



AXIAL FANS
user's manual



Model
VENTS MA Reverse
VENTS MAO1 Reverse





WARNING

Follow the user's manual requirements to ensure durable and trouble-free operation of the fan.

Disconnect the fan from power supply 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 with operating voltage up to 1000 V after careful study of the present user's manual.

The single-phase power mains must comply with the actual electrical norms.

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.

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.

The fan design is constantly being improved, so some models can slightly differ from those ones described in this manual.

Follow the user's manual requirements to ensure durable and trouble-free operation of the fan.



WARNING

While mounting the fan avoid the casing compression!

Deformation of the casing may result in the motor jam and excessive noise.

Misuse of the unit or any unauthorized modifications are not allowed.

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 air must not contain any dust or other solid impurities, sticky substances or fibrous materials.



WARNING

Follow the user's manual requirements to ensure durable and trouble-free operation of the fan.

Do not use the fan in a hazardous or explosive environment containing spirits, gasoline, insecticides, etc.

Do not close or block the fan intake or extract vents in order to ensure the efficient air stream.

Do not sit on the unit and do not put any objects on it.

The timer circuit is live.

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

The fan delivery set includes a specially designed plastic screwdriver for adjustment of the fan parameters.

Use the plastic screwdriver to change the turn-on delay time.

Follow the user's manual requirements to ensure durable and trouble-free operation of the fan.



WARNING

The product is allowed to be used by children aged from 8 years and above and persons with reduced physical, mental or sensory capacities, or lacking the appropriate training provided that they have been given supervision or instruction regarding a safe use of the product and understand the risks involved.

Do not allow children play with the product.

Fan cleaning and maintenance must only be performed by children under adult supervision.



Do not dispose in domestic waste.

Do not dispose the product with unsorted municipal trash.



**Read the user's manual carefully before proceeding with installation works.
Compliance with the manual requirements ensures reliable operation and long service life of the unit.
Keep the user's manual available as long as you use the unit.**

DELIVERY SET

1. Fan - 1 piece;
2. Control unit - 1 piece;
3. 5-wire cable - 4 m;
4. Self-tapping screws with expansion pegs - 12 pieces each (MA Reverse) or 8 pieces (MAO1 Reverse);
5. Metric bolts and nuts, plastic nuts - 4 pieces each (MAO1 Reverse only);
6. Gasket - 2 pieces (MAO1 Reverse only);
7. User's manual;
8. Packing box.

BRIEF DESCRIPTION

The unit is an axial extract fan for extract and/or supply ventilation of small and medium-sized domestic spaces. The fan is compatible with 150 mm air ducts.

The fan has a white plastic casing and automatic louvres.

The MA Reverse fans are designed for wall-mounted configurations.

The MAO1 Reverse fans for wall-mounted (Fig. 2) or window-mounted (Fig. 3) configurations.

OPERATION GUIDELINES

The fan is designed for connection to a 220...240 V / 50 Hz single-phase alternating current mains.

The units are suitable for operation at ambient air temperatures from +1°C to +45°C.

The units meet the requirements of IP 24 hazardous parts access and water ingress protection standard.

The fan requires no grounding.

The fan is designed for extended periods of continuous operation without disconnection from the electric mains.

INSTALLATION

The MA Reverse fan installation steps are as follows:

1. De-energize the electric mains (Fig. 4).
2. Remove the front panel of the fan (Fig. 5).
3. Mark the holes on the wall (Fig. 6).
4. Drill the holes in the wall and insert the expansion pegs (Fig. 7).
5. Undo the self-tapping screws securing the cable clamping plate and remove the plate (Fig. 8). Route the power and control leads into the casing. Secure the fan casing on the wall with 4 self-tapping screws.
6. Connect the power and control leads to the respective terminal blocks on the control circuit board of the fan according to Diagram 1. Re-install the clamping plate.
7. Install the front panel back in place (Fig. 9).

ATTENTION! All the electrical connections to the control unit and the fan must be made using bolted connectors (terminal blocks). Each terminal block receptacle has a numeric marking with a corresponding marking on the circuit board for quick and convenient connection. The colour markings of the wires correspond to the cable supplied with the unit.



