



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.

MW43

# ”AbdoAbby” Abdominal Examination Simulator

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Instruction

Manual

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Movie Site



English Site

The Abdominal Examination Simulator is a realistic torso manikin for abdominal examination training. The simulator facilitates effective hands-on training programs.

## **Read Before Use**

This Abdominal Examination Simulator has been developed for the training of medical and allied health 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 the product carefully and refrain from subjecting it to any unnecessary stress or wear. Should you have any questions about 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)

## **Features**

- Most realistic hands-on trainer for abdominal examination training.
- Accurate landmarks and anatomy,
- Interchangeable inserts of organs of different conditions.
- Respiratory liver movements with a foot switch pedal.

 **DOs and DON'Ts**
**DOs**

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

Power input: AC100V~230V plus or minus 10%, 50Hz/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 set 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 scratching or 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 necessary, using mildly soapy water or diluted detergent. Then apply talcum powder.

- **Storage**

For storage, be sure to cover the torso manikin with the included protection cover to prevent it from contacting other resin items. The torso model may be deformed by contact with other resin items for long time and they cannot be repaired.

Remove the organ inserts from the torso manikin before storage. Organ parts may be deformed irreversibly prolonged by contact with the soft part of the torso unit.

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

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

**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**

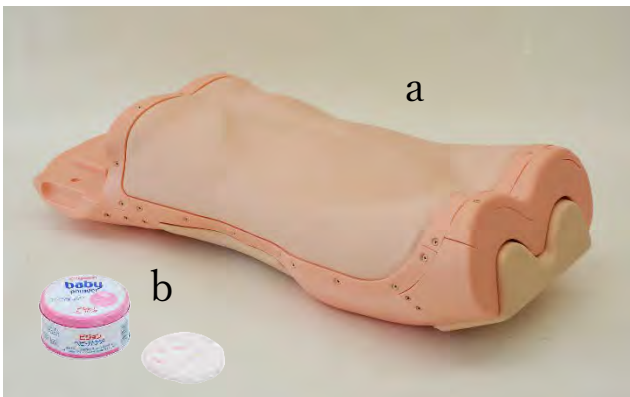
Do not put the product close to fire. It may lead to discoloration or deformation of the product as well as short circuit, creating a risk of fire.

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

## Set Includes

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

### ■ Box 1



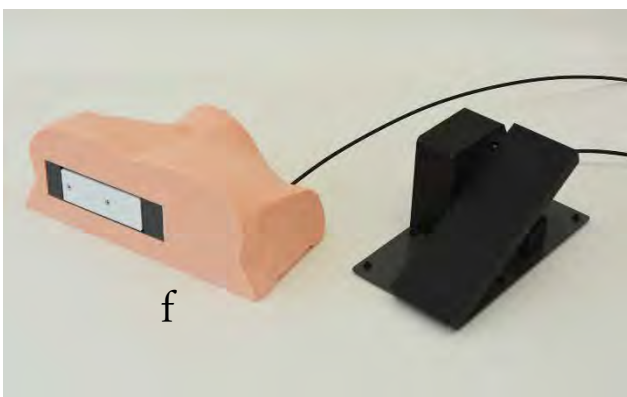
- a. 1 torso unit

**Caution**

At times liner sharing may be seen on the skin surface. These are color shading due to the manufacturing process and do not affect the strength or quality of the product.

