

EN

UNIT ONE
UNIT TWO

TP550 220x90 TP552 Ø160 TP554 Ø150 TP 556 Ø180
TP551 220x90 TP553 Ø160 TP555 Ø150 TP557 Ø180

Trimbox NO₂ Filter®

Product Manual



 **Titon**[®]
ventilation systems

Warnings, Safety Information and Guidance

Important information

1. Installation of the appliance and accessories must be carried out by a qualified and suitably competent person and be carried out in clean, dry conditions where dust and humidity are at minimal levels.
2. Installation and maintenance personnel must wear suitable safety clothing to minimise the accident risk.
3. This manual covers the installation and maintenance of the Titon® Trimbox NO₂ Filter® system.
4. The unit must be stored in a clean and dry environment. Do not install the appliance in areas where the following may be present or occur;
 - Excessive oil or grease laden atmosphere,
 - Corrosive or flammable gases, liquids or vapours,
 - Ambient temperatures above 80°C or below -5°C,
 - Humidity levels above 90% or is a wet environment.
5. The appliance is not suitable for installation to the exterior of the dwelling.
6. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
7. Children should be supervised to ensure that they do not play with the appliance.
8. Ensure that external grilles are located away from any flue outlet, in accordance with relevant Building regulations.

Titon® Recommend

1. Any flexible ducting used must be pulled taught;
2. Ducting must be installed in such a way that resistance to airflow is minimised;
3. Duct joints to the unit's duct ports must be fixed using a method that ensures a long term seal is achieved.

Handling

1. Before off-loading products, please ensure that the means of transport/ lifting is suitable to accommodate the required weight and size capacity;
2. Manually handle unit in accordance with the 89/391/EEC-OSH standard (and associated updates) and/or local regulations.

Packing Contents

Inspect the unit when taking delivery. Check the unit for damage and that all accessories have been supplied.

Package supplied with:-

- Trimbox NO₂ Filter® system (including active carbon filters and G4 pre-filter as standard) x 1;
- Product Manual x 1;
- 3mm Hex Key with inset magnet x 1.

Any shortages or damage must be immediately reported to the supplier

Contents

Warnings, Safety Information and Guidance

Important information	2
Titon® Recommend	3
Handling	3
Packing Contents	3

Product Overview

Product Description	5
Component Identification	5
Dimensions	6
Port Size(s)	6

Installation

Trimbox NO ₂ Filter®	7
Mounting	7
Wall Mounting (Vertical Only) Ducting Behind Unit	8

Ducting Connection

Airflow Direction	9
Ducting Connection	9
Ducting Behind Unit	9
Maintenance	10
Filter Replacement	10
Prefilter	10
Active Carbon Filters	10
NO ₂ Testing Kit	10
Carbon Life Prediction Service	10
How to Change Filters	11
Disposal of Filters	11

