

TROUBLESHOOTING

Trouble	Sunny day, no hot water	No hot water in winter
REASON	The front of solar water heaters have occluder, high tower, trees, tall buildings, fences or other water heaters, short sunshine ,causing the water temperature is low.	1. Pipelines freezes in winter time (Cold area winter is not normal; sometimes to freeze in the morning, after sun defrost in afternoon). 2. Weather is too cold
	1. Vacuum tube surface have thick dust. 2. Hot outlet valves got leakage or can't closed well. 3. Vacuum tube or heat pipe damaged. 4. The T/P valve on the main water tank can't closed which cause the water keep flowing	
SOLUTION	Remove the occluder or move the solar water heaters to the place without occluder	1. The whole pipeline use heat pipe preservation 2. Use electric heating belt together with water pipe lines, outside with heat pipe preservation.
	1. Cleaning the tube surface and reflector. 2. Check the valves. 3. Replace tube or heat pipe. 4. Check T/P valve.	

MORE INFO & HELP

Email ENERA: info@enera-solar.com

Call ENERA: +34 634 799 310

F.A.Q: www.enera-solar.com/faq/

Manuals: www.enera-solar.com/download/

Warranty: www.enera-solar.com/warranty-terms/

WARRANTY

- The warranty of all installed equipment is 2 years
- This period is valid if the magnesium corrosion anode is replaced every 12 month
- In the long-term non-use of the solar heater, it is recommended to close the cold water supply to the system for more than 72 hours
- **The system must only be started when there is no sun**
- **That is, during the morning or the night**
- **Filling the tank during the day leads to its failure, the guarantee would NOT be valid**

WARRANTY CARD

System:

Installation Date:

- STAMP -

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Partida el Planet 208 | 03590 Altea
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(Client) Sign to Approve

INSTALLATION MANUAL

www.enera-solar.com



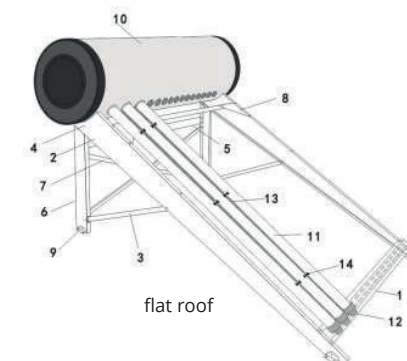
ENERA PRO

High-Pressure Thermosiphon with System «Heat-Pipe»

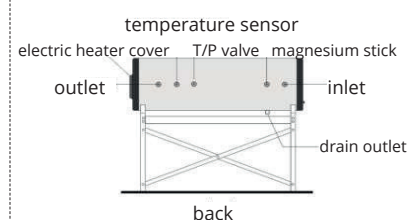
SYSTEM SPECIFICATIONS

Principal Machine	Absorber
Tank material: stainless steel	Vacuum degree: $\leq 5 \times 10^{-3}$ pa
Vacuum tube: $\Phi 58\text{mm} \times 1800\text{mm}$	Absorbing coating property: ≥ 0.93
Working pressure: 6 Bar	Emission ratio: ≤ 0.08
Daily hot water temperature: 45-90°C	Transition temperature: $\leq 25^\circ\text{C}$
Insulation: Polyurethane foam	Tube stagnation parameters: 230°C
Heat preservation: 72 hours	Freezing resistance: -40°C
Outer tank material: PVDF	Wind resistance: 30m/s(11 force)
Frame: Thicker galvanized steel	Lifetime : ≥ 15 year
	Hail resistance: 35mm
	Glass material: High borosilicate 3.3 glass
	Heat pipe: TU1
	Condenser size: 14mm*65mm
	Vacuum tube size(mm): $\Phi 58 \times 1800\text{mm}$

STRUCTURE



flat roof



back



slope roof

1. Manifold
2. Front track
3. Side rod
4. Tank support
5. Front tie rod
6. Support leg
7. Across rod
8. Fixed triangle
9. Anti-wind feet
10. Tank
11. Vacuum tube
12. Tube holder
13. CPC reflector
14. Reflector handle

INTRODUCTION

Special warning :

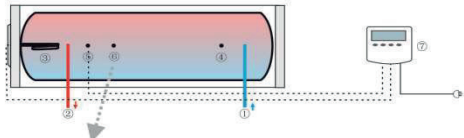
1. Installing the water heater must be with caution of on the high position what required of a professional installer operation, pay attention to their personal safety!
2. Transportation and installation, gently especially for the fragile glass tubes
3. Before installation, please carefully read the installation instructions in strict accordance with the manual operation, and by the professional installation. Otherwise the improperly installed may lead to serious personal injury and property damage, the installation is divided into four parts: frame installation, tank installation and tubes installation and connection of the water heater piping.

