

⚠ Caution | Do not mark on the model and other components with pen nor leave printed materials contacted on surface. Ink marks on the models cannot be removed.

MW34

Obstetric Examination Simulator

Instruction Manual

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The Obstetric Examination Simulator is a representation of a 39-40 week's pregnancy torso for training in skills for prenatal checkup including palpation, fetal heart auscultation and abdominal measurement.

■ Features

- A representation of 39-40 week's pregnancy torso for training in skills including palpation, fetal heart auscultation and abdominal measurement.
- Soft and elastic tissue material that provides true-to-life sensation of palpation
- Anatomically correct pelvis and fetus
- A variety of fetal position, presentation and lie with one fetal unit
- Authentic fetal heart sounds recorded from a real fetus

■ Training Skills

- Palpation: Leopold's maneuvers, CPD assessment
- Auscultation: fetal heart auscultation: auscultation with a Pinard stethoscope on the maternal abdomen, listening of Doppler monitor sounds through the external speaker;
 - umbilical blood flow
 - umbilical blood flow and fetal heart sounds (posterior and anterior)
 - fetal heart sound※ Real Doppler monitors (stethoscopes) cannot be used.
- Measurement: maternal abdominal girth, fundal height, and external pelvimetry

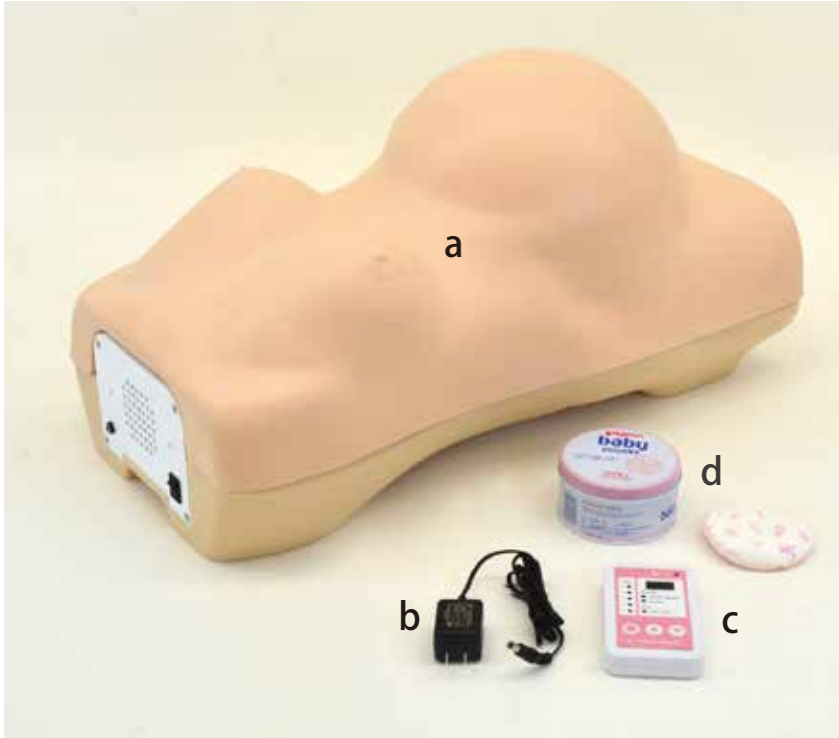
Read before use

This Obstetric Examination Simulator has been developed for the training of medical and paramedical professionals only. Any other use, or any use not in accordance with the enclosed instructions, is strongly discouraged. The manufacturer cannot be held responsible for any accident or damage resulting from such use. Please use this model carefully and refrain from subjecting to any unnecessary stress or wear. Should you have any questions on this simulator, please feel free to contact our distributor in your area or KYOTO KAGAKU at any time. (Our contact address is on the back cover of this manual)

※Be sure to refer the handling and storage instructions on page 3 and always follow them.

Set Includes

Before you start, ensure that you have all components listed below.



- a. Pregnancy torso 1
- b. AC adaptor 1
- c. Remote controller 1
- d. Talcum powder 1
- Instruction manual

Power requirements:
 pregnancy torso; AC100-240V
 Remote controller; AAA battery x 2
 Power consumptions: 1W

⚠ DOs and DON' Ts

● Handle the manikin and the components with care.

