

USER'S MANUAL

CONTROL UNIT FOR AIR HEATING (COOLING) UNIT WITH WATER HEAT EXCHANGER

UWT SERIES



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USE

The control unit, hereinafter the unit, is used for controlling the air heating (cooling) units with water heat exchangers.

DELIVERY SET

Control Unit	- 1 item
Operation Manual	- 1 item
Box	- 1 item

TECHNICAL DATA

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

Speed	Output voltage, [V] alternating current
High, H	230
Medium, M	160
Low, L	110

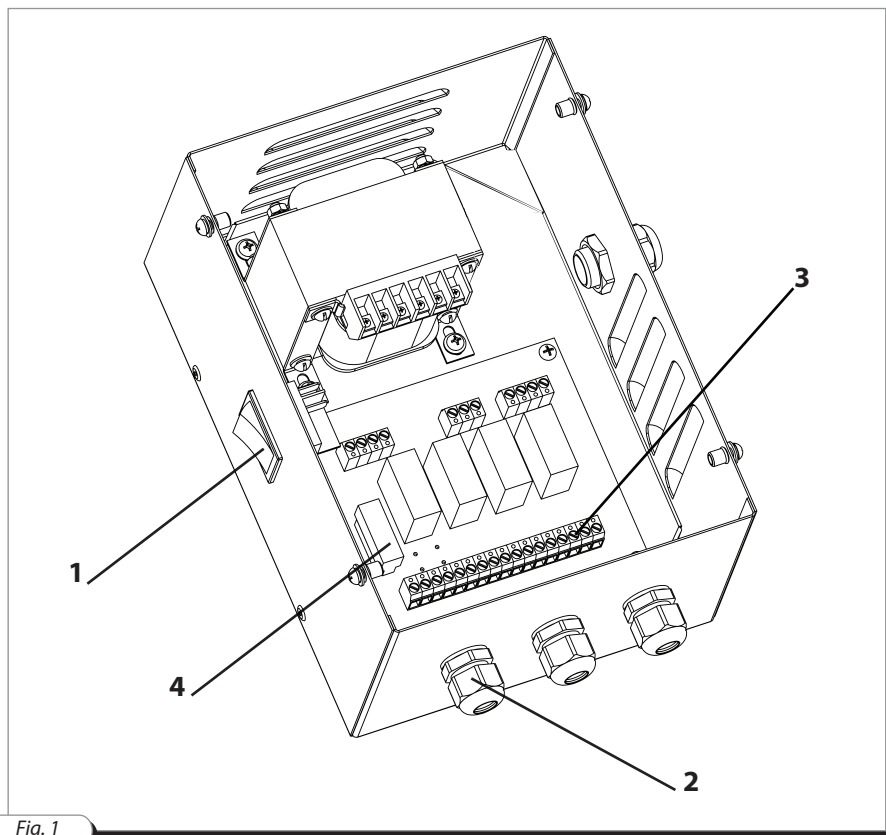
- Maximum current of connected fan motor: 2 A
- External output - screw terminal block: 0.5-2.5 mm²
- Operating medium temperature: +5...+40 °C
- Protection rating: IP44
- Weight: 2.1 kg



DESIGN AND OPERATING LOGIC

The unit is enclosed in a metal casing. The side panel of the unit (see Fig. 1) has a switch with a built-in indicator lamp 1. The switch activates and deactivates the unit.

The external leads are routed into the unit through sealed lead-ins 2. The leads are connected to the screwed terminals 3. The control unit is equipped with safety fuse 4 providing protection against short circuiting.

**Fig. 1**

The control unit is operated in conjunction with a room thermostat (to be ordered separately) of either type:

