control light indicating manual operation
   Control light indicating power supply
   Control light indicating pump operation
- 5.Power supply switch 6.Fuse 1,6A 7.Power cord 8.CH pump output

- 9. Temperature sensor
- 10. Manual operation switch

### Installation & How to use the device



The sensor should be installed on the CH boiler output with the use of a cable tie and protected from the influence of external factors with the use of an insulating tape (it cannot be dipped in any liquid).

The pump power cord should be connected in the following way: blue and brown:230V, yellow-green (protective) should be earthed. The distance between the mounting holes is 110mm

### **EU Declaration of conformity**

Hereby, we declare under our sole responsibility that **EU-19** manufactured by TECH STEROWNIKI II Sp. z o.o., 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 O) 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 O) 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 (OI 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, PN EN IEC 63000:2019-01 ROHS

Wieprz, 21.11.2023

Mark Fark Bur fre Pawel Jura Janusz Master Prezesi firmy

### **TECHNICAL DATA**

NO	SPECIFICATION	
1.	Power supply	230V ±10% /50Hz
2.	Maximum power consumption	2W
3.	Ambient temperature	5÷50
4.	Pump max. output load	0,5A
5.	Temperature measurement accuracy	1°C
6.	Sensor thermal resistance	-30÷99°C
7.	Fuse	1,6A