Accessories and Spare Parts List

Removable Insulation Jacket	12
Filters	12
Fitting Kit	13
NO ₂ Testing Kit	13

Service Record

Log	14
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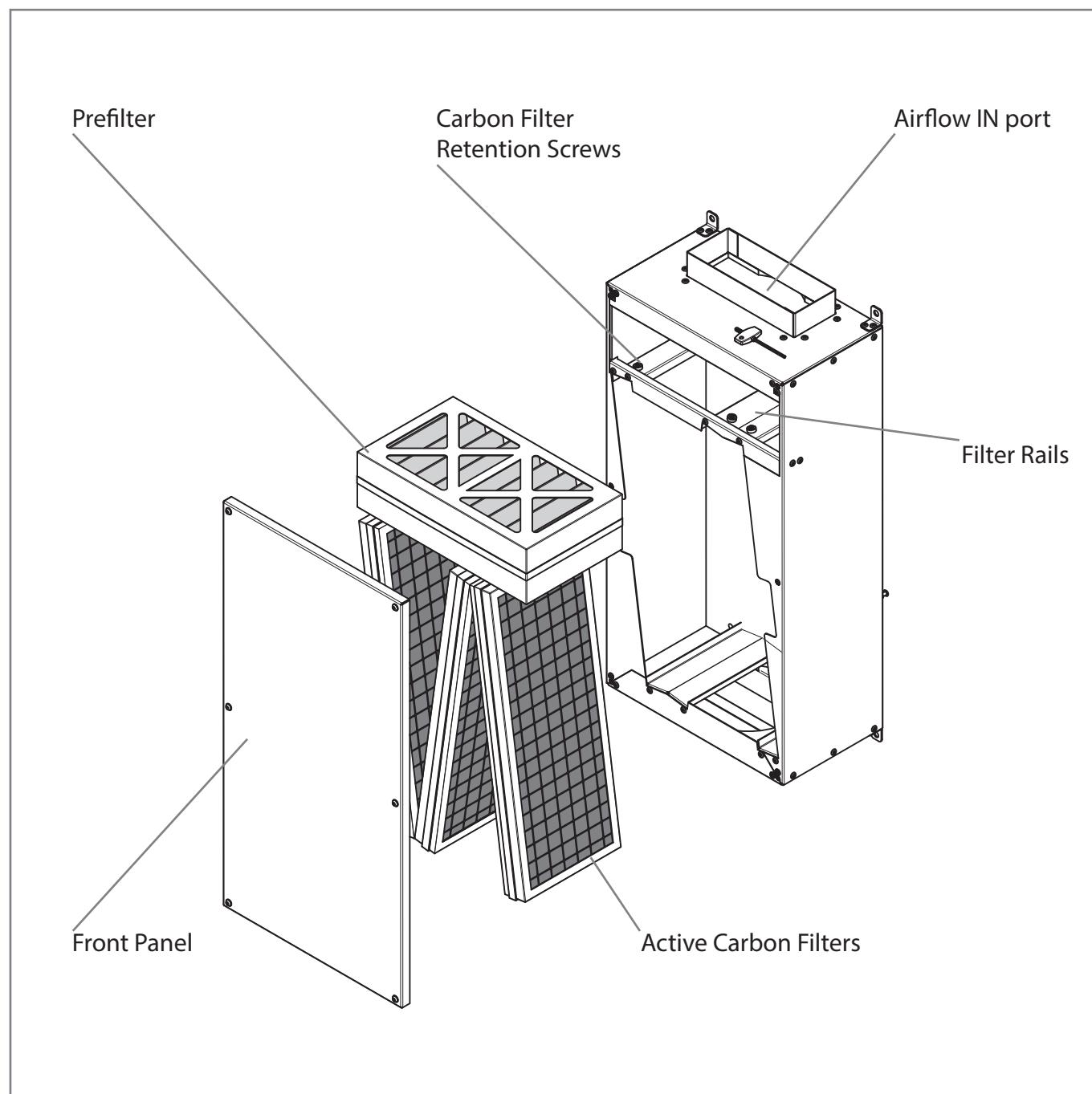
When this document is viewed as a PDF the headings & sub headings on this page are hyper links to the content. Additionally the page numbers in this document are hyper links back to this contents page.

