



INLINE FANS IN SOUND-INSULATED CASING



EN

Iso-Mix

USER'S MANUAL

CONTENTS

Safety requirements.....	3
Delivery set	9
Operation guidelines	9
Brief description	9
Product sales	9
Designation key.....	11
Installation and set-up.....	12
Connection to power mains	18
Electronics operation algorithm	23
Technical maintenance.....	25
Troubleshooting.....	26
Storage and transportation regulations.....	26
Manufacturer's warranty	27

This user's manual is a main operating document intended for technical, maintenance, and operating staff.

The manual contains information about purpose, technical details, operating principle, design, and installation of the Iso-Mix unit and all its modifications.

Technical and maintenance staff must have theoretical and practical training in the field of ventilation systems and should be able to work in accordance with workplace safety rules as well as construction norms and standards applicable in the territory of the country.

The information in this user's manual is correct at the time of the document's preparation.

The Company reserves the right to modify the technical characteristics, design, or configuration of its products at any time in order to incorporate the latest technological developments.

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FOLLOW THE USER'S MANUAL REQUIREMENTS TO ENSURE DURABLE AND TROUBLE-FREE OPERATION OF THE UNIT.

SAFETY REQUIREMENTS

All user's manual requirements as well as the provisions of all the applicable local and national construction, electrical, and technical norms and standards must be observed when installing and operating the unit.

Disconnect the unit from power supply prior to any connection, servicing, maintenance, and repair operations.

Only qualified electricians with a work permit for electrical units up to 1000 V are allowed for installation and maintenance. The present user's manual should be carefully read before beginning works.

- Check the unit for any visible damage of the impeller, the casing, and the grille before starting installation. The casing internals must be free of any foreign objects that can damage the impeller blades.
- While mounting the unit, avoid compression of the casing! Deformation of the casing may result in motor jam and excessive noise.

- Misuse of the unit and any unauthorized modifications are not allowed.
- Do not expose the device to adverse atmospheric agents (rain, sun, etc.).
- Transported air must not contain any dust or other solid impurities, sticky substances, or fibrous materials.
- Do not use the unit in a hazardous or explosive environment containing spirits, gasoline, insecticides, etc.
- Do not close or block the intake or extract vents in order to ensure the efficient air flow.
- Do not sit on the unit and do not put objects on it.
- The information in this user's manual was correct at the time of the document's preparation.
- The Company reserves the right to modify the technical characteristics, design, or configuration of its products at any time in order to incorporate the latest technological developments.

- No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means in any information search system or translated into any language in any form without the prior written permission of the Company.

WARNING! Similar to the use of any other household electrical appliances when operating this fan, the following basic rules must be followed:

- Never touch the fan with wet or damp hands.
- Never touch the fan when barefoot.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

The connection to the supply mains must be made through a means of disconnection, which is incorporated in the fixed wiring in accordance with the wiring rules, and has a contact separation in all poles that allows for full disconnection under overvoltage category III conditions.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons in order to avoid a safety hazard.

CAUTION: In order to avoid a safety hazard due to inadvertent resetting of the thermal cut-out, this appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.

Ensure that the appliance is switched off from the supply mains before removing the guard.

WARNING: If unusual oscillating movements is observed, immediately stop using the appliance and contact the manufacturer, its service agent or suitably qualified persons.

The replacement of parts of the safety suspension system device shall be performed by the manufacturer, its service agent or suitably qualified persons.

Fixing means for attachment to the ceiling such as hooks or other devices shall be fixed with a sufficient strength to withstand 4 times the weight of the appliance.

The mounting of the suspension system shall be performed by the manufacturer, its service agent or suitably qualified persons.

The appliance is to be installed so that the blades are more than 2.3 m above the floor.

The appliance may adversely affect the safe operation of appliances burning gas or other fuels (including those in other rooms) due to back flow of combustion gases. These gases can potentially result in carbon monoxide poisoning. After installation of the unit the operation of flued gas appliances should be tested by a competent person to ensure that back flow of combustion gases does not occur



**THE PRODUCT MUST BE DISPOSED SEPARATELY AT THE END OF ITS SERVICE LIFE.
DO NOT DISPOSE THE UNIT AS UNSORTED DOMESTIC WASTE.**

DELIVERY SET

Fan	1 pc.
Screws with dowels	4 pcs.
Plastic screwdriver (only for the models with a timer)	1 pc.
User's manual	1 pc.
Packing box	1 pc.

OPERATION GUIDELINES

The fan is rated for connection to single-phase AC 220-240 V/50 Hz or 220 V/60 Hz power mains.

The unit is rated for continuous operation.

