

# Resusci® Junior

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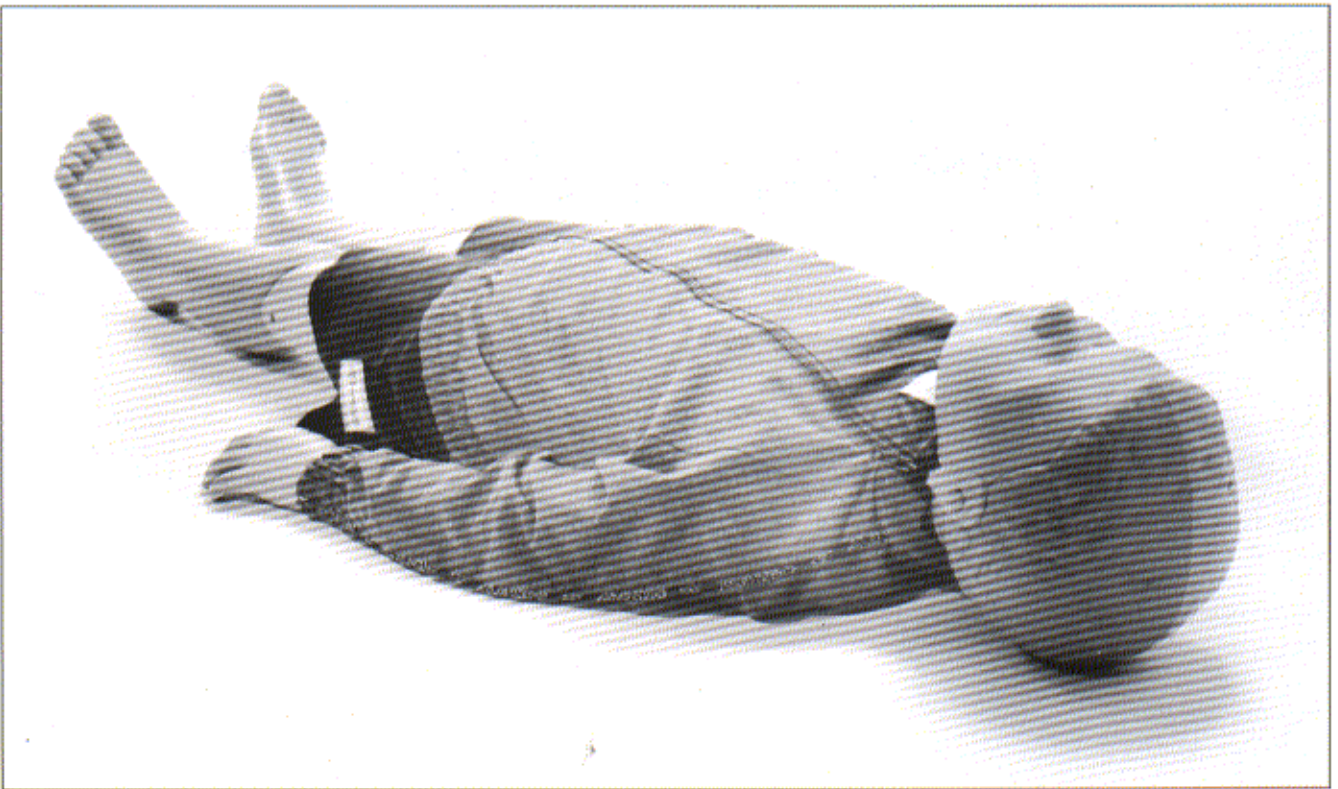
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**Laerdal**  
helping save lives



## Introduction

Thank you for purchasing the Laerdal Resusci Junior. We know you will find this manikin to be a reliable and long serving addition to your training equipment. You can have confidence in your Laerdal Resusci Junior, after all Laerdal has been developing and manufacturing training manikins for over 40 years. During this time Laerdal has remained the world-wide market leader.

Your Laerdal Resusci Junior is the mk 3 version revised in 1997 to bring you even greater realism and training convenience:

- Face masks are interchangeable between students or can be cleaned with the Resusci Manikin Wipe.
- Easy to change lung bags complete with a one way valve.
- Skillguide version is available.

