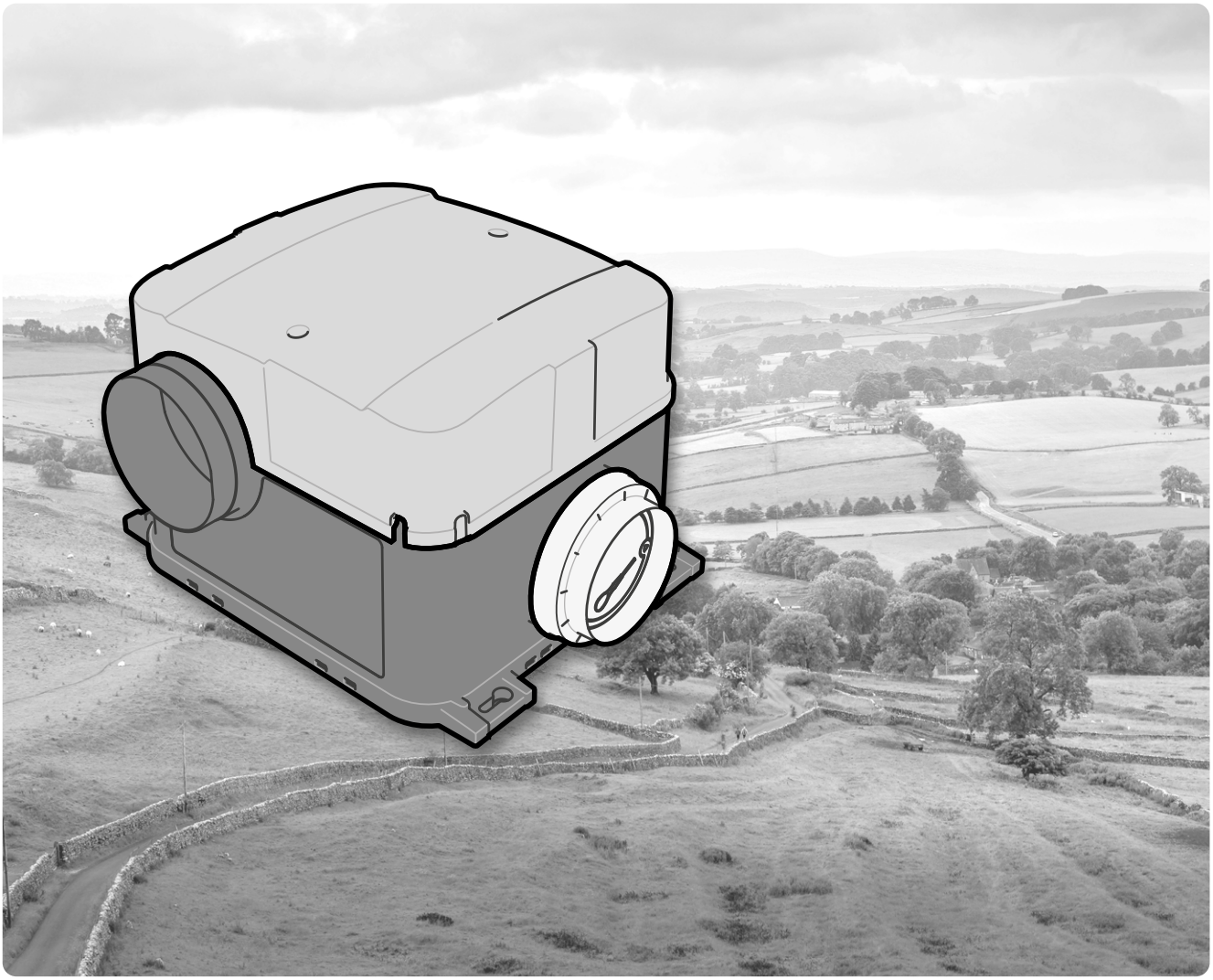
Product Manual

EN



CME3.1 *Q Plus* TP 342CH

Extract Ventilation Unit with Humidity Sensor and auralite/controller connection

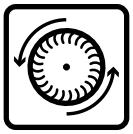
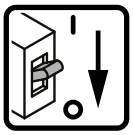
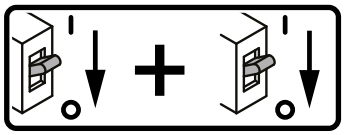
Titon®
ventilation systems

Important Information

Read these instructions fully before the installation of this appliance

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. All wiring must conform to current I.E.E. Wiring Regulations and all applicable standards and Building Regulations.
3. The appliance must be connected to a local double pole isolation switch with a contact separation of at least 3mm. Ideally located adjacent to the unit.
4. The appliance must be earthed.
5. Units are suitable for 220-240V~ 50-60Hz single phase with a fuse rating of 3A.
6. The unit must be stored in a clean and dry environment.
7. Do not install the appliance in areas where the following may be present or occur;
   - Excessive oil or a grease laden atmosphere,
   - Corrosive or flammable gases, liquids or vapours,
   - Ambient temperatures above 40°C or below -5°C,
   - Humidity levels above 90% or is a wet environment.
8. The appliance is not suitable for installation to the exterior of the dwelling.
9. 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.
10. Children should be supervised to ensure that they do not play with the appliance.
11. Ensure that external grilles are located away from any flue outlet, in accordance with relevant Building Regulations.
12. The unit must not be connected to a tumble dryer.
13. The unit must not be connected to a cooker hood.
14. Precautions must be taken to avoid the back-flow of gases into the room from an open flue appliance.
15. Ensure all ducting is free from debris and blockages before switching on the unit.
16. The unit uses a 230V ~ 50-60Hz supply and contains rotating mechanical parts. ISOLATE the unit from mains power supply and allow sufficient time for all moving parts to stop before undergoing any Servicing or Maintenance.

