



Installation guide

Solatube® Daylighting Systems Ventilation Add-on Kit

for Solatube® 160 DS Daylighting System

IMPORTANT

**PLEASE READ THESE INSTRUCTIONS
FULLY BEFORE BEGINNING
INSTALLATION**

Please ensure that all components have arrived in perfect condition before starting the installation.

If any components are damaged in transit, the complete, unused system should be returned for replacement. We DO NOT accept return of individual system components.

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SOLATUBE®

Parts List

 <p>Ventilation grille assembly: Ventilation housing 6 x Screw backing tabs Ventilation screen</p>	 <p>In-line fan motor assembly: Wire junction box Mounting bracket UL/CE label 4 x Screws no6 (15mm)</p>	 <p>Acoustic ducting: 1 x 2.5m length x 100 mm (internal)</p>														
 <p>Ventilation fastener kit:</p> <table border="0"> <tr> <td>Drywall/ceiling screws no6 (40mm)</td> <td>(6)</td> </tr> <tr> <td>Duct screws no8 (15mm)</td> <td>(12)</td> </tr> <tr> <td>Fan motor mounting screws no8 (25mm)</td> <td>(4)</td> </tr> <tr> <td>Foil duct tape 1.8m x 50mm</td> <td>(2)</td> </tr> <tr> <td>Cable connector</td> <td>(1)</td> </tr> <tr> <td>Wire nut</td> <td>(2)</td> </tr> <tr> <td>Ground crimp connector</td> <td>(1)</td> </tr> </table>	Drywall/ceiling screws no6 (40mm)	(6)	Duct screws no8 (15mm)	(12)	Fan motor mounting screws no8 (25mm)	(4)	Foil duct tape 1.8m x 50mm	(2)	Cable connector	(1)	Wire nut	(2)	Ground crimp connector	(1)	 <p>Exit vent: 1 x wall exit vent (or optional roof-mounted exit vent - as specified)</p>	 <p>Pull switch: 1 x 6A. 2 way ceiling switch can also be wired as 1 way (BS EN 60669-1)</p> <p><small>*If this unit is supplied with a timer or PIR switch please consult instructions supplied with that product.</small></p>
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CAUTION: For general ventilating use only. Do not use in kitchens. Do not use to exhaust hazardous or explosive materials and vapours.

WARNING: To reduce the risk of fire, electrical shock, or injury to persons, observe the following:

1. Use this unit only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer.
2. Before installing, servicing or cleaning unit, switch power off at service panel and lock service panel to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
3. Installation work and electrical wiring must be done by qualified persons in accordance with all applicable codes and standards including fire-rated construction.
4. When cutting or drilling into a wall or ceiling, do not damage electrical wiring and other hidden utilities.
5. Exhaust fans must always be vented to the outdoors.
6. If this unit is to be installed over a bath or shower, the circuit must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter) - Protected Branch Circuit.
7. Never place a switch where it can be reached from a bath or shower.
8. Do not use this fan with any solid-state speed control device.
9. Insulated Air Duct contains fiber glass wool which has been classified as a possible cancer hazard by inhalation. Fiber glass wool may cause temporary irritation to skin and or respiratory tract. Take appropriate precautionary measures when handling.

SPECIFICATIONS: Solatube® Ventilation Add-on Kit

Fan Motor Assembly:	100 mm in-line
Motor:	Impedance protected
Supply:	230 volt – 50-60Hz
Amps:	230 volt – 0.19 Amp
Airflow:	3.11 cmm (cubic meters/minute)
Insulation:	IC (Insulation may contact fan motor assembly)
Moisture:	Suitable for wet or damp locations
Flexible Duct:	1) 100 mm diameter air duct compliant to BS476 Part 6, 7 & 20. 2) Local building codes may require air duct (Class 0) for certain fire-rated installations.
Installation:	1) Service access is required to the fan motor assembly junction box.

