

## 69000 Series Temperature Controller

### Instruction Manual

#### ■ INTRODUCTION

First of all, sincerely thanks for selecting the 69000 series Temperature Controller made by RWD company.

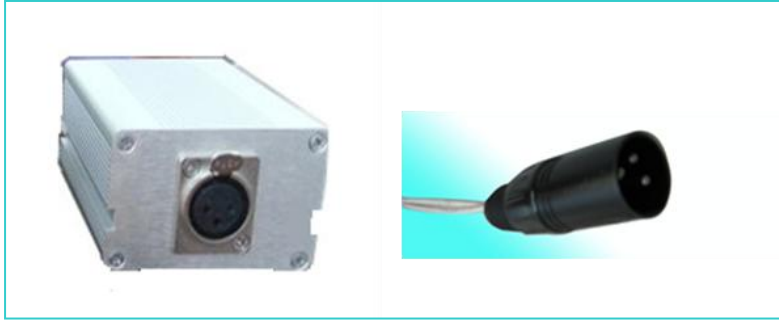
The 69000 series Temperature Controller is designed to maintain a constant temperature of a subject and monitoring the subject's body temperature in real time. It is also reliable and easy to use, and most importantly, permits for quiet recordings without electrical noise interference.

#### ■ SPECIFICATIONS AND FEATURES

- 0-50°C heating ranges with 0.1°C resolution and 0.5°C accuracy
- Switchable 40 Watt and 10 Watt output for rat & mice heating pads respectively
- The same control unit for different sizes of heating pads and probes
- Desktop design for convenient operation
- Power requirements: 100~220VAC~1.2A, 50-60Hz

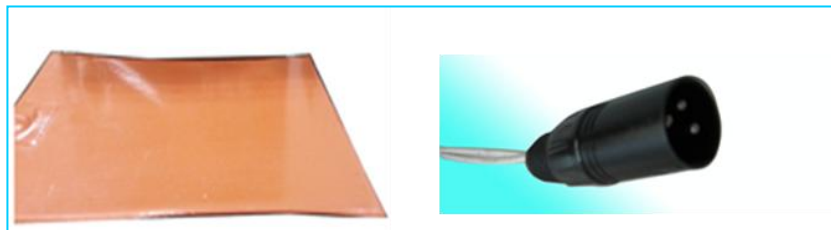
## ■ INSTALLATION

1. To connect the power plug into 100~240VAC power supply.
2. To insert the plug of the Output Filter(as shown in Fig.1) into the “Output” hole on the rear panel of the Control Unit.



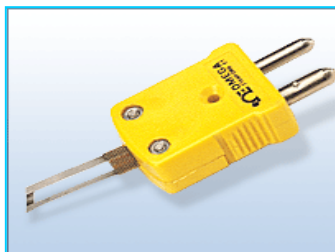
**Fig. 1** Output Filter and its plug

3. To insert the plug of the Heating Pad(as shown in Fig.2) into the socket on the Output Filter.



**Fig.2** Heating Pad and its plug

4. To insert the Temperature Probe(as shown in Fig.3) into the “Probe” port on the front panel of the Control Unit.



**Fig.3** Temperature Probe Plug

## ■ QUICK OPERATION

1. As shown in Fig.4, please kindly check and understand the meanings of the plugs, sockets, keypads and parameters on the LCD screen on the front panel of the control unit.



**Fig.4** the front panel of the Control Unit

**Probe:** Port for Temperature probe

**Output:** Port for Filter or Heating pads

**LED Indicator Light:** When pressing the “E” key, the indicator lights all the time, which shows the normal heating status. If the light flashes non-stop, which shows there is something wrong with the Controller. At this time the temperature probe could be checked firstly to see if it touches well until the light flash disappears, and then press the “E” key twice, the equipment will work well.

**Keys:**



“Up” key to increase the temperature value required



“Down” key to decrease the temperature value required



“Enter” key to confirm the set temperature, push this button to start the heating, and do the reset operation when fault occurs.



When pressing this two keypads at the same time, the output power can be switchable. If the screen displays “ \*ST “ mark after the two keypad being pressed at the same time, the maximum of the output power is 30 Watt and the unit is for the heating of the bigger pads for rats, and conversely the “ ST “ mark stands

for the 10 Watt power output and the unit is just for the heating of the smaller pads for mice.

**Display Window:**

**\*ST:** to display the temperature value required when the heating pads for rats is connected.

**ST:** to display the temperature value required when the heating pads for mice is connected.

**PT:** to display the measured temperature real time.

2. After all connections are ready and the temperature was preset, place the animal onto the heating pad and make sure the temperature probe is inserted into the rectum or placed under the ventral body of the animal, which is followed by pressing the “Enter” key and the start of heating.

**■ SAFETY WARNINGS**

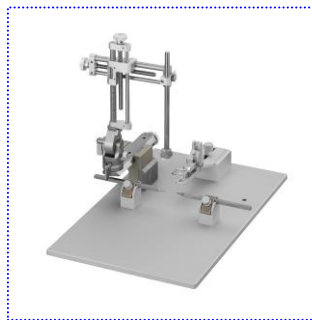
- Do not place the whole unit in the humid environment and split any liquid into the control unit and Output Filter, which would cause damage to the unit.
- Do not place the heating pad onto the metal platform to avoid heat dissipation quickly.
- Do not forget to turn off the power after the unit being used.
- Do not vigorously pull and drag the cables connecting to the heating pad or the temperature probe.
- Do not squeeze the device with heavy objects, or invert and side place the device.

**■ PRODUCT INFORMATION**

Founded in 2002, RWD is developing and distributing a whole range of experimental biology instruments and systems for pre-clinical research- mainly focusing on the "in vivo" field in neuroscience and has developed Stereotaxic Instruments, Cannula System, Syringe Pumps, Small Animal Anesthesia Systems, Ventilators, Animal Surgical Instruments etc. to identify the needs of the researchers all over the world. Moreover, RWD has always been providing and developing innovative solutions that will help science progress.



**Stereotaxic Instruments**



**Small Animal Anesthesia Machine**



**Surgical Instruments**



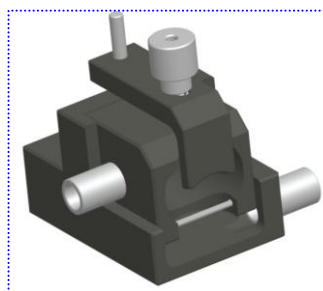
**Single & Double Cannula Systems**



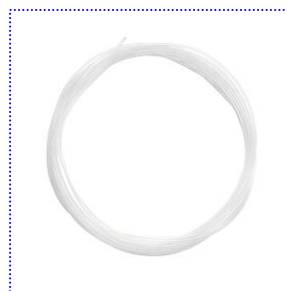
**Microdialysis Pumps**



**Micro Syringe Pumps**



**Anesthesia Masks**



**PE & Silicone Tubes**

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