



SELV Base Units:
iCON15S – 72591801
iCON30S – 72591901

iCON™ SELV Domestic Ventilators

Installation, Maintenance and Use

iCON SELV (Safety Extra Low Voltage) ventilators are available in 2 model sizes and can be fitted to a wall or ceiling. Each fan requires a suitable sized hole through the wall or ceiling structure which connects into a ducting system venting to the outside. The external opening should be covered by an external grille, available separately from Airflow.

The iCON SELV fans have IPX4 rated housings, they are double-insulated and are suitable for fitting in Zone 1, 2 or 3 of bathrooms, toilets, kitchens, utility rooms and inside shower cubicles.

The iCON SELV transformer unit has an IP55 rated housing and must be fitted outside of Zones 0, 1 and 2. It is usually installed outside the room.

Note: On-off switches for ventilators shall be selected and sited in accordance with electrical safety regulations and standards.

Whilst the iCON range can be used as a simple ventilator powered via the iCON transformer unit, and connected to either a switch or into a lighting circuit, each ventilator can also be fitted with an internal control module. The control function options include: timer, PIR, humidity, pull-cord and various standard combinations of these. Modules are available separately and can be fitted at the time of installation or retrofitted. [See: Modules for iCON SELV]

All installation to be carried out by a qualified person.

Safety Precautions and General Recommendations

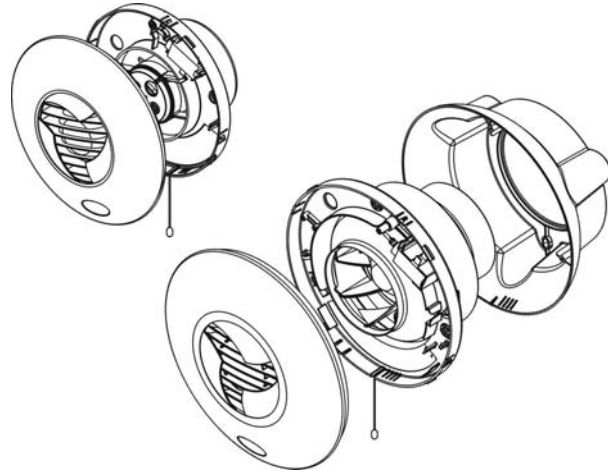
- Observe all appropriate safety precautions when using steps and ladders.
- Wear eye protection when drilling, cutting or breaking out walls or ceilings.
- Check for buried cables or pipes before drilling or cutting walls or ceilings.

IMPORTANT: Read all instructions fully, in conjunction with the diagrams, before commencing installation.

- All relevant regulations and requirements must be strictly obeyed to ensure safe operation and maintenance of iCON domestic ventilators.
- The ventilator must be sited and connected in accordance with all current European regulations or appropriate National standards in other countries.
- iCON SELV ventilator units are not suitable for use in Zone 0, [See also: Installation].
- iCON SELV transformer unit (230V/12V DC) is not suitable for use in Zones 0, 1 or 2. It must be sited out of reach of anyone using the bath, shower or sink, and is best fitted outside the room or in an accessible loft or roof space, [See also: Installation].
- Never cover the transformer unit with thermal insulation or any other material and ensure adequate air circulation.
- The recommended maximum length of cable between the ventilator and transformer is 5m for 1.5 mm² cables. Do not place the ventilator near direct heat sources, e.g. radiant heaters, or where temperatures can exceed 40°C (104°F).
- If a ventilator is placed in a room containing a fuel-burning appliance, e.g. gas-fired boiler, the installer is responsible for ensuring that the air replacement in the room is adequate for both the ventilator and the fuel-burning appliance.

- The installer is responsible for ensuring that the capacity of the ventilator does not cause combustion fumes to be drawn into a room containing non-balanced flue fuel-burning appliances. Air intakes should be at least 500mm away from the flue.
- To optimise airflow within the room, ventilators should be placed as far away as possible and opposite to the main source of air replacement, without infringing forbidden zones.
- All wall and ceiling holes for iCON ventilators should be lined with ducting, such as rigid plastic soil pipe; aluminium or stainless steel are also acceptable. Flexible ducting can be used provided that it is fixed to remain taut and has generous bend radii to avoid kinking.
- Do not connect the exhaust from the ventilator into ducting that is also used for venting non-electrical appliances or equipment.
- Do not connect the exhaust air from the ventilator into the flues of fuel-burning appliances.
- The transformer unit shall be connected to a double-pole, isolating mains switch (230V/50Hz) conforming to Cat.III or with a contact separation of at least 3 mm.
- An external 3A fuse is required for each transformer unit. The transformer and the ventilator unit do not have an internal fuse.
- iCON SELV units are double insulated, and therefore do not require an earth connection.
- Always isolate the transformer unit from the mains supply before removing the fan cover for maintenance, [See also: Maintenance].