Explanation of symbols on the appliance

Symbol	Definition
	Read instruction Manual.
	Risk of Electric Shock.
	General hazard safety alert.
	Wait until all machine components have completely stopped before touching them.
	Disconnect the mains supply before removing this cover.
	Disconnect the mains supply before removing this cover. Before obtaining access to terminals or removing this cover, all supply circuits must be disconnected.

Contents

This manual is for the Titon CME3.1 *Q Plus* Extract ventilation unit. The CME3.1 *Q Plus* unit is designed for continuous extract ventilation of multiple rooms, for example bathrooms, kitchens, utility areas and toilets. The unit uses a highly efficient backward curved centrifugal impeller coupled to a high efficiency EC motor.

- CME3.1 *Q Plus* TP 342CH
  Extract Ventilation Unit with Humidity and auralite or control connection

Package Contents

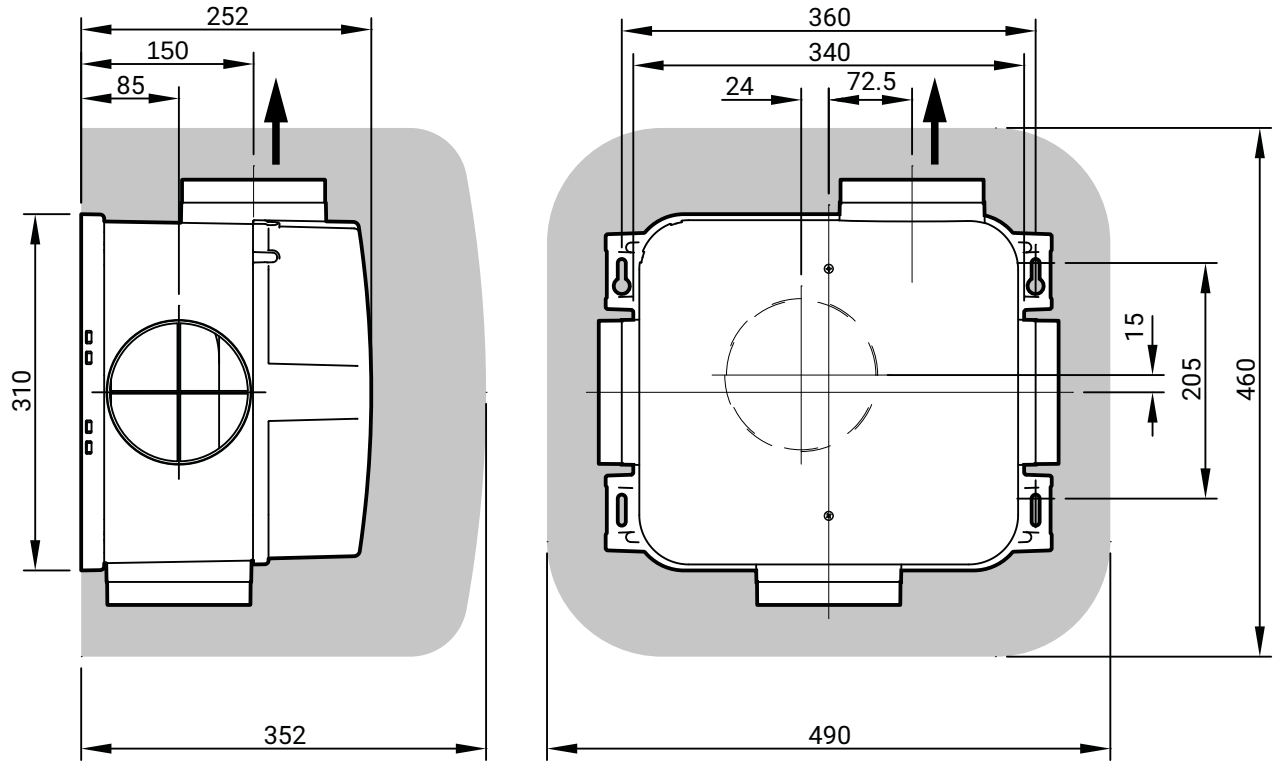
- CME3.1 Unit
- Port Covers / Convertible to Ø100mm adaptors
- Product Manual

All shortages or damage must be immediately reported to the supplier.

