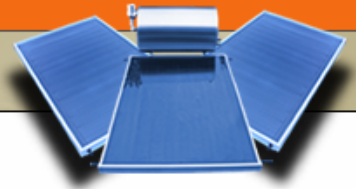


SOLARDOME SA

INDIRECT CIRCULATION WARRANTY MANUAL



PO BOX 316
STELLENBOSCH
T: 021-8866321
F: 021-8865121
hwsales@solardome.co.za
WWW.SOLARDOME.CO.ZA



INSTALLATION:

Please refer to the installation diagram provided with each system for the proper method of installation. If not available, please ask your agent or contact Solardome SA directly:

THE SERVICE MANAGER: The Service Department
 Solardome SA cc
 PO BOX 316
 Stellenbosch
 7600
 Telephone: 021 8866321
 Facsimile: 021 8865121
 E-mail: info@solardome.co.za
 Website: www.solardome.co.za

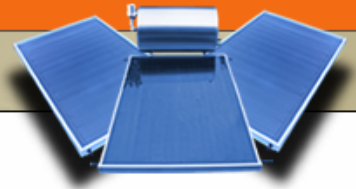
INSTALLER

If you are the installer, please follow the installation instructions carefully, or if you are the end user, check the final installation according to the instructions. Please familiarize yourself with the contents of this Warranty. If you have any queries, please contact the factory. SABS 0254 installation code is accepted as standard to all installations. Any potential disputes will be addressed in terms of SABS 0254 installation code.

1. Flush the cold water supply line before connecting. This removes unwanted particles and debris.
2. The safety valve overflow pipe must be a 22mm copper pipe leading separately to the outside of the building, free of sharp bends, sloping downwards. The point of delivery must be safe and visible to water flowing.
3. After the HWC has been installed, open one or more hot water taps and then open the cold water supply to dispel air from the system. Once the water is flowing freely from the hot water taps, close the taps to bring the HWC under pressure. Ensure that electricity is only connected once the cylinder has been filled with water.
4. All piping and brackets must be securely fixed. This is even more important when installing a unit externally.
5. Solardome SA hot water cylinders operate on particular pressure ratings requiring a suitable Pressure Reducing Valve that is the same pressure or lower than the rated working pressure.
6. A vacuum breaker must be fitted on both the inlet (cold) and outlet (hot) pipe at about 300 mm above the cylinder. Also ensure the installation is balanced (cold supply line to house after the Pressure Reducing Valve PRV)
7. It is suggested that a drip tray with a 40mm outlet pipe to a suitable discharge position be fitted.
8. According to SABS 60335-2-21, the discharge pipe of the pressure relief device must be left open to the atmosphere because water may drip from it.
9. According to SABS 60335-2-21, the pressure relief device is to be operated regularly to remove lime deposits and to verify that it is not blocked.
10. According to SABS 60335-2-21, a discharge pipe connected to the pressure relief device is to be installed in a continuous downward direction and should be in a frost-free ambient.
11. Please refer to the installation guide included. If in doubt please contact our factory.
12. The safety valve (T&P-valve) must be mounted on the HWC before use.

ELECTRICIAN

1. All electrical installations must comply with the SABS Code for the wiring of premises and should be tested by the local electrical authority on completion.
2. Please ensure proper terminal connections and verify all wiring prior to powering connection.
3. Please handle the thermostat with care. Bending the thermostat will cause damage.
4. This HWC is fitted with a submerged element and a thermostat, which cannot operate in free air and if commissioned without water, will not be covered by our warranty.
5. In the event of having to replace the thermostat or element, the same type and rating of thermostat is to be used.
6. This HWC MUST be filled with water before the electricity is switched on to the element, even for testing purposes.
7. The electrical element MUST be connected to earth before it is powered up.
8. An isolator with at least 3mm contact separation must be incorporated in the fixed wiring.



MAINTENANCE INSTRUCTIONS:

Take note of the following tips to ensure optimal functioning:

- Keep solar collector panel free from dust and dirt in order to allow maximum solar penetration onto absorber plate.
- Hose off or wash with soft sponge if needed.
- Clean pressure reducing valve filter when flow is reduced or below normal. Sediment build-up in the strainer could hamper flow.
- Always keep all exposed piping well insulated against heat losses. Any exposed piping should be covered with insulation material to prevent heat loss and subsequent loss of performance. Ensure that exposed insulation is UV protected.

IMPORTANT: All installation related and electrical maintenance work must be done by qualified plumbers or electricians in accordance with current SABS standards and procedures. Please note that deviation from this rule could result in injury and loss.

