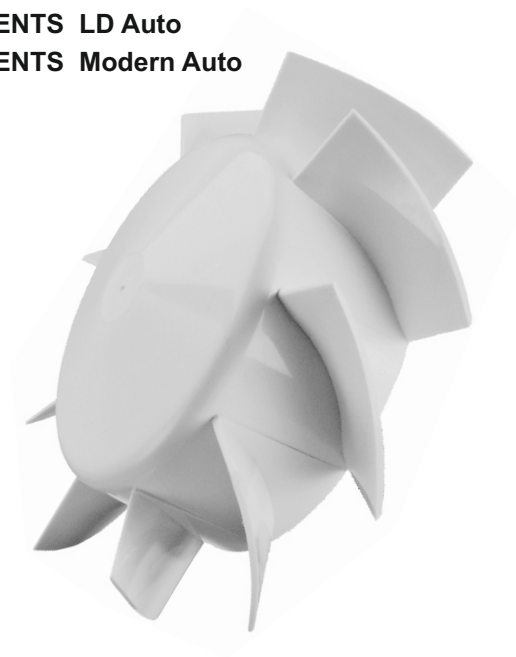


**VENTS M**  
**VENTS M1**  
**VENTS M3**  
**VENTS MA**  
**VENTS LD Auto**  
**VENTS Modern Auto**



EN

AXIAL FANS  
user's manual



2013



Disconnect the fan from power mains prior to any connection, servicing and repair operations. Mounting and maintenance are allowed for duly qualified electricians with valid electrical work permit for electric operations at the units up to 1000 V after careful study of the present user's manual.

The single-phase power mains must comply with the acting local electrical norms and standards. The fixed electrical wiring must be equipped with an automatic circuit breaker. The fan must be connected to power mains through an automatic circuit breaker QF integrated into the fixed wiring system with the gap between the breaker contacts on all poles not less than 3 mm.

Check the fan for any visible damages of the impeller and the casing before starting installation. The casing internals must be free of any foreign objects which can damage the impeller blades. Misuse of the device or any unauthorized modification is not allowed. The fan is not to be used by children and persons with reduced physical, mental or sensory capacities, without proper practical experience or expertise, unless they are controlled or instructed on the product operation by the person(s) responsible for their safety.

Do not leave children unattended and do not let them play with the product. Take steps to prevent ingress of smoke, carbon monoxide and other combustion products into the room through open chimney flues or other fire-protection devices. Sufficient air supply must be provided for proper combustion and exhaust of gases through the chimney of fuel burning equipment to prevent back drafting.

Transported medium must not contain any dust or other solid impurities, sticky substances or fibrous materials. Do not use the fan in the environment containing hazardous or explosive materials and vapours, i.e. spirits, gasoline, insecticides, etc.

Do not close or block the fan intake or extract vents in order to ensure the most effective air passage. Do not sit on the fan and do not put objects on the fan.

Fulfill the requirements stated in this user's manual to ensure long service life of the product.



***Recycle at the end of the service life.***

***Do not dispose the product with unsorted municipal trash.***

## FAN DESIGNATION KEY

VENTS X X X X X X X X

*Exhaust spigot diameter, mm - 100, 125, 150*

*Fan series - M, M1, M3, MA, LD Auto, Modern Auto*

*Extra options:*

**V - fan with a pull-cord switch**

**T - turn-off delay timer**

**T1 - turn-off and turn-on delay timer**

**TH - humidity sensor and turn-off delay timer**

**TP - motion sensor and turn-off delay timer**

**K - back valve.**

*Motor and impeller modifications:*

**L - motor on ball bearings**

**turbo - high-powered motor**

**Q - low-power motor**

**12 - motor rated for 12 V / 50 Hz voltage**

**Press - high pressure impeller**

### Designation key example:

VENTS 125 MVTK fan with 125 mm exhaust spigot diameter, M series, supplied with a pull-cord switch, turn-off delay timer, back valve.