GB Patent GB 2491516

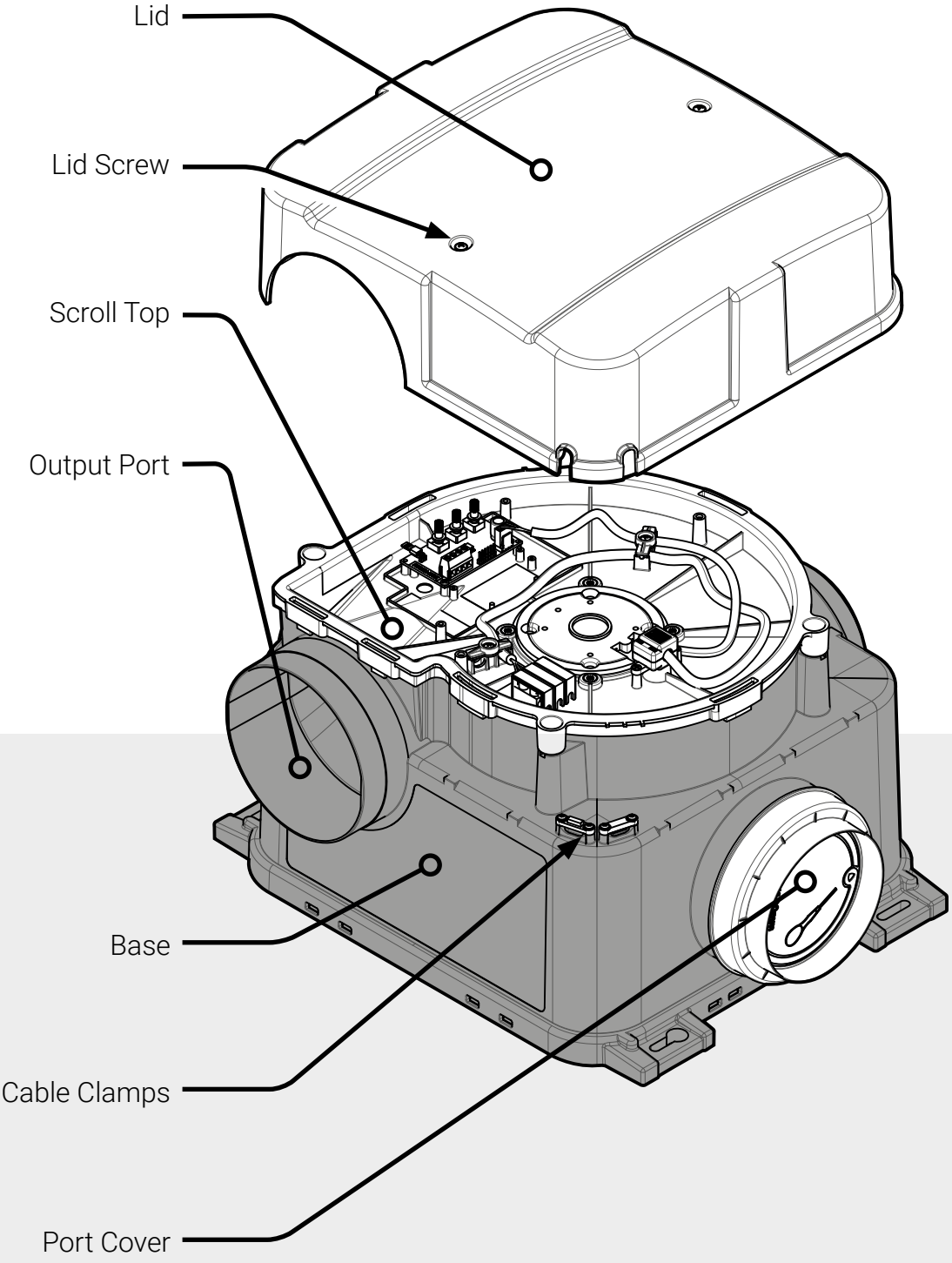
Dimensions

This diagram details the overall size of the unit and the additional space required around the unit to allow for commissioning and future servicing and maintenance



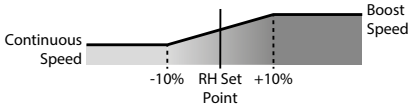
All Dimensions in mm DO NOT BOX IN UNIT

Component Identification

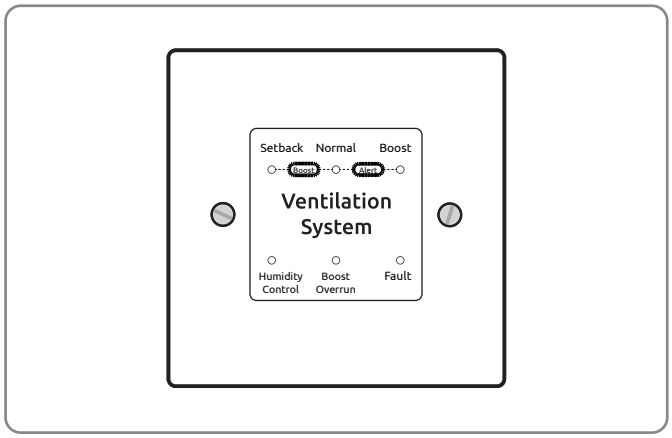


Product Features

	CME3.1 *Q Plus CH*
	The CME3.1 *Q Plus* CH is controllable by various volt-free switches and sensors. Mains switching can be achieved by use of the Titon Boxed Relay 5A TP 505.
Mains switching	No
Volt free switching	Yes
Continuous Speed	The normal running speed of the unit. Continuous Speed is configured using a stepless independent fan control potentiometer
Boost Speed	An increased speed providing higher extract air flow. Boost Speed is configured using a stepless independent fan control potentiometer
Boost Switching	The Boost Speed can be enabled by connection of a volt free one-way switch, or combined with the Setback Speed with the 3 position switch TP508.
Boost Overrun Timer	The timer maintains the Boost Speed for a specific time variable between 0 and 30 minutes after Boost Speed is disengaged. The Boost Overrun Timer time is configured using stepless independent potentiometer
Setback Speed	The reduced ventilation rate is automatically set at the mid point between minimum speed and the selected Continuous Speed.

	CME3.1 *Q Plus CH*
Setback Switching	Is enabled by connection of a latching volt-free one-way switch, or combined with the Boost Speed with the 3 position switch TP 508.
Integrated Humidity Sensor	The units are fitted with an Integrated Humidity Sensor. This continuously monitors the relative humidity (RH) of the extracted air. The fan speed increases proportionally between Continuous Speed & Boost Speed depending on the measured %RH;  The Humidity Sensor's set point is variable from 55%RH to 85%RH and is configured using a potentiometer.
Remote indicator panel or control connection	The unit is fitted with the option to connect the auralite remote indicator panel.

The auralite remote indicator panel can optionally be connected to the unit. auralite is a low voltage hard wired remote LED ventilation system status indicator, designed to fit a standard UK patress or recessed backbox. The indicator is for use with specific Titon CME units. The indicator has six LEDs which display



auralite Indicator Panel

Setback	Unit is running at Setback Speed.
Normal	Unit is running at Normal Speed.
Boost	Unit is running at Boost Speed.
Humidity Control	Humidity sensor is controlling unit's fan speed.
Boost Overrun	The Boost Overrun Timer is active.
Fault	Unit has a fault - Contact the installer

Setback, Normal and Boost LEDs will slowly blink off and on when the unit has been running at Boost Speed for 120 minutes.

Fixing

The unit must be securely fixed to a single smooth flat surface. Any orientation is possible.

Locate a site for mounting the Titon CME3.1, take into consideration the position of:

- The rooms to be ventilated
- The Electrical services
- The exhaust port orientation.

Ensure there is adequate access for installation and maintenance, see Dimensions for sizes.

