



## Limited Warranty

Nasco warrants to the purchasers of **CRiSis™** products that they will be free from defects in material and workmanship for a period of three years from the date of purchase. Nasco will repair any defect reported within three years of the date of purchase at no charge. Products found to be defective may be returned to the authorized Nasco dealer from whom the item was purchased, or returned directly to Nasco. Nasco will be liable under this limited warranty only if **CRiSis™** products have been serviced properly as directed in the operating manual.

Nasco will not be responsible for damage caused by unauthorized repairs or modifications that have been made, or if the product has been damaged through misuse, accident, or abuse. This warranty does not cover wear and tear or expendables such as batteries, lubricant, and replacement lungs. There are no other expressed or implied warranties of merchantability, fitness of purpose, or otherwise on “Airway Larry” products, parts, and accessories.

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The “Airway Larry” Manikin is a Complete Resuscitation System consisting of modular components which allow you to create a manikin to suit your changing needs. The components may be purchased as a complete package or separately to update your existing manikin. Update packages are compatible with all versions of both **CPARLENE**<sup>®</sup> and Resusci<sup>®</sup> Anne<sup>™</sup> \*.

This manual will guide you in setting up, using, and maintaining each of the available components. Each section also includes a list of replacement parts, supplies, and auxiliary equipment.

By reading and following all instructions carefully and completely, you can be sure your **Life/form**<sup>®</sup> “Airway Larry” Manikin will provide years of valuable service.

### Cleaning

Normal surface soil can be removed from the trainer with mild soapy water. Do not allow water to contact electrical components. Stubborn stains may be removed with Nasco Cleaner (LF09919U). Simply apply the Nasco Cleaner to the soiled area and wipe clean with a soft cloth.

**Note:** Avoid using cleaner around the mouth area if students will be applying direct mouth-to-mouth resuscitation techniques, as the cleaner may be toxic if ingested. NEVER place the trainer on any kind of printed paper or plastic. These materials, as well as ball-point pens, will transfer indelible stains. Do not use any cosmetics.

### List of Components

- “Airway Larry” Manikin
- IV Arm
- Blood Pressure Arm with Speaker Wire
- Electronic Blood Pressure Control Unit
- Defibrillation Chest Skin
- 8-oz. Pump Spray Lubricant
- 3 cc Syringe with Needle
- 12 cc Syringe with Needle
- 2 IV Bags
- 3 Pinch Clamps
- 2 Small Towels
- Butterfly Infusion Set
- Synthetic Blood
- 6 “AA” Batteries
- Sphygmomanometer

\*Resusci<sup>®</sup> Anne<sup>™</sup> is a trademark of Laerdal Medical Corporation.



## Nasco **Life/form**® Airway Management Head

### About the Simulator

The **Life/form**® Airway Management Trainer Head is the most realistic simulator available for the training of intubation and other airway management skills.

Nasco has taken great care to create an airway management trainer that is anatomically correct in respect to both size and detail. Landmarks include nostrils, teeth, tongue, oral and nasal pharynx, larynx, cricoid ring, epiglottis, arytenoid, false and true vocal cords, trachea, esophagus, “Airway Larry” lung set, and stomach.

Nasco’s Airway Management Trainer Head allows you to practice oral, digital, and nasal intubation. E.T., E.O.A., PTL®, and Combitube® insertion can all be practiced as well (please see “Using the Combitube®”). Suction techniques and proper cuff inflation can also be performed and evaluated.

### Lubricating the Airway Trainer Head

Lubricate both the simulator and supplies being used with the pump spray lubricant provided. (*See figures 1 & 2.*)



**Figure 1**



**Figure 2**

**Note:** Nasco recommends the use of the provided lubricant or a similar vegetable-based lubricant for the Airway Management Trainer head. The use of a silicone-based lubricant may cause damage to the simulator, thus voiding Nasco’s warranty on the trainer.

### Set Up

#### A. Using the Combitube®

1. Thoroughly read and follow the instructions that come with the Combitube®. The trainer will accept either a full-size or a small adult tube. As with a live patient, it may be necessary to back the tube out slightly if ventilation cannot be established.

**Note:** Depending on tube placement, the large cuff may not accept the recommended amount of air. In this case, simply inflate the cuff to its maximum volume (when the plunger stops), and while holding the plunger down, detach the syringe from the blue pilot balloon, then proceed.