As with all your training equipment it will perform better and have a longer life span if it is maintained properly. Laerdal manikins are renowned world-wide for their reliability.

If you have any question or comments on the Laerdal Resusci Junior please contact your local Laerdal representative who will be happy to help you.

## Service

Virtually all parts are replaceable. Should any part break or wear out, it can easily be identified by referring to the exploded view drawing and parts list in this manual.

Since the Resusci Junior manikin is easy to disassemble and reassemble, most repairs can be performed by the manikin's owner. Should a problem arise your Laerdal representative will be glad to assist you.

## Limited Warranty

Laerdal warrants to the purchaser that its product(s) is/are free from defects in material and workmanship for a period of one (1) year from the date of purchase by the original user. During the designated one (1) year period, Laerdal will, upon receipt of a product found to be defective due to materials or workmanship from the purchaser and notification in writing of the defect at its option repair or replace any parts found to be defective or the entire product.

Products found to be defective and notification of defects may also be sent to the authorized Laerdal dealer from whom the product was purchased. All postage, shipping, or handling charges shall be the sole responsibility of the purchaser.

Laerdal is responsible for the effects of safety, reliability and performance of its product(s) only if:

- service, repair, readjustment or modification is carried out by Laerdal or persons authorized by Laerdal.
- the product is used in the proper manner in strict compliance with its Directions for Use.

Laerdal shall not be liable under this warranty for incidental or consequential damages or in the event any unauthorized repairs or modifications have been made or attempted or when the product, or any part thereof, has been damaged by accident, misuse or abuse.

This warranty does not cover batteries, fuses, softpack, training mat, normal wear and tear, staining, discoloration or other cosmetic irregularity which does not impede or degrade product performance.

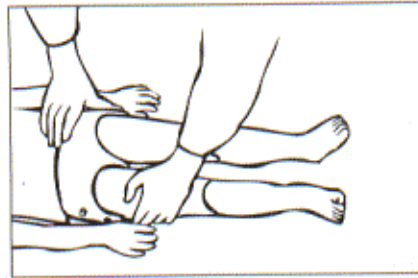
Some states in the USA do not allow the exclusion or limitation of incidental or consequential damages, so those limitations or exclusions may not apply to you.

There are no other express or implied warranties, whether of merchantability, fitness of purpose, or otherwise, on the product, its parts and accessories.

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## Unpacking and assembly



If the manikin is stored in the carrying case it is necessary to assemble the manikin before use. Place the torso on a firm surface. Pull out the hip bolt. Push the two legs into their seats. Fasten legs to the body by inserting the hip bolt through the opening in the body shell, through the holes in the thighs and out through body shell opening on the opposite side. Press the bolt into its seat to avoid loosening it by accident. Put the shorts and jacket on the manikin.

### Training mat

All versions of Resusci Junior contains a training mat. This has two purposes:

- Comfort and convenience for students and instructors when practicing BLS skills on the Resusci Junior.
- Movement of the assembled Resusci Junior around the classroom/training venue (see illustration).

### To use in water

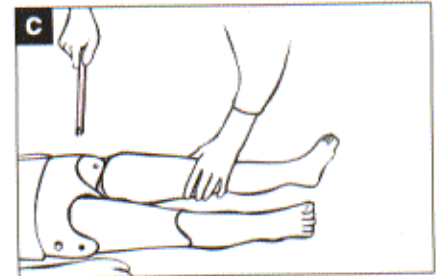
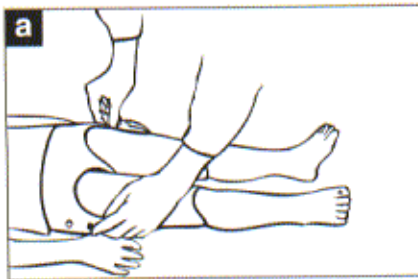
If the manikin is to be used for training in water, see the section on "Water rescue" page 8.

### Manikin with Skillguide

If you have purchased the Resusci Junior with Skillguide:

- Remove the Skillguide protective cover.
- Plug the Skillguide cable into the connector on the right side of the manikin.
- Remove the paper tab coming from the battery compartment on the back of the signal box.
- Press the "On" button to begin practice.
- When transporting the manikin using the training mat it is recommended that the Skillguide be unplugged and moved separately.