- b. 1 talcum powder

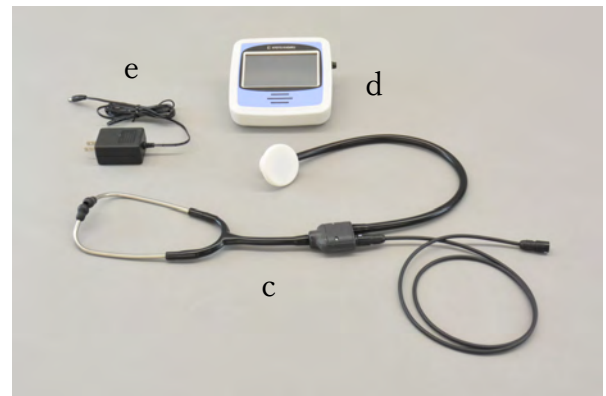
### ■ Box 2



- f. 1 set of the respiratory motion control unit

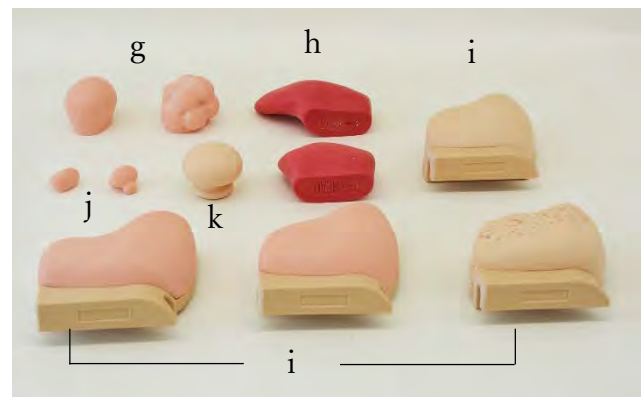
4 storage cases

instruction manual



- c. 1 simulated stethoscope
- d. 1 controller
- e. 1 AC adapter

### ■ Box 3



- g. 2 kidneys (hydronephrosis, cysts)
- h. 2 spleens (slightly enlarged, enlarged)
- i. 4 livers (precirrhosis, cirrhosis, chronic hepatitis, normal)
- j. 2 inguinal lymph nodes (normal, lymphoma)
- k. 2 uterus (normal, fibroid)

## 1. Unpack the torso unit

### ● The torso manikin is covered with the protection sheet

The torso manikin is by covered with the non-woven protection sheet in the storage box. Take out the torso manikin from the box and remove the sheet.

\*Please ensure that two people hold the torso manikin as it is heavy.

\*The protection sheet is to prevent the soft part from contacting with other resin items.

Always cover the torso manikin with the sheet and store in the box after the training.



Protection sheet

Torso manikin

## 1. Setting of the liver

### ● Set the liver insert to the torso unit

The name for each insert is shown on the handle. Hold the handle of liver insert and insert it into the cavity of torso manikin.



normal



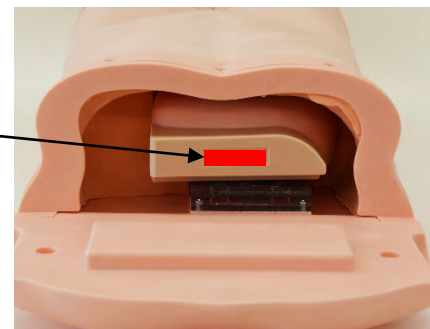
chronic hepatitis



precirrhosis



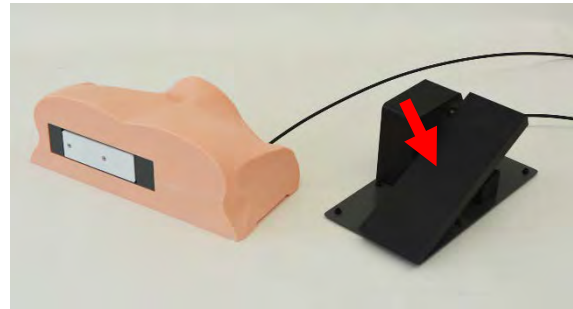
cirrhosis



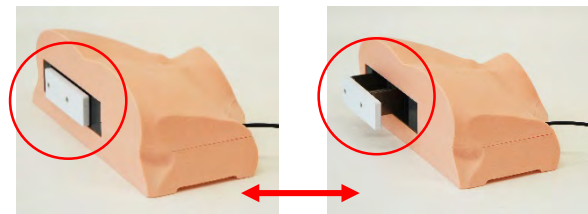
## 2. Setting of the respiratory motion control unit

### ● Operation check of the control unit

Step on the foot switch of the respiratory motion control unit to see whether the unit works properly. The liver pusher comes out when the pedal is pressed down and it is stowed when the pedal is released.