**Figure 3**

## B. Attaching the Head to the Manikin

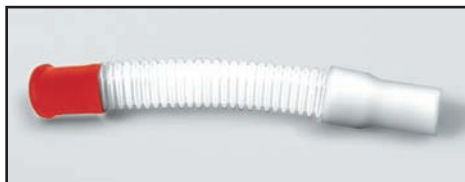
1. Nasco's Airway Management Trainer head has the ability to be attached to **CPARLENE**<sup>®</sup> and any of the Resusci<sup>®</sup> Anne<sup>™</sup>\* brand CPR manikins.
2. To begin, turn the head face down and tip it upward slightly until the two keyways on the back of the neck slide under the ring and into the top of the torso. **(See figure 3.)** Now match the single keyway on the neck front up to the slot on the backside of the torso, and push the head down until it snaps into place. Rotate the head back around so that it is facing up and in the correct position.

## C. Connecting the Airways

1. Once the head is in place, connect the **CPARLENE**<sup>®</sup> lung bag to the right bronchus by sliding the cap plug over the adapter. **(See figure 4.)**



**Figure 4**



**Figure 5**

**Note:** Our Airway Management Trainer head will fit on all models of **CPARLENE**<sup>®</sup> and Resusci<sup>®</sup> Anne<sup>™</sup>\* manikins. To adapt the Airway Management Trainer head to the Resusci<sup>®</sup> Anne<sup>™</sup>\*, we have included an adapter piece. **(See figure 5.)** Remove the Resusci<sup>®</sup> Anne<sup>™</sup>\* head and the connected section of corrugated tubing down to the valve. Install the Airway Management Trainer head and hook it up to the lung system with the adapter piece. Place the red cap end over the white fitting of the right bronchus and hook the other end to the lung bag valve nipple (where the previous corrugated tubing had been connected).

To remove the head from the manikin, reverse the attachment procedure.

\*Resusci<sup>®</sup> Anne<sup>™</sup> is a trademark of Laerdal Medical Corporation.



**Figure 6**

### **Cleaning and Maintenance**

To clean the Airway Management Trainer head, you will first need to remove the head from the manikin.

Next, take the trainer to an area with a sink and open counter space. Using the supplied red cap, plug off the right bronchus (the esophagus and left bronchus should already be plugged). **(See figure 6.)** Stabilize the head on the counter face-up (towels work well for this) with the plugged tubes hanging over the sink. Now carefully pour warm soapy water (a mild dish soap works best) into the mouth until the water level reaches halfway up the tongue. Now tilt the head back and bring the neck up 3" off the countertop.



**Figure 7**

Continue filling until the water level covers the tongue. At this point, take a small soft brush and gently scrub the inside of the mouth (a small toothbrush works well for this). Cotton swabs can be used to scrub inside the nostrils. When done, pull the plug from the esophagus and drain into the sink. Now pick the head up, hold it in a vertical position, and pull the plugs from the trachea to completely empty the system. **(See figure 7.)**

### **Rinsing the Airway**

To rinse the airway, follow the same procedure using clean, warm tap water. Repeat this process until all the soap has been flushed from the system.



**Figure 1**

## Nasco **Life/form**® Injectible Training Arm

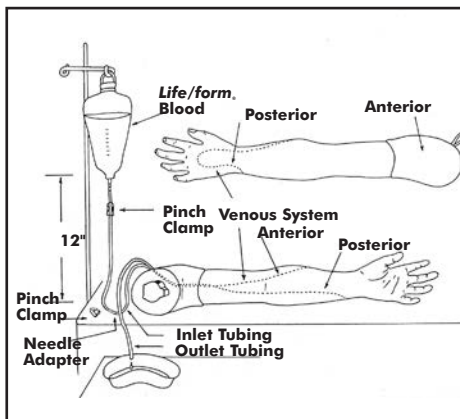
### About the Simulator

The **Life/form**® Injectible Training Arm Simulator duplicates the human condition as closely as modern plastics technology allows — it is almost the real thing. (See **figure 1.**) Its care and treatment should be the same as with a patient; abuse or rough handling will damage the simulator — just as it would cause pain to a patient.

Although this arm will provide years of trouble-free usage, the skin and veins can be readily replaced when needed. The outer skin is easily peeled off, revealing the “core” and veins, providing, literally, a brand new arm. The life of the replaceable skin and veins will be prolonged by utilizing smaller needle sizes (such as 20- to 25-gauge). However, if instruction with larger needle sizes is required, this can be done; the skin and veins will merely need to be replaced sooner. The Skin and Vein Kits are available through Nasco (see page 9 for list of supplies).

### Internal Structure

Internally, the vascular structure (rubber tubing) begins at the shoulder and continues under the arm, crosses the antecubital fossa forearm, makes a loop in the back of the hand, and then returns to the underarm. This



**Figure 2**

venous system is constructed of special plastic tubing, with the lumen being the approximate size of a human vein. (See **figure 2.**) This vascular structure has inlet tubing and outlet tubing at the shoulder. It is via these tubes that synthetic blood is injected and removed, thus allowing practice in the techniques of blood drawing and starting intravenous infusions.



