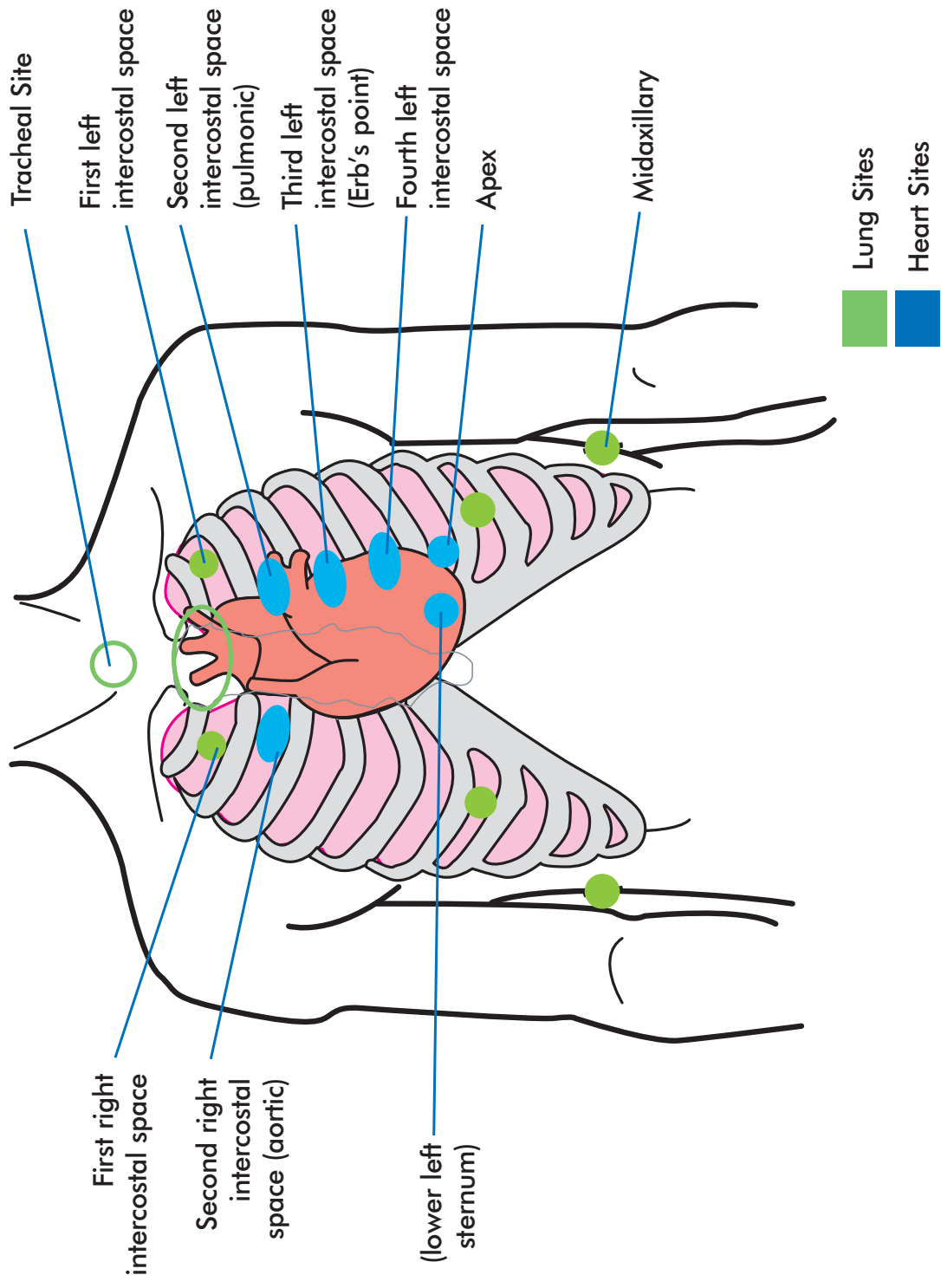