NOTE: Understand the following before beginning installation:

1. Read and understand both the Solatube® Brighten Up® Series and the Solatube® Ventilation Add-on Kit installation instructions.
2. Follow all electrical codes and building code requirements.
3. Use appropriate safety glasses, gloves, hard hats, restraints and other equipment to avoid unnecessary accidents.
4. Motor is impedance protected. If motor becomes jammed or if another condition causes overheating, an internal fuse will fail.
5. Use house wiring suitable for 90°C and run it from switch to fan motor assembly junction box (and/or to Light Add-on Kit junction box location if used). Fan motor assembly junction box to be used only for wiring Solatube® Ventilation Add-on Kit or Solatube® Light Add-on Kit. Fan motor assembly junction box not to be used for other fixtures. The fan motor assembly is suitable for residential and non-rated residential assemblies only. For romex connections use one (1) 14/3, one (1) 12/3 or two (2) 14/3 cables only.
6. Use the Solatube® Ventilation Add-on Kit only as a component of Solatube® 160 DS Daylighting System products, including Solatube® Light Add-on Kit.
7. Any alteration or misuse of Solatube® Daylighting System products will void warranty.

If you have any questions regarding the installation of your Solatube® Ventilation Add-on Kit please do not hesitate to contact us – we shall be delighted to help.

**0845 4580101 (local rate)
or 01234 241466**



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2) Space requirements: Minimum 320 mm between ceiling joists and minimum 200 mm vertical clearance above ceiling is required.

INSTRUCTIONS

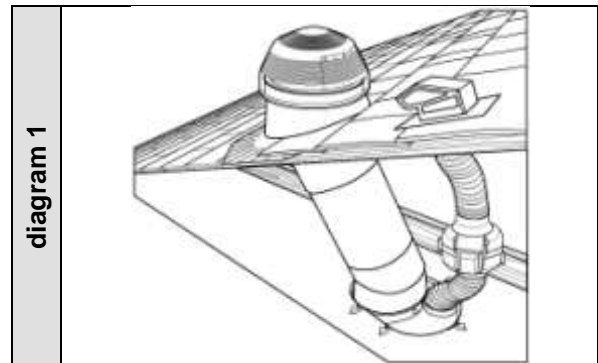
These instructions are for installing the Solatube® Ventilation Add-on Kit with the Solatube® Brighten Up® Series 160 DS Daylighting System (250 mm diameter). The Solatube® Light Add-on Kit may also be installed in conjunction with the Solatube® Ventilation Add-on Kit. Refer to the UK installation instructions for the Solatube® Brighten Up® Series and the Solatube® Light Add-on Kit instructions to complete the installation.

Marking the location

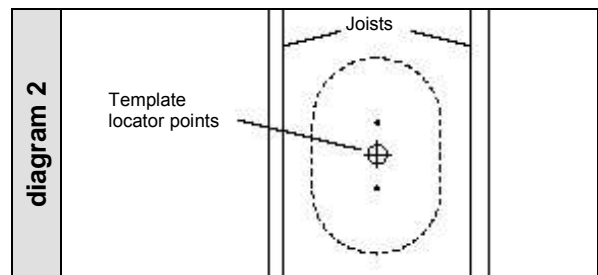
Step A Refer to the UK Solatube® Brighten Up Series instructions, Step 1 and Step 2, to mark ceiling and roof location of the Solatube® 160 DS Daylighting System.

Step B In the attic, look for possible mounting locations for the fan motor assembly. Check that wiring can be run to the planned location and that the insulated air duct will reach the planned location of roof, soffit or side-wall vent (**diagram 1**).

Note: This illustration is shown with the optional roof exit vent (versions of this may vary).



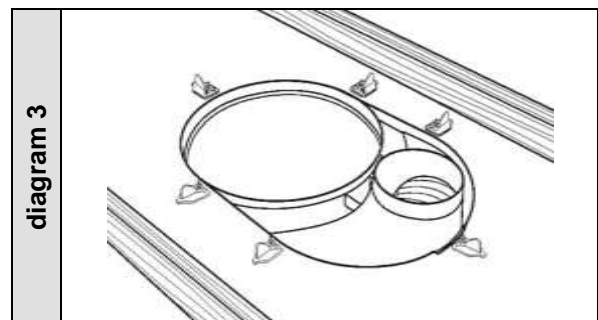
Step C Place the ventilation housing template on the ceiling surface and orient one of the locator points with the ceiling hole. Drill a 3mm hole through the ceiling at the other locator point, and repeat to establish clearance (**diagram 2**). Once the location has been established, tape the template to ceiling.



Installing the ventilation housing

Step D Cut up through the ventilation housing template along the line and remove the ceiling material. Remove the screw backing tabs from the ventilation housing. Secure the ventilation housing with six No.6 (40mm) drywall (ceiling) screws and the six screw backing tabs (**diagram 3**).