**Figure 3**

### General Instructions for Use

#### A. Preparing the Synthetic Blood

1. Fill the pint bottle containing synthetic blood concentrate with distilled water. (See **figure 3.**)
2. Pour the synthetic blood into one of the bags. (See **figure 4.**)

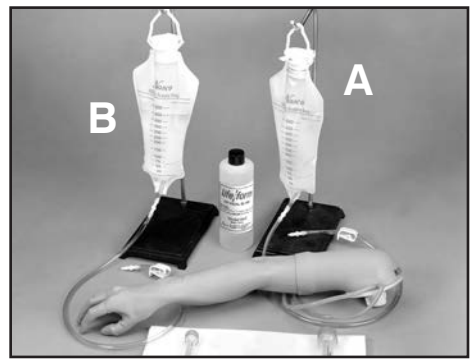


**Figure 4**

5. With the other shoulder tubing in a basin or sink, gradually “flush” the vascular system with synthetic blood by slowly opening the clamp. Allow some “blood” to pass through the system until the air bubbles have been eliminated.
6. Once the system is filled, use one of the pinch clamps to close off the blood outlet tubing. The venous system is now full of “blood” and pressurized. Be sure to leave the clamp on the IV tubing open.
7. After filling the venous system according to instructions, the arm is now ready for you to practice drawing “blood.” “Blood” can be drawn anywhere along the pathway of the vein. Distilled water, rather than alcohol, should be used to prepare the sites. Synthetic blood will actually be aspirated once the vein is properly punctured.
8. Small diameter needles (20- to 25-gauge) should be used.

3. Be sure the clamp on the IV tubing is closed, and hang the bag no more than 18" above the level of the arm.

4. Attach the end of the IV tubing to one of the shoulder tubings.

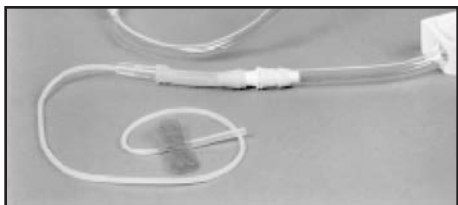


**Figure 5**

### **B. Preparing the Arm for Intravenous Infusions**

1. Close clamp at end of bag A IV tube, then fill with water (distilled water is recommended), and hang not more than 18" above the arm. (**See figure 5.**)
2. Appropriate intravenous infusion needles (or butterflies) should be used, and distilled water is recommended as an infusion.
3. The self-sealing simulated veins lend themselves very well to the practice of starting IV infusions, and IVs can be started anywhere along the pathway of the simulated vein. Cleanse the sites with distilled water only.
4. Attach fitting end of tubing from bag A to the shoulder tubing that has the pinch clamp. Attach the fitting end of bag B to the remaining shoulder tube.
5. With bag A hanging and bag B laying on the surface, open clamps on both bags and the arm tube clamp. Allow fluid to flow until air bubbles are gone. The venous system is now pressurized. Close the clamp on bag B.
6. Insert IV needle (or butterfly) in vein. “Flashback” will indicate proper insertion.
7. Close the clamp on Bag A and the clamp on the arm tube. Disconnect bag A from the shoulder tubing. You may now use bag A as the infusion supply.

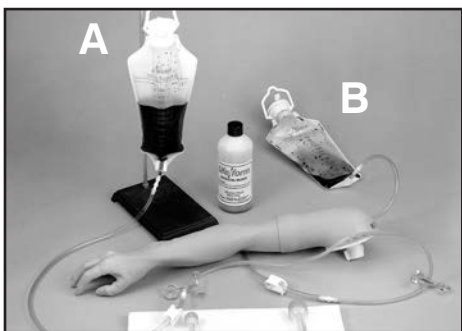




**Figure 6**

8. Attach the needle or butterfly to bag A using the latex adapter. (See figure 3.)
9. To start the IV flow, open the clamps on both bags A and B.

Proof of proper procedure will be evidenced by the flow of fluid from bag A. Control flow rate with the clamp on bag A. This fluid can be used over. A user-supplied IV bag may also be used for the infusion fluid. This will enable bags A and B to remain attached to the arm. If a more realistic experience is desired with “blood flashback” instead of water when inserting butterfly into lumen of vein, use procedure C.



**Figure 7**

### C. Recommended Procedure for Simultaneous IV Infusions and Drawing “Blood”

Using two IV bag kits, hook up and install with IV bag A and IV bag B. (See figure 7.) Remove air vent from bag B.

