



SOLATUBE[®]
DAYLIGHTING SYSTEMS



Installation Instructions

Solatube daylight dimmer 1-10 Volt

Enjoy daylight

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Version

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Safety Information

- Always observe the safety instructions for the materials and tools used.
- We would suggest that any roof works is completed by an experienced roofer.
- Always have any electrical works carried out by a certified electrician
- .Installation is at your own risk.
- Attention: always make sure that the voltage is switched off during all work on the dimmer!

Guarantee

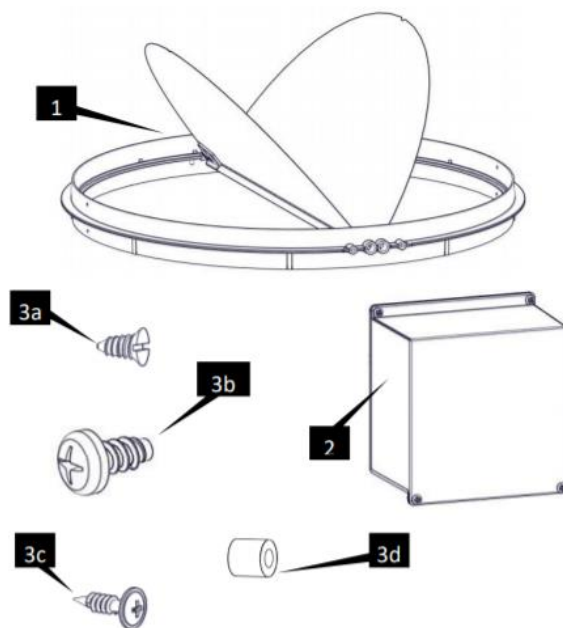
Electrical Solatube® components are covered by a 5 year manufacturer's warranty against any manufacturing defects. Please retain the original proof of purchase to validate the product warranty. Our terms and conditions are available upon request.

Disclaimer

Techcomlight Limited expressly disclaims any liability for any unexpected additional expense arising as a result of condensation or any water damage resulting from condensation, installation not in accordance with Techcomlight Limited's installation guide or any other circumstances beyond the control of Techcomlight Limited.

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1. Product Overview



1.1 Product Components

1. Daylight dimmer ring
2. Daylight dimmer motor incl. housing
3. Various screws

1.2 Optional Components

4. Transformer 24 volt AC
5. Dimmer switch 1-10 volt

Please note!

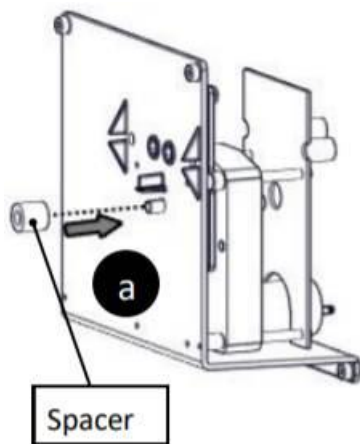
The motor sits on the outside of the tube: therefore please ensure that there is sufficient space around the tube to accommodate the motor.

2. Installation Steps

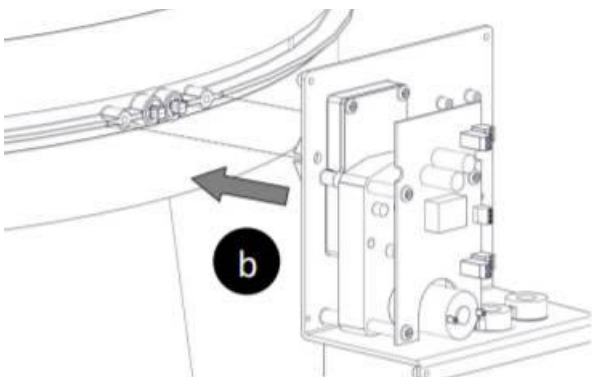
2.1 Step 1 – Install daylight dimmer

The daylight dimmer can be installed in various places between the joints of the Solatube extension tubes. Always make sure that the "butterfly valves" of the dimmer can open and close unimpeded and are not blocked by other accessories within the tube. The aluminium tape supplied must always be used to fix the plastic ring of the dimmer between the extension tubes of the Solatube. In addition, the screws supplied can also be used to fix the tubes to the plastic ring of the dimmer.

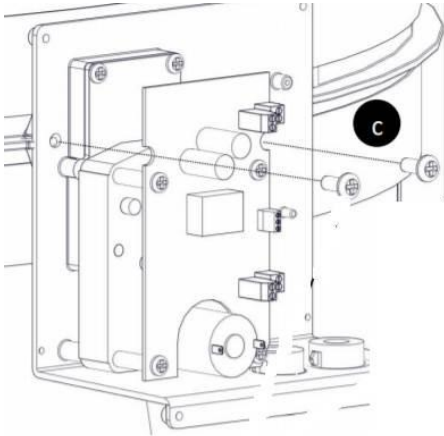
Step 1A: Fit spacer to the back of the motor housing as shown below



