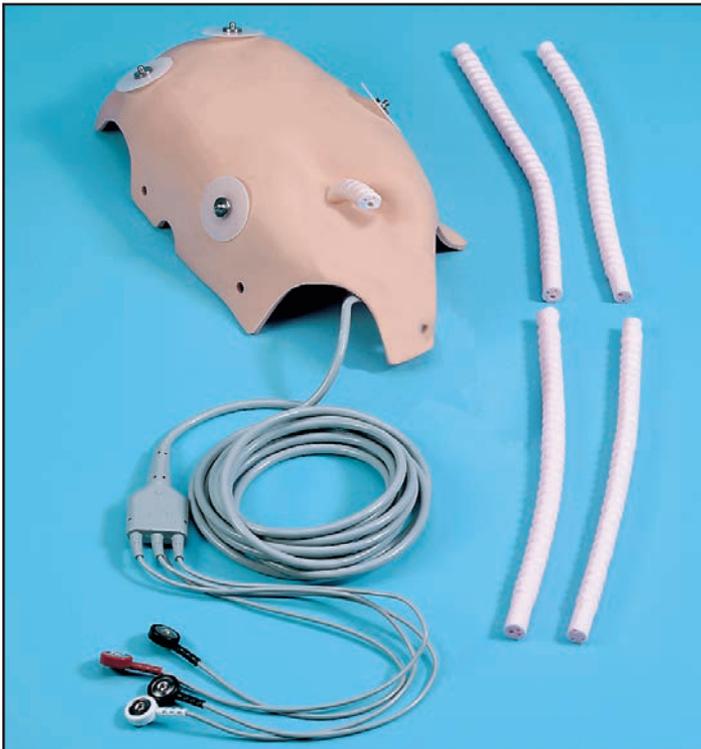


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# Infant ECG/Umbilical Cannulation Skin LF03710U Instruction Manual

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## About the Simulator

The **Life/form**® Infant ECG/Umbilical Cannulation Skin is an exciting training aid for practicing and demonstrating umbilical clamping, cutting, and cannulation of the newborn.

This simulator combines visual and tactile realism to provide students with the most realistic training possible. The umbilicus allows students to practice clamping, cutting, and aspirating “blood,” making the use of the simulator a realistic training exercise. The ECG Monitoring System allows rhythms to be detected at four ECG sites.

With proper care, this **Life/form**® simulator will provide years of reliable service. Please read the instructions carefully.



## List of Components

- **Life/form**® Infant ECG/Umbilical Cannulation Skin
- Umbilicus with Latex Adapter Tube and Ramp Clamp
- 5 Umbilical Replacements
- 3/8" Drill Bit
- **Life/form**® Venous Blood, 1 pint
- IV Bag
- 2 Small Towelettes
- 6 Umbilical Clamps

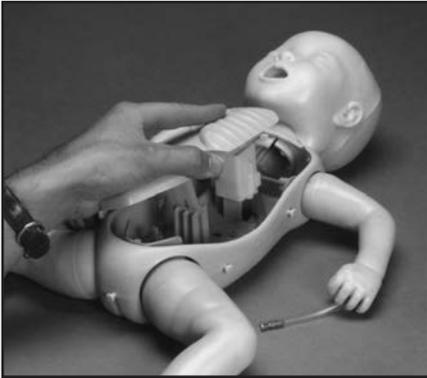
## Setup

The **Life/form**® Infant ECG/Umbilical Cannulation Skin has been designed to replace the standard outer chest skin on the Resusci® Baby\* brand CPR Manikins.

## Resusci® Baby\* Installation Instructions

### Removing the Regular Chest Skin

In order to install the Infant ECG/Umbilical Cannulation Skin, you must first remove the outer skin that is currently in place on your CPR Manikin.



**Figure 1**

### Chest Plate Preparation

Lift out the lung plate and chest plate assembly. (**See figure 1.**) Once you have removed the lung plate from your Resusci® Baby\*, you must determine which style the lung plate is.

If you have a lung plate like the one in Figure 2, you may proceed to “Installing the Umbilicus” on page 4.