1. Begin with synthetic blood in IV bag A. Open clamp on both A and B to pressurize system. “Flush” system by allowing “blood” to flow into container B

until bubbles in tubing disappear, then regulate “blood” flow from bag A (using clamp). System is now full of “blood” and pressurized. “Blood” can now be drawn anywhere along the pathway of the vein.

2. Intravenous infusion — Insert butterfly into lumen of vein. Proof of correct insertion is evidenced by flashback of “blood.” Insert end of IV tubing into butterfly. Adjust flow to desirable rate with clamp. With this arrangement, IV bag B, when full, may be easily switched with A.

**Note:** Always regulate flow of “blood” from the raised bag, and open the other clamp.

### D. Intramuscular Injections

The procedure for administering intramuscular injections can be practiced in the area of the deltoid. Prep the site with distilled water only. These injections can be done utilizing the appropriate needle and syringe. ½ cc of distilled water may be injected, however, we recommend utilizing air as injectant since the distilled water cannot be drained, but must evaporate from the arm. Synthetic blood must NEVER be used for injections.

### Troubleshooting

If “blood” cannot be aspirated during the blood drawing procedure:

1. The clamp is not opened.
2. There are kinks in the tubing of IV sets.
3. Is the supply hung at the appropriate height according to the instruction manual? Hanging the supply bags “slightly” higher for the bags that are not producing enough pressure can create just enough gravity on the fluid to facilitate flow.

4. Tubing has been pinched shut by constant pressure of pinch clamps. Lumen remains pinched occasionally even if pinch clamps are loosened. Slide clamp to new position and, with fingers, manipulate tubing at pinched site to restore lumen. In heavy use, slide clamp to new position on tubing from time to time to prevent the “permanent pinch” caused by constant clamp pressure. Replace IV kit.
5. If these measures do not unplug the venous system, try using a large 50 cc syringe to force fluid through the tubing.
6. If none of these measures work, peel back the skin (soap up arm and skin generously with Ivory® liquid detergent) of the arm to the knuckles (do not remove from fingers), and examine all tubing for possible kinks.
2. **NEVER** use synthetic blood for intramuscular injection.
3. **DO NOT** use dull or burred needles, as these will cause leaks in the system. Burred needles will cause permanent damage. Use smaller needles (20- to 25-gauge).
4. **DO NOT** allow “blood” to dry on the simulator — it may stain the skin.
5. Use only 500 cc of infusion fluid, as a larger amount will also increase the pressure of the venous system, resulting in leaks.
6. **DO NOT** clean the simulator with solvents or corrosive material, as they will damage it.
7. **DO NOT** use for subcutaneous injection. Nasco’s Intradermal Injection Simulator (LF01008U) is specially designed for intradermal injection training and practice.

### Care of Simulator

After each class use, disconnect “blood” and flush the venous system. Return synthetic blood to the storage bottle. Remove pinch clamps and IV sets from arm. Use tap water to flush the venous system and wash the outside of the arm with Ivory® liquid detergent and water. Excess water may be removed from the arm by raising the hand, lowering the shoulder, and draining it into a sink or basin. Always remove the pinch clamps from shoulder tubing and drain excess water from veins before storing.

### Cautions

1. This synthetic blood is specially formulated to be compatible with the self-sealing veins and plastics used in manufacturing the arm.

8. Nasco Vein Tubing Sealant Kit (LF01099U) will extend the life of the tubing.

### Supplies/Replacement Parts for Injectable Training Arm

- LF00845U** **Life/form**® Venous Blood, 1 quart
- LF00846U** **Life/form**® Venous Blood, 1 gallon
- LF01099U** Vein Tubing Sealant Kit
- LF03215U** Skin and Vein Replacement Kit
- LF09919U** Nasco Cleaner

## Nasco *Life/form*® Blood Pressure Simulator About the Simulator

The Nasco *Life/form*® Blood Pressure Simulator is designed for years of maintenance-free operation as a training tool for not only the nurse, doctor, or pre-hospital health care provider, but also for anyone involved in the training of health care professionals.

The Nasco *Life/form*® Blood Pressure Simulator has digitally recorded blood pressure sounds that can be varied by pulse rate and volume. The different Korotkoff phases can be identified, and an optional auscultatory gap can be selected. A palpable radial pulse is present in the wrist. For additional uses, purchase the Amplifier/Speaker System (LF01189U) for group demonstrations or review.

### List of Components

- Case
- Arm with speaker wire
- Electronic control unit
- 6 “AA” batteries
- Sphygmomanometer

### General Instructions for Use Installing the Batteries

Take the Blood Pressure Electronic Control Unit from the box and turn it over, placing it face down onto a padded work surface. Locate the “Open” compartment on the back of the panel where the batteries are to be installed. (See **figure 1.**) Place your thumb or index finger on the “Open” compartment and push up.