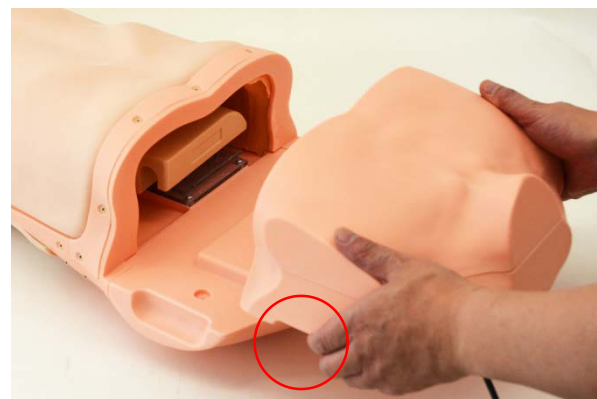


*\*Do not fold or put the things on the tube of the respiratory motion control unit as it may cause malfunction.*



### ● Setting of the control unit

Hold the control unit at the side slits and set it to the torso unit.



### ● The completed setup of the liver

Once the setting of the liver and the control unit completed it should appear as shown here.

*\*When you need to transfer the torso manikin, you will need two people to hold it by its upper and lower sides. Do not hold the side slits of the respiratory motion control unit to lift or transfer the torso manikin.*

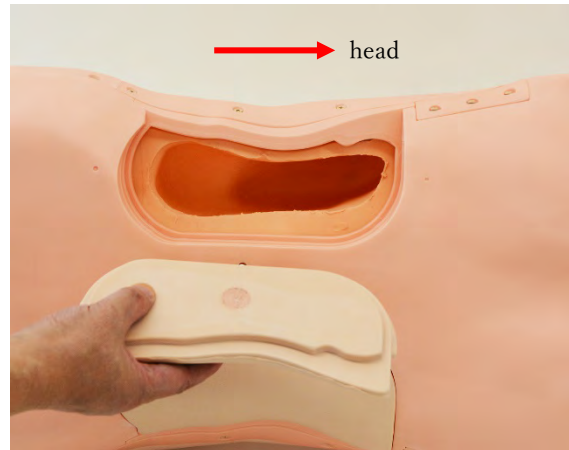


## 1. Setting of the spleen

### ● Remove the back cover

Remove the back cover (left side) of the torso unit.

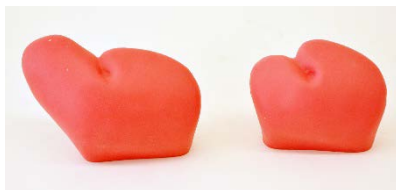
The torso manikin without a spleen unit represents a person with healthy (normal) spleen.



### ● Set the spleen

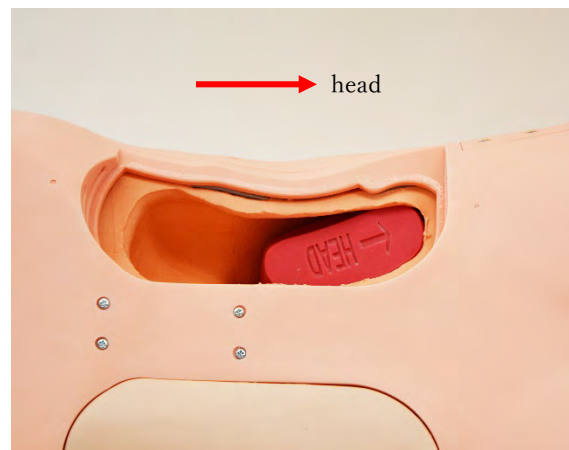
There is an arrow mark on the back of each spleen inserts.

Orientate the spleen inserts so that “←HEAD” sign is directed toward the head side of the torso. Two variations of spleens as shown below are included.



