

Installation Instructions

FM 244 Solar Module

6 720 618 079 - 06/2008 US

Buderus

1 General



Caution!

There are components on the FM 244 solar module which can get damaged by electrostatic discharge (ESD).

Do not hold the module by the printed circuit board! ESD can damage the FM244 card irreversibly.

- Before fitting the module, touch a water pipe to dissipate the electrostatic charge carried by your body.

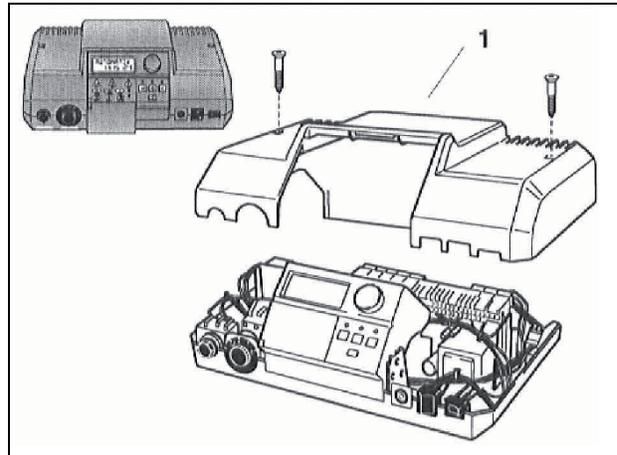


Fig. 1 Opening the cover

2 Installing the module

- Switch OFF the power system by turning off the emergency shutoff switch or disengaging the heating system circuit breaker. Take measures to prevent accidental reactivation. It is not enough to shut off the control panel.
- Remove the cover [1] from the control panel.
- Insert the printed circuit board into the guide rails [2] and press it down so that the edge contacts engage.
- The mating connector will lock automatically.

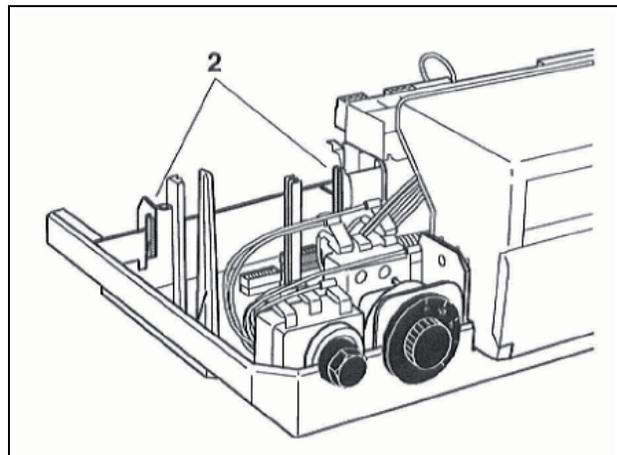


Fig. 2 Location for FM244 solar module

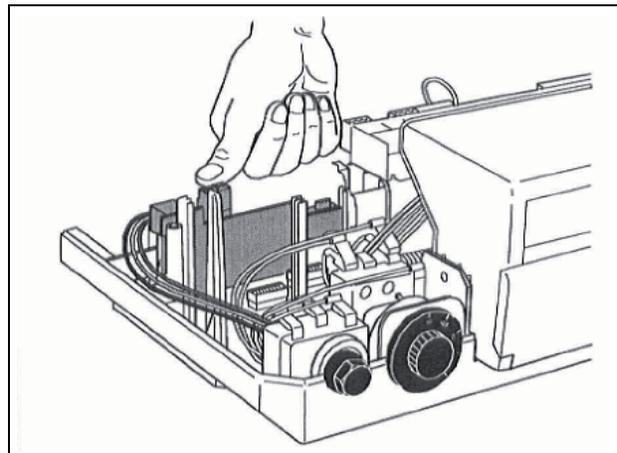


Fig. 3 Sliding FM244 solar module down until the edge contacts engage

- 1 Top cover
- 2 Guide rails

- Use the cable-tie supplied to fasten the individual wires of the cable together (Fig. 4).
- The cable-tie holds the wires in place and prevents them from getting caught when closing the housing.

