



- A Controller
- B PID Controller
- C ON/OFF Button
- D Heater
- E Pump Circulator
- F Power Indicator
- G Tank

### Unpacking and Setup

- 1 Place **Controller** into **Tank**.
- 2 Pour water into **Tank** until water level covers half the height of the **Tank**.
- 3 Connect the power supply. Be sure to use the correct voltage (110V or 220V). The **Power Indicator** illuminate green.
- 4 Press **ON/OFF** button. The **Power Indicator** will illuminate red. Wait for 5 seconds. The **PID Controller** will display the current water temperature value (PV) in upper row and setting temperature value (SV) in lower row.
- 5 Press the **Up** or **Down** button to adjust SV value and then press **SET** button to enter the value.
- 6 Be sure to power off the water bath when not in use.



#### Warning:

Be sure water level is never below the **Heater**. Never turn on unit while the **TANK** is empty.



**Warning:** Surface can become hot during use.

## Other Functions

**Note:** Before executing other special functions, please follow **5: Setting Lock** to release **LOCK** status. After executing other special functions, please follow **5: Setting Lock** to set **LOCK** status.

### 1. Setting point alarm:

(1) Setting upper-limit point for alarm: (When the difference between PV and SV is over upper-limit, the "Alarm Indicator" (ALM1) will sparkle)

(a) Press **↔** twice. You will see **RL H** in upper row and the setting point in lower row.

(b) Press "UP KEY" or "DOWN KEY" to set point, and press **SET** to enter the value. Press **SET** again to be back the PV/SV display.

(c) The initial value is 10.

(2) Setting lower-limit point for alarm: (When the difference between SV and PV is over lower-limit, the "Alarm Indicator" (ALM1) will sparkle)

(a) Press **↔** twice. You will see **RL L** in upper row and the setting point in lower row.

(b) Press "UP KEY" or "DOWN KEY" to set point, and press **SET** to enter the value. Press **SET** again to be back the PV/SV display.

(c) The initial value is 10.

### 2. Setting temperature unit:

(a) Press **SET** more than 3 sec.

(b) Press **↔** once. You will see **TEMP** in upper row and the setting value in lower row.

(c) Press "UP KEY" or "DOWN KEY" to set temperature unit "C" or "F", and then press **SET** to enter value. Press **SET** again to be back PV/SV display.

(d) The initial value is C.

### 3. Setting PV shift (offset) value: (If the PV value is not correct, you can use this function to adjust the PV value).

(a) Press **SET** less than 3 sec.

(b) Press **↔** six times. You will see **EPof** in upper row and the setting value in lower row.

(c) Press "UP KEY" or "DOWN KEY" to set shift value, and press **SET** to enter the value. Press **SET** again to be back the PV/SV display.

(d) The initial value is 0.

### 4. Setting Auto-tuning function:

(a) Press "UP KEY" or "DOWN KEY" to set SV value to be auto-tuning.

(b) Press **SET** less than 3 sec.

(c) You will see **AT** in upper row and the setting value in lower row.

(d) Press "UP KEY" or "DOWN KEY" to choose "ON" to start or "OFF" to close auto-tuning function.

When auto-tuning function is on, you can see the "AT" indicator blanking. Once the auto-tuning function finish, the light of "AT" will extinguish.

(e) The initial value is OFF.

Note: (Auto-tuning function is that PID controller can depend on the ambient air temperature to find the best way to reach the setting temperature and let the setting temperature keep stable.)

### 5. Setting lock:

(a) Press **↔** four times. You will see **LoC** in upper row and the setting value in lower row.

(b) Press "UP KEY" or "DOWN KEY" to select locking status. **LoC** can lock all settings and **LoC?** can lock others than SV; When "OFF" is selected, the lock function will be off. After selecting, press **SET** to enter the value. Press **SET** again to be back the PV/SV display.

(c) If you press **↔** and **SET** simultaneously, the "Lock" status will be released.

(d) The initial value is **LoC?**

### 6. During setting value, you may press **SET** anytime to be back PV/SV display.