Product Description

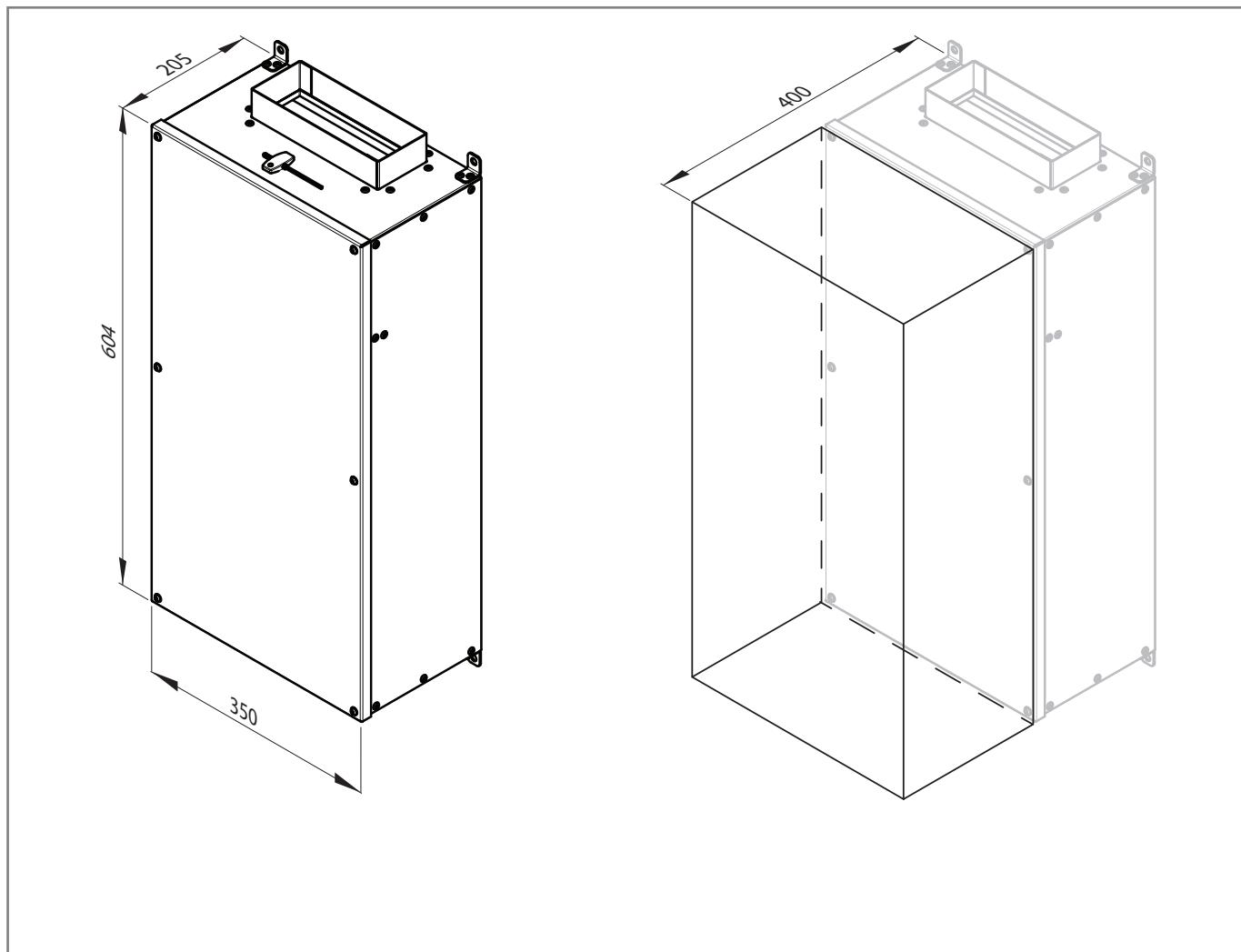
The Titon® Trimbox NO₂ Filter® reduces Nitrogen Dioxide (NO₂) which is prominently produced by exhaust gases from Diesel engines. Due to this pollution arising in cities and urban areas there is a need to implement mitigation measures to improve the indoor air quality (IAQ). The Titon® Trimbox NO₂® Filter is an effective means of reducing high NO₂ levels down to an acceptable level of 40µg/m³ as a mean annual concentration level.

The units are fully foam insulated. This reduces duct bound noise and thermal transmission and helps to avoid condensation build up. Where the unit is installed in very cold spaces or if the outside air is below -5°C then a custom designed removable insulation jacket is available from Titon® see Accessories and Spare Parts List.

Component Identification



Dimensions



Unit Dimensions (excluding ports)

Port Size(s)