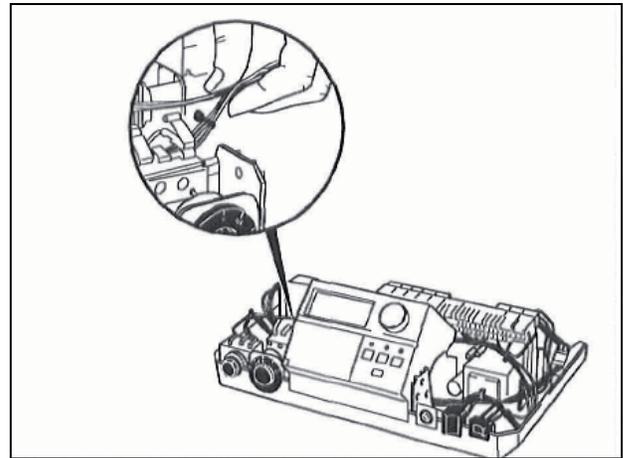


Fig. 4 Use cable-ties to keep cables together.

- Plug the power plug [3] into the terminal strip. If the control panel already has an **FM 241** module installed, unplug the power connector of the FM241 from the terminal strip, and replace with the power connector of the FM241. Now plug the power connector of the FM 241 module into socket [4] of the solar module.
- Connect the tank sensor cable to the terminals labeled FSS. If the cable is too short, extend using AWG18 wire.
- Connect the collector sensor cable to the terminals labeled FKS. Extend using AWG18 wire if necessary.
- Verify the wiring is correct.
- Replace the cover of the control panel and tighten the screws.

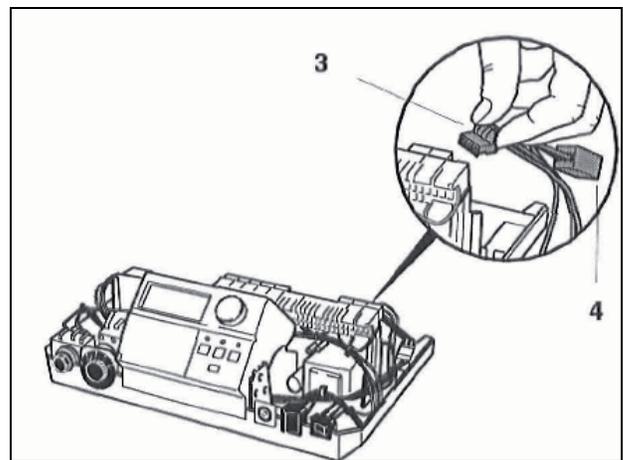


Fig. 5 Making power connection

3 Power Plug

4 Extension to next module



Be careful how cables are routed:

Use additional cable ties to ensure that no cables are caught when the cover is replaced!

- Check that the module is working.
- You can check this by turning the dial. If "Collector" appears on the display, the module has been recognized and has thus been correctly fitted.

3 Sensor installation

Depending on the type of DHW tank the sensors are either installed in an immersion well, or strapped onto the surface of the tank.



NOTE!

The contact between sensor and DHW tank should be enhanced through the use of the enclosed heat conducting paste.

3.1 Tanks with immersion wells

- Unroll the sensor lead and route the cable from the controls to the sensor well.
- Insert the immersion sensor pack (Fig. 6, [1]) until it bottoms out inside the sensor well (Fig. 6, [5]).



NOTE!

During insertion the plastic spiral (Fig. 6, [6]) – holding the sensor pack together – slides back automatically.

Insert the compensation spring (Fig. 6, [7]) and the spacers (Fig. 6, [2] + [8]) together with the sensor into the sensor well. These act to push the temperature sensor against the wall to provide improved heat conductivity.

- Slide the sensor holder (Fig. 6, [4]) laterally over the sensor well head. This prevents the sensor from sliding out of the well.



NOTE!

Please note that the entire sensor surface needs to come in contact with the wall of the well.

3.2 Tanks with contact springs



NOTE!

In this case only the sensor (Fig. 6, [1]) are used – remove the compensating spring and the dummy pieces.

- Push the sensor (Fig. 7, [1]) under the spring (Fig. 7, [2]). The sensor contact surface must lie flat and firm against the outside of the DHW tank wall.

