

## Vital signs simulation



## VitalSim™

### *Vital signs for manikins and skill trainers*

The VitalSim Vital Signs Simulator is the heart of Laerdal's VitalSim product line. When connected to VitalSim enabled manikins and skill trainers, VitalSim simulates ECGs, heart sounds, fetal heart tones, breath sounds, bowel sounds, blood pressure and pulses. VitalSim allows instructors to run preprogrammed scenarios, as well as write their own custom scenarios to meet their specific learning objectives. Data logging and download functions provide valuable information for use in performance assessment and debriefing.

- VitalSim **simulates a comprehensive array of core vital signs** for effective scenario-based training and skills training
- VitalSim is **logistically flexible and cost effective**, working with a wide range of manikins for training in-hospital and pre-hospital care providers
- Preprogrammed and programmable scenarios provide **standardized training** and ease of use
- Cardiac capabilities include **1400+ ECG rhythms** and variations, pacing and defibrillation
- Auscultation of normal and abnormal **heart, breath and bowel sounds**



# VitalSim™ Product Specifications

## ECG

Synchronized variable rate, rhythm, abnormalities and duration  
Programmable waiting rhythms  
Programmable scenario-based algorithms for instructor control lead ECG, pacing, and defibrillation capabilities (25–360j)\*

## Blood Pressure

Auscultated and palpated blood pressure simulator  
- Korotkoff sounds synchronized with ECG  
- Systolic and diastolic pressure may be individually set in steps of 2 mmHg  
- Auscultatory Gap, on/off feature  
- Korotkoff sound volume control in 10 steps, 0–9

## Palpated Pulse Simulator

Controls brachial, radial and carotid electronic pulses  
- Pulses synchronized with ECG  
- Pulse strengths dependent on BP  
- Brachial pulse off when BP cuff pressure is above 20 mmHg  
- Radial pulse off when BP cuff pressure is above systolic BP level  
- Bilateral carotid pulse on adult ALS manikins only

## Logging / Scenario Functions – VitalSim™

The PC editor allows for creating and editing scenarios  
Up to 10 scenarios and 25 logs held in the VitalSim Control Unit  
Logs may be downloaded to PC for after-action review

## Sounds

Heart sounds synchronized with programmable ECG

- |                                |                              |
|--------------------------------|------------------------------|
| - Aortic Stenosis              | - Stills Murmur              |
| - Atrial Septal Defect         | - Mitral Valve Prolapse      |
| - Pulmonary Stenosis           | - Normal Heart Sounds – Apex |
| - Friction Rub                 | - Opening Snap               |
| - Austin Flint Murmur          | - Normal Heart Sounds        |
| - Diastolic Murmur Mi Stenosis | - Ventricular Septal Defect  |
| - Systolic Murmur              |                              |

Lung sounds synchronized with breathing rate, 0–60 BPM.  
Individual lung or bilateral sound selection

- |                        |               |
|------------------------|---------------|
| - Coarse Crackles      | - Stridor     |
| - Fine Crackles        | - Wheeze      |
| - Normal Breath Sounds | - Pleural Rub |
| - Pneumonia            | - Rhonchi     |

Normal and abnormal bowel sounds

- |                    |                     |
|--------------------|---------------------|
| - Borborygmus      | - Normal Bowel      |
| - Hypoactive Bowel | - Hyperactive Bowel |
| - Fetal Tones      |                     |

Prerecorded or live feed voice sounds

- |          |                 |
|----------|-----------------|
| - Cough  | - SOB Breathing |
| - Vomit  | - Yes           |
| - Moan   | - No            |
| - Scream | - Cry (infant)  |

## 200-1000j\* VitalSim™ Control Unit

### VitalSim™ Includes:

Control Unit including battery case and batteries (6), Remote Control including batteries (4), Manikin to Unit Cable, Operating Device to Control Unit Cable, USB Cable for connection to PC, AC Adapter, Software CD, Carry Case and Directions for Use.

\*Compatible with manual, semi-automatic and automatic external defibrillators



For more product information, please visit [www.laerdal.com](http://www.laerdal.com)

For more information, please call (800) 431-1055 (US), (888) 523-7325 (Canada), (800) 567-9987 (Quebec)

### USA and Latin America:

Laerdal Texas  
P.O. Box 38-226 FM 1116  
Gatesville, Texas 76528  
(800) 433-5539 or  
(254) 865-7221  
FAX (800) 865-8011  
[www.laerdal.com](http://www.laerdal.com)

Laerdal Medical Corporation  
167 Myers Corners Road  
Wappingers Falls, NY 12590  
(800) 431-1055 or  
(845) 297-7770  
FAX (800) 227-1143  
[www.laerdal.com](http://www.laerdal.com)

### Canada:

Laerdal Medical Canada Ltd.  
151 Nashdene Rd., Unit #45  
Toronto, ON M1V 4C3, Canada  
(888) LAERDAL  
(416) 298-9600  
FAX (416)-298-8016  
[savelives@laerdal.ca](mailto:savelives@laerdal.ca)