Rectangular Ports: 220mm x 90mm
Round Ports: Ø150mm, Ø160mm and Ø180mm

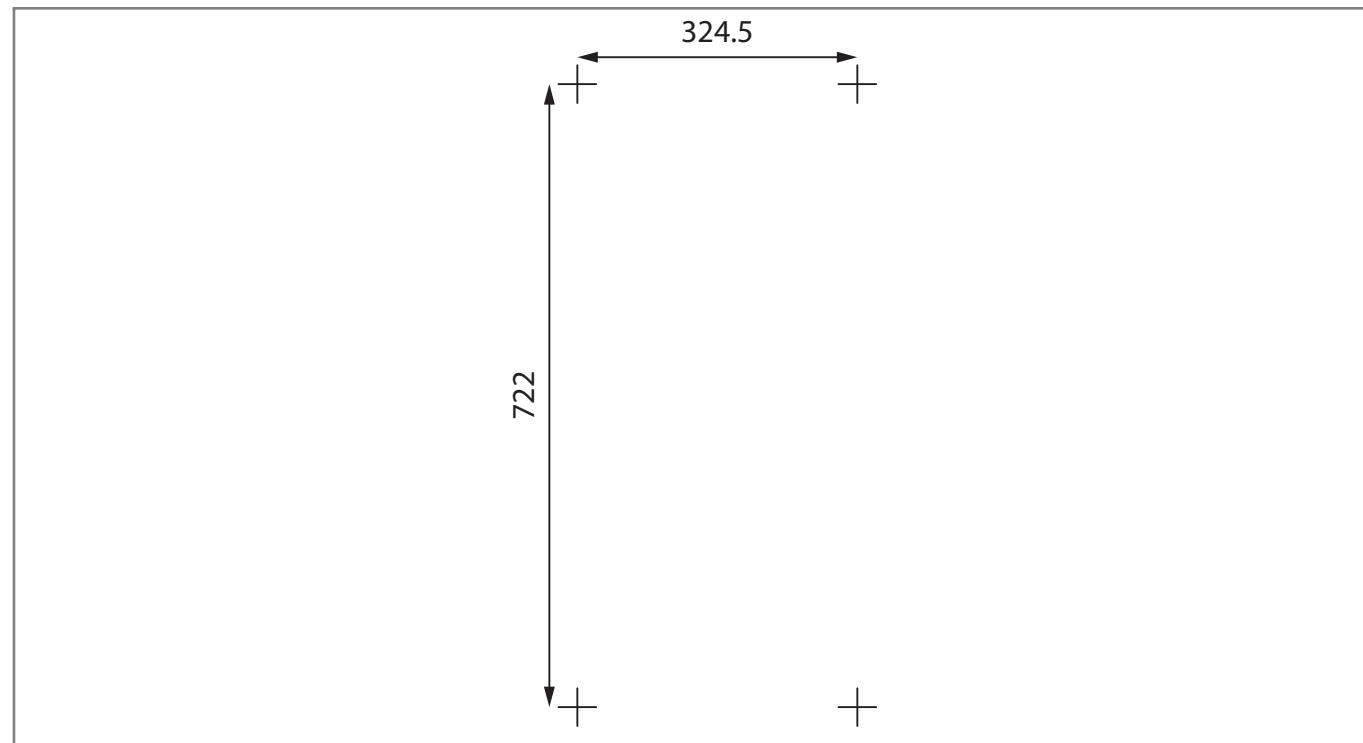
Trimbox NO₂ Filter[®]

Read and observe the guidance & safety notices listed in Warnings, Safety information and Guidance .

- The Trimbox Filter[®] is designed to be mounted in any orientation.
- The mounting surface substrate must be sufficiently strong to support the unit.
- Ensure there is sufficient access around the NO₂ unit for future maintenance.
- Do not 'box-in' the unit making access to the unit difficult for maintenance and repair.

