Hot Cold Plate

The hot cold plate test has been the gold standard test for thermal pain tests in rodents and acts as an effective screening tool interventions of analgesia. The Hot Cold Plate adopt precise PID control algorithm, which is different from the temperature breakpoint method adopted by ordinary temperature controllers. The PID algorithm will continuously collect temperature feedback to control heating/cooling, thus being able to control the current temperature more accurately. The Hot Cold Plate contains a metal temperature plate with a digital display and a lidded transparent glass cylindrical restrainer.

Key Advantages

The experimental temperature of placement of the subject on the plate and the first sign of nocifensive response such as paw licking or jumping can be recorded in real time.

Features

- Suitable for rats, mice, guinea pigs.
- Experiment mode: constant temperature mode, variable temperature mode.
- Adopts high-performance 32-bit microcomputer control chip to ensure the accurate temperature.

Temperature

- Temperature display mode: Capacitive eight-inch LCD display, resolution: 800×600
- Temperature Range: -5°C-65°C, adjustment step 0.01°C
- Temperature control standard deviation: <± 0.2 °C
- Heating time: 2 minutes (from 0°C to 65°C when the ambient temperature is 20°C)
- Cooling time: 5 minutes (from 0°C to -5°C when the ambient temperature is 20°C)

Experimental Data

- Experimental data: previous experimental curves and data can be viewed on the menu, and each set of experimental data is displayed in real time: time, temperature, mean, maximum value, minimum value.
- 200 group data can be stored, and each group can record 10-time data and instantaneous temperature data.
- Data extraction from the Hot Plate test is straightforward by using a USB drive, in CSV format.

Time Display

- Time display: 0.01~600.00s
- Time display precision: 0.01 seconds
- Time Display standard deviation: <0.02 ‰

Size

- Apparatus size: (L) 35 cm × (W) 30 cm × (H) 48.5 cm
- Cylindrical restrainer dimensions: (D) 21cm x (H) 25 cm
- Weight: 12.5 KG
- Power requirement: 620W, 110 / 220V, 50-60HZ

Hot Plate

Features

- Suitable for rats, mice, guinea pigs.
- Experiment mode: constant temperature mode, variable temperature mode.

Temperature

- Temperature display mode: Capacitive eight-inch LCD display, resolution: 800×600
- Temperature Range: 20°C-65°C, adjustment step 0.01°C
- Temperature control standard deviation: <± 0.2 °C
- Heating time: 1 minutes (from 20°C to 65°C when the ambient temperature is 20°C)

Time Display

- Time display: 0.01~600.00s, Precision: 0.01 seconds
- Time Display standard deviation: <0.02 ‰

Experimental Data

- Experimental data: previous experimental curves and data can be viewed on the menu, and each set of experimental data is displayed in real time: time, temperature, mean, maximum value, minimum value.
- 200 group data can be stored, and each group can record 10-time data and instantaneous temperature data.
- Data extraction from the Hot Plate test is straightforward by using a USB drive, in CSV format.

Size

- Size: (L) 25 cm × (W) 33 cm × (H) 38 cm
- Restrainer dimensions: (D) 21cm x (H) 25 cm
- Weight: 6.5 KG
- Power: 100W, 110 / 220V, 50-60HZ