



iCON[®] Domestic AC Fans – 230V Installation and Operating Guide



iCON[®]
230V AC Base Models:
iCON15 – 72683501
iCON15C – 72591501
iCON30 – 72591601
iCON60 – 72591701



Certificate No. EMS 569454
BS EN ISO 14001 : 2004



Certificate No. FM 00152
BS EN ISO 9001 : 2008





iCON Domestic Fan – 230V

Installation, Maintenance and Use

iCON Domestic Fans are available in 3 model sizes and can be fitted to a wall or ceiling. Each fan requires a suitable size hole through the wall or ceiling which connects into a duct venting to the outside. The external opening should be covered by a suitable external grill, available separately from Airflow Developments Ltd.

Airflow iCON Model Options:

72683501 - 15	-100mm Axial Fan with maximum capacity of 19 l/sec.
72591501 - 15C	-100mm Axial Fan with maximum capacity of 19 l/sec.
72591601 - 30	-100mm Mixed Flow Fan with maximum capacity of 32 l/sec
72591701 - 60	-150mm Mixed Flow Fan with maximum capacity of 72 l/sec

The iCON range can be used as a simple extract fan operated by a remote switch, or can be fitted with an internal control module, available separately to give a range of control options including timer, humidity, motion sensor, pull cord, trickle speed or combinations of these functions. Optional modules are available separately and can be fitted at the time of installation or retrofitted.

The iCON Fan has an IP X4 rating housing and is suitable for mounting in Zone 2 in bathrooms, toilets, kitchens, utility rooms and inside shower cubicles as defined in Section 701 BS7161:2008 (IEEE wiring standards, 17th Edition). They also comply with the latest Building Regulations.

Do not place the ventilator near direct heat sources, e.g. radiant heaters, or where temperatures can exceed 40°C (104°F).

The Fan requires a 230V 50Hz single phase supply. Class II equipment. BS EN 60417. An external 3A fuse is required for each fan unit. Note: Switches for fans should be selected and sited in accordance with BS7161:2008

All electrical installation to be carried out by an approved electrician in accordance with Part "P" U.K. Building Regulations and to the latest IEEE standards, or the appropriate regulations in the country of installation.

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 fan is to be installed so that the blades are more than 2,1 m above the floor(for fans intended to be mounted at the high level)"

ALWAYS ISOLATE THE POWER SUPPLY UNIT AND FAN UNIT FROM THE POWER SUPPLY BEFORE REMOVING THE COVER.

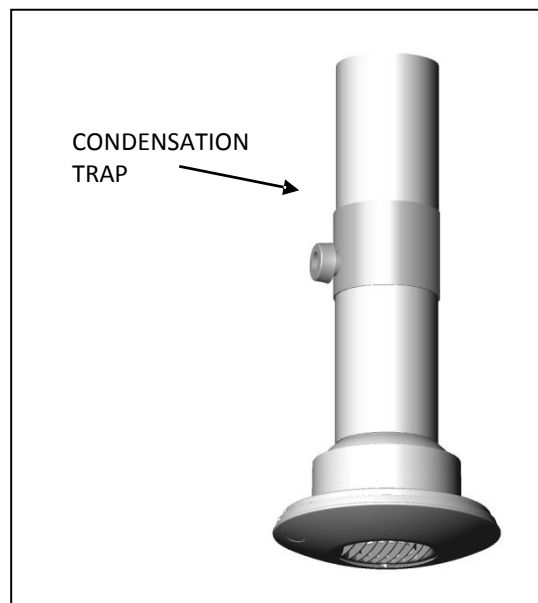
Mechanical Installation

iCON Domestic Fan can be recessed in a wall or ceiling. A mounting skirt is provided for surface mounting the iCON 30 and iCON 60.

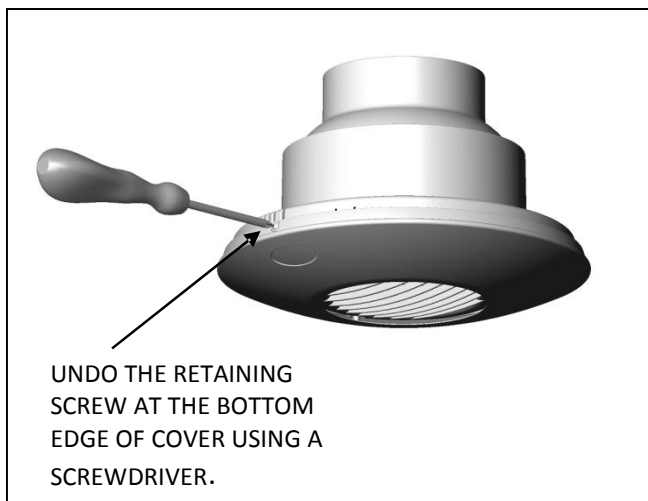
To avoid the backflow of condensation into the fan in a ceiling installation it is good practice to fit a CONDENSATION TRAP to the outlet duct of the fan.