The MAO1 Reverse fan installation steps are as follows:

1. De-energize the electric mains (Fig. 10).
2. Remove the front and the back panels of the fan (Fig. 11).
3. Disassemble the fan (Fig. 12).
4. Insert the bolts supplied with the unit into the outer intermediate housing on the back panel side and secure them with nuts. Install the back panel back in place (Fig. 13).
5. Cut a 180 mm diameter hole in the glass partition (the permissible partition thickness is 4-17 mm). Use the gaskets supplied with the fan and attach one onto the outer casing, and then insert the casing into the hole (Fig. 14).
6. Apply the other gasket on the other side of the glass partition. Set the internal intermediate housing onto the bolts using them as guide rails - be careful not to crumple the gasket. Secure the casing with the plastic nuts supplied by tightening them in an alternate pattern (Fig. 15).

Do not overtighten the nuts which may lead to fractures in the glass or structural damage of the plastic nuts.

7. Route the power and control leads into the casing through the rubber gasket in the internal housing having removed the terminal block off the control lead. Route 2 wires into the opening in the main casing. Secure the main casing with 4 self-tapping screws (Fig. 16).
8. Undo the self-tapping screws securing the cable clamping plate and remove the plate (Fig. 17).
9. Install the terminal block onto the control lead according to the colour markings on Diagram 1. Connect the power and control leads to the respective terminal blocks on the control circuit board of the fan according to Diagram 1. Re-install the clamping plate.
10. Install the front panel back in place (Fig. 18).

Control unit installation:

1. Make a hollow in the wall according to the control unit size (Fig. 19).

ATTENTION!!! Mind the length of the cable supplied while installing the control unit. If necessary, a longer cable may be used. It is best to use a 5xAWG23 (5x0.25) cable.

2. Remove the power and control unit buttons and plug by prying them gently with a screwdriver (Fig. 20).
3. Remove the power and control unit bezel by releasing the latches (Fig. 21).
4. Connect the power and control cable to the control units according to Diagram 1.
5. Install the power and control unit into the hollow space in the wall (Fig. 22).
6. Install the bezel, the buttons and the plug in the reverse order (Fig. 23).

FAN CONTROL

The fan control unit enables four operating modes (Fig. 24):

1. Ventilation (extraction/supply)* at Speed 1.
 2. Ventilation (extraction/supply)* at Speed 2.
 3. Double action at Speed 1. The fan reverses the air flow direction every 70 seconds.
 4. Double action at Speed 2. The fan reverses the air flow direction every 70 seconds.
- * - the air flow direction depends on the position of JMP1 jumper on the fan control circuit board (Diagram 1).
The jumper is set to supply by default.

ATTENTION! The factory-set fan speed and time control potentiometers located on the control unit circuit are not user-adjustable. Do not attempt any adjustments to ensure proper unit operation.

MAINTENANCE

The minimum technical maintenance interval is 6 months.

To clean the unit use a soft cloth and a brush soaked in a detergent water solution (Fig. 20-22).

ATTENTION! Avoid liquid spills on the electric components. Wipe the fan surfaces dry after cleaning.

TRANSPORTATION AND STORAGE REGULATIONS

Transportation with any transportation vehicle in the manufacturer's original package.

Store the fan in the manufacturer's original packing box in a dry ventilated premise at ambient temperatures from +5°C up to + 40°C and relative humidity below 80 %.

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

MANUFACTURER'S WARRANTY

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

The manufacturer hereby warrants normal operation of the fan for 60 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 fan 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 means performing works specific to elimination of faults in the fan operation to ensure its intended use by the user within the warranty period.

The defects are eliminated by means of replacement or repair of the complete fan or a faulty part thereof.

The warranty repair does not include:

routine technical maintenance

fan installation / dismantling

fan setup

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

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

Contact the product seller for warranty service, repair or replacement.

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

User's failure to submit the fan 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 fan model and make with the respective details stated on the fan packing and in the user's manual.

User's failure to ensure timely technical maintenance of the fan.

External damage to the casing (excluding external modifications of the fan as required for its installation) and the internal components of the fan.

Alteration of the fan design or engineering changes of the fan.