Be sure not to drop or add shock to the manikin and its components, since the product uses special resins and heavy, such shock may cause damage to the products or environment.

● Do not let ink from pens, newspapers, this manual or other sources contact with the manikin, as they cannot be cleaned off the manikin skin.

● Storage in a dark, cool and dry space will help prevent the skin colors from fading and product from deforming.

● Never use organic solvent like paint thinner to clean the skin, as this will damage the simulator.

● The manikin skin may be cleaned with a wet cloth if necessary, using mildly soapy water or diluted detergent.

● Even if color on its surface might be changed across the ages, this does not affect the quality of its performance.

PLEASE READ :

Always follow the handling and storage instruction below, to keep the material with its elasticity and durability.

AFTER USE:

- Apply talcum powder on the uterus, set the parts on the torso model and store them in the storage box.



- Do not let the parts contact with other resin items and printed materials.

These soft material of the parts may be deformed by contact with other resin items and marked by contact with printed material and they cannot be repaired.

- Maintain proper temperature, humidity and avoid direct sunlight of the storage room of simulators.

Be sure to monitor the indication sticker on the storage box of the product.

Store the simulator below 60 degrees C.

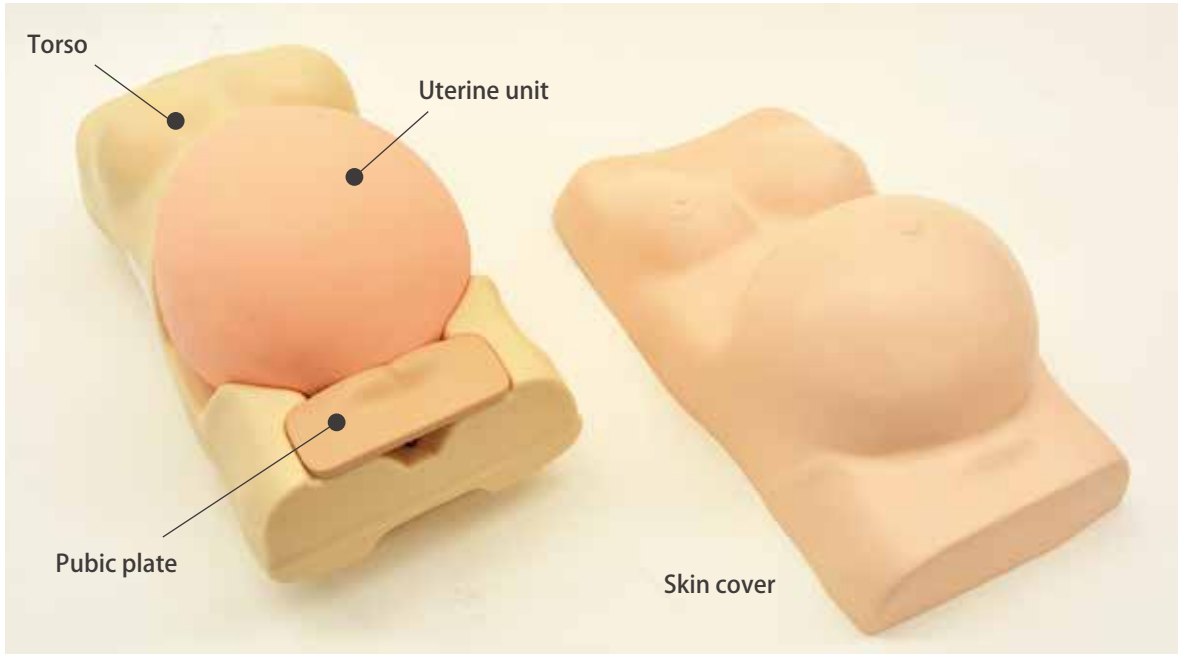
Change the storage place immediately when the temperature indicator shows color circles as below.

*The color circles are irreversible.

