CAUTIONS
1. To protect solar water heater and water temperature and level sensor, water tank shall not be empty for long.
2. In case of mistaken operation or malfunction of power supply, or other unexpected conditions cause long-time overflow, electromagnetic valve and solar water heater must be installed where water will not leak indoors or spout out, causing danger. Reliable thunder-proof system must be installed. 3. The apparatus has power-leakage protection function. When users want to use water, press "heating" key to stop heating. When the indicator is off, users will feel assured to use. Pull out the plug if necessary.

INSTALLATION OF INTELLIGENT TESTING AND CONTROLLING APPARATUS
1. Open the cover of junction box below testing and controlling apparatus. 2. Install bracket on the place sheltered from watering and convenient for observing. Fix it with screws. 3. Hang the testing the controlling apparatus on bracket. Connect electromagnetic valve, signal lines and connecting wire to the corresponding connection socket according to sketch map. 4. Connecting wire may be drawn from behind. Cover junction box. Have a general check after installation, then power on for self-detecting.

INSTALLATION OF ELECTROMAGNETIC VALVE
1. Direction: Do not mix the water inlet and outlet of electromagnetic valve. The end with arrow is water inlet. Arrow on bottom is the direction of water flow. 2. Two-core connecting wire is connected to electromagnetic valve. Down-load may be lengthened. Choose cable conductor of large diameter. 3. The electromagnetic valve of Pioneer-Series testing and controlling apparatus is equipped with non-return system. One-way check valve is not necessary installed. 4. Pipes connected to water inlet shall be hose or other pipes easy for disassemblability, for the survivability of removing malfunctioned unit of valve. Have a general check after installation, then power on for self-detecting.

INSTALLATION OF WATER TEMPERATURE AND LEVEL SENSOR
1. Insert sensor through overflow pipe and connect and fix the four-core signal wires according to the corresponding sensor connection box. Cover the box and adjust the position to fix it and tighten the sensor screws. 2. Draw the cable indoors. Fix the outdoor cable to avoid being rubbed. 3. Sensor is strictly forbidden to touch or be too close to electric heating pipe. 4. Strictly avoid being wet or soaking socket during installation. *Underneath type sensor is installed upward from the bottom of water tank. Fix and tighten screws. No water leakage is allowed (refer to the Scheme of Installation).

SCHEME OF INSTALLATION

SCHEME OF WIRING

WARRANTY CERTIFICATE
User's name: [Blank]
User's Tel.: [Blank]
Product model: [Blank]
Ex-warks no.: [Blank]
Date of production: [Blank]
Date acquisition: [Blank]
Dealer (seller): [Blank]

MAJOR FUNCTIONS
- Water-temperature display
- Water-overflow protection
- Water-full display
- Water overheat protection
- Water-leakage protection
- Cock display
- Blowoffing in water pipes
- Water-leakage protection
- Water-leakage protection
- Water level preset
- Booster pump in water pipes
- Water temperature preset
- Prevention of empty burning
- Water-full stops
- Memories-on with power off
- Water fill on shortage
- Intelligent mode
- Manual affusion
- Timing mode
- Timing affusion
- Temperature-control mode
- Timing affusion twice
- Timing affusion twice
- Timing affusion twice
- Timing affusion twice
- Timing heating
- Constant-temperature heating
DEAR CUSTOMERS:

Thank you for choosing XBS-series of solar water heater with a comprehensive intelligent heating & controlling apparatus, it is developed based on our latest R&D technology, its product has a large and colorful screen applying screen touch-tone which is more convenient as it has three modes: intelligent mode, water temperature management and power management. Its ultra thin panel and high-temperature, high-pressure, high-pressure, high-temperature resistant control. Its output is ultra thin and high-temperature resistant, with ring-shaped water level display. In addition, many other functions are invented in order to prevent all electric band heater catching fire, auto leakage prevention; prevention of vacuum tubes exposed in the sun; pipeline dehydration and power off etc. All these provide more convenience and more stability for you to use our apparatus.