This will open the battery compartment. The compartment is marked as to the “+” and “-” positions of the batteries. The battery bracket is now accessible to the user.

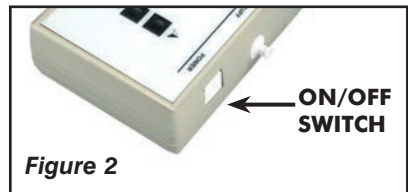


**Figure 1**

Install six “AA” batteries as indicated by the orientation diagram embossed in the bottom of the bracket. It is recommended that alkaline batteries be used for increased battery life. After the batteries have been properly installed, reassemble the Blood Pressure Simulator by simply reversing the disassembly procedures. Place the unit face up on the work surface and turn it on by pressing the on/off switch on the top right of the unit. (See **figure 2.**)

Observe the display and verify that a readable display is present, indicating proper battery installation.

**Note:** The control box has a battery saving feature which will turn the unit off after about 8-10 minutes if no keys are used within that period of time.



**Figure 2**

The next step is to connect the simulated arm and speaker assembly along with the sphygmomanometer cuff and gauge assembly included with the unit. First, locate the end of the pressure line attached to the sphygmomanometer that has the male luer fitting attached to it. Attach this to the female luer fitting at the top of the unit marked CUFF. (See **figure 3.**)

After the pressure line fitting has been properly installed, locate the plug that is at the end of the wire which extends from the simulated arm assembly. Insert the plug from the arm into the jack at the top of the unit marked ARM. (See **figure 4.**)

At this point the Blood Pressure Simulator is ready for use. The unit has been factory calibrated for use with the accessories included in the kit. No further calibration adjustments should be necessary at this time. If the unit is to be used with a sphygmomanometer other than that supplied with the unit, or if recalibration is necessary at a later date, then see the section titled “Calibration Procedures.”

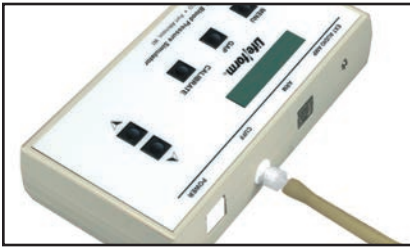


Figure 3



Figure 4

### Familiarizing Yourself with the Nasco *Life/form*® Blood Pressure Simulator Control Panel

Under the display window are three buttons: Menu, Gap, and Calibrate. (See figure 5.) The systolic pressure is set by pressing the Menu key once. The pressure is adjusted up or down using the up or down arrow keys. (See figure 6.) The diastolic pressure is set by pressing the Menu key a second time. Adjust the setting up or down with the arrow up and down keys. (See figure 7.) The heart rate is set by pressing the Menu key a third time and adjusting the rate with the arrow up and down keys. The pulse rate can be set from 0 beats per minute to 300 beats per minute. (See figure 8.) The palpation can be set to either on or pulseless. When the pulseless setting is used, the diastolic and systolic pressures will automatically be set to 0.

### Palpable Pulse Feature

The Nasco *Life/form*® Blood Pressure Simulator also incorporates a palpable pulse at the radial location. (See figure 9.) Palpations can be felt upon start-up of the unit or after blood pressure settings have been made. Press the Menu key repeatedly until “Set PALPATION” menu appears. “Pulse

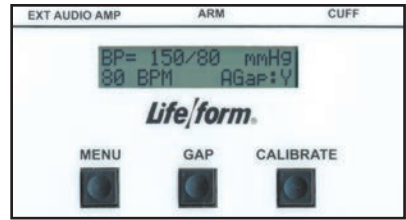


Figure 5



Figure 6



Figure 7

ON” is defaulted and enables the palpation feature.

The pulse in the wrist will begin when the electronic box is turned on. During the actual blood pressure reading, the palpable pulse will turn off when the cuff is inflated and surpasses the systolic set point. It will turn on again when the cuff is deflated 20 mmHg BELOW the diastolic set point.

**Note:** The pulse feature is turned off during this time to allow students to clearly hear the Korotkoff sounds through the stethoscope without interference from the background noise of the pulse feature in the wrist. **The palpable pulse is delicate and should be palpated lightly, as you would with a real patient. Pressing too hard can damage the pulse feature.**

Make sure the cable from the blood pressure arm is properly connected to the electronic box and the palpation feature is in the “PULSE ON” mode.