ELEMENT REPLACEMENT

1. Switch electricity off.
2. Close cold water supply.
3. Drain water from the hot water cylinder.
4. The T&P valve may be opened to allow air into the system to facilitate draining.
5. Disconnect supply wires at thermostat.
6. Remove thermostat.
7. Remove earth connection on element.
8. Unscrew element nut with an element spanner, remove and replace element.
9. Reverse procedure for recommissioning.

THERMOSTAT REPLACEMENT

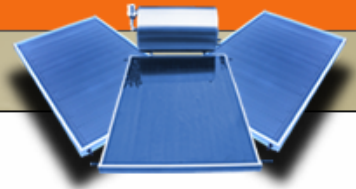
1. Switch off electricity.
2. Disconnect supply wires to thermostat.
3. Remove the thermostat by pulling it out of the element pocket.
4. Push new thermostat into the pocket. Push in the thermostat fully.
5. Set thermostat between 55 & 60°C.
6. Make sure all wiring is secure and in a good condition.

If unsure, please consult a Solardome SA agent or salesperson.

Telephone: 021 8866321
Facsimile: 021 8865121

E-mail: info@solardome.co.za
Website: www.solardome.co.za

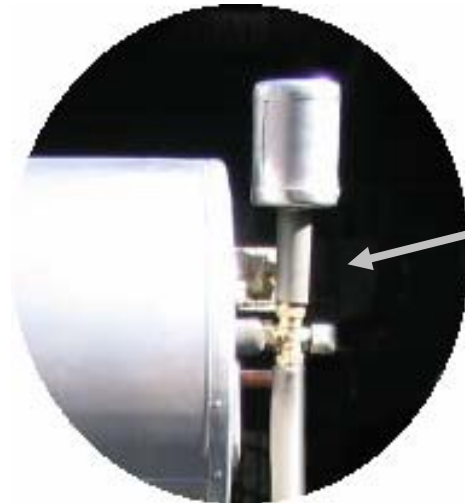
Or your local agent:



All Solardome Indirect solar heating systems must use the Solar-Guard 50/50 freeze protection fluid. This will ensure that your solar water heater has a long and hassle free lifetime.

HEAT EXCHANGER FILLING METHOD:

- Fill the heat exchanger only when the collector is cold (no sun on collector) to prevent thermal shock.
- Ensure that sufficient Solar-Guard 50/50 is available for your particular system:
 - 100L → 5L
 - 150L → 5L
 - 200L → 10L
 - 300L → 10L
- *Note that this is a guide and relates to close-coupled systems. More fluid may be required in split installations.
- Ensure that all the fittings are well fastened before filling the heat exchanger
- Remove the top nut of the elbow that leads to the expansion cylinder. See the example below:

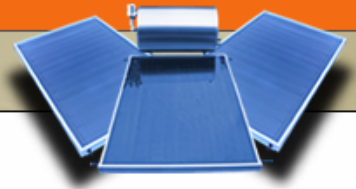


Expansion vessel and filling point

- Using the tube provided, pour the Solar-Guard 50/50 into the heat exchanger until it reaches the brim of the elbow.
- Lightly tap the exposed piping to help dislodge any air bubbles that may be present. It is critical that all trapped air is removed before the system is sealed.
- Wait for 10 minutes and add more Solar-Guard 50/50 if the level has dropped. Make sure that the heat exchanger is filled to the brim.
- Only once sure that the heat exchanger is filled to the brim, should the expansion vessel be fastened. The expansion vessel will form an air cushion for the anti-freeze liquid, and should therefore be pointing upwards once attached. Tighten the fitting well in order to form a closed, sealed circulation system.
- Make sure that *all* the fittings are well fastened, as the system will build up pressure when heating water. Solar-Guard 50/50 will escape through any fitting that is not well fastened. If more than 100 ml of Solar-Guard 50/50 liquid is lost, the circulation will be interrupted and the unit will not heat.

General instructions:

- Insulate all exposed tubes, fittings and vacuum breakers. Water that freezes can expand to 2 times the volume of its liquid state. To prevent this effect from blocking up your tubes and valves, we strongly advise the insulation for the above components.
- All vacuum breakers must be insulated with a rubber insulate (or similar insulation) that has small holes poked into the top part covering the air intake. This must be done in order to let air in but still to prevent the unit from freezing.
- Use a spirit level to check that both the storage cylinder and the collector panel are lying horizontal. Place a spirit level on top of the cylinder casing to check the level of the cylinder to be horizontal. Place a spirit level on the top edge of the collector panel to ensure the panel's top edge is also lying horizontal. If one (or both) of the components are not lying correctly, the proper working of the circulation fluid in its closed loop will be affected.
- Fluid levels in the heat exchanger should be checked annually as part of the routing maintenance of the system.