Installation



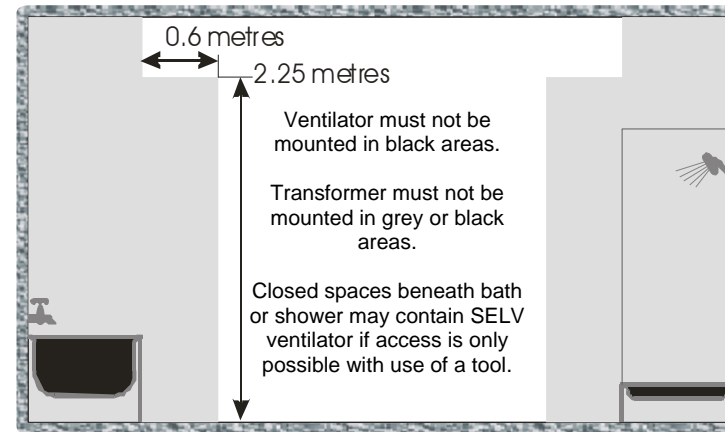
Your iCON ventilator packaging contains:

iCON15S	iCON30S
Fan assembly (7591801)	Fan assembly (72591901)
-	Skirt (82594401)
Fixing Pack (82592901)	Fixing Pack (82593301)
2 x Plastic wall Plugs	3 x Plastic wall Plugs
2 x 5mm x 32mm Pan head screws	3 x 4mm x 32mm Pan head screws
1 x Cable clamp	1 x Cable clamp
2 x M3 x 10 Flange head screws	2 x M3 x 10 Flange head screws
1 x Cable grommet	3 x M3 x 8 Flange head screws
	1 x Cable grommet
iCON SELV Transformer (82334101)	
Fixing Pack (72334401)	
2 x Cable clamps	
4 x Cable clamp screws (Pan head, self tapping: 3.5mm x 14mm long)	
2 x Cable grommets (max. cable size: 7.5mm OD)	
2 x Mounting screws (Pan head, self tapping: 4mm x 32mm long)	
2 x Plastic wall plugs	
Instruction Booklet (9021433) - keep for future reference	

Note: Control modules are packaged separately.

Positioning Transformer

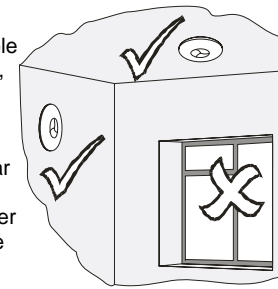
The iCON SELV transformer unit cannot be fitted in Zone 0, 1 or 2 and must be sited out of reach of anyone using the bath, shower or sink. The units are usually installed outside the room or in an accessible loft or roof space with adequate circulation of air around the transformer unit to avoid overheating. The unit can be mounted on the side or top of a roof joist. **Note:** Never cover the transformer unit with thermal insulation or other materials. The recommended distance between the transformer unit and the ventilator depends on the cable used. The maximum distance for a 1.5mm² cable, is 5m; shorter for a smaller cable and longer for a larger cable. [See: Mounting transformer].



Positioning Ventilator

The iCON SELV range of ventilators is suitable for bathrooms, inside shower cubicles, toilets, kitchens, utility rooms and can be fitted in Zone 1 (BS 7671:2001).

Note: The assignment of Zone numbers is affected by the internal layout of any particular room, e.g. position of water sources, the presence of permanent wall partitions, whether shower heads are demountable or fixed, [See also: Safety Recommendations].



Surface or Recessed Mount

Configuration options (Ceiling or wall mounting)		
Recessed	Recessed	Surface Mount
Models: iCON15S	Models: iCON30S	Models: iCON30S using the skirt supplied.

Ducting

The iCON ventilator units are designed to slide into standard sized ducting or pipes, [See: Safety Recommendations]. The hole sizes made in ceiling or walls largely depend on the type of ducting used, [See: Cutting holes].

