EVOAQ
Air Quality Innovation

Ventilation Systems Installation Manual

Please take the time to read these instructions in full before commencing your installation.

Careful planning prior to starting work will guarantee the fastest and best results regarding the installation.

Working in the ceiling space can be a hazard, and all safety precautions should be used to ensure the safety of yourself and any others.

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Thank you for your purchase of our company's products. This system has been manufactured following current technical safety regulations and is in compliance with AS/NZ60335 standard.

Please read this instruction booklet carefully before installing the system.

It contains important information on personal and user safety measures to be followed while installing, using, and carrying out maintenance work on the equipment. Once the product has been installed, please hand this booklet to the end user.

TRANSPORT AND MANIPULATION

The packaging used for this system has been designed to support normal transporting conditions. The product must always be transported in its original packaging as not doing so could deform or damage the product. Do not place heavy weights on the packaging and avoid knocking or dropping it.

Check that the apparatus is in perfect condition while unpacking. Do not accept delivery if the apparatus is not in its original packaging or shows clear signs of having been manipulated in any way. Any fault or damage caused in origin is covered by our company guarantee. Please make sure that the apparatus coincides with the product you have ordered and that the details on the rating label fulfil your requirements.

The product should be stored in a dry place in its original packaging, protected from dust and dirt until it is installed in its final location.

IMPORTANT INFORMATION

Installation must only be carried out by qualified persons. Make sure that the installation complies with the applicable building and electrical regulations. The fan appliance must not be used in explosive or corrosive atmospheres. The duct system must be used exclusively for the ventilation system.

The appliance is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the appliance safely. Young children should be supervised to ensure that they do not play with the appliance.

ELECTRICAL CONNECTION

The ventilation fan must be connected to a single-phase mains network, with the specific voltage and frequency according to the specifications on the fan rating label.
The electrical installation must include an isolating switch with a contact clearance of at least 3 mm, correctly sized and in accordance with the electrical standards.
Earthing is not required as this fan has double insulation (Class II).

If the fan model you have purchased is not fitted with a power cord then please note that it must be wired with a fixed permanent connection. Disconnect the mains supply before making any electrical connection. If in any doubt contact a registered electrician.

SAFETY DURING INSTALLATION

Make sure there are no loose elements near the fan, as they could run the risk of being sucked up by it. When connecting the fan to the ducting, check that the ducting is clean of any element that could be sucked up by the fan. During installation of the fan, make sure that all the fittings are in place and that the structure which supports it is resistant enough to bear its weight at full functioning power.

Fans may have a delayed start-up time or operate under the control of their inbuilt electronics. Always take extreme care as the unit may start unexpectedly. Before carrying out any maintenance, make sure the mains supply is disconnected, even if the machine is switched off. Never insert your hands into the inlet side of the fan without first unplugging the fan.

INSTALLING THE SYSTEM

Before commencing installation, select a suitable place for the fan to be installed in the ceiling cavity. It is recommended to place the fan and filter near the manhole for easy access when carrying out maintenance to the system. Suspend the fan and filter from the ceiling framing with the chain and cable ties provided in order to minimise the sound levels resonating through the ceiling framing.

If the system will be taking air from outside or the fan or air inlet is installed in outside windows or walls, care must be taken to avoid the backflow of gases into the system from open gas flues or other open-fire appliances.

Attach the inlet side of the fan to the filter frame using the duct tape provided. Connect the acoustic ducting to the outlet of the fan. The acoustic ducting should be 1-1.5m long and placed after the fan to eliminate sounds from the fan motor inside the ducting system.
The inlet of the fan unit is the end where you can see the fan blade clearly. There are also arrows on the unit showing airflow direction.

Spending time planning the layout of the ducting system is important. See the inside page of this instruction manual for further details and example layouts.

Some simple rules to apply to ensure the best possible results:

- Lay the ducting so there is a roughly equal length of ducting to each diffuser.
- The shortest length of ducting should be no shorter than 3 metres.
- Avoid tight bends in the ducting.
- Ensure the ducting is stretched out fully. Cut the ducting if needed.
- Avoid installing the ducting where it may be crushed or damaged by you or other tradesmen.
- Avoid installing the diffusers near doors/hallways and directly above beds or couches.

If a wall controller is included with the system, this is connected to the fan via the supplied network cable. The controller is low-voltage only, however to prevent any damage to both the fan and controller, please ensure that the fan is disconnected from the mains supply before connecting the controller.