The arrow on the fan casing must match the air direction in the system.

The fan is rated as a class II electric appliance.

Ingress protection rating against access to hazardous parts and water ingress is IPX4.

The fan is rated for operation at the ambient air temperature from +1 °C up to +40 °C.

Power [V/Hz]	Transported air temperature [°C]
220-240/50	-25...+60
220/60	-25...+40

BRIEF DESCRIPTION

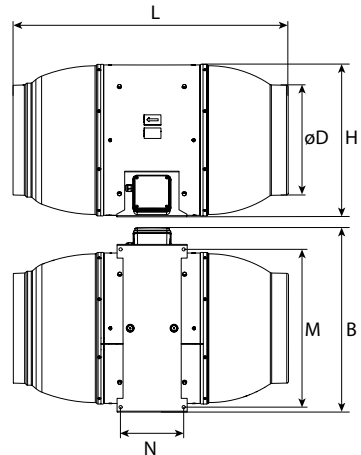
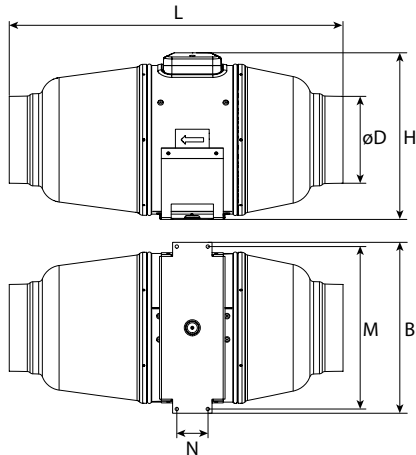
The unit described herein is a mixed-flow duct fan for supply or exhaust ventilation of premises. The fan is designed for connection to \emptyset 100, 125, 150, 160, 200, 250 and 315 mm air ducts.

An external control unit can be connected to the fan.

The fan design is constantly being improved, thus some models may be slightly different from those described in this manual.

Overall dimensions:

	Ø D	B	H	L	M	N
Iso-Mix 100	98	243	237	505	231	44
Iso-Mix 125	123	243	237	474	231	44
Iso-Mix 150	148	274	263	580	231	44
Iso-Mix 160	157	274	263	580	231	44
Iso-Mix 200	198	392	295	560	310	115
Iso-Mix 250	248	445	360	665	370	130
Iso-Mix 315	313	526	434	785	450	180



DESIGNATION KEY

Iso-Mix 100 T 120 V/60 Hz

Unit voltage:

_ — 220-240 V 50/60 Hz (default);

YYY V/ZZ Hz — mains parameters other than the default ones

Options:

T: timer

US: speed switch

FR1: integrated speed controller from 0 to 100 %, power cord with a mains plug

G1: speed controller with an electronic thermostat and external temperature sensor. Power cord with a mains plug.

G11: speed controller with an electronic thermostat and a temperature sensor integrated into the air duct. Power cord with a mains plug.

GT1: speed controller with an electronic thermostat and external temperature sensor. Power cord with a mains plug. Timer-based operation logic

GT11: speed controller with an electronic thermostat and a temperature sensor integrated into the air duct. Power cord with a mains plug. Timer-based operation logic

GS1: speed controller with an electronic thermostat and external temperature sensor fixed on 4 m cable; power cord with a mains plug. Temperature-based switching on/off

GS11: speed controller with an electronic thermostat and a temperature sensor integrated into the air duct; power cord with a mains plug. Temperature-based switching on/off

W: power cord with a mains plug

Outlet spigot diameter [mm]

