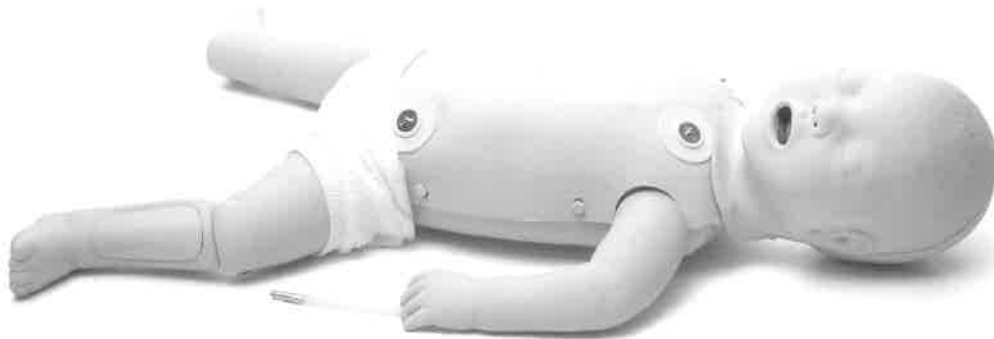


Laerdal ALS Baby Trainer

ENGLISH	Directions for Use
DEUTSCH	Gebrauchsanweisung
FRANÇAIS	Mode d'emploi
ESPAÑOL	Instrucciones de utilización
ITALIANO	Istruzioni per l'Uso
NEDERLANDS	Handleiding



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Instructions for Use - Manikin Features	4
Maintenance	6
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Standards/Approvals

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

Product specifications are subject to change without notice.

Cautions and warnings

Latex

The leg replacement pads contain latex. *Users who suffer from latex allergy should take precautions while using or handling the latex parts by wearing non-latex protective gloves.*

ECG connectors

The ECG connectors on the chest skin are intended for monitoring only! The Laerdal ALS Baby Trainer must not be defibrillated. Doing so may be potentially hazardous to the operator and may also damage the ECG simulator.

Material compatibility

Do not allow the manikin's skin to come in direct contact with ink or photocopied paper, as this can cause permanent stains on the skin.

Using protective gloves when handling the manikin will also reduce the risk of staining the intraosseous replacement pads. However, avoid coloured vinyl or latex gloves as these may cause discolouration of the manikin's skin.

The face skin, chest skin, airway, arms and legs must not be stored together with parts made in soft PVC, such as the chest skin from the "old" ALS Baby etc, as this can damage the material used for the new parts.

Upper airways

Always make sure that the airway and tube have been properly lubricated before practising intubation on the manikin.

This is important both to provide the proper realism and to reduce the risk of damaging the manikin's upper airways.



The Laerdal ALS Baby Trainer comes with ECG monitoring chest skin, and the Laerdal Intubation Baby Trainer comes with a plain chest skin.

The Laerdal ALS Baby Trainer simulates a 3 month old, 5 kilogram / 11 pound infant.

It is designed to provide the following common diagnosis and treatment modalities:

Airway management

- Ventilation via bag-valve-mask
- Endotracheal and nasotracheal intubation
- Auscultation of breath sounds
- Bilateral chest movement and stomach distention
- Oral/Nasal Airways
- Insertion of LMA (Laryngeal Mask Airway)

Vascular access practice (ALS Baby only)

- realistic intraosseous access and drug therapies.

ECG monitoring and arrhythmia recognition

(ALS Baby only)

- 3-lead, 4 connection ECG on manikin chest.

Assembly - Getting started

Before use, perform the following preparations:



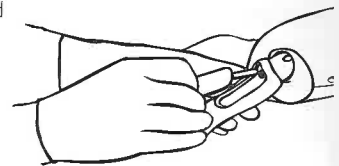
Lubrication of the airway

During this procedure, wear protective gloves to avoid contamination. Spray into the mouth/airway using the lubricant spray (supplied with manikin). Also lubricate the tip of the endotracheal tube and laryngoscope blade before performing endotracheal or nasotracheal intubation.

Placement of IO pads (ALS Baby only)

- Unpack one of the intraosseous access (IO) pads.

- Hold the pad with the blood reservoir pointing upwards.



- Insert the blood reservoir end of the pad into the round cavity in the knee.

- Carefully bend the foot downward, and while holding it down: Slip the tab at the lower end of the IO pad into the square cavity inside the foot.



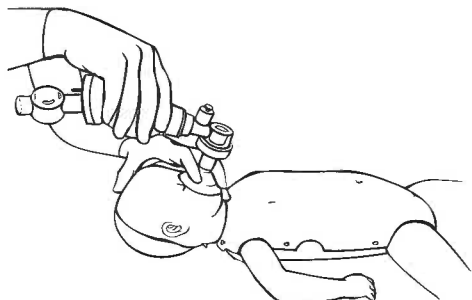
- Let the foot bend back to normal position.