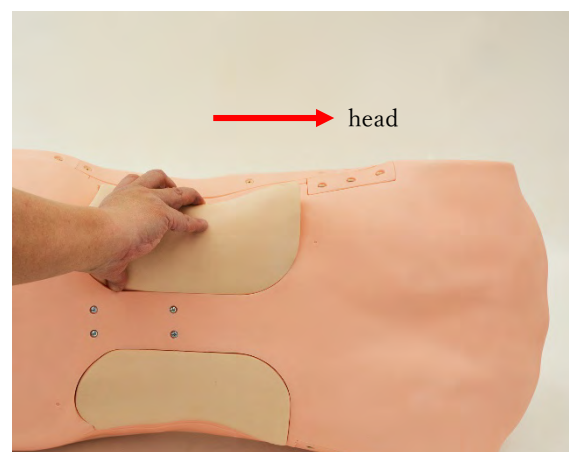
enlarged

slightly enlarged



### ● The completed the setup of the spleen

Set the cover on the back to complete the setting of the spleen.

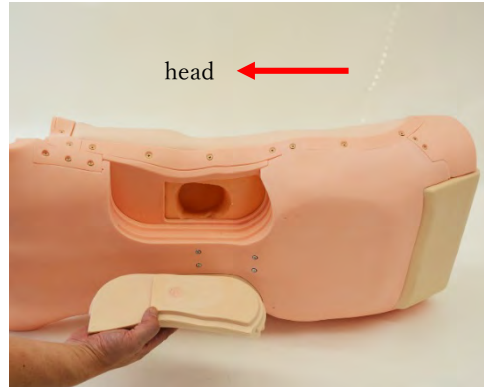


## 1. Setting of the kidneys

### ● Remove the back cover

Remove the back cover (right side) of the torso unit.

The torso manikin without kidney units represents a person with healthy (normal) kidneys.



### ● Set the kidneys.

There is an arrow mark on the back of each kidney inserts.

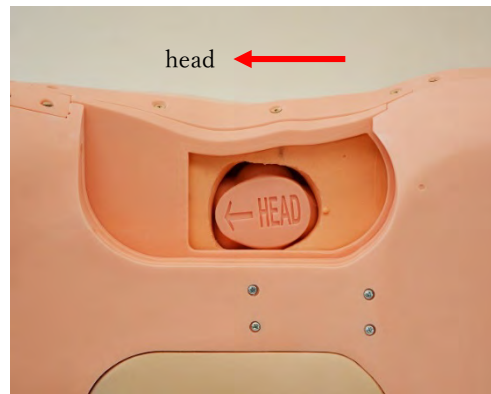
Orientate the kidney inserts so that “←HEAD” sign is directed toward the head side of the torso.

2 variations of kidneys as shown below are included.



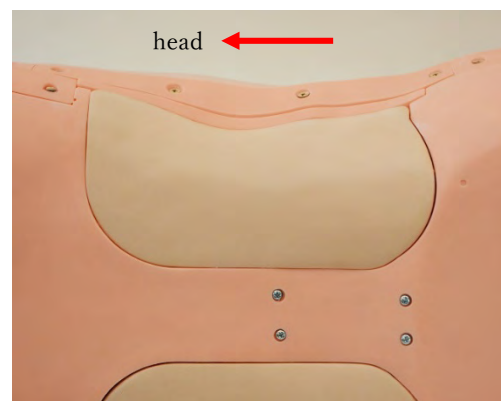
hydronephrosis

cysts



### ● The completed setup of kidneys

Set the cover on the back to complete the setting of the kidney.





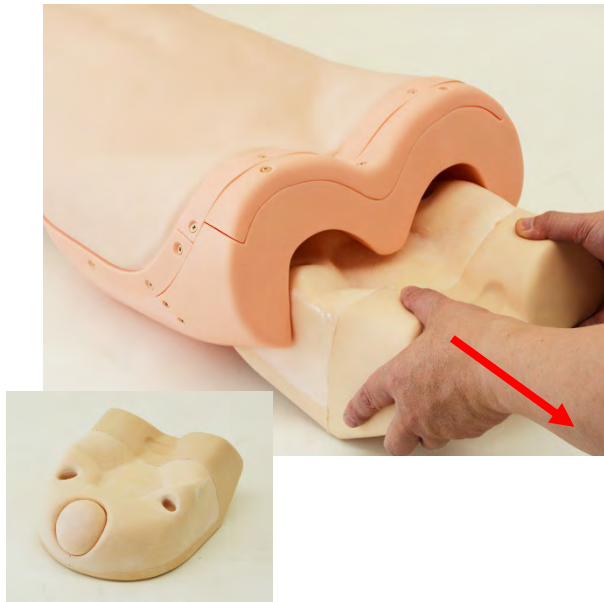
### 1. Setting of the uterus and lymphoma in the inguinal area

