

Accurate NIBP Testing plus...

Fully Synchronized Patient Simulator

AccuPulse™
Flexible Accuracy



• Accurate NIBP Simulation

Perform NIBP Testing with confidence. AccuPulse's innovative CalTables™ deliver accurate NIBP monitor testing, typically within 1-2 mmHg or better of setting.

- BP Presets: 7 Adult and 6 Neonatal
- Built-In Adult Mandrel
- Adjustable Pulse Rate 15-330 bpm, Pulse Amplitude, BP Envelope Shift
- Leak Test and OverPressure Test: Automatic
- USB Port for Web-Based Upgrades
- Li-Ion Rechargeable Battery

• Manufacturer-Certified NIBP Simulation

AccuPulse's CalTables™ were developed with, and certified by, NIBP monitor manufacturers. Everyone can now test using the same accurate and certified NIBP Simulator.

- Optional 12 Lead ECG Simulation with Invasive Blood Pressure, Temperature, Respiration, Arrhythmias & Pacer
- Industry's Most Accurate: +/- 0.5 mmHg
- Light & Portable at 1.9 lbs (0.86 kg)
- Compact Size; 2" High (51 mm)
- The Best NIBP Simulator At Any Price

Clinical Dynamics

clinicaldynamics.com

Clinical Dynamics
10 Capital Drive • Wallingford, CT 06492 USA
800.247.6427 Toll Free • +1.203.269.0090 International • Fax: +1.203.269.3402
clinicaldynamics.com • sales@clinicaldynamics.com

AccuPulse™ Handheld NIBP Simulator

Technical Specifications

BP Presets

Systolic/Diastolic (mmHg)

Adult	Neonatal
240/190	150/120
200/150	120/90
150/100	100/70
120/80	80/50
100/65	60/30
80/50	35/15
60/30	

BP Simulation

Range: 10 mmHg– 295 mmHg

Accuracy: +/- 0.5 mmHg

Pulse Rate

Pulse Rate Range: 15 - 330 bpm

Pulse Rate Accuracy:

15 - 300 bpm: +/- 0.5 bpm

301 - 330 bpm: +/- 1 bpm

Pulse Amplitude

Pulse Amplitude Range: 0 - 150%

Pulse Amplitude Resolution: 1%

Pulse Amplitude Accuracy: Better than 0.1%

BP Envelope Shift

BP Envelope Shift: +/- 100 mmHg maximum

Minimum Diastolic: 15 mmHg

Maximum Systolic: 275 mmHg

Displayed/Measured Parameters

Dynamic NIBP Cuff Pressure Waveform

Digital Manometer

Pressure Range: 0.0 to 400.0 mmHg

Accuracy: +/- 0.5 mmHg

Resolution: +/- 0.1 mmHg

Measurement Units: kPa, mmHg, cmH2O and psi

Leak Test Time

Automatic Inflation

Automatic Timer

Leak Test Time and Pressure: 3 programmable selections

Time Range: 30-120 seconds

Range: 50.0 to 300.0 mmHg

OverPressure Test

Automatic Inflation

Instantaneous Pressure: 0 - 400 mmHg

Pop-Off Pressure: 10 - 400 mmHg

Cuff Supports

Built-in Adult Mandrel

Neonatal Mandrel Optional

Display

Graphic LCD

Resolution: 128 x 64 pixels

LED Backlight

Communication Port

Universal Serial Bus (USB)

Adaptor Hoses

Adaptor Hoses insert between the NIBP device, cuff and analyzer. These adapters are compatible with oscillometric NIBP monitors.

- Male/Female Luer
- Male/Female Clippard (GE Medical, Draeger/Siemens)
- Colder/CPC (GE Medical, Protocol Systems)
- OBAC Quick Release (Phillips Medical)
- Universal 5/32" I.D. Hose

Self Test Accessories

- Pressure Bulb Assembly (tees into any Cuff Adapter)
- Self system leak test hose (plugged at distal end)

Power Supply

100-240 VAC, 50 watts, 50-60 Hz, Desktop Switcher

Output: 24VDC @ 2.1A, 6 foot cable

Safety Agency Approvals: UL, CE, TUV

- Li-Ion Rechargeable Battery

Weight

1.9 pounds (0.86 kilograms)

Dimensions

4.25" Wide x 2" High x 8.5" Long

(10.5" Long w/ECG option)

Includes Built-in Adult Cuff Support

Standard Accessories

- External Power Supply
- Tilt Stand
- Operation Manual
- Neonatal Mandrel

Optional Accessories

- Hose Adaptor Kit
- Carry Case
- Motion Sinewave Frequency 1-25 Hz Gain levels 1-8
- Arrhythmia Delay: Adjustable duration 2.0 to 8.0 seconds (in 0.5 sec increments) Frequency of occurrence adjustable from 1 to 19 out of 20 pulses
- AccuPulse NIBP CalTables™

Please contact the factory for the availability of other calibration tables, or visit our web site for updates at www.clinicaldynamics.com

Environmental

RoHS Compliant (Lead-Free)

CE Mark Certified

Optional Fully Synchronized Patient Simulator Technical Specifications

ECG Type

NSR (Normal Sinus Rhythm)
(Heart) RATE: 30 - 350 BPM (adjust in steps of 1)
AMP: 0.15 – 5.00 mV (adjust in steps of 0.01)
MODE: Continuous, Triggered

ECG Faults

Tachycardia, Brachycardia, VT, VF or Asystole

Pacer

Atrial Pacer
Polarity: Ve+, Ve-
Width: 1 mS, 2 mS
Amp: 0.15–5.00 mV (adjust in steps of 0.01)
Sync: Pacer Only, Pacer AP, Pacer ASP

ST Segment
ST Elevation
ST Elevation Enabled, Disabled
Direction Elevation, Depression
Height 7%, 13%, 20%
Slope: Flat, Positive Slope, Negative Slope

Myocardial Infarction: Isc, Inj, Inf, linf

Tall T wave

RATE: 30 - 350 BPM (adjust in steps of 1)
AMP: 0.15 – 4.00 mV (adjust in steps of 0.01)
Height 0 – 20% (adjust in steps of 1%)

RWD

Width: 70–120 mS (adjust in steps of 1)
AMP: 0.15–5.00 mV (adjust in steps of 0.01)

ECG Performance

Type:
Pulse Amp = 0–5 mV
Frequency = 30–330 bpm

Square, Triangle, Sine
Amp 0.1 – 5.0 mV (adjust in 0.1 steps)
Frequency 0.1 – 0.9 Hz (adjust in 0.1 Hz steps)
1–9 Hz (adjust in 1 Hz steps)
10–100 Hz (adjust in 10 Hz steps)

ECG Arrhythmias

PAC1, PAC2, PVC, MB, AS, AFB

ECG Auto Sequence
RWD, Tall T, Ppr, Tac

Respiration

RATE 15, 30, 60, 120 rpm (breaths per minute)
Base Impedance 250, 500, 750, 1000 ohms
(variation) Dynamic Impedance 1, 5, 10, 15 ohms

Invasive Blood Pressure

Static Pressure: 0 mmHg to 300 mmHg (adjust in steps of 1)
Dynamics Pressure: 100/60, 120/80 Simulated Wave
Contact Factory for availability of additional Waves
Gain: 5uV/V, 40uV/V

Temperature:

Probe: 400, 700 series
Temperature: 25, 37 degrees C