



Caution

Do not mark on the products and its components with a pen or allow printed materials to come in contact with the surface. Ink marks cannot be removed.

MW34

Obstetric Examination Simulator

Instruction Manual

Contents

- Introduction P. 1
Manufacturer's Note
- Before You Start P. 2~3
Set Includes and DOs and DON'Ts
- Precautions P. 4
Handling and Storage
- Preparation P. 5~ P. 10
Structure of Pregnancy Torso
Transportation
Setting of Fetal Lie, Presentation and Position
Preparation for Auscultation
- Training Sessions P. 11~P. 12
Palpation (Leopold's Maneuvers, CPD Assessment)
Auscultation (Fetal Heart Sounds)
Measurement (Maternal Abdominal Girth, Fundal Height and External Pelvimetry)
- After Training P. 13



Movie Site



English

The Obstetric Examination Simulator is a representation of a 39-40 week pregnancy torso for training in skills for prenatal checkup including palpation, fetal heart auscultation, fundal height, abdominal circumference, and external pelvimetry.

■ Features

- 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 real patients.

■ Training Skills

● **Palpatin:** Leopold's maneuvers, CPD assessment

● **Auscultation:** 5 variations of sound cases

<Sounds recorded by a Doppler stethoscope>

*Real Doppler monitors (stethoscopes) cannot be used.
Please output from the external speaker.

- 1,Umbilical blood flow
- 2,Umbilical blood flow and fetal heart sounds
(Sounds of the anterior fetal)
- 3,Umbilical blood flow and fetal heart sounds
(Sounds of the posterior fetal)
- 4,Fetal heart sounds

<Sounds recorded by a conventional stethoscope>

5,Fetal heart sounds
*Can also be output from the external speaker.

● **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 product 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 to 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 |
| e. | LAN cable | 1 |

Power requirements :
pregnancy torso; AC 100-240V
Power consumptions : 1W

DOs and DON'Ts

DOs

- **Operate the system under the designated circumstances**

Power input: AC100V~230V plus or minus 10%, 50~60Hz
Temperature range: between 0 degrees C and 40 degrees C (no congelation)

Relative humidity; between 0%to 80% (no condensation)

*Connecting to power source outside of the designated range may lead to fire.

- **Safe disposition**

To avoid short circuit, do not run the simulator above a power receptacle.

- **Handle the power plug and cord observing following precautions**

1. Clean the head of the plug periodically.
2. Plug in the plug to the outlet firmly to the end.
3. Always hold the plug when unplugging. Do not pull the cable.
4. Do not force to bend, twist the cable and avoid for cutting on it.

Failing to follow the above precautions can result in damage in the plug and the cable, constituting risk of fire or shock.

- **When the electric parts get warm or produce smoke, immediately turn off the power and unplug from the power source**

Risk of fire. Contact your distributor or the manufacturer for repair.

- **Handle with care**

The materials for the models are special compositions of soft resin.

Please handle them with utmost care at all times.

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

- **Storage**

Store the simulator at room temperature, away from heat, moisture and direct sunlight.

Storage under the temperature above 50 degrees C may reduce the performance quality of the simulator.

Storing the manikin in a dark, cool and dry space will help prevent the skin colors from fading and product from becoming deformed.

DON'Ts

- **Do not disassemble or open electric or precision components**

Do not open up or disassemble the housing for electric parts or precision components.

Refrain from opening up any lids, caps or covers for such area, and never run the system while any of such covers are open.

*Never disassembling the electric components, power plug and cable as it may create a risk of fire, shock or injury.

Contact your distributor or the manufacturer for repair.

- **Never wipe the product and components with thinner or organic solvent**

- **Ink marks on the soft surface won't be removable**

Don't mark on the product and components with pen or leave any printed materials in contact with their surface.

- **Do not give shocks**

The electric components are precision instruments.

Strong shocks or continuous vibration may cause breakages of its internal structure.

- **Do not run the system continuously over 2 hours**

Take at least 30 minutes shutdown, turning off the power, every 2 hours.