#### ● Remove the setting base

Pull out the setting base for the uterus and lymphoma from the lower side of the torso unit. (In default setting, the uterus (normal) is set on the setting base.)

##### Caution

Sometimes minor parting may occur at the joint line of two different materials during the training or handling. Usually such parting or slit does not develop further and does not affect the quality of the training. To avoid parting, always handle the setting base with utmost care.



#### ● Setting of the uterus and lymphoma in the inguinal area

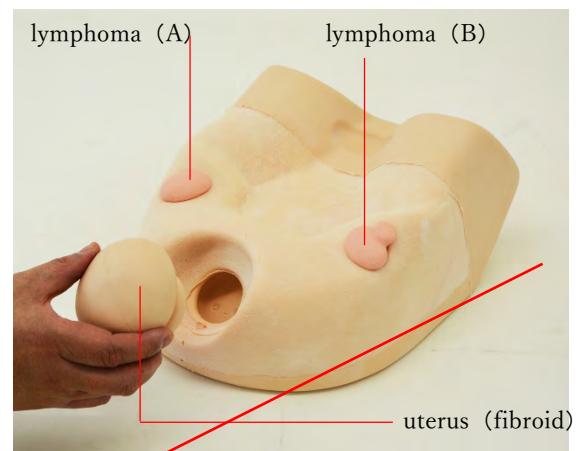
Set the uterus and lymphoma. Uterus and lymphoma have two variations respectively, as shown below.

##### Caution

Due to the manufacturing process, a narrow slit may occur on the surface of uterus (normal). This slit is not a product defect and does not affect the quality of palpation training.



uterus (normal)      uterus (fibroid)      lymphoma (A) (B)



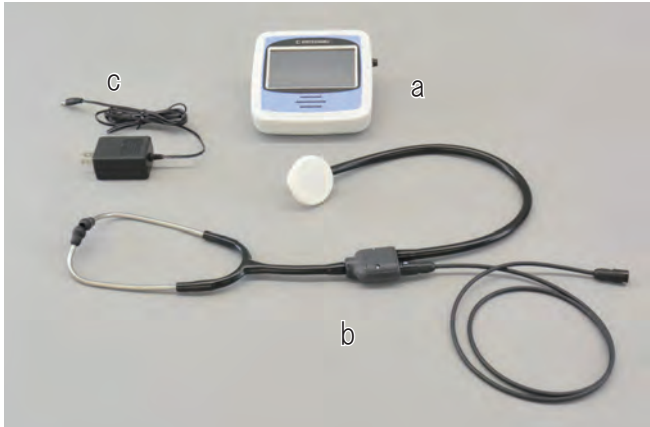
#### ● The completed setup of the uterus and lymphoma in the inguinal area

Set the setting base for the uterus and lymphoma to the lower side of the torso unit and complete the setting.

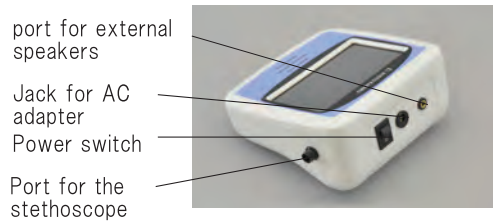
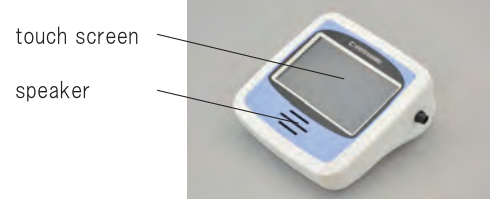


## 1. parts names

Verify that all the components below are included.



a. controller    b. simulated stethoscope    c. AC adapter



## 2. Connection

● Connect the cable from the stethoscope to the port at the side of the controller.



