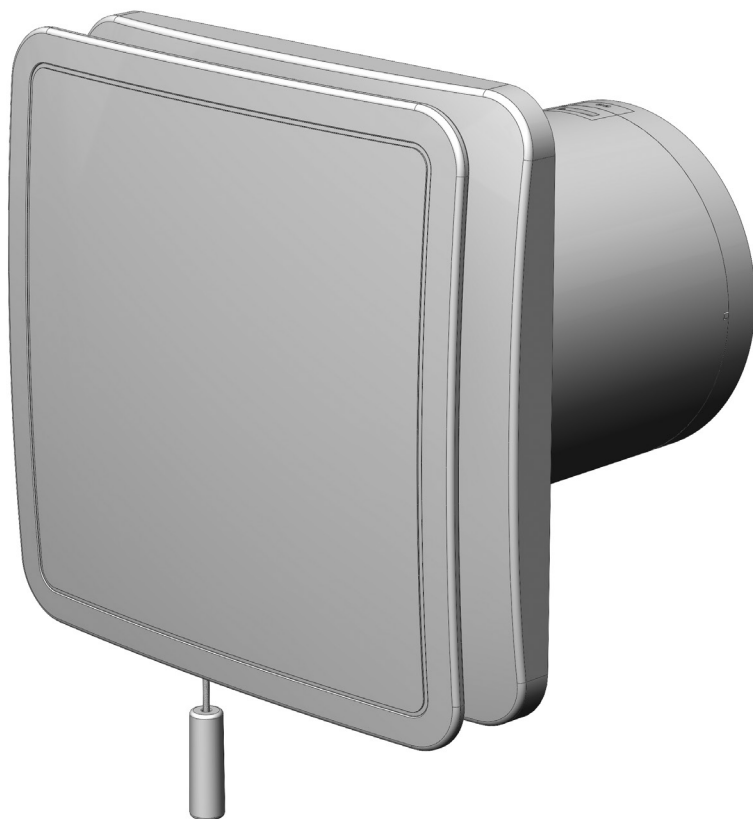


Samika LE100, LE100SV, LE150

for Bathroom, Toilets, Utility Rooms and Kitchens

Installation Instructions



	Page
General Preparation	3
Overview	4
Wall Mounting	5
Ceiling Mounting	6
Window Mounting	7
Wiring Appliance	8
Fan Specifications	8
Wiring Specifications	9
SELV Box Installation	10
Commissioning/Setup	11
Servicing/Maintenance	12

To disassemble the unit, disconnect from mains supply and use a screwdriver to segregate the electronic components and motor from the plastic housing. Dispose items in accordance with WEEE.

WEEE Statement

This product may not be treated as household waste. Instead it should be handed to an appropriate collection point for the recycling of electrical and electronic equipment.

For more detailed information about the recycling of this product, please contact your local council office or your household waste disposal service.



1.0 General Preparation - read all instructions before commencing

- 1.1.0 Warning: 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. Children shall not play with the appliance.
Cleaning and user maintenance shall not be made by children without supervision.
- 1.1.1 Observe appropriate safety precautions if working on steps or ladders. Wear eye protection when breaking out wall or window materials, etc.
- 1.1.2 Where an open-flued oil or gas-fuelled appliance is installed, precautions must be taken to avoid a back-flow of gases into the room.
- 1.1.3 When installing wall mounted fans, ensure that there are no buried cables or pipes in the way. It is recommended that this fan is mounted >1.8m above floor level.
- 1.1.4 The fan should not be sited where it would be subject to a direct source of heat in excess of 40°C.
- 1.1.5 A clearance of 50mm to be allowed on all sides of the fan for the removal of the discreet front cover.
- 1.1.6 The LE100SVT and LE100SVHT fans shall only be installed by using the supplied safety extra low voltage (SELV) controller.
- 1.1.7 Always isolate fan from mains supply before cleaning. Do not use solvents to clean this fan.

2.0 Overview

2.1.0 Greenwood's Samika fan range has been designed to offer a simplistic approach to meet Building Regulations and provide an energy efficient domestic ventilation solution to improve indoor air quality in dwellings. The fan may incorporate fully automated integral controls which monitors the homeowners' environment.

2.1.1 **Greenwood TimerSMART™** monitors the length of time that there is an occupant present within a wet room (*via the 'switch-live'*) and provides a fixed over-run time period to best match the length of time that the 'switch live' is active (*as shown in the table below*). This removes nuisance running noise and unnecessary energy wastage typically associated with traditional timers.