Mounting

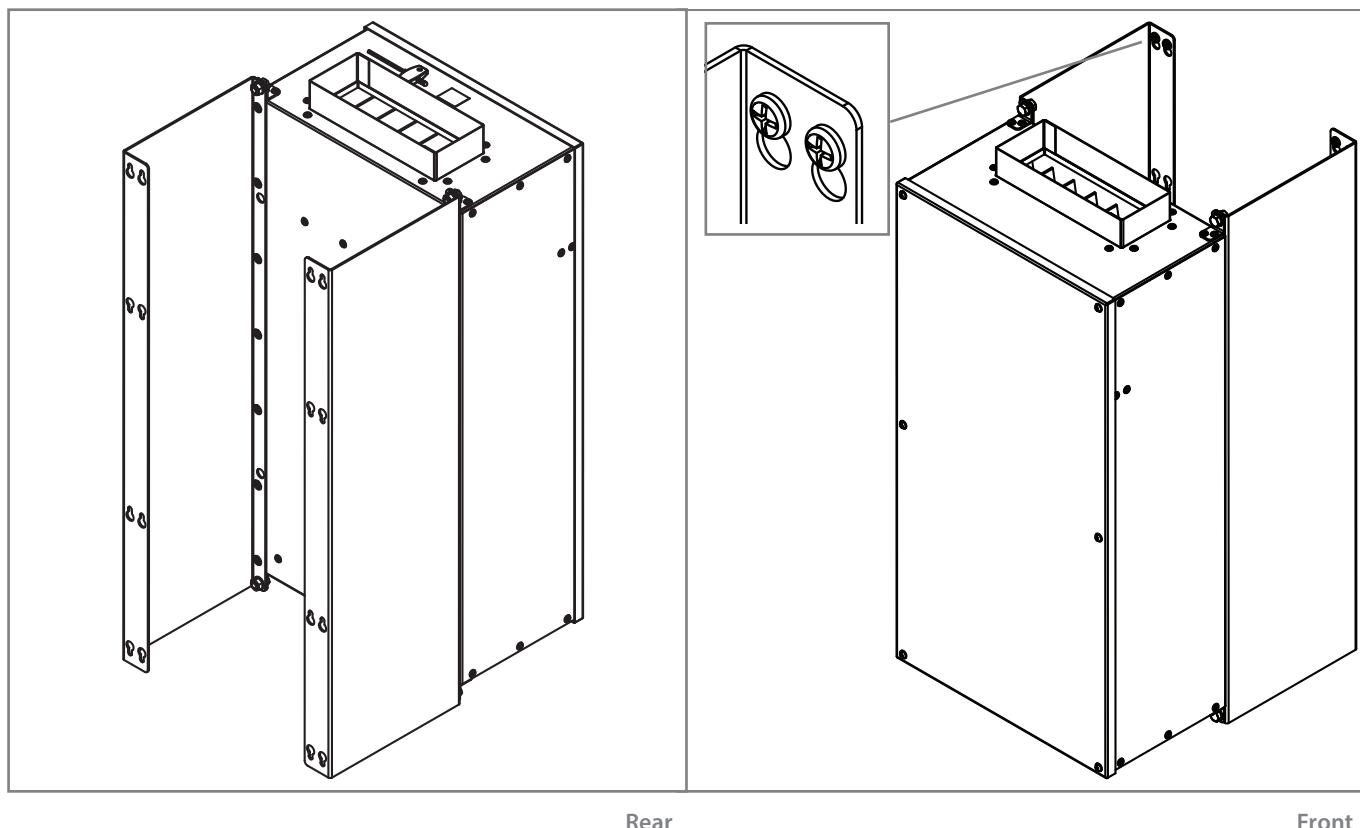
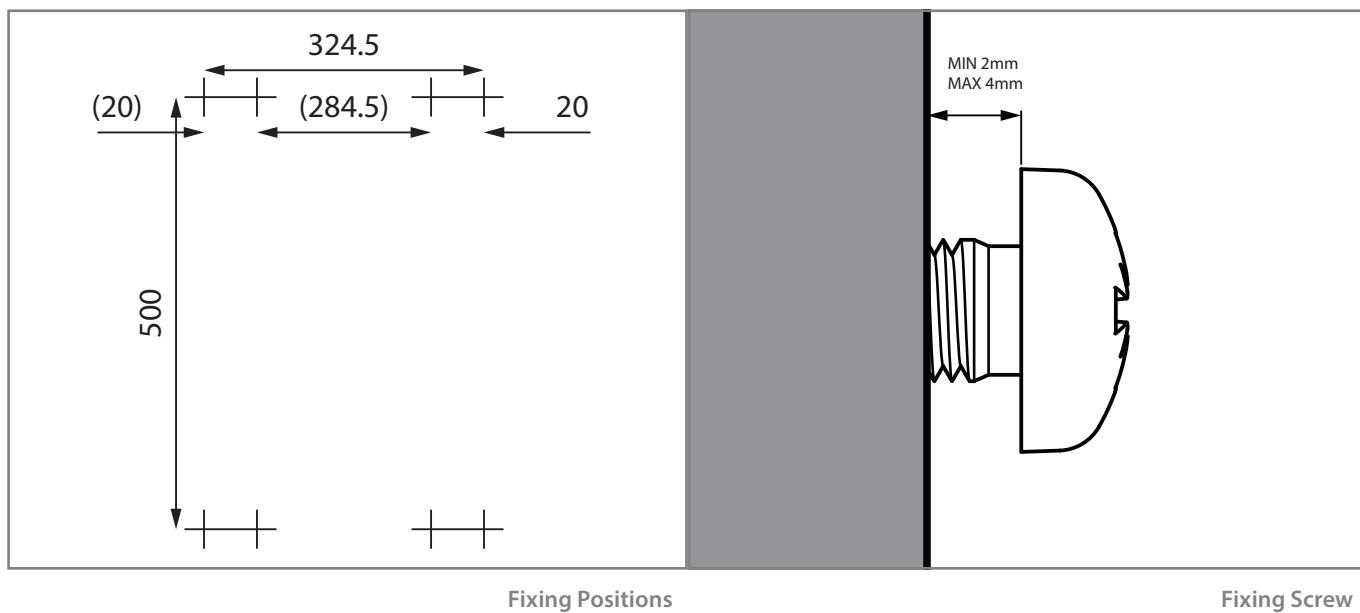
1. Mark positions of the mounting holes onto the mounting surface using dimensions as shown.
2. Prepare the mounting surface in the positions specified for four Ø8mm fixings. Fixings must be suitable for the mounting surface substrate and the weight of the unit. Fixings are not supplied due to the variation in materials. For advice on suitable fixings contact your local specialized fixings dealer.
3. Mount the unit using selected fixings.