RTS (RTSD) ROOM THERMOSTAT

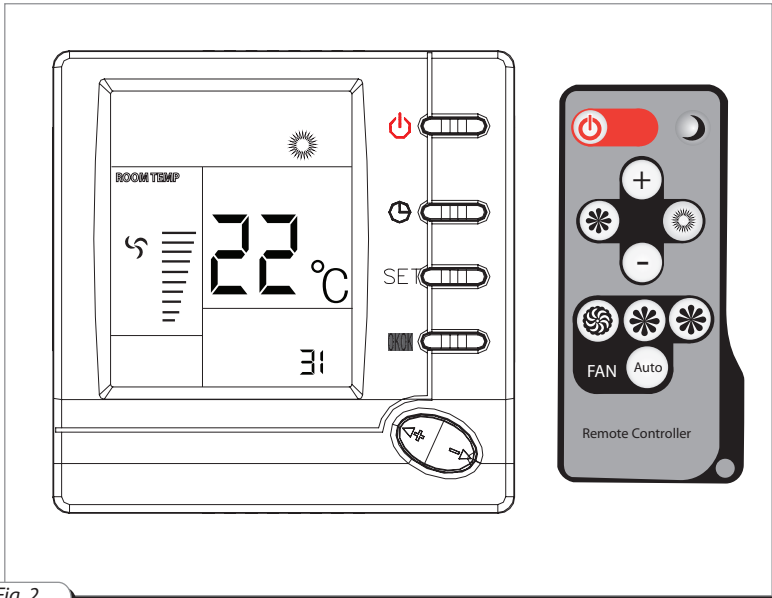


Fig. 2

TST (TSTD) ROOM THERMOSTAT WITH SENSOR DISPLAY

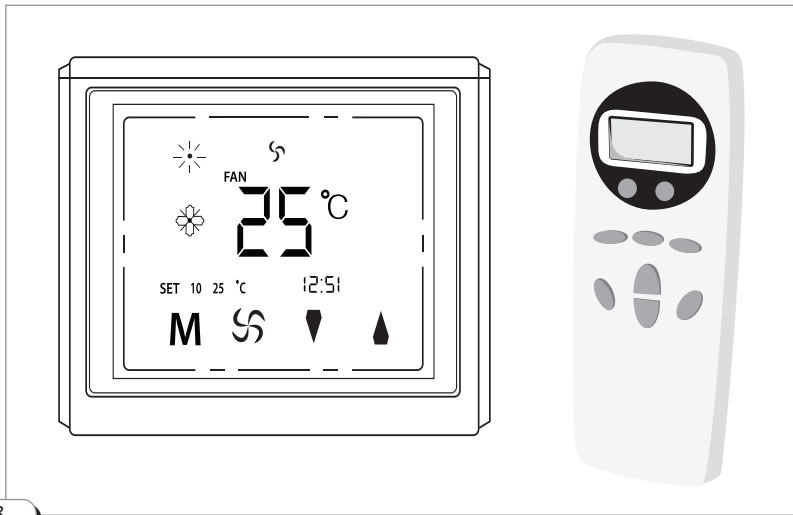


Fig. 3

Since the room thermostat measures the indoor temperature which defines the operation mode of the heating (cooling) its location must be installed within the premises serviced by the heating (cooling) unit.

To ensure proper operation of the heating (cooling) unit install the thermostat at the «reference» point for the premises where the microclimate is not affected by doors and windows opening, vertical convective distribution of temperature and other similar factors.

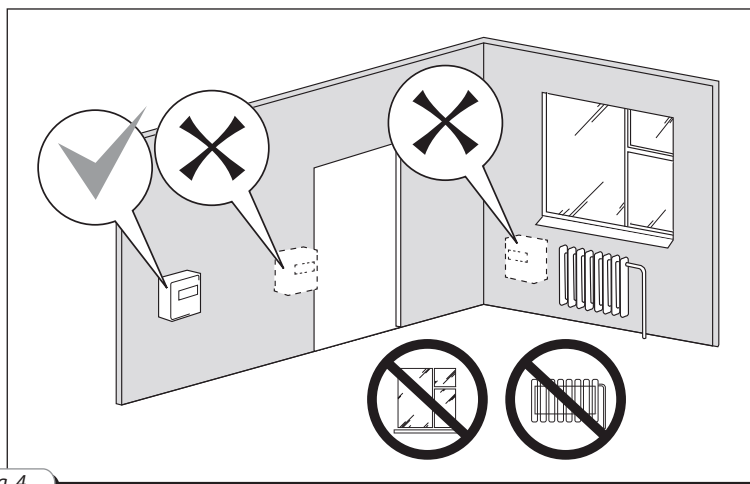


Fig. 4

The same room thermostat can simultaneously control a group of several heating (cooling) units as may be required in case of using a number of heating (cooling) units to maintain the microclimate in a specific premise.

Should this be required connect the units as shown in Fig. 5 and Fig. 7 (Option B). In this case the same thermostat may control an unlimited number of heating (cooling) units.