Note: *The first 5 minutes will not activate an over-run.*

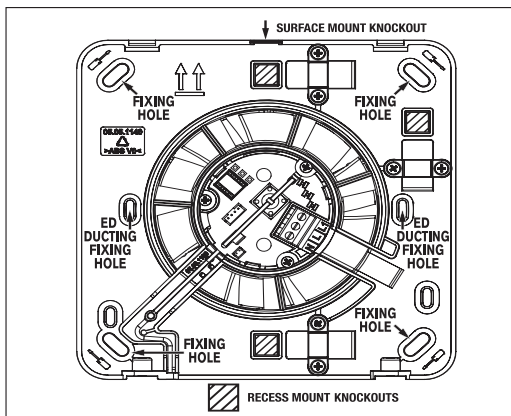
Time 'Switch Live' or Pullcord is Active	'Switch Live' Over-run Period
0 – 5 minutes	No over-run
5 – 10 minutes	5 minutes
10 – 15 minutes	10 minutes
15 – 20 minutes	15 minutes

To comply with Building Regulation requirements for intermittent ventilation within windowless rooms, an over-run timer of 15 minutes can be achieved by pulling the pullcord only.

(Manual override available by re-pulling the pullcord)

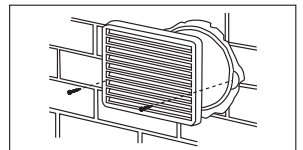
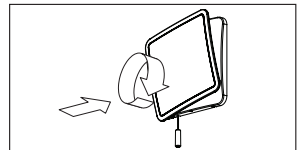
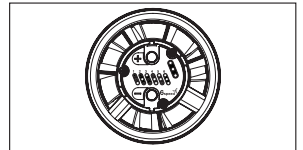
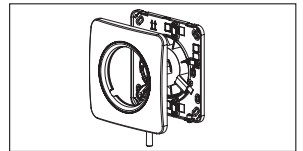
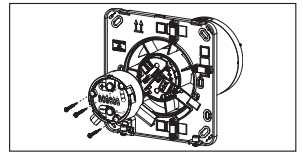
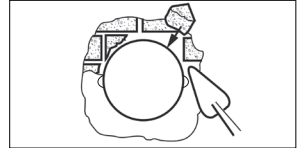
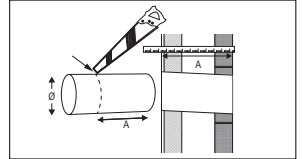
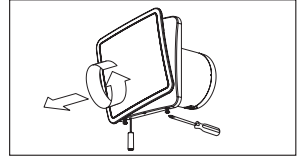
2.1.2 **Greenwood HumidiSMART™** monitors the ambient humidity within the wet room environment and looks for short peaks of humidity made by either cooking, showering or bathing. This smart technology ensures that your fan is only running when required, removing nuisance running noise and unnecessary energy wastage typically associated with increases to background humidity which naturally occurs with the changing seasons and during the night.

2.1.3 Fixing and Mounting Diagram



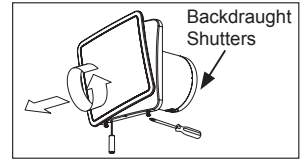
3.0 Wall Mounting - Using ED wall duct and EG external grille

- 3.1.0 Rotate discreet front cover to the left and pull off.
Loosen retaining screws at the bottom of the internal grille and lift off.
- 3.1.1 Cut the duct to width of the plasterboard (A) or tiled wall with slight fall to exterior.
(*Make provisions for cable*).
LE100 \varnothing = 125mm
LE150 \varnothing = 170mm
- 3.1.2 Fill in any gaps with mortar or foam and make good internal and external walls. Make sure that ducting remains circular and screw holes are horizontal.
- 3.1.3 Remove 3 screws within the control section and wire fan (*see wiring details in sections 6.0 to 9.0*).
Fix fan body to ED ducting or wall, using the respective fixing points (*as per 2.1.3*) and align.
Re-secure control section with the 3 screws.
- 3.1.4 Replace internal grille ensuring no wires are trapped.
Secure with retaining screws at the bottom.
- 3.1.5 Commission fan to the respective installed speed by using the + and – buttons (*see commissioning set-up section on page 11 for details on all installation settings*).
- 3.1.6 Push on discreet front cover and rotate to the right until secure.
- 3.1.7 Fix the protective wall grille to the ED ducting or external wall using the respective fixing points.