Securely mount the unit through the mounting holes on the casing using the appropriate fixings for the substrate and the CME3.1.

Ensure the unit is not distorted by the fixings or mounting surface.

The fixing slots on the unit are 6mm wide, it may be necessary to use washers to prevent damage to the CME3.1's fixing slots.

Tighten screws by hand, DO NOT over tighten screws or use power tools.

Ducting Connections

Titon recommend that:

1. Ø125mm ducting is used for the connection of the Output Port to Outside.
2. Ø125mm or Ø100mm ducting is used for connection to the other ports.
3. A minimum distance of 200mm between the CME3.1 unit and any sharp bends in duct work.
4. Ducting should be insulated where it passes through unheated areas and voids.
5. Unit should be insulated when fitted in unheated area.
6. Where a duct extends externally above roof level the section above the roof should be insulated or a condensate trap should be fitted just below roof level.
7. Where ducts pass through fire barriers, they must be appropriately fire stopped in accordance with the requirements of Part B Building Regulations (England & Wales).
8. A ducting condensate drain must be fitted to vertical Output Port to Outside duct work.
9. Condensate drain pipe work must be adequately secured, installed to have a minimum 5° fall and be insulated if any part of the pipe passes though an unheated void. All insulation to be the equivalent of at least 25mm of insulating material with a thermal conductivity of 0.04 W/(mK).
10. Ducting must be installed in such a way that resistance to airflow is minimised.
11. Ducting connected to the Output Port to Outside must be to the external air outside the building envelope.
12. All ducting joints including those to the CME3.1 unit's Duct Ports and Convertible Port Covers must be permanently connected and sealed.
13. Do not distort ducting, Convertible Port Cover or Duct Ports.

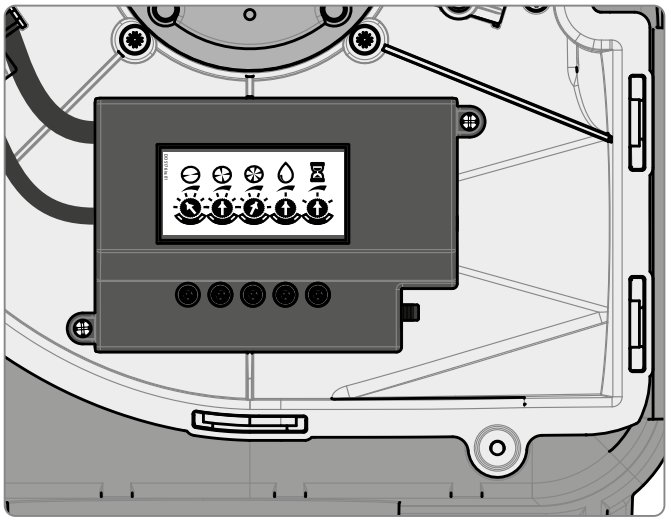
14. Ø125mm ducting fits inside the units Duct Ports.
15. Ø100mm ducting fits inside the Convertible Port Cover.
16. Unused extract ports must be fitted with not converted or undamaged port covers.

How to convert the Port Cover

To enable the Port Cover to be used as an adaptor for 100mm ducting, use a small screwdriver to tear out the tail and centre section. Ensure the tear out sections is completely removed.

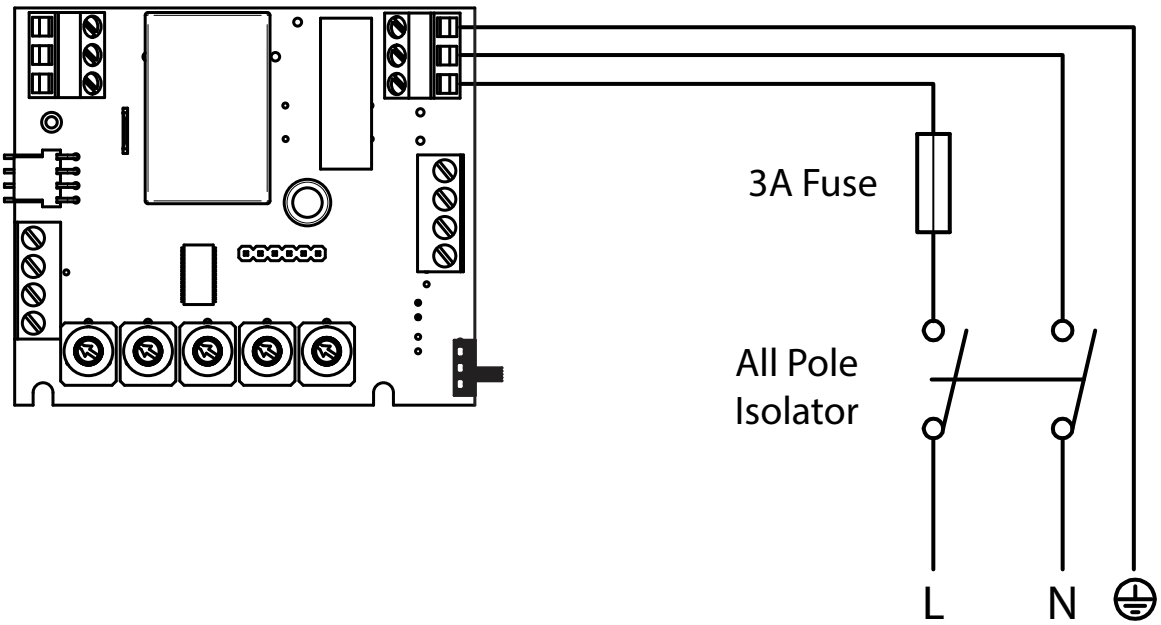
Wiring

The supply connection to this unit is via screw terminals mounted on the printed circuit board (PCB), access is achieved by removing the PCB Cover. To remove the PCB cover remove the two small retaining screws and the cover will lift. After supply connection has been made and before powering up the unit the PCB cover MUST be refitted and screwed in place, do not overtighten screws.



