

# H<sub>2</sub>O<sup>3</sup> -48, -96

dry bath chiller



## User Manual

ver 1.1.en

[www.1h2o3.com](http://www.1h2o3.com)

**H<sub>2</sub>O<sup>3</sup>** is a thermoelectric (Peltier) dry bath chiller. Connected to the provided 12 VDC power supply, the aluminum sample blocks is automatically maintained at between 0~2°C. It is designed for keeping sample tubes at ice temperature in many experimental procedures. It is a simple and convenient replacement of wet ice bucket. Two models are currently available. Model **H<sub>2</sub>O<sup>3</sup>-96** can chill one standard 96-well PCR plate. Model **H<sub>2</sub>O<sup>3</sup>-48** can chill one half of a 96-well plate; it is more economical and consumes less energy, suitable for handling small number of samples.

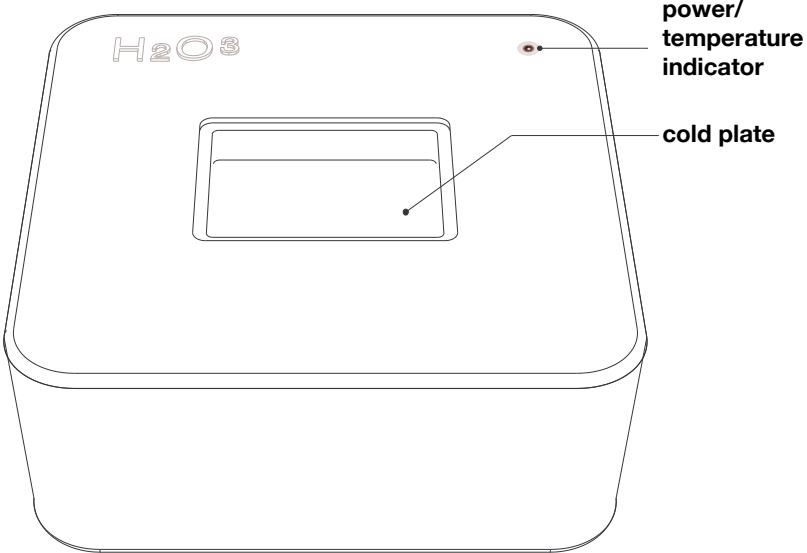
### **Contents of Package**

- One thermoelectric chilling device, model **H<sub>2</sub>O<sup>3</sup>-96** or **H<sub>2</sub>O<sup>3</sup>-48**
- One 12 V power supply adaptor
- One sample block cover
- One block extractor
- One User Manual
- Aluminum sample blocks for **H<sub>2</sub>O<sup>3</sup>-96**
  - Four 0.2-ml sample blocks
  - Two 1.5-ml sample block
- or for **H<sub>2</sub>O<sup>3</sup>-48**
  - Two 0.2-ml sample blocks
  - One 1.5-ml sample block

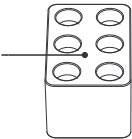
### **Specifications**

- Operation ambient temperature: 8~30°C
- Sample block steady state temperature: 0~2°C (with two 0.2-ml sample blocks installed and block cover applied)
- Electrical input: 12 VDC, 4A (**H<sub>2</sub>O<sup>3</sup>-96**) or 3 A (**H<sub>2</sub>O<sup>3</sup>-48**)
- Dimensions: 185×185×90 mm (7.25×7.25×3.5 in)

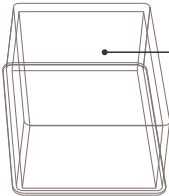
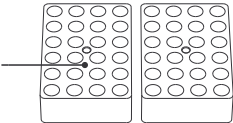
**Fig. 1, chiller and some accessories (H<sub>2</sub>O<sup>3</sup>-48 shown)**



**1.5-ml  
sample  
block**



**0.2-ml  
sample  
block**



**block cover**



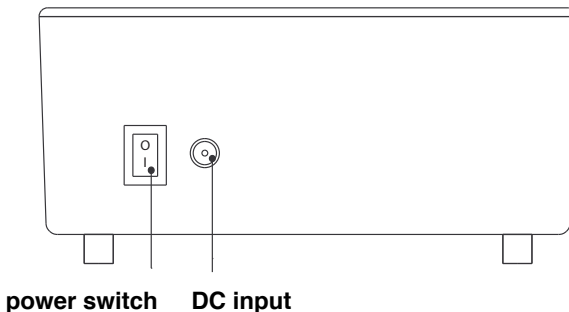
**block extractor**

## Instruction

Placed the chiller on your lab bench or a similar sturdy flat surface. The space between the bottom of the unit and bench surface should be clear. There should be at least two inches (5 cm) of clearance around the unit in order to allow sufficient ventilation.

Choose a proper size or a combination of blocks according to your sample tube sizes. Notice that 0.5-ml tubes can be comfortably inserted into either size of the provided sample blocks. (For other types of standard or custom-built blocks please contact your dealer.) Place the sample blocks on the cold plate (see Fig. 1) and make certain that the sample blocks are in close contact with the cold plate. Connect the provided 12 VDC power supply adaptor to the DC input socket on chiller back panel (Fig. 2) and plug the power supply AC cord into a wall outlet. Turn on the power switch (Fig. 2). The indicator light should appear near the upper right corner on top panel and sample blocks should start to chill. The indicator light is red when block temperature is above 4°C and becomes green when sample blocks are chilled to between 0 ~ 4°C.

**Fig. 2, back panel**



It is recommended to cover the samples with the transparent sample block cover whenever possible. This cover provides thermal insulation and reduces water condensation. The water (condensed from air) on and around the sample blocks will be drained through an opening at the bottom of the unit. Excessive water accumulation can be wiped off with paper towel.

### **Cautions**

Never let the unit in contact with strong acid or alkaline and most organic solvents. In case of accident spill, clean the chemicals immediately. Salt solutions also slowly corrode some metal parts and therefore, should be avoided as well. Although the unit tolerates moderate amount of water condensed from the air, it is not otherwise water resistant. Absolutely no immersion of the unit in water!

The unit should not be exposed to temperature above 70 °C.

Use the power supply adaptor included in the package; other power adaptor may cause permanent damage to the device. For mobile applications where AC electricity is not available, an optional rechargeable battery pack or 12 V car battery adapter cable can be requested from your dealer or from us.

### **Quality Assurance**

The unit has been individually inspected for its function and temperature setting. The unit carries a one-year warranty against manufacturing defects and other problems under normal operation conditions. In order to obtain warranty service, please register your unit with us at [www.1h2o3.com](http://www.1h2o3.com) within ten days from the date of purchasing.



*A Gingko Design*

**Contact us :**

Gingko Biotechnology LLC  
9924 Mesa Rim Road  
San Diego, CA 92121 USA  
858-952-1226, 619-818-5440  
email: [sales@gingkobiotech.com](mailto:sales@gingkobiotech.com)