## Repacking after use



If the manikin has been used in water, see instructions in section on "Water rescue" page 8.

### To store in carrying case

If the Skillguide is attached, unplug the cable and store the Skillguide in the softpack.

Take off the shorts. Detach the legs from the body in the following way:

Extract the hip bolt as follows:

- Exert pressure on the protruding end of the bolt. Continue to push to get the hip bolt further out (ill. a,b).

- Grasp and pull out the hip bolt (ill. b,c).

When the legs have been removed, press the bolt into its seat to avoid loosening it by accident.

Put the torso in the case, face up. Place a leg on each side of the manikin.

Remove dirt from the training mat by wiping it with a damp cloth. Put the training mat into the plastic bag provided, and place on top of the manikin. This will prevent dirt from the training mat from getting on the manikin.

### To store in soft case

No disassembly of the manikin is necessary, other than unplugging the Skillguide.

## Skillguide Signal Box

Consistent and objective feedback on performance during practice helps develop and reinforce skills. The Skillguide Signal Box provides feedback to the instructor and student to support the student's initial skill development by means of a colour light display.

### Inflation

When lung inflation volume reaches 0.2 l, the green signal light will be activated. If lung inflation volume exceeds 0.3 l, an orange warning light is activated. A red warning light indicates an inflation that is too rapid.

### Chest compression

When the breastbone area of the chest is depressed at least 2.5 cm (about 1"), the green signal light is activated. If compression exceeds 4 cm (1.5") an orange warning light is activated.

### Incorrect hand position

The sensor is located under the switch cover mounted on the chest plate. The red warning light will be activated if the chest is depressed with hands placed outside the recommended area. Providing the downward pressure is exerted on the lower half of the sternum the red light will not activate. However if downward pressure is exerted on the xiphoid sternum, on the upper half of the sternum or on the chest wall away from the sternum the red light will activate.

### To use

See *Unpacking page 4*.

The Skillguide will turn "off" automatically if no activity takes place for 5 minutes.

Note: If the Skillguide is turned "on" and the red signal light for wrong hand position comes on the Skillguide is not completely plugged into the manikin.

### Power Supply

The four 1.5 V alkaline batteries, size C, will provide approximately 125 hours of classroom use. This will vary depending on user patterns and the type of batteries.

### Connection Cable

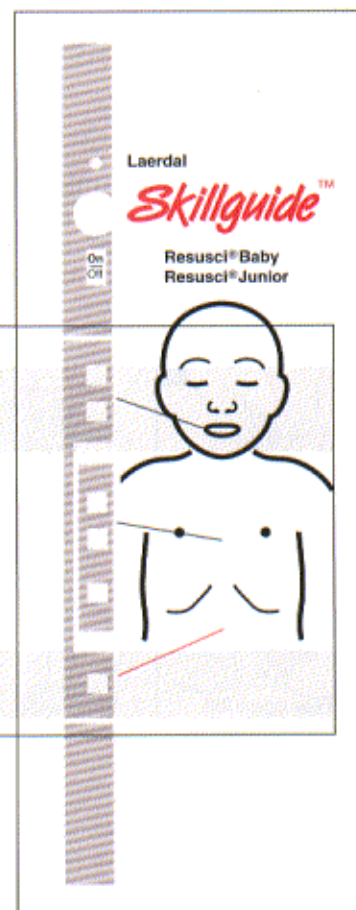
This is permanently connected to the Skillguide and has an 8 pin male connector which is to be connected to the manikin. The connector has been moulded for proper orientation prior to plugging it into the manikin's side. The cable is 1.5 meters (60 inches) in length to allow for flexible use while connected.

### Caution

Make sure that the Skillguide is unplugged from manikin:

- when airway is changed, or
- when internal service is carried out.

	Light	Indication	Limits *
Inflation volume:	green	correct	0.2 – 0.3 l
	orange	too much	> 0.3 l
Compression depth:	green	correct	2.5 cm (1 in) - 4 cm (1.5 in)
	orange	too much	> 4 cm (1.5 in)
Wrong hand position:	red	Pressure outside of acceptable area	
Too fast inflation:	red		Flow > 1 litre per sec.



\* Measurement tolerance in the manikin: +/- 15% in normal room temperature

# SANITATION

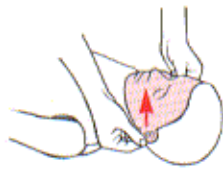
## During class

**Junior Face.** We recommend you provide an individual Junior Face to each student. As an alternative the same Junior Face can be used by each student, and cleaned between each student's use.

### Using the Junior Face on an individual basis

Each student in the class should install and remove his or her manikin face.

#### To remove

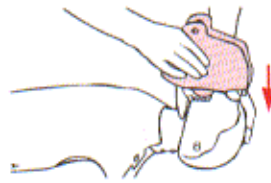


Detach manikin face at each ear.

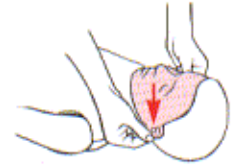


Lift manikin face off valve coupling.

#### To install



Turn manikin face inside out and push face coupling into airway valve.



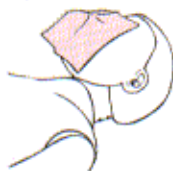
Fasten manikin face to retainers at each ear.

### Using the same Junior Face for all students

If several students are using the same manikin face, it should be cleaned between each use. Depending on local policies you may prefer to use Resusci Manikin Wipes (see below) or a freshly prepared sodium hypochlorite solution.



1. Tear open foil packet. Take out and unfold wipe. Thoroughly rub it over manikin's mouth, nose and mouth interior.



2. Wrap wipe snugly over mouth and nose. Leave in place for 30 seconds.



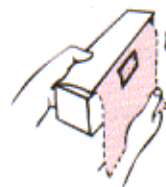
3. Dry manikin's face with a paper towel. Ventilation practice may now continue.

### Manikin Face Shields (optional)

For aesthetic reasons students may feel more comfortable having a clean barrier between own lips and surfaces touched by another person's lips. The Manikin Face Shields are designed to allow inexpensive barrier protection.

#### TO USE

Clean as instructed to the left.



Pull out and tear off at perforation.



Place shield over manikin's face as illustrated (for mouth-to-nose ventilation place shield over nose). Hold shield in place and airway open, as illustrated.



Place your lips over the ventilation opening, pinch the nose, and ventilate. Discard shield after use.

## After class

### Disinfection: Preparing the Junior Face for reuse

After class, a used manikin face can be disposed of or reused.

Note: Wear gloves\* during the cleaning procedure.

To prepare for reuse:

1. Remove manikin face and detach the coupling from inside the face.
2. Clean and disinfect manikin faces.
  - a) Wash with soapy warm water - scrub interior surfaces vigorously.
  - b) Rinse with clean water to remove soap residue.



- c) Disinfecting solution - to disinfect the manikin face. A sodium hypochlorite solution freshly prepared for single class use is an effective and recommended disinfectant. This solution should have at least 500 ppm free available chlorine, i.e. 20 ml of 2.5 -5.0% household bleach per 500 ml of water. (For alternative disinfectants follow local policies). Submerge the parts in the disinfecting solution for at least 10 minutes.\*\*
- d) Rinse with clean water to remove disinfecting solution residues.

3. Let parts dry.
4. Reassemble face coupling and manikin face.
5. Remount face on manikin after reinstallation of airway, or put it in a clean bag for future use.

\* Use vinyl gloves. Latex gloves may stain manikin face.

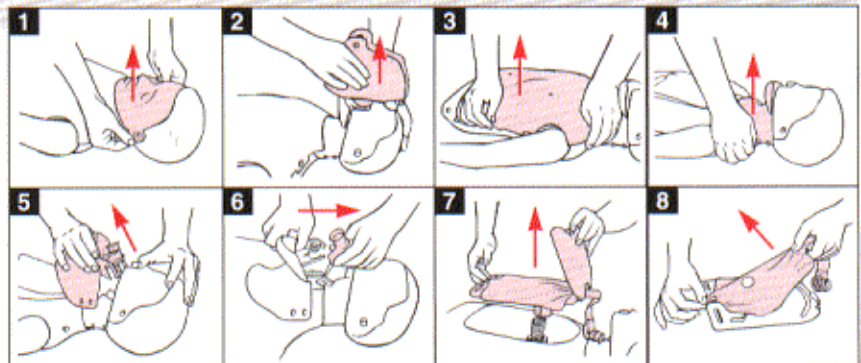
\*\* As recommended by JAMA, the American Heart Association, and Centres for Disease Control (CDC).

