LightObject – Water heater Quick-start manual

Product Description:

The LightObject water heater is a perfect addon to a water chiller without heating function. It is design to warm up the circulating water to the programmable set temperature.

Application:

- Maintaining water temperature above a certain minimum, for example in freezing climates to prevent ice cracking glass Laser tubes.
- Other equipment that needs water to be heated up.

Features of the After burner – water heater:

- Show temperature in Celsius or Fahrenheit. Flow rate in Liter/min or Gal/min
- Comes with a water flow sensor to read flow rate
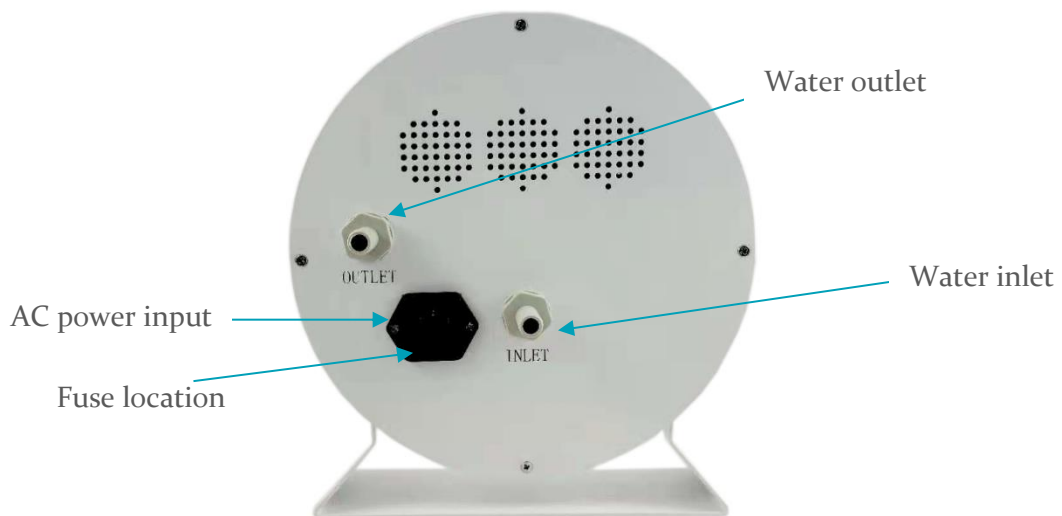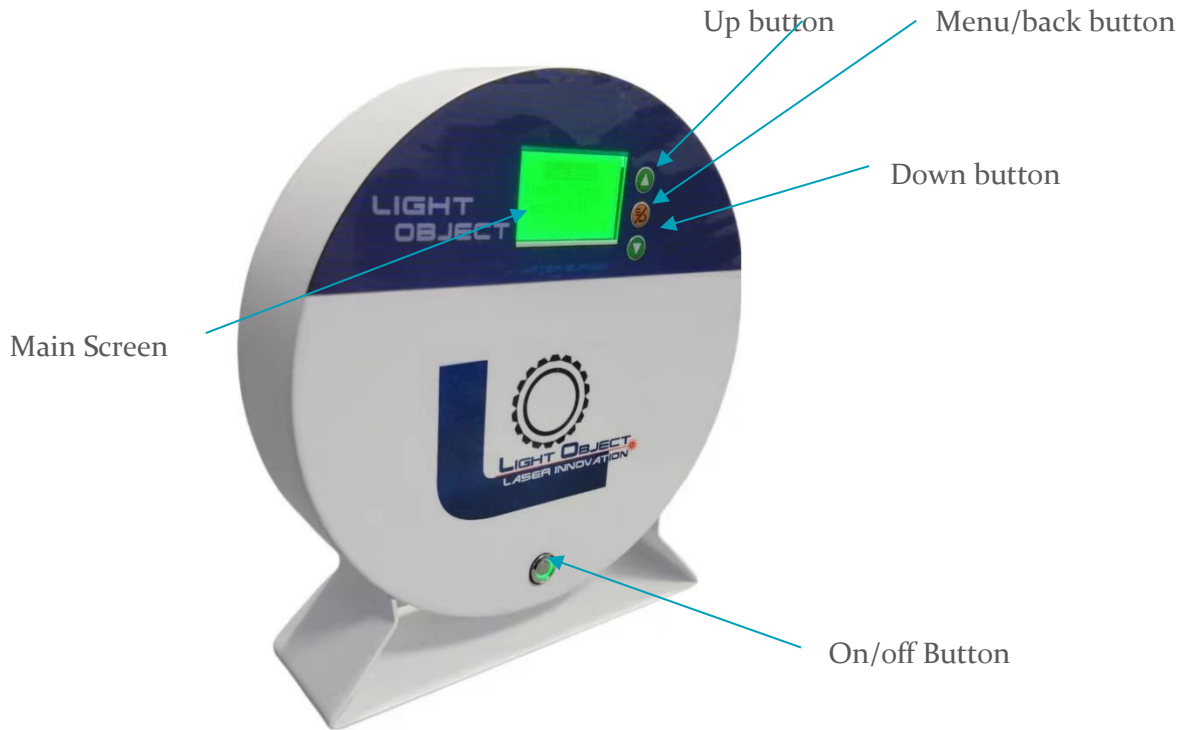- High temperature alarm beeping, value is adjustable
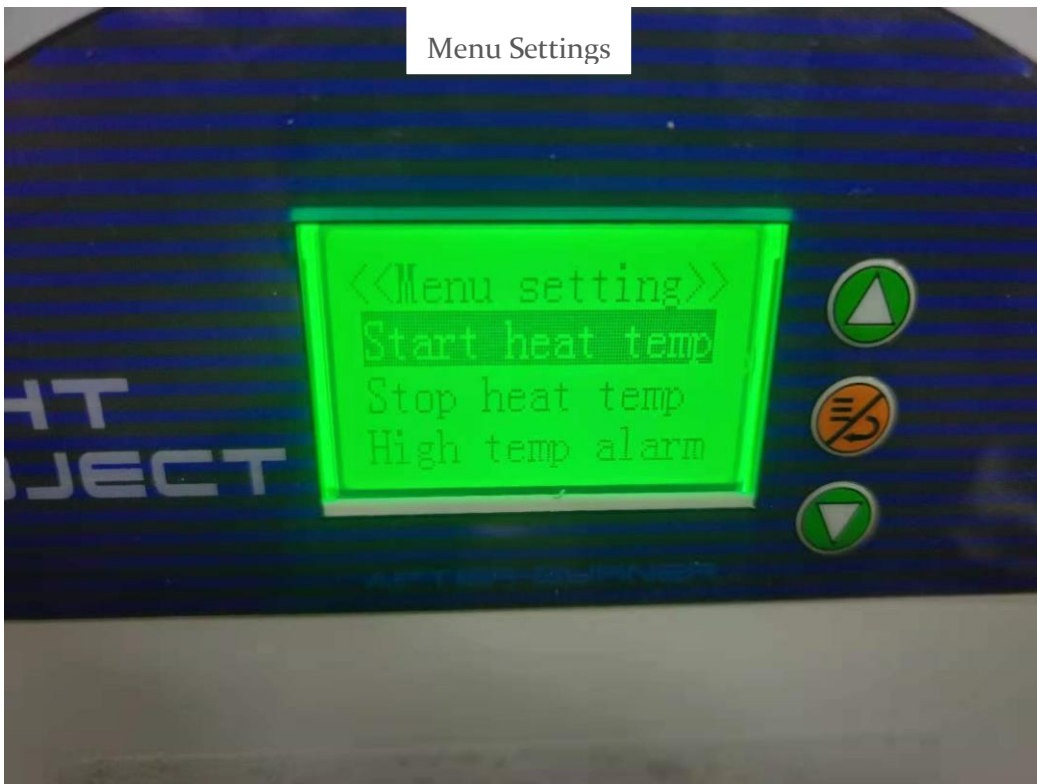
Specification:

- ✓ Input Power: AC 110v(default)/220v (input can be changed in controller setting)
- ✓ 550W built-in heater
- ✓ Suggested Inlet/Outlet tubing: 8mmID 12mmOD silicone tubing
- ✓ Unit weight: 5lb
- ✓ Unit Dimension: 9.5" h x 8.75" w x 2" d(total 3.25" with water connector)

Application example:

Layout Diagram

Up button   Menu/back button

Down button

Main Screen

On/off Button

Water outlet

Water inlet

AC power input

Fuse location

OUTLET

INLET

Main Screen

Water Flow reading

Temperature reading

Water flow icon

110V 220V mode status

Flashing icon when heating

Flow Meter
Flow:4.6 L/min
Temp:16.2 °C

Menu Settings

<<Menu setting>>
Start heat temp
Stop heat temp
High temp alarm
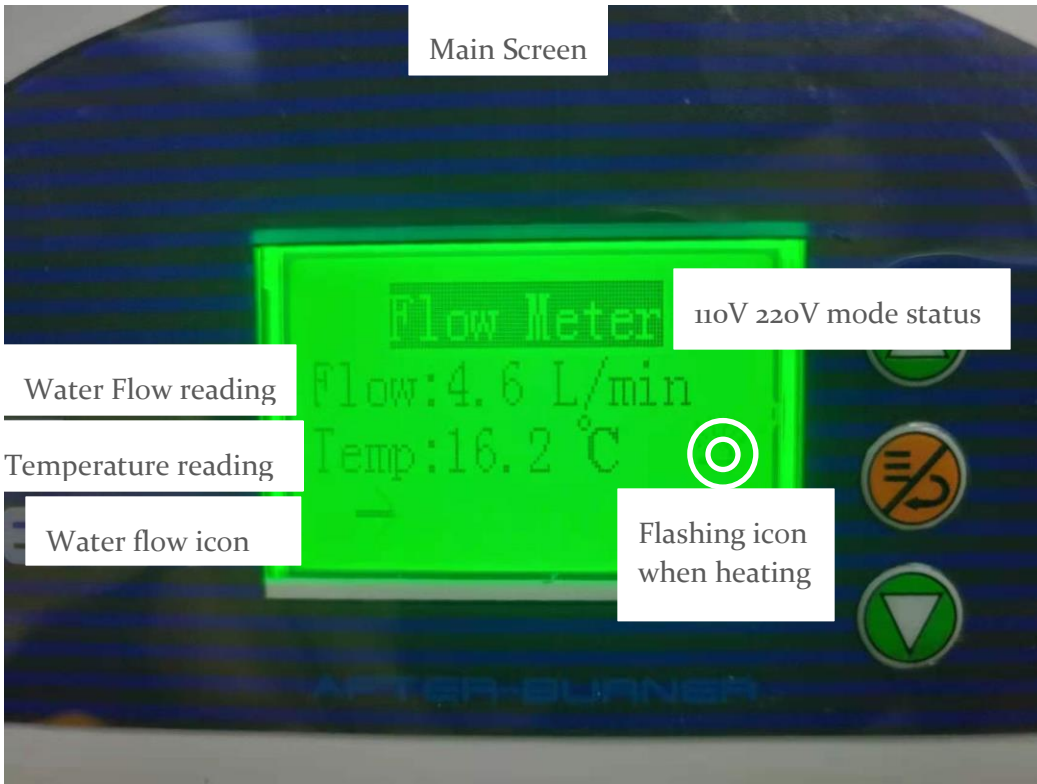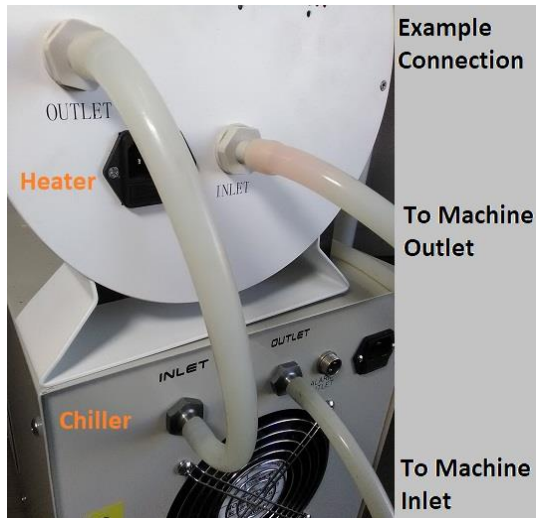
Hooking up the water heater device

1. Position water heater device between water outlet of laser machine and water inlet of chiller.
2. Connect **OUTLET** of machine to **INLET** of heater device and **OUTLET** of heater device to **INLET** of chiller.

Operation

Press and hold down the menu/return orange button to gain access to the settings. Use up/down button to navigate. Press the menu/return button to enter desired menu option. Press or hold up/down to change value. Press menu button again to set values and return to setting screen. Hold the button to finish settings and exit to main screen.

If water flow rate is lower than 0.5L/min, the heating will stop.

It will start heating up the water if temperature is below the start heat temp. It will stop heating when temperature reaches the stop heat temp. The start temp needs to be higher than room temperature. **Example:** If room temp is 12°C, the start temp needs to be 14°C for heater to start. If start temp is 11°C, heater will not start.

When high temperature alarm is on, press menu button to clear.

The reset option under menu will restore all parameters to factory setting.

Change to 220V mode if using AC 220V input: make sure water is NOT flowing. Connect After burner to 220V power. Turn on After burner, navigate to voltage setting. Change from 110 to 220V. Press menu button to save and exit. Relay will keep clicking every one second under 220V mode.

Safety

Warning: The safety precautions stated below are mandatory guidelines that must be followed. LightObject will not be held responsible for damages or injuries resulting from improper use of the Afterburner – water heater.

Make sure 110/220V setting matches your AC power input.

Casing is not waterproof. Unplug power cord before draining out water from the Afterburner.

DO NOT power on device if water leaked/spilled into the after burner. Disconnect power, then open the back cover to dry out water.

In Case of an Emergency: TURN OFF the POWER SWITCH of the device.

Q&A

Why is the water temperature of the Afterburner not consistent with my water chiller?

Temperature sensor in the After burner (water heater) and the temperature sensor in water tank are at different locations. Temperature in the afterburner is usually a little bit higher than the water tank temperature.

I have water flowing but the water flow reading is really low?

Maybe INLET and OUTLET connections are swapped. Water flows in the wrong way.

How do I know if the power button is on or off?

If it is pressed in, it is on. Also, light turns on behind the button.

How do I know if it is heating?

When it is heating, an icon will keep flashing on the bottom right corner of the display. In addition, you will be able to see the temperature keeps rising. Larger volume of water takes longer to heat up. For a 4.5L tank, temperature will rise 1C in 50-60 seconds.