



# Syringe Heaters featuring: **THERMO-KINETIC HEAT CLAMPING**

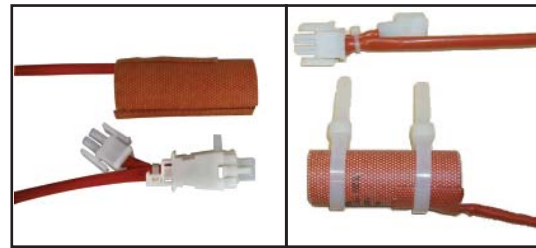
**Now Available in Two Models – Same Great Features!**

- Maximum temperature of 185°C
- Constantly monitors and displays temperature of the primary heating pad
- Precision control of temperature set point
- Selectable temperature units of Celsius or Fahrenheit
- Power Failure Mode: restarts the heater Active Mode after a power interruption

- RS-232 network supports up to 100 heaters, pumps and other devices from one computer port
- Non-volatile memory of all operating parameters

**Built-in Security:**

- Microprocessor monitor and alarm mode cutoff relay
- Dual temperature sensors
- Stop button



**Easy Wrap and Heat Setup!  
Heating Pad  
Fits Standard Size Syringes**

Heating pads not interchangeable between models

**Ordering Information**

Model Number	Description
HEATER-KIT-1LG	Heater control unit & 120Vac 33W, 2 thermocouple, 54cm x 7.5cm syringe heating pad
HEATER-PAD2-1LG	Secondary syringe heating pad 120Vac 33W, 54cm cord, 9cm x 7.5cm (works w/ HEATER-KIT-1LG)
HEATER-PAD3-1LG	Third+ syringe heating pad 120Vac 33W, 54cm cord, 9cm x 7.5cm (works w/HEATER-KIT-1LG, HEATER-PAD2-1LG)



**Flat to Spiral Heating Pad  
Fits Any Size Syringe, Tubing or Test Tube**

Heating pads not interchangeable between models

**Ordering Information**

Model Number	Description
HEATER-KIT-5SP	Heater Control unit & 120Vac 33W, 2 thermocouple, 90cm cord, 1.5cm x 50cm flat to spiral heating pad
HEATER-PAD2-5SP	Secondary flat to spiral heating pad 120Vac 33W, 90cm cord, 1.5cm x 50cm (works w/HEATER-KIT-5SP)
HEATER-PAD3-5SP	third+ flat to spiral heating pad 120Vac 33W, 90cm cord, 1.5cm x 50cm (works w/HEATERKIT-5SP, HEATER-PAD2-5SP)

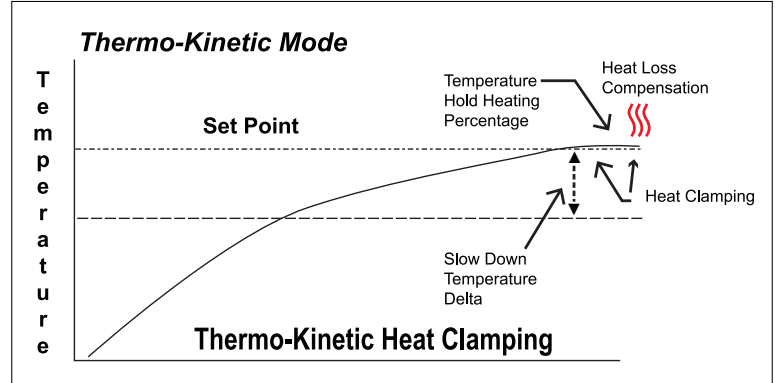
# THERMO-KINETIC HEAT CLAMPING

## Operation:

The syringe heater constantly monitors and displays the temperature measured on the primary heating pad. While regulating the temperature, the Heat Clamping will hold the set temperature. Thermo-Kinetic Mode reduces temperature swings and tightens the Heat Clamping at the set temperature by dynamically adjusting the heating by reacting to changes in the temperature measurement and rate of temperature change.

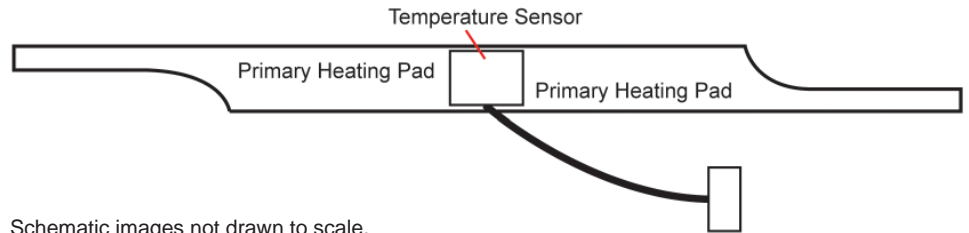
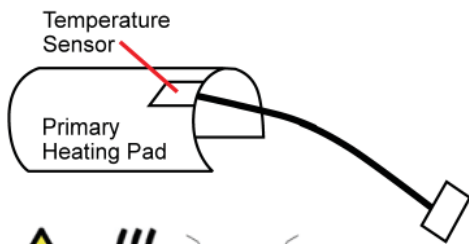
## Description:

Each syringe heater control unit uses only the primary heating pad to sense temperature. All secondary heater pads connected to same control unit will function according to the temperature on the primary heater pad. For different temperatures or variable environments, use separate control units with primary heater pads. Careful consideration should be taken when using secondary heater pads.



## Easy Setup:

With the power disconnected, attach the primary heating pad to larger connector (8 pin) on the end of the syringe heater control box. Wrap the heating pad around the syringe body.

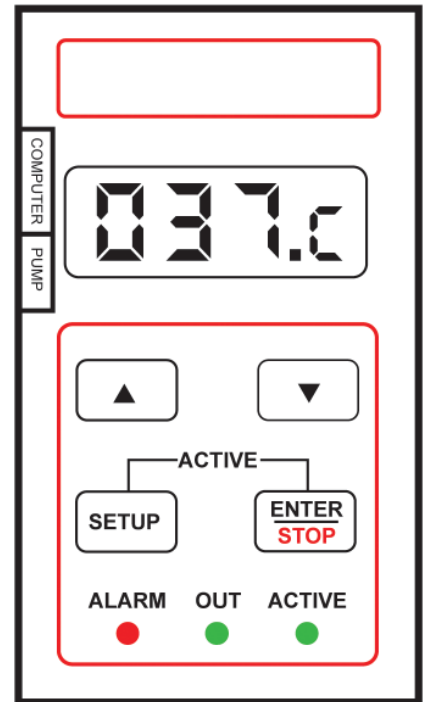


Schematic images not drawn to scale.

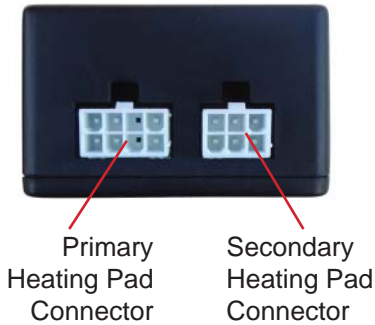


## User Interface:

The controller will display the current default temperature of the primary heating pad in the selected units of C or F.



## Heater Control Box



## LEDs indicate the status of the heater.

ACTIVE	Temperature is actively being maintained.
OUT	Power delivered to pad. Flashing when rate of heating is slowing down
ALARM	Error condition occurred - power to the pad is off. User action required.

**\*\* Not for Clinical Use on Humans \*\***