Ensure free running of the fan impeller and that flexible duct connections are not over tightened to the fan outlet spigot.

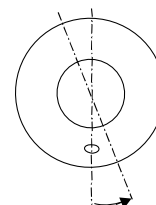
Airflow recommends that rigid ducting is used instead of flexible ducting, this will ensure maximum performance



Front Cover Removal



The front cover fan has a bayonet type fitting. To remove, undo the retaining screw at the bottom edge of the cover using a screwdriver, then rotate the cover a few degrees anticlockwise and remove. To refit, reverse the above procedure.



Recessing Fans in the Wall

The iCON 15 and iCON 15C requires a 110mm diameter hole through the wall lined with a 100mm id (internal diameter) duct.

The iCON30 requires a 110mm diameter hole through the wall, counter bored 160mm to a depth of 75mm. The 110mm hole should be lined with a 100mm id duct.

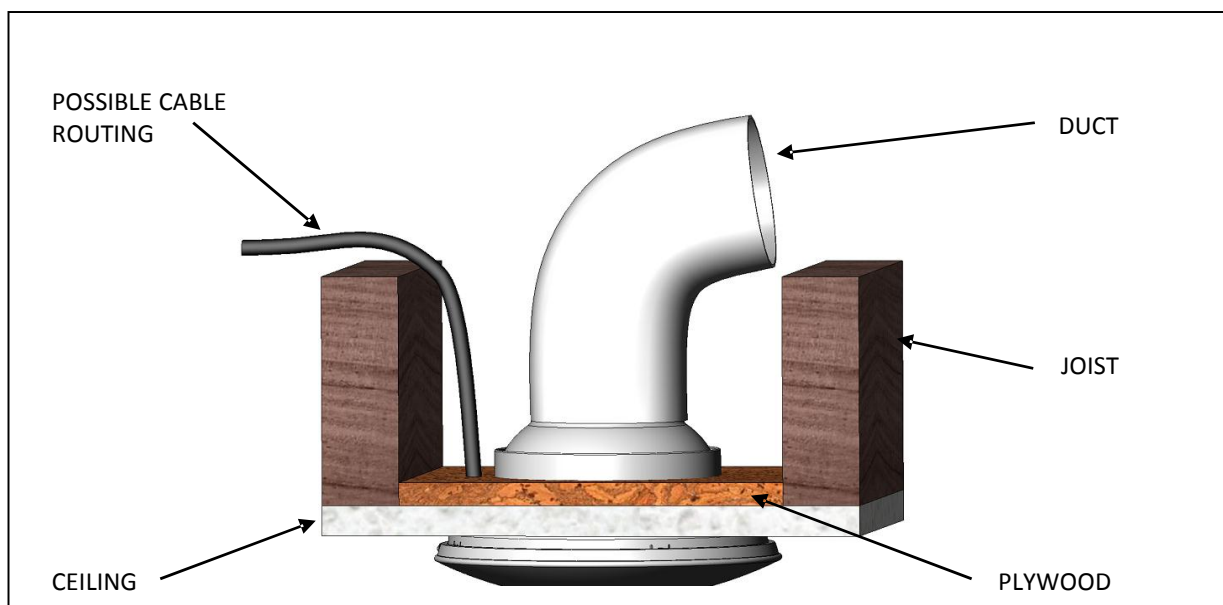
The iCON60 requires a 160mm diameter hole through the wall, counter bored 190mm to a depth of 75mm. The hole should be lined with 150mm id duct.

Surface Mounting Fans on the Wall

When surface mounting the iCON30 and iCON60 the supplied mounting skirt should be used.

