



IAQBOX

Indoor Air Quality Filter Installation and Maintenance



1.0 SAFETY INFORMATION

- This appliance should not be used by children or persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning the safe use of the appliance by a person responsible for their safety. Children shall not play with the appliance. Cleaning and user maintenance shall not be carried out by children.
- Precautions may also need to be taken to protect the surrounding area from excess carbon residue.

1.1 Personal Protective Equipment

The following minimum PPE (Personal Protective Equipment) is recommended when interacting with Nuaire product:

- **Protective Steel Toed Shoes** - when handling heavy objects.
- **Full Finger Gloves (Marigold PU800 or equivalent)** - when handling sheet metal components.
- **Semi Fingerless Gloves (Marigold PU3000 3DO or equivalent)** - when conducting light work on the unit requiring tactile dexterity.
- **Safety Glasses** - when conducting any cleaning/cutting operation or exchanging filters.
- **Reusable Half Mask Respirators** - when replacing filters which have been in contact with normal room or environmental air.

Nuaire would always recommend a site specific risk assessment by a competent person to determine if any additional PPE is required.

2.0 INTRODUCTION

Nuaire's range of inline carbon supply filters has been specifically designed to reduce the level of airborne contaminants entering a building, in particular nitrogen dioxide (NO₂), thus improving indoor air quality (IAQ). The filter unit incorporates a carbon filter and a range of particulate pre-filters are available. Units should be fitted on the supply leg of ducting and therefore do not require insulation (Figure 3).

2.1 Code description

IAQBOX - S - PM10

1 2 3

- | | |
|--|--|
| 1. Range: | Indoor Air Quality Filter |
| 2. Case Width: | S = Single
D = Double |
| 3. Particulate Pre-filter:
(Optional) | PM10 = Filtration of matter >10 microns
PM2.5 = Filtration of matter >2.5 microns |

2.2 Particulate Filter (Optional)

High urban PM (Particulate Matter) emissions may require an additional filter to meet air quality standards.

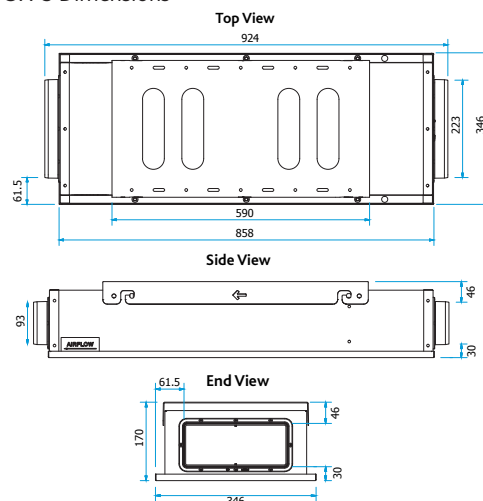
2.3 Performance Data

Nuaire's carbon filters have been independently tested and offer up to 99.5% reduction in NO₂. The unit meets planning obligations and world health organisation's recommendations.

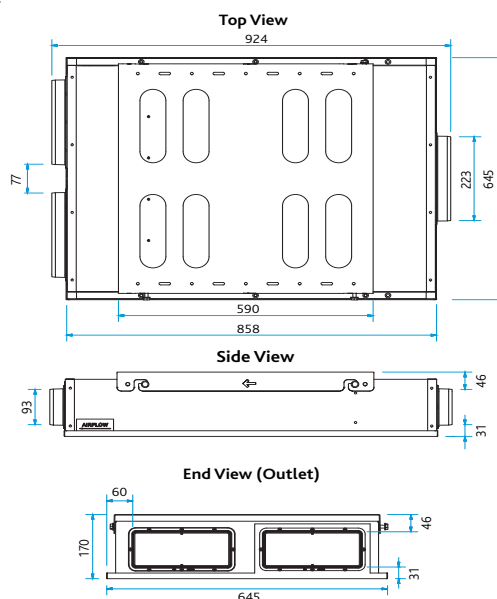
2.4 Resistance Data

When selecting the MVHR unit please ensure that the resistance through the carbon filter has been allowed for. Please see www.nuaire.co.uk/iaqbox for further details.

