

USER'S MANUAL

UWT SERIES



**CONTROL UNIT FOR AOW SERIES AIR HEATING
(COOLING) UNITS WITH WATER HEAT EXCHANGERS**

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This user's manual consisting of the technical details, operating instructions and technical specification covers the installation and mounting of the control unit for AOW series air heating (cooling) units with water heat exchangers (hereinafter «control unit» or «unit» as mentioned in the «Safety requirements» and «Manufacturer's warranty» sections as well as in warnings and information blocks).

■ SAFETY REQUIREMENTS

- Read the user's manual carefully prior to installing and operating the unit.
- Fulfil the user's manual requirements as well as the provisions of all the applicable local and national construction, electrical and technical norms and standards.
- The warnings contained in the user's manual must be considered most seriously since they contain vital personal safety information.
- Failure to follow the rules and safety precautions noted in this user's manual may result in an injury or unit damage.
- After a careful reading of the manual, keep it for the entire service life of the unit.
- While transferring the unit control the user's manual must be turned over to the receiving operator.

Symbol legend:

	WARNING!
	DO NOT!

UNIT MOUNTING AND OPERATION SAFETY PRECAUTIONS



- Disconnect the unit from power mains prior to any installation operations.



- The unit must be grounded!



- Do not lay the power cable of the unit in close proximity to heating equipment.



- While installing the unit follow the safety regulations specific to the use of electric tools.



- Do not change the power cable length at your own discretion.
- Do not bend the power cable.
- Avoid damaging the power cable.
- Do not put foreign objects on the power cable.



- Do not operate the unit outside the temperature range stated in the user's manual.
- Do not operate the unit in aggressive or explosive environments.



- Do not use damaged equipment or cables when connecting the unit to power mains.



- Unpack the unit with care.



- Do not touch the unit controls with wet hands.
- Do not carry out the installation and maintenance operations with wet hands.



- Do not wash the unit with water.
- Protect the electric parts of the unit against ingress of water.



- Do not allow children to operate the unit.



- Disconnect the unit from power mains prior to any technical maintenance.



- Do not store any explosive or highly flammable substances in close proximity to the unit.



- When the unit generates unusual sounds, odour or emits smoke disconnect it from power supply and contact the Seller.



- Do not open the unit during operation.



- Do not direct the air flow produced by the unit towards open flame or ignition sources.



- Do not block the air duct when the unit is switched on.



- In case of continuous operation of the unit periodically check the security of mounting.



- Do not sit on the unit and avoid placing foreign objects on it.



- Use the unit only for its intended purpose.

■ PURPOSE

The UWT control unit is used for controlling AOW series air heating (cooling) units with water heat exchangers.

■ DELIVERY SET

- | | |
|-----------------|--------|
| ■ Control unit | 1 item |
| ■ User's manual | 1 item |
| ■ Packing | 1 item |

■ DESIGNATION KEY

UWT - XE

Name

UWT - control unit with a water heat exchanger

Automatic equipment options

1, 2, 3

Phases

E - single-phase

■ TECHNICAL DATA

- Supply voltage: 230 V / 50 Hz
- Rated voltage supplied to fan motor

Speed	Alternating current output voltage [V]
High - H	230
Medium -M	160
Low - L	110

- | | |
|--|---------------------------|
| ■ Maximum current of connected fan motor | 2A |
| ■ Cable cross section: | 0,5 - 2,5 mm ² |
| ■ Operating medium temperature: | +5...+40 °C |
| ■ Protection rating: | IP44 |
| ■ Weight | 2,1 kg |

UNIT DESIGN AND OPERATING LOGIC

The control unit is housed in a metal casing. The side panel of the unit has a switch with the built-in operation light 1 (see Fig. 1). The power switch is used to switch the unit on and off. Sealed lead-ins 2 provide cable access into the control unit casing. The cables are connected by means of bolt-down terminals 3. The control unit is equipped with a thermal fuse 4 which protects the device from damage in the event of a short circuit.