- **Do not wet the electric components**

Do not pour or spill water or liquid detergent over the electric components, power cable and power plug.

Running the system while the electric components are wet may create a shock hazard or a risk of fire.

- **Do not handle the power plug with wet hands**

Risk of shock.

- **No fire**

Do not put the product close to fire. It may lead to discoloration or deformation of the product as well as short circuit, creating a risk of fire.

Even if the skin color of the manikin changes as it ages, the quality of the performance is not affected.

 Caution

Caution indicates that a failure to observe the specified instructions may result in minor injuries or material loss and equipment damage. Be sure to observe all the caution statements.

● Handle the manikin and the components with care. Be sure not to drop the manikin and its components, since the product uses special resins.	● Do not mark on the manikin or other components with a pen or allow printed materials to come in contact with the surface. Ink marks cannot be removed.
● Storing the manikin in a dark, cool and dry space will help prevent the skin colors from fading and product from becoming deformed.	● Never use organic solvents like paint thinner or alcohol to clean the skin, as this will damage the manikin.
● The manikin may be cleaned with a wet cloth if necessary, using mildly soapy water or diluted detergent.	● Even if the skin color of the manikin changes as it ages, the quality of the performance is not affected.

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 base and store them in the storage box.



- Do not let the parts come in contact with other resin items or printed materials.

The 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 designated temperature, humidity and avoid direct sunlight for storage.

Store the simulator below 60 degrees celcius.

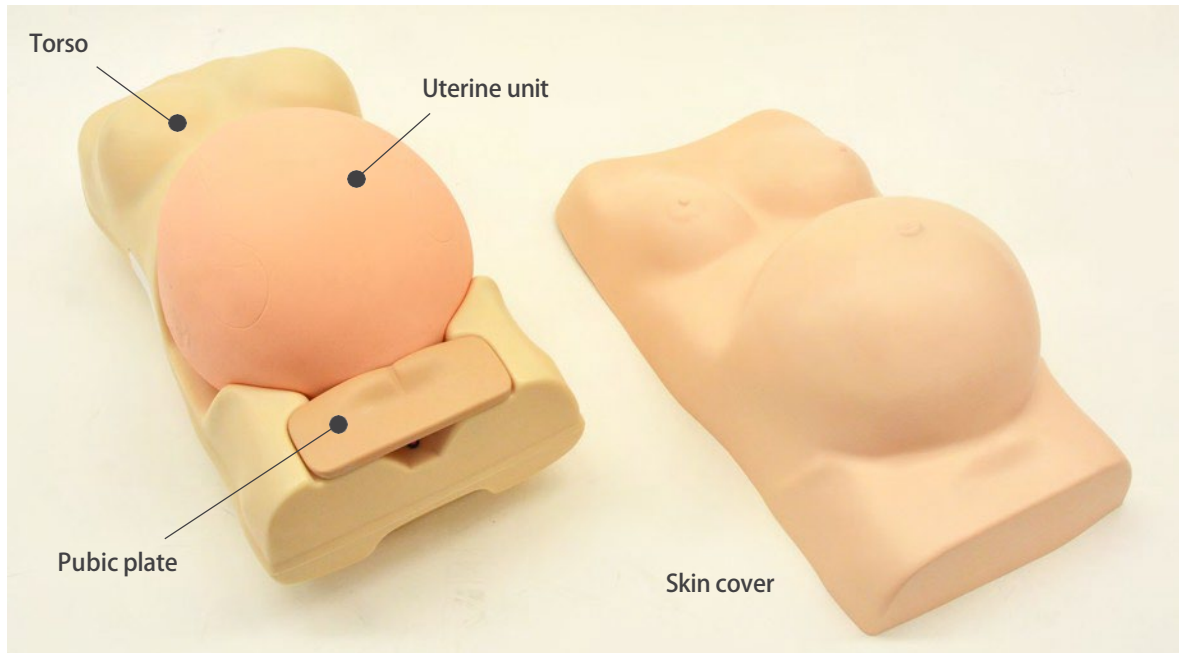
Change the storage place immediately when the temperature indicator shows color circles as below.

