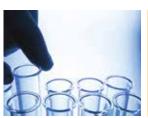


# USA Slide Warmer Instruction Manual









The LW Scientific Slide Warmer is designed to be used for a broad range of applications. Our thick metal platform paired with our proprietary heating system ensures stable temperatures and even heating, eliminating the hot and cold spots common to other models. The 12v electronics make it portable when the optional battery cords are purchased – perfect for use by medical and veterinary professionals in the field. Economical and dependable, the LWS Slide Warmer is ideal for use in fertility, cytology, biology, tissue mounting, histology, as well as other applications.

### Notes for Safe Use

- Do not operate unit in or near water or other liquids.
- Unplug unit before cleaning or repairing.
- Do not use if electrical cord is damaged.

**Note:** All hard surfaces of the slide warmer may be cleaned with common laboratory disinfectants. **Do not auto- clave.** 

## **Unpacking & Set Up**

- 1 Carefully unpack the slide warmer and included power adapter, saving packing materials in the unlikely event you need to return the item. Immediately contact your distributor if you detect any damage. If you need to return the slide warmer to LW Scientific, please use the original packing material.
- 2 Place slide warmer on a flat, stable surface away from the edges. Ensure that the controls are set in the "OFF" position.
  - Connect the included power adapter to the slide warmer, attach the provided line cord, and then plug it into a properly grounded electrical outlet. (Use only the supplied power adapter and plug.)
- Congratulations! You are now ready to use your LW Scientific Slide Warmer.



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Caution: As with any temperature controlled equipment, take care not to touch the platform while the equipment is in use. Hot surfaces can cause serious injury or burns.

#### **PID Controller**

All programming functions of the PID controller have been preset by LW Scientific, and the temperature has been preset to 98.6°F (37°C). There are many complicated programming functions built into the PID controller, which should not be altered by the customer. The only two functions that may need to be adjusted by the customer are "Set Temperature" and "Change from Fahrenheit to Celsius" as described below. For any questions about altering other programming, please contact the LW Scientific technical support department at 800-726-7345 (770-270-1394).

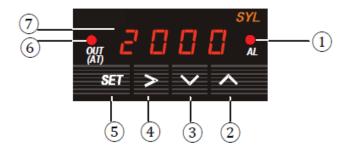


Figure 1. Front panel

- 1 AL-Indicates temperature is outside set alarms
- 2 Value increment / Select next parameter
- 3 Value decrement / Select previous parameter
- 4 Auto tuning / Digit shift
- 5 Set / Confirm
- 6 Indicates ouput power to element when illuminated
- 7 The temperature of the stage (Process Value, or PV) is displayed during operation. The target temperature (Set value or SV) is displayed when flashing by pressing the V or  $\Lambda$  key once.

## **Operation**

- 1 Turn on the lighted Power Switch.
- 2 Set Temperature: (recommended maximum set temperature not to exceed: 150°C)
  - **A** Press V or  $\Lambda$  once to display set temp. Display will blink.
  - **B** Press V or  $\Lambda$  again to increase or decrease set value.
  - C Wait 8 seconds and the new set value will take effect and the display will stop blinking.
  - **D** To Change from Fahrenheit to Celsius: \*\*Warning if you are changing from F to C, lower the temperature setting to 37°C FIRST so the unit doesn't try to achieve 98.6 C\*\*
    - i Press SET. The display will show "0000."
    - ii Press the > button to select digits, then press the Abutton to change display to program function "0089."
    - iii Press SET again. The display will show "Inty."
    - iv Press the down arrow V twice until you see "C or F."
    - **V** Press SET again. The display will show either "0" or "1."
    - vi Press the Λ button and choose "0" for Celsius or "1" for Fahrenheit.
    - vii Press SET again.
    - viii Press the ∧ button until you see "End."
    - ix Press SET again.
- 4 Once you have set the desired temperature, place slides flat onto platform. The maximum capacity is 14 standard slides.
- 5 Never place any item on the platform that might damage the surface.

## **Specifications**

**Temperature range:** Ambient +2°F up to 150°F

**Accuracy:** +/- 0.3°F

**Power:** Auto-switching CE/cUL approved power adapter

Output: 12 volt DC/8amp

**Input:** 100-240 volt AC 50/60Hz

**Preset at:** 98.6°F (37°C) **Display:** LED digital display

Capacity: 14 slides

**Unit Dimensions:** 

 Width:
 7.5 in (19 cm)

 Depth:
 7.7 in (19.5 cm)

 Height:
 4 in (10.7cm)

 Weight:
 2.35 lbs (1 kg)

**Platform Dimensions:** 

**Width:** 7.5 in (19.5 cm) **Depth:** 6.9 in (17.5 cm)



**Warning:** The Slide Warmer should be set to a normal body temperature under normal operating conditions. Any temperature setting greater than 110°C might cause a personal burn injury.