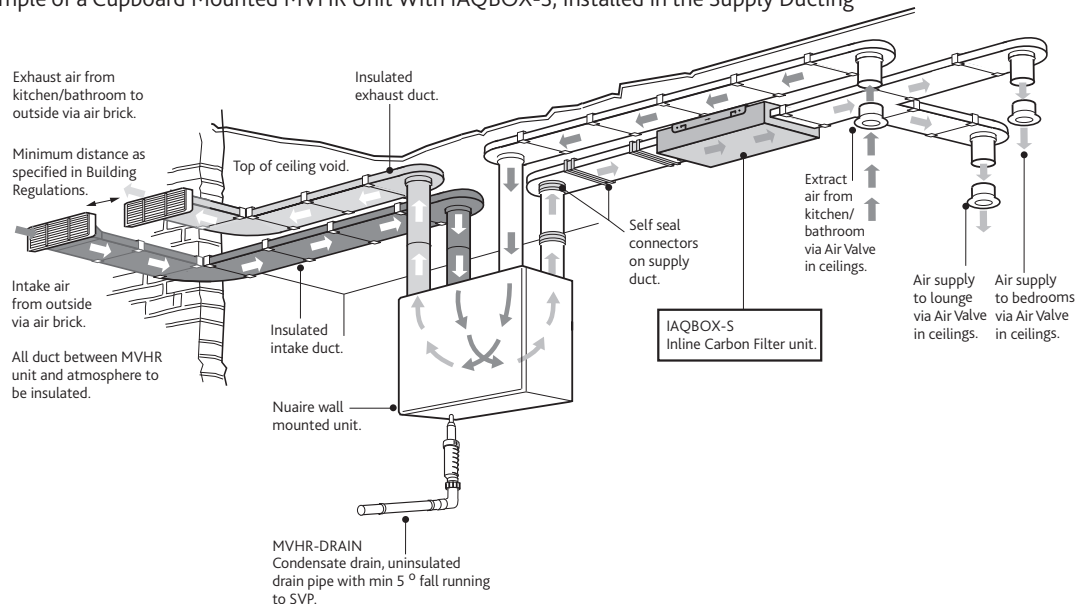
1 IAQBOX-S Dimensions



2 IAQBOX-D Dimensions



3 Typical Example of a Cupboard Mounted MVHR Unit With IAQBOX-S, Installed in the Supply Ducting



3.0 INSTALLATION

Installation must be carried out by competent personnel, in accordance with good industry practice, the appropriate authority and in conformance with all statutory and governing regulations.

The mounting surface must be of a solid construction and capable of supporting the full weight of the unit.

Units are supplied complete with a mounting bracket for quick and easy surface mounted installation.

Access to the unit for maintenance is granted via the bottom panel. Ensure that an access panel has been allowed for maintenance to the unit, the space required is shown below.

Unit Code	Access Requirements	
	Width (mm)	Length (mm)
IAQBOX-S	386	898
IAQBOX-D	685	924

3.1 Choosing a Spigot (IAQBOX-D Only)

Refer to the system design drawing for the spigot configuration requirements for each installation.

Once the required spigot configuration is known, the relevant aperture(s) can be cut out. Fix the required spigot(s) to the unit with the self-tapping screws provided and seal with silicone to eliminate air leakage.

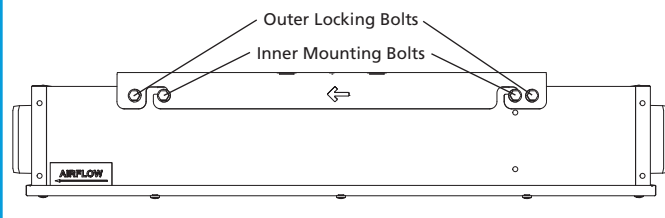
If choosing the single spigot configuration, the aperture that is not required must be sealed off with the blanking plate provided. Fix the plate with the self-tapping screws provided and seal with silicone.