ECG connection (ALS Baby only)

The three connectors on the lead from the manikin are snapped into place on the corresponding mount on the Heartsim 200 rhythm simulator.

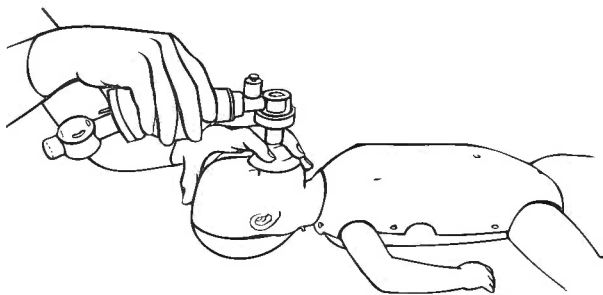
INSTRUCTIONS FOR USE - Manikin Features

Ventilation



Airway open/closed - Stomach distension

In the flexed position, with the head resting forward onto the chest, the airways are closed. If an attempt is made to ventilate the manikin via bag-mask between this position and the neutral position, air will not enter the lungs. If an air pressure of more than 10 mm Hg is applied, stomach distension can be observed on the manikin.



Head tilt

In the neutral position, the airways are open. If ventilated via bag-mask in this position, air will enter the lungs. If a too rapid ventilation is performed, causing an air pressure in excess of 10 mm Hg, stomach distension will occur.

Hyperextension of the head/neck will not cause the airways to close.

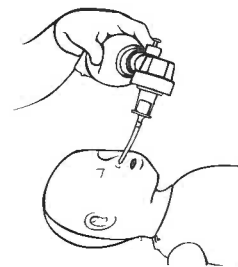
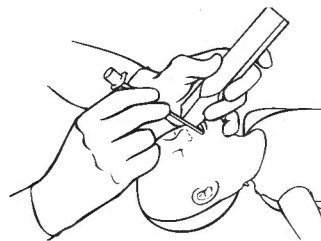


Jaw thrust

The manikin also allows jaw thrust to be performed. Performed in the flexed position, the airways will open and allow ventilation by bag-mask.

Insertion of LMA

Insertion of LMA can be practiced. A size 1 LMA is recommended.

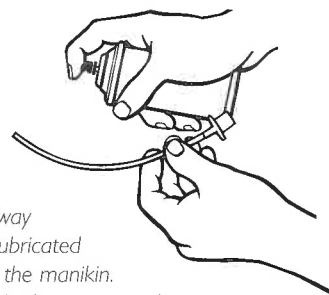


Intubation

The manikin can be intubated via the oral and nasal routes.

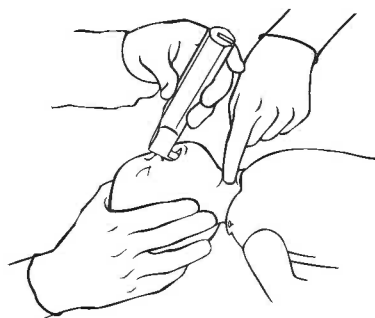
A 3,5 mm tube is recommended to avoid backward air leakage. A No. 1 laryngoscope blade is recommended.

If intubated too deeply, the tube will pass into the right mainstem bronchus, causing ventilation to the right lung only.



Important:

Always make sure that the airway and tube have been properly lubricated before practising intubation on the manikin. This is important both to provide the proper realism and to reduce the risk of damaging the manikin's upper airways. Use the lubricant spray supplied with ALS Baby Trainer and Intubation Baby Trainer.



The cricoid pressure technique (Sellick manoeuvre) can be realistically performed on the ALS Baby Trainer and Intubation Baby Trainer.

Lungs, stomach

The manikin contains two separate lungs and a stomach. They are designed to provide realistic movement and sounds during ventilation of either lung or distension of the stomach. To expel air from the stomach, simply press downward on the manikin's stomach.

The manikin will expel all air back through the mouth and nose.

Airway hygiene

Please note that if mouth-to-mouth or mouth-to-nose ventilation has been performed, a thorough cleaning of the upper airways, and a replacement of the lower airways are necessary. See section "Cleaning upper airways".

However, we recommend that this manikin not be used for mouth-to-mouth or mouth-to-nose ventilation.

Vascular access

(all features are not available on all versions)



Intraosseous access via tibia bone

The left leg is designed with a recess that houses a replaceable pad containing a simulated tibia with artificial bone marrow. For pad placement, refer to section "Assembly - Getting Started".

With the pad in place, intraosseous access can be practised according to clinical protocol.

To confirm that the needle is correctly inserted in the tibia bone, simulated bone marrow can be aspirated into a syringe.