Before			After		
3F60	年	月貼付	3F60	年	月貼付
					
60	65	70	60	65	70

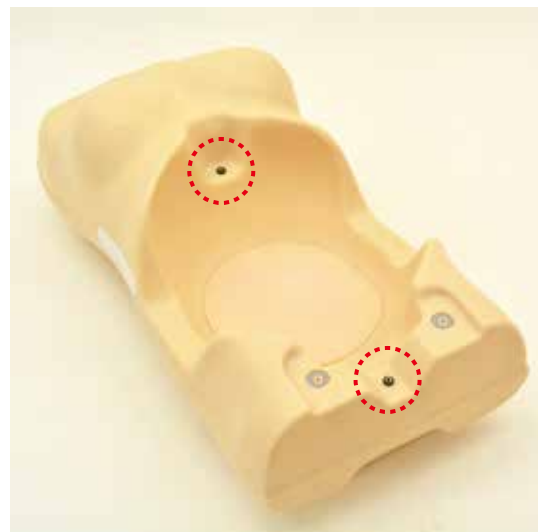
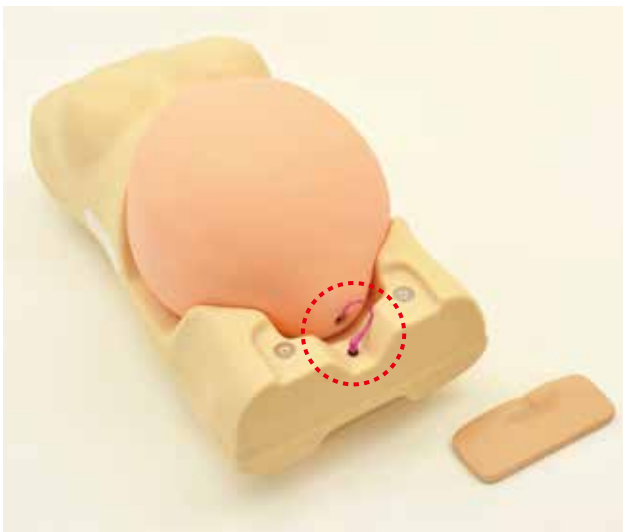
Structure of Pregnancy Torso

Under the skin cover, the uterine unit and the pubic plate are placed on the torso base.



Under the pubic plate, there's a port for the speaker cable to connect the speaker embedded in the fetus and the torso base.

There are two ports for the sound cable, at under the pubic joints and the xiphoid, to allow a variety of positioning of the uterine units.



Transportation

1. The pregnancy torso is heavy. For safety reason, lift and carry the torso with 2 people.



2. When the torso has to be transported by one person, be sure to hold the indents at the both ends of the torso.



Setting of Fetal Lie, Presentation and Position

1. Disengage the Velcro fasteners at the sides of the torso and remove the skin cover.



.....
Do not leave the skin cover unattached to the torso base for long time. Folding mark and wrinkles may persist and may not be restorable.

Always keep the skin cover attached on the torso base, except the short while for positioning the uterine units.

2. Remove the pubic plate.



3. Be sure to disengage the sound cable (for fetal heart sounds) from the port before moving the uterine unit.



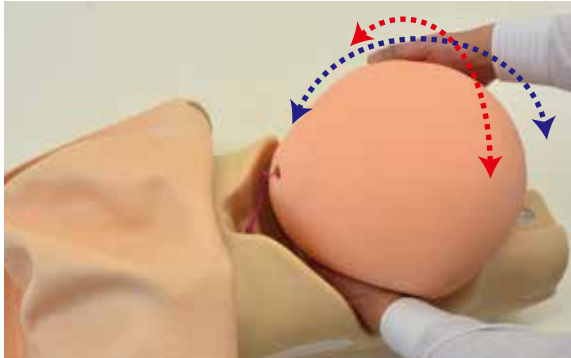
.....
Always make sure to disengage the sound cable before moving the uterine unit. **Otherwise, it may break the wire.**

Setting of Fetal Lie, Presentation and Position

4. Hold the uterine unit with both hands whenever moving, rotating or lifting the unit.

※Fetal presentation can be set in 2 directions (vertex and breech), fetal position can be set freely in 360 degrees.

When changing the presentation, be sure to connect the sound cable to the port in the proximity before setting the uterine unit in place.