3.2 Ceiling Mounting

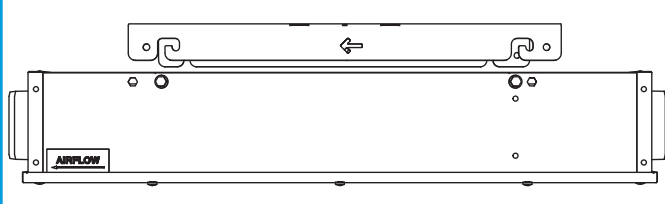
- Remove unit from packaging and unscrew the outer locking bolts (two bolts on the left and right side of the unit) from the mounting bracket, storing them for later use (Figure 4).
- Loosen the inner mounting bolts and slide/lift the mounting bracket off the unit (Figure 5).
- Locate the mounting bracket into the desired position, with the arrows pointing in the direction of airflow. Use the bracket to mark the required drill holes.

- Using the appropriate fixings, secure the bracket to the ceiling.
- Check the orientation of the unit matches that of the mounting bracket by aligning the direction of the arrow on the bracket with the direction of the arrow on the units' airflow label.
- With the inner mounting bolts still protruding from the unit (5mm), offer the unit up to the mounting bracket, sliding up and across so that all four bolts rest in the bracket slots. Tighten all bolts.
- Lock the unit in position by refitting the outer locking bolts that were removed earlier.

4 Outer Locking Bolt



5 Removing Mounting Bracket



3.3 Limited Access

It is possible to fit this unit close to a wall/obstacle which prevents the locking bolts from being installed along one side. The two unused locking bolt holes should be plugged by screwing in the rubber plugs provided before installing. All four mounting bolts **MUST** be tightened and the remaining two locking bolts **MUST** be used.

4.0 MAINTENANCE

PPE (Personal Protective Equipment) should be worn during maintenance. Precautions may also be needed to protect the surrounding area from excess carbon residue.

To ensure the carbon filter maintains its high reduction of NO₂ the filter must be replaced once the end of its lifespan has been reached. The lifespan of the carbon filter in normal circumstances is shown in the table below.

Unit Code	Carbon Filter Lifespan	Carbon Filter Weight (kg)
IAQBOX-S	2 years	6
IAQBOX-D	4 years	11

The carbon filter block is supported by a retaining clamp, loosening the clamp will result in the filter being freed. Be prepared to support the whole weight of the carbon filter block.

4.1 Replacing Single Carbon Filter - IAQBOX-S

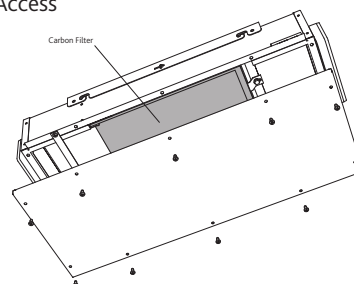
- Unscrew the fixings securing the lid in place and remove lid from unit (Figure 6).
- Whilst supporting the back of the carbon filter block, loosen the retaining clamp bolt and rotate the clamp in order to release the block (Figure 7).
- Pulling firmly on the rear edge of the carbon filter block will lever the filter to approximately a 45° angle (A). At this position it can be removed from the unit (B) (Figure 8).
- Replace the carbon filter in the reverse operation to the above process. Ensure the filter is worked into position, the clamp rotated back and clamp bolt tightened prior to removing support from the replacement carbon filter block.
- Refit the unit lid.
- Wash hands thoroughly after handling.

Carbon filters / pellets are not to be ingested.