The iCON30 requires a 110mm diameter hole through the wall lined with a 100 mm id duct and the iCON60 requires a 160mm diameter hole through the wall, lined with a 150 mm id duct

Recessing Fans in the Ceiling

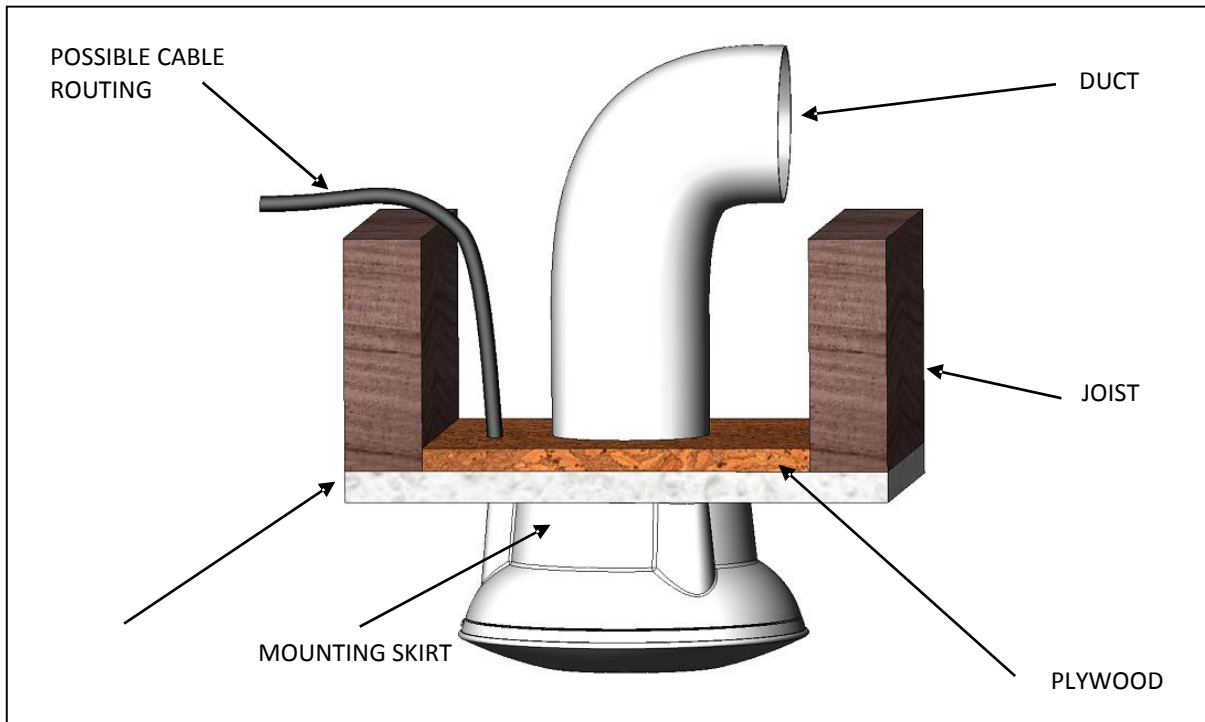


When recessing fans in the ceiling, a plywood support (min 18mm thick) should be mounted between the ceiling joists. Fans should not be fitted to unsupported plaster board.

The iCON 15 and iCON 15C requires a 110mm diameter hole through the ceiling. The fan should be fixed, with the screws provided, through the plaster board into the support.

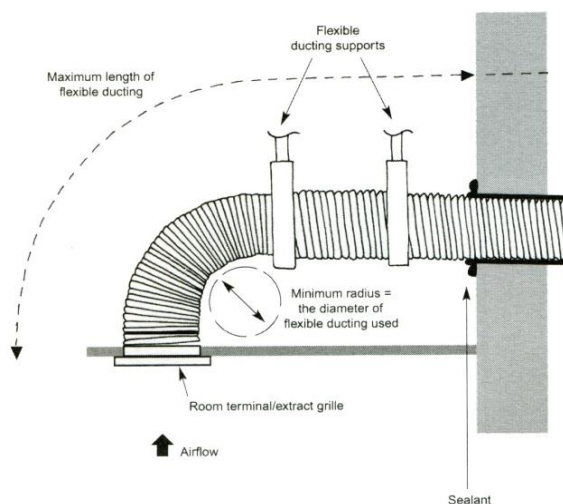
The iCON30 will require a 160mm diameter hole and the iCON60 a 190mm hole.

Surface Mounting Fans on the Ceiling



When surface mounting the iCON30, the mounting skirt should be used.

The iCON30 requires a 110mm diameter hole through the ceiling and the iCON60 a 170mm diameter hole. The surface mounted skirt to be fixed, with the screws provided, through the plaster board into the support. The fan is then fitted into the skirt. Where flexible duct is used the diameter must be maintained.



