Non-pressure series solar water heater

- SZ58/1800 - 10
- SZ58/1800 - 15
- SZ58/1800 - 18
- SZ58/1800 - 20
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System Tracking

Product Model No. ____________________________

Product Serial No. ____________________________

Name of Purchaser: ____________________________

Address ____________________________

Phone no. ____________________________

Email Address: ____________________________

Date of Purchase: ____________________________

Dealers Name: ____________________________

Dealer’s Stamp ____________________________

Date: ____________________________
Trouble Shooting

If after using this trouble-shooting guide, you still can’t solve the problem, please contact our BESTANK – CCA Hotline at (02) 292-5727.

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<table>
<thead>
<tr>
<th>Trouble</th>
<th>Reason 1</th>
<th>Solution 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Hot Water even on a sunny day</td>
<td>1. Check if the solar heater is covered or is dirty. 2. Check water supply, if there is too much pressure, water may be passing thru too fast to heat up</td>
<td>1. Remove cover or clean vacuum tubes 2. Reduce pressure on the water supply</td>
</tr>
<tr>
<td>Unable to fill tank to capacity</td>
<td>1. No pressure from water supply 2. Water supply piping may be leaking 3. Water Tank may be leaking</td>
<td>1. Add booster pump to boost water pressure 2. Plug up seal or change the water supply line 3. Repair or change the water tank</td>
</tr>
<tr>
<td>Water tank leakage</td>
<td>1. Rubber seal break or installed improperly 2. Inner pipe in the Water Tank may have ruptured</td>
<td>1. Change the rubber seal or install it again 2. Change the water tank</td>
</tr>
<tr>
<td>During use, water turns hot then cold from time to time</td>
<td>1. Cold Water supply may not be stable</td>
<td>1. Add a side storage water tank to store the cold water and make the water supply stable or change an automatic high temperature valve</td>
</tr>
</tbody>
</table>

Introduction

Advantage of Vacuum Tubes Solar Water Heater

- Uses high-quality, highly efficient solar vacuum tubes rated with a forced vacuum of 10-3 Pa.
- Maximum yield with less surface requirement (half of the absorbent surfaces are normally necessary with respect to a traditional absorbing panel).
- High efficiency all year round
- Easy to install; easy to fix
- Fast and Easy tube replacement with the SOLARTECH EASY CHANGE system.
- Modern and elegant design

Working Principle of Solar Water Heater

The glass vacuum tubes absorb heat from the sun. The water passing through these tubes are heated by transferring heat between the tubes and the water. These are all done with zero-carbon emission that may be harmful to the environment.
Solar Water Heater Technical Data

Vacuum Tubes

The creation of a vacuum by removing the air from borosilicate vacuum tubes provides excellent insulation, a principle that has been known for centuries and applied in everyday items, such as the vacuum flask. This insulation also improves the retention of heat energy, even during cloudy conditions or indirect sunlight.

CERMET, a special multi-layer metallic paint made from recyclable products, is applied on the inside of the borosilicate vacuum tube to make it selective to infrared refraction further improving solar energy absorption.

Solar Water Heater Parameters

- Outer tank: Painted steel-0.4mm
- Inner tank: SUS304-0.5mm stainless steel
- Vacuum tubes: 58mm/1800mm
- Frame: Zinc-coated galvanized steel-1.5mm
- Insulation material: Polyurethane
- Insulation thickness: 50mm
- Frame angle: 35°
- Tank diameter: 375mm/475mm
- Small tank: 8L

Quality Warranty Regulations & Trouble Shooting

Quality Warranty Regulations

- SOLARTECH residential Solar Water Heating System usually includes the following System Components: Solar Water Tank, Vacuum tubes, and Accessories.

- This Warranty is applicable to the original dealer only in accordance with the Warranty terms and conditions specified below. This Warranty is not transferable.

1. The product (water tank, vacuum tubes and frame) has a one (1) year standard warranty period. The warranty starts from the date when the users purchase the SOLARTECH Solar Water Heater. BESTANK will provide maintenance-service within the one (1) year warranty free-of-charge within Metro Manila, if there is any quality issue.

