



# SunEarth SolarStation

## Installation & Operation Instructions

### IMPORTANT!

- Before commencing work, the installer must read, understand and observe this installation and operating manual.
- The solar stations are only to be assembled, installed and maintained by trained professionals. Personnel in training are only to work with the product under supervision of an experienced professional. Only under the above mentioned conditions does the manufacturer accept any liability according to the legal stipulations.
- All instructions in this installation and operating manual are to be observed when using the solar station. Any other mode of usage is inappropriate. The manufacturer accepts no liability for damage caused by inappropriate use of the solar station. Rebuilding, or making alterations, is prohibited for safety reasons. The solar station is only to be repaired by a repair service named by the manufacturer.
- The respective components delivered with the device vary according to type and equipment. Subject to technical modifications without notice

### Wall mounting

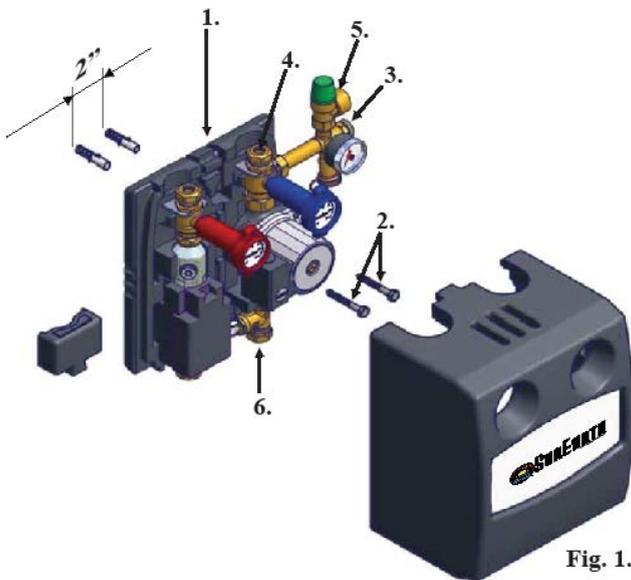


Fig. 1.

### Mounting (Fig.1)

- Remove front insulation cover (5).
- Please note on the integrated controller units the plate and controller is non-removable.
- The SunStation (Fig. 1) forms a unit with the wall bracket and the rear insulation cover, it is attached from the front with screws into a wall stud or with wall plugs and screws (2) into masonry wall or suitable load bearing structure.
- Removing the components from the wall bracket: to facilitate mounting the module on the wall the internal components can be separated from the wall bracket and rear cover by pulling out the wire clips and sliding the components out of the bracket. It is recommended to remove the components for ease of mounting, and before Re-Assembling components to the solar station it is also recommended to install compression joints for lines in & out of solar Station.
- Once the wall bracket and rear cover (1) are secured to the wall, the module components can be replaced and secured with the two wire clips.

-Connect the safety assembly (3) (supplied separately with the module) to the outlet supply to collector fitting (4) above the pump using the 3/4" half union nut. The package accompanying the

module contains a suitable gasket.

- If you have purchased the optional Expansion Tank Connection Kit; mount the wall bracket to suitable load bearing structure for the expansion tank at the side of the module. Ensure that the corrugated hose is long enough for connection of the expansion coupling and the 3/4" male threaded union of the safety assembly!

-After the system has been filled and a complete seal-tightness check performed, attach the front insulated cover.

### Connecting Piping to the SunStation

- Connect the solar collector to the 3/4" compression fittings at the top of the unit and the solar tank heat exchanger to the 3/4" compression fittings at the bottom of the unit. Use 3/4" Type L or Type K Copper pipe only.
- Cut off the copper pipe at a right angle using a pipe cutter and deburr the edges of the pipe, clean and sand outside of pipe .
- First slide the compression nut over the pipe, then the compression ring.
- Insert the pipe with nut and ring into valve body and push up to the stop.
- Tighten the compression nut by hand initially.
- When tightening the compression fitting to final tightness, be sure to counter the torque applied to the fitting with an open wrench held on the flats of the fitting.

