

# Mini-Torr Plus® Non-Invasive Blood Pressure Monitor



The BCI® Mini-Torr Plus® Non-Invasive Blood Pressure Monitor provides a reliable platform for your NIBP monitoring needs. It easily adapts to meet your departmental NIBP needs, with options ranging from a lightweight roll stand or IV pole mount, to a built-in printer, pulse oximetry and Welch Allyn™ SureTemp® temperature. Its combination of reliability and flexibility makes the Mini-Torr Plus® a practical starting point for your long-term NIBP monitoring needs.

For more information visit [smiths-medical.com](http://smiths-medical.com).

PATIENT MONITORING



# Mini-Torr Plus® Non-Invasive Blood Pressure Monitor

## Technical Specifications

### DISPLAYS, INDICATORS AND KEYS

- **SpO<sub>2</sub> (Optional)**  
3-digit LED display, 0.40 inches (10.16 mm) high
- **Pulse Rate**  
3-digit LED display, 0.30 inches (7.62 mm) high
- **Pulse Strength**  
Logarithmically scaled 10-segment LED bar graph
- **NIBP**  
3-digit LED display  
Systolic and Diastolic Pressures – 0.40 inches (10.16 mm) high  
Mean Arterial Pressure – 0.30 inches (7.62 mm) high
- **Temperature (Optional)**  
3-digit LED display – 0.40 inches (10.16 mm) high

### NIBP

- **Range**  
Adult: 20 to 250 mmHg  
Neonate: 20 to 135 mmHg
- **NIBP Accuracy**  
Meets SP10-1992 AAMI standard for NIBP accuracy
- **Cuff Pressure Accuracy**  
±3 mmHg or 2% (whichever is greater)
- **Determination Time**  
30 to 50 seconds typical (max. 120 seconds in adult mode, 90 seconds in neonate mode)
- **Interval Times**  
1, 2, 2.5, 5, 10, 15, 20, 30, 45, 60, 90 mins
- **Calibration**  
Factory calibrated
- **Inflation Pressure**  
Adult: 50 to 285 mmHg  
Neonate: 50 to 140 mmHg
- **Default Inflation Pressure**  
Adult: 175 mmHg  
Neonate: 100 mmHg
- **Alarm Range – Adult**  
High: 15 to 285 mmHg and OFF (1 mmHg steps)  
Low: 10 to 280 mmHg and OFF (1 mmHg steps)

- **Alarm Range – Neonate**  
High: 15 to 135 mmHg and OFF (1 mmHg steps)  
Low: 10 to 130 mmHg and OFF (1 mmHg steps)
- **Alarm Default – Adult**  
Systolic: High – 200 mmHg; Low – 90 mmHg  
Diastolic: High – 105 mmHg; Low – 40 mmHg  
Mean Arterial: High – 140 mmHg; Low – 50 mmHg
- **Alarm Default – Neonate**  
Systolic: High – 120 mmHg; Low – 60 mmHg  
Diastolic: High – 100 mmHg; Low – 40 mmHg  
Mean Arterial: High – 110 mmHg; Low – 50 mmHg

### PULSE RATE

- **Range**  
Adult: 30 to 180 bpm (NIBP)  
Neonate: 40 to 180 bpm (NIBP)  
30 to 254 bpm (SpO<sub>2</sub>)
- **Accuracy**  
±2%
- **Alarm Range – Adult and Neonate**  
High 30 to 250 bpm and OFF (1 bpm steps)  
Low: 30 to 250 bpm and OFF (1 bpm steps)
- **Alarm Default – Adult**  
High: 150 bpm  
Low: 45 bpm
- **Alarm Default – Neonate**  
High: 150 bpm  
Low: 50 bpm

### SpO<sub>2</sub> (OPTIONAL)

- **Range**  
0 to 100% SpO<sub>2</sub> (functional)
- **Accuracy**  
±2% counts at 70 to 100%; <70% unspecified
- **Averaging**  
8 beats
- **Pulse Tone**  
Volume adjustable or OFF (pitch corresponds to SpO<sub>2</sub> value)
- **Alarm Range – Adult and Neonate**  
High: 50 - 100% and OFF (1% steps)  
Low: 50 - 99% and OFF (1% steps)
- **Alarm Default – Adult**  
High: OFF  
Low: 85%
- **Alarm Default – Neonate**  
High: OFF  
Low: 80%

### TEMPERATURE (OPTIONAL)

- **Range**  
84°F to 108°F (28.9°C to 42.2°C)
- **Accuracy**  
±0.2°F, ASTM E1112-86 (±0.1°C)

- **Calibration**  
Factory calibrated

### DIMENSIONS

- **Base Unit**  
3.24" H x 8.5" W x 5.5" D  
8.2 cm H x 21.6 cm W x 14.0 cm D
- **With Temperature**  
3.24" H x 10" W x 5.5" D  
8.2 cm H x 25.4 cm W x 14.0 cm D

### WEIGHT

- **Base Unit**  
3.5 pounds (1.6 kg)
- **With Temperature**  
4.2 pounds (1.9 kg)

### AC CHARGER POWER REQUIREMENTS

105 to 125 VAC, 60 Hz  
90 to 110 VAC, 50 Hz (optional);  
230 VAC, 50/60 Hz (optional)  
Output of 24VDC @ 1.5A with 4kV isolation

### BATTERY LIFE

Nickel Cadmium battery, 6 VDC, internal rechargeable, fully charged continuous-life 6 hours approximate, charge time of 4 hours

### SERIAL OUTPUT

- **RS232C**
- **Data Format**  
19200 baud, 1 start bit, 8 data bits, 1 stop bit, no parity

### INTEGRATED PRINTER (OPTIONAL)

Text only, no graphics. Patient data log or trend tables.

### ENVIRONMENTAL

- **Operating Temperature**  
Base Unit: 32°F to 131°F (0°C to 55°C)
- **With Temperature**  
60.8°F to 104°F (16°C to 40°C)
- **Storage Temperature**  
-40°F to 158°F (-40°C to 70°C)
- **Relative Humidity** (non-condensing)  
10-95% (storage)  
15-95% (operating)

### STANDARDS

EN60601-1 (IEC60601-1), EN60601-1-1 (IEC60601-1-1), EN60601-1-2, (IEC60601-1-2)

### REGULATORY COMPLIANCE

ISO 9001/ISO 13485

### CATALOG NUMBER

- **6004**  
Mini-Torr Plus® NIBP Monitor

Information subject to change without notice. Please read the instructions for use supplied with the product for detailed instructions, warnings and cautions.

Q-Line to U.S.A. customers call 1-800-348-1842 for emergency and clinical application information 24 hours a day, 365 days a year.

For more information, please call Smiths Medical PM, Inc., at 262-542-3100 or 800-558-2345, or your Smiths Medical distributor.

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