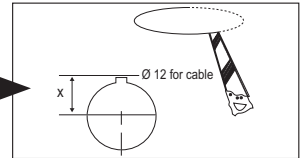


4.0 Ceiling Mounting

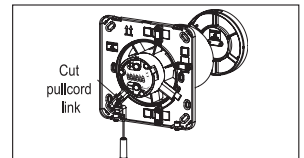
- 4.1.0 Rotate discreet front cover to the left and pull off.
Loosen retaining screws at the bottom of the internal grille and lift off.



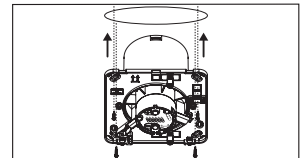
- 4.1.1 Cut an opening through the ceiling for the fan and electric cable.
- | | |
|--|-----------------------------|
| $\varnothing = 105\text{mm}$ for LE100 | $x = 68\text{mm}$ for LE100 |
| $\varnothing = 155\text{mm}$ for LE150 | $x = 90\text{mm}$ for LE150 |
| $\varnothing = 12\text{mm}$ for cable | |



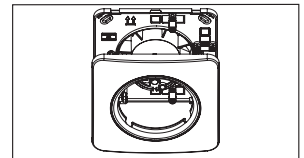
- 4.1.2 Cut and remove pullcord, just below the link, remove backdraught shutters and discard.



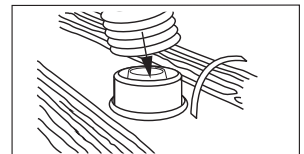
- 4.1.3 Remove 3 screws within the control section and wire fan (see wiring details in sections 6.0 to 9.0).
Fix fan body to ceiling and re-secure control section with the 3 screws.



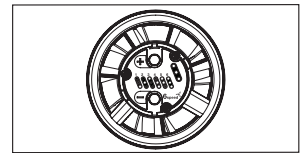
- 4.1.4 Replace internal grille ensuring no wires are trapped.
Secure with retaining screws at the bottom.



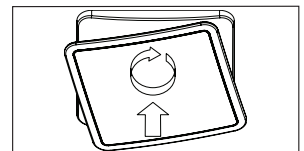
- 4.1.5 Place ducting (either flexible or rigid) over the spigot of the fan ensuring the impeller rotates freely.
Secure in place with ties/non hardening sealant. Do not terminate via a tile vent.



- 4.1.6 Commission fan to the respective installed speed by using the + and – buttons (see commissioning set-up section on page 11 for details on all installation settings).

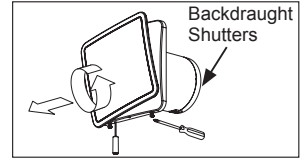


- 4.1.7 Push on discreet front cover and rotate to the right until secure.

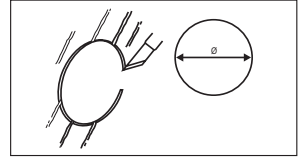


5.0 Window Mounting

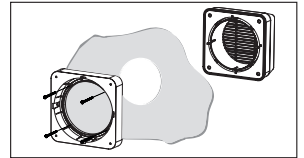
- 5.1.0 Rotate discreet front cover to the left and pull off. Loosen retaining screws at the bottom of the internal grille and lift off. Remove backdraught shutters and discard.



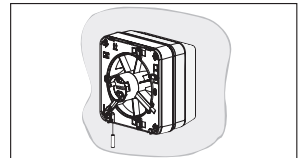
- 5.1.1 Cut circular hole within window pane.
LE100 $\varnothing = 118\text{mm} \pm 1\text{mm}$
LE150 $\varnothing = 167\text{mm} \pm 1\text{mm}$



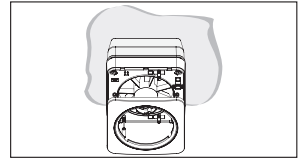
- 5.1.2 Secure window kit into position.
Screw lengths that can be used:
- 25mm – Single Glazing
 - 38mm – 20mm/24mm Double Glazing
 - 50mm – 28mm Double Glazing



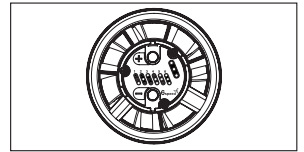
- 5.1.3 Remove 3 screws within the middle control section and wire fan. (see *wiring details in sections 6.0 to 9.0*). Fix fan body to window kit and re-secure control section.