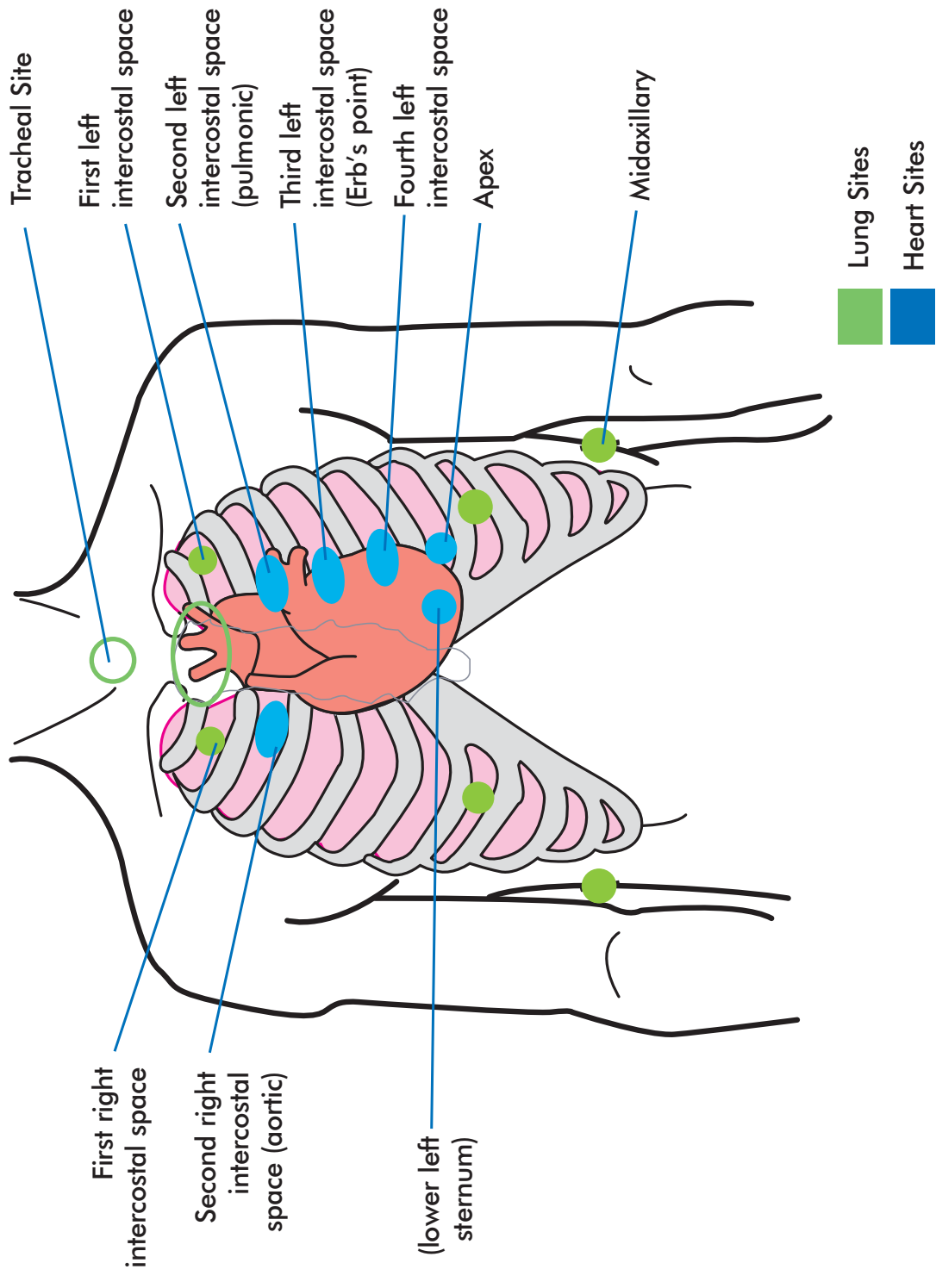