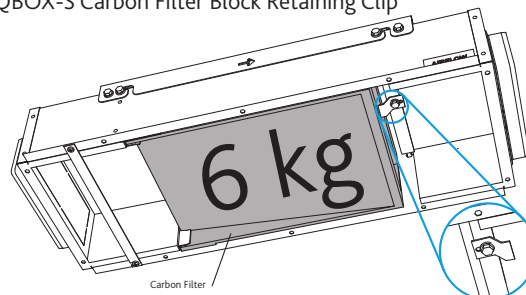
4.2 Replacing Double Carbon Filter - IAQBOX-D

- Unscrew the fixings securing the lid in place and remove lid from unit (Figure 9).
- Whilst supporting the back of the carbon filter block, loosen the retaining clamp bolt and rotate the clamp in order to release the block (Figure 10).
- Pulling firmly on the rear edge of the carbon filter block will lever the filter to approximately a 45° angle (A). At this position it can be removed from the unit (B) (Figure 11).
- Replace the carbon filter in the reverse operation to the above process. Ensure the filter is worked into position, the clamp rotated back and clamp bolt tightened prior to removing support from the replacement carbon filter block.
- Refit the unit lid.
- Wash hands thoroughly after handling.

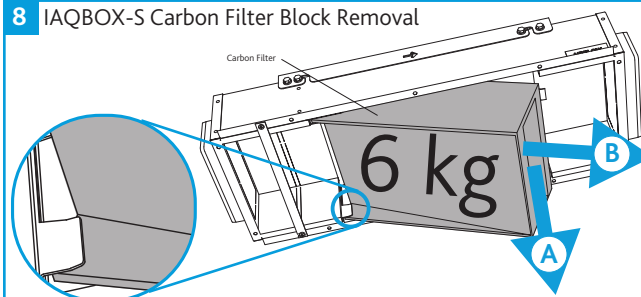
6 IAQBOX-S Access



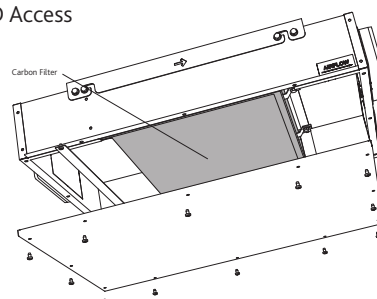
7 IAQBOX-S Carbon Filter Block Retaining Clip