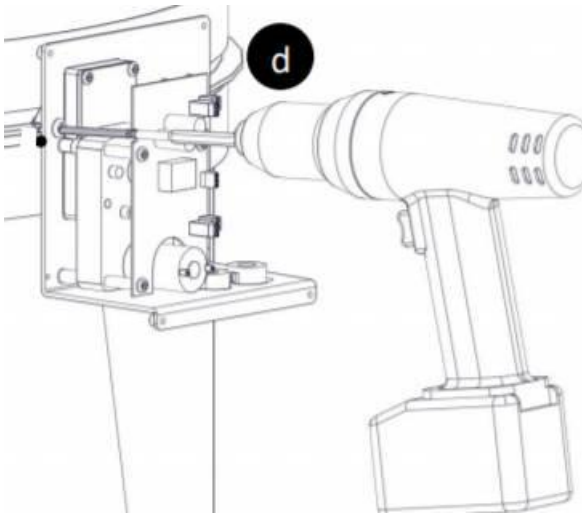
Step 1B: Fit the motor onto the cams on the daylight dimmer ring as shown below



Step 1C: Use the supplied screws to fix the motor to the ring as shown below



Step 1D: Secure the motor by tightening the screws



2.2 Step 2 – Connecting daylight dimmer motor

4 cables must be connected to the motor of the daylight dimmer: 2 signal cables from the switch, and 2 cables from the transformer.

For looping the cables to several dimmers, please refer to the document “connection diagram”.

The colours of the wires in the description are taken from the example photo below:

Signal cable from switch:

Red = No. 8 (plus)

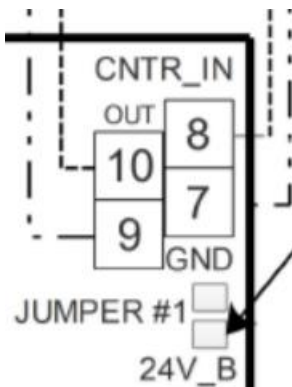
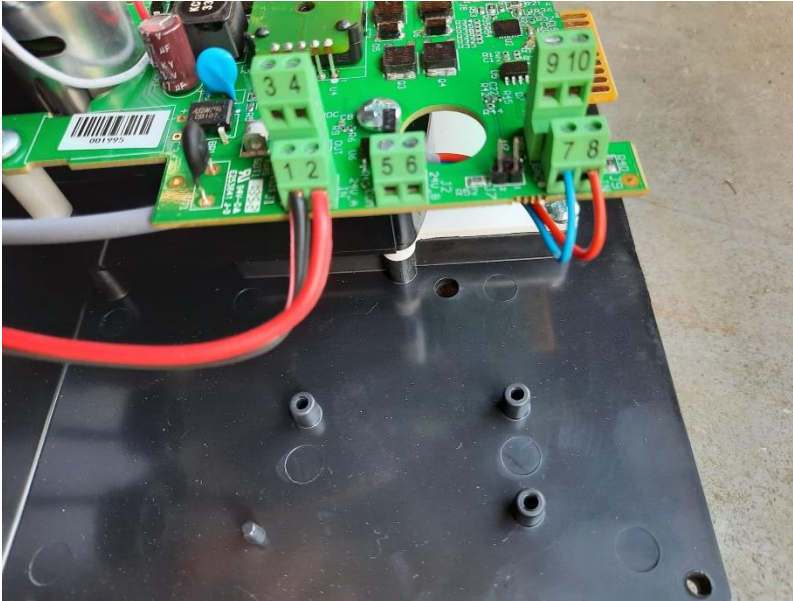
Blue = No. 7 (minus)

Power cable from the transformer:

Red = No. 2 (24 V)

Red/Black = #1 (0V)

Note: If you are daisy-chaining motor units together always remove the jumper from the first motor unit in the chain



2.3 Step 3 – Switch

The switch we supply is a JUNG electronic potentiometer 1-10 V, item number T900103-00.

Use a signal cable to connect the switch.

The switch is supplied as standard with a GIRA cover frame and operating element in white plastic.

If the dimmer valve does not open or close completely, this can be set on the switch by turning the knob/screw with the text '1-10V 50 mA' (see photo below) with a small flat screwdriver.



Switch wiring diagram

The colours of the wires in the description are taken from the example photo below:

Red = plus +

Blue = minus -



2.4 Step 4 – Transformer

The transformer we offer has a capacity of 100VA; article number S560061-00.

Other transformer product features:

- Secondary voltage 1: 24 V
- Primary voltage 1: 215 V
- Primary voltage 2: 230 V
- (Measuring) apparent power: 100 VA
- Modular version (for rail mounting): Yes
- Performed as a separation transformer: No
- Brand: Legrand
- Dimensions: (wxhxd) 94x94x113mm

- Insulating material class according to IEC 85: B
- Relative short-circuit voltage U_k : 8.5 %

See below an overview of the required power of the transformer per Solatube diameter, and the number of daylight dimmers:

Solatube 25 cm:

Transformer	20VA	96VA
Maximum number of dimmers	7	20

Solatube 35 cm:

Transformer	20VA	96VA
Maximum number of dimmers	7	20

Solatube 53 cm:

Transformer	20VA	96VA
Maximum number of dimmers	7	17

Solatube 74 cm:

Transformer	20VA	96VA
Maximum number of dimmers	7	14

Transformer connection diagram

The colours of the wires in the description are taken from the example photo below:

Power:

Green/Yellow = Earth (optional)

Blue = opposite side to Earth on Zero

Brown = opposite side to earth at 230

Power cable between transformer and daylight dimmer:

Blue / red-black = minus, so on the Zero on the side of the earth

Red = plus, so at 24 on the side of the Earth

Example of a connected transformer:



This completes the installation of your 1-10 Volt daylight dimmer.