Replacement and use of the assemblies, parts and components not approved by the manufacturer.

Fan misuse. User's violation of the unit control regulations.

Fan connection to the power mains with a voltage different from the one stated in the user's manual or on the label attached to the fan casing.

Fan breakdown due to voltage surges in the power mains.

user's discretionary repair of the fan;

repair performed by any persons without the manufacturer's authorization;

expiry of the warranty period;

user's violation of the established regulations specific to the fan transportation;

user's violation of the fan storage regulations;

wrongful acts against the fan committed by third persons;

Fan breakdown due to circumstances of insuperable force (fire, flood, earthquake, war, hostilities of any kind, blockades).

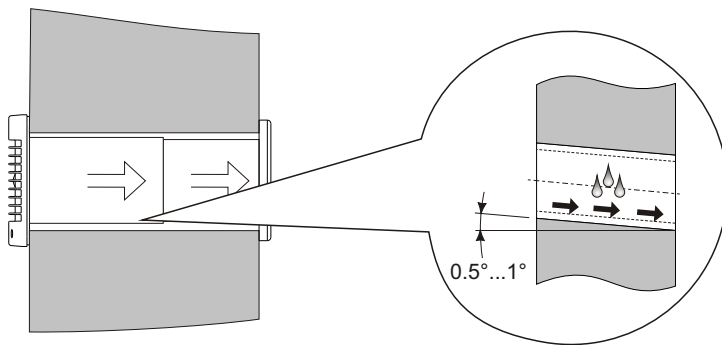
Missing seals if provided by the user's manual.

Failure to submit the user's manual with the unit purchase date stamp.

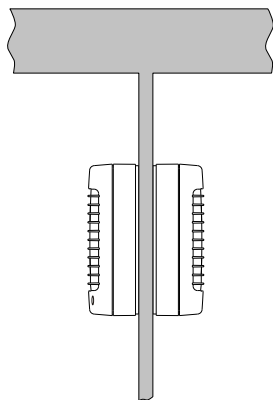
Missing payment document certifying the fan purchase.

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

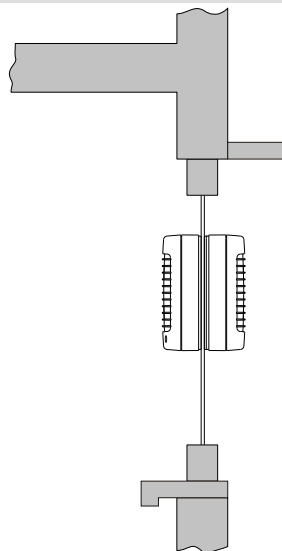
USERS' WARRANTY CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE FAN, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP.