### Safety Valve Discharge Line

- A pressure relief discharge pipe terminating at either a collection container or to drain must be fitted to the pressure relief valve (5) as required by applicable codes and standards.

### Hose Valve Connections for filling, flushing and draining

- Both the safety assembly (3) and the balancing valve assembly (6) are fitted with a mini ball-valve and hose connection filling, flushing and draining the system.

### Safety Assembly

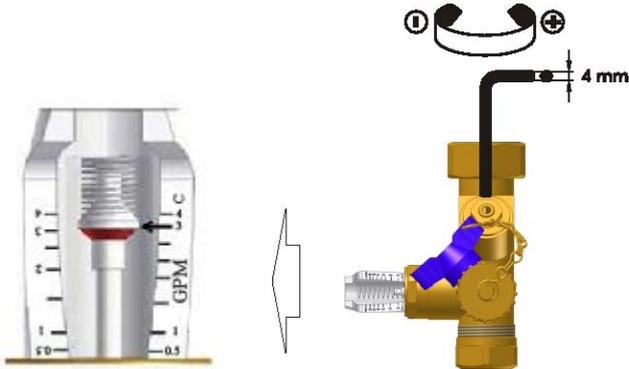
- Consisting of pressure relief valve, pressure gauge, fill-and-drain valve, and an expansion tank connection. In order to reduce the thermal load, the safety assembly is installed in the supply to collector line.



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## Flow volume adjustment (Fig. 2) and (Fig. 3)

- The flow rate is adjusted using a 4mm Allen Key.
- The flow rate (in GPM) is read directly off the scale.
- The full valve adjustment stroke takes many turns, permitting fine adjustment of flow rate.
- Flow rate should be set based on design flow for the collectors.



(Fig. 2)

## Gravity Brake

-For filling, flushing and draining the systems, the gravity brake must be open. It is opened by turning the ball valve to the 45° position. For normal operation of the system, the ball valve must be completely open.



0° = One way flow  
ready for operation

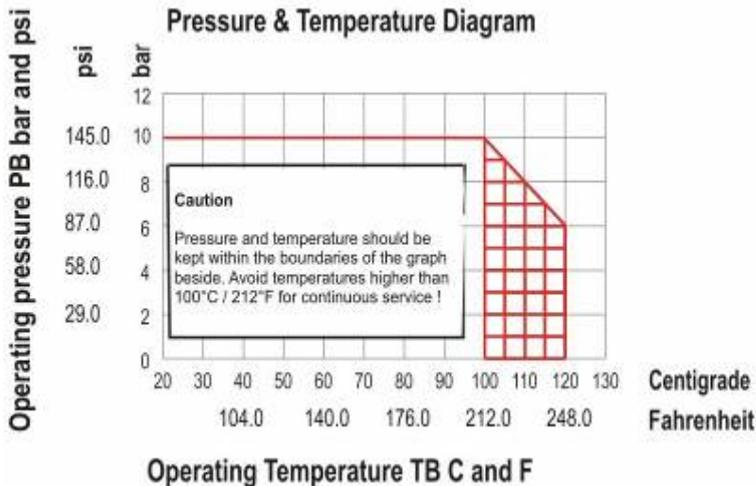
45° = Open  
two way flow

90° = closed

(Fig. 3)

## Caution

Pressure and temperature should be kept within the limits shown



in the adjacent diagram. Avoid temperatures higher than 212°F

## Torque for connections with flat seals

Torque values when tightening the screw connections using ReinzAFM 34 gaskets, thickness 2mm:

As the gasket may settle over time, it may be necessary for the customer to re-tighten the screw connections.

## Technical data:

Fittings	: hot-pressed brass, Ms58
Pipe systems	: precision pipes
Flowmeter	: high-grade impact-proof and temperature-resistant plastic
Spring - flowmeter	: stainless steel
Insulated Cover	: EPP

## Materials

Max. operating temperature : see Pressure/Temperature Diagram

Min. operating temperature : 68°F / 20°C

Max. operating pressure : see Pressure/Temperature Diagram

Indicating accuracy -FlowGuard : +10% of the meter reading