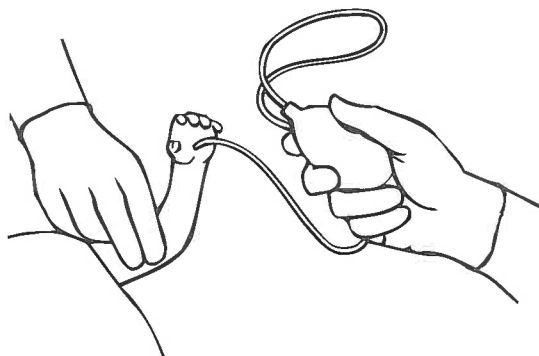
When the needle is withdrawn, the sleeve surrounding the tibia bone will seal around the entrance point so that further punctures can be performed without excessive leakage. A permanent hole, however, will be left in the tibia bone after each puncture. Up to 15 punctures can normally be performed before pad replacement will be necessary. However, this will vary depending on how densely the punctures are performed.

To replace an intraosseous pad, carefully bend the left foot downward and release the lower part of the pad from the recess in the foot.

Pull out the pad and discard.

Place a new pad as described in the section "Assembly - Getting Started".

Cardiac features

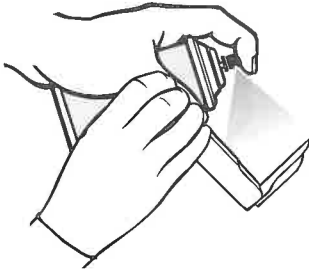


A pulse is simulated via a manually operated pulse bulb.

ECG can be monitored using the four ECG electrodes on the chest skin if the manikin is connected to the 3-lead outlet of the Laerdal Heartsim 200 or other simulator with compatible outlets.

Warning!

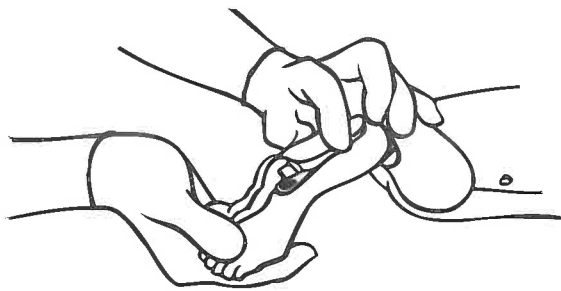
The Laerdal ALS Baby Trainer must not be defibrillated. The monitoring electrodes are not designed to absorb high voltage / high energy shocks. Application of such shocks may cause a potential shock hazard to the operator and may also damage the connected cardiac rhythm simulator.



Lubrication

It is essential that the upper airway is properly lubricated in order to obtain the intended realism and durability.

Take care to lubricate the airway, endotracheal tube and laryngoscope blade as described in section "Lubrication of the airway" on page 3 before using the manikin.



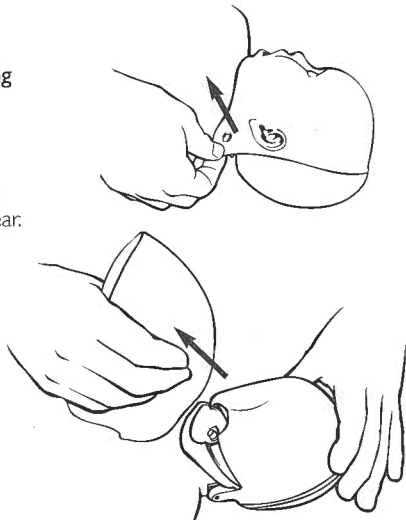
Replacement of IO pads (if applicable)

- Carefully bend the foot downwards, and while holding it down.
- Lift out the tab at the lower end of the IO pad from the square cavity inside the foot.
- Lift the pad out of the recess and pull out from the round cavity in the knee.
- Insert a new pad as described in section "Placement of IO pads" on page 3.

Replacing or cleaning the face skin

To remove

1. Detach face from retainer at each ear.
2. Lift off face.



To clean

Clean face skin as follows:

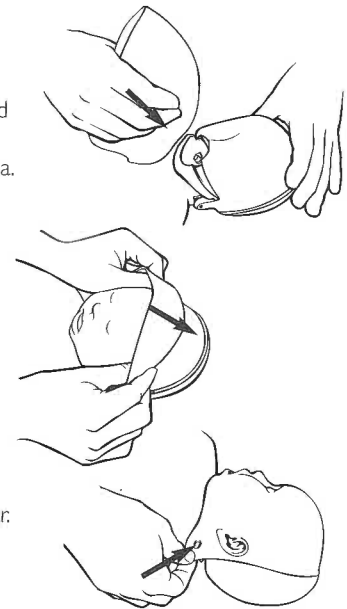
- Immerse face skin into a disinfectant solution*.
- Scrub stubborn stains when necessary and leave for 10 minutes.
- Rinse with fresh water.
- Allow face skin to dry.