**Read the present user manual carefully before proceeding with installation works. Compliance with the manual requirements ensures reliable operation and long service life of the product. Keep the user's manual available as long as you use the product. You may need to re-read the information on the product servicing.**

## **DELIVERY SET**

The delivery set:

1. Fan - 1 item;
2. Screws and dowels - 4 items;
3. Plastic screwdriver - (only for the models with a timer) - 1 item ;
4. User manual;
5. Packing box.

## **BRIEF DESCRIPTION**

The product described herein is an axial fan for supply and exhaust ventilation of small and medium-sized premises heated during winter time. The fan is made of white plastic.

To prevent air backdrafting to the room during the fan standby, the fan series M, M1 and M3 may be equipped with a foil back valve; the fan series MA, LD Auto and Modern Auto may be equipped with automatic louvre shutters.

The fan is designed for connection to Ø 100, 125 and 150 mm air ducts. Due to constant improvements the design of some models may slightly differ from those ones described in this manual.

## **OPERATION GUIDELINES**

The fan is designed for connection to AC 220-240 V, 50 Hz power mains. The model 12 is designed for connection to 12 V, 50 Hz power mains directly or to AC 220-240 V, 50 Hz power mains through the step-down transformer, for example, TRF 220/12-25 (optional).

The fan is designed for continuous operation always connected to power mains. Air flow direction in the system must match the pointer direction on the fan casing.

Ingress protection rating against access to hazardous parts and water ingress:

IP24 - MA series;

IP34 - M, M1, M3, LD Auto, Modern Auto series.

The fan is rated for operation at the ambient temperature ranging from +1°C up to +45°C. The fan requires no grounding.

## **MOUNTING**

The fan is designed for ceiling or wall surface mounting and air extraction through a ventilation shaft or round air duct of respective diameter, fig. 1.

Fan mounting sequence:

Step 1 - cut off power supply and prepare a premise for the fan installation, fig. 2-3.

Step 2 - take off the front cover from the fan, fig. 4;

Step 3 - mark and drill the holes for the fan fixation, install the fan, fig. 5-7;

Step 4 - connect the fan to power mains and adjust the timer and the humidity sensor set point if required, fig. 8-14;

Step 5 - re-install the front cover on the fan casing, fig. 15;

Step 6 - connect the fan to power mains, fig. 16.

Note: the figures show the M series fan.

Mounting, connection, adjustment and maintenance sequence of M1, M3, MA, LD Auto and Modern Auto fan series is the same.

## **TERMINAL DESIGNATIONS ON WIRING DIAGRAMS**

L - phase (only for 220-240 V power mains)

N - 0 (only for 220-240 V power mains)

~ - power mains 12 V / 50 Hz;

LT (ST) - timer control line;

QF - automatic circuit breaker;

S - external switch.

\* - the fan rated for 12 V power mains (marked on the fan casing) connect to ~12 V power mains only!

## **ELECTRONICS OPERATING LOGIC**

The fan with the timer T - the fan starts after the external switch, e.g. the light switch, supplies control voltage to the input terminal LT (ST, SL). After the control voltage is off, the fan continues operating within the set time period adjustable from 2 to 30 minutes by the timer.

The VT model is turned on and off by the pull-cord switch.

The fan with the timer T1 - the turn-on delay timer is activated after the external switch, e.g. the light switch, supplies control voltage to the input terminal LT (ST). The fan starts only after the turn-on delay timer countdown. The turn-on delay time is adjusted in two ranges from 10 seconds to 90 seconds and from 2 minutes to 30 minutes. The adjustment range is selected with a jumper on the timer circuit board. After the control voltage is off, the fan operates within the time period set with the timer from 2 to 30 minutes.

The fan with the timer and the humidity sensor TH - the fan starts after the external switch, e.g. the light switch, supplies control voltage to the input terminal LT (ST) or if indoor humidity level H exceeds the set point adjustable from 60% to 90%. After the control voltage is off, the fan operates within the time period set with the timer from 2 to 30 minutes.