FRAME MOUNTING

Solar water heater should be in the sunny square, ideally correct location - facing south. Use galvanized iron wire or expansion screws or cement and fixed the roof pad bracket under hard objects.

PIPELINE CONNECTIONS

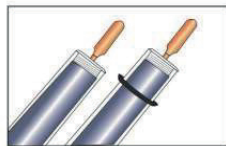
Connect the water pipe line , try to use the special composite pipe or cross-linked pipe, to reduce the water rust and heat loss, piping using insulation materials the better is fixed on the stand or building, if in the cold areas, drain valve can be added, so the emptying of the water in the pipe line.



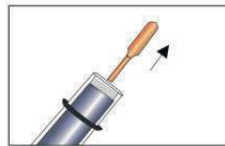
1- Inlet ; 2- Outlet ; 3- Electric Heater ; 4- Magnesium Bar ;
5- Temperature Sensor ; 6- T/P Valve ; 7- Controller



The T/P exhaust port stringent blockage. It should have received an additional exhaust pipe to prevent the tank internal pressure is too high splash hot water to cause damage to persons and property.



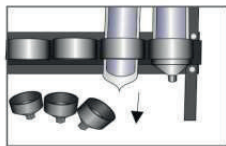
1. Dust ring with water jacket on the vacuum.



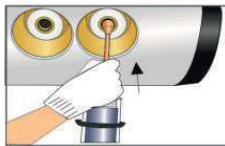
2. Removing the heat pipe header 20-30CM.



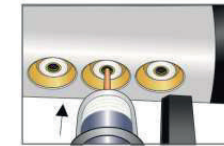
3. Evenly coated with thermal glue on the condenser.



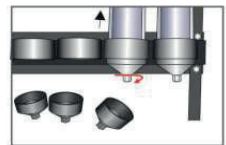
4. Vacuum tube tail into the pipe supports from top to bottom.



5. Holding the heat pipe forced into socket on the tank.



6. Vacuum tube inserted into the tank according with the heat pipe.



7. Turn the tube holder to be tightly (to keep vacuum tube could not be moved up and down)



8. The tank angle is fine-tuning, and screw fastening on the tank bottom.



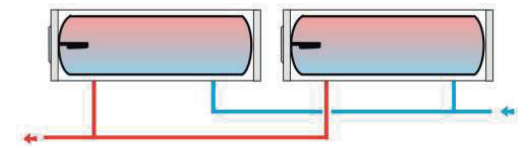
9. Slide the dust ring on the proper position, then assemble the CPC reflectors.

INSTALLATION OPTIONS

Placement of water heaters can be selected according to user requirements

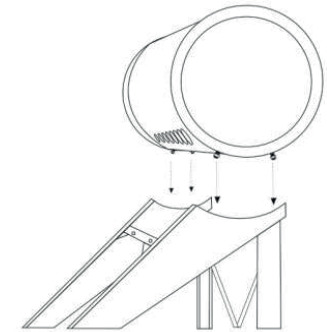


Solar water heater can be connected more than in series, parallel way into the collective hot water system.



TANK INSTALLATION

Put the tank on the tank support after the frame completed assembly. Place the four screw bolts on the tank into the tank support, but let the screws not to be turned tightly temporarily. Please pay attention to the direction of vacuum tube hole to be the same angle direction with the tube holder on the bottom track (manifold). Fix the tube holders on the bottom track then turn down its male part.



USER INSTRUCTIONS

The new pressurized solar water heater, the cold water inlet connect with city water directly, Can withstand high pressure when it works.(Means if the cold water supply pressure is stable, when open the outlet valve will have hot water in time with same pressure;)

Attention (importance):

1. During the storm with lightning, please DO NOT use solar water heater and keep the tank full of water during the typhoon/hurricane;
2. In the summer, if hot water not much used or water temperature is so high, please take some shade to cover part of vacuum tube to reduce the heating; This solar water heater can be used around the clock throughout the year; service life over 15 years;

During this period, you can perform some simple maintenance work:

1. Clean the vacuum tubes:

If dust or dirt on the vacuum tubes is too dense, it will reduce the reflection rate for a long time. Thus, you need to clean the vacuum tubes at least once every six months or a year, depending on the conditions of contamination. You can use soapy water or water with cleaning products to clean the vacuum tubes.

2. Monitor the condition of the solar water heater:

Poor water in some areas can lead to accumulation of scale in the tank or failure of safety valves, which will affect the efficiency of the solar heater or its breakage. Thus, you should visually inspect the system, check the operation of the valves and, if necessary, but not less than once every two years, ask a specialist to replace wornout connections and parts, such as a magnesium anode, valves and an electric heater.