2. Warranty certificate: If the SOLARTECH solar energy products have faults within the warranty, the users should apply for maintenance by producing the purchase invoice or payment receipt and product warranty card. The product to be repaired should have the same number as the one in the warranty card (the purchase invoice and product warranty card should carry the detailed purchase date). If there is no invoice or payment receipt and warranty card, the product number will be used to estimate the warranty. If the product number is also absent, the product shall be seen as beyond warranty and not entitled to free maintenance service. However, BESTANK shall provide service, charges corresponding to the maintenance-charging standard specified by SOLARTECH concerning products beyond warranty.

3. The following cases should not be included in the warranty:
   i. The product is damaged due to the disassembly by the users or unspecified service units.
   ii. The product is damaged due to the users’ transportation, improper maintenance or operation that is not in accordance with the requirements of the operation manual.
   iii. The product to be repair doesn’t carry the same product number as the one in the warranty card, or the warranty card is modified.
   iv. There is no warranty card and purchase invoice or payment receipt, and no product number (or the product is seen as beyond warranty based on the product number).
   v. The product is damaged due to force majeure.

4. If the products need to be repaired beyond the warranty or out of the range of the warranty, adequate fee will be charged for original standard parts and relevant processing.

5. The Users can call the BESTANK - CCA Hotline at (02) 292-5727 for complaints for clarifications and / or servicing.
Warning and Preliminary Checks

PLEASE READ THE FOLLOWING INSTRUCTIONS PRIOR TO OPERATION

LOADING:
• Before initial loading, make sure to load cold/warm water first.
• The tubes must be covered at least 3 hours before loading.
• The system must be loaded carefully following the instructions given in this manual.

DIMENSIONING:
• Before starting the solar system it is good practice to check that dimension and the adjustment of the individual components are in compliance with that indicated in this manual.

INSTALLATION AND RESISTANCE TO LOADING STRESS, WIND AND SNOW:
Please perform these preliminary checks before installation of the SOLARTECH Solar Water Heater on flat and sloped roofs:
• Static stability of the roof for assembly of the solar water heater.
• Accessibility of the roof housing the solar water heater and sufficient access and freedom of movement in safety.
• Fixing quality of the structure connections and support devices of the solar water heater to the building support (loft structure, flat roof structure, etc.).

Solar Water Heater Installation

Check Solar Water Heater Parts
One solar water heater is generally boxed-separately: the water tank, the feeding tank, tail stock, frame & the vacuum tubes.

Vacuum Tubes
Before assembly, check the glass vacuum tubes if all are intact. Check that the bottom of each tube is still silver. DO NOT remove or expose the tubes to sunlight until you are ready to install them, otherwise the inner tube will become very hot quickly. The outer glass surface does not become hot under normal operating conditions.

Frames
1. Side Bar
2. Horizontal Bar
3. Tilt Stocks
4. Front Bar
5. Back Bracket
6. Front Cross Bar
7. Back Cross Bar
8. Frame Cousins
9. Water Tank Bracket

parts may vary depending on the item purchased
**Solar Water Heater Installation**

*Feeding Tank*

Feeding Tank is used for automatic filling.

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**System Operating Diagram**

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**Notice**

- The SOLARTECH Non-Pressure Solar Water Heater is equipped with a float valve mechanism that keeps the tank full at all times. Please note that the float valve mechanism must be engaged all the time.
- Be sure to keep the air vent open, keep the air vent higher than the feeding tank. An extension pipe may be added, if necessary.
- Remember to always turn the cold-water valve first BEFORE the hot-water valve to avoid accidental scalding. Turn the hot-valve valve slowly while cold-water valve is running until the desired temperature is achieved.
- Remember to ground the SOLARTECH Solar Water Heater before usage. Avoid using during thunderstorms.
- Secure the frame to the mounting surface to ensure safe usage during gusty winds.

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*parts may vary depending on the item purchased*