**Figure 2**



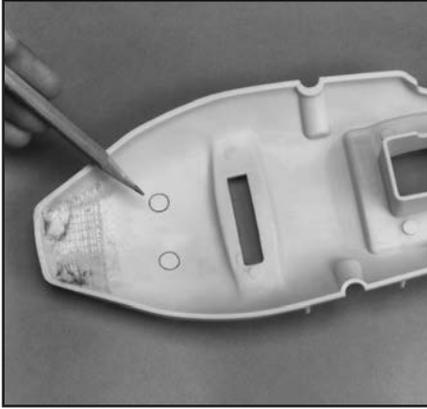
**Figure 3**

If you have a lung plate like the one in Figure 3, follow the steps below.

You will need to locate the  $\frac{3}{8}$ " drill bit included with your **Life/form**® Simulator and a standard electric  $\frac{3}{8}$ " household drill (not included).

Turning the lung plate over, you will find two circular depressions on the lower end of the lung plate. (**See figure 4.**)

**\*RESUSCI® BABY IS A TRADEMARK OF LAERDAL MEDICAL CORPORATION.**



**Figure 4**



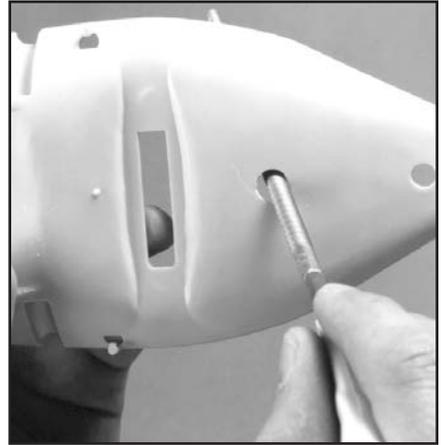
**Figure 5**



**Figure 6**

By measuring, find the center between the two circles and mark it with a pencil. **(See figure 5.)**

Carefully drill a  $\frac{3}{8}$ " hole through the lung plate in the marked location. **(See figure 6.)** (Be sure to wear safety glasses during this step.)



**Figure 7A**



**Figure 7B**

Be sure the hole is nice and smooth and no burrs are present. You may remove any burrs with a file or by trimming carefully with a scalpel. **(See figures 7A and 7B.)**

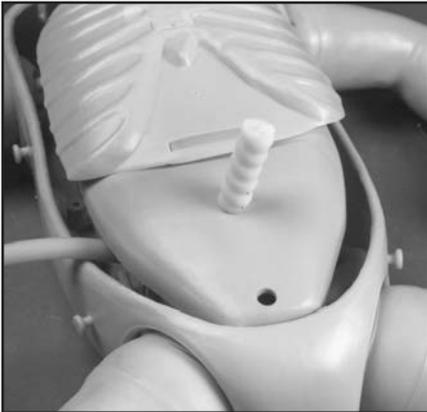
## Installing the Umbilicus



**Figure 8**

Once the lung plate and chest plate assembly have been removed, thread the umbilicus up through the lung plate assembly so about two inches are protruding. **(See figure 8.)**

Next, coil the extra umbilicus under the plate with the small latex tubing coming out of the right hand side of your Resusci® Baby\*.



**Figure 9**

Now install your lung and chest plate assembly back into the body. **(See figure 9.)**



**Figure 10**

Finally, snap the top four connections down on your new chest skin, thread the umbilicus through the hole in the chest skin, and finish attaching the skin. **(See figure 10.)** Push the umbilicus down so only about one inch is protruding.

## General Instructions for Use



**Figure 11**

### A. Preparing the Synthetic Blood

Concentrated blood colorant is provided. Fill the 16-oz. container with tap water for the proper dilution. **(See figure 11.)**

\*RESUSCI® BABY IS A TRADEMARK OF LAERDAL MEDICAL CORPORATION.



Figure 12

### B. Hanging the IV Bag

Hang the bag at an 18" height.