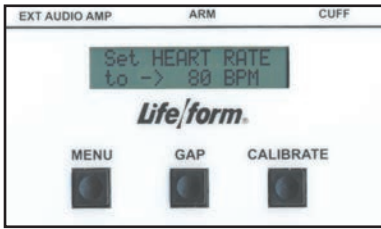


Figure 8

A pulseless condition can be simulated by switching your unit to the “pulseless” mode. Press the Menu key repeatedly until “Set PALPATION” menu appears. By pressing the down arrow at this point, palpations can be disabled, causing the simulator to be pulseless. When in the “pulseless” mode, all settings are automatically reset to 0 and all blood pressure sounds are disabled. The pulseless setting will also turn off the sounds in the arm. The pulse will always be on unless the pulseless feature is activated or if the systolic or heart rate levels are set to zero. To do this, press the Menu key four times. The down arrow key will set the pulse to pulseless. Press the arrow up key to turn the pulse back on. (See figure 10.)

Located to the right of the Menu key is the auscultatory Gap key. (See figure 11.) This key is included to simulate the auscultatory gap that is sometimes present between phase 1 and phase 2 sounds in which no audible sound is noted during this portion of auscultation. This control function is included so that the trainee can become familiar with this phenomenon.

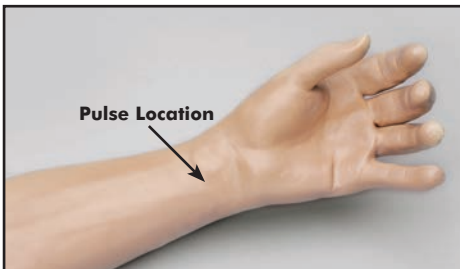


Figure 9

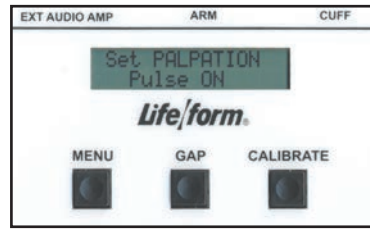


Figure 10

Pressing the Gap key simply turns the gap function off or on. When the key is pressed, a message will briefly appear that the auscultatory gap is enabled or disabled. Also the main display will show (at the bottom right of the display) either AGap:Y (for on) or AGap:N (for off).



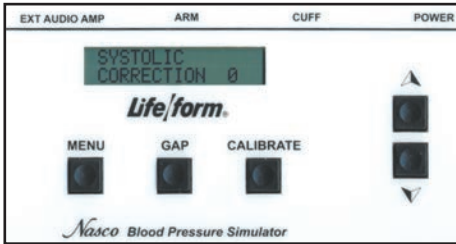
Figure 11

The arrow up and down keys also control the volume of the sounds that are present in the arm. From the main menu, press the up arrow key to increase the volume, press the down arrow key to decrease the volume. The volume levels can be adjusted from level 1 (the lowest volume) to level 7 (the highest volume).

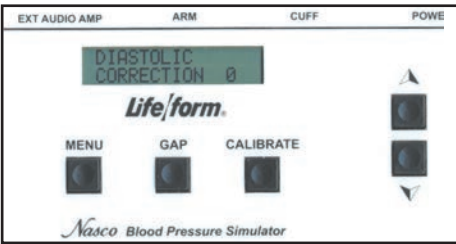
### Using the Nasco *Life/form*® Blood Pressure Simulator

First, verify that the pressure line tubing from the sphygmomanometer and the audio line coming from the simulated arm assembly are properly connected to the blood pressure simulator unit, as previously described in the setup procedures. Apply the sphygmomanometer cuff and gauge to the simulated arm assembly in the usual manner. Apply the stethoscope to the simulated arm, also in the usual manner. Set the systolic and diastolic controls to the desired levels. Select the auscultatory gap if desired. Finally, adjust the pulse rate control to the desired setting.

For this example, assume that the sounds stopped at 72 mmHg. From the systolic window, press the Menu key to change the diastolic window. **(See figure 13.)** With the arrow down key, set the correction to -2. Press the Menu key again, and the message “CALIBRATION COMPLETE” will appear. The main menu window will be displayed.



**Figure 12**



**Figure 13**

### Preparing Your Equipment for Use with the Nasco Blood Pressure Simulator

To adapt your sphygmomanometer for use with the simulator, it is first necessary to obtain the luer fitting and the T-fitting included with the simulator, which is also available through your Nasco catalog sales office. Using a wire cutting pliers or similar instrument, carefully cut the pressure line of the sphygmomanometer about 2" from the gauge. **(See figure 14.)**

Take the T-fitting and insert it between the two ends of tubing that were previously cut. **(See figure 15.)** Assemble the portion of pressure line tubing over the remaining barbed end on the T-fitting. **(See figure 16.)**



**Figure 14**

Lastly, take the loose end of the tubing and push the male luer fitting into it. **(See figure 17.)** Attach the male luer fitting to the fitting marked CUFF at the top of the unit. Once all of the necessary connections have been properly made, go to the section titled “Calibration Procedures” and calibrate the unit. When the calibration procedures have been completed, the simulator is ready for use.



