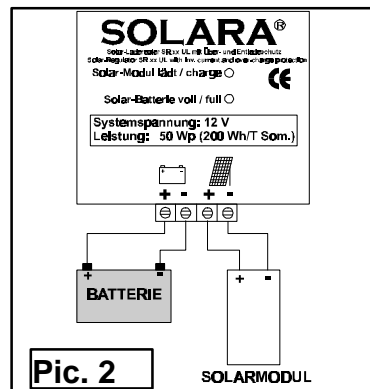


## D) Connection to the regulator and the battery

1.) If necessary connect the module cable with a solar-cable (2x2,5qmm). Now connect the module cable with the regulator as seen on picture 2.

**ATTENTION: Never mix up Plus (grey) and Minus (black) on the cable!**



Connection example with a SR50UL

2.) The regulator should be connected with a solar cable (2x2,5 mm<sup>2</sup>) on a direct way to the battery. (Pic. 2)

3.) Install the regulator close to the battery.

**NOTE: To prevent a short circuit, the cables to the battery should always be connected as the last ones, or removed as the first ones, during any work on the module.**

**Notice:** The solar module need no further service, it only has to be cleaned with water. It can be cleaned with soap, but only soap without sanding, corrosive fluid or wax. (Do not use car-cleaning soap!).

**SOLARA AG takes no responsibility for damages on the module caused by wrong installation and by not following this installation manual.**

For any further questions, please do not hesitate to contact us. We are your specialists for solar energy.

**SOLARA<sup>®</sup> AG**  
Energie aus Sonne und Wind  
Borselstr. 3-7, 22765 Hamburg, Germany  
Tel.: +49-(0)40/391 065-0, Fax: -99  
e-mail: info@solara.de / Internet: www.solara.de

**SOLARA<sup>®</sup> AG**  
Energie aus Sonne und Wind

## **SOLARA-Modul (-Sets) SM40 - 225M CBS40 - 225M**

# **Installation Manual**

## **Important notice! Please read!**

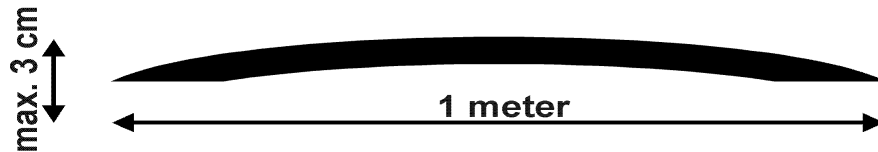
Congratulations to your new solar module. You will have a lot of fun with this product and the natural and free energy from the sun. Please read the following instructions carefully, because only then you will receive a long lasting success with your new solar module.



**Please read this manual carefully.  
Wrong installation can damage your  
module and influence your warranty!**

## A) Flexibility

SOLARA-M-Series modules are NOT totally flexible. The modules can be installed under a slight curve – maximum 3 cm on a meter modul length. It has to be assured, that the module can not vibrate. Heavy vibration can damage or even destroy the module! Use generally all available points to install the module to or glue it perfectly.

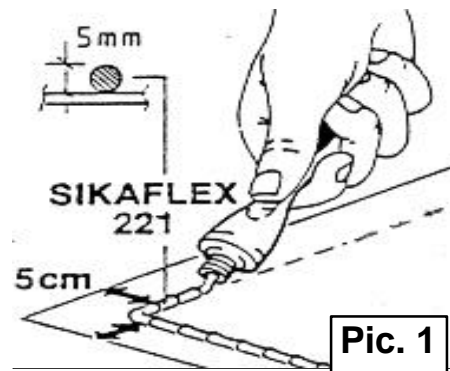


## B) Installation

A SOLARA module achieves optimum performance when the sun shines vertical on it. This means, that with a horizontal installation on a boat deck or a caravan roof the module loses a part of his efficiency. But in most cases the plain installation is the best compromise.

### **Glue the module**

- 1.) Place a connected line of glue (Sikaflex) around 5 cm inside the marked area where the module should be glued on the roof. (Pic. 1).
- 2.) The connection through the roof/deck should also be filled with glue (Sikaflex) to seal the hole. You can also use the roofplug connection (Order No. DD1)



**Do not disconnect the glue line, because the glue is also a sealing!**

### **Screw the module to the roof:**

The Solara-M-Series modules can also be screwed on. There are already holes in the stainless steel plate. Just stick through the surface of the module and screw the module with the special screw kit (Order No. SS4) to the roof. Do not damage the surface of the module itself.

### **NOTE:**

To get a perfect border for the module you can use the border protection (Order No. KS60 -225). Also the edges can be done with the edges of the special glue. An other possibility is to seal the ends of the module with the glue (SIKAFLEX) to get a perfect connection to the roof/deck.

**After installation, do not put any load on the modules for 24 hours!**

### **Advice:**

If you can not find a place where you can install a standard module, do not hesitate to ask us for our custom sized solar modules. Call us and we will help you to find the perfect module.

## C) Electrical connection

First take the minus connection off the battery and cover up the solar module to prevent a short circuit. The cable from the solar module should be directly connected with the solar regulator. From there a new cable should be connected on a direct way to the battery. This cable has to be connected to the minus and plus of the battery (see pic. 2) For a 24V system you have to install two modules in series. The cable from the regulator to the battery must be protected be a fuse with the double size of the amps which are produced by the modules.