● Connect the AC adapter to the jack at the back wall of the controller.



● Connect the AC adapter to a power source and turn on the power.



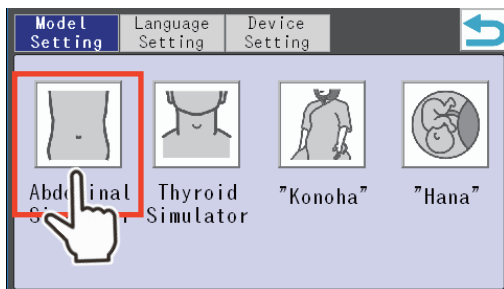
● Connection completed



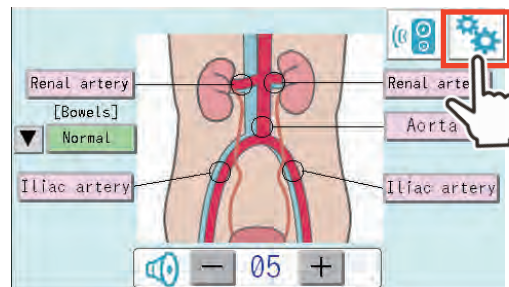
## 1. Setting the controller

The controller is common with several simulators. In case the unit is dedicated to one type of the simulator, "Model Setting" (selection of the simulator) can be skipped.

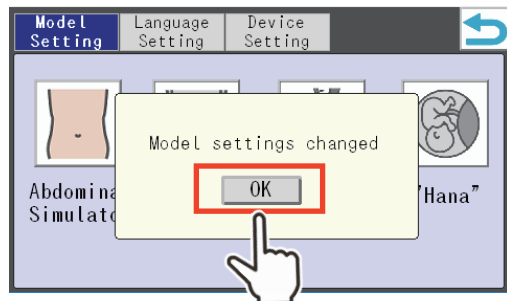
1. Press "Model Setting" and then select the abdominal simulator.



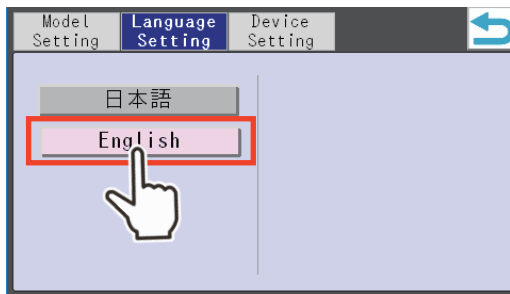
\*To show the control screen, press the setting button at the top right corner.



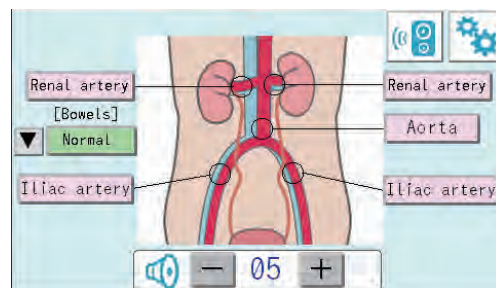
2. Press "OK" to continue.



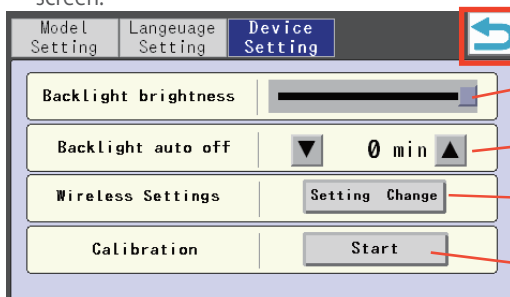
3. "Language Setting" allows to switch between Japanese and English.



Operation Screen



4. "Device Setting" allows to adjust brightness of the backlight, backlight auto-off and calibration of the touch screen. Press return mark to go back to the operation screen.



Slide bar to adjust the brightness.