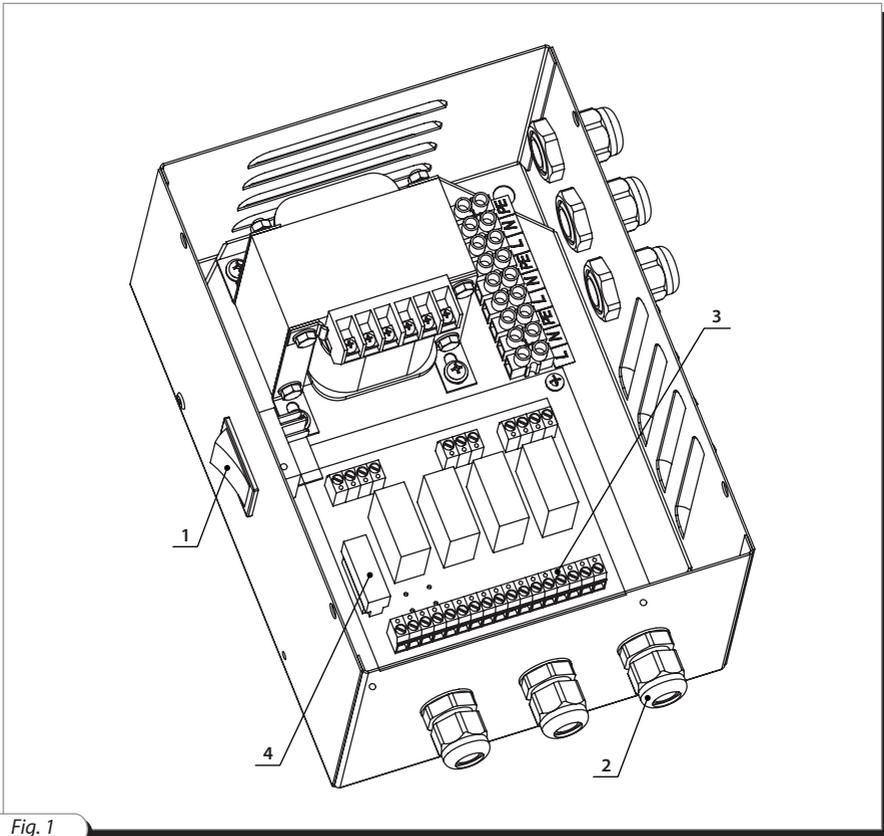


Fig. 1

The control unit is operated in conjunction with a room thermostat (to be ordered separately).