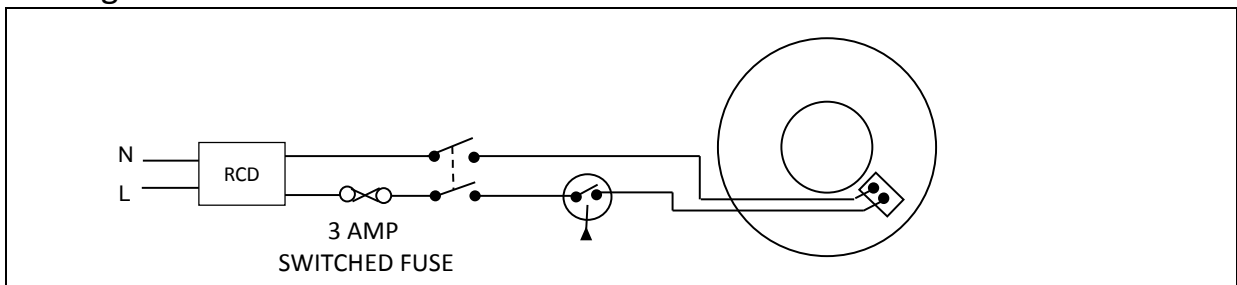
Electrical Installation

All electrical installation to be carried out by an approved electrician in accordance with Part "P" U.K. Building Regulations and to the latest IEEE standards, or the appropriate regulations in the country of installation.

iCON Domestic Fans require a 230V 50Hz supply, it is double insulated so therefore does not require an earth.

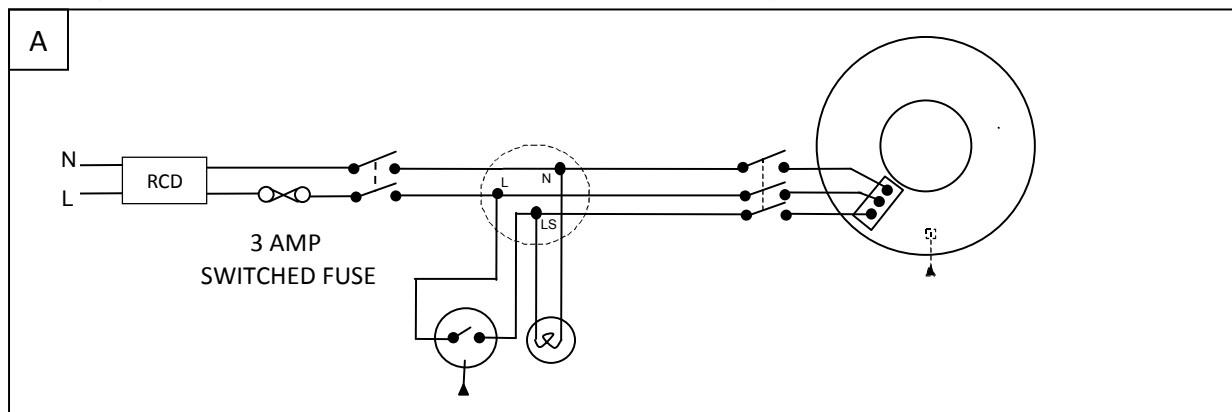
Fans installed in Zone 1 or Zone 2 must be at least IPX4 (splash proof) rated. Additionally, fans installed in Zone 1 must be SELV (Safety Extra Low Voltage) or IPX5 (jet proof) rated.

Wiring with no control module fitted.

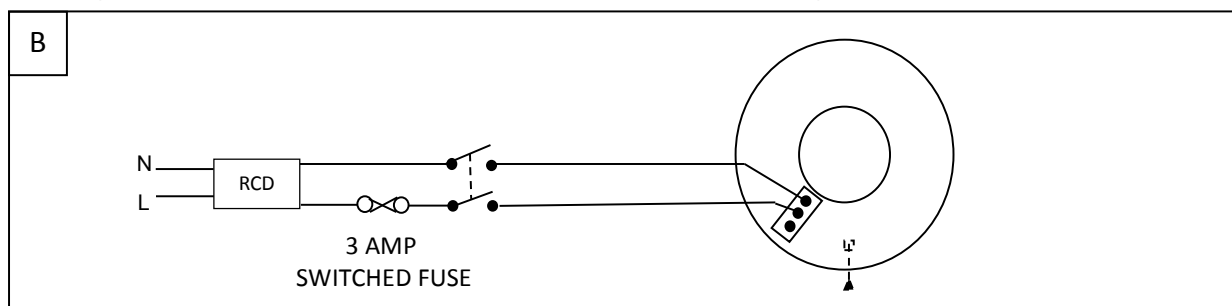


Optional Modules for iCON 230V

Wiring for control modules with external switching



Wiring for control modules with no external switching



Refer to instructions supplied with (optional) modules for further information.