STARTING UP THE FAN

Before starting up the fan, ensure that:

- The apparatus is well secured and the electrical connections have been carried out correctly.
- Any electrical safety devices are correctly connected, adequately adjusted and ready for use.
- The wire and electrical connection inputs are correctly sealed and water-tight.

When starting up the fan, ensure that:

- The propeller turns in the correct direction.
- There are no abnormal vibrations.

If the circuit protection device is tripping during operation, the apparatus must be quickly disconnected from the mains supply. The whole installation should be carefully checked before trying to start up the machine again.

When the fan is first powered up, there may be a momentary startup delay of up to 30 second while the fan is calibrating the sensors or checking user input from the wall controller.

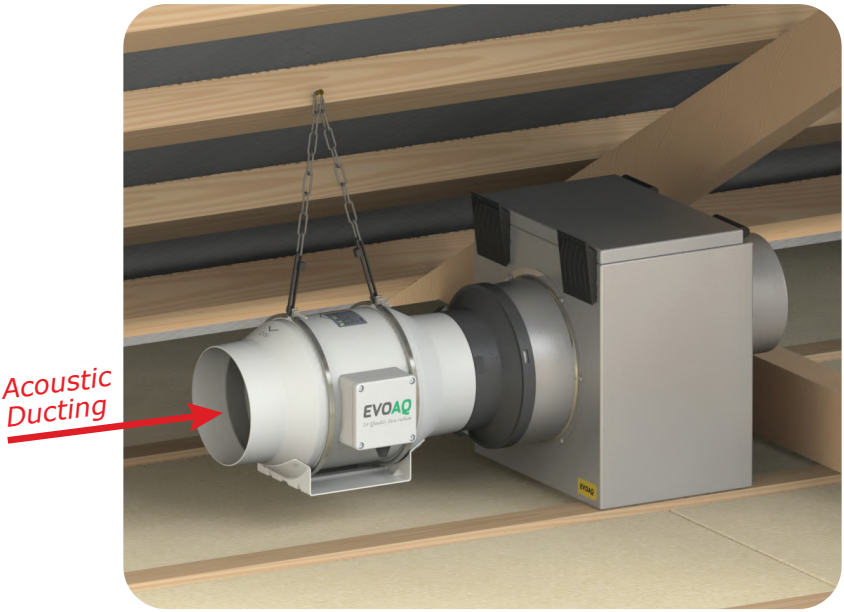
FAN INSTALLATION

Some things to consider when installing the fan and the filter:

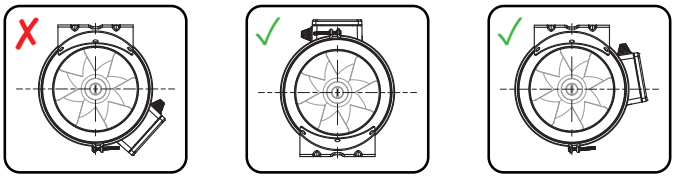
- Mount the fan and filter so they sit above any ceiling material - ~200mm above the ceiling.
- Hang the fan and filter with the chain and cable ties provided (e.g. see below image).
- Connect 1m acoustic ducting after the fan, not in between the fan and filter.
- To avoid damage to the electronics, ensure the fan body is placed upright (see below).
- For optimal airflows, keep the duct straight and level with the fan.
- Place the fan away from bedrooms to minimise noise issues.

We recommend positioning the fan and filter close to the manhole for easy access for servicing. The filter should be checked at least every 12 months, and replaced **at least** every 2 years, or earlier if necessary.

The fan should fit on the filter directly and does not require any ducting to be placed in between. However if the construction of the roof does not provide enough space to mount the fan directly onto the filter, you can use a short piece of ducting (recommended length <500mm) to connect between the two. This ducting does not have to be acoustic ducting.

