

## Product Installation Guide for Solatube 160 & 290DS and 330DS-C

Please note and understand the following before beginning installation:

- These installation instructions are for installation of the Solatube Daylight Dimmer into the Solatube Brighten Up Series 160DS and 290DS (250 & 350mm diameter systems) and the Solatube 330 DS-C (530mm diameter closed ceiling system).
- Read through the installation guide. If you have any questions, please contact the supplier before commencing installation.
- Electrical wiring must be carried out by a suitably qualified person, and in accordance with all applicable codes and standards, including fire-rated construction. Daylight Delivery Systems Limited (seller) assumes no responsibility or obligation whatsoever for the failure of an architect, contractor, installer, or building owner to comply with all applicable laws, ordinances, building codes, electrical codes, energy codes, fire and safety codes and requirements, roof warranties and adequate safety precautions.
- Before installing or servicing the unit, switch off power at the consumer unit and take measures to prevent power from being switched accidentally, eg lock it or securely fasten a prominent warning label to the consumer unit to indicate it must not be switched on.



These instructions are for installing and wiring the Solatube Daylight Dimmer. Units are designed to operate in a temperature range of -29° C (-20° F) to 54° C (130° F). If ambient temperatures are outside of these values or the environment is very humid, wrap the junction box with an insulation blanket with a vapour barrier. Junction box should be oriented towards the closest source of power with UL label arrow pointing up. When installed with Solatube incandescent light kits, limit lamps to 60 watts.

### Step 1

#### ... for the Solatube 160 DS or Solatube 290 DS

Place Daylight Dimmer on the outside of the bottom tube assembly. Secure the Solatube Daylight Dimmer ring using (2) 9 mm screws in the pre-drilled holes. Apply foil tape around perimeter of the Daylight Dimmer (**Diagram A**) and smooth with the tape backing material to ensure good adhesion.

... for the Solatube 330 DS, orient the Daylight Dimmer around the outside of the transition box so that the locator tabs drop into the slots on the transition box. Secure the Daylight Dimmer using (2) 15.5 mm drill tip screws in the pre-drilled holes. Apply foil tape around perimeter of the Daylight Dimmer (**Diagram B**) and smooth with the tape backing material to ensure good adhesion.

### Step 2

For Solatube 160 DS (10 in/250 mm Daylighting System) or Solatube 290 DS (14 in/350 mm Daylighting System) - adjust extension tube to the small notch/larger diameter to fit into the Daylight Dimmer. Insert extension tubing atop the inside of the Solatube Daylight Dimmer and fix with (2) 3/8" (9 mm) screws in the pre-drilled holes. Apply foil tape around perimeter of the Daylight Dimmer (**Diagram C**).

Diagram A

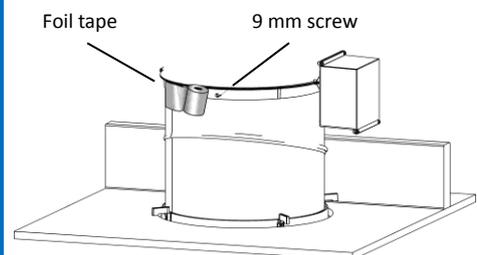


Diagram B

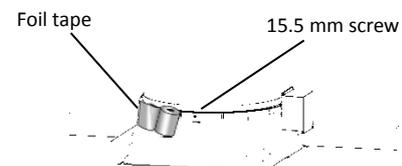
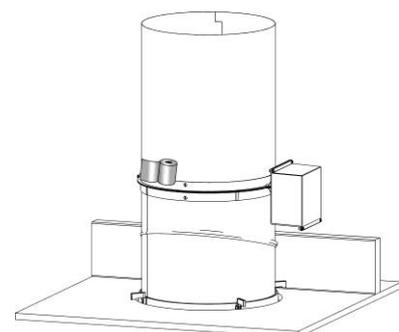


Diagram C



### Step 3

#### DC Control – Switch and Daylight Dimmer

Position the switch on the wall at a minimum height of 1.5 m above floor, within visual sight of the Solatube Daylighting System. Run cable (4 conductor 22 gauge with red, black, white and green colours – not supplied) from the Daylight Dimmer Switch to the Daylight Dimmer junction box.