To set the maximum humidity threshold rotate the potentiometer knob to H max position

The fan with the timer and the motion sensor TP - the fan starts after motion detection at the distance from 1 to 4 m and the horizontal viewing angle of 100°. After no more motion is detected, the fan operates within the time period set with the timer from 2 to 30 minutes.

To adjust the fan turn-on delay time, turn the potentiometer control knob Tz clockwise to increase and counter-clockwise to decrease the turn-on delay time respectively, fig. 12.

To adjust the fan turn-off delay time, turn the potentiometer control knob T clockwise to increase and counter-clockwise to decrease the turn-off delay time respectively, fig. 12-13.

To adjust the humidity set point rotate the potentiometer control knob H clockwise to increase and counter-clockwise to decrease the humidity threshold accordingly, fig. 13.

**Warning!** The timer circuit is under mains voltage.

Disconnect the fan from power mains prior to any adjustment operations.

The fan delivery set includes a specially designed plastic screwdriver for fan settings adjustments. Use the screwdriver to change the turn-on and turn-off delay time or the humidity set point (fig. 14). Do not use a metal screwdriver, knife, etc. for adjustment operations not to damage the circuit board.

## **MAINTENANCE**

The fan maintenance periodicity is at least once per 6 months.

Maintenance sequence:

cut off power supply, fig. 17;

remove the front cover, fig. 18;

clean the fan with a soft cloth and a brush wetted in a mild water detergent solution.

Rinse the front grille under running water, fig. 19-21;

wipe the fan surfaces dry;

install the fan grille on the fan, fig. 22;

supply power voltage to the fan, fig. 16.

**WARNING!** Avoid water dripping on the electric components.

## **TRANSPORTATION AND STORAGE RULES**

Transport the product by any transportation vehicle in the manufacturer's original package.

Store the delivered product in the manufacturer's original packing box in a dry ventilated premise with the temperature range from +5 °C up to +40 °C and relative humidity less than 80%.

The storage environment must not contain dust, acid or alkali vapours that may cause corrosion of the product parts.

## **MANUFACTURER'S WARRANTY**

The fan is manufactured at the factory of "Ventilation systems" PrJSC (hereinafter referred to as the Manufacturer).

By purchasing this product the customer confirms to have read and agreed to the terms, rules and requirements related to operation, storage, transportation, mounting, adjustment, connection, maintenance and repair as well as warranty obligations with respect to this product as set forth in the manufacturer's accompanying documentation to the product.

The manufacturing company sets forth the warranty period (service life) of the product as 60 months following the sale date via retail network subject to the customer's ensuring compliance with the rules of transportation, storage, mounting and operation of the product.

In case of any malfunction of the product through the fault of the Manufacturing company within the warranty period (service life), the customer shall have the right to elimination of the manufacturing defects by means of warranty servicing performed free of charge.

The warranty servicing implies performance of activities related to elimination of defects in the product aimed to provide intended use of the product by the customer. The defects are eliminated either by replacing or repairing such a product or a part (component) thereof.

**NOTE: with the purpose of performing warranty servicing you please produce User Manual or other relevant substituting document and the payment document as an evidence of the purchase with indication of the sale date. The product model shall comply with that one specified in the User Manual or other relevant substituting document.**

With the purpose of performing warranty servicing please contact the trade company where you purchased the product.

If warranty servicing on the spot proves impossible, you will be provided with the necessary information regarding rendering of this service.