**Figure 15**



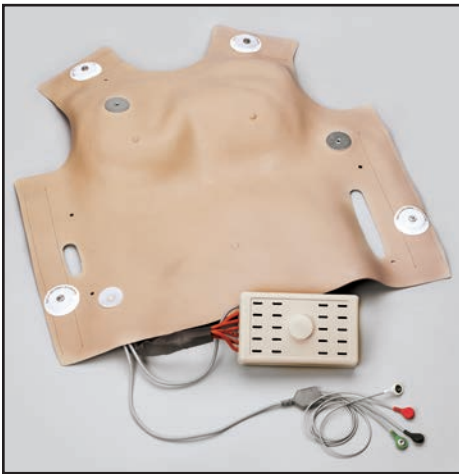
**Figure 16**



**Figure 17**

### Supplies/Replacement Parts for Blood Pressure Simulator

- LF01096U** Electronic Control Unit with Sphygmomanometer
- LF01189U** Amplifier/Speaker System



## Nasco **Life/form**® Defibrillation Chest Skin

### About the Simulator

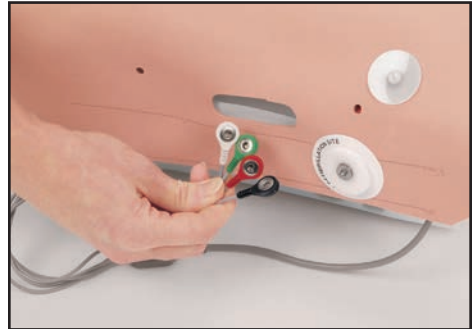
The **CRiSis**™ System Defibrillation Chest Skin has been designed to absorb a maximum of 360 joules of energy\*. Although capable of absorbing 360 joules, we do recommend that the smallest energy level possible be used while training with the skin.

The **CRiSis**™ System Defibrillation Chest Skin will enable you to practice defibrillation using manual, semiautomatic, and automatic external defibrillators (AEDs). When using any one of these in training, always follow the recommended operating procedures for that particular defibrillator.

The “Airway Larry” Manikin comes with the Defibrillation Chest Skin in place and ready for use.

**\*Note:** 360 joules is the maximum energy level that Nasco recommends administering to the Defibrillation Chest Skin. Energy levels in excess of 360 joules may cause irreparable damage to the chest skin, circuitry, and patient simulator being used — thus voiding Nasco’s warranty and

endangering your equipment. Nasco assumes no liability for damage or injury that may be caused by the use and/or misuse of this equipment. All normal safety precautions for defibrillation training should be followed and energy levels should be minimized. Nasco did not design nor intend this Defibrillation Chest Skin to be used as anything other than a training apparatus for defibrillation.



**Figure 1**

### Connecting Your Arrhythmia or Patient Simulator

Nasco has designed the **CRiSis**™ System to be compatible with a variety of patient simulators. This is possible via the standard four-lead snap cable. (**See figure 1.**) If your patient simulator has only two output posts, the red and black leads must be connected to the patient simulator.

You may want to connect the manikin to the simulator that came with your defibrillator. If your patient simulator doesn’t have the standard snap connectors, it will be necessary to purchase the corresponding adapters from Nasco. To order, please see “Supplies/Replacement Parts” on page 15.

Once your manikin is connected to your patient simulator, you will be able to pick up the ECG waves either through the monitor hook-ups on the skin or through the two disks attached to the skin on the defibrillation sites.

These disks will enable you to pick up the ECG wave using either the “Quick Look” paddle option or directly through gel pads, just like on a real patient.

It is possible to use AED gel pads with the cable connectors built into the gel — the same ones you use on patients. In an effort to help you save money, Nasco does offer a set of defibrillation pad and patient simulator adapters that will correspond to your particular AED unit. These defibrillation pad and patient simulator adapters can be reused again and again. They come as a set. (See “Supplies/Replacement Parts” at right.)

### **Troubleshooting**

**Problem** ECG wave is not being picked up from the manikin.

### **Solution**

1. Check your connections on the patient simulator. One or more may be disconnected.
2. Check to make sure your patient simulator is plugged in and working properly.

**Problem** ECG wave is inverted.

### **Solution**

Recheck the position of the red and black lead snaps on the patient simulator.

**Note:** If the defibrillation skin is not functioning or wiring comes undone, please contact us to repair or replace the unit. Failure to do so, or unauthorized repair, may void the warranty or cause further harm or damage to you or your equipment.