PCB Cover

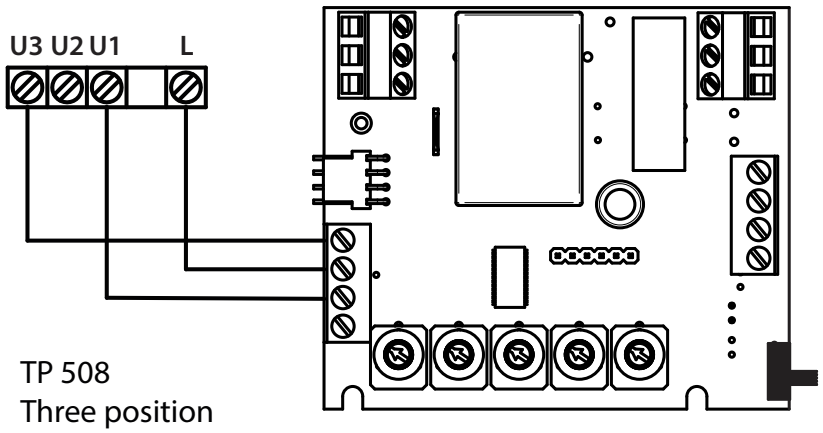
Diagrams



Wiring Diagram 220-240V~ 50-60Hz

SWITCH POSITIONS

1 - Setback Speed
2 - Continuous Speed
3 - Boost Speed

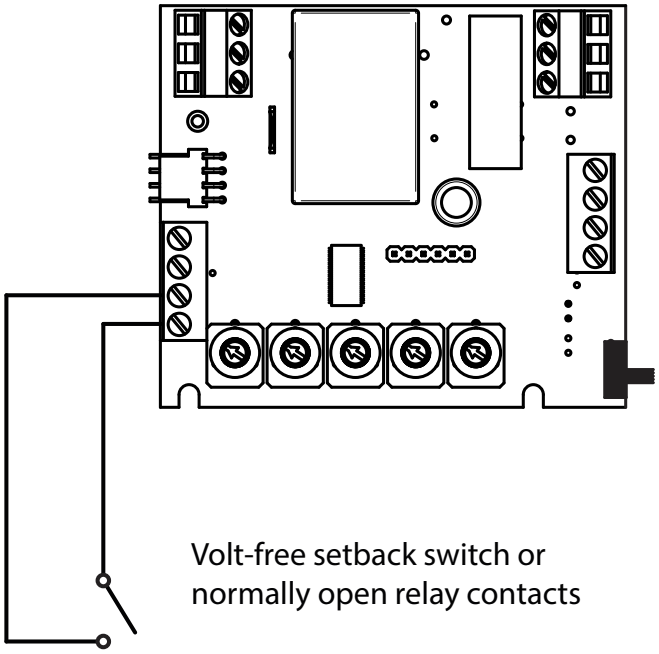


TP 508
Three position
rotary switch

Three position Rotary Switch TP 508 switching and connection

Volt-free setback switching of the unit's controller PCB using single-pole latching switch and / or volt-free normally open relay contacts

To avoid the unit being inadvertently left in Setback Mode, it is recommended that only one latching switch is fitted.

