

Features - NIBP-1040Kit-E

- ◆ NIBP, IBP, ECG, Temp, Arrhythmias, Respiration, Leak Detect & Much More
- ◆ Small, Handheld, Lightweight
- ◆ Cardiac Output
- ◆ Fetal Maternal
- ◆ Simple One Key Operation
- ◆ ± 500 mmHg Manometer
- ◆ Digital Pressure Envelope Offset
- ◆ Total Pressure & BP Waveform Displays
- ◆ Adult, Neonatal, Hypertensive & Hypotensive Modes
- ◆ SpO₂ Ready-Compatible with MSP-2100 Module & FingerSims™
- ◆ Multiple Display Screens & Digit Sizes
- ◆ Flash Programmable, Field Upgradeable
- ◆ Peak Pressure Detection with Easy Reset
- ◆ ECG Output with Full NSR Waveform
- ◆ Sinusoidal Respiration Simulation
- ◆ ECG Performance Test Waveforms
- ◆ Pace Waveform
- ◆ ECG Alarm Test
- ◆ Synchronized Invasive Blood Pressure Output
- ◆ Selectable IBP Sensitivity - 5 or 40 μ V/V/mmHg
- ◆ Leak Rate Test
- ◆ ECG Arrhythmia Waveforms
- ◆ ECG Arrhythmia Sequence
- ◆ YSI 400 & 700 Simulation Temperature
- ◆ Rechargeable Battery



NIBP-1040-BE
with Included
Cardiac Output
Interface

NIBP-1040-BE

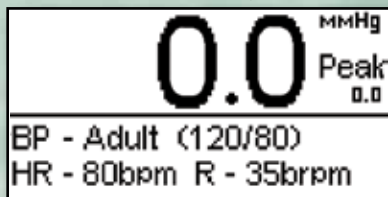
The NIBP-1040-BE is the newest member of the NIBP-1000 family of high quality, low cost, high function microprocessor-based NIBP simulators. The NIBP-1040-BE comes with the Cardiac Output and Fetal Maternal feature built-in. It is designed to meet the demand for a small, easy-to-use unit with multiple features to fit your exact needs. Though small, this complete Multiparameter Simulator makes no compromise on providing true outputs. There is no other NIBP Simulator on the market that offers all the features of the NIBP-1040-BE in this price range. The ability to provide offsets for various manufacturers NIBP'S can only be found in units costing twice as much.

The graphic display not only allows you to see what is going on digitally, it also allows you to view a plot of the overall pressure or a close-up of the BP waveform.

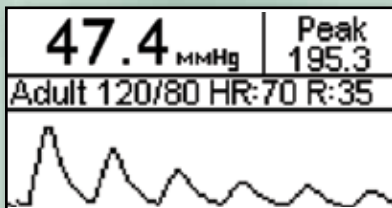
The Flash Memory allows for field upgrades with downloads from our website.

Screen Views

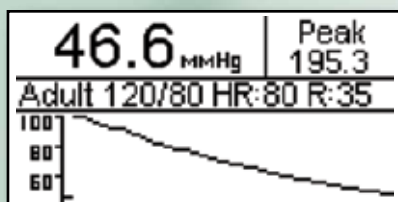
Main Display



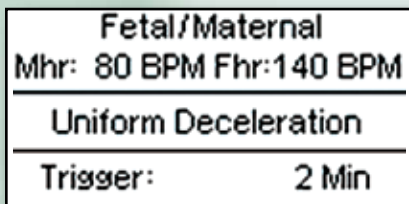
Output Waveform Screen
(NOTE: The output Waveform is NOT Physiologically Correct)



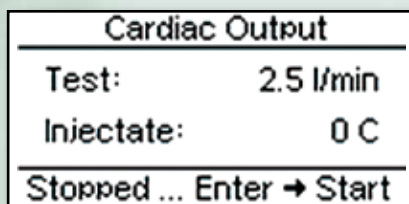
Pressure Graph Screen



FETAL/MATERNAL



CARDIAC OUTPUT



MODEL SUMMARY

NIBP-1040Kit-E Includes NIBP-1040-BE, MCO-2100, built-in rechargeable battery and Universal Patient Lead Connectors.

