

SolarPower FAQ's - Heat Exchange Tank - Vented Tank. Manufactured by Peter Sachs Industries.

These tanks were manufactured from 2004 through until 2010 when unfortunately Peter Sachs Industries was placed into liquidation. These tanks carried a 5year warranty and were all last installed in 2011. As such identical replacement tanks are no-longer manufactured or available, if your tank does require replacing we do have available a tank that can be retro fitted which matches the existing solar water panels currently installed on your roof. prices can be found at the bottom of this document these prices do not include delivery or installation. contact your nearest solar accredited plumber to arrange a quote.

Symptom	Cause	Solution
No Hot Water - Water flows but is not hot. Plumbing or electrical work must only be undertaken by a licensed contractor.	Tank water level low	Fill tank using toggle lever on HPNR valve on side of tank.
	Tempering Valve is not set correctly.	Have your plumber commission the tempering valve. The valves are preset from the factory, but require setting onsite for correct operation. Set Temperature to 49 degrees C.
	Element blown	Replace with new (must suit copper tank)
	Thermostat blown	Replace with new
	Air Valve on Collector Panels Closed	For the correct operation of the system the Air Bleed Valve must be Open - Have your plumber check this is open.
	Temperature setting on electrical booster set too low.	Have Tradesman set temperature to desired level. (recommend a setting no higher than 67-70 deg or excessive electrical energy will be used Have your plumber check this).
Poor Hot Water Delivery - Low Flow. Plumbing or electrical work must only be undertaken by a licensed contractor.	Tempering Valve is blocked.	Remove and Clean Tempering valve inlet strainers(Have your plumber check this).
	A pressure reduction valve is fitted to the tank inlet.	The tank is rated to 1200Kpa and does not require a pressure limiting device unless the pressure is above 800Kpa. Remove any pressure reduction valve if fitted.
	Water Pump pressure incorrect.	A minimum of 300 Kpa is required for correct flow from system. Check pump operating pressure.
Water flows from overflow continously. Plumbing or electrical work must only be undertaken by a licensed contractor.	The HPNR filler valve is stuck open.	Check valve is closed fully, wiggle valve stem from side to side to check valve is seated. Replace if faulty.
	If HPNR valve has been replaced and continues to overflow.	The inner coil of the tank has split and you will need to replace your tank.
	Water Pressure is Too High	Check cold water pressure is below 800 Kpa - If it is higher fit a pressure limiting valve.

Symptom	Cause	Solution
	When tank is full some water may trickle from overflow.	During heating operations some water may leak from tank due to the expansion of the heating water when the tank is full. This will stop after a few heat cycles.
Excessive energy use. Ask client for actual energy use details - ie a copy of last bill. Plumbing or electrical work must only be undertaken by a licensed contractor.	Temperature setting on electrical booster set too high.	Check Booster Temp setting is 60 – 70 deg C.
	Panels shaded or Trees overhanging collectors.	Customers to be advised that collectors require adequate access to sunlight to produce hot water. Cut trees or move panels.
	Air bleed valve is not opened.	Check the air bleed valve is opened and check for correct operation of pump and valve. The system will not drain at night. This will cause reverse thermo-siphoning and heat loss at night resulting in high energy use.
Pump not operating- these tests must only be undertaken by a licensed contractor.	Pump not running.	<i>White wire sensors</i> - the controller has a Status LED. Led Solid - Sys ready - panels not hot enough to start pumping. Slow Flash - Sys pumping - Panels are heating the tank. Fast Flash - Sensor fault - Pump will not run. Check sensor wiring. To force pump to run remove power from system and turn back on, pump will run for approx 40 secs.
		<i>Red wired sensors</i> - Pump operation to be checked on site (removing one of the sensor cables from the terminal blocks will cause the pump to run. Replace wiring when finished checking). Check wiring is correct on circuit board and rewire if necessary.
	STATUS LIGHT FLASHING - 2 per sec Controller has Jumper link installed and only 2 sensors	Remove Jumper form circuit board link.check status light is correct
No flow to collectors. Plumbing or electrical work must only be undertaken by a licensed contractor.	Damage was caused to sensor cabling at penetration to roof cavity. Cable was run through hole cut for collector pipe in tin roof. The sharp edge of the tin cut the cable and shorted out the sensor causing the pump to run continuously.	Cable must be protected when going through tin roof penetration.