## Junior Airway

The Junior Airway is designed for disposal after each class

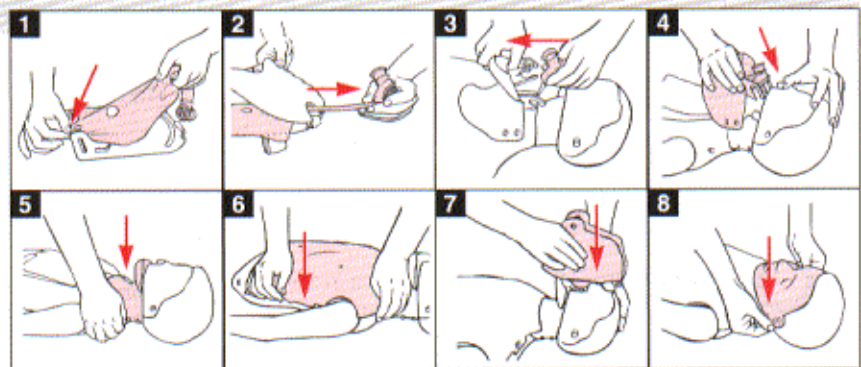
### To remove

1. Detach manikin face at each ear.
2. Lift manikin face off valve coupling
3. Remove chest cover
4. Detach neck skin
5. Lift off jaw from posts in head.
6. Remove valve
7. Lift off chest plate and rib plate
8. Remove used airway and discard.



### To install

1. Attach lung to hook and lay lung flat on chest plate
2. Pull valve through rib plate. Attach rib plate.
3. Snap valve onto jaw.
4. Reattach jaw to posts in head.
5. Attach skin to neck.
6. Fasten chest cover onto its retainers.
7. Push face coupling into airway valve.
8. Fasten face onto retainers at each ear.



## General manikin cleaning

Routine disinfection of the entire manikin is not required, but periodic cleaning of the head, torso, top skin, neck skin and training mat is recommended. These should be washed with a warm soapy solution, and then rinsed with a clean

damp cloth. Proper care will maintain the appearance and general condition of your Resusci Junior. Hand or machine wash clothes with soap or laundry detergent in warm water, iron with warm iron. May also be dry cleaned.

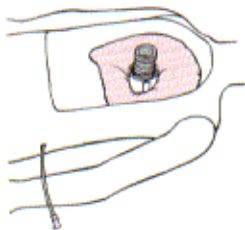
## Water rescue

The Resusci Junior manikin is designed for training in-water resuscitation and rescue techniques. An optional Water Rescue Kit (18 40 00) is available to make the manikin simulate either a semi-submerged floating, unconscious victim or a victim that will sink to the bottom of the pool. The manikin may be used in salt and fresh water.

**Caution:** The Skillguide version of Resusci Junior must not be used for water rescue.

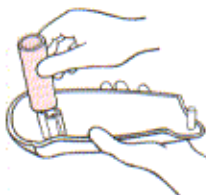
### Installing the Water Rescue Kit

Mount the floatation device as follows:



Unbutton the chest skin and lift out the chest and lung plate assembly. Place the floatation device underneath the lung plate over the compression cylinder. Push the tubing out through the manikin's side.

Mount the weights as follows:



Undo the four screws of each thigh. Place the weight over the upper cylinder piece, one weight in each thigh. Reassemble the thigh.

### Using Resusci Junior for water rescue

Now that the Water Rescue Kit has been installed, the device can be inflated or deflated without any disassembly of the manikin.

Preparing to float:



Attach the inflation side of the pump bulb to the tubing and squeeze. It requires about 18-22 full squeezes of the pump to inflate the device. Pinch the tubing, remove the pump bulb, and insert the stopper plug.