Main Test Modes:	Other Modes/Features:
Adult 120/80	Peak Detect
Adult 120/80 w/Pace	ECG Performance Waves
Adult High 190/120	Individual Arrhythmias
Adult Low 80/40	Synchronized Dynamic IBP
Neonatal 70/40	Static IBP
Alarm Test	RS-232
Arrhythmia Sequence	
Leak Test	
Manometer	
Cardiac Output	
Fetal Maternal	

SPECIFICATIONS

Blood Pressure

Pressure Range: ± 500 mmHg @ 20 °C (68 °F)
Accuracy: ± (1% of Reading + 0.5 mmHg)
Simulation Rate: 80, 94 BPM (synchronized to ECG)
Accuracy: ±1%

Invasive Blood Pressure

Static Pressure: -10, -5, 0, 20, 40, 50, 60, 80, 100, 120, 150, 160, 200, 240, 250, 300, 320, 400 mmHg
Accuracy: ± (1% Full Range + 1 mmHg) or ± (2% Setting + 2 mmHg)
Impedance: 300 Ω (± 10% Accuracy)
Excitation Range: 2 to 16 Vrms
Excitation Frequency: DC to 5 kHz
Sensitivity: 5 or 40 μV/V/mmHg

ECG NSR

Rate: 30, 60, 120, 240 BPM (± 1% Accuracy)
Amplitude: 2.75 mV (± 2% @ Lead II Accuracy)

ECG Performance

Sine Wave: 10, 60, 100 Hz
Square Wave: 0.125, 2.000 Hz
Triangle Wave: 2.000 Hz
Rate Accuracy: ± 1%
Amplitude: 2.75 mV (± 2% @ Lead II Accuracy)

Pacemaker Waveforms

Amplitude: 3 mV (± 10% Accuracy)
Width: 6 ms (± 5% Accuracy)

Respiration

Rate Accuracy: ± 1%
Impedance: Delta 3.0 Ω (± 10% Accuracy)
Baseline: 1000 Ω (± 5% Accuracy)

Temperature

Settings: 0, 24, 30, 37, 40, 42 °C (± 0.1 °C Accuracy)
Type: YSI Series 400 and 700

Fetal/Maternal

Fetal heart rate: 60, 90, 120, 140, 150, 210, 240 BPM
IUP Period: Single Contraction (Manual) 2, 3, 5, Min (AUTO)

FHR

(During Contraction): Uniform Deceleration
Early Deceleration
Late Deceleration
Uniform Acceleration

Cardiac Output

Injectate Temperature: 0, 24 °C (32, 75.2 °F)
Injectate Flow: 2.5, 5.0, 10.0 L/MIN
Other Outputs: Faulty – Injectate
Left-to-Right Shunt
Calibrated Temperature Pulse

Overview - NIBP-1000 Series

The NIBP-1000 Series is a Family of high quality, low-cost, high-function Microprocessor-based NIBP Simulators. They are designed to meet the demand for a small, easy-to-use unit with multiple features to fit your exact needs.

You have the option of operating by power cord or you can add the optional internal rechargeable NiMH Battery. You can perform hundreds of test on a fully charged battery.

Though small, this Family makes no compromise on providing true outputs. The optional ECG waveforms are full QRS and the respiration waveforms look real.

The graphic display not only allows you to see what is going on digitally, it also allows you to view a plot of the overall pressure or a close-up of the BP waveform.

All models have the ability to adjust the output depending on the manufactures algorithm (operators choice).

The Flash Memory allows for field upgrades with downloads from our website.

NIBP-1030 NIBP, Peak Detect, Full Range Manometer, IBP, ECG, Pace, Temperature, Arrhythmias, Respiration, Leak Detect and Performance waveforms (Extended ECG post optional). (Rechargeable Battery - optional).