Fixing Positions

Wall Mounting (Vertical Only) Ducting Behind Unit

1. Attach the mounting brackets to the unit using M8 fixings provided.
2. Mark positions of mounting holes onto wall using dimensions as shown.
3. Prepare the wall in the positions specified for eight Ø6mm fixings at the marked positions. Fixings must be suitable for the mounting surface substrate and the weight of the unit. Fixings are not supplied due to the variation in materials. For advice on suitable fixings contact your local specialized fixings dealer.
4. When fitting screws position the head leaving between 2mm and 4mm gap between wall and underside of head, see illustration.
5. Guide slots in mounting bracket over fixing screw heads. Lower the unit so that the fixing comes to rest in the slots in the mounting brackets ensuring that all fixings heads are within the slots.
6. Connect ducting in the method shown opposite.

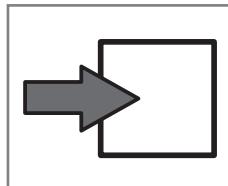


Airflow Direction

The Trimbox Filter® uses a prefilter and active carbon filters, the air to be filtered must pass through the prefilter before the active carbon filters, therefore it is very important that ducting is connected correctly.

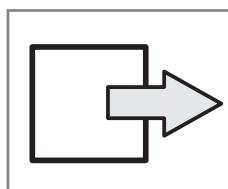
Ducting Connection

The Trimbox Filter® has labels with icons indicating the airflow IN and airflow OUT ports



IN

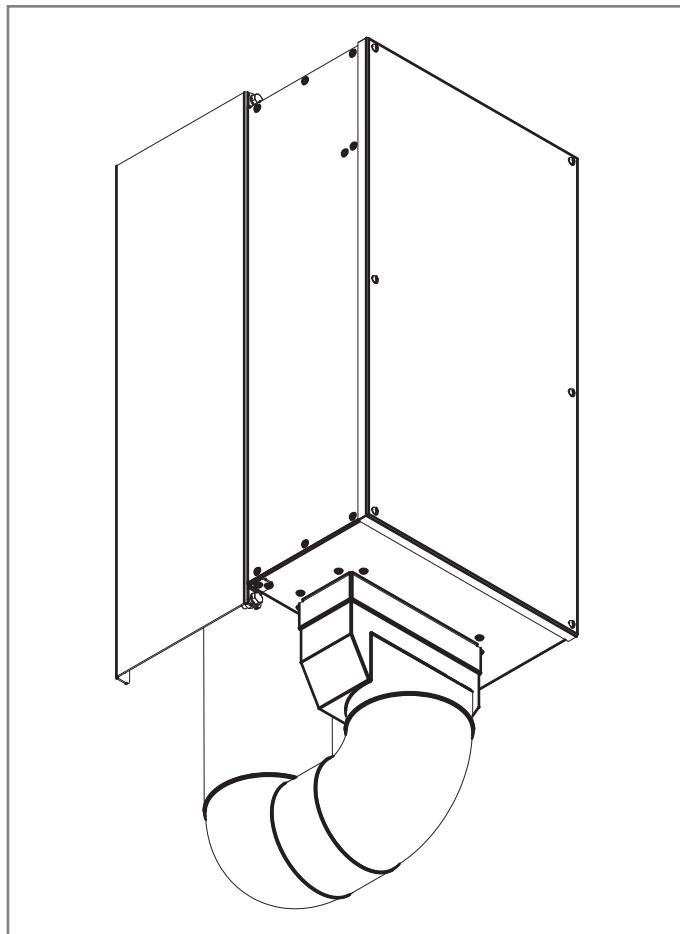
This label defines that the port at this end of the unit must have airflow going into the unit.



OUT

This label defines that the port at this end of the unit must have airflow leaving the unit.

Ducting Behind Unit



Mounting Ducting Behind Unit

Maintenance

Filter Replacement

Prefilters should be replaced at least annually, or more regularly dependent on environmental conditions. To ascertain if the Active Carbon Filters require changing Titon recommend using the NO₂ Testing Kit or the Carbon Life Prediction Service.

