

INSTRUCTION MANUAL

**Life/form® Advanced
“Airway Larry”
Airway Management
Torso Trainer**

LF03686



Nasco
HEALTHCARE

About the Simulator

The Life/form® Advanced “Airway Larry” Manikin is a Complete Resuscitation System capable of adding modular components that allow you to create a manikin to suit your changing needs. This manual will guide you in setting up, using, and maintaining the Life/form® Advanced “Airway Larry” Torso. Components may be purchased as a complete package, or separately to update your existing manikin. Update packages are compatible with all versions of Life/form® CPARLENE® and Adult CRiSis™ Manikins.

Features:

- **Airway Management**
 - Anatomically correct nostrils, teeth, tongue, oral and nasal pharynx, larynx, cricoid ring, epiglottis, arytenoid, false and true vocal cords, trachea, and esophagus.
 - Practice oral, digital, and nasal intubation.
 - Intubate with E.T., E.O.A., P.T.L., Combitube®, and King System.
 - Practice suction and proper cuff inflation.
 - Visible chest rise or stomach inflation.

- **CPR**
 - Laryngospasm and tongue edema
 - Adult compression depth
 - Visible chest rise
 - Mouth to Mouth or BVM compatible

- **Palpable Carotid Pulse (manual)**

List of Components

- Advanced “Airway Larry” Torso Manikin
- 20 cc Syringe (2)
- 8-oz. Pump Spray Lubricant (LF03644U)
- Red Caps (3)

Set Up

A. Installing the Chest Compression Springs

1. Remove the chest skin, chest plate, and upper compression plate.
2. Remove the compression springs from packaging. Insert the springs into the four plastic cylinders extending up from the lower compression plate.
3. Position the upper compression plate over the springs so that each of the springs fits up into a cylinder on the bottom of the upper compression plate.

B. Connecting the Airway

1. The manikin's airway has been disconnected to prevent damage during shipping.
2. With the chest skin and chest plate still removed, feed the corrugated bronchial tubes up through the hole in the center of the upper compression plate and connect to the back of the lung bags. *(See figure 1.)*
3. Place the chest plate back over the upper compression plate and lungs.
4. Reattach the chest skin by adjusting the hook-and-loop edges.

Note: The chest skin should not be drawn too tightly over the torso as it could restrict compression retraction or appropriate chest rise during ventilation.

C. Pulse Feature

The Advanced Airway Management Trainer Head is equipped with squeeze bulb for activating a manual carotid pulse. *(See figure 2.)*

D. Stomach Feature

Connected to the esophagus, the Life/form® Advanced "Airway Larry" Torso Trainer is equipped with a stomach intended only as an indicator of improper intubation (stomach rise). *(See figure 3.)*



Figure 1



Figure 2



Figure 3

Set Up



Figure 4



Figure 5

E. Lubricating the Airway Trainer Head

Lubricate both the simulator and supplies being used with the pump spray lubricant provided. (See figures 4 & 5.) (Endotracheal tube sold separately.)

Note: NASCO HEALTHCARE 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 HEALTHCARE's warranty on the trainer.



Figure 6



Figure 7

F. Laryngospasm

Pull back the plunger of a 20 cc syringe and attach it to the **red** stopcock. (See figure 6.) Depress the plunger to force 1-5 cc of air into the system. Close the tubing port at the stopcock to maintain the pressure within the larynx. The syringe may be removed at this point.

G. Tongue Swelling

Pull back the plunger of a 20 cc syringe and attach it to the **yellow** stopcock. (See figure 7.) Depress the plunger to force approximately 10 cc of air into the system. Close the tubing port at the stopcock to maintain the pressure. The syringe may be removed at this point.

Caution: Do not overinflate! Excessive pressure may rupture the system. Stop inflation when resistance is felt or the larynx is observed to close. Always release the pressure system when finished training by opening the tubing port at the stopcock. Inflate system using only air. Never use liquid.

General Instructions for Use

A. Intubating the Advanced “Airway Larry” Torso Trainer

NASCO HEALTHCARE recommends the use of a 7.5-8 mm endotracheal tube for oral intubation and 7.5 cm or smaller for nasal intubation. This simulator allows for the Sellick’s Maneuver of applying cricoid pressure during intubation procedures. Ensuring the cuff is properly deflated prior to removal will prolong the useful life of your simulator. Damage caused by improper use of the simulator will not be covered under the warranty.

1. Determine the method of intubation.
2. Select the appropriate sized intubation appliance.
3. Generously lubricate the airway and appliance.
4. Intubate the manikin.
5. Visualize chest rise or stomach inflation.
6. Ensure the cuff is properly deflated before removing the appliance.

Note: Remove all appliances prior to storage.

B. Using a Combitube® (Not Included)

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 real patient, it may be necessary to back the tube out 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 print balloon and proceed.