NIBP-1020 NIBP, Peak Detect, Full Range Manometer, ECG, Pace Respiration and Performance waveforms. (Rechargeable Battery - optional).

NIBP-1010 NIBP, Peak Detect and Full Range Manometer. (Rechargeable Battery - optional).

NIBP-1030-BE



NIBP-1020

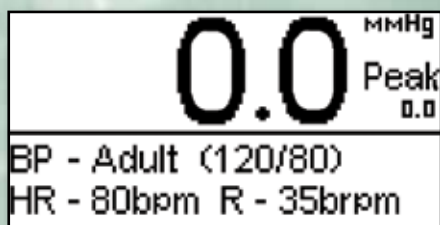


NIBP-1010

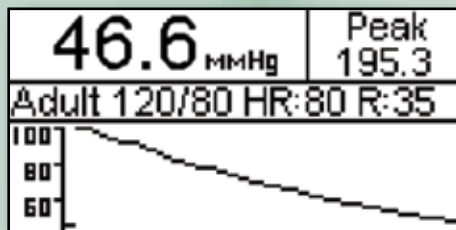


Screen Views

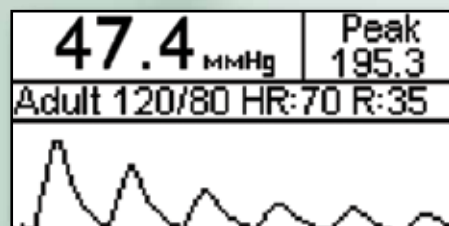
Main Display



Composite Pressure Display



Output Pressure Display
(NOTE: The output Waveform is NOT Physiologically Correct.)



NIBP-1010 with (optional) MSP-2100 & FingerSim™

SPECIFICATIONS

Blood Pressure

Pressure Range: ± 500 mmHg @ 20 °C
Accuracy: ± (1% of Reading + 0.5 mmHg)
Simulation Rate: 80, 94 BPM (synchronized to ECG)
Accuracy: ±1%

ECG NSR

Rate: 30, 60, 120, 240 BPM; ± 1%
Amplitude: 2.75 mV; ± 2% @ Lead II

ECG Performance

Sine Wave: 10, 60, 100 Hz; ± 1%
Square Wave: 0.125, 2.000 Hz; ± 1%
Triangle Wave: 2.000 Hz; ± 1%

Pacemaker Waveforms

Amplitude: 3 mV; (± 10% Accuracy)
Width: 6 ms; (± 5% Accuracy)

Respiration

Impedance: Delta 3.0 Ω (± 10% Accuracy)
Baseline: 1000 Ω (± 5% Accuracy)

MODEL SUMMARY

BC Biomedical NIBP Series Features				
Features	1010	1020	1030	1040
NIBP Sim	Included	Included	Included	Included
Manometer	Included	Included	Included	Included
SpO2	Optional	Optional	Optional	Optional
ECG Sim	N/A	Included	Included	Included
Patient Sim	N/A	N/A	Included	Included
Pace	N/A	Included	Included	Included
Respiration	N/A	Included	Included	Included
Performance Waveforms	N/A	Included	Included	Included
IBP	N/A	N/A	Included	Included
Temp	N/A	N/A	Included	Included
Arrhythmia	N/A	N/A	Included	Included
Leak Detect	N/A	N/A	Included	Included
Extended Lead	N/A	N/A	Optional	Included
Cardiac Output	N/A	N/A	N/A	Included
Fetal/Maternal	N/A	N/A	N/A	Included
Internal Battery	Optional	Optional	Optional	Included
Peak Detect	Optional	Optional	Optional	Included
Alarm	N/A	Optional	Optional	Included

Optional Accessories

Soft Carrying Case	Luer Adapter
Bulb Adapter	Marquette Adapter
DINAMAP/Critikon Adapter	Pulse Oximetry Module
Quick Disconnect Adapter	FingerSim™ Replacement Set