**Manufacturer's warranty shall not apply in the following cases:**

in case the customer fails to provide the product in complete according to the package contents specified in the User Manual or other relevant substituting document, including any components disassembled by the customer; in case of non-compliance of the model or marking of the product with data specified on the product packaging and in the User Manual or other relevant substituting document; in case of non-timely technical maintenance of the product by the customer (dust, mud, oil condensate, foreign particles); in case of causing external damage to the product by the customer ('damage' shall not apply to external changes of the product required for the product mounting); in case of altering the product design or further reworking of the product; in case of replacing and using parts, units and components of the product not prescribed by the manufacturing company; in case of other use of the product other than intended use; in case of the customer's violating product operation rules; in case of connecting the product to electric mains of voltage exceeding voltage value specified in the user's manual;

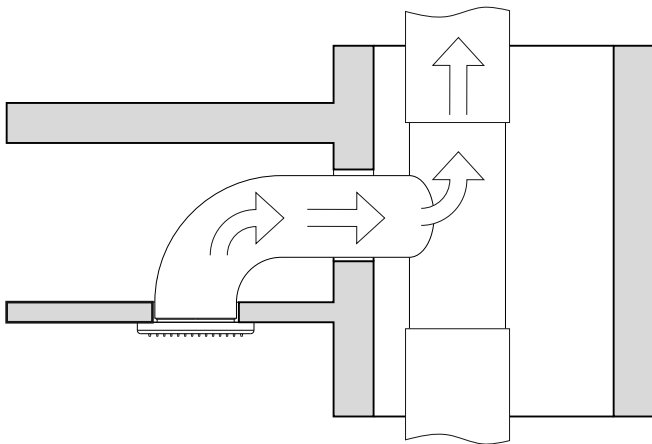
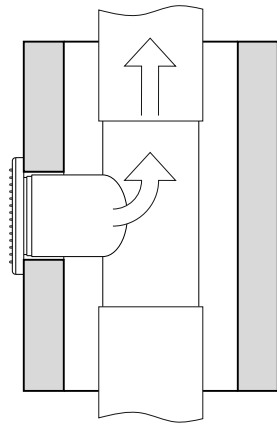
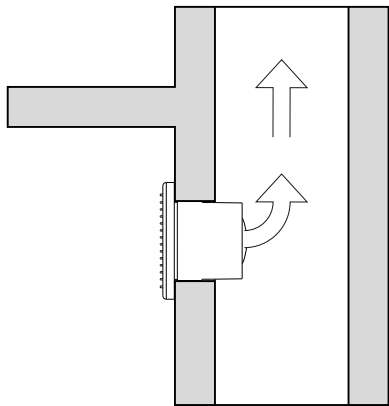


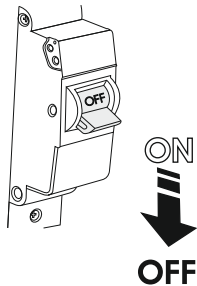
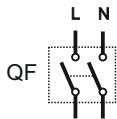
in case of step voltage that resulted in the product failure;  
in case of the customer's performing unauthorised repair of the product;  
in case of performing repair of the product by third persons unauthorized by the manufacturing company;  
in case of warranty period (service life) expiry;  
in case of the customer's violating transportation rules assuring prevention of damaging and/or destruction of the product;  
in case of the customer's violating product storage rules;  
in case of performing unlawful actions by third persons with respect to the product;  
in case of force majeure (fire, flood, earthquake, war, hostilities of any kind, blockade);  
in case of absent seals, provided such seals are prescribed by the User Manual or other relevant substituting document;  
in case of unavailable warranty card;  
in case of unavailable payment document to confirm the purchase with indication of the sale date.

The manufacturing company shall be responsible for defects arising through its fault prior to the moment of transferring the product to the ownership of the customer.

The manufacturing company shall not be responsible for defects arising after transferring the product to the customer and caused by the customer's violating the rules of transportation, storage, assembly and operation of the product, or by actions of third persons, an accident or force majeure circumstances.

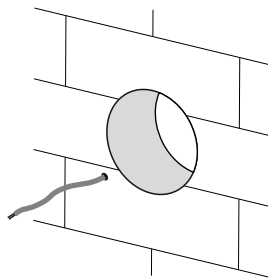
The manufacturing company shall not be responsible for damage to health and property of the customer caused by the customer's violating the User Manual or other relevant substituting document; other use of the product by the customer other than its intended use, or by failure of the customer to comply with warnings and other information on the product specified in the User Manual or other relevant substituting document, or by the customer's violating the rules of transportation, storage, mounting, maintenance and operation of the product.