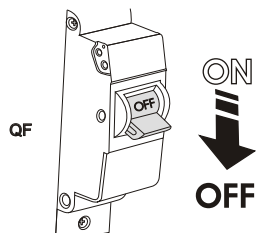
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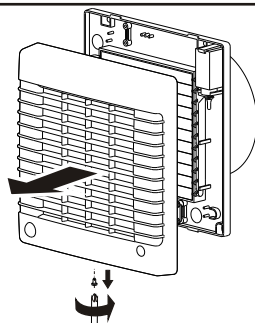
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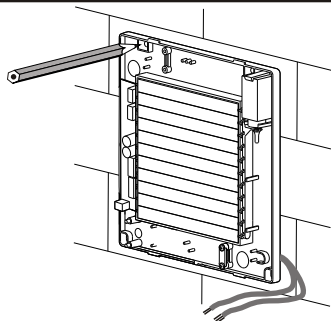
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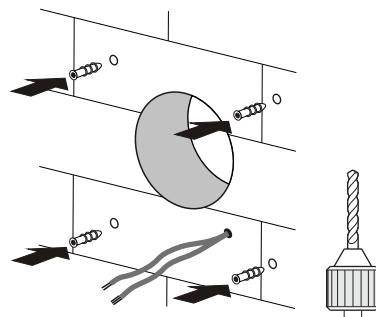
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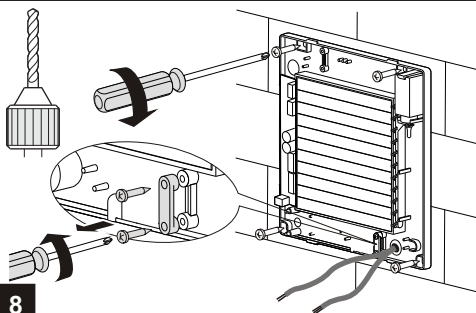
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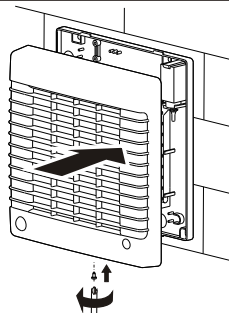
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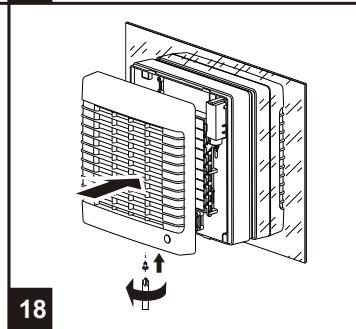