## **Supplies/Replacement Parts for Defibrillation Chest Skin**

- LF03656U** Physio Control Defibrillation Pad and Patient Simulator Adapter Package for LifePak 10 and LifePak 20
- LF03657U** Marquette Electronics Defibrillation Pad and Patient Simulator Adapter Package
- LF03658U** Space Labs/Laerdal/Heartstart/First Medic Defibrillation Pad and Patient Simulator Adapter Package
- LF03961U** Zoll Training Cables with Adapters
- LF03962U** Physio Control Training Cables with Adapters for LifePak 12

If you need help selecting the training pad adapters that correspond to your AED unit, please feel free to call us at 1-800-558-9595 for assistance.



## Other Available *Life/form*® Simulators

- LF00698U** Adult Injectable Arm (White)  
**LF00855U** Male Catheterization  
**LF00856U** Female Catheterization  
**LF00901U** Prostate Examination  
**LF00906U** Ostomy Care  
**LF00929U** Surgical Bandaging  
**LF00957U** Enema Administration  
**LF00958U** Pediatric Injectable Arm  
**LF00961U** Intramuscular Injection  
**LF00984U** Breast Examination  
**LF00995U** Arterial Puncture Arm  
**LF00999U** Pediatric Injectable Head  
**LF01005U** First Aid Arm  
**LF01008U** Intradermal Injection Arm  
**LF01012U** Heart Catheterization (TPN)  
**LF01019U** Ear Examination  
**LF01027U** Peritoneal Dialysis  
**LF01028U** Suture Practice Arm  
**LF01034U** Suture Practice Leg  
**LF01036U** Spinal Injection  
**LF01037U** Hemodialysis Practice Arm  
**LF01038U** Episiotomy Suturing Set  
**LF01042U** Suture Kit  
**LF01062U** Pelvic, Normal & Abnormal  
**LF01063U** Stump Bandaging, Upper  
**LF01064U** Stump Bandaging, Lower  
**LF01069U** Cervical Effacement  
**LF01070U** Birthing Station  
**LF01082U** Cricothyrotomy  
**LF01083U** Tracheostomy Care  
**LF01084U** Sigmoidoscopic Examination
- LF01087U** Central Venous Cannulation  
**LF01095U** Blood Pressure Arm  
**LF01108U** Infant Intraosseous Infusion  
**LF01121U** Advanced IV Arm  
**LF01131U** Venipuncture and Injection Arm  
**LF01139U** Advanced IV Hand  
**LF01142U** Auscultation Trainer  
**LF01143U** Testicular Exam  
**LF01152U** Male & Female Catheter  
**LF01155U** Advanced CPR Dog  
**LF01162U** Venatech IV Trainer  
**LF01174U** NG Tube & Trach Skills
- LF01184U** Venatech IM & Sub Q  
**LF01193U** Special Needs Baby  
**LF03000U** **CPARLENE**® Series  
**LF03601U** Adult Airway Management Trainer with Stand  
**LF03602U** Adult Airway Management Manikin  
**LF03609U** Child Airway Management Trainer with Stand  
**LF03616U** Child **CRiSis**™ Manikin  
**LF03617U** Deluxe Child **CRiSis**™ Manikin with Arrhythmia Tutor  
**LF03620U** PALS Update Kit  
**LF03623U** Infant Airway Management Trainer with Stand  
**LF03632U** Child Intraosseous Infusion/Femoral Access Leg on a Stand  
**LF03633U** Child Airway Management Trainer Torso  
**LF03693U** **Basic Buddy**® CPR Manikin  
**LF03699U** "Airway Larry" Airway Management Trainer  
**LF03709U** Infant **CRiSis**™ Manikin  
**LF03720U** **Baby Buddy**™ Infant CPR Manikin  
**LF03750U** Fat Old Fred  
**LF03760U** Airway Management/Cricoid Pressure Trainer  
**LF03770U** Chest Tube  
**LF03953U** **CRiSis**™ Manikin, Complete  
**LF03955U** Deluxe **CRiSis**™ Manikin  
**LF03956U** Deluxe "Plus" **CRiSis**™ Manikin  
**LF03965U** Adult **CRiSis**™ Auscultation Manikin  
**LF03966U** Adult **CRiSis**™ Auscultation Manikin with ECG Simulator  
**LF04000U** **GERI**™/**KERI**™ Manikin Series  
**LF04200U** Adult Sternal Intraosseous Infusion  
**LF06001U** CPR Prompt® Adult/Child Manikin  
**LF06012U** CPR Prompt® Infant Manikin  
**LF06200U** CPR Prompt® Keychain Rescue Aid  
**LF06204U** CPR Prompt® Rescue and Practice Aid

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