SOLARDOME SA cc

MANUFACTURERS WARRANTY

Tel (021) 886 6321

hwsales@solardome.co.za

Fax (021) 886 5121

Submit all claims on the warranty claim form provided on the website / at our offices in order to provide Solardome SA with all the pertinent and relevant information required to process the claim professionally and fairly. Please note that the warranty claim form has to be signed and dated by the client before Solardome SA can process the claim.

SOLARDOME SA OFFERS A WARRANTY AGAINST FAULTY MATERIALS AND/OR WORKMANSHIP IN MANUFACTURE AND IS APPLICABLE FROM THE DATE OF INVOICE ISSUED; ALTERNATIVELY THE DATE OF DISPATCH WILL BE USED AT THE DISCRETION OF SOLARDOME SA ONLY.

PLEASE NOTE:

Solardome SA carries a **manufacturer's warranty**, and the onus is left to the client to ensure that an installation workmanship warranty is given by the chosen installer. Solardome SA does not recommend any installer, but purely provides a service of indicating possible installers to any potential client. Please note that failure of a Solardome SA product will only be covered under the manufacturers warranty for the specific product and not the installation. Also note that optimum performance and durability of a solar system can be negatively influenced by a poor installation or poor choice in of system type. Solardome SA provides systems that have been proven to work when installed correctly and with the right design. No warranty will be extended to poor performing solar systems, as that would be deemed to fall as an installation warranty (contact the installer)

If a warranty is undertaken by Solardome SA, and the problem is found to be an **installation or design** issue, please be aware that the costs incurred by Solardome SA will be carried by the client (as signed for when instigating a warranty claim procedure)

Solardome SA's obligations are specifically limited to the foregoing and this warranty expressly covers the Solardome SA's range of solar products only and does not cover any other.

- **A ten (10) year limited warranty is applied on the following products:**

SUNDOME®, SUNSTOR®, SOLARPLATE® manufactured on the premises of Solardome SA by the employees of Solardome SA or agents periodically and specifically appointed by Solardome SA cc. The **"SUNDOME®", SUNSTOR®** and **"SOLARPLATE®"** products will be repaired or replaced for free if returned to the Solardome SA factory within **10 years** on sufficient proof that damage can be ascribed to faulty workmanship or materials. **No transport or removal costs will be covered and is the responsibility of the client / authorized signatory on the warranty claim form.**

Warranty claims will only be attended to within Solardome SA working hours and **only if the unit in**



question is freely and readily available for inspection by an appointed Solardome SA agent or a person instructed by Solardome SA. The Costs for assessment, removal, transport and re-installation will be the responsibility of the client / authorized signatory on the warranty claim form.

Damages and injuries resulting from leaking or broken systems/components will unfortunately not be covered by Solardome SA as that would indicate to an incorrect installation (Not SABS compliant installation practice)

If Solardome SA appoints an agent to attend to the claim, all costs will be for the expense of the person signing the claim form.

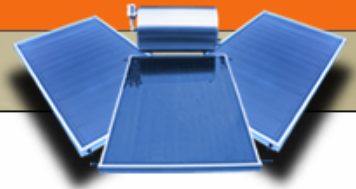
On no occasion will Solardome SA entertain claims that were not substantiated by legitimate invoicing or not initiated by Solardome SA. **Any claim must be preceded by a signed claim form prior to any action taken by Solardome SA.**

A one (1) year limited warranty is offered on the following components: electrical elements, thermostats and temperature & pressure control valves (T.P) that were originally supplied and fitted by Solardome SA with the purchase of a Sunstor.

- This replacement is done at the sole discretion of Solardome SA. Costs of removal and re-installation of the above components **will not be** covered by Solardome SA. The client / authorized signatory on the warranty claim form will be held responsible for the costs incurred for removal and replacement of the faulty component(s). Faulty components may be returned to Solardome SA, whereby facilitation of the claim procedures may be entertained by Solardome SA at the discretion of Solardome SA only. Note that the faulty /or damaged component replacement will be sent or given by Solardome SA if the claim is awarded (no bill for replacement components will be entertained).
- All components not listed are warranted by the manufacturers of those particular products in question. Solardome SA will, as a courtesy only, act as intermediate to facilitate claims arising from faulty materials or products. Under no circumstances will Solardome SA be held responsible for goods returned where the quality and related lifetime thereof cannot be controlled by Solardome SA.

