



## Switch Module Installation Guide



The system should be installed only by a suitably qualified person

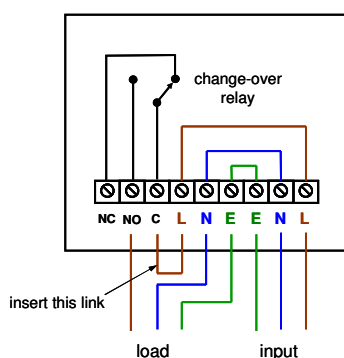


### The solarcache Switch Module

A solarcache controller with a firmware revision number equal to or later than 1.08.02b can control a solarcache switch module in addition to carrying out its other functions. Controllers with lower revision numbers can be re-flashed; please contact DSM Energy Control Support for instructions about what to do (see the contact details given at the end of this guide). A switch module can be programmed to turn on and off using up to six daily timers. It can also be set to come on when the exported power is greater than a given value. One use for a switch module might be to control an air-source heat pump. It is then important that the switch remains on for a minimum amount of time before switching off, or that the switch remains off for a minimum amount of time before switching on again. This and the other parameters can all be set in the solarcache controller via the settings menu.

A solarcache switch module must be within the wireless range of the controller. A range of up to 40m might be achieved, but the actual figure depends on the details of the installation.

### Switch-module wiring diagram

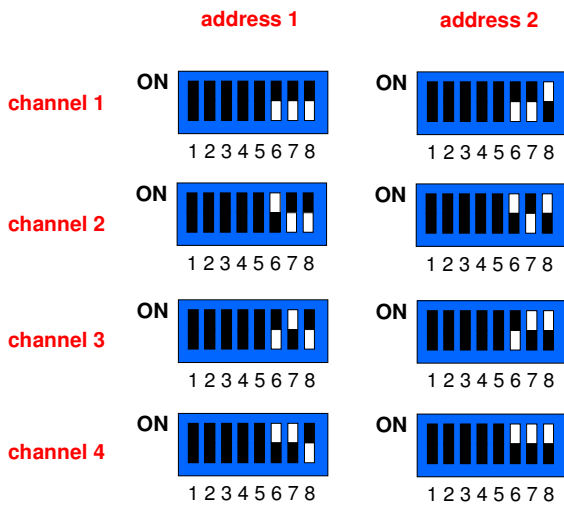


Each switch module contains a change-over relay with one normally-open contact (NO), one normally-closed contact (NC) and one common contact (C). In its quiescent state, or when no power is applied to the switch module, the common contact is connected to the NC contact. Whenever the relay is activated by a wireless command from the solarcache controller, the common contact is connected to the NO contact. The three contacts are brought out separately to three screw terminals, and may be used to switch low-voltage or other loads not requiring a mains supply. A more-common use, however, is to connect a link between the mains input line and the common contact as shown in the diagram. The NO terminal is then a



switched line output which may be connected to the load's line. The maximum safe load is 3 KW (13 A) non-reactive. Use an auxiliary contactor for switching larger loads.

### Wireless settings



A solarcache controller and its switch module **must be set with the same wireless settings**. The switch modules may use any of four independent wireless channels, numbered 1 to 4, and either of two independent wireless addresses, numbered 1 and 2. The default setting is wireless address 1 on wireless channel 1. (Note that the default address is different from the solarcache default setting.) The solarcache controller is programmed via the settings sub-menus under settings --> other settings. Dip-switches are used in the switch module. You can set wireless channels and addresses using switches 6, 7 and 8 of the blue 8-pin dip-switch. Switches 6 and 7 specify the channel number, and switch 8 specifies the address, as shown in the diagram.

**Make sure that the solarcache controller, switch module, power throttle (if used), remote display (if used) and Gateway (if used) all use the same wireless settings.**

### Connections to the screw terminals

Hold the unit with the row of nine screw terminals nearest to you and with the screws uppermost (as shown in the picture on the first page of this guide). The labelled black device will be furthest away from you, and the blue dip switches will be on the right-hand side. The screw terminal connections are:



Connect the mains supply input to the **Lin**, **Nin** and **E** terminals. These are each connected internally directly to the **Lout**, **Nout** and **E** terminals. The relay connections are brought out independently to the **NC** (normally closed), **NO** (normally open), and **C** (common) terminals. Normal switching of a load can be accomplished by connecting the load's Earth to **E**, the load's neutral to **Nout**, the load's line to **NO**, and linking **Lout** to **C**, as shown in the wiring diagram above.

### Technical support

Switch modules are sold for professional use and installation. Please contact our technical support team at DSM Energy Control Ltd. if you have any questions regarding the installation or operation of the system. Email [support@dsmenerycontrol.com](mailto:support@dsmenerycontrol.com) or call a telephone number given below.



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