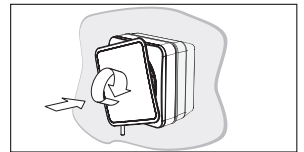
- 5.1.4 Replace internal grille ensuring no wires are trapped. Secure with retaining screws at the bottom.



- 5.1.5 Commission fan to respective installed speed by using the + and – buttons (see *commissioning set-up section on page 11 for details on all installation settings*).



- 5.1.6 Push on discreet front cover and rotate to the right until secure.



5.1.7 **Note:**

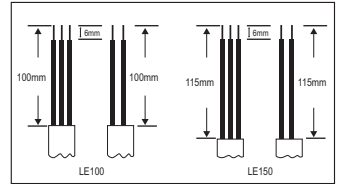
- Do not install fan in an opening window/roof light.
- Use the correct thickness of glass for the size of window (at least 4mm thick), if in doubt contact a glazier.
- The components supplied with the window kit are suitable for installation of fans in windows from 4mm single glaze to 28mm double glazing.

6.0 Wiring Appliance

- 6.1.0 **WARNING:** Installation or disconnection must be carried out by a qualified Electrician and all wiring must conform to IEE Wiring or local regulations.

The appliance must be isolated from the mains supply before removing the electronics cover.

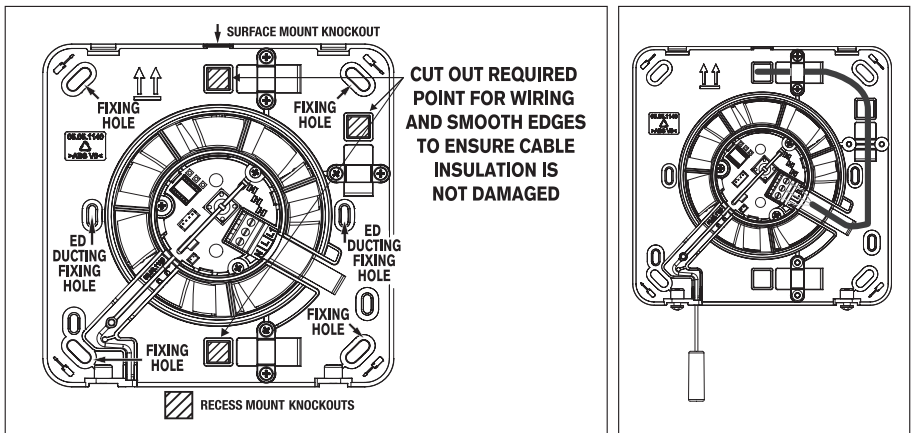
- 6.1.1 Strip cable to correct lengths as shown.
6.1.2 Insert cable through cable entry point, and then secure cable using the cable clamp.
6.1.3 Push the wires into the terminal block
(as per either the 230V or SELV wiring diagram on page 9).



Tighten the terminal block screws and ensure a good connection.

Note: Window installation cable entry point via knock out points within the window kit.

- 6.1.4 For surface mounting utilise respective knockouts and cable clamps as shown below.



7.0 Fan Specifications

- 7.1.0 **230V Model:** □ IPX4 220-240V ~ 50Hz / 1 Ph
100mm: 9 Watts max 150mm: 12 Watts max
- 7.1.1 **SELV Model:** ◻ IPX4 24DC: between controller and fan
220-240V ~ 50Hz / 1 Ph 100mm: 9 Watts max
- 7.1.2 **Cable Sizes:** Mains: Fixed flat wiring - 2 core 1mm²,
3 core 1/1.5mm²
SELV Output: Circular wiring - 3 core 0.75mm²

8.0 Wiring Specification

8.1.0 **WARNING: Isolate electricity supply before starting work.**
The electrical connections must be carried out by a qualified Electrician in accordance with IEE or local regulations.