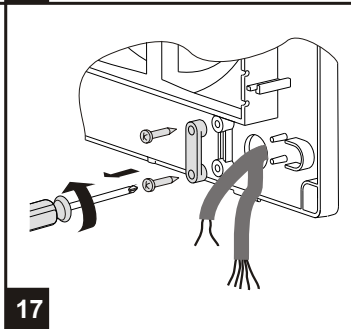
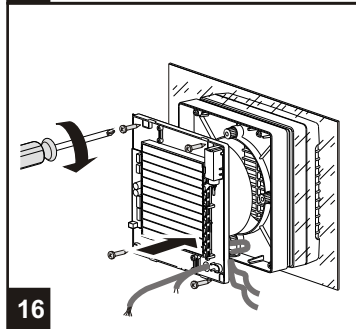
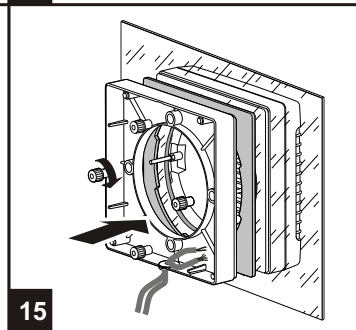
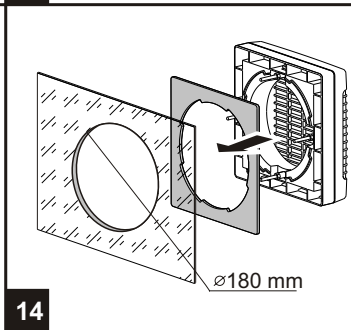
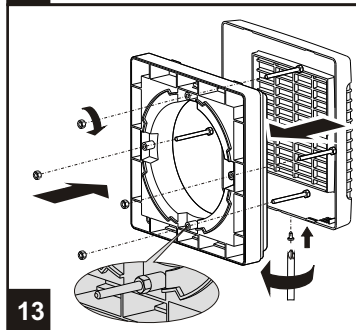
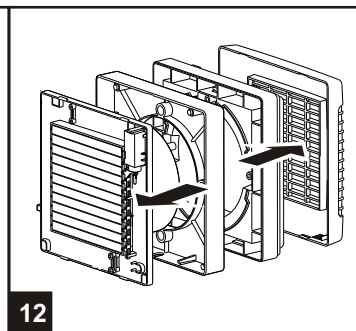
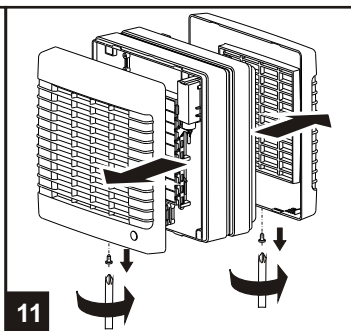
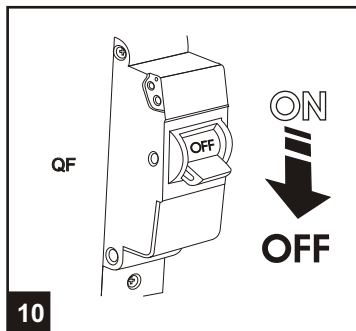
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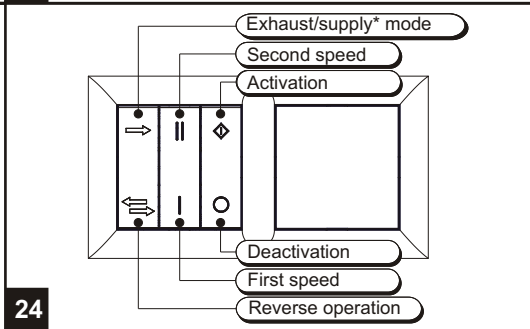
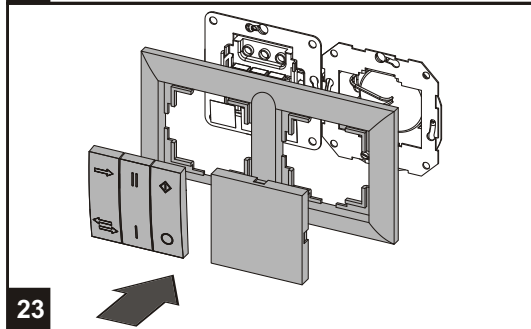
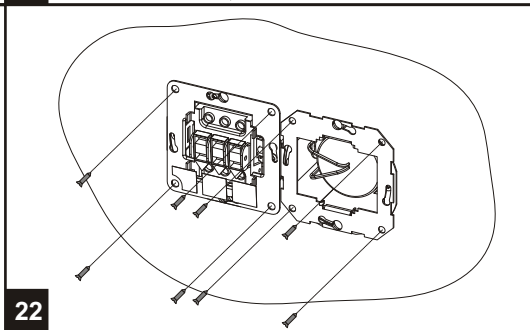
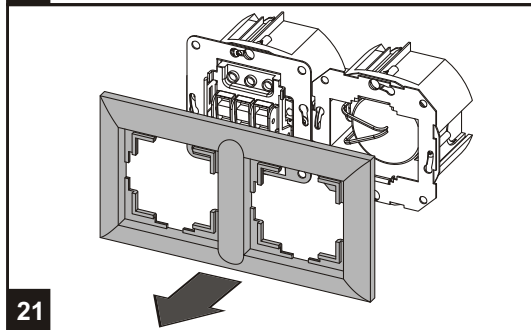
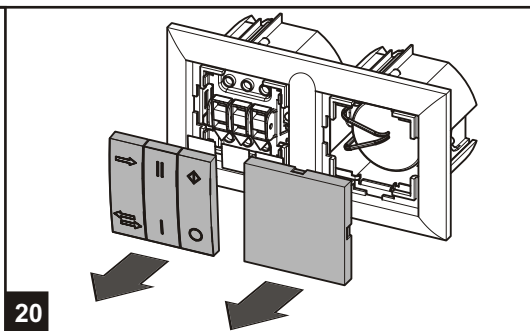
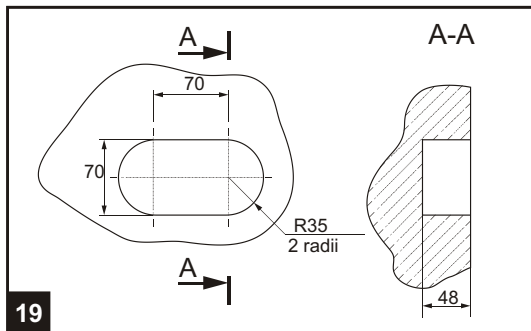