Maintenance

SAFETY FIRST: ALWAYS ISOLATE THE FAN UNIT FROM THE POWER SUPPLY BEFORE REMOVING THE COVER.

Warranty only covers the fan, not the reinstallation of this if required.

When installed according to these instructions the iCON Domestic Fans are completely safe. The materials used do not constitute a hazard. The module covers are made of a flame retardant material.

Cleaning

- The external housing of the fan can be wiped with a damp cloth. Do not use household cleaners containing abrasives.
- Cleaning of the internal parts such as the impeller should be carried out using a soft brush.
Note: Always ensure that the fan unit is isolated from the power supply before inserting the brush into the impeller duct.
- Never clean any parts of the fan assembly by immersing in water or using a dishwasher.

Trouble shooting Tip:

Take care not to over tighten the duct connection to the fan spigot. This can result in restricting the free rotation of the impeller and a thermal overload of the motor could occur causing short term fan failure. In the event of this occurring loosen the duct connection so that the impeller rotates freely within the spigot.

The motor is fitted with an automatic reset after approximately 15 minutes and will restart the fan when reconnected to the module controller and mains supply.

Warranty

Applicable to units installed and used in the United Kingdom. Airflow guarantees the iCON fan units and iCON modules for 2 YEARS from date of purchase against faulty material or workmanship. Extended to 3 when registered @ airflow.com. Warranty only covers the fan, not the reinstallation of this if required.

In the event of any defective parts being found, Airflow Developments Ltd reserve the right to repair or at our discretion replace without charge provided that the unit:

1. Has been installed and used in accordance with the fitting and wiring instructions supplied with each unit.
2. Has not been connected to an unsuitable electrical supply.
3. Has not been subjected to misuse, neglect or damage.
4. Has not been modified or repaired by any person not authorised by Airflow Developments Ltd
5. Has been installed in accordance with latest Building Regulations and IEEE wiring regulations.

Airflow Developments shall not be liable for any loss, injury or other consequential damage, in the event of a failure of the equipment or arising from, or in connection with, the equipment excepting only that nothing in this condition shall be construed as to exclude or restrict liability for negligence.

This warranty does not in any way affect any statutory or other consumer rights.

Range of Optional Modules Available

Choose the 230V Module

PCM – Pull Cord: 72573602/B

TM – Adjustable Timer: 72612601/B

HTM – Humidity, Pull cord with Timer Overrun: 72687103/B

PRTM – Passive Infra-Red with Timer Overrun: 72687104/B

PRHTM – Passive Infra-Red/Humidity/Timer: 72687102/B

CV2 – Continuous Ventilation: 72675701B

DTM – Delayed Timer start AC: 7265702B

2SHM – 2 Speed /Humidity/ Pull Cord boost AC: 72675703B



Choice of Anthracite, Sandstone, Chrome and Silver covers



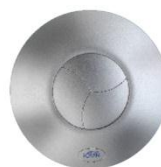
Anthracite



Sandstone



Chrome



Silver

iCON 15 cover Anthracite	52634503B	iCON 30 cover Silver	52634507B
iCON 15 cover Silver	52634504B	iCON 30 cover Sandstone	52634508B
iCON 15 cover Sandstone	52634505B	iCON 60 cover Anthracite	52634509B
iCON 15 cover Chrome	52634502B	iCON 60 cover Silver	52634510B
iCON 30 cover Anthracite	52634506B	iCON 60 cover Sandstone	52634511B

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Addendum – 10/2016

The Building Regulations 2010, Statutory Instrument Part 9, paragraph 42, imposes a requirement that testing and reporting of mechanical ventilation performance is conducted in accordance with an approved procedure.

Compliance with this requirement by an assessed and registered 'Competent Person' should follow a 'Best Practice' process and adopt air flow measurement, Method A – The Unconditional Method – using a suitable UKAS certified measuring instrument. Generically referred to as a 'Zero Pressure Air Flow Meter' or 'Powered Flow Meter'.

Further information on this method is detailed in NHBC Building Regulations Guidance Note G272a 10/13 and BSRIA 'A Guide to Measuring air flow rates' document BG46/2015