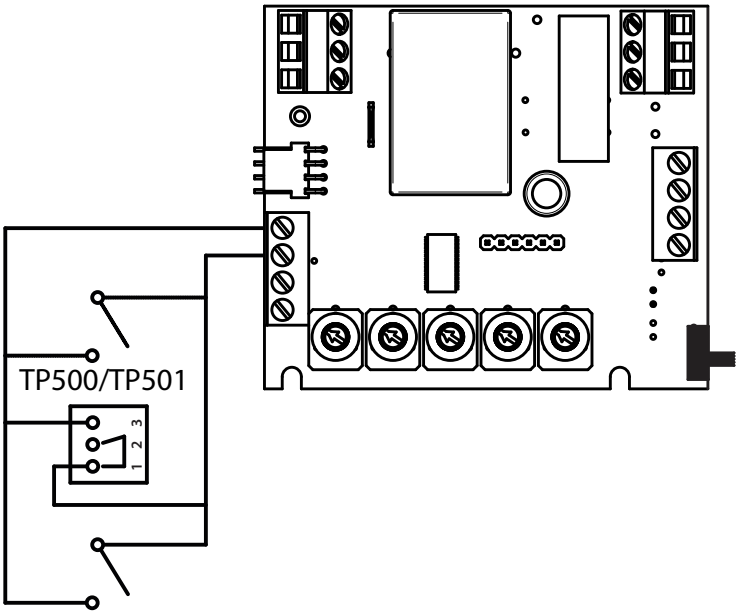


Volt-free setback switch or
normally open relay contacts

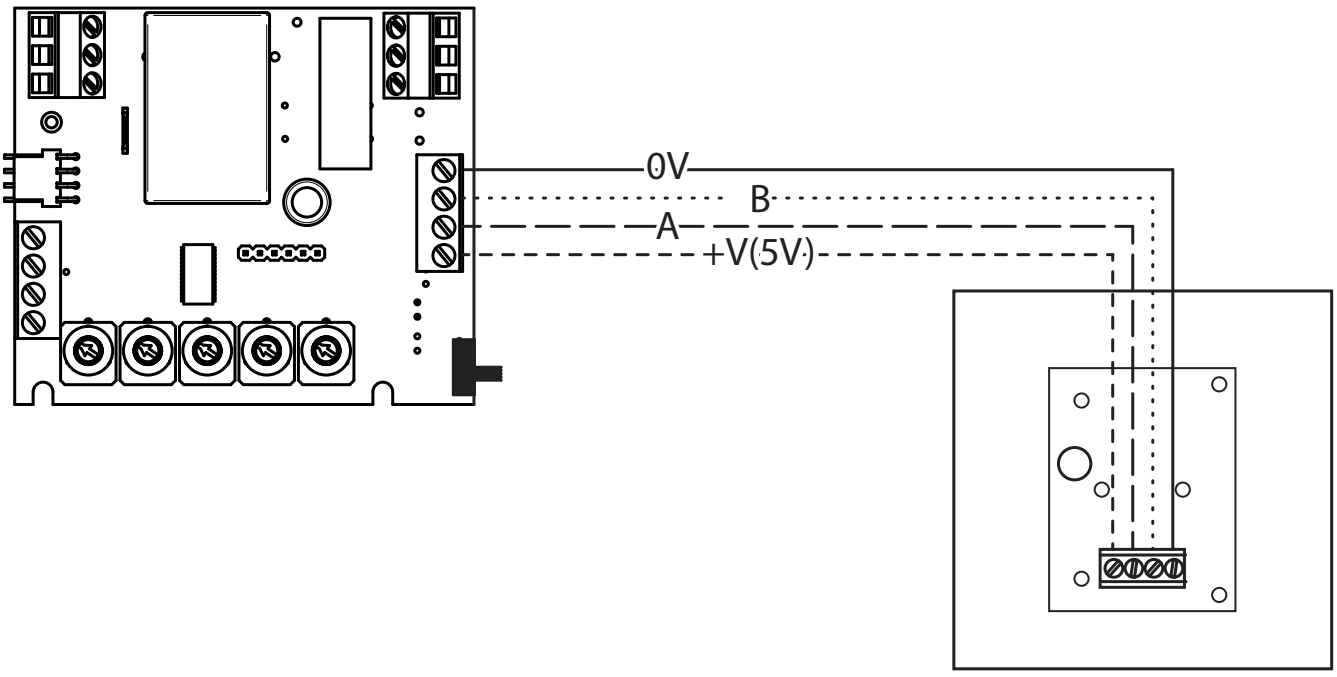
Setback switching

Volt-free boost switching of unit's controller PCB using single-pole switches TP 502, TP 503, TP 507 and/or TP500 / TP501 Humidistat.

There maximum of 10 single pole switches or humidistats that can used.

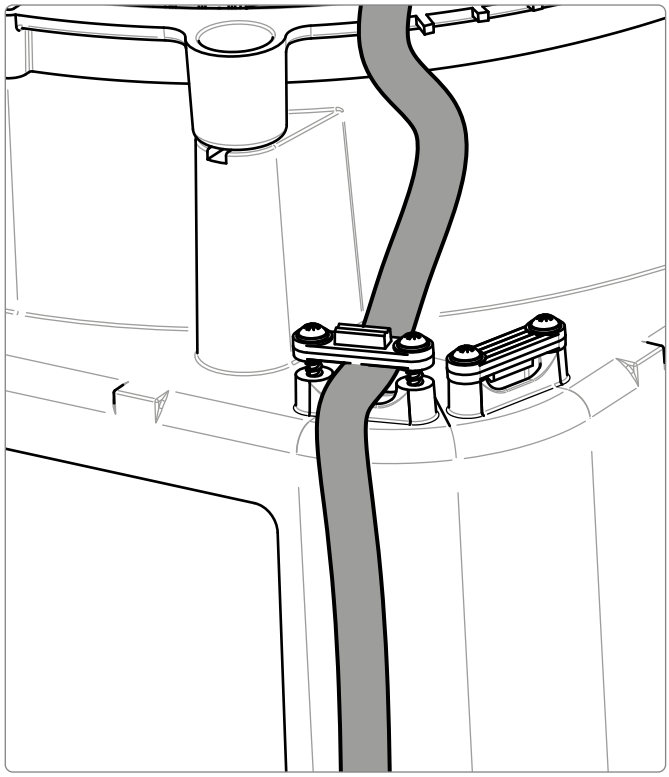


Boost switching and External Humidistat connection



Connection of auralite

Cable Retention



Cable Clamps

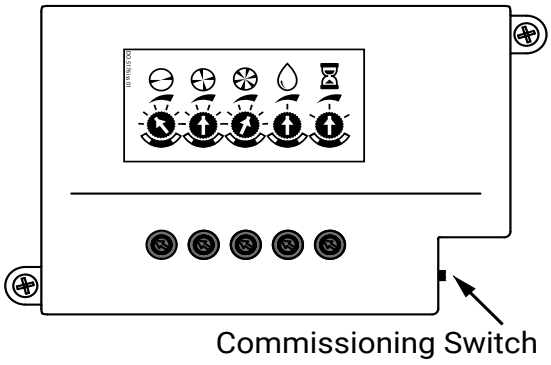
Ensure the supply cable and if used control cable are routed via the cable clamp and securely held in place.
The Cable Clamp Bar can be removed and turned over and used to clamp thinner cables.

Commissioning

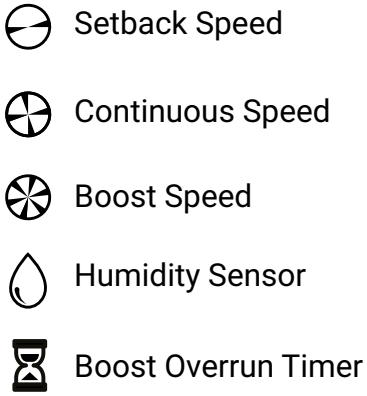
The fan speeds of the Titon CME3.1 *Q Plus* CH will require adjustment to ensure that the flow rates achieved provide adequate ventilation. The Titon CME3.1 *Q Plus* CH has 3 standard fan speed settings, Continuous Speed, Boost Speed and Setback Speed. All speeds are adjustable via Rotary Potentiometers. Ensure the PCB Cover is securely fitted before powering up the unit to commission.

Control Parameters

- All switch inputs are disabled when the Commissioning Switch is in the Program position.
- All speed control potentiometers are disabled when the Commissioning Switch is in the Run position.
- Boost Overrun Timer & Humidity Sensor adjustment can be done at any time without the need to move the Commissioning Switch.
- The unit needs to be powered up for the commissioning settings to be stored.