Prefilter

Prefilter can be changed by the householder. Replacing the prefilter for a higher grade (G4 to F7) will increase the system resistance and may require re-commissioning to maintain the design airflow rates

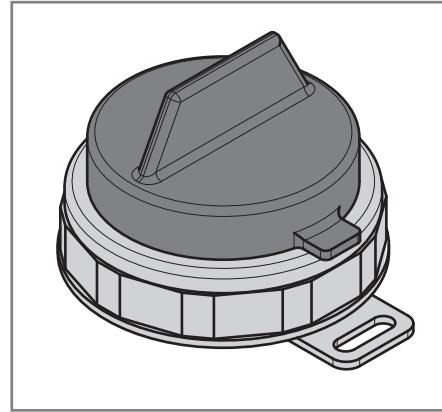
Active Carbon Filters

Changing of Active Carbon Filters should be carried out by experienced or trained personnel in accordance with safety requirements as defined by the "Control of Substances Hazardous to Health" (COSHH) Regulations. i.e. Someone who fully understands the design, operation and implications of the product and its use.

NO₂ Testing Kit

A NO₂ Testing Kit is available from Titon® that can be used to determine the levels of NO₂ within the property. The testing kit requires a minimum of 8 hours of exposure to the air and during this time the property must be sealed from the outside air meaning all doors/window/vents closed and only the ventilation system containing the NO₂ filter to be in use. This will give an accurate result for the performance of the NO₂ filter. If the levels of NO₂ are greater than 40µg/m³ then the filter should be replaced.

The 8hr exposure test kit consists of a plastic container with a removable black plastic cap. If the testing kit is not to be used immediately after receipt then it must be stored in a sealed polyethylene bag or similar and kept in a refrigerator.



Instructions for use:

1. Apply sample identifier that comes with the kit to the back of the sampler.
2. Fix the sampler to a vertical surface using adhesive tape, Blu-tack® or similar.
3. Remove the black cap and store in a safe place. There is a minimum of 8 hours of exposure and can be exposed up to 72 hours. At the end of the exposure period, replace cap and label the sample with the barcode label provided.
4. Affix the corresponding number label to the exposure sheet.

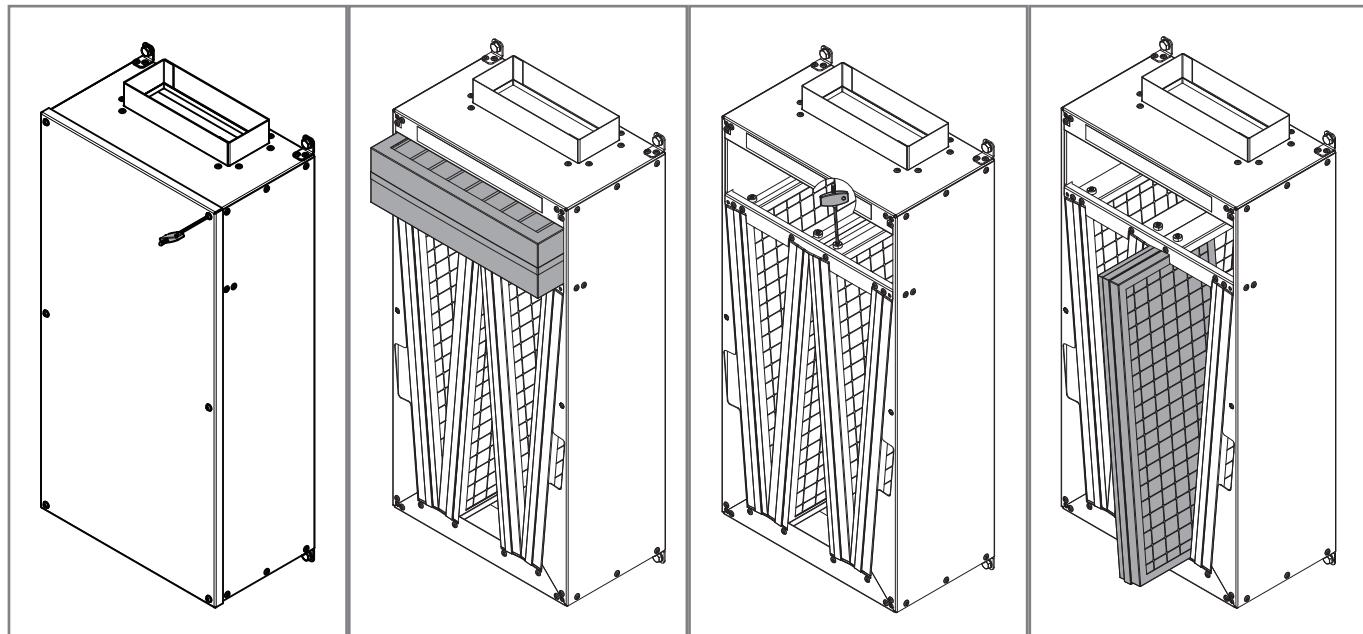
The testing kit should be returned within 2 weeks and must be stored in a refrigerator until dispatch.