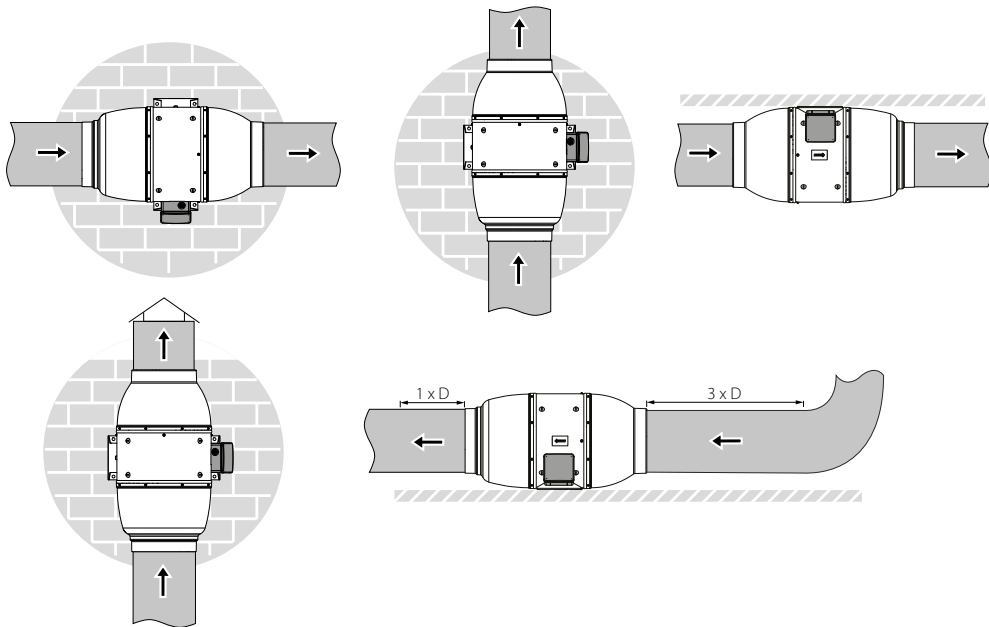
Fan model

For a description of the fan options, see the «Electronics operation algorithm» section.

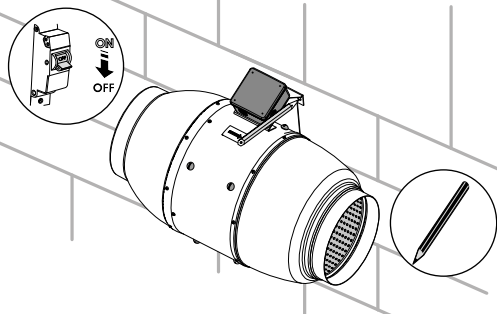
INSTALLATION AND SET-UP

The fan is suitable both for horizontal or vertical mounting on the floor, on the wall or on the ceiling. While mounting the fan, provide extra protection against water ingress, such as:

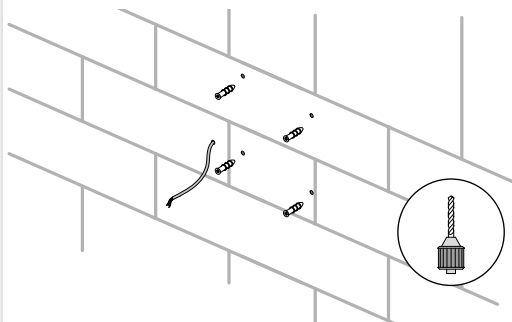
- For the top mounting install an outer protecting hood above.
- For any mounting position connect an air duct on both sides of the fan.



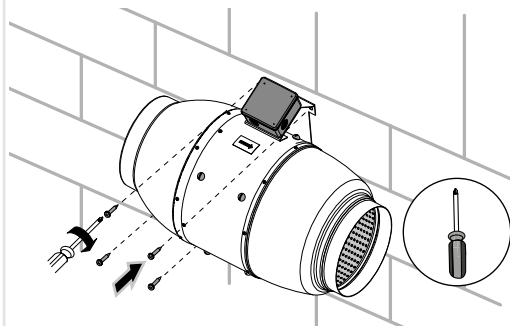
Cut off power supply and make sure electricity has been turned off. Mark the holes for fixing the fan and the power cable.



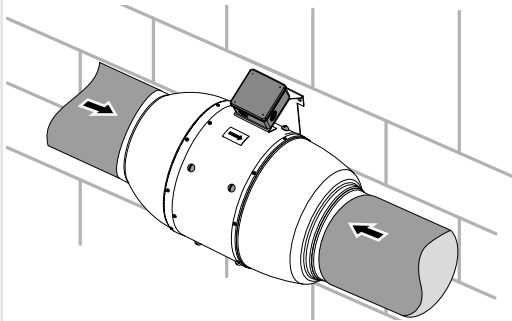
Lead the power cable to the ventilation hole, drill the mounting holes and install the dowels.



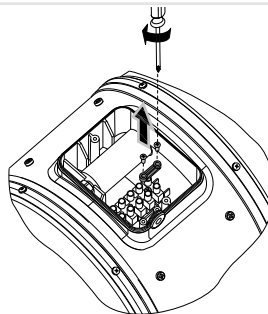
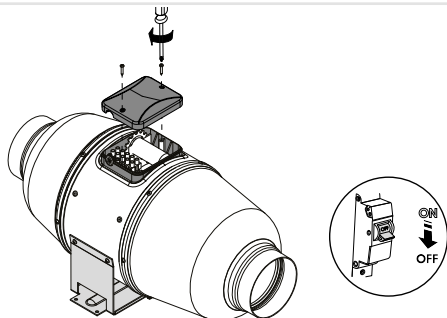
Fix the fan with the screws.