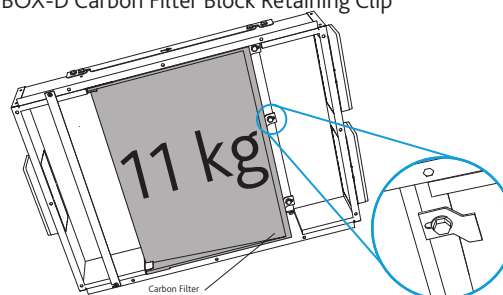
8 IAQBOX-S Carbon Filter Block Removal



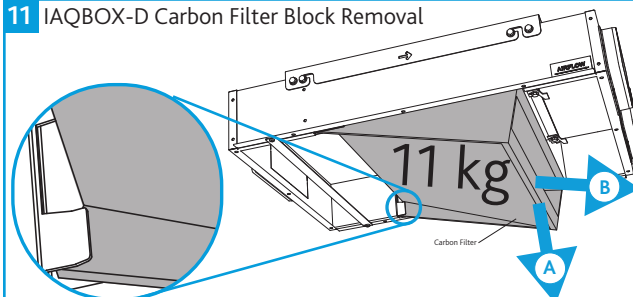
9 IAQBOX-D Access



10 IAQBOX-D Carbon Filter Block Retaining Clip



11 IAQBOX-D Carbon Filter Block Removal

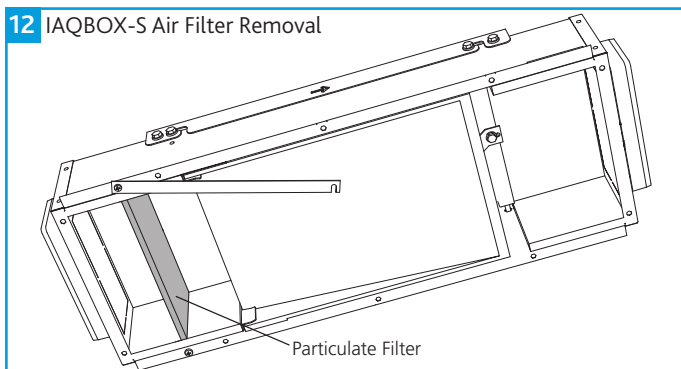


4.3 Replacing Air Filter (if Applicable)

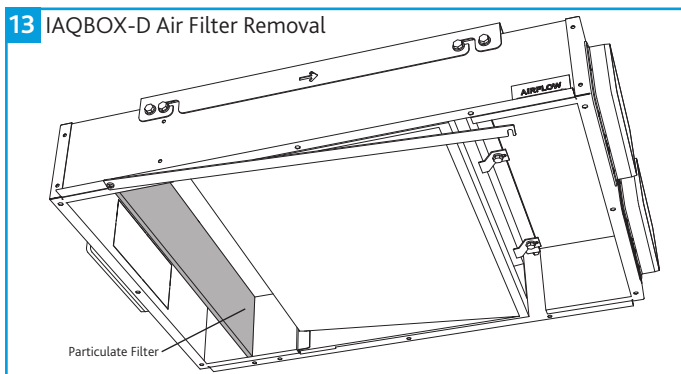
To ensure effective particulate filtration and low system resistance, optional air filters must be replaced every 12 months. Replacement filters are available for purchase direct from Nuaire, with the relevant part codes shown in section 3.3 of this document.

- Unscrew the fixings securing the lid in place and remove lid from unit.
- Rotate the strap through 90° to allow removal of the filter, the fixing screw may need to be loosened to allow strap to rotate (Figures 12 & 13).
- Fit the replacement filter ensuring the airflow direction matches the air flow of the unit (if applicable).
- Rotate strap back into position and refit unit lid.

12 IAQBOX-S Air Filter Removal



13 IAQBOX-D Air Filter Removal



4.4 Replacement Filters

Replacement filters can be purchased direct from Nuaire using codes provided in the table below.

Unit Code	Carbon Filter	Particulate Filter
IAQBOX-S	CARBON-FILTERKIT-S	-
IAQBOX-S-PM10	CARBON-FILTERKIT-S	PM10-FILTERKIT-S
IAQBOX-S-PM2.5	CARBON-FILTERKIT-S	PM2.5-FILTERKIT-S
IAQBOX-D	CARBON-FILTERKIT-D	-
IAQBOX-D-PM10	CARBON-FILTERKIT-D	PM10-FILTERKIT-D
IAQBOX-D-PM2.5	CARBON-FILTERKIT-D	PM2.5-FILTERKIT-D

5.0 WARRANTY

The 5 year warranty starts from the day of delivery and includes parts and labour for the first year. The remaining period covers parts only, filter replacement is not covered by the unit warranty.

This warranty is void if the equipment is modified without authorisation, is incorrectly applied, misused, disassembled, or not installed, commissioned and maintained in accordance with the details contained in this manual and general good practice.

The product warranty applies to the UK mainland and in accordance with Clause 14 of our Conditions of Sale. Customers purchasing from outside of the UK should contact Nuaire International Sales office for further details.

Failure to maintain the unit as recommended will invalidate the warranty.

6.0 END-OF-LIFE AND RECYCLING

Where possible Nuaire use components which can be largely recycled when the product reaches its end-of-life:

- Sheet metal parts, aluminium extrusion, heating/cooling coils and other metallic items can be segregated and fully recycled.
- EPP, plastic ducting, nylon corner pieces, plastic heat exchangers, packaging material and other plastic components can be segregated into mixed plastic and widely recycled.
- Cardboard packaging, wood, used filters and other paper components can be largely recycled or fully processed in energy from waste centres.
- Remaining items can be further segregated for energy from waste centres or, as a last resort, sent to landfill. Please call After Sales Support for further information on items not listed above.

Ensure the Nuaire product is made safe from any electrical / water / refrigerant supplies before dismantling commences. This work should only be undertaken by a qualified person in accordance with local authority regulations and guidelines, taking into account all site based risks.

7.0 AFTER SALES

For technical assistance or further product information, including spare parts and replacement components, please contact the After Sales Department.

If ordering spares please quote the serial number of the unit together with the part number, if the part number is not known please give a full description of the part required. The serial number will be found on the identification plate attached to the unit casing.

Telephone 02920 858 400
aftersales@nuaire.co.uk