*The color circles are irreversible.

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

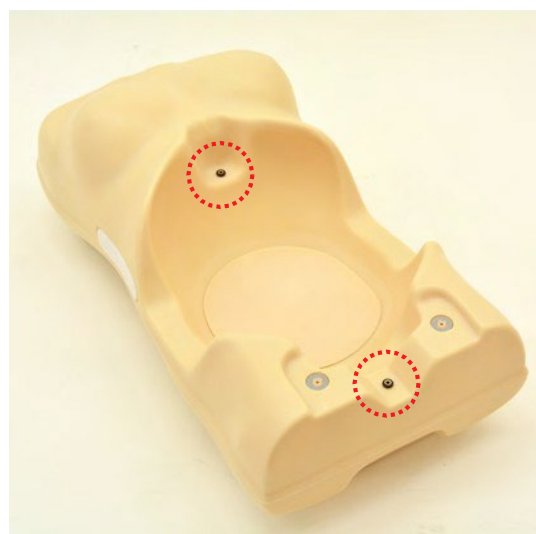
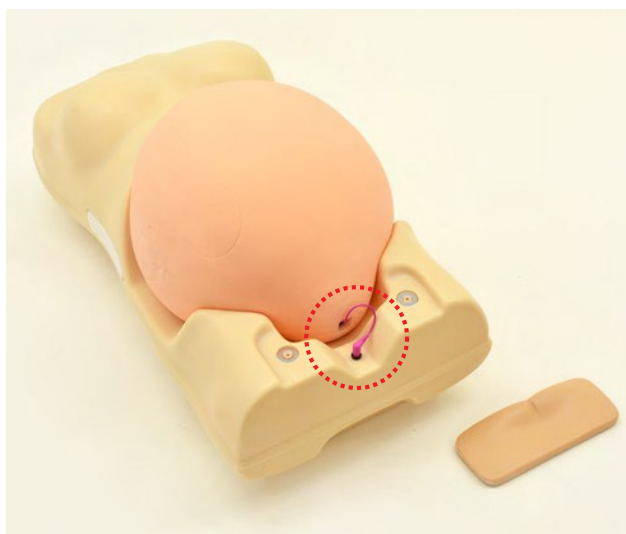
Structure of Pregnancy Torso

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



Under the pubic plate, there is 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. One is under the pubic joints and the second one is at the xiphoid process allow a variety of positioning of the uterine units.



Transportation

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



2. When the torso has to be transported by one person, be sure to hold the indented areas found at 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 unplug the sound cable (for fetal heart sounds) from the port before moving the uterine unit.

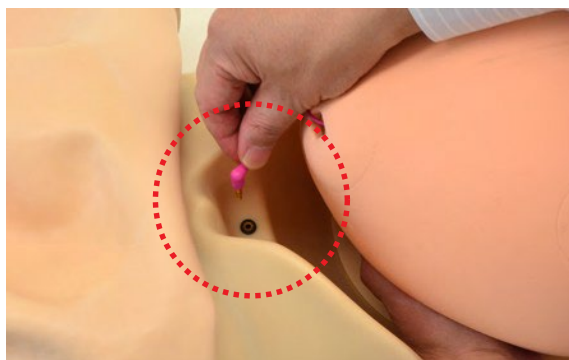
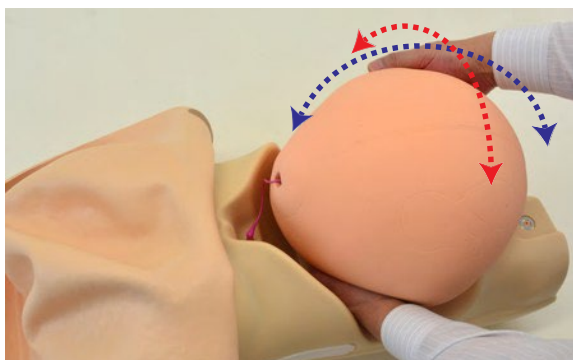


Always make sure to unplug the sound cable before moving the uterine unit. Otherwise, the wire may get damaged.