TST (TSTD) room thermostat with a sensor display

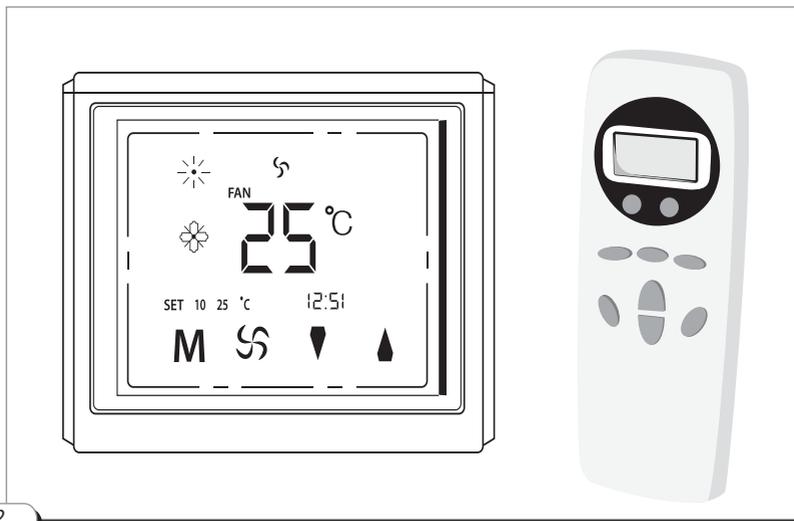
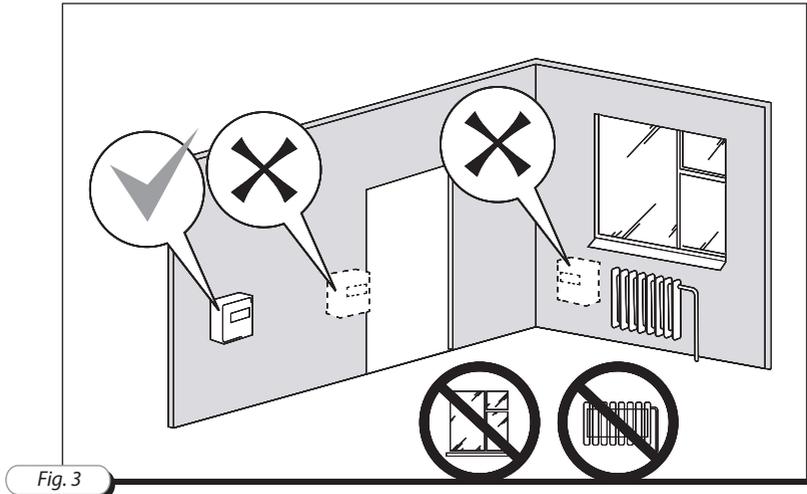
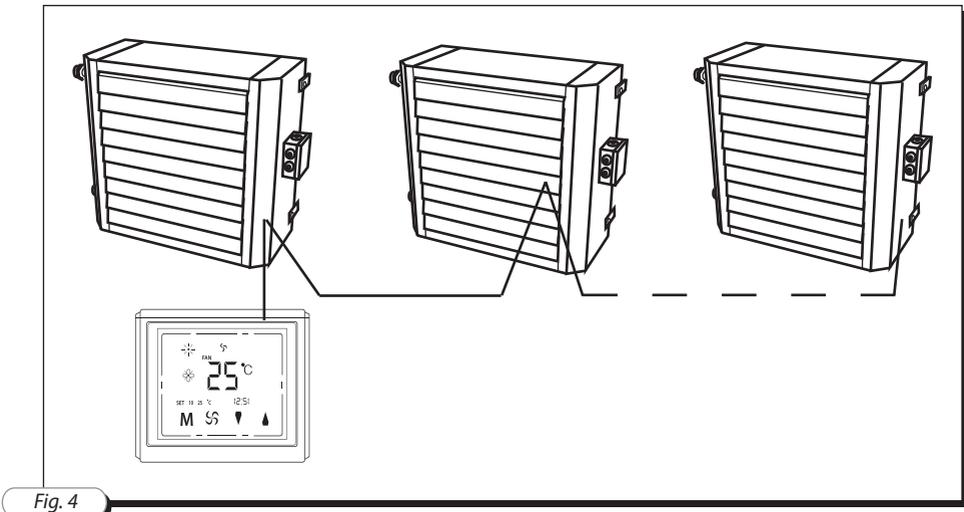


Fig. 2

To enable measuring the temperature on the premises as required to set the air heating (cooling) unit operation mode the room thermostat must be installed in the same space with the air heating (cooling) unit. To ensure correct operation of the warm air heating (cooling) unit the thermostat installation location must be protected from the effects of temperature resulting from open windows and doors, convection of air with varying temperature levels etc.



A group of several air heating (cooling) units may share the same thermostat unit provided that they are installed in the same space as the thermostat. In this case the heaters (coolers) must be connected as shown in Fig. 4 and Fig. 6 (option B). One thermostat can control an unlimited number of heaters (coolers).



■ MOUNTING AND SET-UP



DO NOT! DO NOT CONNECT THE UNIT TO ELECTRIC MOTORS WITH CONSUMPTION CURRENT RATING EXCEEDING THE MAXIMUM LOAD CURRENT OF THE CONTROLLER. DO NOT! DO NOT CONNECT THE OUTPUT TERMINALS OF THE UNIT TO POWER MAINS.

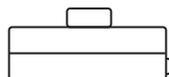
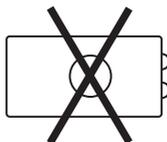


AFTER TRANSPORTATION OR STORAGE UNDER BELOW ZERO TEMPERATURES KEEP THE CONTROL UNIT AT ROOM TEMPERATURE FOR AT LEAST 4 HOURS BEFORE CONNECTING IT TO THE POWER MAINS.

- Inspect the unit visually for any damage to the casing.
- Open the unit front panel (see Fig. 5).
- Attach the control unit to the mounting surface with self-tapping screws and mounting holes 1 (see Fig. 5).



THE CONTROL UNIT IS INTENDED TO OPERATE IN A VERTICAL POSITION.



