Haier Solar Water Heater

User's Manual



**S150ENL** 

- Please read this manual before usage
- Retain it for future reference

**S150ENF** 

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# **Features** · **Technical Data**

#### • Features

1. SUS304 stainless steel water tank liner

The tank liner is made of SUS304 stainless steel. It is a food grade material featuring high anti-corrosion ability and durability.

2. Effective and energy-saving heat insulation layer

Polyurethane foam material for solar water heater is adopted to ensure high heat insulation ability and reduce heat loss to the maximum extent.

#### 3. Al-Zn alloy coated tank shell

Al-Zn alloy coated steel plate has very strong anti-corrosion ability and excellent weatherability. It is the most preferred outdoor protective material.

#### 4. Tower type bracket

The bracket is made of carbon steel panel by shaping and plastic spraying. It has the advantages of stable structure, beautiful appearance, anti-corrosion and so on.

• Parameters	
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Model	Volume of	Size of the	Bracket form	Quantity of	Aperture area	Total water
	useable water	vacuum tubes		the vacuum		volume (L)
	(L)			tubes		
S75ENF	75	φ47X1500(mm)	Flat roof, 45°	14	1.33	96
S85ENF	85	φ47X1500(mm)	Flat roof, 45°	16	1.52	108
S110ENF	110	ф 58X1800(mm)	Flat roof, 45°	14	1.86	150
S125ENF	125	ф 58X1800(mm)	Flat roof, 45°	16	2.13	170
S150ENF	150	ф 58X1800(mm)	Flat roof, 45°	19	2.53	204
S75ENL	75	φ47X1500(mm)	Fastigium, 45°	14	1.33	96
S85ENL	85	φ47X1500(mm)	Fastigium, 45°	16	1.52	108
S110ENL	110	ф 58X1800(mm)	Fastigium, 45°	14	1.86	150
S125ENL	125	ф 58X1800(mm)	Fastigium, 45°	16	2.13	170
S150ENL	150	φ 58X1800(mm)	Fastigium, 45°	19	2.53	204

Note: Allowable error for aperture area:  $\leq 3\%$ , for volume:  $\pm 5\%$ , for other sizes:  $\pm 10\%$ 

# Safety precautions

- Safety precautions
- 1. After the vacuum tubes are installed, they should not be sunned empty for long period of time as this will shorten their service life. If the water heater is not put into use after installation, please shade the tubes with proper articles.
- 2. Initial water filling shall be conducted in the morning or at night when there is insufficient sunlight. Filling water under strong sunshine should be avoided as this will cause explosion of the vacuum tubes.
- 3. If the water pressure is not high enough, normal water filling will not be realized. Please fit a booster.
- 4. To avoid burning, do not direct the shower nozzle towards your body while you are adjusting the water temperature.
- 5. The water heater is a non-pressurized water heater. The hot water flows out naturally due to the height difference between the water tank and the water usage point. The output pressure is proportional to the height difference. If the height difference is too low, it will not function normally. In this case an effluent booster should be fitted.
- 6. When sunshine is not sufficient, to ensure effect, you should avoid using hot water several times in one day.
- 7. The energy source of this water heater is solar energy. In cloudy, rainy, or snowy days, the temperature of the water coming from it may not be satisfactory due to insufficient sunshine.
- 8. Before winter comes, please clean the vacuum tubes and keep their surface clean to improve the heat collecting effect.
- 9. The vacuum tubes can withstand low temperature of -70°C when they are not filled with water. In winter, on continuous cloudy days or when it is covered with snow, please keep the tank full of water and replace the low temperature water in it frequently (2 day intervals). Otherwise the vacuum tubes will break when the water in it freezes.

# **Before use** · **Installation instructions**

#### • Special tips

To ensure correct and safe use of the water heater, here we inform the users seriously to contact professional service agents appointed by Haier for installation and services. Haier is not responsible for incorrect installation of the water heater. To contact Haier headquarter, please dial: 4006 999 999 This product is an insured product. Please set your mind at ease when you are using it.

Prior to installing and using the water heater, please read the following contents carefully. Please retain this manual properly for future reference.

- 1. Upon unpacking, please check against the packing list in this manual.
- 2. Improper use of the water heater may cause serious burns. Be sure to take a shower or wash after mixing the hot water with cold water.
- 3. To ensure normal use, never refit it or block the ventilation pipe and overflow pipe. Otherwise the water tank will shrink due to negative pressure.

#### • Selection of installation location

- 1. In areas where lightning strikes frequently occur, the water heater shall be installed within the lightning proof range of the building.
- 2. The orientation range of the water heater: 10 degrees south by east to 15 degrees south by west.
- 3. There should be no shading objects in the front of the installation location of the water heater. If there is a shading object, the distance between it and the water heater should be longer than L.
  L=H/tg(66.5 -a) (where H: height of the shading object; a: local latitude)

Note: Installation of the water heater must be conducted by professional personnel.

Model	Outline di	mensions (in mm)	Installation dimensions (in mm)		
Widdel	А	Н	D	В	
S75ENF	1166	1457	1000	1351	
S85ENF	1306	1457	1140	1351	
S110ENF	1296	1710	1140	1590	
S125ENF	1456	1710	1300	1590	
S150ENF	1696	1710	1540	1418	
S75ENL	1166	1457	1000	1351	
S85ENL	1306	1457	1140	1351	
S110ENL	1296	1710	1140	1590	
S125ENL	1456	1710	1300	1590	
S150ENL	1696	1710	1540	1418	

### • Outline and installation dimensions of the water heater

Note: error of above dimensions:  $\pm\%$ 





#### • Assembling the bracket

See the attached paper in the bracket packing case for assembly drawing and packing list of the bracket.