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 before setting the uterine unit in place.



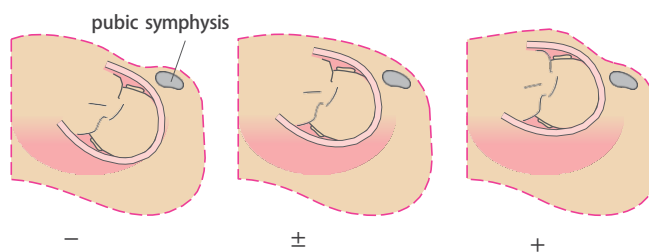
5. Position and orientation of the fetus is illustrated on the surface of the uterine unit.



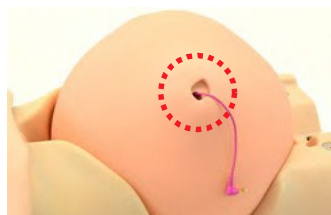
※The lines in the above photos are enhanced to facilitate visibility.

6. For training of CPD assessment (Leopold's fifth maneuver), place the uterine unit at vertex, and rotate it along the axis of the 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.

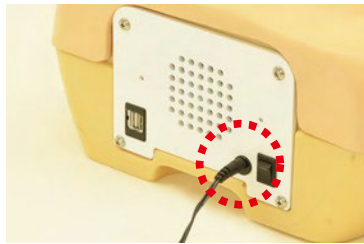


Preparation for Auscultation

Remote control usually operates wirelessly. In case of no power, connect remote control with LAN cable to use.

●For wireless mode

1.Connect AC adapter to torso, and reverse side to power socket.

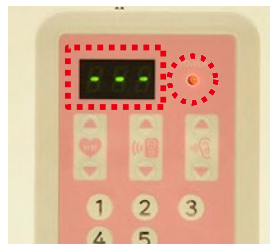
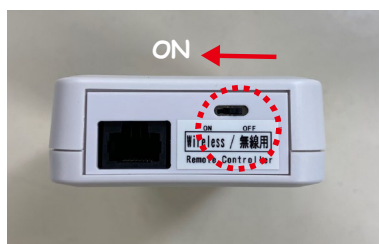


2.Turn on power switch on the torso



3.Move slider on top of remote control to ON.

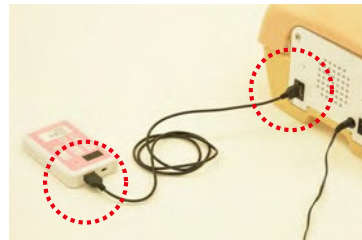
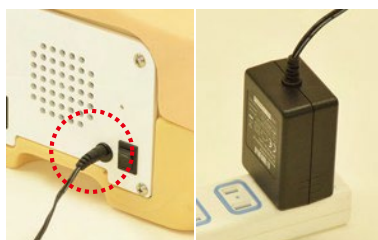
Display panel and power lamp will light up, indicating preparation complete.



.....
Be sure to turn on 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.

●For wired mode

1.Connect AC adapter to torso, and reverse side to power socket.

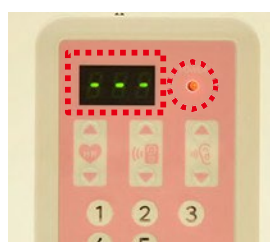


2.Connect remote controller and torso with LAN cable.

