Lecat’s Ventriloscope

**Standard Package** Part No: LV001

**Educator’s Package** Part No: LV010

The Ventriloscope has been developed by Dr. Paul Lecat to transmit normal or abnormal sounds from lung, heart, bowel, BP, Doppler, etc. to a realistic stethoscope receiver. It can be used in hybrid simulation or with manikins.

**Skills**
- Distinguish normal and abnormal sounds
- Placement and use of the stethoscope
- Assess proper use of diaphragm and bell of stethoscope for appropriate sounds
- Integrate findings with history gathered from a live patient
- Learn to document auscultatory findings accurately
- Can be used to teach Blood Pressure to large or small groups
- Can be used to teach Doppler and Percussion sounds

**Features**
- Simple to operate
- Completely integrates history taking with physical exam, including abnormalities
- Place any sound, anywhere on a live patient or manikin
- Use any MP3 recording (create your own and load it onto an SD memory card)
- Can be used on any manikin
- Allows for changes in murmurs with manoeuvres
- Students can teach each other
- Allows precision timing of sounds
- Transmitter is easily concealed in the hand or pocket and receiver is incorporated into cardiology style stethoscope
- Uses wireless transmission with cutting edge chip technology. Operates on a reserved frequency band and cycles frequencies for absolute test security
- Can be used with auditorium sound systems or speakers for group teaching
- Battery lasts for up to 8 hours of continuous use per charge. Charging is complete in less than an hour
- Volume control allows trainee to detect even faint sounds

**Standard Package supplied**
- Ventriloscope transmitter
- Cardiology style Stethoscope receiver & accessory kit
- SD memory card with 12 sounds:
  - Normal heart, S4 gallop, Tachycardia, Bowel sounds, S3 gallop, Normal inspiration, Bruit, Normal expiration, Korotkoff, Expiratory wheezes, Korotkoff (tachycardia), Inspiratory crackles
- USB cables for charging & instruction manual
- 1 year warranty (extended warranty may also be purchased)
- Locking aluminum carrying case

**Educator’s Package supplied**
- Everything in the Standard Package
- Bose Multimedia Sound System
- Extended 2 year warranty (invalid if product is misused or neglected)

**Packed weight (kg) & dimensions (mm)** Depends upon product supplied

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SD memory cards with additional sounds are available:

**Pulmonary Soundcard 1** Part No: LV002
- Egophony, female voice: normal, abnormal
- Egophony, male voice: normal, abnormal
- Bronchial Breath sounds: inspiration, expiration
- Whispered pectoriloquy: normal, abnormal
- Wheezes, expiratory: monophonic, mid-to-end, soft, end

**Pulmonary Soundcard 2** Part No: LV003
- Crackles, subtle end inspiratory • Wheezes, inspiratory
- Inspiration, diminished • Expiration, diminished
- Crackles, inspiratory: early, mid, end, early inspiratory with diminished BS • Stridor, inspiratory
- Pleural rub: inspiratory, expiratory

**Cardiac Soundcard 1** Part No: LV004
- Aortic insufficiency, simulated • Aortic Stenosis
- Mitral Stenosis, simulated • Quadruple rhythm, simulated
- Summation gallop, simulated • Aortic Sclerosis
- Atrial Fibrillation: rate 80, rate 120, rate 180
- Mitral Insufficiency, soft • S2 split: narrow, wide

**Cardiac Soundcard 2** Part No: LV005
- Hamman’s crunch • ASD fixed wide split S2 simulated
- Bradycardia about 42 BPM

**Murmurs Soundcard 1** Part No: LV008
- Aortic stenosis: loud, medium loud, medium, soft
- Aortic insufficiency (regurgitation) loud
- Aortic insufficiency: medium loud, medium, soft
- Mitral insufficiency (regurgitation) loud
- Mitral insufficiency: medium loud, medium, soft

**Murmurs Soundcard 2** Part No: LV009
- Mitral stenosis: loud, medium loud, medium, soft
- Mitral valve prolapse click/murmur: not squatting, squatting
- Mitral valve prolapse: single click, multiple clicks

**Percussion Soundcard** Part No: LV006
- Single beats: flat, dull, resonance, tympany
- Auscultatory: normal single beat, abnormal soft single beat
- Coin, single beat: normal, abnormal
- Scratch over liver single beat • Scratch soft single (normal)

**Miscellaneous Soundcard** Part No: LV007
- Infant heart tones, normal • Doppler movement artifact
- Infant posterior chest, lungs normal • Thyroid bruit
- Infant abdomen normal bowel sounds • Doppler rate: about 148, about 72
A dedicated lung sound auscultation trainer allowing the trainee to learn to distinguish and identify different lung sounds, and to diagnose their associated conditions.