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Control unit

Fan

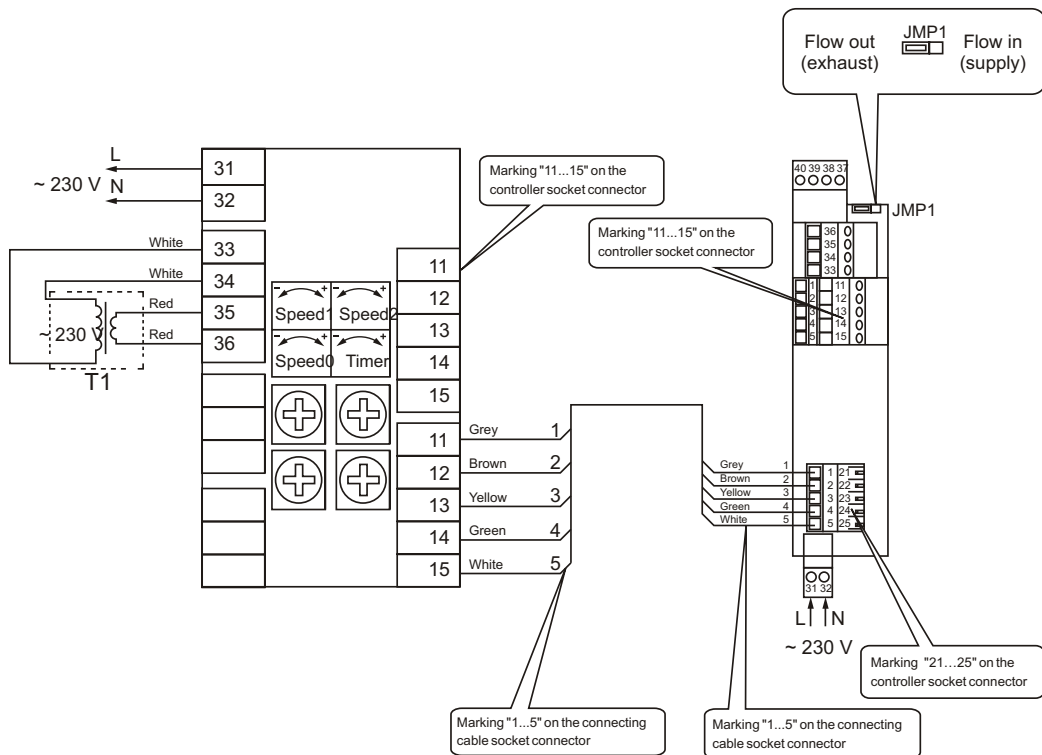
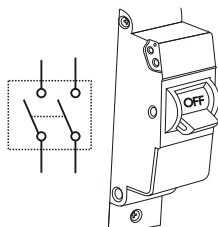


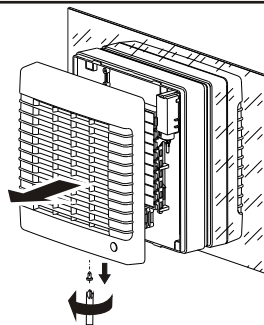
Diagram 1

QF

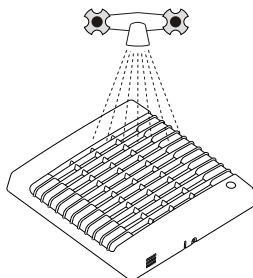


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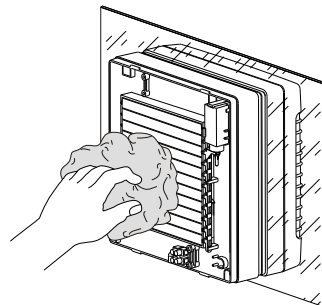
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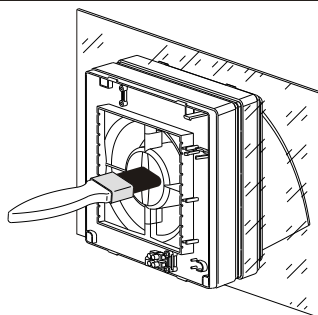
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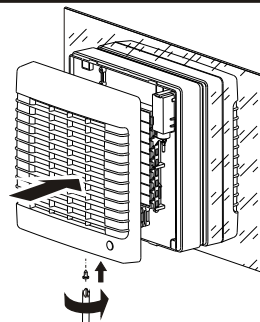
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ACCEPTANCE CERTIFICATE

The fan is compliant with the technical specifications and is hereby declared ready for service.

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.

150 MA Reverse



150 MAO1 Reverse



Quality Inspector's Stamp

Manufacture Date

Seller

(name and stamp of the seller)

Date of Sale