When the manikin is in the water you can open the tube to evacuate air until the position is correct, i.e. the angle between water and body is 30°.

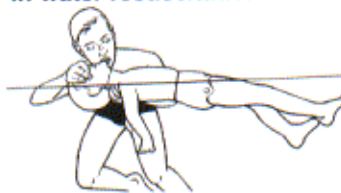
*Note:* After use, the floatation device is deflated by attaching the deflation side of the pump to the tubing and squeezing. When all the air is removed from the floatation device, the pump bulb will not recover from your squeeze. At this point, remove the pump bulb and replace the stopper plug.

### Repacking after use

After use in water, the manikin should be well dried before being returned to storage. Removing the manikin from the water by the arms will help the manikin drain quickly. To further promote gravity drainage, prop the manikin upright for a few minutes. Use a cloth to dry the exterior and interior of the manikin.

The following exemplifies uses of the Resusci Junior manikin in water rescue training programs and lifesaving competition events.

### In-water resuscitation



Rescue breathing may be practised while the manikin is in the water.

### Recognition of drowning



When the floatation device has been inflated, the manikin will float face down, semi-submerged in the water. This is a position typical of an unconscious person.

### Surfacing and towing



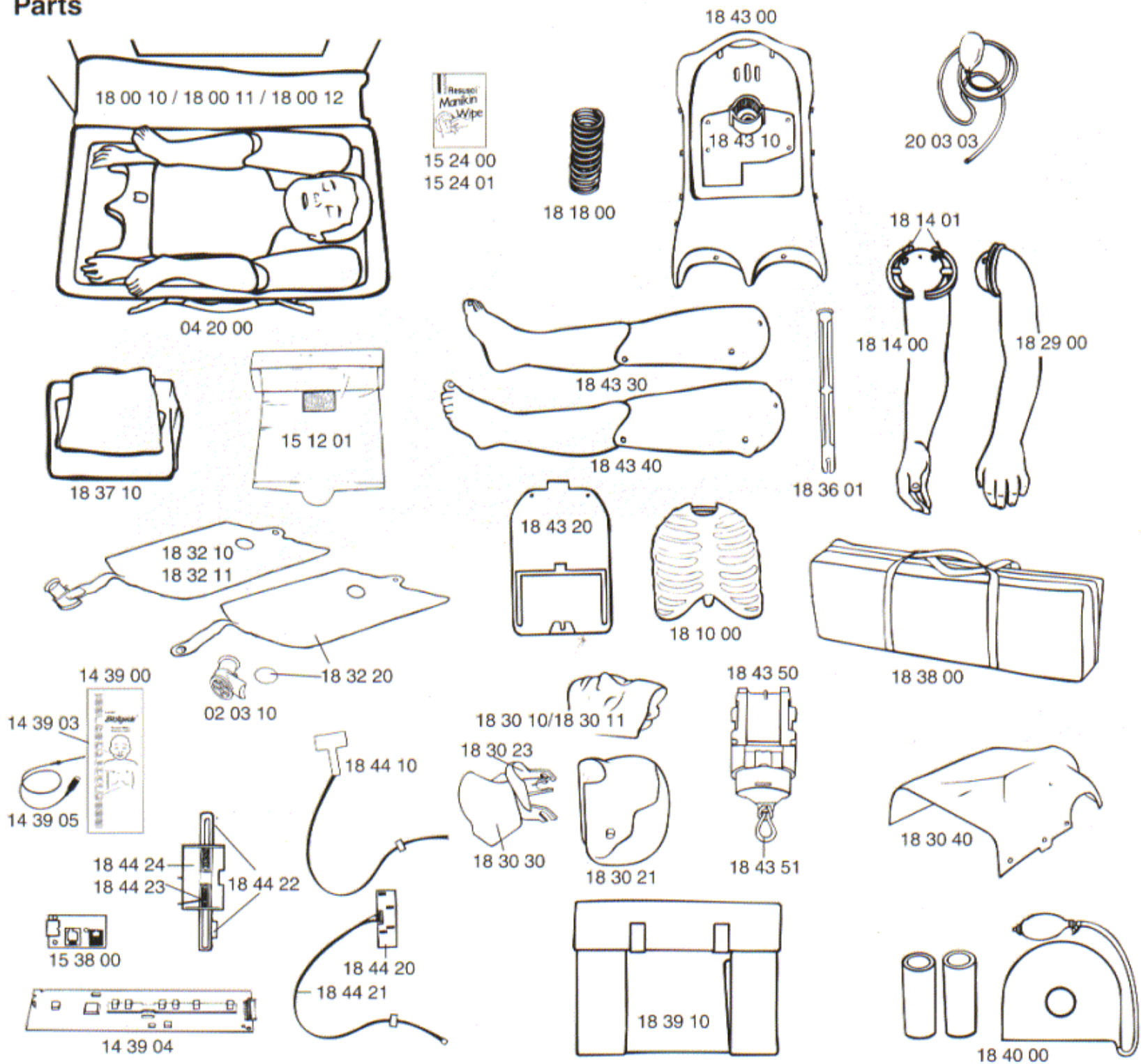
When the floatation device is not used, the manikin will sink. Thus, the manikin can be used for training rescue diving and surfacing as well as realistic towing and landing techniques.