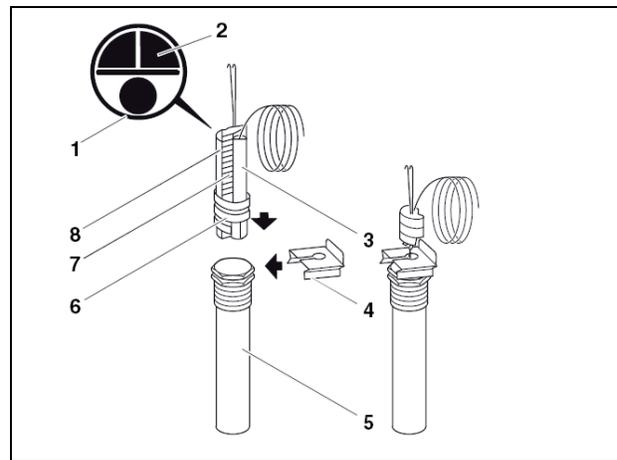


Fig. 6 Immersion sensor assembly

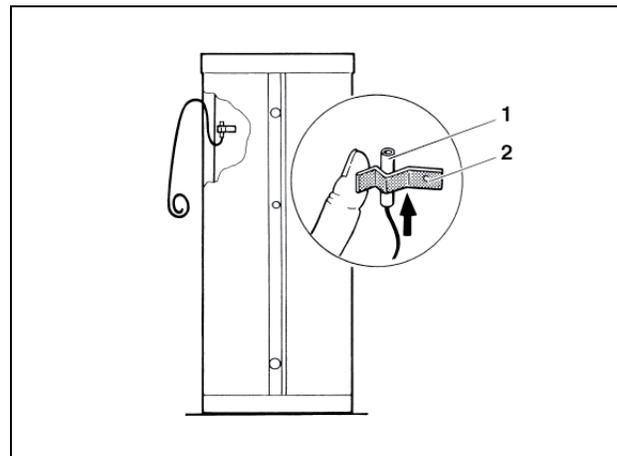


Fig. 7 Contact sensor assembly

4 Sketch of the solar installation

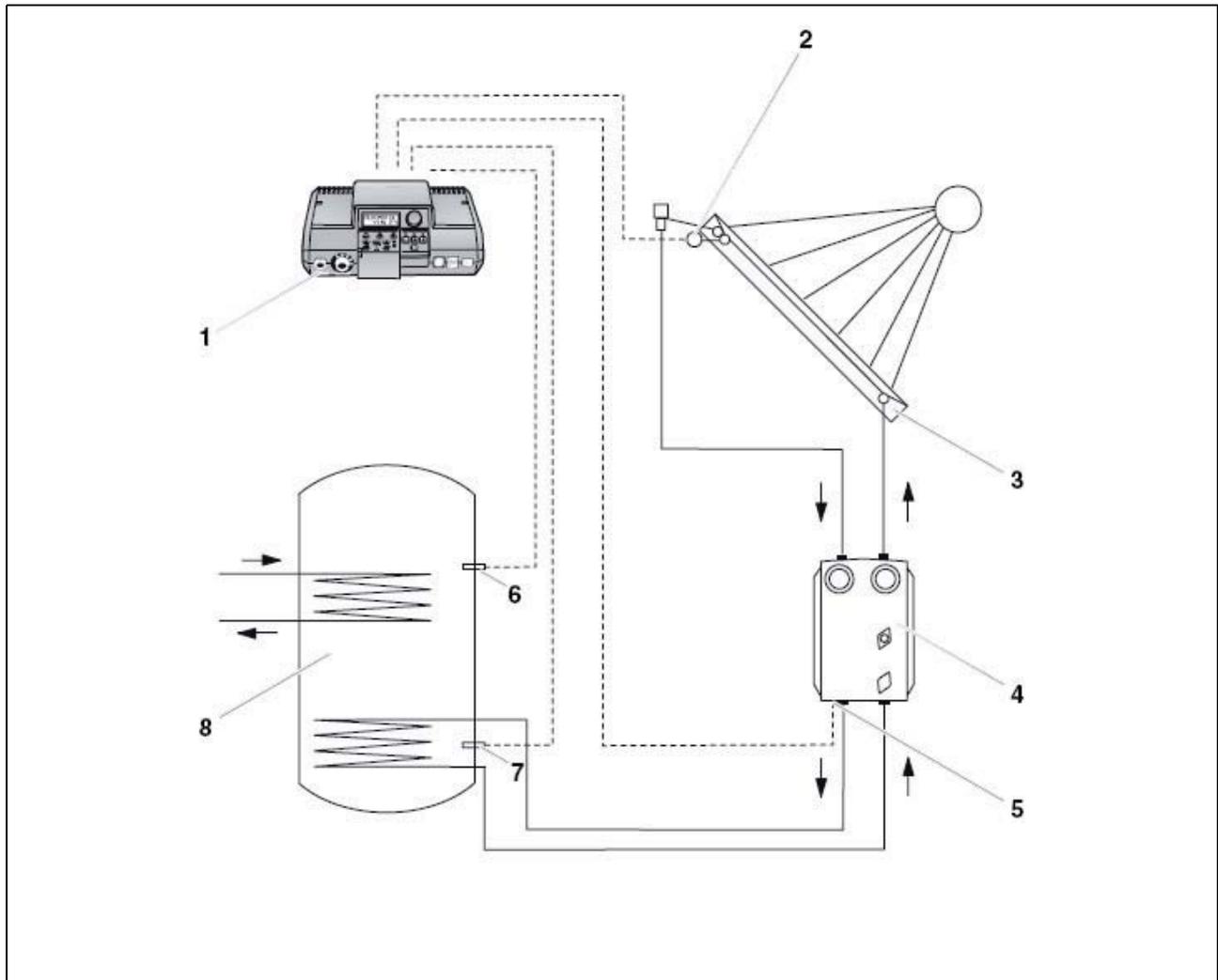


Fig. 8

Legende:

- 1 Logamatic Controls
- 2 Collector sensor (FSK)
- 3 Collectors
- 4 Pump station
- 5 Pump connection (PSS)
- 6 DHW Tank sensor (FB)
- 7 Solar tank sensor (FSS)
- 8 DHW tank

5 Installation of the collector sensor

To install the collector sensor in the Logasol SKN and Logasol SKS (Fig. 9), follow the process as described below:

- Insert the collector sensor (Fig. 9, [1]) through the strain relief into the well until it bottoms out.
- Tighten the strain relief nut to secure the sensor and to achieve strain relief (Fig. 9, [2]). The sensor must sit snugly inside the sensor well.