Carbon Life Prediction Service

If requested Titon® can provide a Carbon Life Prediction Service. Part used filters can be sent to Titon® whereby they are tested to determine the life expectancy of the carbon cells in use. If the filters are likely to have been exposed to hazardous contaminants then Titon® must be informed of this. Please contact Titon® for more information.

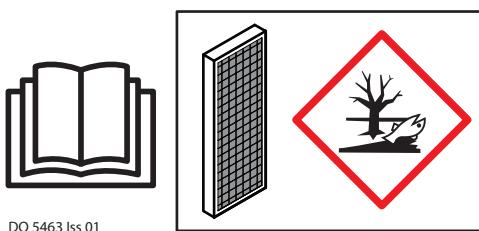
How to Change Filters

1. Remove Front Cover using 3mm Hex Key provided;
2. For Pre-Filter slide out filter from casing using handle attached to filter;
3. For Active Carbon Filters unscrew M5 screws using 3mm Hex Key on the top mounting rails as shown, and slide out filter from casing. Only perform this action one filter at a time as filters may drop when mounted in a ceiling void;
4. Replace Active Carbon filters one at a time. Slide filter into casing and fully screw down the M5 screw in filter rail, do not over tighten.
5. Replace Pre-Filter by sliding back into casing. Ensure the airflow direction corresponds with the direction arrow on filter;



Disposal of Filters

The carbon within the filters are impregnated with chemicals and therefore has to be treated as specialist waste. The disposal of the filters must be carried out by a specialist waste disposal company and not by the inhabitant of the property.



DO 5463 Iss 01

The Active Carbon Filters are Dangerous for the Environment.

Titon® do not offer a waste disposal service and therefore cannot accept filters for disposal, but can recommend the following company:

Environmental Resource Group Tel: 0844 692 0000 Web: www.environmentalresourcegroup.com

Accessories and Spare Parts List

Removable Insulation Jacket

Titon® can provide a custom designed removable insulation jacket for the Trimbox NO₂ Filter® which will provide 30mm of insulation material with thermal conductivity of 0.04W/(m.K). This jacket needs to be wrapped around the unit before mounting to a wall or ceiling. The unit must be offset from the wall or ceiling by a minimum of 30mm for space required for the insulation material. The method of offsetting the unit must be able to support the weight of the unit. The insulation jacket can be opened by means of hook and loop fasteners on flaps at the front and this will give access to the filters for inspection and replacement.

Model Part Number	Removable Insulation Jacket
TP550	XP9910248
TP551	XP9910248
TP552	XP9910305
TP553	XP9910305
TP554	XP9910305
TP555	XP9910305



Filters

Model Part Number	G4 Pre-Filter	F7 Pre-Filter	Active Carbon Filter
TP550	XP2010021	XP2010121	XP2010327
TP551	XP2010021	XP2010121	XP2010328
TP552	XP2010021	XP2010121	XP2010327
TP553	XP2010021	XP2010121	XP2010328
TP554	XP2010021	XP2010121	XP2010327
TP555	XP2010021	XP2010121	XP2010328
TP556	XP2010021	XP2010121	XP2010328
TP557	XP2010021	XP2010121	XP2010328

Fitting Kit

Model Part Number	Ducting Behind Unit Mounting Kit
All Models	TP558

NO₂ Testing Kit

A NO₂ testing kit is available from Titon® that can be used to determine the levels of NO₂ within the property.

NO ₂ Testing Kit	Exposure Time
TP559	8 to 72 Hours

Service Record

Log

Serviced By	Company	Date	Notes

In the event of any queries please contact the system installer.

Ensure this booklet is passed to the householder once installation & commissioning of the ventilation system is complete. This Product Manual must be kept in the Home Information Pack and used as a service record.

Installed by:



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