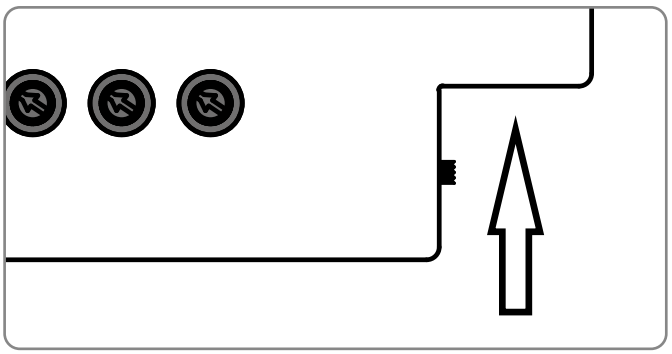


Control Locations

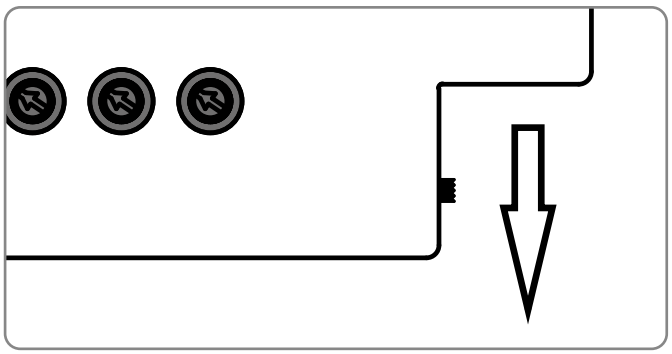


Control Identification

Commissioning Controls



Commissioning Switch in Run position

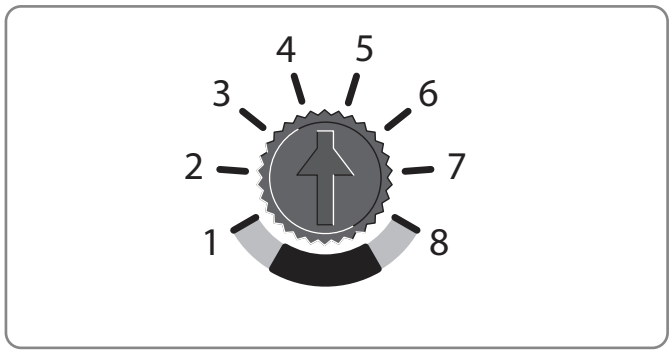


Commissioning Switch in Program position

To place the unit into commission mode move the Commissioning Switch to the Program Position. The CME3.1 *Q Plus* CH will automatically switch between Setback Speed, Continuous Speed and Boost Speed when adjusting the respective potentiometer.

1. Rotate the Speed adjustment potentiometer to achieve required air flow for each speed.
2. Return Commissioning Switch to Run Position to exit commissioning.

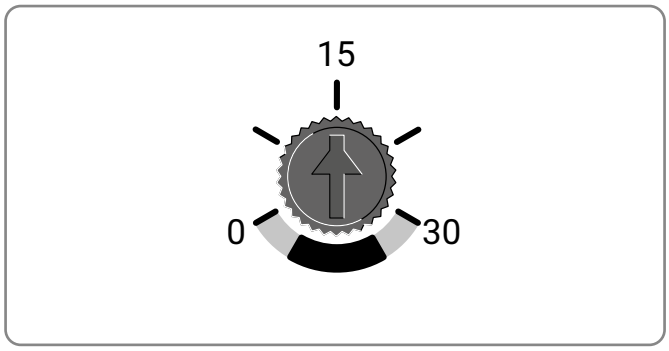
After commissioning the Commissioning Switch must be placed in the Run position.



Commissioning Pot positions

Boost Overrun

Boost Overrun is variable between 0 and 30 minutes.

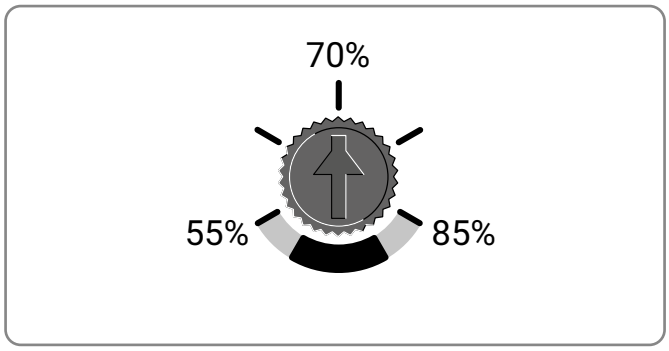


Boost Overrun Pot positions

Rotate potentiometer to change overrun time. Boost Overrun adjustment can be done at any time without the need to move the Commissioning Switch.

Humidity Sensor

The Humidity Sensor's trigger point is variable from 55%RH to 85%RH.



Humidity Sensor Pot positions

Rotate potentiometer to change trigger point. Humidity Sensor adjustment can be done at any time without the need to move the Commissioning Switch

Reset Information

Controller Reset

Following a controller reset the ventilation system will need to be fully re-commissioned. The unit will need to be powered up during the reset procedure.

1. Place the Commissioning Switch in the Run Position
2. Rotate the Continuous Speed and Boost Speed adjustment fully clockwise.
3. Place the Commissioning Switch in the Program Position.
4. Rotate the Continuous Speed adjustment potentiometer fully anti clockwise.

Hardware Reset

Certain conditions (repeated supply interruptions etc.) can activate the automatic motor protection mode. Where by the fan motor is prevented from operating. This requires a hardware reset to return the unit to normal operating mode, to achieve this power to the unit should be switched off for 5 minutes, restoring the power after this time will reset the hardware of both the motor and PCB. Commissioning settings are not affected during a hardware reset.