### C. Filling the IV Supply Bag

Pour the diluted **Life/form®** Blood into the IV bag. (See figure 12.) Distilled water can be used in place of synthetic blood, and is recommended. Be certain the clamp on the tubing is closed before filling.

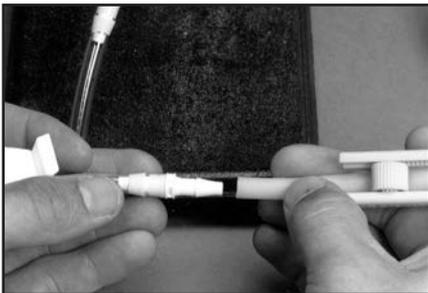


Figure 13

### D. Connecting the IV Bag to the Umbilicus

The umbilicus is supplied with a special connector that fits the umbilicus tubing and the IV tubing. Insert the connector from the IV tubing into the tubing coming from the umbilicus as shown. (See figure 13.)



Figure 14

### E. Filling the Umbilicus System

1. Hold a towel or container near the open end of the umbilicus.
2. Carefully open the clamp and allow the liquid to slowly flow through the system until a steady stream exits all three holes at the umbilicus end.

**Note:** Careful adjustment of the ramp clamp is needed to supply a steady stream of “blood” during aspiration procedures. (See figure 14.)

### Procedures That Can Be Performed on This Simulator

#### A. “Blood” Aspiration

The **Life/form®** Infant ECG/ Umbilical Cannulation Skin is now ready for aspiration practice. The “blood” flow is controlled by careful adjustment of the ramp clamp.

#### B. Cutting the Umbilicus

The **Life/form®** Infant ECG/ Umbilical Cannulation Skin Simulator allows the student to practice clamping and cutting the umbilicus. The umbilicus may be drawn out of the body to the desired length for trimming. **Note:** When the umbilici are used up, order the Umbilical Cannulation Replacement Cords (LF03642U) on page 7.

## C. Clamping the Umbilicus

The **Life/form**® Infant ECG/ Umbilical Cannulation Skin is perfect for practicing umbilicus clamping and umbilicus clamp removal.

### Causes for Failure in Function

IV infusion may not flow if the bag isn't high enough, if the clamp isn't open, or if the latex tubing is kinked or pinched.

### A. During the Procedure of Drawing "Blood," If the "Blood" Cannot Be Aspirated

1. The clamp on the IV tubing may not be open.
2. Air could be trapped in the umbilicus system. Simply flush the system slowly, draining some "blood" or distilled water, whichever you are using, until all the air bubbles are eliminated.
3. Check for possible kinks in the system.

### Care of the Simulator

This training simulator has been designed to provide the greatest possible durability and lowest maintenance while not compromising the realism of use. The following are some suggestions for helping you yield the maximum life from this unique simulator.

### A. Before Storing the Infant ECG/ Umbilical Cannulation Skin

1. Drain the umbilicus by raising the body over the height of the IV bag and then opening the ramp clamp. Allow the "blood" to flow back past the bag clamp, then close the clamp.

2. Disconnect the IV bag and pour the fluid back into the container.
3. If synthetic blood was used, flush out both the bag and umbilicus with clean water and allow them to dry.

## B. Umbilicus Replacement

After the length of umbilicus is used up, it will need replacing. The simulator comes with five additional umbilici. To replace the used umbilicus with a new piece, do the following:



**Figure 15**

1. Make sure the clamp on the IV bag is closed.
2. Disconnect the old umbilicus from the latex tubing. (**See figure 15.**)



**Figure 16**

3. Attach the new umbilicus by sliding it inside the tube. (**See figure 16.**)
4. Reinstall the umbilicus as described earlier.

### **Supplies/Replacement Parts for the Infant ECG/Umbilical Cannulation Skin**

- LF00845U** *Life/form*® Venous Blood, 1 quart
- LF00846U** *Life/form*® Venous Blood, 1 gallon
- LF01022U** Fluid Supply Stand
- LF01130U** Fluid Supply Bag
- LF03642U** Umbilical Cannulation Replacement Cords (10 pk)
- LF09919U** Nasco Cleaner

## 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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