

Installation and Maintenance

1. Plug in of the Evacuated Glass Tube:

During installation the evacuated glass tube initially filled with water, the outer surface of its open end be applied with lubricant such as liquefied detergent, then slowly and lightly turn and push the open end of the evacuated tube into storage tank, finally pull back with care tube end into bottom holder.

2. Precautions:

- 2.1 Provide Air breathing pipe on hot water outlet for preventing formation of vacuum in tank due to non-supply of cold water.
- 2.2 Never keep the system without water tank. If cold water is allowed in empty tank, will cause breakage of tubes. Only in the early morning supply cold water for filling the tank, if system is empty or not in use.
3. In winter, all exposed water piping should be protected by wrapping with heat insulation material. Electrical heat tap should be applied to maintain water piping unfreeze if severe freezing climate exists in the installation region.
4. In case an electrical heater is to be used in solar water heater, the power cable should have a diameter of 1.75 mm or larger and only BIS approved / Equivalent electrical heater and its matching electricity leakage protector supplied by our company be used. It is emphasized that electrician or specially trained personnel must carry out electrical installation. BEFORE USING ELECTRICAL ASSISTED SOLAR WATER HEATER, THE POWER MUST BE CUT OFF TO ENSURE SAFETY.
5. The warranty of solar water will be for three years. The electrical heater will have one-year warranty. Our company and local dealer will ensure on quality of our products and provide prompt service to you if required.
6. For any damage to products due to misuse or other reasons, our company or the local dealer will provide replacement and service in time, the customer need only to pay the exact cost.

Trouble Shooting and Remedy

Sl.No.	Problem	Possible Causes	Remedy
1	No water for outlet	No water in the storage	Supply water
		Hot water piping blocked or frozen	Repair or replace the piping provide piping with heat insulating material
2	No supply of water or it takes more time to get hot water	Cold water supply stopped or Low water pressure	Wait for water supply or install water pump
		Cold water piping frozen or broken	Repair or replace the piping provide piping with heat insulating material
		Evacuated glass tubes broken	Replace with new evacuated glass tubes
3	Water temperature not high enough	Storage tank leaking	Replace silicon rubber sealant or replace storage tank
		Cloudy or insufficient sun light	Supplement heating using electrical heater
		Cold water supply valve leaking or not fully closed	Close the valve fully or replace / repair the valve
		More rust on evacuated glass tube surface	Clean the glass tube surface periodically
		Loss of vacuum in tubes	Replace the tube

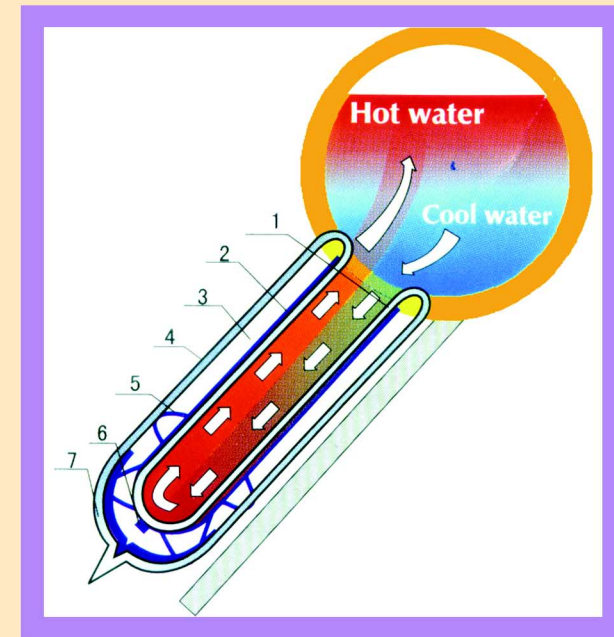
* method of visual inspection: (1) Silver colour of tube bottom turns to white when vacuum is lost.
(2) Touch tube surface and if it is warm, the tube has a problem...

DesignMax 484 236 / 410



Please read users manual carefully

USER'S MANUAL



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Dear Customer

Thank you very much for wise selection of photon solar system. Kindly read carefully the user's manual before using system.

Photon evacuated glass tube is the key component of photon solar water heater. Two concentric borosilicate glass tubes configure it. The outside surface of inner glass tube is coated, with the latest world magnetron sputtering Hi - tech, layers of aluminium - nitrogen with aluminium base, which absorbs the maximum amount (>0.92 , 80°C) of solar radiation including infra red light, while having very small radiation losses (>0.92 , 80°C). The jacket between outer and inner glass tubes is evacuated and permanently sealed off to form the best possible insulating preventing heat loss.

Brief Specification

Sl. No.	Item	Specification	
1	Number of tubes	15	30
2	Capacity of tank in liters	100	200
3	Collector tube length	1.5m	
4	Tube outer dia	47mm	
5	Inner Tank Material	304 - 2B Stainless steel	
6	Outer cover tank material	Stainless steel	
7	Insulation material	Poly Uretane Foam (PUF)	
8	Reflector material	Aluminium	
9	Stand Material	Powder Coated Mild steel	
10	Output Water Temperature	60 - 90°C	



WARNING

- Do not use pressure pump in the system.
- The power must be cutoff to ensure safety before using electrical assisted solar water heater
- Ensure good quality water.