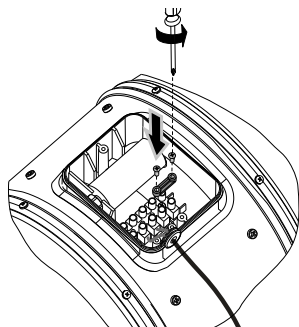
For any mounting position connect an air duct on both sides of the fan.



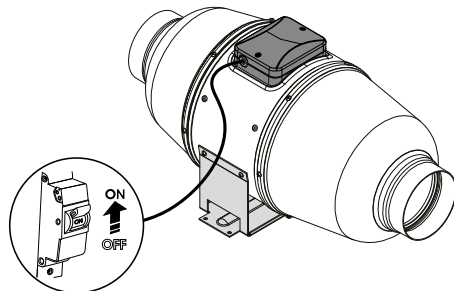
Cut off power supply and make sure electricity has been turned off. Remove the cover of the fan.



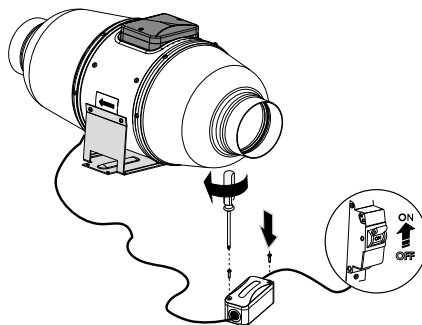
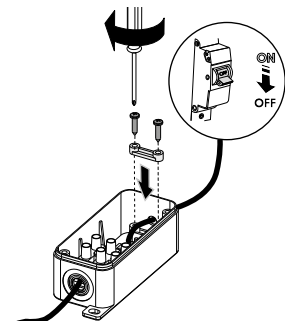
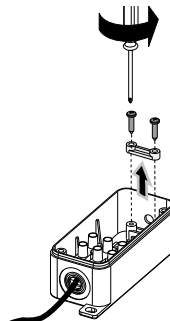
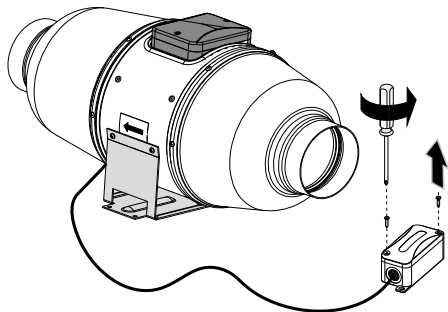
Connect the power cord wires to the terminal block and assemble the fan in reverse order.

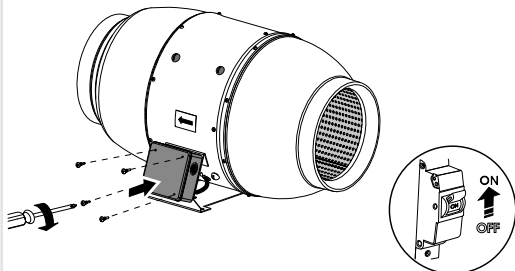
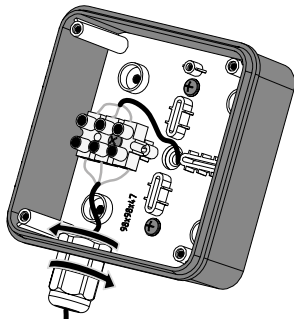
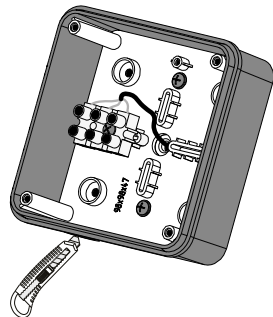
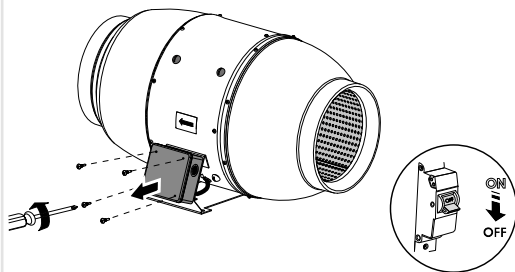


Supply power to the fan.

