# **VWR® COOLING THERMAL SHAKE TOUCH**

# **VWR®** Cooling Thermal Shake Touch

- Intuitive 4.3" color LCD touch screen
- · Ability for rapid heating, cooling and high speed shaking
- Internal memory stores five separate 5-step programs
- Supplied with 1.5mL block

The VWR® Cooling Thermal Shake Touch is designed for applications that require consistent and precise results. With heating, cooling and shaking capabilities, the VWR® Cooling Thermal Shake Touch uses interchangeable blocks to accommodate a wide variety of tubes and microplates. The easy-to-use 4.3" color LCD touch screen allows the user to save and visibly track progress through the live status bar for five user defined programs, each with five individual steps. The unit's enhanced electronics and dual temperature sensors provide accurate, dependable temperature settings across the operating range.

### **Operating Features:**

Low profile design: The low profile design minimizes the unit's footprint on the bench.

**PID temperature controller:** Maintains precise temperature control from 13°C below ambient to 100°C. Easy-to-use controls allow user to adjust temperature in 0.1° increments.

**LCD touch screen:** Enables faster setting of temperature, speed and time, which can all be viewed at once. Display features on-screen help topics with operational tips. Touch screen is compatible with rubber gloves used in labs. USB port can transfer information to a flash drive for data logging, program storage and software updates.

**Program control:** Program control capabilities allow user programmable operation for automated use and memory for five separate, 5-step programs.

**Temperature ramp rate:** Adjustable temperature ramp rate feature separately defines the heating and cooling rates in increments of 0.5°C/min.

**Single point calibration mode:** For maximum temperature accuracy, the single point calibration procedure allows the user to calibrate up to 6 different defined temperatures.

**Pulse mode feature:** The unit is equipped with a pulse mode feature ideal for quick vortex applications.

#### **Safety Features:**

**Cool touch housing:** Constructed from a high-quality heat and chemical resistant polymer. The unit's housing remains cool to the touch throughout normal operating temperatures.

**Maximum temperature limiting function:** Ensures the temperature will not exceed user defined limits allowing control of temperature sensitive samples.

**Hot top indicator:** A hot top warning will illuminate when the temperature reaches 40°C and will remain lit until the unit is cooled below 40°C.

**Audible alarm:** In timed mode, an alarm will sound if the timer reaches zero or setpoint temperature is reached. Additionally, the heat function will automatically shut off if the unit recognizes an internal issue.

**Optional NIST traceable certificate:** Includes a 3 point NIST traceable calibration. The traceable certificate includes actual calibration measurement data and uncertainty. The calibration laboratory is ISO/IEC 17025 compliant.



Specifications		
Temperature Range	17°C below ambient to 100°C	
Temperature Accuracy	± 0.5°C between 20°C and 45°C ± 2°C below 20°C and above 45°C	
Speed Range	300 to 3000rpm	
Speed Accuracy	± 2%	
Timer	1 minute to 99 hours, 59 minutes	
Orbit	3mm (0.12")	
Heating Rate	5°C/min	
Cooling Rate	above ambient: 2-3°C/min below ambient: 0.5-1.0°C/min	
Overall Dimensions (L x W x H)	10.25 x 9.75 x 5.2" (26 x 24.8 x 13.2cm)	
Ship Weight	17lbs (7.7kg)	

#### **Operating Conditions:**

Unit can operate in conditions from 5 to 35°C (41 to 95°F), maximum 80% relative humidity, non-condensing.

#### **Applications:**

Cell cultures, DNA, RNA, hybridization, and protein studies.

## **Ordering Information**

Unit includes a 92" (234cm) detachable, 3-wire cord and plug (230 volt units are supplied with Euro type plug). Unit is also supplied with a 1.5mL block, a rack and a cover. 2 year limited warranty on parts and labor. Eppendorf® Thermomixer R® blocks are compatible on the VWR Cooling Thermal Shake Touch.

VWR® Cooling Thermal Shake Touch		
Description	Electrical (50/60 Hz)	Cat. No.
Cooling Thermal Shake Touch	120V   1.8 amps   215 watts	89232-904
Cooling Thermal Shake Touch	230V   0.9 amps   210 watts	89232-906
Cooling Thermal Shake Touch with NIST Traceable Certificate	120V   1.8 amps   215 watts	89370-964
Cooling Thermal Shake Touch with NIST Traceable Certificate	230V   0.9 amps   210 watts	89370-966