Symptom	Cause	Solution
	Lack of Flow in collectors.	Installations of greater than 2 stories may require a High Lift pump to meet the head pressure requirements. Call SolarPower to order a High Lift pump.
	Controller not wired to tariff 11 (continuous tariff).	Make sure control circuit is wired onto continuous tariff and powered 24/7.
	Pipe from pump to wall has air blockage	Check pipe from the top of the pump to the wall has a continuous rise. The pipe should not have any loops or dips that can cause air to be blocked in pump and cause cavitation.
Pump running continuously. - Does the pump run at night? Plumbing or electrical work must only be undertaken by a licensed contractor.	Sensor wires not connected.	<i>Red wire sensors</i> - Check collector panel temperature wiring is connected. (This may also be used as a way to check pump operation. Disconnecting the sensor wiring will force the pump to operate).
	Broken Terminal block on controller	Use correct sized screwdriver for the terminal block and DO NOT over tighten.
	Cable to collector sensor not connected at circuit board or in roof.	Check pump operation before leaving site and complete checklist.
	Incorrect Sensor fitted to Panels.	There are different model controllers. The sensor wire on the collectors should match the sensor wire on the tank. (i.e. red wire on tank matches red wires on collectors),
Noisy system operation. - Pump screaming and or surging. Is the noise from the pump or the pipes? Plumbing or electrical work must only be undertaken by a licensed contractor.	Noisy water valves	Check Duo valve is not fitted, if so remove and replace with stop cock valve.
	Noisy Pumps – noise from water flow in solar hot water system pipes.	Check Pump speed setting is adequate for height of building. Speed 2 for single story, Speed 3 for two story house.
	After 5 minutes of pump running air is still bubbling into tank. (It is normal for some air bubbles to be heard when the pump starts).	Check flow disc is installed in return 90 degree compression fitting. This controls the return flow rate from the panels and prevents suction of air into the air bleed vent on the collectors. (It is most noticeable on 2 story houses).
	Pump cavitates after each restart of the heating cycle.	On some systems a non return valve is required to be installed between the pump and the wall to stop air being sucked back into the pump each time it stops and causes cavitation next time the pump starts. This is generally rare and more likely to occur on two storey houses.
	Whistling noise coming from pipes	Check flow restrictor at return pipe elbow on tank is not whistling. (in some cases this may require the flow restrictor to be removed.)

Symptom	Cause	Solution
to check that solar hot water is working	check pump is running during the day while sun is out (this will cycle throughout the day according to solar performance)	if pump is running feel the solar hot return is warm to hot (extreme care to be taken as pipe can be very hot) if pipe is warm to hot this means you are getting solar return. If you have worked out you are receiving solar contribution and do not have hot water during rain or overcast periods you will need to get someone to look at your thermostat or element these may need replacing.
parts list	HWS499 Saxon replacement tank kit.	see www.astivita.com.au for current pricing
	HWP160 Reefe circulating pump.	see www.astivita.com.au for current pricing
	SOLCON Solar Controller	see www.astivita.com.au for current pricing
	SOLWIR Solar sensor wire white	see www.astivita.com.au for current pricing
	SAXELE Saxon element	see www.astivita.com.au for current pricing
	ELESEAL Saxon element seal	see www.astivita.com.au for current pricing
Call SolarPower on 07- 3726 2000 for further information, for SEQ region we may also be able to give you details of plumbers that have knowledge of these systems.		