WARNING: Products may contain dry natural rubber.

5-Year Warranty

CPARLENE®
3000 SERIES
INSTRUCTION MANUAL
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IDENTIFYING YOUR MODEL

Pages 3-10 display the CPARLENE® family of simulators. Identify your model and refer to the Operation Section pertaining to your model.

This guide has been carefully written to guide you in the operation of your unit. Depending on your model, please read the procedure(s) indicated. All models follow procedure A. Check your model description to see if procedures B or C pertain to your model.

FEATURES:

• Adult CPR Trainer
• Constricted and Dilated Pupils
• Obstructed Airway Capabilities
• Carotid Pulse
• Non-Rebreathing Airway System

COMPONENTS:

• Basic Adult Torso
• Short Sleeve Jacket
• Sanitary Face Mask
• Disposable Lower Airway
• Disposable Tracheal Airway
• White Fitting

FOLLOW PROCEDURE A
FEATURES:
- Adult/Child Modes
- Constricted and Dilated Pupils
- Obstructed Airway Capabilities
- Carotid Pulse
- Non-Rebreathing Airway System
- Ready for Use with Life/form® External Electronic Monitors (LF03401U and LF03403U sold separately)

COMPONENTS:
- Adult/Child Torso with Electronic Connection
- Short Sleeve Jacket
- Sanitary Face Mask (5)
- Disposable Lower Airway (10)
- Disposable Tracheal Airway (10)
- Durable Soft Carrying Case with Wheels
- White Fittings (10)

FOLLOW PROCEDURE A
FEATURES:

- Adult/Child Modes
- Constricted and Dilated Pupils
- Obstructed Airway Capabilities
- Carotid Pulse
- Non-Rebreathing Airway System
- Ready for Use with External Electronic Monitors
- Light Controller that Indicates Hand Placement, Ventilation Volume, and Compression Depth

COMPONENTS:

- Adult/Child Torso with Electronic Connection
- Short Sleeve Jacket
- Sanitary Face Mask (5)
- Disposable Lower Airway (10)
- Disposable Tracheal Airway (10)
- Light Controller
- Durable Soft Carrying Case with Wheels
- "C" Batteries (4)
- White Fittings (6)

FOLLOW PROCEDURES A AND B
CPARLENE® BASIC FULL MANIKIN
LF03943U

FEATURES:
- Adult CPR Trainer
- Constricted and Dilated Pupils
- Obstructed Airway Capabilities
- Carotid Pulse
- Non-Rebreathing Airway System
- Life-Sized for Victim Positioning

COMPONENTS:
- Basic Adult Full-Body Manikin
- Long Sleeve Jacket
- Pants
- Sanitary Face Mask
- Disposable Lower Airway
- Disposable Tracheal Airway
- Hard Carrying Case with Wheels
- White Fitting

FOLLOW PROCEDURE A
CPARLENE® FULL MANIKIN WITH LIGHT CONTROLLER
LF03933U

FEATURES:
- Adult/Child Modes
- Constricted and Dilated Pupils
- Obstructed Airway Capabilities
- Carotid Pulse
- Non-Rebreathing Airway System
- Life-Sized for Victim Positioning
- Light Controller that Indicates Hand Placement, Ventilation Volume, and Compression Depth

COMPONENTS:
- Adult Full Body Manikin with Electronic Connection
- Long Sleeve Jacket
- Pants
- Sanitary Face Mask (5)
- Disposable Lower Airway (10)
- Disposable Tracheal Airway (10)
- Hard Carrying Case with Wheels
- “C” Batteries (4)
- White Fittings (10)

FOLLOW PROCEDURES A AND B
CPARLENE® FULL MANIKIN WITH ELECTRONIC CONNECTIONS

**LF03713U – Light**
**LF03813U – Dark**

**FEATURES:**
- Adult/Child Modes
- Constricted and Dilated Pupils
- Obstructed Airway Capabilities
- Carotid Pulse
- Non-Rebreathing Airway System
- Life-Sized for Victim Positioning
- Ready for Use with Life/form® External Electronic Monitors (LF03401U and LF03403U sold separately)

**COMPONENTS:**
- Adult Full Body Manikin with Electronic Connection
- Long Sleeve Jacket
- Pants
- Sanitary Face Mask (5)
- Disposable Lower Airway (10)
- Disposable Tracheal Airway (10)
- Hard Carrying Case with Wheels
- White Fittings (10)

**FOLLOW PROCEDURE A**
CPARLENE® FULL MANIKIN WITH MEMORY UNIT AND PRINTER

LF03711U – Light
LF03811U – Dark

FEATURES:

- Adult/Child Modes
- Constricted and Dilated Pupils
- Obstructed Airway Capabilities
- Carotid Pulse
- Non-Rebreathing Airway System
- Electronic Monitoring, Memory, and Printer Unit with:
  - Adult and Child Settings
  - Light Signals Indicating Hand Placement, Ventilation Volume, and Compression Depth
  - Practice and Test Modes
  - Printed Report with Plotted Performance Averages
  - Bright Digital Display
  - Power Saver Automatic Shutdown After 30 Seconds of Inactivity

CPARLENE® FULL MANIKIN WITH MEMORY UNIT AND PRINTER

LF03711U – Light
LF03811U – Dark

FEATURES:

- Adult/Child Modes
- Constricted and Dilated Pupils
- Obstructed Airway Capabilities
- Carotid Pulse
- Non-Rebreathing Airway System
- Electronic Monitoring, Memory, and Printer Unit with:
  - Adult and Child Settings
  - Light Signals Indicating Hand Placement, Ventilation Volume, and Compression Depth
  - Practice and Test Modes
  - Printed Report with Plotted Performance Averages
  - Bright Digital Display
  - Power Saver Automatic Shutdown After 30 Seconds of Inactivity
COMPONENTS:

- Adult Full Body Manikin with Electronic Connection
- Long Sleeve Jacket
- Pants
- Sanitary Face Mask (5)
- Disposable Lower Airway (10)
- Disposable Tracheal Airway (10)
- Hard Carrying Case with Wheels
- Electronic Monitoring, Memory, and Printer Unit
- “D” Batteries (6)
- Printer Paper (3 rolls, not pictured)
- White Fittings (10)

FOLLOW PROCEDURES A AND C
PROCEDURE A: SETTING UP YOUR SIMULATOR

Your CPARLENE® simulator has been packed securely for safe shipment. Please follow these simple setup procedures.

Packing
1. Remove product from packaging.
2. Keep packaging materials for storage.

Torso
3. Unzip jacket, remove chest skin, chest plate, and upper compression plate.

Note: On electronic models, care should be taken when removing the chest plate and upper compression plate to avoid damage to the electronics. (See figure 1.)

Springs
4. Insert springs (black/adult, or red/child) into the four plastic cylinders extending up from the lower compression plate. (See figure 1.) Some models provide clamps inside the manikin torso to hold additional springs when not in use.

Disposable Trachea
5. Before inserting disposable trachea, remove longer white fitting from the lower end of the tube. (See figure 2.)
PROCEDURE A

6. Tilt back CPARLENE’S® head to open airway. Insert trachea into mouth until the smaller white fitting is flush with the lips. (See figure 3.) Reinsert longer white fitting into disposable trachea tubing at the end of neck. (See figure 4.)

Lower Airway
The airway and lung system (installed) are equipped with a non-rebreathing valve to ensure that air ventilated into the unit cannot exhaust back through the mouth.

7. To install a new lower airway, first detach the lung bag from the corrugated tubing by gently pulling apart. (See figure 5.)

8. With the manikin’s chest skin, chest plate, and upper compression plate removed, connect the red fitting of the lower airway to the white fitting of a new trachea. (See figure 6.)

9. Push the shorter length of the corrugated tubing up through the bottom of the upper compression plate.
10. Re-secure the lung bag to the corrugated tubing and lay flat atop the upper compression plate. *(See figure 7.)*

11. The longer length of corrugated exhaust tubing should be vented out the right side of the torso.

12. Replace the upper compression plate in the torso, taking care to line up the springs and the cylinders of the upper/lower compression plates.

*Note:* On electronic models, ensure that all wires are securely connected before reassembling the manikin for use. *(See figure 8.)*

**Test**

13. Test your airway by ventilating the CPARLENE®. Lungs should inflate. If there is any difficulty encountered in ventilating the manikin, check the airway and lung connections.

*Note:* Be sure to tilt back the head during ventilations to open the airway.

14. Replace chest plate and chest skin.

10. Re-secure the lung bag to the corrugated tubing and lay flat atop the upper compression plate. *(See figure 7.)*

11. The longer length of corrugated exhaust tubing should be vented out the right side of the torso.

12. Replace the upper compression plate in the torso, taking care to line up the springs and the cylinders of the upper/lower compression plates.

*Note:* On electronic models, ensure that all wires are securely connected before reassembling the manikin for use. *(See figure 8.)*

**Test**

13. Test your airway by ventilating the CPARLENE®. Lungs should inflate. If there is any difficulty encountered in ventilating the manikin, check the airway and lung connections.

*Note:* Be sure to tilt back the head during ventilations to open the airway.

14. Replace chest plate and chest skin.
Electronics Option
Guide the electronic connection wire through the hole on either the left or right side of the manikin. *(See figure 9.)*

Sanitary Face Mask
Use of the sanitary face mask with non-rebreathing valve provided with your manikin is recommended when performing mouth-to-mouth resuscitation. Each student should be provided with a sanitary face mask.

To install, insert the fitting of the sanitary face mask securely into the manikin’s mouth and adjust the skin over the nose and chin. *(See figure 10.)*

Use of a bag valve mask is also acceptable and does not require a sanitary face mask.

Manual Carotid Pulse
All versions of **CPARLENE®** are equipped with a squeeze bulb for activating the manual carotid pulse.

**MAINTENANCE:**

Sanitation

Regular cleaning and maintenance will reduce the chances of disease transmission and extend the life of your manikin. All cleaning and disinfecting should follow current standards and guidelines recommended by the Centers for Disease Control, the American Heart Association, and the American Red Cross.

Used trachea, fittings, and lower airways are not meant to be sanitized for repeated use and should be removed from the manikin and discarded before storage. See list of replacement parts.
Lower Airway Replacement

The entire airway system is disposable and should not be sanitized for repeated use. This includes the tracheal airway, fittings, and lower airway with lung bag.

1. To remove the lower airway, first remove the chest skin and chest plate.
   - **Note:** On electronic models, care should be taken when removing the chest plate and upper compression plate to avoid damage to the electronics.
2. Disconnect the lung bag by gathering the lung near the connection point and pulling upward. Discard.
3. Remove upper compression plate.
4. Disconnect the lower airway from the trachea (red fitting).
5. Remove exhaust tubing from hole in side of manikin torso and pull complete lower airway free from torso. Discard.
6. Remove tracheal airway by first removing the white fitting at the base of the throat and pushing up on the bottom of the trachea until it begins to exit the mouth. Discard both trachea and white fitting.
   - **Note:** Be sure to tilt back the head of the manikin in order to open the airway, making the removal of the trachea easier to accomplish.

Clothing

**CPARLENE®** clothing can be machine washed in cold water on a gentle wash cycle. Mild detergent should be used. Tumble dry on low heat setting.

Skin Surfaces

The material used to fabricate **CPARLENE®** skin is washable and should be kept clean. Don’t allow the skin to become severely soiled before washing. Nasco Cleaner (LF09919U, sold separately) can be used for particularly difficult stains, and the skin areas should then be washed with soap and water after using Nasco Cleaner.

- **Note:** Do not use Nasco Cleaner around the mouth and nostrils of the manikin, as the residue of the cleaner could be toxic.

Plastics of the type used for **CPARLENE®** skin are particularly susceptible to staining by inks or cosmetics. These materials actually penetrate the skin, leaving an indelible mark that cannot be removed by cleaning.

Avoid contact with newsprint, ballpoint pens, or any printed material.

**HEAD SKIN REPLACEMENT:**

Removing Molded Hair

1. Pry four plugs from front of molded hair. *(See figure 11.)*
2. Remove each of the four screws and washers previously covered by the plugs, using a medium Phillips-head screwdriver.
3. Molded hair will now lift away from head.

**Figure 11**

Lower Airway Replacement

The entire airway system is disposable and should not be sanitized for repeated use. This includes the tracheal airway, fittings, and lower airway with lung bag.

1. To remove the lower airway, first remove the chest skin and chest plate.
   - **Note:** On electronic models, care should be taken when removing the chest plate and upper compression plate to avoid damage to the electronics.
2. Disconnect the lung bag by gathering the lung near the connection point and pulling upward. Discard.
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4. Disconnect the lower airway from the trachea (red fitting).
5. Remove exhaust tubing from hole in side of manikin torso and pull complete lower airway free from torso. Discard.
6. Remove tracheal airway by first removing the white fitting at the base of the throat and pushing up on the bottom of the trachea until it begins to exit the mouth. Discard both trachea and white fitting.
   - **Note:** Be sure to tilt back the head of the manikin in order to open the airway, making the removal of the trachea easier to accomplish.

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**CPARLENE®** clothing can be machine washed in cold water on a gentle wash cycle. Mild detergent should be used. Tumble dry on low heat setting.

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**HEAD SKIN REPLACEMENT:**

Removing Molded Hair

1. Pry four plugs from front of molded hair. *(See figure 11.)*
2. Remove each of the four screws and washers previously covered by the plugs, using a medium Phillips-head screwdriver.
3. Molded hair will now lift away from head.

**Figure 11**

**Figure 11**
Removing Head Skin
1. Disconnect the tracheal airway from the lower airway by pulling the tubing apart at the base of the head.
2. Rotate the head 180° until facing backward, align keyways in the neck, and pull toward you to remove head. (See figure 12.)
3. Unbutton the two neck straps on the back of the neck.
4. Remove the foam neck ring.
5. Remove the four screws and plastic "C" ring from the bottom of neck. (See figure 13.)

Replacing Head Skin
1. Pull the skin over the skull and adjust the jaw to proper location.
2. Replace the "C" ring and four screws.
3. Secure the neck straps.
4. Return the foam ring to the bottom of the head.
5. Return the head to the torso following reverse procedure of removal.

Attaching Molded Hair
1. Place molded hair on head and align four holes in scalp with four holes in molded hair.
2. Place four washers onto four screws.
3. Using medium Phillips-head screwdriver, attach four screws with washers through molded hair, scalp, and skull. Do not overtighten.
4. Matching the dots on the four plugs to the dots in the four molded hair recesses, press plugs into recesses and align the plugs with the direction of surrounding hair.
Light Controller

Three-color light controller indicates acceptable levels. Red flashing light indicates improper hand placement, green flashing light indicates proper ventilation volume, and yellow flashing light indicates proper compression depth. Child CPR can be practiced by changing the compression springs from black (adult) to red, and switching to Child setting on the back of the light controller.

PROCEDURE B: Light Controller/Setup

Remove the cover using a medium-sized Phillips head screwdriver. Batteries are included (use "C" cell alkaline batteries).

Operation

1. Locate the electronic interface jack inside the manikin torso and thread through a hole on either the left or right side of the torso. (See figure 14.)
2. Insert jack into light controller.
3. Set light controller to adult or child mode using switch.

Hand Placement (Red Light)

The red placement light will illuminate every time the chest is compressed 1.00 inch and the proper hand placement has not been accomplished.

Ventilations (Green Light)

**Adult Setting:** The green ventilation light will illuminate every time the ventilation of 0.80 liters is reached. It will turn off when volume drops below this level.

**Child Setting:** The ventilation light will illuminate every time the ventilation of 0.50 liters is reached. It will turn off when volume drops below this level.

Compressions (Yellow Light)

**Adult Setting:** The yellow compression light will illuminate every time the compression depth of 2.00 inches is reached. It will turn off when it drops below this depth or if it exceeds 2.50 inches.

**Child Setting:** The compression light will illuminate every time the compression depth of 1.75 inches is reached. It will turn off when it drops below this depth or if it exceeds 2.25 inches.

Figure 14

Hand Placement (Red Light)

The red placement light will illuminate every time the chest is compressed 1.00 inch and the proper hand placement has not been accomplished.

Ventilations (Green Light)

**Adult Setting:** The green ventilation light will illuminate every time the ventilation of 0.80 liters is reached. It will turn off when volume drops below this level.

**Child Setting:** The ventilation light will illuminate every time the ventilation of 0.50 liters is reached. It will turn off when volume drops below this level.

Compressions (Yellow Light)

**Adult Setting:** The yellow compression light will illuminate every time the compression depth of 2.00 inches is reached. It will turn off when it drops below this depth or if it exceeds 2.50 inches.

**Child Setting:** The compression light will illuminate every time the compression depth of 1.75 inches is reached. It will turn off when it drops below this depth or if it exceeds 2.25 inches.
PROCEDURE C: Electronic Monitoring, Memory, and Printer Unit Setup

Remove the cover using the key provided and inserting it in the four open slots on the sides of the unit (two on each side). (See figure 15.) Press inward while gently applying upward pressure (do not turn key) until you hear a soft click. If the supplied key is not available, a small screwdriver can be used.

Battery Installation

Six “D” cell alkaline batteries are included. You may find it easier to remove or install batteries if the center two batteries are removed first and installed last.

The unit will still function for several hours under normal use. The “Low Battery” light indicates the end of the batteries’ useful life. A low battery condition can also be indicated by skips or unwanted feed lines in the printout.

Operation

1. Locate the electronic interface jack inside the manikin torso and thread through a hole on either the left or right side of the torso. Insert jack into light controller.
2. Set light controller to adult or child mode using switch.

Electronic Monitoring, Memory, and Printer Unit

Simple and accurate feedback! Select one of the four modes (compression rate, compression depth, ventilation duration, ventilation volume) by pushing the indicator switch. Red light indicates improper hand placement, yellow light signals proper compression depth of 2.0-2.5 inches adult/1.75-2.25 inches child. Green light signals proper ventilation volume at 0.80 liters adult/0.50 liters child. The performance of each skill is displayed separately, while averages are stored in the memory. Designed to automatically switch between the compression and ventilation modes, depending on which one is being applied.

Can be used for practicing adult or child CPR. To practice CPR on a child, use the red compression springs in the manikin torso and select CHILD on the back of the printer unit. For testing, simply push test start button and begin CPR sequence. Compression and ventilation waveforms are plotted in a time sequence. When stop button is pushed, averages of the four skills are shown on the digital display while the printer tabulates the result on paper.
Paper Installation

1. Remove the cover. (See battery installation on page 18.)
2. Remove platen from bracket by gently pulling up on one end. (See figure 16.)

3. Remove the plastic paper holder rod from the paper holder bracket by applying a slight outward pressure to the bracket until the rod can be removed. Care should be taken not to bend too far or the bracket may become deformed and not hold paper securely.

4. Insert plastic rod through the center of a new paper roll. (See figure 17.) Reinstall into bracket so that the paper feeds off the bottom of the roll painting towards the front of the printer. (See figure 18.)

5. While keeping paper taut, position the paper within the guides of the printer and reinstall the platen so that the gears of the platen engage with the gears of the printer. (See figure 19.) Gently insert platen in bracket until it snaps into place. (See figure 20.)

6. While continuing to keep paper taut, press the Paper Feed switch on the front panel until 7” to 8” have fed through the printer to make sure paper is properly aligned and feeding straight. Repeat step 5 if necessary.

7. Feed paper through paper guide in the top cover and replace cover by aligning the slots and tabs on the unit and pushing down on the cover to snap into place. (See figure 21.)
PROCEDURE C

PRACTICE MODES SESSIONS
Select one of the four modes you wish to practice by pushing the mode button until the red light corresponding to the proper mode illuminates. The unit will advance the light one position each time the mode key is pushed. (See figure 22.) The unit will automatically switch between compression and ventilation modes, depending on which one is being applied.

Compression Rate
In the compression rate mode, the unit will display the average rate in compressions per minute of the last five compressions. The unit will continue to update this average until you change modes or push the stop button. Upon pushing the stop button, the unit will calculate and display the average compression rate of all compressions from the start of the present cycle. Any compressions made after the stop button is pushed will start a new cycle.

Compression Depth
In the compression depth mode, the unit will display the average depth in inches of the last compression. The unit will continue this display mode until the mode is changed or the stop button is pushed. Upon pushing the stop button, the unit will calculate and display the average depth of all compressions from the start of the present cycle. Any compressions made after the stop button is pushed will start a new cycle.

Note: Failure to allow the torso to fully recoil after each compression will negatively affect the student’s average.

Ventilation Duration
In the ventilation duration mode, the unit will display the duration in seconds of the last ventilation. The unit will continue this display mode until the mode is changed or the stop button is pushed. Upon pushing the stop button, the unit will calculate and display the average duration of all ventilations from the start of the present cycle. Any ventilations made after the stop button is pushed will start a new cycle.

Ventilation Volume
In the ventilation volume mode, the unit will display the volume in liters of the last ventilation. The unit will continue this display mode until the mode is changed or the stop button is pushed. Upon pushing the stop button, the unit will calculate and display the average volume of all ventilations from the start of the present cycle. Any ventilations made after the stop button is pushed will start a new cycle.

Auto Mode
This unit is designed to automatically switch between compression and ventilation modes, depending on which one is being applied.

Defibrillation “Defib” Mode
This unit is designed with a defib simulator. After the defib button is pressed, a light indicating so will illuminate. The light will remain on for 30 seconds. While this light is on, no further defibrillations can be performed. A “lightning bolt” icon will also appear on the printout at this point.

Note: This manikin cannot be shocked with a defibrillator. The 30-second pause is to simulate the time it would take to administer defibrillation to the patient.

Defibrillation “Defib” Mode
This unit is designed with a defib simulator. After the defib button is pressed, a light indicating so will illuminate. The light will remain on for 30 seconds. While this light is on, no further defibrillations can be performed. A “lightning bolt” icon will also appear on the printout at this point.

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Note: This manikin cannot be shocked with a defibrillator. The 30-second pause is to simulate the time it would take to administer defibrillation to the patient.
**Auto Power Down**
To increase battery life, the unit will automatically shut off the display and go to a standby mode if no activity is sensed for approximately 30 seconds. The display will turn on when any compression or ventilation activity is sensed.

**TEST MODES**
To begin a test, press the start button. Pressing the start button will clear all registers.

**Compression Rate**
In the compression rate mode, the unit will display the average rate in compressions per minute of the last five compressions. The unit will continue to update this average until you change modes or push the stop button. Upon pushing the stop button, the unit will calculate and display the average compression rate of all compressions from the start of the present cycle.

**Example:** For the first compression cycle of 30 compressions, an average rate of 60 compressions per minute (CPM) was obtained. Then two ventilations were applied to the manikin. Then a second compression cycle of 30 was applied, at an average rate of 100 CPM, and then the stop button was pushed. The unit would calculate and display the overall average of 80 CPM.

**Compression Depth**
In the compression depth mode, the unit will display the average depth in inches of the last compression. The unit will continue this display mode until the mode is changed or the stop button is pushed. Upon pushing the stop button, the unit will calculate and display the average depth of all compressions from the start of the present cycle.

**VENTILATION VOLUME**
In the ventilation volume mode, the unit will display the volume in liters of the last ventilation. The unit will continue this display mode until the mode is changed or the stop button is pushed. Upon pushing the stop button, the unit will calculate and display the average volume of all ventilations from the start of the present cycle.

**Example:** For the first compression cycle of 30 compressions, an average rate of 60 compressions per minute (CPM) was obtained. Then two ventilations were applied to the manikin. Then a second compression cycle of 30 was applied, at an average rate of 100 CPM, and then the stop button was pushed. The unit would calculate and display the overall average of 80 CPM.

**Ventilation Volume**
In the ventilation volume mode, the unit will display the volume in liters of the last ventilation. The unit will continue this display mode until the mode is changed or the stop button is pushed. Upon pushing the stop button, the unit will calculate and display the volume in liters of all ventilations from the start of the present cycle.

**Example:** For the first compression cycle of 30 compressions, an average rate of 60 compressions per minute (CPM) was obtained. Then two ventilations were applied to the manikin. Then a second compression cycle of 30 was applied, at an average rate of 100 CPM, and then the stop button was pushed. The unit would calculate and display the overall average of 80 CPM.
If a printout of the compression and ventilation waveforms and defibrillation is desired, switch the printer switch to the “on” position and press the start button. The printer will print the following (this is an adult test). *(See figure 23.)*

### Waveform Printout

All compression and ventilation waveforms are plotted. On completion of a test, press the stop button. The final results will be calculated and printed out as shown. *(See figure 23.)*

It shows:

1. Vertical time scale: $\frac{1}{8}'' = 1 \text{ second}$.
2. Axis for compression waveforms start at the center and goes \textit{left}.
3. Axis for ventilation waveforms start at the center and goes \textit{right}.
4. 1.75'' limit line for compressions is the low level limit for compressions when in the child setting.
5. 2.00'' limit line for compressions.
6. 2.50'' limit line for compressions.
7. 500 cc line for child ventilations (0.50 liters).
8. 800 cc line for adult ventilations (0.80 liters).
9. Printout of final test results shows every event during the test and consists of compression and ventilation averages, compressions with correct placement, and amount of compressions and ventilations within the three specified ranges of depth and volume.

### Reading the Printout

**Ventilation/Compression Limits**

The ventilation limits are labeled 0.5 L and 0.8 L.

The compression limits are labeled 2.00” and 2.50” for adult and 1.75” and 2.25” for child, depending on your selected setting.
 Occasionally slight adjustments need to be made to your CPARLENE® equipment to restore optimum performance. Here are four common concerns.

### The lungs will not fill with air.
1. Reposition head to open airway.
2. Check airway to see if it is twisted or “kinked.”

### The air enters body easily, but lungs do not fill.
1. Airway tubing may be disconnected.
2. Lung bag has a leak and should be replaced.

### The compressions are noisy.
1. Try repositioning or inverting the springs. Check for bent springs.

### The compression strokes are short.
1. Examine cavity to see if exhaust hose or electrical wire is out of place.

### The red placement light is continuously on, indicating improper hand placement.
1. Turn power off.
2. The chest plate sensor has become disconnected from the red connector in the chest cavity. *(See figure 24.)*
3. Check inside chest cavity to see if electronic bar reader assembly is in proper vertical alignment. *(See figure 25.)*
4. Turn power on and test.

### The compression depth indicator reports only low compressions.
1. Turn power off.
2. Check alignment of lower slide and upper groove reader inside chest cavity.
3. Turn power on and test.
The ventilation volume indicator reports low or no levels.
1. Turn power off.
2. Check to see if the lung bag is properly installed. Lung bag may be blocking the ventilation reader.
3. Check to see that ventilation reader slides easily.
4. Ensure the chest skin is not too tight.
5. Turn power on.

Low battery light remains on.
1. Turn power off.
2. Replace batteries.
3. Turn power on.

Printout is of poor quality or not printing complete lines.
1. Turn power off.
2. Check battery installation and change batteries if necessary.
3. Turn power on.

The ventilation volume indicator reports low or no levels.
1. Turn power off.
2. Check to see if the lung bag is properly installed. Lung bag may be blocking the ventilation reader.
3. Check to see that ventilation reader slides easily.
4. Ensure the chest skin is not too tight.
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Actual product may vary slightly from photo. Nasco reserves the right to change product color, materials, supplies, or function as needed.

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**REPLACEMENT PARTS**

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<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LF03120U</td>
<td>Sanitary face masks (5 qty.)</td>
</tr>
<tr>
<td>LF03121U</td>
<td>Sanitary face masks (25 qty.)</td>
</tr>
<tr>
<td>LF03122U</td>
<td>Disposable tracheal airways (10 qty.)</td>
</tr>
<tr>
<td>LF03123U</td>
<td>CPR valves (for Sanitary CPARLENE®)</td>
</tr>
<tr>
<td>LF03135U</td>
<td>Eye — dilated (left)</td>
</tr>
<tr>
<td>LF03136U</td>
<td>Eye — constricted (right)</td>
</tr>
<tr>
<td>LF03150U</td>
<td>Skull</td>
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<td>LF03152U</td>
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<tr>
<td>LF03153U</td>
<td>C-ring</td>
</tr>
<tr>
<td>LF03154U</td>
<td>Foam neck ring (set of 4)</td>
</tr>
<tr>
<td>LF03162U</td>
<td>Complete head assembly with skin — sanitary head/molded hair</td>
</tr>
<tr>
<td>LF03180U</td>
<td>Complete pulse simulation kit</td>
</tr>
<tr>
<td>LF03190U</td>
<td>Torso shell</td>
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