

## Model K18H Immersion Cell Heater

Specifically designed for use in forming an inner melt in a Mercury or Gallium fixed point cell, the Model K18H Immersion Heater provides all the function necessary in one simple, easy to use system.

Formation of an inner melt is critical when making the highest precision measurements in fixed point cells. This is fairly easily done and verified in a Water Triple Point Cell with a glass envelope since free rotation of the mantle can be visually verified. When working with the Triple Point of Mercury or the Melting Point of Gallium, the proper formation of an inner melt is not nearly as easily accomplished or verified. The K18H Immersion Heater has been designed to provide the capability to melt approximately 25% of the metal sample in a frozen Mercury (10% in Gallium) cell by simply turning on the system and fully inserting the probe into the cell. After approximately one hour (user adjustable from 0.5 to 2.0 hours), the heater is disabled and an internal audible alarm sounds to alert the user that the inner melt has been formed and the system is ready to be removed from the cell.

An internal rechargeable battery pack powers the integrated timing circuitry and a specially designed heater which uniformly dissipates 2 watts of heater power over the lower 8.9" of the probe stem. All welded construction of the type 304 stainless steel outer sheath assures your ability to use all common thermal contact fluids without worrying about material compatibility.

Pond Engineering's model K18H Immersion Heater System provides a convenient, reliable means to form an inner melt in a Triple Point of Mercury or Melting Point of Gallium cell with ease and repeatability.



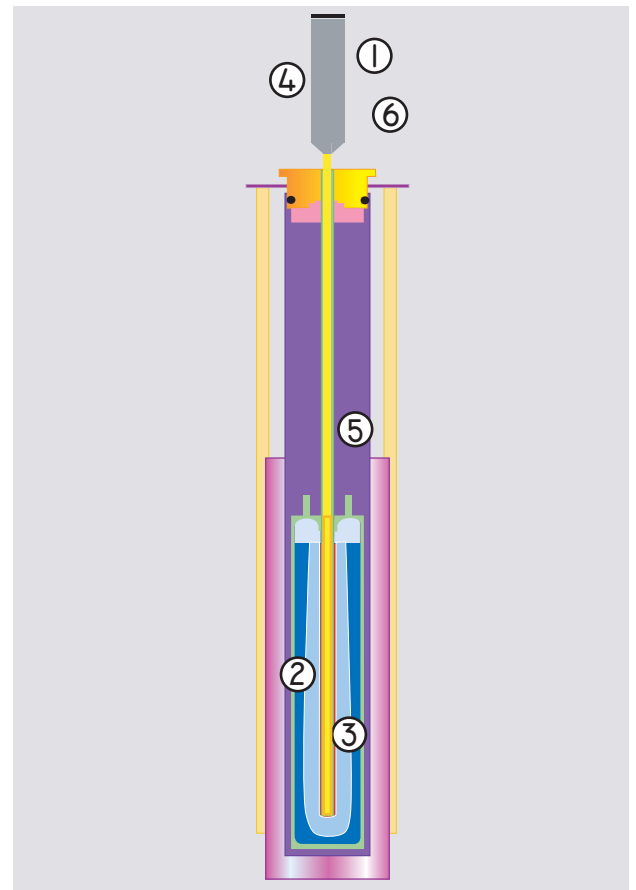
## System Specifications

Operator Interface:	Manual Switch with Indicator LED's
Power Requirements:	Internal Li-Ion Battery, 120VAC, <1.0 amps, 47 - 63 Hz. For Charging
Physical Dimensions: Heater Length	22.3" X 1" (566mm X 25.4mm) 8.93" (227mm) from bottom of tip
Stem Length Stem Diameter	16.5" (419mm) 0.25" (6.4mm)
Heater Power:	2 Watts

## To Order or For More Information:

Call Pond Engineering at (303)651-1678  
 or FAX (303)651-1668  
 or E-mail [stanpond@pondengineering.com](mailto:stanpond@pondengineering.com)

- ① Integrated battery powered timer and heater drive electronics eliminates power cords, keeping your work space tangle free.
- ② Heater dissipates 2 watts over lower 8.7" of probe sheath.
- ③ Inner melt of approximately 25% of frozen Mercury (10% for Gallium) is formed by simply turning on the system and inserting the probe sheath into the cell.
- ④ Audio alarm signals the end of the heating cycle.
- ⑤ All welded Type 304 Stainless Steel shell and probe sheath assure durability and compatibility with thermal contact fluids.
- ⑥ Rechargeable Li-Ion battery pack provides power for 3 or more cycles on a single charge. Wall mount charger included.



### Points of Application