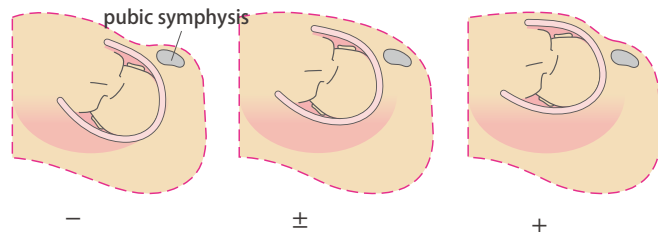
5. Position and orientation of the fetus is illustrated on the surface of the uterine unit.



※The lines in the above photos are enhanced to facilitate visibility.

6. For training of CPD assessment (Leopold' s fifth maneuver), place the uterine unit at vertex, and rotate it along the axis of maternal torso to change the height of the fetal head against the pubic symphysis.

● CPD assessment (Leopold's fifth maneuver)



Do not try to enlarge the hole for the sound cable, or pull out the internal components from the uterine unit. **Do not try to enlarge the hole for the sound cable, or pull out the internal components from the uterine unit.**



Preparation for Auscultation

1. Connect the cable from the AC adaptor to the port on the panel at the head side of the pregnancy torso. Then connect the AC adaptor to the power source and turn on the power (press on “-” on the main power switch).



AC Adaptor



Main power switch

2. Turn on the power switch at the upper side of the remote control.



※When the batteries are low, open the lid on the back of the remote controller and replace two AAA batteries with new ones.



Note

Be sure to turn of the power on the torso first and then turn on the remote controller. Remote controller may not work properly if the order is not followed.

Preparation for Auscultation



Mode button Selection button

- Digital indicator
- Internal speaker (in the fetus)
- External speaker (in the torso)
- Heart rate control (60 ~ 180)

● 5 variations of sound cases

<Sounds recorded by a Doppler stethoscope>

Umbilical blood flow _____ CASE 1

Umbilical blood flow and fetal heart sounds _____ CASE 2
(anterior, louder heart sounds)

Umbilical blood flow and fetal heart sounds (posterior) _____ CASE 3

Fetal heart sounds _____ CASE 4

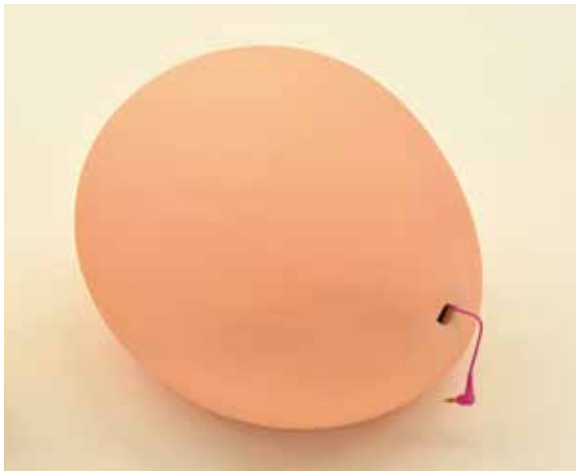
<Sounds recorded by a conventional stethoscope>

Fetal heart sounds _____ CASE 5

● Controllable parameters

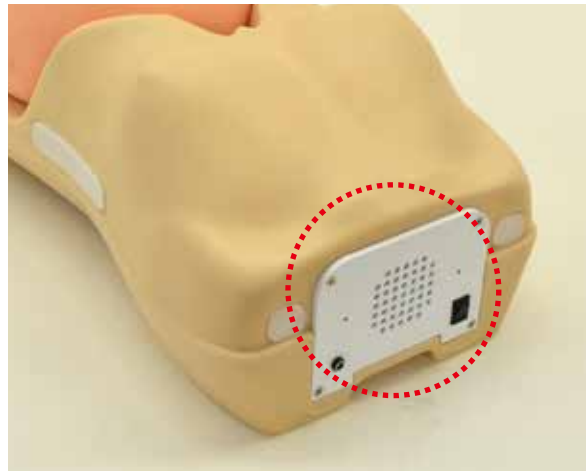
- Heart rate (60 ~ 180)
- Sound volume of internal speaker (1 ~ 10)
- Sound volume of external speaker (1 ~ 10)

• Internal speaker (embedded in the fetus)



• The internal speaker is embedded in the fetus in the uterine unit. It is used for auscultation using Pinard or conventional stethoscope.

• External speaker (in the torso)



• The external speaker is to share the sounds among a group of trainees.