This warranty covers the parts only, with labour charged out at rates applicable at the time. Solardome SA's obligations are specifically limited to the foregoing and this warranty expressly covers the **SUNDOME®**, **SUNSTOR®**, **SOLARPLATE®** range of solar water heating components only, and does not cover any other parts of the installation which as a consequence of the failure or defect of the **SUNDOME®**, **SUNSTOR®**, **SOLARPLATE®** range of solar components, become damaged in any way whatsoever. In no circumstances shall Solardome SA be held liable for any direct or indirect or consequential loss suffered by the customer or any other party.

This warranty is the only warranty which is given and is expressly in lieu of all other warranties, expressed or implied in law, including any implied warrant of merchantability or fitness for a particular purpose. No



amendments or additions to this warrant shall be binding on Solardome SA cc unless recorded in writing and signed by a duly authorized officer of the company.

This warranty shall be vitiated and rendered of no force and effect if any repairs or any work is undertaken by the customer or others on his behalf in an attempt to remedy an alleged fault unless authorized in writing by the manufacturer.

The warranty will only be entertained if and when the claim in question is readily and freely available for inspection. The removal and re-installation of the parts/product will only be done under warranty cover if the location of the part/product is easily and readily accessible. Difficult (e.g. enclosed in concrete) or dangerous locations (e.g. on a 4 story high roof) will result in a claim not being awarded at the sole digression of Solardome SA

NB: The warranty is only applicable if connected to regional water supply (treated municipal water) via a pressure reducing valve, expansion relief valve and vacuum breakers and correctly handled by qualified personnel, further that all electrical work to be undertaken by qualified persons only. Before work is undertaken, please refer to our installation instructions.

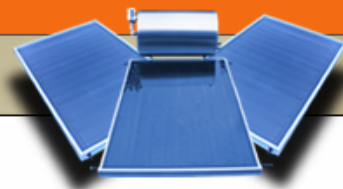
Exclusions

Existence of any one or more of the conditions/factors listed below will immediately invalidate the warranty:

- If a claim form is not provided to Solardome SA (prior to any work performed) in order to initiate claim procedures in a systematic and fair way
- Any damage that is due to incorrect installation or circumstances arising from incorrect installation. (Non compliance to SANS 10254)
- Glass damage or any damage caused by natural forces i.e.: hail, frost, fire, transport.
- Any damage caused by usage beyond the design specifications of the particular product.
- Any damage caused by appliances in any way connected to the particular product.
- Any damage caused through corrosive or aggressive water.
- **Element failure due to scale formation** on the surface of the element cannot be prevented and can therefore not be warranted. Thermostat failure due to power supply problems are not covered by the warranty and this type of failure can be identified upon inspection by Solardome SA.
- Any damage caused though vacuum draw or over-pressurizing of the particular product.
- Any damage caused by freezing on solar collectors.
- Over pressurization damage caused to the inner cylinder (of the Sunstor) or valve failure will not be warranted when it is used in conjunction with a vacuum tube collector.

All service calls and correspondence are to be addressed to:

THE SERVICE MANAGER:
The Service Department



Solardome SA cc
PO BOX 316
Stellenbosch
7600
Telephone: 021 8866321
Facsimile: 021 8865121
hwsales@solardome.co.za
www.solardome.co.za

Submit all claims on the warranty claim form provided on the website in order to provide Solardome SA with all the pertinent and relevant information required to process the claim professionally and fairly. Please note that the warranty claim form has to be signed and dated by the client before Solardome SA can process the claim.



SOLAR WATER HEATING



In the event of a guarantee claim, please complete all the fields below and fax back the number indicated above. Any claim not covered by Solardome's guarantee will be at the expense of the claimant.

Purchase details:

Description of product:
Invoice number: Serial number:
Installation date: Installed by:
Installation address:

Collection details:

Location where goods are to be collected:
.....
.....
.....
Contact person: Contact tel: (.....)

Claim Details

Please give a detailed description of the problem, including any information that may assist the resolution of the claim.

.....
.....
.....

Please Note:

Should it be found that the claim arises from wrongful installation or any damage/fault outside the control of Solardome SA, the client initiating the claim (signatory of this claim form) will be held liable for all costs incurred by Solardome SA for the removal, transportation, repair and re-installation of the product in question.

I hereby declare that I accept and understand the terms and conditions as stipulated above and in the product's warranty document.

Name: Signature:

For office use: Accepted: Y / N

Claim response:
.....

Name: Signature: Date: