INSTRUCTION MANUAL

Complete CRiSis™ Torso Manikin

LF03957

5 Year Warranty

Nasco HEALTHCARE

About the Simulator

The complete Crisis Torso Manikin is a complete resuscitation system consisting of modular components that 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 CPARLENE.

This manual will guide you in setting up, using, and maintaining each of the available components. Also included is a list of replacement parts, supplies, and auxiliary equipment.

By reading and following all instructions carefully and completely, you can be sure your Complete Crisis Torso Manikin will provide years of valuable service.

LIST OF COMPONENTS

1. Complete Crisis Torso Manikin
2. 8oz. Pump Spray Lubricant (LF03644)
3. Short Sleeve Jacket
4. Red Caps (3)

FEATURES

1. 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
2. CPR
· Adult compression depth
· Visible chest rise
· Mouth to Mouth or Bag-Valve-Mask compatible
3. Defibrillation Chest Skin
4. Interactive ECG capabilities

SET UP

A. Installing the Chest Compression Springs
1. Remove the chest skin, chest plate, and upper compression plate.
Note: Caution must be taken not to damage the defibrillation electronics attached to the chest skin.
2. Remove the compression springs from packaging. Insert the springs into the four plastic cylinders extending up from the lower compression plate (See Figure 1).
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 (See Figure 2).
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 corru-

Set Up Continued

gated 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 3).

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. Again, be careful not to damage the electronics attached to the chest skin.

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 Airway Management Trainer Head is equipped with a squeeze bulb for activating a manual carotid pulse (See Figure 4).

D. Stomach Feature

Connected to the esophagus, the Crisis Torso Manikin is equipped with a stomach intended only as an indicator of improper intubation (stomach rise) (See Figure 5 and inset.)

E. Lubricating the Airway Trainer Head

Lubricate both the simulator and supplies being used with the pump spray lubricant provided (See Figures 6 and 7). Endotracheal tube sold separately.

Note: We recommend 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 warranty on the trainer.

Figure 1

Figure 2

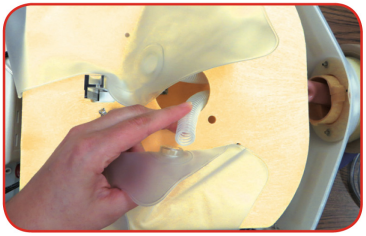


Figure 3

Figure 4

Set Up Continued

Figure 5

Figure 6

Figure 7

GENERAL INSTRUCTIONS FOR USE

A. Intubating the Complete Crisis Torso Manikin

We recommend the use of a 7.5-8mm endotracheal tube for oral intubation and 7.5cm or smaller for nasal intubation. This simulator allows for the Sellick 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

General Instructions Continued

syringe from the blue print balloon and proceed.

C. Defibrillating the Manikin with Paddles or Gel Pads

1. Defibrillate the manikin by placing paddles or gel pads on the round, metal defibrillation sites on the manikin's chest (See Diagram 1). As with a real patient extreme care should be taken to make complete contact with the sternum and apex defibrillation site.

2. The equipment is now ready for defibrillation practice. Follow all normal safety precautions indicated for use and training.

Note: In an effort to help you save money, we offer sets of defibrillation training cables and chest post adapters, sold separately, to be used in place of defibrillator paddles or gel pads.

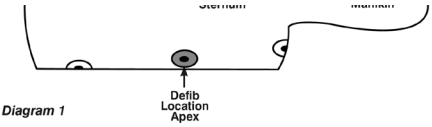


Diagram 1

Defibrillating with Snap-On Cables

Adapter posts, (sold separately), are available to fit a variety of snap-on cable heads. Be sure to identify your brand of defibrillator before selecting an adapter post set. (See the Supplies and Replacement Parts section of this manual for more information.)

1. Feed the banana clip through the protective disc and screw the adapter post specific to your snap-on cable head to the banana clip (See Figures 8 & 9).

2. Insert the banana clip end into the manikin's chest skin defibrillation location and snap the cable to the adapter post (See Figures 10 & 11).

Note: Cables must be placed in the appropriate defibrillation location, sternum or apex.

3. The equipment is now ready for defibrillation practice. Follow all normal safety precautions indicated for use and training.

Figure 8

Figure 9

General Instructions Continued

Figure 10

Figure 11

Defibrillating with Training Cables

Training cables purchased from Nasco Healthcare have snap-on heads assembled with the standard Training Cable Defib Adapter post shown. Brand specific adapter posts are only needed if you are using your own snap-on defib cables with unique heads. Our training cables have unique plug-ins for use with your own defibrillator's specific brand. Custom training cables can be made for brands not seen below; contact us for information.

Important: Training cables are not recommended for use with battery operated AED's with non-rechargeable lithium batteries.

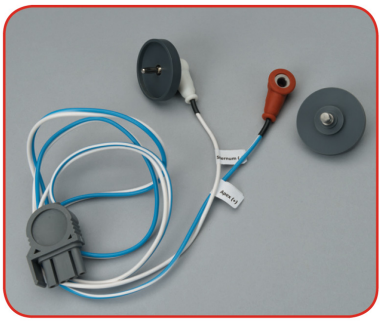
1. Insert the cable plug into your defibrillator.

2. Insert the banana clip end into the manikin defibrillation location.

3. The equipment is now ready for defibrillation practice. Follow all normal safety precautions indicated for use and training.

Note: The simulator can accept a maximum energy level of 360 joules. We recommend administering the lowest possible shock in order to extend the life of your simulator.

Zoll Training Cable with Assembled Training Cable Adapter Posts, LF03961U

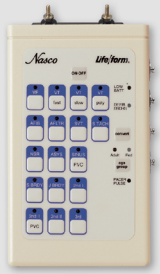


Physio Control Training Cable with Assembled Training Cable Adapter Posts, LF03962U

General Instructions Continued

D. Connecting Your Manikin to an Arrhythmia Simulator, or Interactive ECG Simulator (LF03670U) and Defib/Monitor (Sold Separately)

We have designed the CRiSis™ line of manikins to be compatible with a variety of arrhythmia simulators and suggest the use of the Interactive ECG Simulator - LF03670U (sold separately).



- **ON/OFF** – Press to power on and off.
- **LOW BAT** – Red indicator illuminates when battery needs replacement.
- **DEFIB DISCHG** – Green indicator illuminates for two seconds when defib discharge is sensed. **If defibrillating Nasco manikin, set defib to 2J or more. If defibrillating directly into ECG Simulator, set defib to 50J or more.**
- **convert** – Simulate cardioversion by activating convert feature. Simulator responds to defib discharge.
- **Adult Ped** – Yellow indicators tell which rhythm set is being simulated – adult or pediatric.
- **age group** – Press to select adult or pediatric rhythm set.
- **PACER PULSE** – Green indicator flashes when external pacer pulse is sensed. (Captured beat is simulated too.) Sensing occurs when external pacer current set to 60mA – 70mA or more.

1. Snap the colored ends of the four-lead cable coming from the manikin to the appropriate locations on the ECG Simulator (See Figure 12).

2. Connect your defibrillator's colored limb-lead snaps to the appropriate locations on the manikin's chest skin (See Diagram 2).

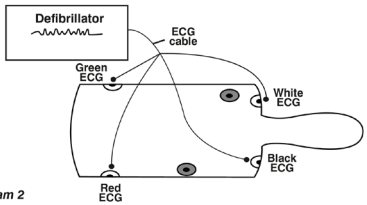


Diagram 2

3. You should now be able to select rhythms on the ECG Simulator and view them on your monitor.

4. Change rhythm selected from waiting rhythm to running rhythm automatically using the Convert button and applying a shock to the manikin.

Note: The running rhythm indicator light is solid while the waiting indicator blinks on and off. After the shock is applied to the manikin, the blinking rhythm indicator light turns solid and the original solid light turns off.

5. Apply paddles, gel pads, defibrillator cables with adapter posts, or training cables to the appropriate defibrillation location on the manikin (See Diagram 3).

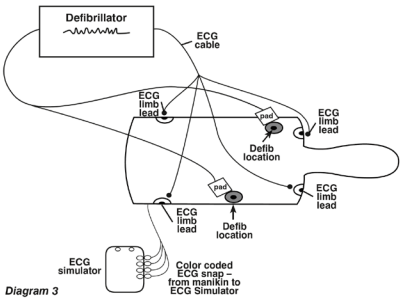


Diagram 3

General Instructions Continued

6. To change the age group select the age group key, then the rhythm you wish to select.
Note: At Power on the adult age group is automatically selected.

Adult Defibrillation Training

☐	**VF**	Ventricular Fibrillation
☐	**VT fast**	Ventricular Tachycardia. Wide QRS. Rate: 185
☐	**VT slow**	Ventricular Tachycardia. Wide QRS. Rate: 140
☐	**VT poly**	Ventricular Tachycardia. Fluctuating QRS axis.
☐	**AFIB**	Atrial Fibrillation. Ventricular rate: 120-160
☐	**AFLTR**	Atrial Flutter (2:1). Ventricular rate: 150
☐	**SVT**	SVT alternates with NSR, then remains in SVT. SVT rate: 216
☐	**S TACH**	Sinus Tachycardia. Rate: 120
☐	**NSR**	Normal Sinus Rhythm. Rate: 72
☐	**ASYS**	Asystole
☐	**SINUS PVC**	Sinus Rhythm with PVCs. Sinus rate: 72

Adult External Pacer Training

☐	**S BRDY**	Sinus Bradycardia. Rate: 40
☐	**J BRDY**	Junctional Bradycardia. Rate: 42
☐	**2nd I**	2nd deg. type I AV Block (4:3). Atrial rate: 60
☐	**2nd II PVC**	2nd deg. type II AV Block (4:3). PVCs. Wide QRS. Atrial rate: 60
☐	**2nd II**	2nd deg. type II AV Block (4:3). Wide QRS. Atrial rate: 60
☐	**3rd**	3rd deg. AV Block. Wide QRS. Ventricular rate: 37

Pediatric Defibrillation Training

☐	**VF**	Ventricular Fibrillation
☐	**VT fast**	Ventricular Tachycardia. Wide QRS. Visable P wave, Rate: 180
☐	**VT slow**	Ventricular Tachycardia. Wide QRS. Rate: 148
☐	**VT poly**	Ventricular Tachycardia. Fluctuating QRS axis. Short runs.
☐	**AFIB**	Atrial Fibrillation. Small R waves. Ventricular rate: 135-160
☐	**AFLTR**	Atrial Flutter (2:1). Ventricular rate: 150
☐	**SVT**	Supraventricular Tachycardia. Inverted P follows QRS. rate: 216
☐	**S TACH**	Sinus Tachycardia. Rate: 165
☐	**NSR**	Normal Sinus Rhythm. Rate: 90
☐	**ASYS**	Asystole
☐	**SINUS PVC**	Sinus Rhythm with PVCs. Sinus rate: 90

Pediatric External Pacer Training

☐	**S BRDY**	Sinus Bradycardia. Rate: 50
☐	**J BRDY**	Junctional Bradycardia. Rate: 60
☐	**2nd I**	2nd deg. type I AV Block (5:4). Atrial rate: 60
☐	**2nd II PVC**	2nd deg. type II AV Block (5:4) with PVCs. Atrial rate: 60
☐	**2nd II**	2nd deg. type II AV Block (5:4). Atrial rate: 60
☐	**3rd**	3rd deg. AV Block. Ventricular rate: 60

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 (LF09919). Simply apply the 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.
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 13). 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 14).
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.
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 15).
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.


Figure 13

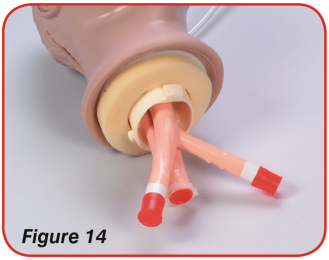


Figure 14

Care and Maintenance Continued

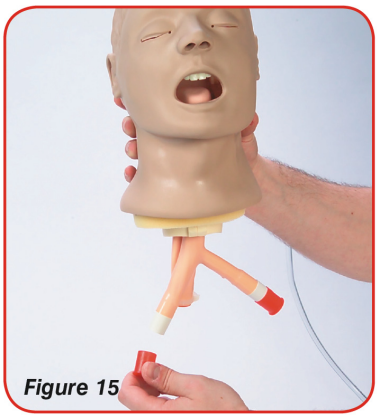


Figure 15

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. Loosely wind the ECG cable and place in the base of the torso, near the load box.

7. Replace the upper compression plate over the four plastic cylinders in the lower compression plate.

8. Place the Chest Plate over the upper compression plate.

9. Replace the chest skin and jacket.

10. Cover the simulator with a clear, plastic trash liner.

11. Place the clean, dry simulator in the retained padded shipping container.

CAUTIONS

1. 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.

2. Do not use cleaner (LF09919) around the nose or mouth of the simulator. The cleaner may be toxic if ingested.

3. Properly lubricate the Airway Management head and intubation appliances.

Caution Continued

4. Use only Pump Spray Lubricant (LF03644) with this simulator. Other lubricants such as silicone oil may cause damage to the airway of the simulator.
5. 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 for repair.

TROUBLESHOOTING

Problem:
ECG Wave is not being picked up from the manikin.
Solution:
1. Check your connections on the patient simulators; 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 your equipment.

SUPPLIES/ REPLACEMENT PARTS

LF03285 Replacement Lung Set
LF03628 Replacement Stomach
LF03644 8oz. Pump Spray Lubricant
LF03656 Physio Control Adapter Posts for LifePak 10 and LifePak 20
LF03657 Marquette Adapters Posts
LF03658 SpaceLabs/Laerdal/ Heartstart/First Medic Adapter Posts
LF03670 Lifeform Interactive ECG Simulator
LF03670B Adapter Posts Set (SpaceLabs/Laerdal/Heartstart/First Medic Marquette, Physio Control, and Training Cable Adapter Posts with Banana Clips and Protective Discs)
LF03961 Zoll Training Cables with Adapter Posts and Protective Discs
SB32214 Physio Control - Training Cable Only
SB32215 Zoll - Training Cable Only
SB46514 Phillips - Training Cable Only
Note: If you need help selecting the training cables or adapter posts that correspond to your AED unit, please feel free to call or email us for assistance.

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