

SimMan® Essential

The  
Essential  
part of your simulation training



# SimMan® Essential

SimMan Essential is a realistic, full body adult, wireless patient simulator, with advanced clinical functionality to teach critical skills. With 'simplicity of use' being a fundamental principle of its design, both novice and experienced instructors can now take full advantage of the benefits of simulation. Built to be rugged, reliable, networkable and mobile, SimMan Essential makes in situ simulation easier and more realistic than ever before. With a full complement of patient cases and courseware to ease instructor prep time, and the availability of comprehensive Technical and Educational Services

- SimMan Essential is the solution set to define a new era in simulation training.



- Completely wireless
- Supplemental wired connections for power and networking
- Integrates with your network
- Rechargeable, swappable batteries support 4 hours of continuous simulation
- Rugged and reliable for use in multiple environments

## Multiple Airway Skills/Features

- Controllable open/closed airway; automatically or manually controlled
- Head tilt/Chin lift
- Jaw thrust w/articulated jaw
- Suctioning (Oral and Nasopharyngeal)
- Bag-mask ventilation
- Orotracheal intubation
- Nasotracheal intubation
- Combitube, LMA, and other airway placement
- Endotracheal tube intubation
- Retrograde intubation
- Fiberoptic intubation
- Transtracheal jet ventilation
- Needle cricothyotomy
- Surgical cricothyotomy
- Variable airway resistance on/off
- Right mainstem intubation
- Stomach distention
- Decreased range of cervical motion

## Airway Complications

- Can't intubate/Can ventilate
- Can't intubate/Can't ventilate
- Detection of proper head position
- Tongue edema
- Pharyngeal swelling
- Laryngospasm
- Trismus

## Breathing Features

- Simulated spontaneous breathing
- Bilateral and unilateral chest rise and fall
- CO<sub>2</sub> exhalation

- Normal and abnormal breath sounds
  - 5 anterior auscultation sites
  - 6 posterior auscultation sites

## Breathing Complications

- Needle thoracentesis – bi-lateral
- Unilateral and Bilateral chest movement
- Unilateral, Bilateral and Lobar breath sounds
- Chest tube insertion - bilateral

## Cardiac Features

- Extensive ECG library
- Heart sounds – four anterior locations
- ECG rhythm monitoring (4 wire)
- 12 lead ECG display
- Defibrillation and cardioversion
- Pacing

## Circulation Features

- BP measured manually by auscultation of Korotkoff sounds
- Carotid, femoral, radial, dorsalis pedis, posterior tibialis pulses and brachialis (only left side) synchronized with ECG
- Pulse strength variable with BP
- Pulse palpation is detected and logged

## Vascular Access

- IV arm (right arm) Establish IV
- Intraosseous access (tibia and sternum)

## CPR

- Compliant with 2005 Guidelines
- CPR compressions generate palpable pulses, blood pressure wave form, and ECG artifacts
- Realistic compression depth and resistance
- Detection of depth, release and frequency of compressions
- Real time feedback on quality of CPR
- Hand position sensor

## Eyes

- Blinking eyes
- Eyes open, closed and partially open
- Eye inserts, manually change pupils

## Other Features

- Foley catheterization
- Bowel Sounds – four quadrants
- Patient Voice
  - Pre-recorded sounds
  - Custom sounds
  - Instructor can simulate patient's voice wirelessly
- Instructor Communication
  - Multiple instructors communicate using integrated VOI protocol

## Pharmacology

- Manual drug recognition
- Extensive formulary

## System Features

- Wireless tablet PC controls simulator remotely
- Control multiple manikins from one interface
- Control simulations from anywhere on your network
- Multiple interfaces can control/observe a single simulation
- Instructor Mode
  - Precise control "on the fly"
  - Design and program custom scenarios
  - Create custom events
  - Run pre-packaged scenarios
- Auto Mode
  - Physiological and pharmacological models run pre-packaged simulations
  - Unique, simple slider control difficulty and pace
- Runs all SimMan and SimMan 3G scenarios and Patient Cases
- Simulation controls:
  - Fast forward
  - Pause
  - Rewind
  - Save/Restore

- Profile Editor
- Future prediction and patient outcome display
- Integrated video debriefing
- Data logging
- Instructor comments
- Works with existing SimMan 3G Scenarios

## Optional Patient Monitor

- Wireless
- Highly configurable
- Includes:
  - ECG (2 traces)
  - SpO<sub>2</sub>
  - CO<sub>2</sub>
  - ABP
  - CVP
  - PAP
  - PCWP
  - NIBP
  - TOF
  - Cardiac Output
  - Temperature (core and peripheral)
  - Additional and programmable parameters e.g. ICP
- X-Ray Display
- 12 Lead ECG Display
- Custom Image Display
- Custom Video Display
- Oxygen saturation and waveform

## Optional Features

- Simulated Patient Monitor and Software
- Soft Sided Transportation Cases
- Internal Bleeding system to simulate traumatic injuries

## Certifications

- CE, FCC

## SimMan Essential includes:

- SimMan Essential Manikin
- SimMan Essential Software and License
- Operator's Tablet PC
- Webcam
- Specially Designed Clothing
- 4 Patient Cases and 4 Scenarios
- 1 Year Manufacturer's Warranty
- Storage Bag

## Optional Accessories:

- Simulated Patient Monitor and Software (12" and 17" screen options, Panel PC w/power cord)
- Hard-Sided Transportation Case
- Advanced Video System
- Tablet PC Accessory Kit (Monitor, Keyboard, Mouse and Docking Station)
- Portability Kit
- Compressor

## Optional Service Packages\*:

- Two Day Introductory Training Course
- Custom Scenario Development Package
- On Site Installation
- Extended Warranty
- Preventative Maintenance
- Loaner Program

\* services available may differ between countries

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