Cutting Holes

Configuration options	Typical hole size required (mm)	
	iCON15S	iCON30S
Recessed	110 ¹	160 ²
Surface Mount	Not available	110 ¹

- Notes:**
- Hole size to suit duct 100 mm ID, e.g. typical soil pipe, or to suit the pipe being used.
 - In cavity wall, make hole in inner wall to clear 150 mm diameter. In outer wall make hole as per Note 1.

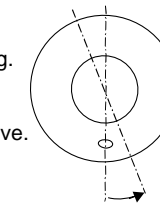
Ventilator Front Cover

Removal

The front cover of the ventilator unit has a bayonet-type fitting. Remove the retaining screw in the front cover using a screwdriver. Rotate the front cover a few degrees anticlockwise and remove.

Refitting

Reverse the removal procedure to refit the front cover.



Fixing Holes

Recessed Mount

- Slide ventilator unit into the ducting in the wall or ceiling.
- Check orientation is correct, i.e. for wall mount, the pull-cord slot is at bottom.
- Spot through fixing hole positions (2 fixing holes for iCON15S; 3 fixing holes for iCON30S).
- Drill holes suitable for wall plugs supplied in the fixing kit.
- Secure ventilator unit to structure using screws supplied (two 5mm x 32mm for iCON15S; three 4mm x 32mm for iCON30S).

Surface Mount

- Position skirt over the hole in the wall or ceiling.
- Check orientation is correct, i.e. pull-cord slot is at the bottom of skirt for wall mounting, [See: Installation diagram].
- Spot through three fixing hole positions in skirt.
- Drill holes suitable for wall plugs supplied in the fixing kit.
- Secure skirt to wall or ceiling using screws supplied in fixing kit (three size 4mm x 32mm screws).
- Fit ventilator unit into skirt.
- Check orientation is correct, i.e. align pull cord slots in fan and skirt. [See: Installation diagram].
- Secure ventilator unit with three M3 x 8 screws.

Module: All installation and adjustment to be carried out by a qualified person.

Always isolate the transformer and ventilator units from the power supply before disassembling the equipment

Fitting and Wiring

- Remove the front cover, [See: Ventilator Front Cover - Removal].
- Lift the terminal block away from fan housing.

- Push the two connector pins at one end of the module into the electrical terminal block and tighten with a suitable screwdriver. Ensure that the leads are under the retaining clip.
- Fit slot in power connector end of module into the location block in the fan housing.
- Push module back into the fan body ensuring that the terminal block locates over the 2 retaining pillars.

- For modules with pull-cords:** ensure that the pull-cord is properly located within the cord slot at the bottom of the fan housing

- For modules with PIR control:** remove the oval lens cap fitted at the bottom of the front cover of the fan unit. Replace it with the translucent lens supplied with the PIR module.

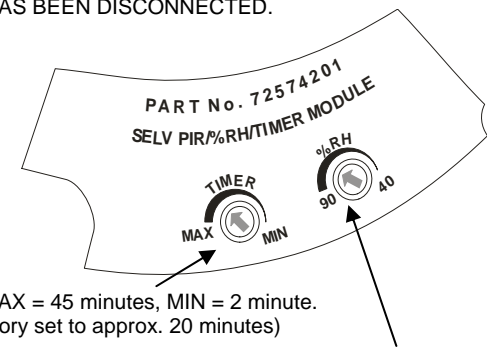
Note: The lens must be replaced in order for the PIR module to function properly. Ensure that the orientation of the lens is correct, i.e. lens face should be flush with surface.

- Connecting external DC cable into the Ventilator:** Fix the supplied sealed grommet into the cable entry hole. Pierce the grommet to allow the mains cable to be pulled through while maintaining the integrity of the seal. Connect the cable to the 3-way power connector [See: Wiring for details of the possible wiring schemes] ensuring that the supplied cable clamp is fitted.
- Refit the front cover, [See: Ventilator Front Cover - Refitting].

Module Adjustment

DO NOT OPEN THE UNIT OR ADJUST THE CONTROLS UNLESS THE POWER TO THE UNIT HAS BEEN DISCONNECTED.

A module with a Timer or Humidistat control is supplied preset, but may be adjusted by the installer.



Timer: MAX = 45 minutes, MIN = 2 minute.
(Factory set to approx. 20 minutes)

Relative humidity (%RH): 40% to 90%
(Factory set to approx. 60%RH)

