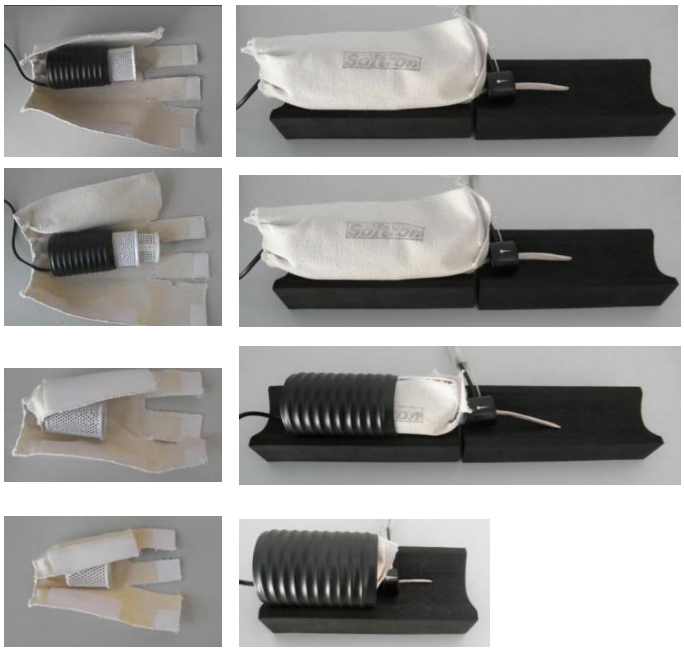
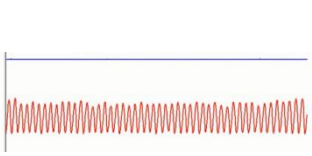
Non-Invasive Blood Pressure Meter

Blood pressure is measured in animal's tail by determining the cuff pressure at which changes in blood flow occur during occlusion or release of cuff using a photoelectric sensor.
The model BP-2010A series is suitable for both rats and mice.

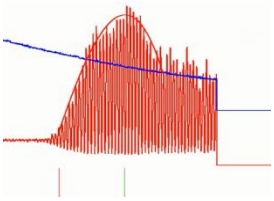
Rats and mice calm down soon after they are put in a restraining device which is composed of cylindrical restraint mesh, canvas cover, thermal tube and stabilizing foam pad. This restraining device provides a thermally controlled and low-interference environment for animals to be detected.



▲Different restraining methods are provided for animals with different sizes and weight.



▲Monitoring interface
(blue:pressure line, red:pulse wave)



▲Results interface

After placing the sensor on the tail of experimental animals, pressure and pulse lines can be observed on the display screen. The restraining device provides thermal insulation for experimental animals, and after a few minutes, the animal's pulse wave becomes regular and steady. Initiate the blood pressure measurement, and the entire inflation and deflation process lasts for 10-15 seconds, following which, four parameters—heart rate, systolic pressure, diastolic pressure, and mean pressure—can be obtained.

Two operation methods

- Operation without a computer

The main unit is equipped with an LCD display that shows real-time pressure and pulse wave. On the right side of the screen, there are buttons for configuring animal information and initiating the measurement process. Measurement results are stored on the SD card which is located at the back of main unit and can also be viewed directly on the LCD display.

- Operation with a computer

Connect the blood pressure monitor main unit to the computer via a USB cable. Control the

measurement process on the computer using software, including inputting animal information and initiating or concluding the measurement process. Measurement results are stored on the computer.

The measurement results obtained through both methods can be edited, printed, and exported to Excel format using the software on the computer.

Special Functions

- Initiating the automatic measurement function: Set the number of automatic measurements, and without the need for manual button clicks, the software will automatically start measurements when the pulse wave stabilizes. After completing the measurements, it automatically displays the average and standard deviation of these measurements.
- According to experimental requirements, input automatic measurement time points in the software. The software will automatically start measurements at the specified times.

Multi-restraining channels

To enhance measurement speed, it is recommended to choose multiple thermal channels. Opting for three thermal channels, for instance, enables simultaneous thermal insulation for three animals, significantly accelerating the measurement process.

Specification

Power supply:	110-220V AC
Communication method:	USB
Maximum pressure:	350mmHg
Maximum HR:	1000bpm

Multi-port thermal heater and Thermal tube

Tail-cuff pressure sensor

Canvas cover

Cylindrical restraint mesh

Inflatable membrane

Stabilizing foam pad

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