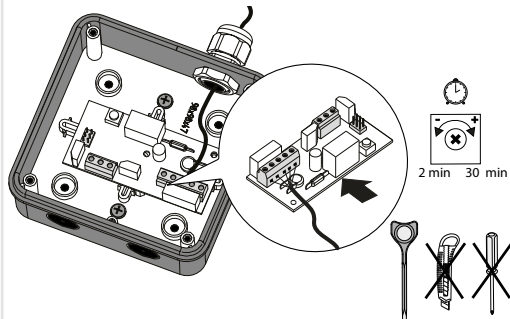


Mounting sequence for different fan models

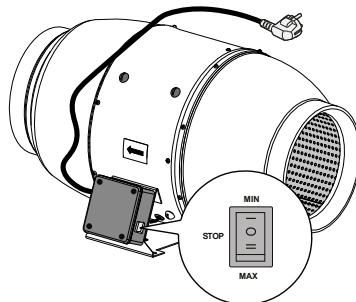




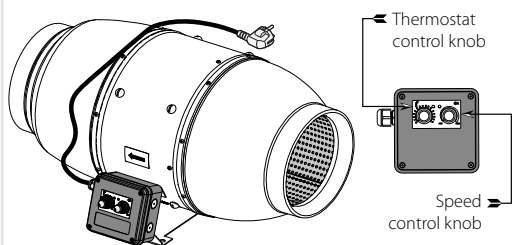
Iso-Mix ... T



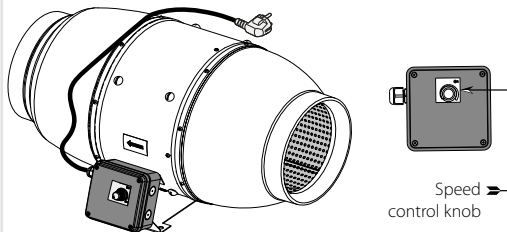
Iso-Mix ... US



Iso-Mix ... G1 (GI1, GT1, GTI1, GS1, GS11)



Iso-Mix ... W



CONNECTION TO POWER MAINS

The fan is rated for connection to single-phase AC 220-240 V/50 (60) Hz power mains.

TERMINAL DESIGNATIONS ON WIRING DIAGRAMS

L1 — minimum speed terminal

L2 — maximum speed terminal

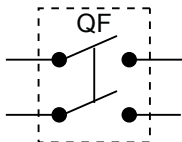
QF — automatic circuit breaker

S — external speed controller

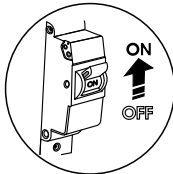
ST — external switch

SW — control mode switch

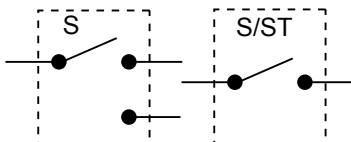
Automatic circuit breaker
designation in the wiring diagram