Set time from 0 to 80 minutes (by 10 min.)

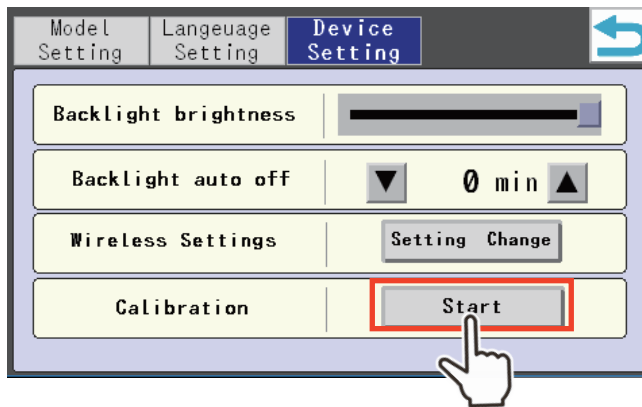
Unavailable for MW43

See the next page

## 1. Setting the controller

\*Calibration is required only when the touch screen has troubles, such as lack of reaction or deviation of the target areas.

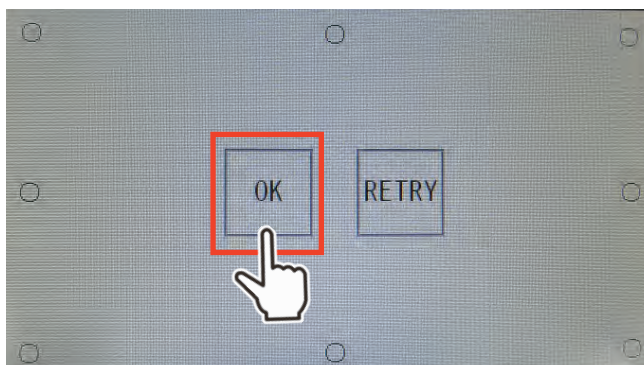
1. Press "Start".



2. Touch on the touch point mark, which is shown at the four points on the screen in sequence.



3. Once all four points are covered, confirmation button will appear.  
Press "OK" and return to the control screen.



## 1. Auscultation

### 1. Functions of controls

Turn off the sound of the controller.  
(Does not control the external speaker)

Setting button for configuration

Select auscultation area for vascular bruits

Volume adjustor (volume from 0 to 10)  
\*The volume of stethoscope and the controller is changed simultaneously (separate setting is not possible).

Bowel sounds selector

### 2. Vascular bruits

The auscultation sites turn red when selected.  
Vascular bruits will be played when the simulated stethoscope is placed on the designated sites on the manikin.

Select one of left or right artery.  
(Only one side can be selected at a time)

Switch ON/OFF by pressing.

Select one of left or right artery.  
(Only one side can be selected at a time)

### 3. Bowel sounds

First, select "Normal" to turn on the bowl sounds. Switch On/Off by pressing the button.  
(When activated, the auscultation sites turn green.)

▼ mark button allows to select a sound case from the list.

Normal

Increase

Decrease

Subileus

Ileus

4. After use, be sure to turn off the power by the power switch at the back wall of the controller.  
(No shutdown or log-off operation on the screen is required. Just turn off the switch).  
When turning on the power again, the screen shows the same view that displayed just before turning off the power.

### 1. Palpation and auscultation

#### ● Landmarks for palpation:

- Liver (precirrrosis, cirrhosis, chronic hepatitis, normal)

\*Step on the foot switch to simulate respiratory motion.



motion control unit

- Spleen (slightly enlarged, enlarged, normal)
- Kidneys (hydronephrosis, cysts, normal)
- Inguinal lymph nodes (normal, lymphoma)

