



Ambulatory Blood Pressure Monitor

Artery pulsation waveform —
A true record & replay measurement process



CB-1804-B, CB-1805-B Ambulatory BP Monitor

BIOX considers the method of obtaining data as important as the results. We are the leader in introducing artery pulsation waveform into the ABP arena. We not only provide the results of each BP readings for 24 or 48 hours, but also show the true waveform during the testing process. We bring review analysis to the ABPM industry.



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Reviewable analysis techniques to obtain BP measurement

Artifact is unavoidable in ABPM testing. Fortunately, there is a way to eliminate artifact, which is by utilizing the BIOX approach to ABPM analysis. Without utilizing BIOX technology, physicians have to interpret tabulated numerical data. Determining valid data from artifact can be difficult to distinguish. Unfortunately, traditional ABPM systems use technology that cannot properly distinguish artifact from true wave-form. However, the BIOX ABP monitor validates each measurement readings completely transparent, and its real-time testing is combined with review analysis. Physicians can determine instantly whether the data is true or false according to the original artery pulsation waveform. Our ABPM effectively screens errors and detects artifact, thus determining real blood pressure statistics to ensure an effective credible report.

Versatility and durability rewards you in the long run

Highly integrated design saves space and ultimately improves the performance and reliability, adding to the recorder's durability and impact and shock-resistance.

Specially-designed pressure security system will not allow overpressure or air deflation failure.

Automatically monitors battery life and automatically stopping in the event of voltage insufficiency.

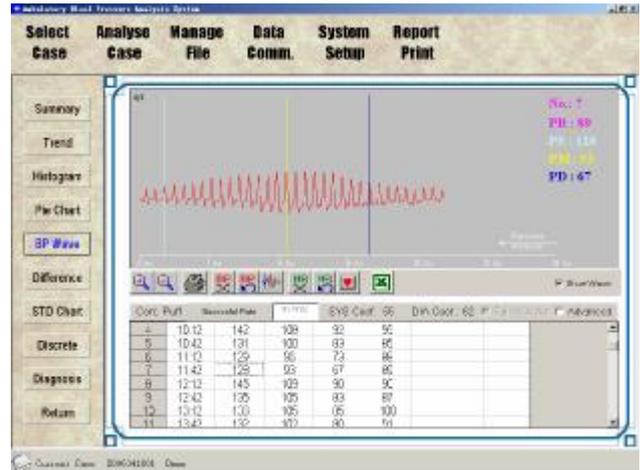
Patient account information can be loaded into the recorder in advance avoiding possible mistakes, an appealing feature for multiple recorder facilities.

BIOX presents products with infinite upgrading potential, thus ensuring future software and hardware upgrading at minimum cost.

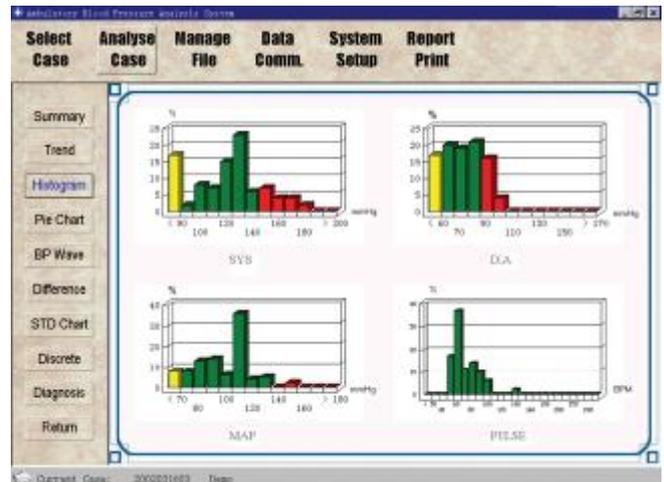
Widen dynamic range

The degree of the artery pulsation signals differs greatly in patients. The strongest signal may be more than 10 times that of the weakest. This is a main reason that can cause failure with virtually all automatic testing of blood pressure. Our introduction of advanced AGC (auto-gain-control) technology and components with a large dynamic range, which automatically adjusts to the variation of the patients' pulsation signal range.