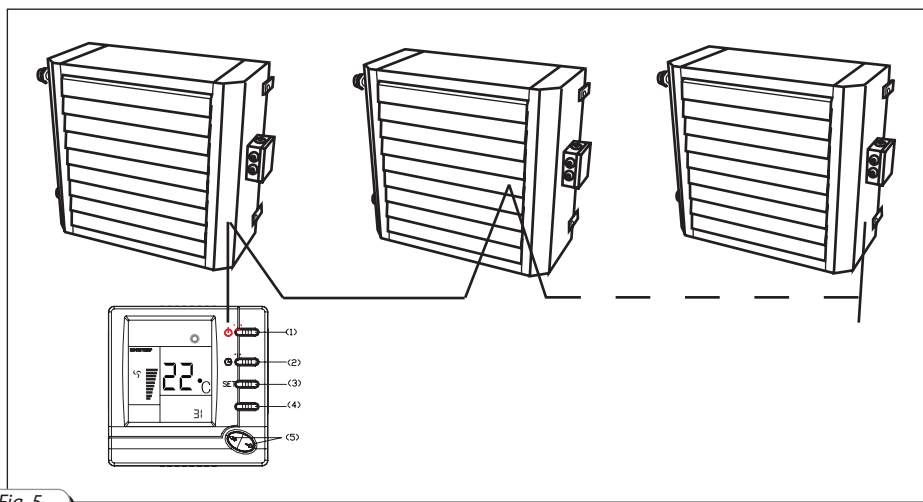


Fig. 5

SAFETY PRECAUTIONS AND WARNINGS

- The control unit operational envelope is limited by the electric motor characteristics. The control unit is intended for connection to a heating (cooling) unit with a transformed controlled fan.
- The control unit and the connected equipment may pose an electric shock hazard - therefore, the connection and operation may only be performed by the properly qualified personnel after careful reading of the user's manual. The control unit belongs to electrical equipment with rated voltage under 1000 V.
- Disconnect the unit from the power mains prior to any operations requiring access to its internal parts.
- The control unit is compatible with single-phase electric motors only.
- The total current consumption of the electrical appliances connected to the unit must not exceed the limiting value (see «Technical data»).
- The control unit must be properly grounded.
- The unit must be handled with care - avoid shocks, overloads as well as penetration of liquids and dirt. In case any foreign objects penetrates onto the control unit circuit board disconnect the power mains voltage and remove the contaminants.
- Do not conduct overvoltage tests using a megohmmeter etc. on any of the control unit parts.
- Disconnect the cable from the control unit prior to any measurements on the cable or the motor!

INSTALLATION AND SETUP

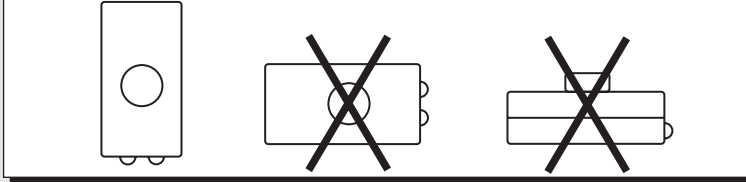
- Do not operate the unit if generating smoke or characteristic smell of burning insulation, excessive noise or vibration, in case of a breakdown, cracks through the casing or damaged connectors;
- Do not cover the unit with any materials, place any appliances on top or block the air vents or insert foreign objects into them.
- Do not use the unit on premises presenting an explosion or chemical hazard, containing substances deleterious to metals and insulation, in areas susceptible to mist or splashes or in outdoor areas;
- Do not connect the unit to electric motors (either standalone or integrated) whose current consumption (normally shown in the certificate) exceeds the limit value of the unit load current;
- Do not connect the output terminals of the unit to the power mains.



Attention! 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. 6);
- Secure the control unit to the mating surface by using the mounting holes 1 in the rear wall (see Fig. 6);

ATTENTION! THE UNIT IS DESIGNED TO OPERATE IN THE VERTICAL POSITION.



- Complete the electrical connections according to the diagram (see Fig. 7). The external electrical leads are connected to the unit via screwed terminals 3 (see Fig. 6). The leads are routed into the unit through sealed lead-ins 2 (see Fig. 6).
- Apply the supply voltage to the unit and start it up.