Skills
- Use and placement of a stethoscope
- Identification of sounds and their variations
- Relationship between sounds and auscultation sites
- Ability to describe sounds clearly to others

Features
- Cases are recorded from real patients
- 15 lung auscultation sites (7 anterior and 8 posterior) are used
- Sites are fully synchronised for all cases
- 35 programmed cases (33 of which can be heard with or without heart sounds)
- Torso rotates on the base allowing lifelike examination of front and back
- Lung sounds structure follows American Thoracic Society classification
- Detailed explanation of lung sounds provided and synchronises with the case being listened to. These include a description of the sound to aid identification, an explanation of how and why the sound is generated, and a listing of possible conditions. These are enhanced with illustrations, chest radiographs and CT images
- External speakers can be used for group study, problem based learning and discussions
- Sound waves can be displayed graphically to aid understanding and improve retention
- Respiration rate can be varied
- Each of the 15 speakers, which are built into the chest wall, has a separate computer based volume control
- Suitable for assessing trainees’ skills

Package supplied
- 1 LSAT Trainer
- 1 PC
- 1 amplifier
- 2 speakers

Due to a policy of continuing product development and software upgrade, the specifications and features of the current model may vary from those shown in this catalogue.

Anterior auscultation sites
1. Trachea
2. Upper right lung field
3. Upper left lung field
4. Middle left lung field
5. Middle right lung field
6. Lower right lung field
7. Lower left lung field

Posterior auscultation sites
0. Upper left lung field
1. Upper right lung field
2. Middle right lung field
3. Middle left lung field
4. Lower left lung field
5. Lower right lung field
6. Right costophrenic angle
7. Left costophrenic angle

Visit our website for more information
Find the product by typing the Part No into the search box

Middle left lung field
Cardiology Patient Simulator ‘K’
Part No: KKM84-S

This model is a simulated cardiology patient on which a comprehensive clinical examination can be performed (auscultation, abdominal, cardiac and vascular observation, and electrocardiographs).

Skills
- Detailed cardiology clinical examination
- Auscultation:
  - heart sounds at 5 sites
  - appropriate breath sounds
- Inspection:
  - jugular venous waves on both sides of the neck
  - abdominal respiratory movement
- Palpation:
  - cardiac impulses: right ventricle, left ventricle, and dilated left ventricle
  - arteries at 8 sites
  - abdominal respiratory movement
- Electrocardiograph (ECG) monitoring

Features
- Auscultation:
  - heart sounds can be heard at the four primary auscultation sites: aortic, pulmonic, tricuspid and mitral
  - auscultation of the 1st sound (S1) and the 2nd sound (S2) can both be done with electrocardiogram monitoring
  - relevant tracheal and bronchial breath sounds are simulated
- Jugular veins:
  - pulsation of jugular venous waves can be observed on both sides of the neck
  - timing and strength of ‘a’ waves and ‘v’ waves can be differentiated
- Palpation:
  - carotid, medial, radial and femoral arteries can be palpated at eight sites on both sides
  - variations of arterial pulse waves in different cardiac conditions or arrhythmias can be detected
  - cardiac impulses can be identified at the right ventricle, left ventricle, and dilated left ventricle
- Monitoring:
  - electrocardiogram (ECG), Jugular Venous Pulse (JVP), Carotid Arterial Pulse (CAP) and Apexcardiogram (ACG) can all be monitored
  - full explanations for self-directed learning are available
  - phonocardiograms are available to assist in learning heart sounds and murmurs
- Total integration:
  - all vital signs are fully synchronised
  - explanations on the display show the characteristics and features pertinent to the case selected
  - the images of the words for the ECG, CAP, JVP and ACG can be freeze-framed for detailed study to aid understanding

Visit our website for more information
Find the product by typing the Part No into the search box
• External speaker system provided for demonstrations, discussions and problem-based learning exercises
• History and explanatory material included for self-directed learning
• Assessment modules incorporated
• All sounds recorded from real patients
• 88 cases: 12 normal heart sounds, 14 diseased heart cases, 10 arrhythmias and 52 ECG arrhythmia cases

**Package supplied**
• 1 Cardiology Patient Simulator K
• 1 controller/PC table
• 1 PC
• 1 rib sheet
• 5 replacement pulse tubes
• 1 text book
• 1 amplifier
• 2 speakers

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**‘K’ Plus Training System**

Part No: **KKM8481-S**

Auscultation is one of the most important skills in physical examination. The ‘K’ Plus Training System is a combination of the Mr ‘K’ and Mr Lung auscultation trainers. This gives the full functionality of the independent systems whilst sharing core components to reduce the cost for the skills centre.

**Skills and Features**
• Cardiology Patient Simulator ‘K’ (Pages 8 & 9)
• Lung Sound Auscultation Trainer (Page 7)

**Package supplied**
• 1 Cardiology Patient Simulator K
• 1 controller/PC table
• 1 PC
• 1 rib sheet
• 5 replacement pulse tubes
• 1 LSAT Trainer
• 1 text book
• 1 amplifier
• 2 speakers

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