- Complete the electrical connections according to the Wiring diagram (see Fig. 6). Connect the external electric cables to the control unit by means of bolt-down terminals 3 (see Fig. 5). Route the cables into the unit casing through sealed lead-ins 2 (see Fig. 5).
- Apply the supply voltage to the unit and start it up.

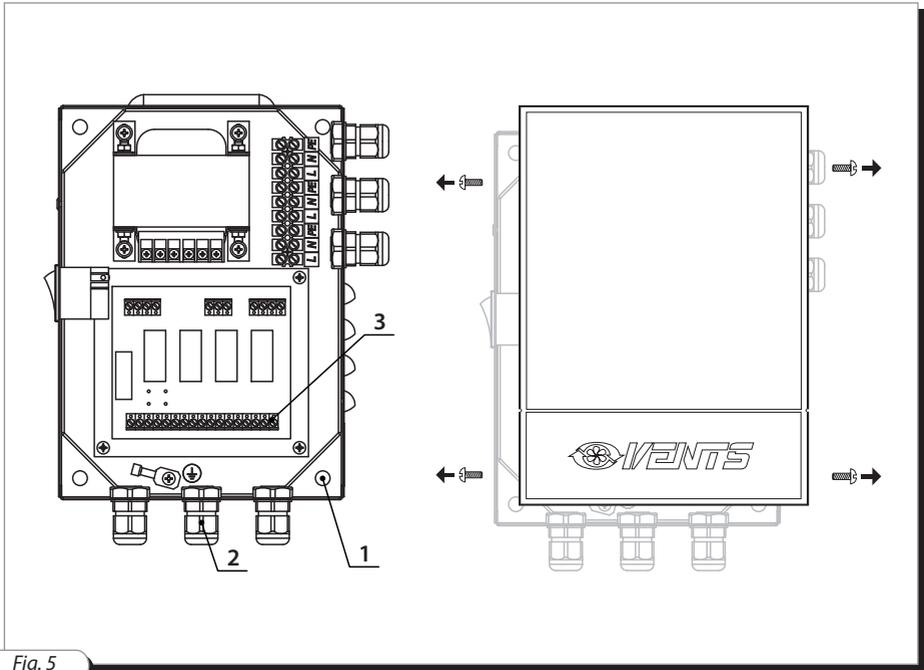


Fig. 5

■ CONNECTION TO POWER MAINS

One UWT series control unit is capable of controlling more than one AOW air heating (cooling) unit. The number of heaters (coolers) connected additionally depends on the power output of the main unit motor.

The motors of the heaters (coolers) must be connected to terminal block X2 according to the Wiring diagram (see Fig. 6).

The table gives the maximum number of motors additionally connected to the main one depending on its type:

Additionally connected units	Main unit		
	AOW 25	AOW 30	AOW 45
AOW 25	2	1	1
AOW 30	1	1	0
AOW 45	1	0	0



ALL THE CONNECTIONS (INCLUDING THE ROOM THERMOSTAT) REQUIRE INSULATED WIRES RATED FOR THE VOLTAGE UP TO 250 V.

■ TECHNICAL MAINTENANCE

Clean the air vents of the control unit from time to time to prevent accumulation of dust, filaments etc. Make sure that the external electrical leads are securely attached to the screwed terminals of the unit.

■ STORAGE AND TRANSPORTATION REGULATIONS

Store the unit in the manufacturer's original packing box in a dry closed ventilated premise with temperature range from +5 °C to +40 °C.

Storage environment must not contain aggressive vapours and chemical mixtures provoking corrosion, insulation and sealing deformation.

Use suitable hoist machinery for handling and storage operations to prevent possible damage to the unit.

Follow the handling requirements applicable for the particular type of cargo.

The unit can be carried in the original packing by any mode of transport provided proper protection against precipitation and mechanical damage.

Avoid sharp blows, scratches or rough handling during loading and unloading.

■ MANUFACTURER'S WARRANTY

The manufacturer hereby warrants normal operation of the unit for 24 months after the retail sale date provided the user's observance of the transportation, storage, mounting and operation regulations.

Should any malfunctions occur in the course of the unit operation through the Manufacturer's fault during the guaranteed period of operation the user is entitled to elimination of faults by the manufacturer by means of warranty repair at the factory free of charge.