# Heart and Lung Sites



# Heart and Lung Sites



## AUSCULTATION TRAINER AND SMARTSCOPE™ INSTRUCTION MANUAL

### About the Auscultation Simulator:

The **Life/form®** Auscultation Trainer Simulator duplicates heart and lung conditions selected by the instructor by wireless remote control. The student must palpate to identify the correct auscultation sites and will hear different heart and lung sounds as the SmartScope™ is moved from site to site. The simulator duplicates human conditions as closely as modern plastics and electronic technology allows — it's almost the real thing. Care and treatment should be the same as with a patient.

The simulator has six heart sites and five lung sound sites on the anterior surface and two midaxillary sites. The remote control can select from 12 different heart conditions, as well as 16 lung conditions. The instructor can select any condition then switch to another condition easily so the student can compare sounds and make a diagnosis.

The remote control does not have to be pointed directly at the manikin or stethoscope to operate. One remote control will operate multiple sets of SmartScopes™ and manikins simultaneously. Great for group instruction. The range of the remote control is up to 100 feet.

### General Instructions for Use

To begin using the Auscultation Trainer, press the red power button. This turns on the remote control and sends a signal to activate the stethoscope as well. After the unit is activated, the display will be in the "status" mode, displaying the current menu settings for the heart and lung conditions.

To select a new condition, press either the heart or lung button. This will put the display into the menu mode. The user can select a condition by either using the number buttons, or by viewing the conditions in sequence using the scroll button. After the condition is selected press the enter button to activate.

The remote control can be programmed to these heart conditions:

- 01 Normal
- 02 Aortic regurgitation
- 03 Pulmonary stenosis
- 04 Mitral stenosis
- 05 Holosystolic
- 06 Mid-systolic
- 07 S3 Gallop
- 08 S4 Gallop
- 09 Systolic click
- 10 Atrial septal defect
- 11 PDA
- 12 VSD

### Troubleshooting:

- Make sure batteries in both the remote and the SmartScope™ are fully charged and properly installed
- The remote has a battery saver that shuts the unit down after 8 minutes if the remote is left on the same setting. To prevent it from shutting down, select a different heart or lung sound within the 8 minute period of time.
- Correct placement of the SmartScope™ is required to hear the sounds. Moving the SmartScope™ slowly across the area will help locate the sensor in the torso so that the sounds can be heard.
- If you are sure you have the SmartScope™ in proper position and you still cannot hear any sounds, restart the unit by turning the power off and on, and selecting a different heart or lung sound.

**Life/form®** Products by NASCO

*Nasco* Fort Atkinson  
901 Janesville Avenue, P.O. Box 901  
Fort Atkinson, Wisconsin 53538-0901  
1-800-558-9595  
[www.eNASCO.com](http://www.eNASCO.com) • E-mail: [lifeform@eNASCO.com](mailto:lifeform@eNASCO.com)

COPYRIGHT © NASCO 2000 PRINTED IN U.S.A. NP 60-01/RV 10-01

The remote control can be programmed to these lung conditions:

- 01 Normal Lung
- 02 Normal Vesicular
- 03 Wheezes
- 04 Mono wheeze
- 05 Fine crackle
- 06 Coarse crackle
- 07 Ronchi crackle
- 08 Stridor
- 09 Cavernous
- 10 Bronchovesicular
- 11 Bronchial
- 12 Pulmonary edema
- 13 Infant
- 14 Friction rub
- 15 Egophony
- 16 Pectoriloquy

Consult the enclosed laminated card for lung and heart sound site locations.

To listen to the selected sounds, place the earpieces in ears angled in a forward position. Place the diaphragm of the SmartScope™ over one of the appropriate sites on the manikin (see diagram on back).

As an alternative, an amplified speaker (SB20146U) can be used allowing an entire classroom to hear at the same time. To connect the speaker, plug the speaker cord into the speaker jack on the top of the Smart Scope™ box. When a speaker is connected to the SmartScope™, the ear pieces will not work. Place the diaphragm of the SmartScope™ over the appropriate sites on the manikin.

Note: The remote has a battery saver that shuts the unit down after 8 minutes if the remote is left on the same setting. To prevent it from shutting down, select a different heart or lung sound within the 8 minute period of time.