#### • Securing the bracket

- 1. Recommend you to secure the legs of the water heater on a foundation with embedded irons. You can also make cement bricks, attach expansion bolts in the cements and fix the heater legs on the expansion bolts.
- 2. Adjust the height of the bracket using the hard, waterproof spacers to ensure levelness of the water tank as well as even the load of each leg.

Notes:

- 1. Ensure close contact of all legs of the water heater with the support plane. No legs are allowed to hang in the air as this may cause deformation of the bracket and thus damage the water heater.
- 2. In the areas where typhoon happens frequently, fix the water tank and bracket firmly on the roof with wire rope.
- 3. The water heater must be installed stably and firmly. Otherwise serious damage or injury may occur in bad weather.

#### • Installing the water tank

- 1. Take the water tank from the packing case and remove the nuts and shims attached to the bolts on both sides of the tank.
- 2. Insert the bolts on the bottom of the tank into the long holes in the tank support of the bracket and attach the shims and nuts.

Notes:

- 1. To reduce scratching, remove the protective plastic film from the water tank after the installation is finished. Never use sharp tools such as wallpaper knives to remove the film.
- 2. The assembly of the water tank is realized by bolt connection and nut fixing. Tighten all nuts after the assembly of whole water heater is finished.
- 3. When installing the water tank, please keep the center lines of the connection holes of the vacuum tubes parallel with the oblique-pulling posts of the bracket.

#### • Installing the vacuum tubes

- 1. Before installing, the vacuum tubes should be protected from sunshine. Otherwise you may be burned during installation.
- 2. Put the wind shroud on a vacuum tube (Fig. A).
- 3. Insert the vacuum tube with even force while rotating to turn it into the seal rings. The direction of the resultant force should be consistent with the axis of the vacuum tube.
- 4. Put the tail-holder into the tailstock (Fig. B) and then fasten the vacuum tube on the tail-holder (Fig. C).
- 5. The insertion depth of the vacuum tube into the seal ring should be about 1cm. Push the wind shroud onto the water tank to plug the joint (Fig. D).
- 6. When installing the vacuum tubes, one tube should be installed on each side of the water tank first so that the water tank and bracket can be positioned as a whole.

#### Notes

- 1. Check if the seal rings in the tank holes are all ready, if the sealing planes are clean, free of foreign bodies and breakage.
- 2. Put the wind shroud on the open end of the vacuum tube with the inclined plane downward and to a position about 10cm to the tube end. Before installing, wet the tube end with water to facilitate installation.





#### • Schematic drawing of the indoor pipeline and wiring

#### • Precautions in pipeline installation

- 1. Any form of modification of the installation structure of the water heater may cause problems in use.
- 2. There are 5 ways for the heater pipeline to enter the house: flue, exhaust pipe, penetrating hole, special pipeline well for solar water heater, embedded bushing. Of which the first 3 are relatively popular. Before installing the pipeline, the installation personnel will discuss the entering way and installation position of the pipeline with you for your convenient use. During piping, the penetrating hole must have an adverse slope and be sealed properly to prevent rain and odor from coming into the house.
- 3. The overflow pipe must be fastened firmly and its indoor opening must be kept downward. The overflow water can be discharged directly into the sewer. The distance between the opening of the overflow pipe and the sewer plane should not be more than 15cm. Never hang the overflow pipe arbitrarily as splash of large amount of overflow water will damage articles in your house.
- 4. Never install valve in the overflow pipeline to ensure rapid, accurate transfer of Full-of-Water signal.
- 5. Check valves should be installed on the trunks of water supply and drain pipes that are connected with the tap water pipe to prevent back flowing of water in the tank.
- 6. When several water heaters are combined, the installation plan should be validated by a professional service person of Haier.

# **Installation instructions** • Operation instructions

• Connection method of water supply pipeline in the houses where a solar water heat coexists with another type of water heater

To the tank of the solar water heater



#### • Operation methods:

- 1. Before using hot water, valves K1, K2 and K3 must be in closed state;
- 2. To fill water, open valve K1. When water flows out from the overflow pipe, it indicates the water tank is full. At this time, close valve K1.
- 3. To use hot water, open valve K2. Hot water will come out from the shower nozzle. If it is too hot, open valve K3 to adjust the water temperature.
- 4. Close valves K2 and K3 after use.



## **Operation instructions**

## • FAQ

Troubles	Possible reasons	Solutions	
No outlet water	The water tank becomes empty	Add water according to the time	
		required in the instruction manual	
	Disconnection or blockage of the	Repair the pipeline or remove the	
	pipeline or joints	blockage	
No water comes from the overflow	Broken vacuum tube(s)	Replace the broken tube(s)	
pipe	Water supply is stopped or water	Wait until the water supply	
	pressure is too low	becomes normal	
	Disconnection or break of the	Repair or replace the pipeline or	
	pipeline or joints	joints	
Too low temperature of the hot	The water supply valve is not	Close the valve tightly or replace	
water	closed tightly or it is damaged	the damaged valve	
	There is shading object in the front	Remove the shading object or	
	of the vacuum tubes and they	relocate the water heater	
	cannot collect heat effectively		
	Too much dust on the vacuum	Clean the surface of the vacuum	
	tubes	tubes	

## Packing list

Main components		Quantity					
		75L	85L	110L	125L	150L	
Weten ten 1-	Water tank (pc)	1	1	1	1	1	
Water tank	User's Manual (copy)	1	1	1	1	1	
Tank	Left tank support (pc)	1	1	1	1	1	
support case	Right tank support (pc)	1	1	1	1	1	
Vacuum tube (pc)		14	16	14	16	19	
Bracket (set)		1	1	1	1	1	

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