8.1.1 The 230V fan is double insulated and does not require an earth.

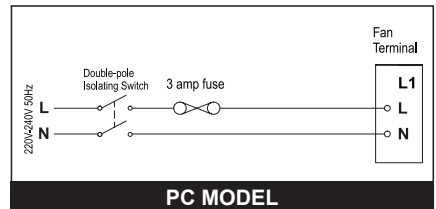
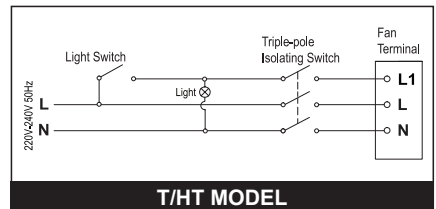
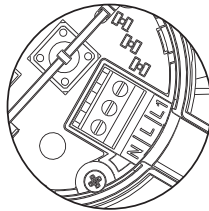
8.1.2 The SELV fan is Class III and does not require an earth.

8.1.3 An isolator switch having a minimum contact separation of 3mm must be used to provide isolation.

8.1.4 When supplied from a 6 amp lighting circuit no local fuse is required.
If electricity is not supplied via the lighting circuit, a localised 3 amp fuse must be used.

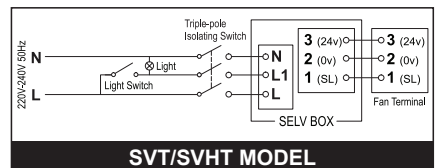
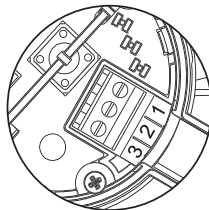
8.1.5 230V Wiring Diagrams

- LE100T
- LE100HT
- LE150PC
- LE150HT



8.1.6 SELV Wiring Diagrams

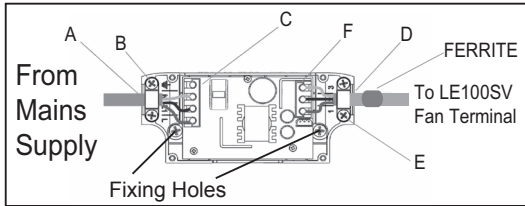
- LE100SVT
- LE100SVHT



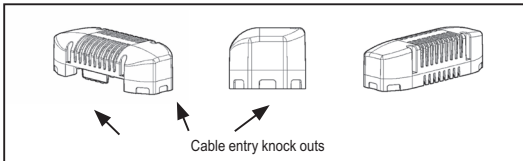
Maximum permissible distance between controller and fan for the circular 0.75mm² cable is 6m.

9.0 SELV Box Installation

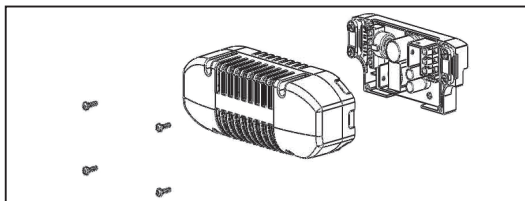
- 9.1.0 Install SELV Back Plate and Power Supply, using the two fixing holes, in a suitable location outside of the room where the Samika SELV fan (LE100SVT/LE100SVHT) is installed. The location should be as such that air can circulate around the Power Supply unit and it should never be covered.
- 9.1.1 The distance between the fan and the SELV Back Plate and Power Supply should be kept to a minimum and ideally not be greater than 3.0m.
- 9.1.2 Strip cable to correct lengths (as shown in section 6.0) for both fans and SELV Back Plate.
- 9.1.3 Insert mains cable (A) and clamp using cable clamp provided (B).



- 9.1.4 Push the wires into the terminal block (C) as per the wiring diagram (see section 8.1.6). Tighten the terminal block screws and ensure a good connection.
- 9.1.5 Push circular low voltage cable through ferrite (in loose item set) and insert through cable entry point (D) and then secure cable using the cable clamp (E).
- 9.1.6 Push the wires into the terminal block (F) as per the wiring diagram (see section 8.1.6). Tighten the terminal block screws and ensure a good connection.
- 9.1.7 Before fitting the SELV Box Top remove suitable cable knock outs that best suit the entry position of both the mains and low voltage cables, ensure that they are dressed and that all sharp edges are removed to ensure cable insulation is not damaged.