### About the Auscultation Simulator:

The **Life/form®** Auscultation Trainer Simulator duplicates heart and lung conditions selected by the instructor by wireless remote control. The student must palpate to identify the correct auscultation sites and will hear different heart and lung sounds as the SmartScope™ is moved from site to site. The simulator duplicates human conditions as closely as modern plastics and electronic technology allows — it's almost the real thing. Care and treatment should be the same as with a patient.

The simulator has six heart sites and five lung sound sites on the anterior surface and two midaxillary sites. The remote control can select from 12 different heart conditions, as well as 16 lung conditions. The instructor can select any condition then switch to another condition easily so the student can compare sounds and make a diagnosis.

The remote control does not have to be pointed directly at the manikin or stethoscope to operate. One remote control will operate multiple sets of SmartScopes™ and manikins simultaneously. Great for group instruction. The range of the remote control is up to 100 feet.

### General Instructions for Use

To begin using the Auscultation Trainer, press the red power button. This turns on the remote control and sends a signal to activate the stethoscope as well. After the unit is activated, the display will be in the "status" mode, displaying the current menu settings for the heart and lung conditions.

To select a new condition, press either the heart or lung button. This will put the display into the menu mode. The user can select a condition by either using the number buttons, or by viewing the conditions in sequence using the scroll button. After the condition is selected press the enter button to activate.

The remote control can be programmed to these heart conditions:

- 01 Normal
- 02 Aortic regurgitation
- 03 Pulmonary stenosis
- 04 Mitral stenosis
- 05 Holosystolic
- 06 Mid-systolic
- 07 S3 Gallop
- 08 S4 Gallop
- 09 Systolic click
- 10 Atrial septal defect
- 11 PDA
- 12 VSD

### Troubleshooting:

- Make sure batteries in both the remote and the SmartScope™ are fully charged and properly installed
- The remote has a battery saver that shuts the unit down after 8 minutes if the remote is left on the same setting. To prevent it from shutting down, select a different heart or lung sound within the 8 minute period of time.
- Correct placement of the SmartScope™ is required to hear the sounds. Moving the SmartScope™ slowly across the area will help locate the sensor in the torso so that the sounds can be heard.
- If you are sure you have the SmartScope™ in proper position and you still cannot hear any sounds, restart the unit by turning the power off and on, and selecting a different heart or lung sound.

**Life/form®** Products by NASCO

*Nasco* Fort Atkinson  
901 Janesville Avenue, P.O. Box 901  
Fort Atkinson, Wisconsin 53538-0901  
1-800-558-9595  
[www.eNASCO.com](http://www.eNASCO.com) • E-mail: [lifeform@eNASCO.com](mailto:lifeform@eNASCO.com)

COPYRIGHT © NASCO 2000 PRINTED IN U.S.A. NP 60-01/RV 10-01

## AUSCULTATION TRAINER AND SMARTSCOPE™ INSTRUCTION MANUAL

The remote control can be programmed to these lung conditions:

- 01 Normal Lung
- 02 Normal Vesicular
- 03 Wheezes
- 04 Mono wheeze
- 05 Fine crackle
- 06 Coarse crackle
- 07 Ronchi crackle
- 08 Stridor
- 09 Cavernous
- 10 Bronchovesicular
- 11 Bronchial
- 12 Pulmonary edema
- 13 Infant
- 14 Friction rub
- 15 Egophony
- 16 Pectoriloquy

Consult the enclosed laminated card for lung and heart sound site locations.

To listen to the selected sounds, place the earpieces in ears angled in a forward position. Place the diaphragm of the SmartScope™ over one of the appropriate sites on the manikin (see diagram on back).

As an alternative, an amplified speaker (SB20146U) can be used allowing an entire classroom to hear at the same time. To connect the speaker, plug the speaker cord into the speaker jack on the top of the Smart Scope™ box. When a speaker is connected to the SmartScope™, the ear pieces will not work. Place the diaphragm of the SmartScope™ over the appropriate sites on the manikin.

Note: The remote has a battery saver that shuts the unit down after 8 minutes if the remote is left on the same setting. To prevent it from shutting down, select a different heart or lung sound within the 8 minute period of time.

### Available Supplies

LF01144U Additional SmartScope™  
LF01148U Replacement Remote Control  
SB20146U Amplified Speaker