

SunTank Solar Geyser System - User Manual

Thank you for purchasing a **SunTank** Solar Geyser. With your **SunTank** you can now:

- 1) Save money on your monthly electrical bill
- 2) Have hot water regardless of the availability of grid electricity
- 3) Go green and protect the environment

To maximise the benefits from solar geyser investment, please read the following information:

1. Maintenance of your Solar Geyser

To keep your solar system performing optimally, to increase its lifespan and to extend the **SunTank** Warranty, it is recommended to service the system routinely every 1-2 years.

The Routine Service on the tank and the panels includes:

- General visual inspection and fault-finding
- Top-up of the antifreeze heat-transfer fluid (glycol) - in 'Indirect' systems
- Replacement of the protective sacrificial anodes in the tank
- Inspection of electrical components – element, thermostat, pump & controller (if included)
- Inspection of the state of roof waterproofing - and maintenance if necessary
- Confirmation of the soundness of the mounting structures - and maintenance if necessary
- Cleaning and re-certifying the installation

2. Management of the Electrical Backup - to optimise your Savings

Maintenance will keep your solar heating performing with no intervention required by you.

In addition to the solar panels, your **SunTank** geyser is also equipped with an electrical back-up heating element (same as in a conventional electrical geyser).

Obviously, to save the most, the electrical back-up element should be switched on as little as possible, while at the same time you should have enough hot water when needed. How much this electric heating element would be required to switch on depends on the weather and on the hot water consumption habits of your own household.

The electric element back-up might be needed:

- When there is insufficient solar energy due to cloudy conditions
- When the hot water consumption of the household exceeds the storage volume capacity of the geyser.

The electrical element can be managed in 2 ways:

1. Manual management of the geyser's DB Trip-switch

To manually control the electrical back up it is beneficial for you to keep the geyser's trip-switch in the DB board at the OFF position as much as possible. Only switch in ON manually after sunset only when you suspect that the sun wasn't shining enough that day due to heavily overcast conditions.

You will learn through experience how long you need to keep the electrical backup on to meet your specific household's hot water requirements. 1-2 hours should typically be enough. Then, switch OFF the trip-switch before you go to sleep to avoid the geyser reheating all through the night with electricity. The geyser will stay hot overnight and the solar will start its heating cycle at sunrise again.

2. Automated management with a Geyser Timer or a Timer-controller unit

To automate the electrical heating back-up, you can have a Geyser Timer installed by an electrician in your DB Board or have a Timer-controller unit linked to your **SunTank**. (The latter is included as standard with a pump-driven installation).

Set the ON time in the Timer for approximately 1-2 before your bath time, preferably outside of the effective hours when the sun is still shining. When the timer reaches that ON setting, the thermostat will then detect if the back-up heating element is necessary or if the solar heated the water enough.

Each household's hot water usage and requirements may differ, but the principle of the electrical back-up is similar. To maximise the savings out of your solar heating, have the longer ON timer session in the afternoon when geyser is at its hottest so the thermostat will prevent unnecessary electrical heating in most days. Set the ON morning period to a minimum to ensure just enough re-heating for the last person using hot water. If no hot water is used the night before, try to skip the morning ON settings altogether.

Here is a diagram as a reference for the Timer setting where most people bath in the evening and few in the morning:

Time	04:00	05:00	06:00	07:00	08:00	09:00	...	15:00	16:00	17:00	18:00	19:00	20:00	21:00	...
Bath time															
Timer 'ON'															

Remember that the Geyser Timer is not an integral part of a solar geyser system. Any qualified electrician can install it after your **SunTank** solar geyser was installed. Once installed, always keep the geyser's trip-switch ON at the DB-board.

Alternatively, an electrician or **SunTank** can install a Timer-controller linked to your solar geyser installation. Not to worry, in a pump-driven installation where the Timer-controller is included, changing the electrical back-up times will not disrupt the pre-set pump control function. Familiarise yourself with the manual of the Timer-controller brand you have, of the various operational settings of the element timer and thermostat control functions.

Remind yourself to book your Routine Service, every 2-years for a thermosyphon system and every 1-year for a pump-driven system and contact us on info@suntak.com or call **(0860) 111-786**. For more information visit www.suntank.co.za

Thank you once again for choosing SunTank and enjoy the benefits of South Africa's top solar geyser system for many years to come.