Product Fiche

Supplier Name	Titon Hardware Ltd.
Supplier Address	894 The Crescent Colchester Business Park Colchester Essex CO4 9YQ
Model	CME3.1 *Q Plus* CH Central Mechanical Extract
Model Identifier	TP342CH
Declared Typology	NRVU - UVU
Type of Drive installed	Multi-speed drive
Type of heat recovery system	none
Thermal efficiency of heat recovery	n/a
Nominal NRVU Flow Rate (m3/s)	0.083
Effective power input (kW)	0.042
SFPint W/(m3/s)	n/a
Face velocity in m/s	n/a
Nominal external pressure in Pa	200
Internal pressure drop in Pa	n/a
Static efficiency of fan in accordance with (EU) No 327/2011	39% - < 125W motor
Declared maximum internal leakage rate (%)	n/a
Energy performance of the filters	n/a
Casing sound power level (L_{WA})	57dB(A)
Filter Warning (RVU)	n/a

Internet address (for dissassembly instructions) www.titon.co.uk

Routine maintenance

All ventilation units require periodic maintenance. Routine maintenance must only be carried out by a suitably qualified and competent person. The CME3.1 *Q Plus* must be periodically cleaned internally. The maximum time between cleaning will depend on the local environment. Titon recommend the unit be cleaned every 3 – 4 years at a minimum.

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

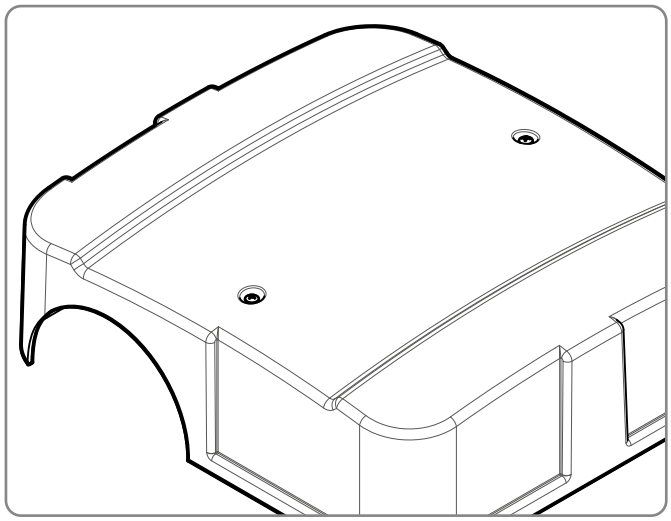
WARNING: The unit uses a 230V ~ supply and contains rotating mechanical parts. ISOLATE the unit from mains power supply and allow sufficient time for all moving parts to stop before undergoing any Servicing or Maintenance.

Cleaning Exterior

For best results use a clean damp cloth with a warm mild detergent solution. Do not use solvents or abrasive cleaners.

Access to the Interior for Cleaning

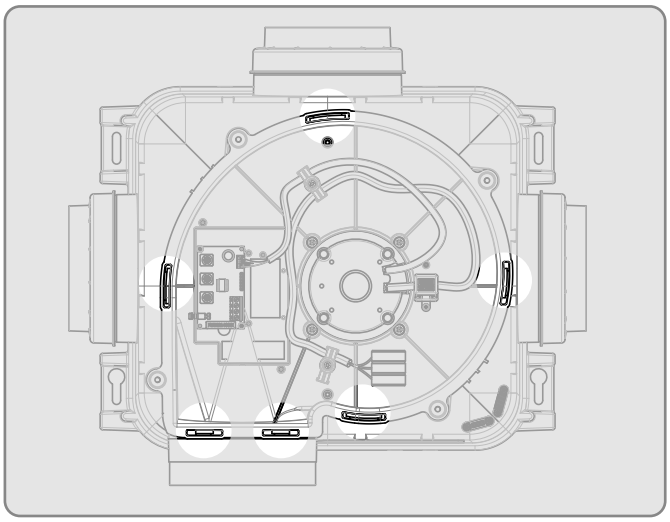
Access to the interior of the unit is achieved by loosing the two captive retention screws and removing the Lid.



Lid Fixing Screws

Removal of the Scroll Top

The Scroll Top is retained with six clips, some units may also use four screws. To remove the Scroll Top first remove and retain the screws (if fitted).

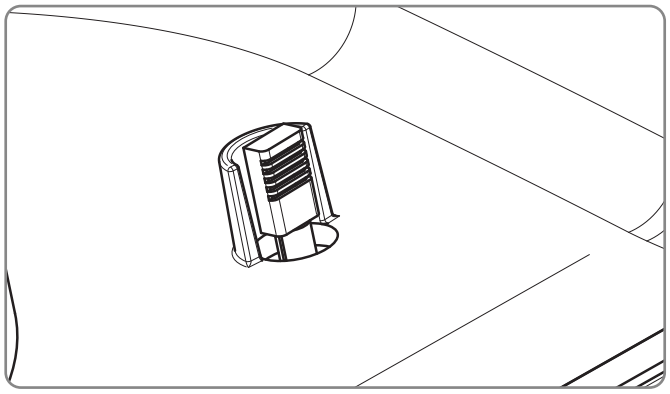


Scroll Top Clips

Place a large flat bladed screw driver into the slot adjacent to the clip and gently push the screw driver handle towards the centre of the unit (motor) whilst and the same time easing the Scroll Top away from the base, this will disengage the clip. Repeat for the other five clips.
Tip. Disengage the clips adjacent to the Output Port last to aid easier removal of the Scroll Top. Re assemble is the revers of the above. Ensure the clip holes are resealed with self adhesive aluminium tape.

Cleaning Interior

For best results use a clean damp cloth with a warm mild detergent solution.

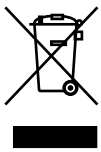


Humidity Sensor

Do not use solvents or abrasive cleaners. When cleaning the interior ensure that the humidity sensor does not get wet, dust with a dry cloth.

Service Record

Serviced By	Company Name	Date	Notes



This symbol on this unit or the package, indicates that disposal of this unit after its life-cycle could harm the environment.
Do not dispose the unit as unsorted municipal waste; it should be disposed by a specialized company for recycling. This unit should be returned to your distributor or to a local recycling service. Respect the local environmental rules.

Installed by

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.

Titon®
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Titon®
ventilation systems