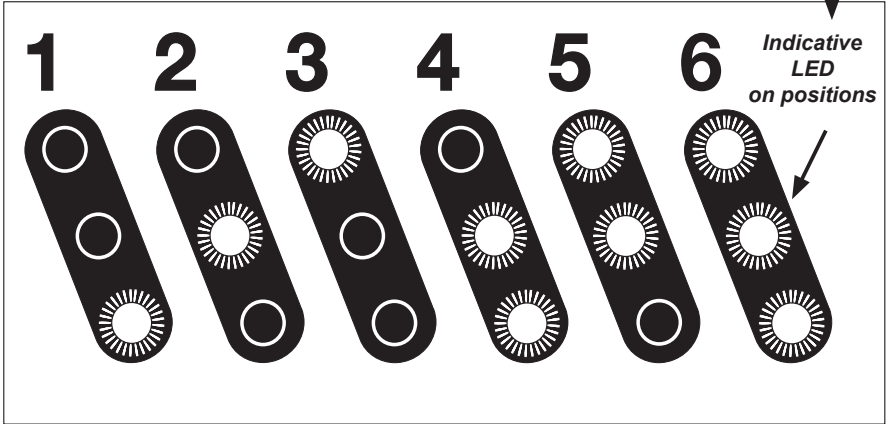
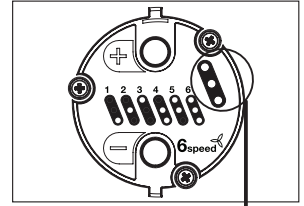
- 9.1.8 Fit SELV Cover to SELV Back Plate and Power Supply and secure using the 4 screws provided.
- 9.1.9 Insert low voltage cable through the Samika fan's cable entry point and then secure cable using the cable clamp.



- 9.1.10 Push the wires into the fan's terminal block as per the wiring diagram (see section 8.1.6). Tighten the terminal block screws and ensure a good connection.

10.0 Commissioning / Set-up

- 10.1.0 Press the + or – button to identify speed that the fan has been set to.
- 10.1.1 Press + or - button to increase/decrease fan to desired installed airflow requirement.
- 10.1.2 The 3 LED lights on the right hand side of the control panel will change to indicate speed setting.



- 10.1.3 Lights will remain on for approximately 5 seconds to enable the set up and status of the fan to be observed.
- 10.1.4 Airflow setting will be locked after 30 minutes.
- 10.1.5 **To reactivate the commission set up mode**, press and hold the + / - buttons simultaneously for approximately 3 seconds until the lights go out and come back on again. Fan can now be set to required speed.

100mm Fan		
Setting	Room	Installation
①	WC	Through Wall or <3m Ducting
②	Bathroom	<1.5m Ducting
③	WC	Window Kit
④	Bathroom	Through Wall
⑤	Bathroom	Window Kit
⑥	Bathroom	<3m Ducting

WC: 6 L/S Bathroom: 15 L/S

150mm Fan		
Setting	Room	Installation
①	Utility	Through Wall
②	Utility	<1.5m Ducting
③	Utility	Window Kit
④	Utility	<3m Ducting
⑤	Kitchen	Window Kit
⑥	Kitchen	Through Wall

Utility: 30 L/S Kitchen: 60 L/S

Note: The Samika fan has the ability to be set at a “maximum airflow” capacity (in excess of installed speed setting 6). To achieve this, whilst in commissioning mode, press the + button for 3 seconds, all 3 LED lights will flash to indicate that the fan is now at the maximum airflow setting.

11.0 Servicing/Maintenance

- 11.1.0 **Warning: Always isolate fan from mains supply before cleaning. Do not use solvents to clean this fan.**
- 11.1.1 Rotate discreet grille to the left and pull off – wash with a damp cloth and dry.
- 11.1.2 The fan's impeller and internal grille may now be cleaned using a brush, cotton bud or damp cloth (do not immerse in water).
- 11.1.3 After cleaning, push on discreet grille and rotate to the right until secure.
- 11.1.4 Please note that your stored fan setting will not be lost during any interruptions to your fan's power supply.

Zehnder Group UK Limited

Watchmoor Point, Camberley,
Surrey, GU15 3AD

Customer Services: 01276 408404
Technical Services: 01276 408402
Email: info@greenwood.co.uk
Web: www.greenwood.co.uk

All information is believed correct at time of going to press. E&OE.
All goods are sold according to Zehnder Group UK Ltd's Standard Conditions
of Sale which are available on request. All dimensions referred to are in
millimetres unless otherwise shown. Zehnder Group UK Ltd reserves the right
to change specifications and prices without prior notice.
© Copyright Zehnder Group UK Ltd 2018.