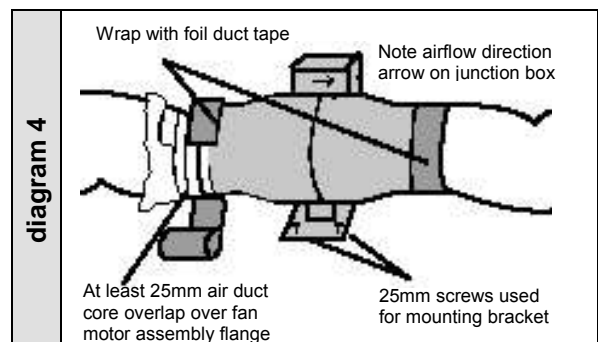
NOTE: For an air infiltration seal, apply a 5mm bead of acrylic caulk to the back of the ventilation housing prior to installation.



Mounting the fan motor assembly

Step E Select a suitable fan motor assembly location approximately 1 metre from the ceiling plate intake hole towards the roof or side-wall vent. The fan motor assembly can be installed at any angle without affecting performance. The arrow printed on UL/CE label on fan motor assembly wire junction box shows airflow direction. Point the arrow away from the ceiling plate intake and towards the roof or side-wall vent (**diagram 4**).

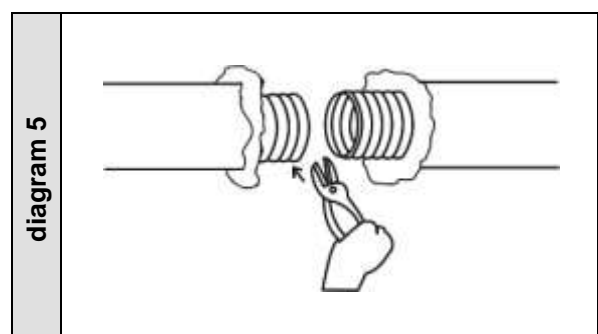
Step F To secure the fan motor assembly, screw four 25 mm screws through mounting brackets on fan motor assembly into building structure (**diagram 4**).



Duct Assembly

Step G Run the air duct from the ceiling plate intake to the fan motor assembly. On the other side of the fan motor assembly, run the air duct to the duct connector of the ventilation exhaust pipe or optional roof vent (see separate installation instructions provided with optional roof vent). For best venting performance, make the air duct run as short as possible with minimum bends.

Step H After the desired lengths of air duct are determined, cut completely around the air duct with scissors or a knife. Cut the wire with wire cutters (**diagram 5**).



Step I Pull back the air duct jacket and insulation from the air duct core. Slide at least 25mm of duct core over the vent intake, fan motor assembly flange, and duct connector. Tape the core with at least one wrap of foil tape and secure with three 15mm duct screws. Pull the insulated jacket over the connection and secure with one wrap of foil tape. To prevent condensation from collecting on the vent housing, allow for a horizontal section of ducting between the ceiling plate and the fan motor. Strap the air duct to framing every 1.5 metres.

Switch (if required)

Step J See separate instructions supplied with pull switch.

Wiring*

Step K Disconnect the power before proceeding. If the power disconnect switch is not in sight, lock it in the off position, and tag it to prevent unexpected application of power.

Step L To open the fan motor assembly junction box cover, remove the four screws.

Step M Feed the house wiring (with earth) from the switching mechanism (eg: from the existing pull switch or from the optional PIR) to the junction box located on the fan motor assembly. Use the cable connector provided to fasten the cable to the junction box. Use the crimp sleeve to connect the motor earth wire (green/yellow) to the house earth wire. Use the wire nuts or cable connectors provided to connect the two live (brown) and the two neutral (blue) wires of the fan motor assembly to the corresponding house wiring (**diagram 6**).

For wiring the Solatube® Ventilation Add-on Kit and the Solatube® Light Add-on Kit see **diagram 7**.

Step N Replace the junction box cover and screws.

Solatube® 160 DS Daylighting System installation

Return to the Solatube® Brighten Up® Series UK installation instructions Step 4 and complete through Step 14.

Step O Snap the Vent Screen onto the Ventilation Housing (**diagram 8**).

Step P Snap the diffuser onto the perimeter edge of the ceiling ring (**diagram 9**).

See optional roof exit vent instructions if applicable.

For wiring instructions for PIR and timer switches, please refer to the instructions supplied with these products.