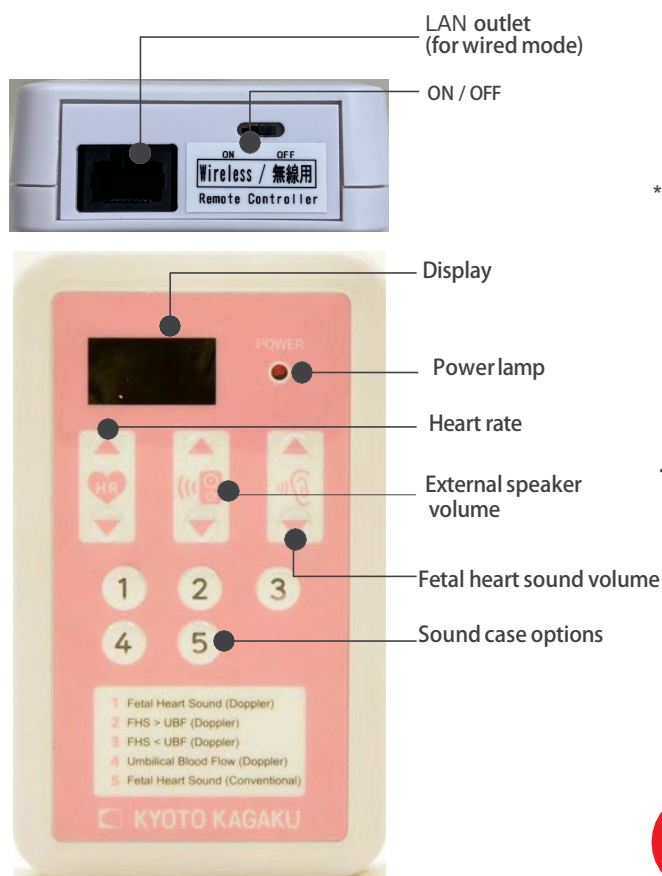
3.Move slider on top of remote control to OFF.



4.Turn on power switch on the torso. Display panel and power lamp will light up, indicating preparation complete.



Preparation for Auscultation



● 5 variations of sound cases

<Sounds recorded by a Doppler stethoscope>

*Real Doppler monitors (stethoscopes) cannot be used. Please output from the external speaker.

1, Umbilical blood flow

2, Umbilical blood flow and fetal heart sounds (Sounds of the anterior fetal)

3, Umbilical blood flow and fetal heart sounds (Sounds of the posterior fetal)

4, Fetal heart sounds

<Sounds recorded by a conventional stethoscope>

5, Fetal heart sounds

*Can also be output from the external speaker.

● Controllable parameters

- Heart rate (60 ~ 180)
- Sound volume of internal speaker (0 ~ 10)
- Sound volume of external speaker (0 ~ 10)

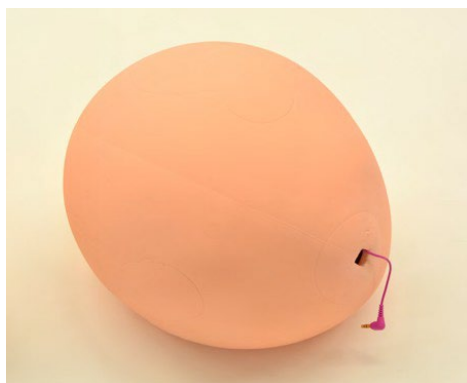


• Within a short interval of time, changing blood flow sound to heart sound or vice versa may cause malfunction of sound reproduction.

• When sound that you selected was different from reproduced sound, push the button again that you need reproduce the sound.

• When unexpected sounds such as beep sound occurred, turn off the main power switch once and then turn on the switch.

• 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)

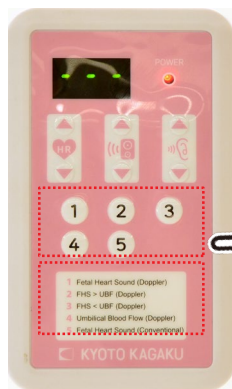


• The purpose of the external speaker is to share the sounds among a group of trainees.

Preparation for Auscultation

《Remote controller manual》

1. Select sound case



- Select from option 1 to 5
- Case names are listed at the bottom of the panel.



- Selection will be displayed as CA1-CA5.