If the manikin is dropped on its back it will normally turn over, and sink face down to the bottom. Water is allowed to enter through the neck opening and through special holes in the trunk and extremities.

### Caution

Make sure the RESUSCI JUNIOR manikin is not unintentionally released in deep water without the floatation device in the place. The manikin will sink to the bottom, which might cause inconvenient rescue operations.

Parts



- Models**
- 18 00 10 Resusci Junior, cpl. in carrying case
  - 18 00 11 Resusci Junior w/Skillguide, cpl. in carrying case
  - 18 00 12 Resusci Junior w/ Water rescue kit, cpl. in carrying case

- Parts**
- 04 20 00 Carrying case
  - 18 10 00 Chest plate
  - 18 14 00 Right arm
  - 18 14 01 Shoulder coupling
  - 18 18 00 Compression spring
  - 18 29 00 Left arm
  - 18 30 21 Head
  - 18 30 23 Jaw
  - 18 30 30 Neck skin
  - 18 30 40 Chest skin
  - 18 36 01 Fastening bolt
  - 18 37 10 Clothing, cpl.
  - 18 39 10 CPR training mat
  - 18 41 10 Directions for use
  - 18 43 00 Body shell, cpl.

- 18 43 10 Back plate with screws
- 18 43 20 Lung plate
- 18 43 30 Right leg, cpl.
- 18 43 40 Left leg, cpl.
- 18 43 50 Neck stem w/ pulse pad and ret. band
- 18 43 51 Ret. band
- 20 03 03 Pulse bulb with tubing

- Parts for 18 00 11 Only**
- 14 39 00 Skillguide, cpl.
  - 14 39 03 Battery cover
  - 14 39 04 Circuit board for Skillguide
  - 14 39 05 Cable
  - 15 38 00 Side connection unit w/3 screws
  - 18 44 10 Hand position sensor, cpl. w/ cable
  - 18 44 20 Circuit board for vent./comp. unit
  - 18 44 21 Cable for vent./comp. board
  - 18 44 22 Vent./comp. sliders 1 set
  - 18 44 23 Slider unit spring
  - 18 44 24 Vent./comp. housing w/screws

- Optional equipment**
- 18 38 00 Soft case
  - 18 40 00 Water rescue kit

- 18 44 00 Skillguide update kit
- 18 44 50 Update Kit Mk.2 to Mk.3

- Accessories**
- 02 03 10 Valve complete, pkg. of 50
  - 15 12 01 Manikin Face Shields, 6 rolls
  - 15 24 00 Resusci Manikin wipes, pkg. of 50
  - 15 24 01 Resusci Manikin wipes, pkg. of 1200
  - 18 30 10 Junior Face, pkg. of 6
  - 18 30 11 Junior Face, pkg. of 36
  - 18 32 10 Airway complete, pkg. of 25
  - 18 32 11 Airway complete, pkg. of 100
  - 18 32 20 Filter & Lung, pkg. of 100

**Standards/Approvals**



The product is in compliance with essential requirements of council directive 89 / 336 / EEC; EMC - directive.