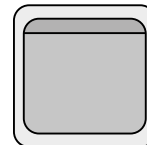
Automatic
circuit breaker



Designation of the external switch on
the wiring diagram

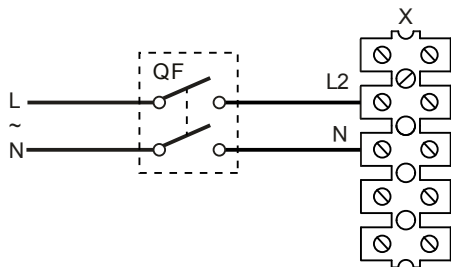


External switch

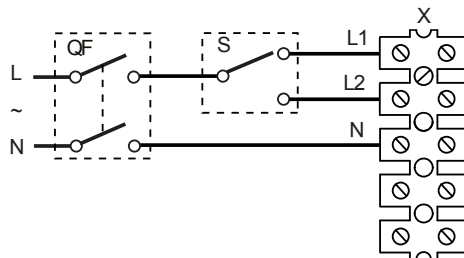


**DO NOT USE A METAL SCREWDRIVER, KNIFE, ETC. FOR ADJUSTMENT
OPERATIONS NOT TO DAMAGE THE CIRCUIT BOARD.**

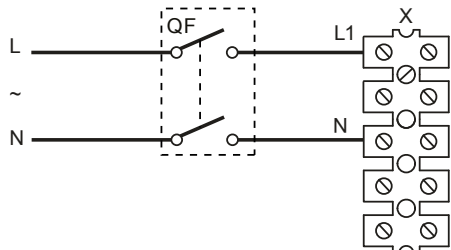
Iso-Mix 100/125



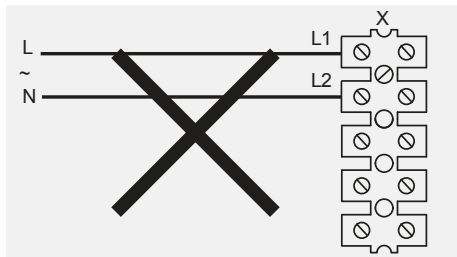
Max



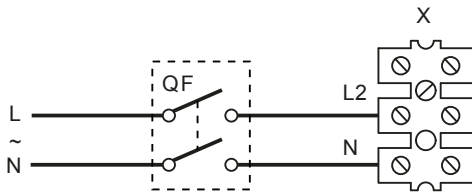
Max/min



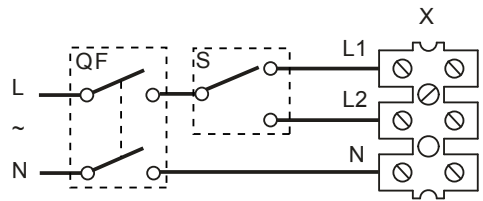
Min



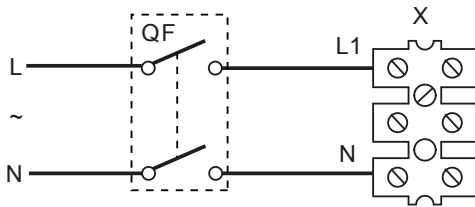
Iso-Mix 150/160/200/250/315



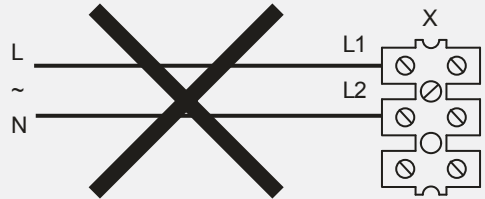
Max



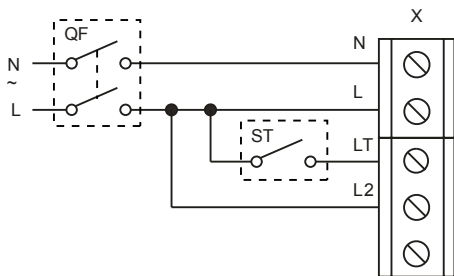
Max/min



Min

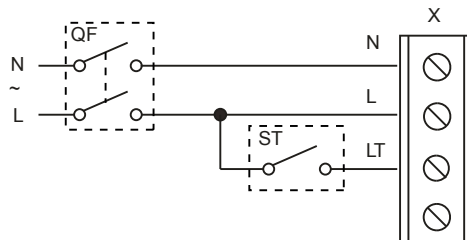


Iso-Mix ... T

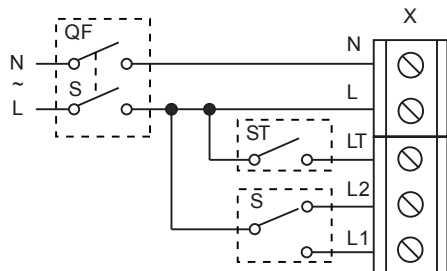


Max

terminal block for 5 contacts

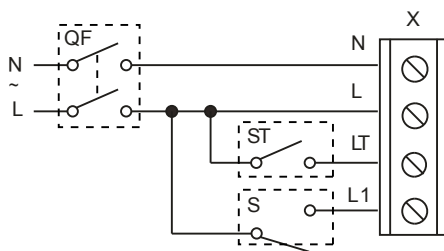


terminal block for 4 contacts

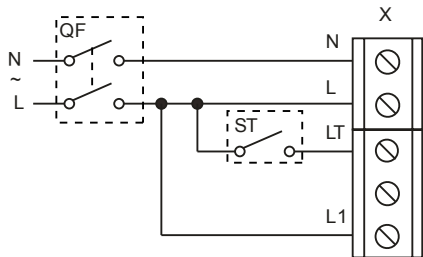


Max/min

terminal block for 5 contacts

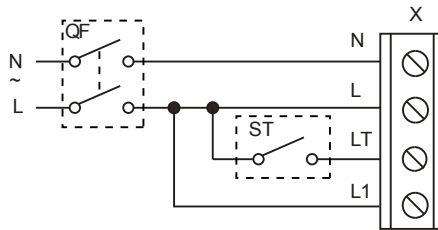


terminal block for 4 contacts

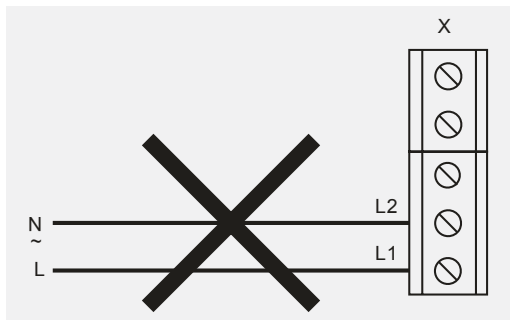


Min

terminal block for 5 contacts



terminal block for 4 contacts



ELECTRONICS OPERATION ALGORITHM

It is possible to control the fan rotation speed without options by voltage, as well as by thyristor controllers. The speed controller is purchased separately.

