## **Operational Instruction**

- 1. Unpack the system;
- 2. Switch the power level of the heating pad to high, and connect it to the output of the controller at back end;
- 3. Connect senor to the controller at back end, affix sensor tip to the heating pad;
- 4. Connect the controller to electricity using the power cord provided, and turn on the controller;
- 5. Check/Set your desired temperature and duration.

This controller is capable for **multistep** experiments. A total of **6 steps** can be programmed for this controller. Each step contains the temperature (C-X) and time duration (t-X) setting. By **default**, the controller is set to **single step mode**, in which the controller will hold temperature at one set value (C-1) continuously as long as the controller is powered on. To enable multistep, press and hold SET key for 3 seconds until the Parameter Window displays "**LoCK**". Release the SET. The display will show "0". Use "+" and "-" keys to adjust the display to **3** and press SET. The display will show "PrG" for a second and then the value "off". Use "+" or "-" key to toggle between "on" to "off". Select "on" and press SET key to enable multistep.

To program the temperature profile for multistep, press SET key once. The display will show "C-1" for one second and then display the **temperature** setting value for step 1. Use "+" and "-" keys to change the setting. When finished, press the SET again to confirm the change. The display will show "t-1" for a second and then change to the **time** setting value for step 1. Use "+" and "-" keys to change the setting. When finished, press the SET again to confirm the change. The display will go the step 2 setting. The temperature setting will not be changed if SET is not pressed (confirmed). After programming the necessary steps, you can finish programming by pressing the SET repeatedly until it passed t-6 and display the current temperature.

- 6. Wait 10-15 minutes for the heating pad temperature becomes stable.
- 7. Transfer animal onto warmed heating pad.
- 8. Insert the temperature sensor tip 1-2 cm into animal rectum for in vivo monitoring and feedback.
- 9. Use default configuration setting or change the setting manually or by autotune.
- 10. For more information please refer to user's manual at Doccol website.
- 11. Call (888)481-0842 or email to <a href="mailto:support@doccol.com">support@doccol.com</a> for support if you need further help.