2. Case volume adjustment



- Press ▼▲ to adjust volume



External speaker



Fetal heart sound (internal speaker)



- Volume will be shown on the display.

*Volume range is 0-10 (0 equals off)

- Volume for external speaker and fetal heart sound can be adjusted separately.

3. Adjusting fetal heart rate



- Press ▼▲ on the heart rate section to adjust.



Heart rate



- Heart rate will be shown on display *range of heart rate setting is between 60-180 bpm.

- Preparation complete

*Press number button to select a different case.

Repeat the procedure 2-3.



At times, numbers on the display may be erased when the ON/OFF selector is switched to OFF while running on wired mode. When it occurs, reset the system by turning off main power switch on the torso and then turning it on again.

Palpation (Leopold's Maneuvers, CPD Assessment)

Anatomically correct landmarks of maternal pelvis and fetal parts, and innovative material of the uterine unit allow realistic palpation of the 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.



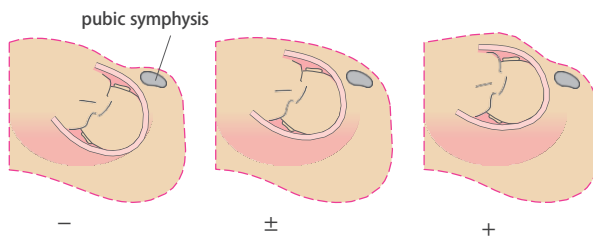
First maneuver



Fourth maneuver

■ CPD assessment (Leopold's fifth maneuver)

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



Auscultation (Fetal Heart Sounds)

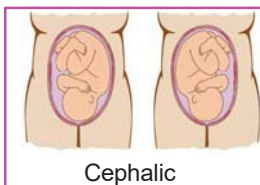
Sounds recorded by the doppler and a conventional stethoscope can be used for training.

*Real Doppler monitors (stethoscopes) cannot be used.

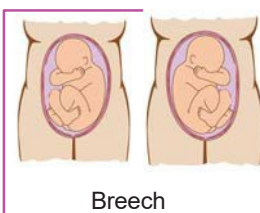
While training of auscultation of fetus, cephalic or breech position is recommended.

Adjusting of angle and direction of uterus, reproduce the those positions.

Remote controller allows switching between sounds, between speakers and also setting sound volume.



Cephalic



Breech



output from the external speaker



Auscultation with a conventional stethoscope.

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

Maternal body measurements can be done to estimate fetal weight, development and change in the volume of amniotic fluid. 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)

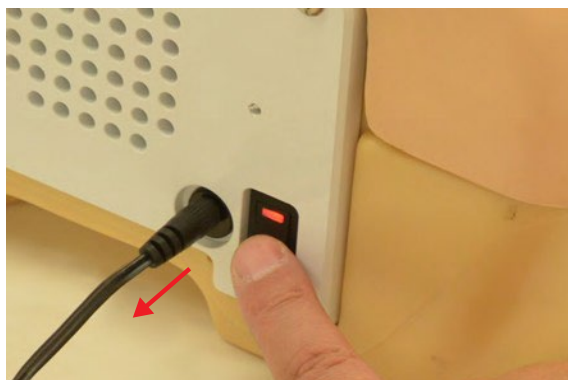


External oblique diameter

After Training

After Training

1. When in wireless mode, first, switch selector to OFF. Next, turn off power on the torso, and finally unplug AC adapter.
When in wired mode, turn off power on torso and unplug LAN cable connecting remote control. Finally, unplug AC adapter.



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



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



4. Clean the skin cover by wiping with a damp cloth, using water or mild detergent. LET THE TORSO DRY NATURALLY, then spread talcum powder on the surface before storing in a cool dry place.



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

**Caution**

Do not mark on the product and its components with a pen or allow printed materials to come in contact with the surface. Ink marks cannot be removed.

Replacement
parts

code	name
11414-010	Skin cover for MW34



Skin cover for MW34

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