MAJOR TECHNICAL INDEX

1. Power supply: 220VAC (or select 110 VAC) power dissipation: ≤5W
2. Propulsion of temperature management: ≤1000W
3. Range of temperature measurement: -50°C~60°C
4. Precision of temperature controlling: ±3°C
5. Water level: five levels
6. Controllable pump or power or electric band heater: ≤500W
7. Power of controllable electric heating: <1500W 3000W available
8. Action-current of power leakage: ≤10mA 1s
9. Parameter of electromagnetic valve: Direct current: DC12V (valve with or without pressure)

Working pressure with valve with pressure: 0.02MPa, available to direct water supply.
Working pressure with valve without pressure: 0.05MPa, available to custom supply or low-pressure water supply.

MAJOR FUNCTIONS

1. Time: Show real Beijing time
2. Water level preset: Preset water level to 50%, 80% or 100%
3. Water temperature preset: Heating range: 30°C~90°C
4. Water temperature indication: actual water temperature inside solar water heater
5. Water level indication: actual remaining water level inside solar water heater
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100. Water temperature indication: actual remaining water level inside solar water heater

Prevent some disasters because of aging hand heater.

Pipe explosion protection: In the state of water shortage and water temperature higher than 60°C, all the functions of water afflux will end, which can prevent the pipes from exploding.

Automatic start-up of booster pump: In this mode, the water temperature is lower than the thermostat temperature or the storage tank water temperature is lower than the preset temperature of water-temperature controlled, the appliance will start booster pump to increase the water temperature until the water temperature inside the tank is high and then both the switch to the “booster” mode.

Open the small cap below to adjust or move the switches and then choose the function of start-up of booster pump or function of booster water pipes.

Water-level sensitive adjustment: If water is of poor quality (poor conductivity, especially in the mountainous areas), move the switch to “Rare” position.

Power leakage protection: When electric heating is in power leakage, the electric band heater will be cut off all once to protect electricity. The heater will shine with the buzzer alarming three times. Press the “heating” key and the leakage reason, after power leakage, you should examine the electric heating at once to avoid accidents.

METHOD OF APPLICATION

When produced, testing and controlling apparatus run according to the intelligent mode, therefore you don’t need to do any operations. If you want to adjust Beijing Time and choose other working modes, you can do as follows:

1. Adjust Beijing Time: Press “Set” key and “hour” twinkle and you can use ↑ and ↓ to set hours and then press “Set” key to confirm. “Minute” twinkle and you use ↑ and ↓ to adjust minutes and then press “Set” key to confirm.

2. After adjusting Beijing time, use ↑ and ↓ to choose intelligent or temp-controlled mode and then the chosen mode begins to twinkle and press the “Set” key to confirm.

3. If timing mode is chosen: In order to show the first timing water afflux and up-water level, you can use ↑ and ↓ to adjust hours, minutes and preset water level and then the chosen mode begins to twinkle and press “Set” key to confirm. Do the same as the second timing water afflux. After setting two timing water affusions, the set the first timing water afflux, the time and water temperature, you can use ↑ and ↓ to adjust, hours, minutes and preset water temperature and water level, then press “Set” key to confirm.

Press “heating” key, “Water affusion” key, “Preserve heat” key to start corresponding functions. After that, icons like “heating”, “water affusion”, “Preserve heat” will twinkle.

COMMON BREAKDOWNS AND THE WAYS TO DEAL WITH IT

Phenomenon/ common breakdowns | Causes | Measures
---|---|---
No water feed on start-up; | Voltage insufficiency of all control | Check the voltage and then turn on the power supply; if it is crucial, contact service to replace “Chief Reset” key to reset.
while starting up | | |
Indicating lamp(s) glint at the time of indicating lamp(s) Glint at 100/Heater level | Spilled salt or broken Salt is spilled or broken out | | |
Change the salt and wipe it |
Slow affusion or heat: 1 Low water pressure or water flow Low pressure or water flow of water pipe, or water feed is too slow | Affusion with increasing pressure water flow is relatively slow, no need to wipe or water pipe or water pipe feeding off of the heat of the vessel, or the water pipe is broken |
| Change for another one.
| |
The design: “heating” | Water temperature is higher than 60°C Water temperature is higher than 60°C | Electric heating pipes are broken (which has no use in the installation of temperature control) |
| |
The manufacturer has the right to change the technology and product specifications with no need to notify. |