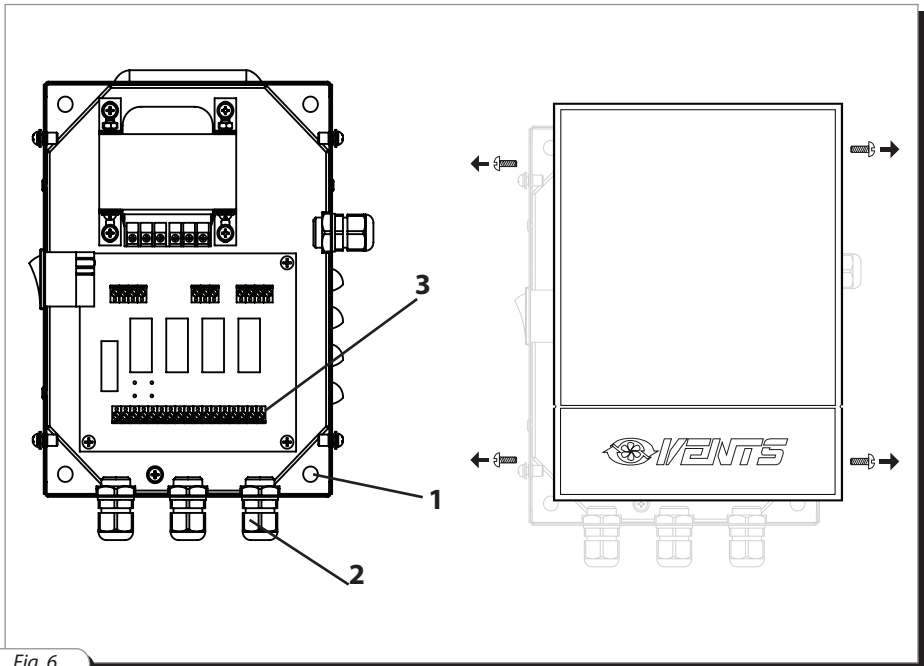
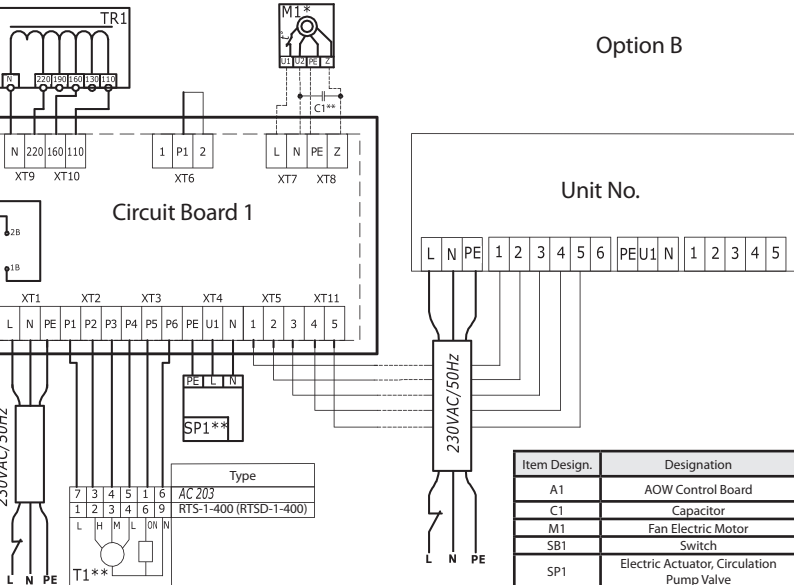
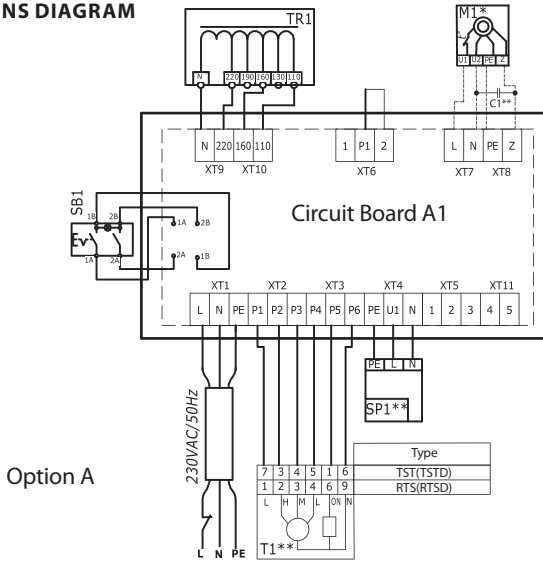


Fig. 6

ELECTRICAL CONNECTIONS DIAGRAM



* - Connection option depends on the motor type.
 ** - Not included with the unit.

Item Design.	Designation
A1	AOW Control Board
C1	Capacitor
M1	Fan Electric Motor
SB1	Switch
SP1	Electric Actuator, Circulation Pump Valve
T1	Room Thermostat
TR1	Automatic Transformer 220V 2A

Fig. 7



Attention!
All the connections (including the room thermostat) require insulated wires rated for the minimum alternating voltage of 250 V.