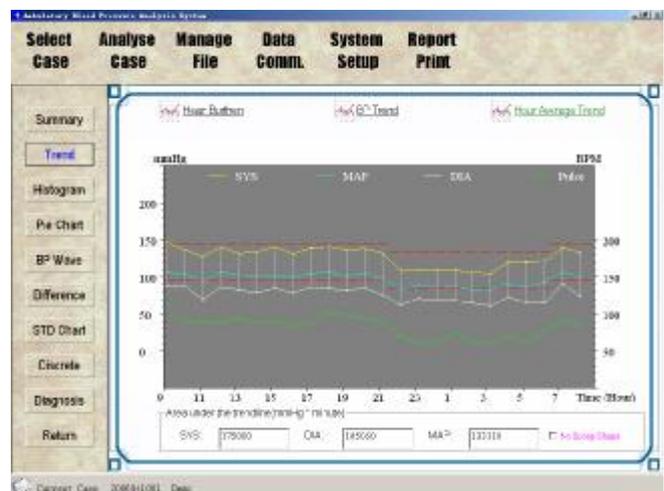
Reviewable artery pulsation waveform & tabulated numerical data results



Blood pressure frequency histograms



Blood pressure & pulse rate trends





Highly intellectualized airflow control

For correct blood pressure analysis, a system must take in account that the pressure of the inflated cuff on the designated site be slightly higher than the systolic blood pressure. The self-fluctuation of the human body's BP makes practical systolic blood pressure value relatively hard to accurately estimate. The traditional testing method offered one-time detection of systolic blood pressure using 40-60mmHg as a standard for the inflated component. However, this method has two obvious deficiencies: overpressure on the inflated object and long inflation time. These two deficiencies make it difficult to achieve accurate results while also being uncomfortable on patients. The result of BP fluctuation and the inaccuracies of former systolic blood pressure systems are common due to flawed techniques used to obtain systolic blood pressure. Eventually such methods fail and then re-inflation incurs to re-test.

BIOX ABPM automatically identifies the artery pulsation during the inflation process, inflating while pre-measuring, so it inflates to the proper pressure. The unique function of automatic air inflation maximizes at 90mmHg, accurately compensating any sudden increase of blood pressure.

The other important factor that influences the accuracy of BP testing is the deflation speed. Improper inflation and deflation speeds produce in-accuracy. The more rapid the deflation, the less accurate are the results. If the deflation speed is too slow, the testing time will be prolonged, thus the patient can experience significant discomfort which can affect the results due to the increased stimulus.

The traditional BP devices utilizes mechanical non-linear

deflation components, while deflation speed is permanently set without adjustability, this effects the inflation and deflation speed, especially for obese patients or patients with larger appendages (it is common for testing to be extended in these circumstances adding minutes to the analysis, again causing additional discomfort). For patients with smaller appendages the deflation speed is often too fast (it is common in these circumstances for the deflation process to be under 10 seconds, this method produces obvious in-accurate results).

The BIOX technology, integrates multiple control techniques, liquid control and pattern recognition during the analysis processing, thus extruding accurate results. BIOX ABPM introduces precise digital valve and advanced digital speed control technology to identify linear smooth deflation. This technology intellectually identifies the arm size and the blood pressure of the patient. The deflation speed is constantly controlled on any patient, so the accuracy is increased significantly during the linear speed deflation process. The process completely imitates the auscultation process of physicians, achieving accurate results from the data gathering process.

Quick and accurate analyzing system

Highly integrated design saves space and ultimately improves the performance and reliability, adding to the recorder's durability and impact and shock-resistance. Specially-designed pressure security system will not allow overpressure or air deflation failure.

Automatically monitors battery life and automatically stopping in the event of voltage insufficiency.

Patient account information can be loaded into the recorder in advance avoiding possible mistakes, an appealing feature for multiple recorder facilities. BIOX presents products with infinite upgrading potential, thus ensuring future software and hardware upgrading at minimum cost.

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Specifications

Method of measurement	Oscillometric method
Indicating range	0 ~ 300 mmHg
Range of blood pressure	Systolic 50 ~ 260 mmHg Diastolic 30 ~ 180 mmHg
Range of pulse	30 ~ 255 bpm
Pressure precision	≤3 mmHg

Recording time	CB-1804-B: 24 hours (48 hours, option) CB-1805-B: 24 hours
Storage medium	Flash memory
Data Memory	Up to 512 measurements (depend on the battery capacity)
Communication port	Wireless infrared data transfer

Batteries	CB-1804-B: 4 x AA size alkaline batteries CB-1805-B: 2 x AA size alkaline batteries Or high capacity rechargeable batteries
Dimensions	CB-1804-B: 124×68×31 (mm ³) CB-1805-B: 95×73×30 (mm ³)
Weight	CB-1804-B: 175 g (excluding batteries) CB-1805-B: 150 g (excluding batteries)
Safety type	Type BF applied parts
PC minimum requirements	Pentium III 500 MHz or higher 1024 x 768 resolution
System requirements	Windows 9x/2000/XP/Vista

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