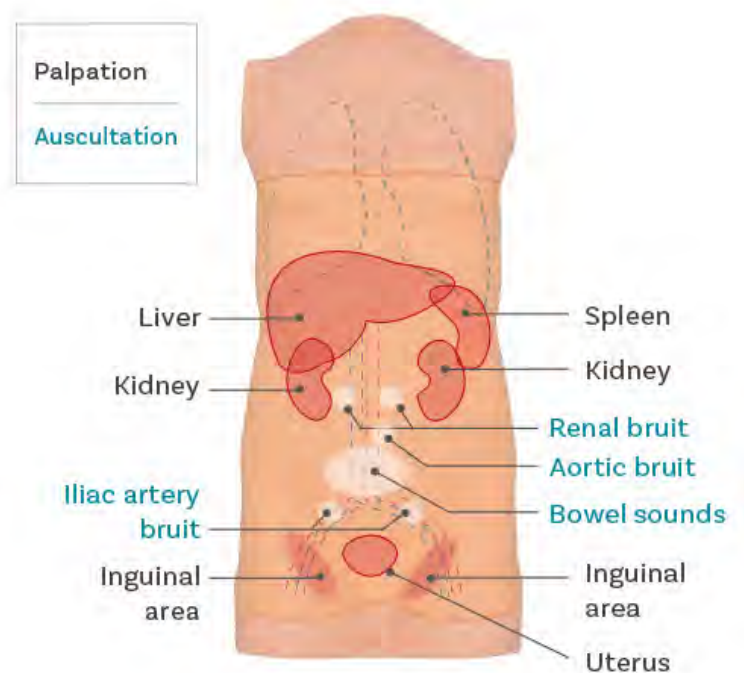
The torso manikin without kidney/spleen units represents a person with healthy (normal) kidneys/spleen.

#### ● Vascular bruits and bowel sounds for auscultation:

- Renal bruit
- Aortic bruit
- Iliac artery bruit
- Bowel sounds (normal/ obstruction)

#### ● Bony landmarks for palpation:

Lower rib cage, costal margin, xiphisternum, Pubic crest, anterior superior iliac spine, pelvis



# After Training Storage of the torso unit and organ parts

## 1. Store the torso unit

- Wipe off dirt, apply talcum powder and cover with the protective sheet.

Clean with wet wipe or cloth, using mildly soapy water and let it dry naturally. Apply talcum powder when the surface of the torso unit is dried.



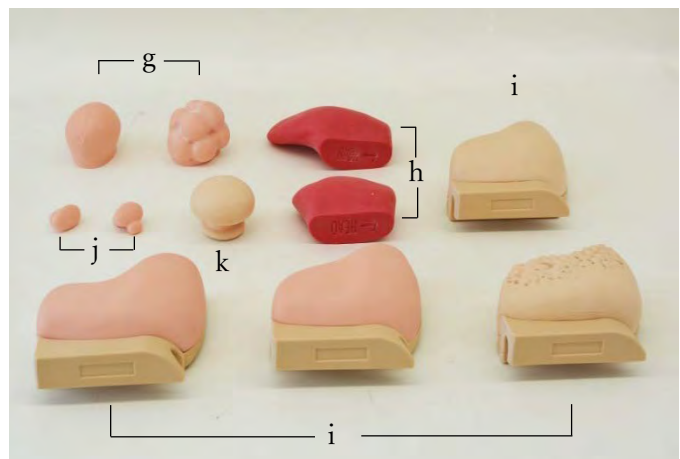
Take off the respiratory motion control unit from the torso unit. Cover the torso unit with the protection sheet. Store the torso model covered with the protection sheet in the storage box.



## 2. Store the organ inserts

- Remove the organ inserts from the torso unit before storage.

\*Organ inserts may be deformed irreversibly by prolonged contact with the torso unit or other resin items.



- g. 2 kidneys (hydronephrosis, cysts)
- h. 2 spleens (slightly enlarged, enlarged)
- i. 4 livers (precirrhosis, cirrhosis, chronic hepatitis, normal)
- j. 2 inguinal lymph nodes (normal, lymphoma)
- k. 2 uterus (normal, fibroid)



**注意**

モデル表面に印刷物などが直接触れないようにしてください。  
樹脂にインクが吸収されて消えなくなります。



**Caution**

Do not let ink from pens, newspapers, product manual or other sources contact the manikin. Ink marks on the manikin will be irremovable.

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



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