Warning! When adjusting the voltage, make sure there is no unusual noise or vibration at reduced motor speed. The motor current may exceed the rated current during voltage regulation. The fan is equipped with a thermal switch with no self-reset.

To reset the thermal relay:

- Switch off the power supply.
- Find and eliminate the cause of overheating.
- Make sure the motor has cooled down to operating temperature.
- Switch on the power supply.

The **Iso-Mix ... T** fan starts operation when the control voltage is applied to the LT input terminal by an external switch (e.g. switching on the room light).

After the control voltage is off, the fan continues to operate within the set time period adjustable from 2 to 30 minutes by the timer.

To adjust the fan turn-on delay time, turn the control knob **T** clockwise to increase and counter-clockwise to decrease the turn-on delay time respectively.

Warning! The timer circuit is under mains voltage. Make adjustments only after disconnecting the fan from power mains. The fan is supplied with a special plastic screwdriver for adjusting the fan settings. Use it if you want to change the fan turn-off delay time or the humidity threshold. Using a metal screwdriver, knife, etc. for adjustment may damage the electronics board.

The **Iso-Mix ... GI1/GT11/GS1/GS11** fan is equipped with an electronic module **TSC** (speed controller with an electronic thermostat) for automatic motor speed (air flow) control depending on the air temperature.

The terminal compartment incorporates 2 control knobs:

- presetting the speed
- setting the threshold for the electronic thermostat

The thermostat operation indicator is located on the fan cover. It lights up when the air temperature exceeds the set value. To set the thermostat threshold, turn the temperature knob clockwise to increase the value and counter-clockwise to decrease the value. To set the fan speed (air flow), rotate the speed control knob in the same way.

The fan operating logic may be based on temperature or timer indications:

Iso-Mix ... G(I)1: The fan switches to the maximum speed as the room air temperature exceeds the set point. As the air temperature drops 2 °C below the set point or if the initial temperature is below the set point, the fan operates with the set speed.

Iso-Mix ... GT1: The fan switches to the maximum speed as the room air temperature exceeds the set point. As the air temperature drops down below the set point, the timer starts a 5-minute countdown and then the fan switches to the set speed.

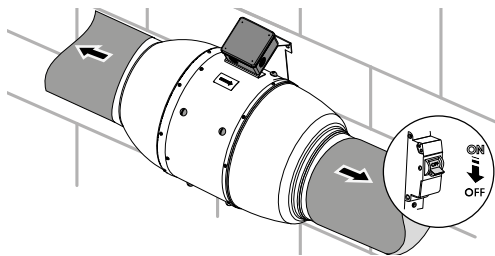
Iso-Mix ... GS(I)1: The fan switches to the set speed as the room air temperature exceeds the set point. As the air temperature drops 2 °C below the set point or if the initial temperature is below the set point, the fan is turned off.

The **Iso-Mix ... FR1** fan is equipped with a speed controller that enables switching the fan on/off and smooth speed (air flow) regulation from minimum to maximum value.

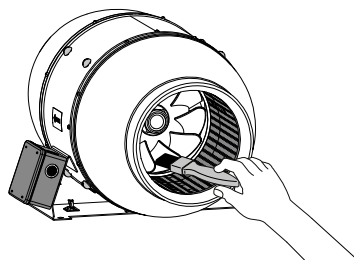
TECHNICAL MAINTENANCE

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

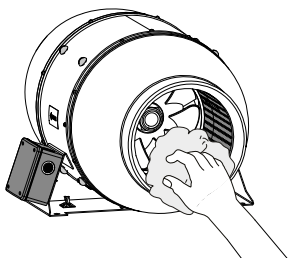
Disconnect the fan from power supply and make sure electricity has been turned off. Disconnect an air duct on both sides of the fan.



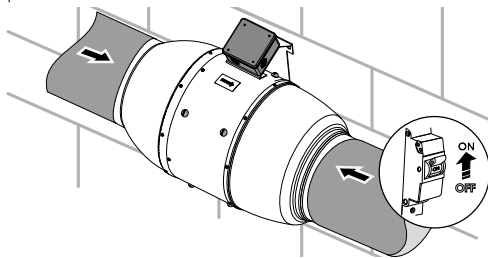
Clean the fan with a soft dry cloth or a brush.



Wipe the fan surfaces dry.



Connect an air duct on both sides of the fan. Supply power to the fan.



CAUTION! Do not allow water or liquid come into contact with electric components!

