Intelligent Non-invasive Blood Pressure Meter for Rats and Mice BP-2010A

The BP-2010A Intelligent Non-invasive Blood Pressure Meter utilizes the Tail-Cuff method combined with photoelectric plethysmography (PPG) technology. It employs an infrared sensor to detect blood volume changes in the tail artery of rats and mice. By analyzing the relationship between pressure and pulse during cuff inflation, it achieves non-invasive and accurate blood pressure measurement. The device measures systolic blood pressure (SBP), diastolic blood pressure (DBP), mean arterial pressure (MBP), and heart rate (HR), making it ideal for various laboratory animals, including rats and mice



High-Performance Measurement for Diverse Experimental Needs



- Utilizes infrared sensing technology for precise monitoring of tail artery pulse waves.
- Suitable for a wide range of rat and mouse body sizes, including juvenile, pregnant, and obese rodents (measurement range: 10–1800g).
- Customizable sensors and accessories to accommodate specific experimental conditions.

Intelligent Operation for Enhanced Efficiency

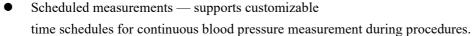
- Automatic pulse wave stability detection intelligently determines pulse stability and automatically completes the preset number of measurements.
- The main unit calculates statistical results automatically, providing averages, standard deviations, standard errors, and coefficient of variation.
- Error detection the software identifies operational errors and suggests solutions in real time.

User-Friendly Design for Optimal Experimental Experience

- Rodent fixation system combines canvas pouches and rodent nets to align with the natural habits of
 experimental animals, helping them remain calm and stable.
- Temperature-controlled cylindrical warming chamber adjustable to 30–40°C to promote blood circulation, accelerating stable measurement conditions and improving accuracy and repeatability.
- Dual operation modes
 - **PC-controlled mode**: Operate the device and view real-time blood pressure data on the computer screen.
 - Standalone mode: Perform measurements directly on the main unit, with data saved to an SD card.
- 4.3-inch LCD display for clear, real-time data visualization.

Robust Data Management Compliant with Laboratory Standards

- Real-time pulse wave monitoring with automatic storage of animal information, raw waveforms, and measurement results.
- Advanced data analysis re-edit and statistically analyze results, export data in Excel or image format, and generate customizable reports.
- Integrated MD5 digital fingerprinting ensures data traceability, meeting GLP (Good Laboratory Practice) requirements.



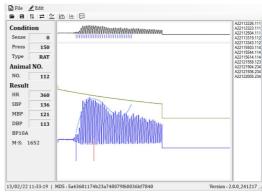
• Capable of non-invasive blood pressure measurement for animals in shock, accommodating special experimental needs.

High-Efficiency Configurations with Multi-Channel Warming

- Multi-channel warming system simultaneously supports multiple channels, significantly increasing measurement efficiency.
- Rapid measurements each session takes only 10–15 seconds.
- Multiple units can be combined into a blood pressure meter workstation to accommodate large-scale experiments.

Technical Specifications

Parameter	Specification
Measurement method	Tail-Cuff (photoelectric plethysmography)
Measured parameters	SBP, DBP, MBP, HR
Blood pressure range	Up to 350 mmHg
Heart rate range	Up to 1000 BPM
Temperature control	30–42°C, adjustable
Storage options	Computer / SD card
Communication interface	USB
Display	4.3-inch LCD screen
Power supply	AC 110–220V
Device dimensions	236(W) × 236(D) × 80(H) mm



Accessories (Including Optional Items)







Multi-port warming device:

TMC-213

Warming cylinder:

TN-60-213

Rat Pressure Sensor: BP98-RCP-L/M/S

Mouse Pressure Sensor: BP98-MCP

Rubber Membranes

For Rat Sensors: BP98-RCF-L/M/S

For Mouse Sensors: BP98-MCF









Rat pouch:

BP10-PKR (sizes L/M/S)

Mouse pouch:

BP10-PKM (sizes L/M/S)

Rat restraining net:

BP10-NTR (sizes L/M)

Mouse restraining net: BP10-NTM (sizes L/M) Stabilizing foam pad: $\ensuremath{\mathsf{BP10}\text{-}FX}$