TECHNICAL MAINTENANCE

- 7.1. Clean the vents of the unit from dust, filaments and similar contaminants periodically.
- 7.2. Make sure that the external electrical leads are securely attached to the screwed terminals of the unit.

STORAGE AND TRANSPORTATION REQUIREMENTS

The unit can be carried in the original packing by any mode of transport without limitation. The units delivered to the end user must be stored in the original packing at ambient air temperatures from -40 °C to +35 °C at relative air humidity below 80%.

The storage premises must be free from dust and corrosive acid or alkaline vapours.

MANUFACTURER'S WARRANTY

The manufacturer hereby warrants normal operation of the control unit over the period of 12 months from the retail sale date provided the user's observance of the transportation, storage, installation and operation regulations.

Should any malfunctions occur during the control unit operation through the manufacturer's fault during the warranty period the user is entitled to elimination of faults by means of warranty repair performed by the manufacturer.

The warranty repair includes work specific to elimination of faults in the control unit operation to ensure its intended use by the user within the warranty period. The faults are eliminated by means of replacement or repair of the complete unit or the faulty part thereof.

The warranty repair does not include:

- Routine maintenance;
- Control unit installation / dismantling;
- Control unit setup.

To benefit from warranty repair the user must provide the unit, the user's manual with stamped sale date and the payment document certifying the purchase. The control unit model must comply with the one stated in the user's manual.

Contact your Seller for warranty service.

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

- User's failure to provide the control unit with the entire delivery package as stated in the user's manual or with missing component parts previously dismantled by the user;
- Mismatch of the control unit model and make with the respective details stated on the control unit packing and in the user's manual;
- User's failure to ensure timely technical maintenance of the control unit;
- External damage to the casing (excluding external modifications of the control unit as required for its installation) and the internal components of the control unit;
- Alteration of the control unit design or engineering changes of the control unit;
- Replacement and use of the control unit assemblies, parts and components not approved by the manufacturer;
- Control unit misuse;
- User's violation of the unit installation regulations;
- User's violation of the control unit management regulations;
- Control unit connection to the power mains with a voltage different from the one stated in the user's manual;
- Control unit breakdown due to voltage surges in the power mains;
- User's discretionary repair of the control unit;
- control unit repair performed by any persons without the manufacturer's authorization;
- Expiry of the unit warranty period;
- User's violation of the established regulations specific to the control unit transportation;
- User's violation of the control unit storage regulations;
- Wrongful acts against the control unit committed by third persons;
- control unit breakdown due to circumstances of insuperable force (fire, flood, earthquake, war, hostilities of any kind, or blockade);
- Missing seals if provided by the user's manual;
- Failure to provide the user's manual with the sale date stamp;
- Missing payment document certifying the control unit purchase.



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



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

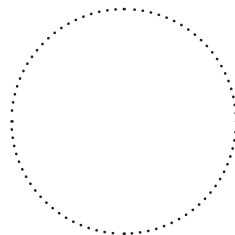


ACCEPTANCE CERTIFICATE

Product Type	Control unit for air heating (cooling) unit with water heat exchanger VENTS AOW series
Model	UWT_____
Serial Number	
Manufacturing Date	
<p>is hereby declared ready for service.</p> <p>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.</p> <p>This certificate is issued following test carried out on samples of the product referred to above.</p>	
Quality Inspector's Stamp	

SELLER'S INFORMATION

Shop name	
Address	
Telephone	
E-mail	
Sales date	
<p>This is to certify delivery of the complete control unit with the user's manual. The warranty terms are acknowledged and accepted.</p>	
Customer's signature	

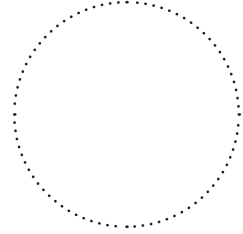


Seller's seal

MOUNTING CERTIFICATE

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

Company name	
Address	
Telephone	
Installation technician's full name	
Installation date:	Signature:



Installation technician's
company seal

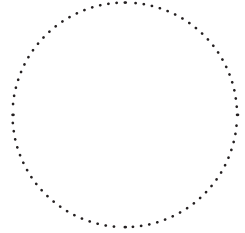
This is to certify that the work specific to the control unit installation has been performed in accordance with all the applicable provisions of local and national construction, electrical and technical codes and standards. The control unit operates normally as intended by the manufacturer.

Signature:



WARRANTY CARD

Product Type	Control unit for air heating (cooling) unit with water heat exchanger VENTS AOW series
Model	UWT_____
Serial Number	
Manufacturing Date	
Sales date	
Warranty Period	
Sales company	



Seller's seal