TROUBLESHOOTING

Problem	Possible reasons	Troubleshooting
When the unit is connected to power mains, the fan does not rotate and does not respond to any controls.	No power supply.	Make sure the power supply line is connected correctly, otherwise troubleshoot the connection error.
	Internal connection fault.	Contact the Seller.
Low air flow.	The ventilation system is clogged.	Clean the ventilation system.
Increased noise, vibration.	The impeller is clogged.	Clean the impeller.
	The fan is not secured well or is not mounted properly.	Troubleshoot the installation error.
	The ventilation system is clogged.	Clean the ventilation system.

STORAGE AND TRANSPORTATION REGULATIONS

- Store the unit in the manufacturer's original packaging box in a dry closed ventilated premise with temperature range from +5 °C to + 40 °C and relative humidity up to 70 %.
- Storage environment must not contain aggressive vapors 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 packaging by any mode of transport provided proper protection against precipitation and mechanical damage. The unit must be transported only in the working position.
- Avoid sharp blows, scratches, or rough handling during loading and unloading.
- Prior to the initial power-up after transportation at low temperatures, allow the unit to warm up at operating temperature for at least 3-4 hours.

MANUFACTURER'S WARRANTY

Blauberg Warranty:

- This warranty is given by Blauberg Australasia Pty Ltd, with an office at Unit 5, 45A Eastern Creek Drive, Eastern Creek, New South Wales 2766, Australia. Phone 1300 475-504.
- From the date of purchase, the original purchaser is entitled to free replacement parts, or a new unit for a period of two years from the date of purchase.
- The defective parts or unit must be returned to Blauberg Australasia Pty Ltd at your own cost before an exchange or parts or unit will be given.
- A proof of purchase will be required before a warranty claim is accepted.
- The warranty will also not cover damage caused by misuse, neglect, shipping accident, incorrect or improper installation, voltage supply problems, unauthorised modification or repairs of any kind, exposure to corrosive conditions, exposure to weather and where no fault is found with the product.
- We will not cover any loss incurred by you in relation to the product or making the claim under this warranty including without limitation any costs associated with installation, reinstallation, or transporting the product.

Additional Information:

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement of the purchased product for a major failure of the product. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. Our ventilation products also come with a two year limited warranty given by Blauberg Australasia Pty Ltd, with an office at Unit 5, 45A Eastern Creek Drive, Eastern Creek, New South Wales 2766, as set out in the instruction manual in the box. If your product does not provide the general features and functions described in the user documentation in the five year period after delivery to you, please call Blauberg Australasia Pty Ltd, ABN 85 637 003 582 on 1300 475-504 with details of your product, serial number and proof of purchase. You may be required to return the ventilation product to the address listed, in which case such a return will be at your own cost. The benefits under this warranty are in addition to other rights and remedies that you may have at law.

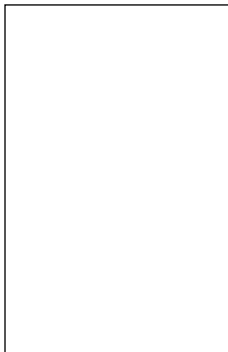


FOLLOWING THE REGULATIONS STIPULATED HEREIN WILL ENSURE A LONG AND TROUBLE-FREE OPERATION OF THE UNIT.

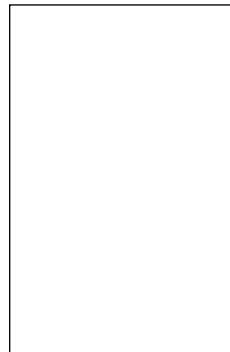


USER'S WARRANTY CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP.

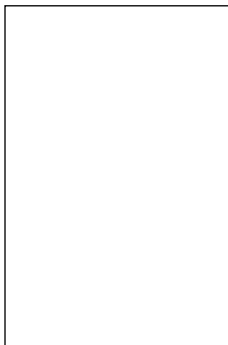
Quality Inspector's Stamp

A large, empty rectangular box with a thin black border, intended for a quality inspector's stamp.

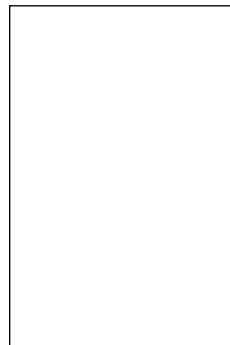
Sold by
(name and stamp of the seller)

A large, empty rectangular box with a thin black border, intended for the name and stamp of the seller.

Manufacture Date

A large, empty rectangular box with a thin black border, intended for the manufacture date.

Purchase Date

A large, empty rectangular box with a thin black border, intended for the purchase date.