See corresponding red, black, white and green wiring as shown in Diagram E.

**Diagram E** provides a completed overview of the entire wired assembly for the Solatube Daylight Dimmer junction box.

Insert the cable gland into the knock-out hole and safely clamp the cable using pliers.

### Step 4

#### DC Control – Multiple units/Daisy-chain

Controlling multiple (two or more) units from one master switch requires (2) conductor cable, black & red, 22 gauge stranded (not included). Use only 22 gauge wire to fit.

Connect each unit via terminals 1 to 1 (red to red) and 2 to 2 (black to black) (**Diagram E**). This will require (2) conductors per terminal.

#### Notes for controlling multiple units:

1. The maximum number of units that can be controlled from one master switch is ten
2. Maximum distance from the wall switch to the first dimmer in the series cannot exceed 100 feet
3. Maximum distance between each subsequent dimmer cannot exceed 9 metres (30 feet)

#### Supply AC to Power Supply for a single unit installation and to each unit in a multiple unit installation.

Electrical disconnect such as fuse or breaker switch must be used in supply circuit and disconnected during installation to protect personnel and Daylight Dimmer.

Rating: 90 - 277 V, 50/60 Hz, 30 A(Max). Wire Size: 16 to 12 ga.

Connect: Conductors to labelled terminal block on Power Supply (**Diagram E**). For multiple installations, use pigtails from the terminal block to supply AC to each unit (**Diagram F**).

For Europe:

Brown conductor to Terminal (L) line  
Light blue conductor to Terminal (N) neutral  
Green/yellow conductor to Terminal  $\perp$  ground/earth

Diagram D

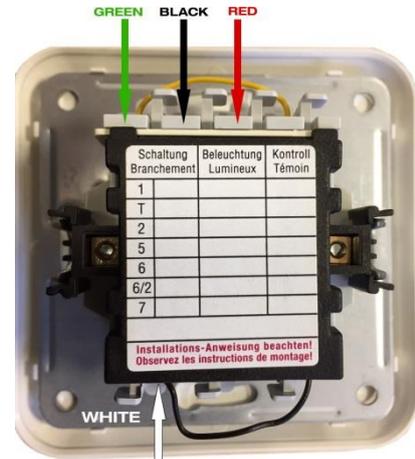


Diagram E

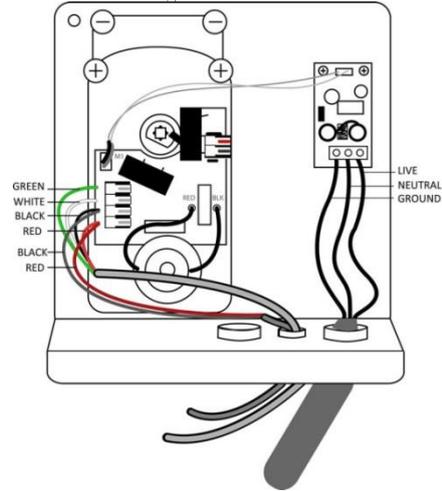
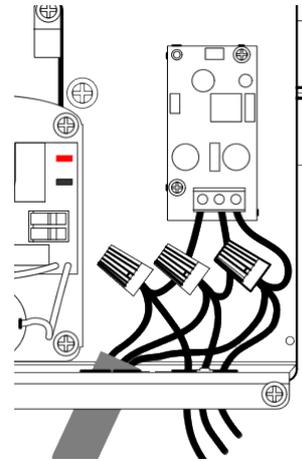


Diagram F



**All electrical wiring should be undertaken only by a suitably qualified person.**

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