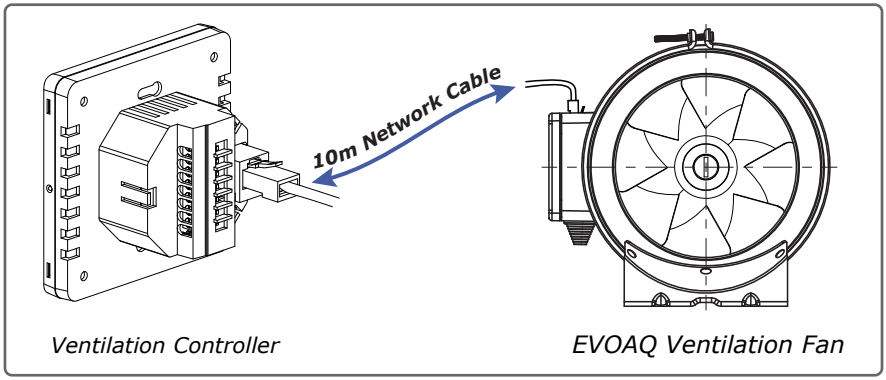


Do not install the electronics box upside down as this will damage the fan



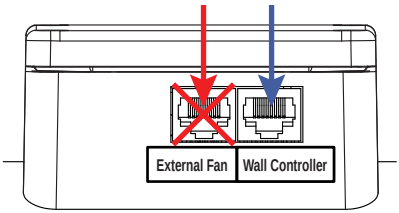
System Wiring

Ventilation Fan and Controller (optional)



External fan *(only used in balanced or heat transfer)*

Wall Controller *(or Air Source Control Box)*



Cable connection to ventilation fan

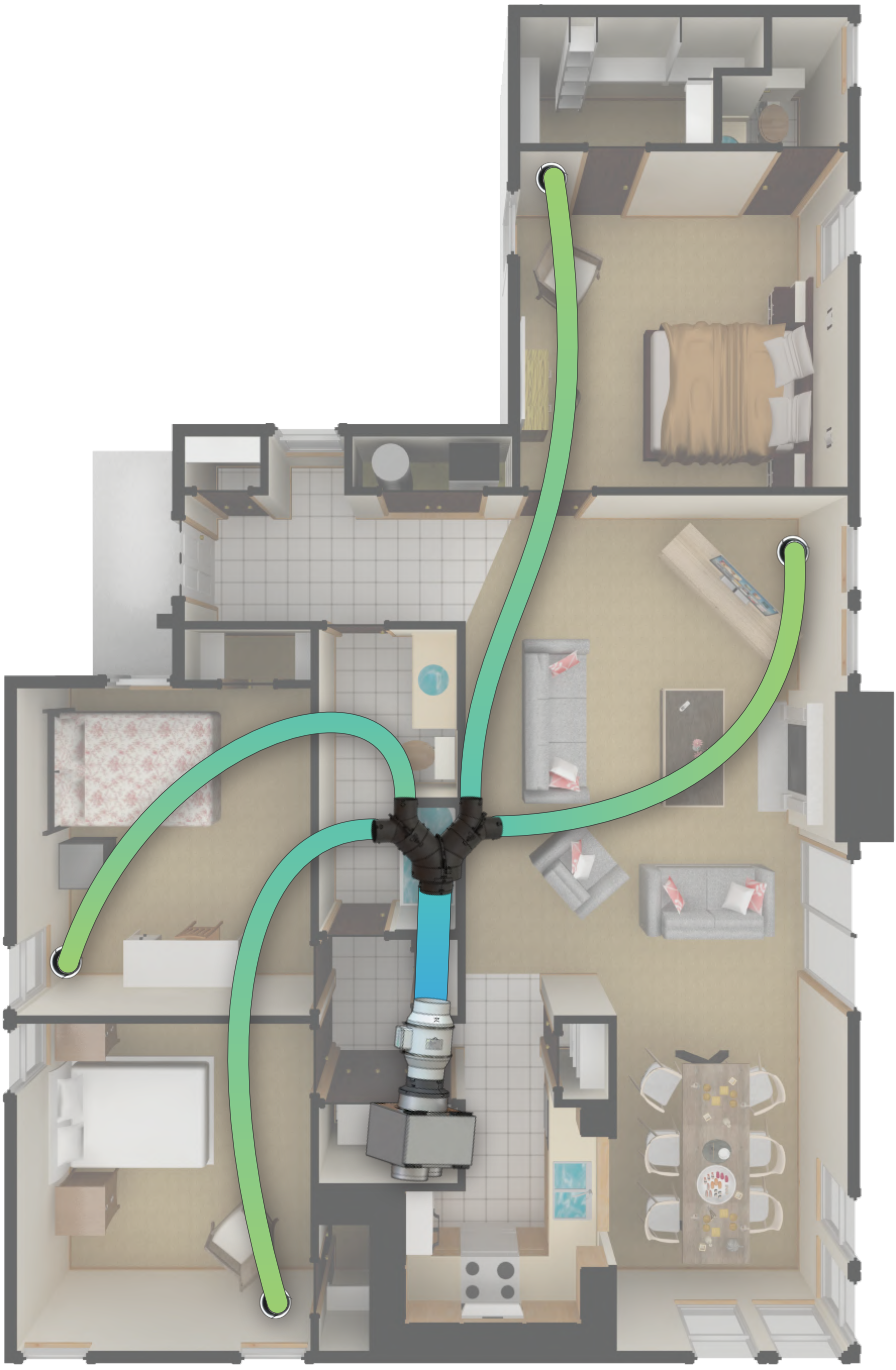
Some ventilation fans - *such as those supplied with our basic (landlord) systems* - may be fitted with an adjustable knob. This knob can be used to select the operating mode instead of using a wall controller.

