



**Laerdal**<sup>®</sup>  
helping save lives



*Emergency Care & Trauma*

## **Improve patient safety**

### **SimMan<sup>®</sup> Essential**

A realistic, full-body adult, wireless patient simulator, SimMan<sup>®</sup> Essential offers comprehensive clinical functionality to teach the core skills of airway, breathing, cardiac, and circulation management.

Manage SimMan Essential and all other Laerdal PC-operated simulators with the LLEAP unified software platform. This means you will find scenarios, conduct simulation training, and develop new scenarios to help meet your learning objectives with greater ease.

# SimMan® Essential

## Multiple Airway Skills/Features

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

## 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
- CO2 exhalation
- Normal and abnormal breath sounds
  - 5 anterior auscultation sites
  - 6 posterior auscultation sites

## Breathing Complications

- Needle thoracentesis – bilateral
- 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 2015 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
- Hand position sensor

## Eyes

- Blinking - slow, normal, fast and winks
- Open, closed and partially open
- Pupillary accommodation:
  - Synchrony/asynchrony
  - Normal and sluggish speed of response

## Other Features

- Foley catheterization
- Bowel Sounds – four quadrants
- Patient Voice
  - Pre-recorded and custom sounds
  - Instructor can simulate patient's voice wirelessly
- Instructor Communication
  - Multiple instructors communicate using integrated VOI protocol
- Fully articulating pelvis
- Leg rotation in all natural directions

## Pharmacology

- Manual drug recognition
- Extensive formulary

## System Features

- Wireless instructor computer with LLEAP software
- Control multiple manikins from I interface
- Control simulation from anywhere on your network
- Use Manual Mode to run "on-the-fly" for total control over all parameters
- Utilize Automatic Mode with pre-programmed scenario for a simple and standardized way to run a simulation
  - Patient cases utilizing physiological and pharmacological models
  - Pre-programmed scenarios
  - Self-authored content

- Simulation controls; fast forward, pause, rewind, save/restore
- Profile editor
- Future prediction and patient outcome display
- Integrated video debriefing
- Time stamped activities, vital signs, and instructor comments are captured in the event log

## Optional Patient Monitor

- Touch-screen simulated patient monitor provides concise clinical feedback for physiological parameters
- The monitor's color screen is configurable and provides multiple simulated parameters, each presenting multi-level alarms
- Simulated parameters include ECG (2 traces), SpO2, CO2, 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
- Custom Image Display
- Custom Video Display
- Oxygen saturation and waveform

## Optional Bleeding System

- Internal Bleeding system to simulate traumatic injuries
- Simulation of bleeding at multiple sites
- Arterial and venous
- Vital signs automatically respond to blood loss & therapy
- Works with various wound modules & moulage kits

## ORDERING INFORMATION

213-02155 SimMan Essential Medium

213-02255 SimMan Essential Dark

213-02355 SimMan Essential Light

*Includes: SimMan Essential Manikin with Fully Articulating Pelvis, LLEAP Software and License, Simulated Patient Cables, USB Headset/Microphone, Storage Bag, 1 Year Manufacturer's Warranty*

214-02155 SimMan Essential Bleeding Medium

214-02255 SimMan Essential Bleeding Dark

214-02355 SimMan Essential Bleeding Light

*Includes: SimMan Essential Bleeding Manikin with Fully Articulating Pelvis, LLEAP Software and License, Simulated Patient Cables, USB Headset/Microphone, Storage Bag, 1 Year Manufacturer's Warranty*

400-10201 Laptop Instructor/Patient Monitor

400-09201 Tablet-PC Instructor/Patient Monitor

400-09501 Rugged Tablet Instructor/Patient Monitor

400-29301 All In One Panel PC Instructor/ Patient Monitor

## OPTIONAL ACCESSORIES

212-07150 Rugged Carry Case

210-01750 Compressor

## Operation

SimMan Essential can be operated by a LLEAP instructor computer and can utilize a simulated patient monitor. Incorporate SimCapture for a complete debriefing solution.

LLEAP Instructor Computer



Patient Monitor



SimCapture



## Services

### Optimize your investment

Our team of educators and service technicians have years of industry related experience that can help you successfully implement and sustain your simulation program. We're here to help you get the most out of your simulation training with support when and where you need it. From comprehensive long-term packages to a full range of individual solutions you may choose from:

- ValuePlus Technical Services Packages
- Educational Pathway Education Services Packages
- On-site technical services
- eLearning courses
- Virtual courses
- On-site educational courses
- Blended learning workshops
- Help Desk phone and email support
- Self-guided how-to video library

For more information, visit [Laerdal.com/SimManEssential](http://Laerdal.com/SimManEssential)

