

NIBP100A Noninvasive Blood Pressure Measurement System



The NIBP100A is classified to U.S. and Canadian safety standards with respect to electric shock, fire and mechanical hazards in accordance with UL2601-1 and IEC 60601-2-30.



The noninvasive NIBP100A provides continual blood pressure measurement with accuracy comparable to an indwelling radial artery catheter. The patented method of measuring radial artery waveforms calculates accurate systolic, diastolic and mean pressures. Data is processed by a proprietary algorithm based on a set of coefficients derived from clinical data.

***** No complicated setup or calibration requirements! *****

The NIBP100A is easy to use just position the wrist sensor and make one keystroke to begin measuring arterial blood pressure. The intelligent pressure sensor applies variable pressure directly above the radial artery and as a result a continuous sweep of approximately 15 pulse pressure waveforms is recorded.

Within 15 heartbeats, the initial measurement and waveform are displayed, and the display is continually updated every 10-15 heartbeats.

Very slight changes in blood pressure down to 40 mmHg systolic are measured. Certain waveform parameters are computed in real time. In addition, the system provides trend lines and historical data on the graphics screen; historical data may also be output.

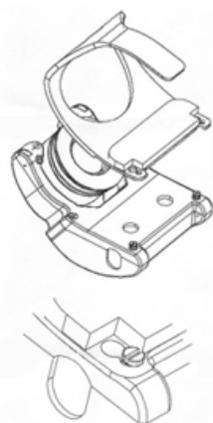
Subjects experience minimal sensation while wearing the wrist sensor. Operation is very smooth and quiet. The wrist sensor can be worn on either wrist, is completely latex-free, and is available for the following wrist sizes:

- 15-18 cm circumference: Adult Normal (black strap)
- 18-22 cm circumference: Adult Large (black strap)
- 11-15 cm circumference: Pediatric (blue strap)

The NIBP100A also provides improved ability to obtain measurements from subjects undertaking light exercise or psych analysis conditions; it quickly rejects most artifact caused by arm movement and automatically initiates a new measurement when the wrist is at rest. It takes just 15 heartbeats to obtain and display a new measurement. As with an arterial line, the arterial waveform highlights artifact rejection.

The NIBP100A is classified to U.S. and Canadian safety standards with respect to electric shock, fire, and mechanical hazards in accordance with UL2601-1 and IEC 60601-2-30.

To install a new wrist strap:

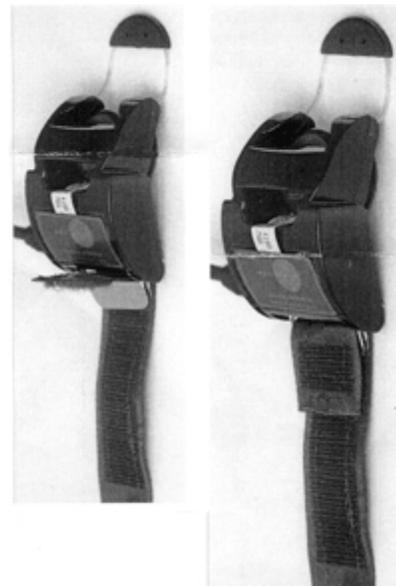


NIBP100A Placement Guide Installation

The placement guide has two keyhole locators for installation. One end of the keyhole has a larger hole than the other end of the keyhole.

1. Hold the placement guide with your thumb and forefinger.
2. Align both of the larger holes over each of the guide posts.
3. Press the placement guide toward the wrist piece and slide the placement guide forward—locking the guide posts into the smaller holes of the keyhole.

The guide should snap into the correct position. The placement guide edge should line up flush to the sensor holder edge.



1. Position the hook and loop piece side upwards.
2. Thread the single one-inch Velcro loop end piece through the strap loop guide.
3. Pull just to the end of the strap loop guide, align the Velcro loop end to the hook piece, and press into position.

NIBP100A Specifications

Interface DA100C with TCI105 for MP100/150 Systems

Monitor

Case: Aluminum
Size: 5.0 (h) x 4.5 (w) x 8.5 (l) -- inches
Weight: 4.5 lbs with power cord and wrist module

Displays

LCD: Cold Cathode Fluorescent Backlight (CCF);
LED: Three (3) high-intensity displays;

Electrical

Ratings: 100-240 VAC, 50/60 Hz, 0.25 - 0.5A max
Current Leakage: UL544

Equipment Interface

I/O Jack: 1/4-inch standard phone jack
Data port: 25 Pin RS-232

Performance Range

Min/Max Accuracy
Systolic: 40 mmHg - 240 mmHg + 5 mmHg/SD 8 mmHg
Mean: 30 mmHg - 200 mmHg + 5 mmHg/SD 8 mmHg
Diastolic: 20 mmHg - 180 mmHg + 5 mmHg/SD 8 mmHg
Pulse: 40 bpm - 200 bpm + 5 bpm or 10%

Trend Updated tabular and graphical trends following each reading, up to approx. 900 readings.

Clock speed 33MHz/min; provides reliable, high-speed digital signal processing.