Care and Maintenance

A. General 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.



Figure 8

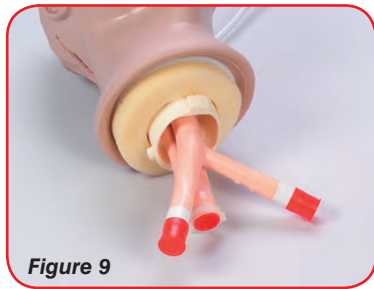


Figure 9

B. Cleaning the Airway Management Trainer Head

1. Remove the chest skin and chest plate.
2. Disconnect the lungs from the bronchi and esophagus from the tubing to the stomach. Then, rotate the head so that it is facing backwards. The large tab on the front of the neck should be aligned with the keyway in the torso. Tilt the head upward until it snaps free. Disengage the smaller rear tabs from the neck opening and pull the head from the body. **(See figure 8.)** Reverse these steps to reattach the head.
3. Take the trainer to an area with a sink and open counter space. Using the red caps supplied, plug off the right and left bronchi and the esophagus.
4. Stabilize the head on the counter face-up (towels work well for this) with plugged tubes hanging over the sink. **(See figure 9.)**
5. Carefully pour warm soapy water (a mild dish soap works best) into the mouth until the water level reaches halfway up the tongue.
6. Tilt the head back and bring the neck up 3" off the countertop.
7. Continue filling until the water level covers the tongue. Take a small soft brush and gently scrub the inside of the mouth (a small tooth brush works well for this). Cotton swabs can be used to scrub inside the nostrils.
8. When done, pull the plug from the esophagus and drain the water into the sink.

Care and Maintenance

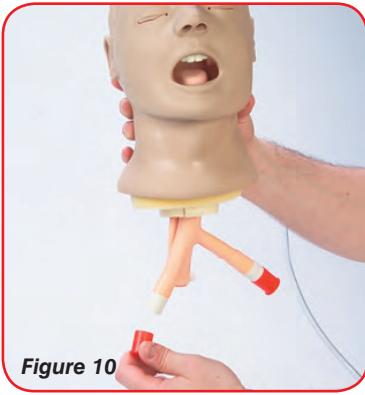


Figure 10

9. Now pick the head up, hold it in a vertical position, and pull the plugs from the bronchi to completely empty the system. *(See figure 10.)*
10. Rinse the airway, following the same procedure used to clean, with warm tap water only. Repeat this process until all the soap has been flushed from the system.

C. Disinfecting the Airway

To disinfect, repeat the standard cleaning procedure with a bleach solution, as specified by the Centers for Disease Control.

1. Fill the system with the solution until it reaches the corners of the mouth. Remember to start filling with the head flat and finish with the neck slightly elevated to ensure that the solution completely fills all airway passages.
2. Once completely filled with the bleach solution, allow the head to sit for at least 10 minutes.
3. Drain as previously described earlier and repeat the rinsing process to flush out all of the bleach solution. Set the head aside and allow it to air dry completely prior to next use or storage.

D. Storage

Retain the padded shipping container to store your clean, dry simulator between uses.

To Store for an Extended Period:

1. Remove any intubation appliance used.
2. Remove the chest skin and chest plate.
3. Disconnect the airway from the lungs, pushing the corrugated bronchial tubes through the hole in the center of the upper compression plate.
4. Remove the upper compression plate.
5. Remove the compression springs from the four plastic cylinders in the lower compression plate.

6. Replace the upper compression plate over the four empty plastic cylinders in the lower compression plate.
7. Replace the chest plate over the upper compression plate.
8. Replace the chest skin and jacket.
9. Cover the simulator with a clear, plastic trash liner.
10. Place the clean, dry simulator in the retained padded shipping container.

Cautions

- Do not place simulator in contact with any printed paper or plastic. The ink will transfer and cause an indelible stain. Similar inks, such as ball-point pen, will also cause an indelible stain.
- Do not use Nasco Cleaner (LF09919U) around the nose or mouth of the simulator. The cleaner may be toxic if ingested.
- Properly lubricate the Airway Management head and intubation appliances.
- Use only Nasco Pump Spray lubricant (LF03644U) with this simulator. Other lubricants such as silicone oil may cause damage to the airway of the simulator.
- Ensure intubation appliances are used accordingly. Improper use of intubation appliances could damage the airway of the simulator. Damage to the airway will require the product to be returned to Nasco for repair.

Supplies/Replacement Parts

LF03285U Replacement Lung Set

LF03520U Short-Sleeved Jacket

LF03628U Replacement Stomach

LF03644U 8-oz. Pump Spray Lubricant

LF09919U Nasco Cleaner

Other Available Modular Components:

Actual product may vary slightly from photo. NASCO HEALTHCARE reserves the right to change product color, materials, supplies, or function as needed.