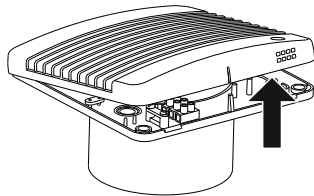


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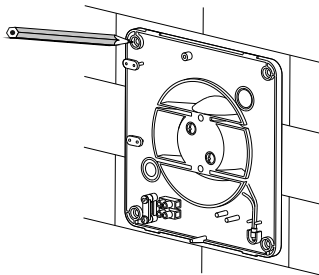
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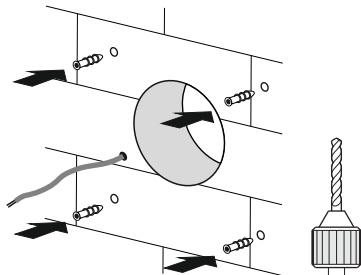
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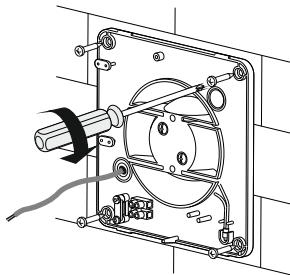
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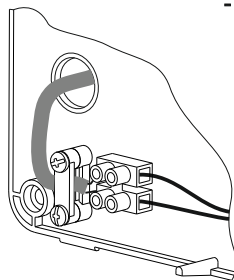
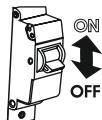
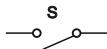
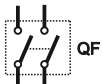
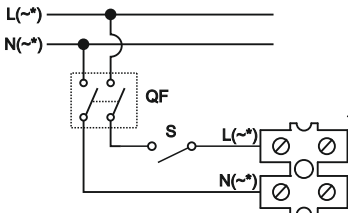
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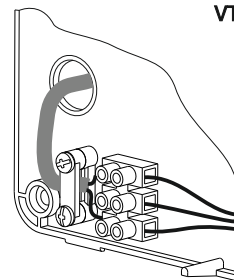
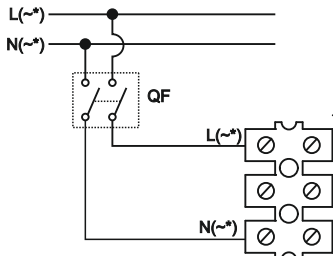
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- / V / TP

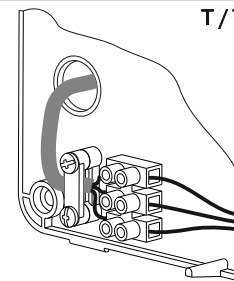
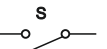
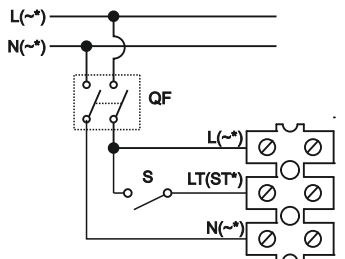


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VT / VTH

9



T / T1 / TH

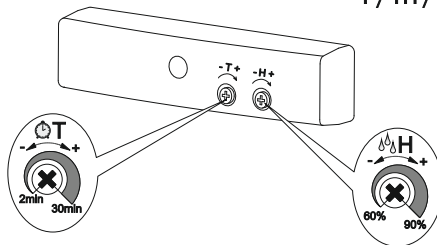
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## WARNING!

\* - the fan are designed for the rated mains voltage 12 V (stated on the packing box and the fan casing) and connection to ~12 V power mains.

