

USER GUIDE

Imagination Solar System

Congratulations! You have purchased an Imagination Solar Ltd hot water system. We hope that our system will provide you with many years of free hot water.

The solar system is expected to provide most of your hot water between April and September, with further solar hot water provision throughout the year.

Solar panels to heat domestic hot water have been in use in the UK for over 30 years. The Imagination solar system has been refined to give you a high quality, effective system at an affordable price.

Main Components of Your Solar System

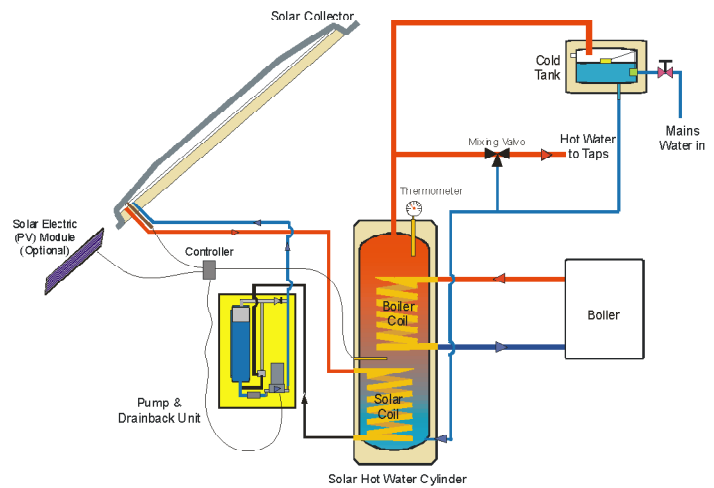
- A solar panel to collect heat from the sun.
- A pump to circulate water through the solar system.
- A control unit to manage the working of the solar system.
- A hot water cylinder to store the solar heated water.

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Our standard solar system linked to a conventional boiler.

Principles of Operation

Your solar system collects and transfers heat using a closed water circuit filled with ordinary tap water (and antifreeze in some cases).

There are two types of controller available, the Aton light level controller and the DeltaSOL BS temperature differential controller. They both control when the pump is on or off.

When the pump is on water is circulated through the solar panel and collects heat from the sun, which is then transferred to the hot water cylinder via a heat exchange coil. The water in the drain back vessel will drop when the pump is on, but should not go below the minimum level.

When the pump switches off, solar water 'drains back' from the panel into the drain back vessel, and the water returns to its original level. Thus during freezing temperatures there will be no water in the solar panel so no antifreeze is needed and on a very hot day water will drain out of the panel if there is a risk of it boiling (there is a maximum temperature cut-off point).

The solar panel is designed with 'low-flow' technology, meaning that water flows through the solar circuit at a low rate. This low flow rate enables the water in the solar circuit to heat up by 30°C, on a sunny day.

Cleaning & Maintenance

There is no planned service required for the Imagination system, and very little maintenance necessary (unless anti-freeze is required, or a leak occurs in the solar circuit).

- The casing for the control unit and pump can be cleaned with a damp cloth. The solar panels are self cleaning when installed on a slope such as a roof.
- If your system is not working consult the installation guide on our website or call your installer for technical assistance.

Safety

Water in the solar system can get up to 80°C, which could cause scalding. If your system is not fitted with a thermostatic mixing valve, then the solar controller should be set to limit the maximum solar temperature to between 60-65C to prevent scalding.

The system will automatically shut down if the temperature inside the cylinder reaches maximum, so you can leave your solar system working if you are away from home reassured that there will be no problems associated with overheating. All Imagination cylinders are fitted with a pressure relief valve.

Limescale

In hard water areas it is recommended to

Getting The Most From Your Solar System

- On clear sunny days you will normally have a full tank of hot water, so these are the best days to do washing or have a bath in the evening for instance.
- Water in the hot water cylinder will stay hot for more than 48hrs due to insulation on the cylinder.
- Make sure any boiler connected to the hot water system is set to come on as late as possible. This will top up the solar hot water, if required, and stop fossil fuel energy being used to heat water that could be heated by the sun. It is important to always heat the water to 60C before using it to kill any bacteria which could develop if water is left only lukewarm (26-46C).

Anti-freeze

If drainback was not possible or drain-back unit is in a cold place, then anti-freeze will need to be added and checked every 2 years. Please refer to the commissioning form for details of whether your system has anti-freeze added and whether it requires checking and servicing.

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