# Water Cooling Chiller Manuel User LS800/LS1850

- Thanks for your purchase.
- In order to have a sufficient understanding of this equipment, ensure the correct and safe use of this equipment, please read this manual carefully and keep it properly!
- If the content of this manual and the equipment parameters are changed, please operate according to the actual content without prior notice!

# 1. Overview

## 1.1 The working theory of water cooling chiller

In order to cool and reduce the temperature of equipment or part of chiller , the chiller injects the coolant stored in the chiller into its interior through a pump, and to ensure that the coolant circulates between them, the condenser with a fan installed in the chiller will blow away the heat carried out by the coolant, thus ensuring continuous cooling of the equipment that needs to be cooled.

## 1.2 The parameters of water cooling chiller

Model：LS800 & LS1850
Import voltage：AC100-230V
Power：120W & 160W
Applicable frequency：60HZ & 50HZ
Water tank capacity：10L & 20L
Connector size：10mm
Max. flow：25L/min & 48L/min
Max. lift:3m & 7.9m
Heat exhaust:800W & 1850W
Available temperature:0-55℃
Net weight:13.8KG & 21kg
Size: 460*360*400mm
540*460*490mm

# 2. Function description

## 2.1 The description of parts

| No. | Name | Function |
|---|---|---|
| 1 | Power switch | Control the operation and stop of the chiller. |
| 2 | Controller | Monitor the temperature and flow of |

| | | |
|---|---|---|
| | | the chiller, and alarm when abnormal. |
| 3 | Outfall | Drain all liquid from the water tank inside the chiller. At the bottom of the chiller. |
| 4 | Liquid level observation window | Observe how much liquid is in the tank inside the chiller. |
| 5 | Water inlet port | Add liquid to the chiller water. On top of the chiller. |
| 6 | Inlet | The circulating fluid is returned to the chiller. |
| 7 | Outlet | The circulating liquid goes out of the chiller and goes to the end of the equipment that needs to be cooled. |
| 8 | Air outlet | The air outlet of the built-in fan of the chiller. |
| 9 | Signal output | The chiller controller detects abnormal flow, the port output signal is disconnected, and the normal situation is normally closed. |
| 10 | Power outlet | The power input port, AC100-230V, 60-50HZ. |

## 3. Instructions

### 3.1 opening Preparation

3.1.1. Add enough coolant (usually pure water) to the water tank through the water inlet port.

3.1.2. Connect the equipment that needs to be cooled through the water outlet and water inlet of the chiller (outer diameter ϕ10, suitable for hoses with inner diameter ϕ8). And make sure the coolant can circulate between them.

3.1.3. Connect the power cord through the power outlet and turn on.

### 3.2 Start up

3.2.1. Turn on the power switch to start the chiller, and observe whether the liquid in the pipeline and the water tank circulates normally. After the liquid is circulated back to the water tank, add liquid appropriately to maintain the amount of liquid in the water tank (according to the length of the pipeline and the size of the inner capacity of the cooling equipment).

3.2.2. Check the air outlet to ensure that the fan is working properly.

## 4. Precautions and Troubleshooting

## 4.1 Precautions

4.1.1. When the chiller is running, it is necessary to ensure that the liquid in the water tank exceeds the minimum liquid level, otherwise the water pump will be easily burned.

The more liquid in the tank, the better the cooling effect.

4.1.2. When the chiller is running, it is necessary to ensure that the distance from the air outlet to the nearest obstacle is greater than 300mm. The air outlet is open and the air flow is smooth, the better the operation effect of the chiller.

4.1.3. The chiller is only suitable for cooling the liquid below 55℃, and the controller will alarm when the temperature exceeds 55℃; and antifreeze should be used when the temperature is lower than 0℃.

4.1.4. The chiller cannot use the cooling liquid that will vaporize, usually pure water is used as the cooling liquid

## 4.2 Troubleshooting

4.2.1. The controller shows Er2 and the buzzer sounds. High temperature alarm, higher than 55 degrees

A Check whether the cooled equipment is operating normally, and no heat is generated.

B Whether the chiller fan is running normally, and whether the air outlet is too close to the obstacle, which affects the heat dissipation.

C Check the liquid level of the water tank of the chiller, whether the liquid in the water tank is too low.

4.2.2. The controller shows Er5, the water temperature sensor is faulty.

Refers to the temperature sensor is not plugged in or damaged, re-plug the temperature sensor on the controller, or replace the temperature sensor.

4.2.3. The controller shows Er6 and the buzzer sounds, and the water flow alarms.

A Check the water flow sensor and its wire connections.

B Check the water pump.

C Check the liquid level of the water tank of the chiller, the liquid level of the water tank needs to be higher than the minimum liquid level.

D Check the pipeline for blockage.

4.2.4. The controller does not display after it is turned on.

A Check the power input and power switch.

B Check the output of the built-in switching power supply (voltage transformer).

C Replace the controller