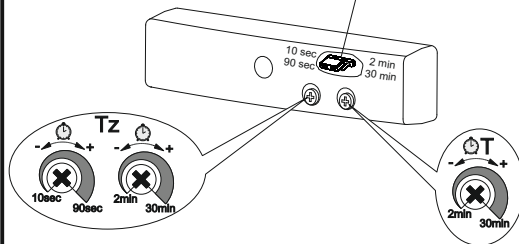
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T/TH/TP



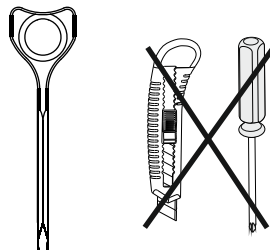
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Jumper T1

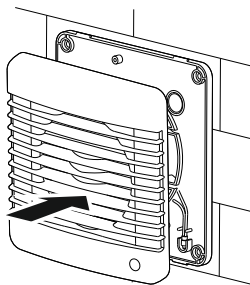


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T1



14



15

ON



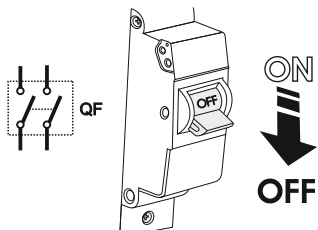
OFF



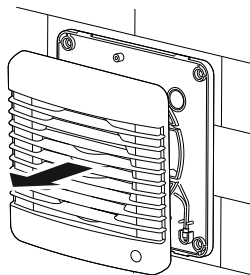
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MAINTENANCE

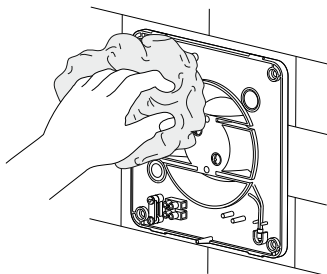
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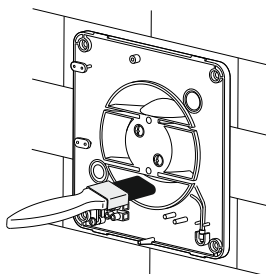
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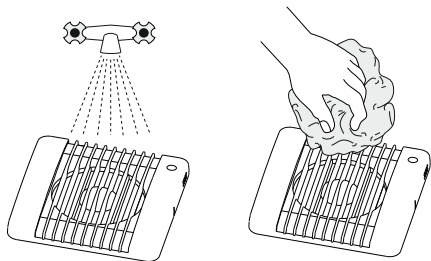
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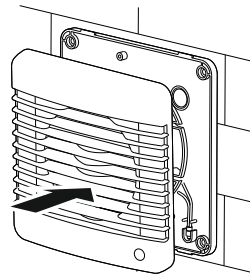
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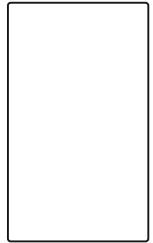
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Stamp of the  
acceptance inspector



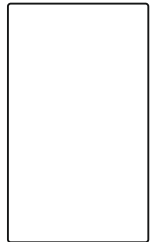
Sold  
**(Title of sales organization,  
shop stamp)**



Date of issue



Date of sale



# Acceptance certificate

	M	<input type="checkbox"/>	V	<input type="checkbox"/>	turbo	<input type="checkbox"/>				
	M1	<input type="checkbox"/>	T	<input type="checkbox"/>	press	<input type="checkbox"/>				
100		<input type="checkbox"/>	M3	<input type="checkbox"/>	T1	<input type="checkbox"/>	K	<input type="checkbox"/>	12	<input type="checkbox"/>
125		<input type="checkbox"/>	MA	<input type="checkbox"/>	TH	<input type="checkbox"/>	Q	<input type="checkbox"/>		
150		<input type="checkbox"/>	LD Auto	<input type="checkbox"/>	TP	<input type="checkbox"/>	L	<input type="checkbox"/>		
	Modern Auto	<input type="checkbox"/>								

The fan device is ready for operation.