*Note: Virkon can be used. Depending on local policies you may prefer to use a freshly prepared sodium hypochlorite solution. Local cleaning and handling procedures must be followed.

Alternatively replace with new face skin (Cat.No. 08 33 10).

To install

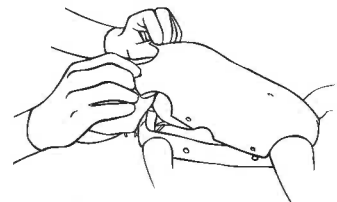
1. Fold face upward to avoid direct finger contact with mouth and nose area.
2. Unfold face over head.
3. Fasten retainer at each ear.



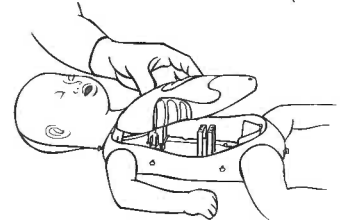
Replacing the lungs/stomach

To remove

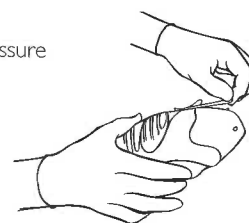
- Unbutton and lift off chest skin.



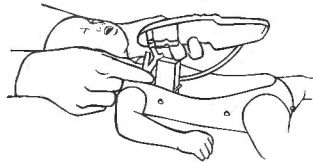
- Lift out chest plate.



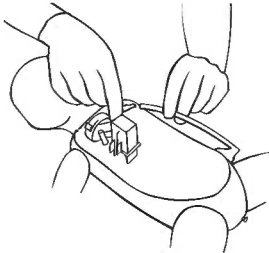
- Remove stomach pressure valve band.



- Unsnap the two lung connectors.



- Unsnap the silicone stomach tube from the oesophagus end of the head/airway assembly.



- Discard lung/stomach.

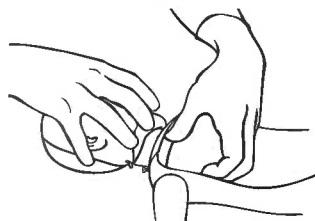
To install

- Unpack new lung/stomach (Cat. No. 08 20 25).
- Connect stomach tube to oesophagus end of head/airway assembly.
- Place new airway/stomach with the lung connectors into the two holes in the chest plate.
- Connect the two lung tubes to the two lung connectors in chest plate.
- Mount the stomach pressure valve band over the two tabs. Put chest plate in place over the chest compression slide.
- Put chest skin back on. Make sure the cables are placed inside the chest skin so that they do not restrict chest movement.

Cleaning upper airways

To remove

- Open up manikin and disconnect airway/stomach as described in "To remove" in section "Replacing the lungs/stomach".

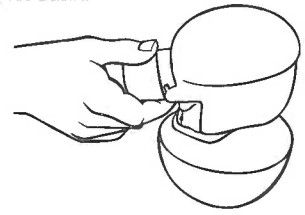


- Press down tab on inner neck connector and pull head away from body.

- Remove face skin as described in "To remove" in section "Replacing or cleaning the face skin".

To clean

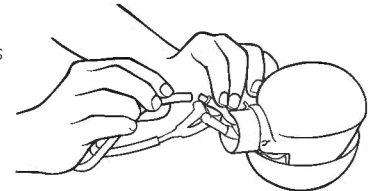
- Open and empty the cleaning kit basin.



- Place the manikin head face down in the cleaning basin.

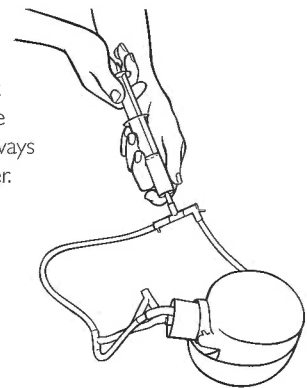
- Connect the two lung tube connectors to the double Y-piece in the tube system.

- Connect the oesophagus to the single connection in the tube system.



- Insert the cleaning syringe into the valve opening and place the free end of the tube system into the basin.

- Fill the basin with liquid to just underneath the edge. Circulate liquid through the manikin airways by pumping the syringe plunger.



- Use this setup to go through the following steps:

- 1: Use a Disinfectant solution*. Airways should remain completely filled for at least 10 minutes.
- 2: Use fresh water to remove disinfectant solution.

After each step lift the head clear of the liquid to allow drainage.

- 3: Allow to dry completely before reconnecting head to manikin.

* Virkon can be used. Depending on local procedures you may prefer to use a sodium hypochlorite solution freshly prepared for single class use. This solution should have at least 500 ppm free available chlorine, i.e. 22 ml of 2.5 - 5.0 % household bleach per 500 ml of water. Local cleaning and handling procedures must be followed.



Laerdal
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