The warranty repair shall include work specific to elimination of faults in the unit operation to ensure its intended use by the user within the guaranteed period of operation. The faults are eliminated by means of replacement or repair of the unit components or a specific part of such unit component.

The warranty repair does not include:

- routine technical maintenance
- unit installation / dismantling
- unit setup

To benefit from warranty repair the user must provide the unit, the user's manual with the purchase date stamp and the payment document certifying the purchase.

The unit model must comply with the one stated in the user's manual.

Contact the Seller for warranty service.

The manufacturer's warranty does not apply to the following cases:

- User's failure to submit the unit with the entire delivery package as stated in the user's manual including submission with missing component parts previously dismantled by the user.
- Mismatch of the unit model and the brand name with the information stated on the unit packing and in the user's manual.
- User's failure to ensure timely technical maintenance of the unit.
- External damage to the unit casing (excluding external modifications as required for installation) and internal components caused by the user.
- Redesign or engineering changes to the unit.
- Replacement and use of any assemblies, parts and components not approved by the manufacturer.
- Unit misuse.
- User's violation of the unit installation regulations.
- User's violation of the unit control regulations.
- Unit connection to the power mains with a voltage different from the one stated in the user's manual.
- Unit breakdown due to voltage surges in the power mains.
- Discretionary repair of the unit by the user.
- Unit repair by any persons without the manufacturer's authorization.
- Expiration of the unit warranty period.
- User's violation of the unit transportation regulations.
- User's violation of the unit storage regulations.
- Wrongful actions against the unit committed by third parties.
- Unit breakdown due to circumstances of insuperable force (fire, flood, earthquake, war, hostilities of any kind, blockades).
- Missing seals if provided by the user's manual.
- Failure to submit the user's manual with the unit purchase date stamp.
- Missing payment document certifying the unit purchase.



FOLLOWING THE REGULATIONS STIPULATED HEREIN WILL ENSURE A LONG AND TROUBLE-FREE OPERATION OF THE UNIT.



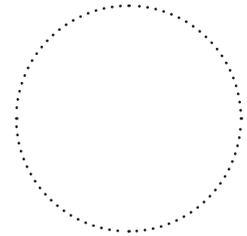
USERS' CLAIMS SHALL BE A SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP.

■ ACCEPTANCE CERTIFICATE

Unit Type	Control unit for VENTS AOW series air heating (cooling) units with water heat exchangers
Model	UWT _____
Serial Number	
Manufacture Date	
We hereby declare that the product complies with the essential protection requirements of Electromagnetic Council Directive 2004/108/EC, 89/336/EEC and Low Voltage Directive 2006/95/EC, 73/23/EEC and CE-marking Directive 93/68/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. This certificate is issued following test carried out on samples of the product referred to above.	
Quality Inspector's Stamp	

■ SELLER INFORMATION

Seller	
Address	
Phone Number	
E-mail	
Purchase Date	



Seller's Stamp

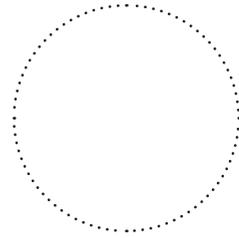
This is to certify acceptance of the complete control unit delivery with the user's manual. The warranty terms are acknowledged and accepted.

Customer's Signature	
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■ INSTALLATION CERTIFICATE

UWT ___ control unit has been connected to power mains pursuant to the requirements stated in the present user's manual.

Company Name	
Address	
Phone Number	
Installation Technician's Full Name	
Installation Date:	Signature:



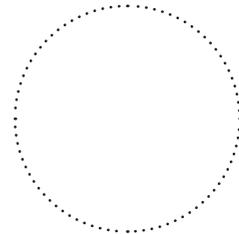
Installation Technician's
Company Seal

The control unit has been installed in accordance with the provisions of all the applicable local and national construction, electrical and technical codes and standards. The control unit operates normally as intended by the manufacturer.

Signature:

■ WARRANTY CARD

Unit Type	Control unit for VENTS AOW series warm air heating (cooling) units with water heat exchangers
Model	UWT _____
Serial Number	
Manufacture Date	
Purchase Date	
Warranty Period	
Seller	



Seller's Stamp