Recommended Ventilation Rates			
Fan Size	***125mm***	***150mm***	***200mm***
Low Mode	*1 Outlet*	*3-4 Outlets*	*6 Outlets*
Med Mode	*2 Outlets*	*5 Outlets*	*7-8 Outlets*
High Mode	*3 Outlets*	*6 Outlets*	*9+ Outlets*

For more information about how to connect or wire the fan, contact us directly.

For wiring of summer kit and heat transfer add-ons, check the respective manuals or contact us for more information.

4-Room Sample Layout



6-Room Sample Layout

MAINTENANCE

Before manipulating the fan, make sure it is disconnected from the mains supply - even if it has previously been switched off. Prevent the possibility of anyone else connecting it while it is being manipulated.

The apparatus must be regularly inspected. These inspections should be carried out while bearing in mind the machine's working conditions, taking care to avoid dirt or dust accumulating on the propeller, turbine, motor or grids. This could be dangerous and perceptibly shorten the working life of the fan unit. While cleaning, great care should be taken not to damage the propeller.

All maintenance and repair work should be carried out in strict compliance with each country's current safety regulations.

The fan included with this ventilation system is designed as simply plug in and go without requiring user intervention.
The smart in-built electronics are constantly monitoring the incoming air quality.
The fan will vary its speed between very low and very high rates (10 - 100%) depending on the quality of the air to maintain a comfortable and moisture-free indoor environment.

This system is capable of ventilating at very low rates while still bringing in enough fresh air into the house in situations where other systems would simply switch off.

Maintaining correct ventilation of the house is important in order to prevent heat and energy losses and to allow you to enjoy a healthier indoor environment.

For further information, please contact EvolutionFX NZ Limited
Email: info@evolutionfx.co.nz
Phone: +64 9 558 5590

EVOAQ Ventilation Fan Specifications			
Fan Size	*125mm*	*150mm*	*200mm*
Voltage (V/Hz)	*230 / 50*	*230 / 50*	*230 / 50*
Power (W)	*2 - 17*	*3 - 73*	*3 - 165*
Air Flow (m^3/hr)	*65 ~ 284*	*65 ~ 650*	*63 ~ 1228*
Static Pressure (Pa)	*159*	*457*	*580*
Noise Level (dB)	*28*	*31*	*38*
Speed (RPM)	*250 - 2250*	*500 - 3000*	*500 - 3000*
Weight (kg)	*2.5*	*2.5*	*3.5*
Specific Fan Power (SFP)	*0.175 W/Ls^{-1}*	*0.398 W/Ls^{-1}*	*0.294 W/Ls^{-1}*

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Warranty Certificate

Owner's Details

First Name: _____

Last Name: _____

Address: _____

City: _____ Postcode: _____

Email: _____

Product Details

Model Number: _____

Installer Name: _____

Installer Email: _____

Date Installed: _____

The manufacturer, EvolutionFX Ltd, warrants to the purchaser that this product is free from defects in the material and workmanship for a period of five years from the date of original purchase. The warranty only operates if proof of purchase in the form of a bill of sale, invoice or purchase receipt is presented at the time of request of service.

The customer shall ensure that the goods are fit and suitable for the purpose for which they are required. EvolutionFX Ltd is under no liability if they are not.

The warranty is in addition to all other conditions, warranties, guarantees, rights and remedies which may be applied by relevant legislation in New Zealand.

The warranty will not be applicable if the product has not been installed, operated and maintained in accordance with the manufacturer's instructions and recommendations contained in operating & installation instructions provided with the product, or if the product has been used in a manner other than for which it was originally designed, or if the damage, malfunction or failure has resulted from incorrect voltages, alterations, accidents, misuse, neglect, abuse, faulty or improper installation or mains supply problems, including lightning surges.

This warranty is limited to the product only (expressly excluding labour and transport costs) and is dependent on it being returned to the point of purchase. EvolutionFX Ltd reserves the right to repair or replace any warranty item at its discretion.

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