- Route the sensor cable so it does not hang loosely.
- Install a lightning protection set (optional) within the length of the sensor cable.
- Use AWG18 cable if extension wire is needed.
- Extend the sensor wire using at least AWG 18 wiring and connect to the FSK terminals (yellow) on the solar module FM 244 installed in the Logamatic 2107 controls.

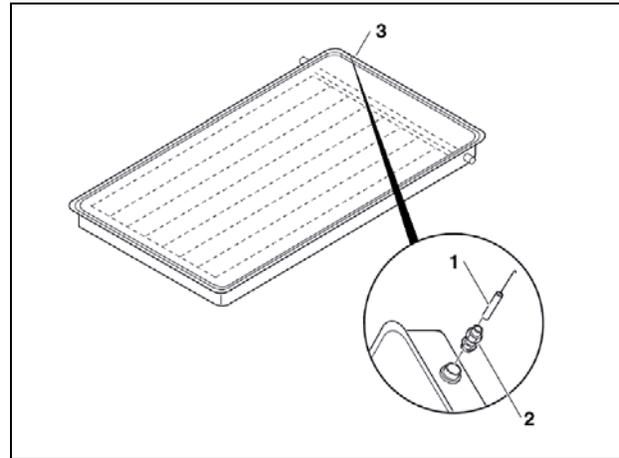


Fig. 9 Logasol SKN and SKS collectors

United States and Canada

Bosch Thermotechnology Corp.
50 Wentworth Avenue
Londonderry, NH 03053
U.S.A.
Tel. 603-552-1100
Fax 603-584-1681
www.buderus.net

Products manufactured by
Bosch Thermotechnik GmbH
Sophienstrasse 30-32
D-35576 Wetzlar
www.buderus.de

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