Preparation for Auscultation

How to use the remote controller

1. Select a CASE



① Press the mode button once and CASE 1 lights up.



② Then, by pressing the ▼ button once CASE 2 is selected.

③ To select CASE 3, press ▼ one more time.

④ To return previous cases, press ▲.

2. Select a speaker and a heart rate



① Press the mode button once and CASE 1 lights up.



② Press the mode button once again, then the internal speaker is selected and its indicator lights up.

③ By pressing mode button, indication lights for Speaker (external speaker), Heart Rate (heart rate setting) lights up successively.

④ By pressing mode button four times, the setting return to CASE 1.



Digital indicator

③ While the Internal Speaker is selected, its volume can be changed by pressing ▲ or ▼ buttons. The volume is indicated by number 1-10.

Likewise, while Speaker is selected, its volume can be changed by ▲, ▼ buttons.

Likewise, while Heart Rate is selected, the rate can be changed by ▲, ▼ buttons.

※Heart rate can be set from 60 to 180/minutes in steps of 10.

Auscultation (Fetal Heart Sounds)

Anatomically correct landmarks of maternal pelvis and fetal parts and supple, innovative material of the uterine unit allows realistic palpation of fetus. The uterine units can be freely oriented to represent different lies, presentations and positions, also allowing CPD assessment (Leopold's fifth maneuver).

■ Leopold's maneuvers

Palpate parts of the fetus such as head, buttocks and the trunk through the steps from the first to the fourth maneuvers to assess fetal lie, presentation and position as well as degree of fetal descent.



First maneuver

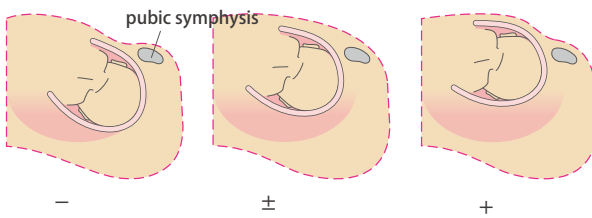


Fourth maneuver

■ CPD assessment (Leopold's fifth maneuver)

Height fetal head against the pubic symphysis can be changed by rotating the fetal unit to prepare different scenario for CPD assessment (Leopold's fifth maneuver).

● CPD assessment (Leopold's fifth maneuver)



Auscultation (Fetal Heart Sounds)

Sounds recorded by a Doppler monitor and a conventional stethoscope are prepared for training. Sounds of Doppler monitor has fetal heart sounds, umbilical blood flow, as well as mixed sound of fetal heart and umbilical blood flow. Remote controller allows switching between sounds, between speakers and also setting sound volume.



Auscultation with a conventional stethoscope.



Auscultation with a Pinard stethoscope.

Measurement (Maternal Abdominal Girth, Fundal Height and External Pelvimetry)

Maternal body measurement to estimate fetal weight, development and change in the volume of amniotic fluid can be performed on the pregnancy torso. Anatomically correct landmarks include the pubic symphysis, the navel the xiphoid process, the iliac crest and the greater trochanters.

Maternal abdominal girth



Fundal height



A variety of external pelvimetry



Distantia spinarum (distance between iliac spines)



Distantia cristarum (distance between iliac crests)



Distantia trochanterica (distance between the prominent parts of trochanter major)



External oblique diameter

After Training

1. Turn off the power of the remote controller and the pregnancy torso.
Remove the cable from the port on the torso.



2. Remove the abdominal skin cover and spread talcum powder of the surface of the uterine unit. Place the uterine unit on the torso base and replace the skin cover over it.



3. Disengage the sound cable from the port while not in use.



4. Clean the skin cover by wiping with well squeezed wet cloth, using water or mild detergent. Dry naturally and then spread talcum powder on the surface before storage.



※ This is to prevent accidental break of the wire that can be caused by dropping of the uterine unit from the torso base.



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Replacement parts

code	name
11414-010	Skin cover for MW34



Skin cover for MW34

For inquiries and service, please contact your distributor or KYOTO KAGAKU CO., LTD.

The contents of the instruction manual are subject to change without prior notice.

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Please contact manufacturer for extra copies of this manual which may contain important updates and revisions.

Please contact manufacturer with any discrepancies in this manual or product feedback. Your cooperation is greatly appreciated.

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