

Fetus Ultrasound Examination Phantom "SPACE FAN-ST Heart"

Instruction Manual

Product Supervision :

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The SPACE FAN-ST Heart provides high quality training for routine second trimester screening. This phantom contains a 23 week fetus with full anatomy placed in the uterus that can be scanned with 2D and 3D transducers and its detailed heart anatomy supports training in fetal echocardiography. The oval shaped phantom abdomen can be set in for different positions to enrich the training variation.

Included life-size fetus model and enlarged fetal heart model facilitate demonstration and three dimensional understanding.

*** Ensure that the ultrasonic diagnostic equipment which you use is properly quality controlled.**

Training Items:

- Fetal size assessment: BPD, AD, AC and FL
- Measurement of amniotic fluid volume
- Determination of fetus presentation (cephalic or breech)
- Assessment of each body part -Head: skull and brain
-Spine and limbs -Cardiac chambers, blood vessels and lungs
- Assessment of umbilical cord and placenta position
Determination of sex (This phantom represents a male fetus)
- Assessment of fetal heart size and cardiac axis
Assessment of fetal heart vessels.
- Measurement and calculation of TCD and CTAR

Anatomy:

- Uterus:
amniotic fluid, placenta, umbilical cord Fetus, skeletal structure, brain with septum lucidum
- Fetus:
skeletal structure, brain with septum lucidum, lateral ventricles and cerebellum, heart with four chambers, lungs, spleen, bladder Fetal heart of US-7B, stomach, liver, kidneys, aorta, umbilical vein, umbilical artery, external genitalia
- Fetal heart:
aortic arch, trachea, ascending artery, superior vena cava, descending artery, atrial septum, ventricular septum, foramen ovale

Set includes

Before your first use, please ensure that you have all components listed below.



Part name		qty
mother body torso	-----	1
ultrasound pregnant uterus Phantom	-----	1
fetus demonstration model	-----	1
Fetal Heart Model	-----	1
talcum powder	-----	1
carrying case	-----	1

⚠ DOs and

DO s

Always attach the protection bowl in the cavity of the mother body torso.

Do not remove the hard plastic protection bowl. Ensure to use it on the torso when setting the phantom unit on. Putting the phantom on the torso directly without the bowl may lead to discoloring or deformation of the torso.

Handle with care

The materials for phantom and models are special composition of soft resin. Please handle with care at all times.

Cleaning and care

Please clean the phantom completely every time after you finish the training.

The remaining lubricating gel may deteriorate the phantom.

Keep the training set at room temperature, away from heat, moisture and direct sunlight.

DON'Ts

Never wipe the phantom or models with thinner or organic solvent.

Don't mark on the phantom with pen or leaveprinted materials contacted on their surface.

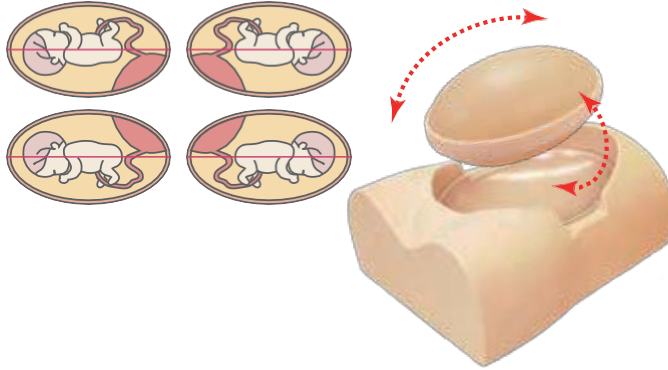
Ink marks on the models will be irremovable.

Please note:

The color of the phantom may change over time, though, please be assured that this is not deterioration of the material and the ultrasonic features of the phantom stay unaffected.

This phantom has a thin layer of coating for protective purposes which may cause minor wrinkling. However, it has no effect on the ultrasound image.

1 Before training



- ① Set the phantom unit on the mother body torso in the desired direction. You can rotate the phantom to change the presentation and position of the fetus.



- ② Apply ultrasound gel on the phantom unit directly. Use plenty of gel.

2 Training



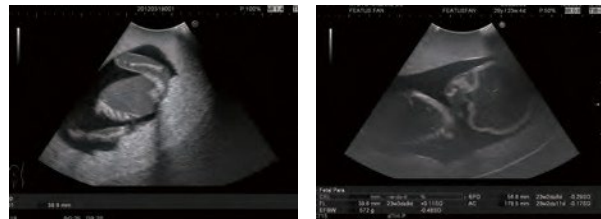
- ① Place the probe on the phantom unit . The keys for ultrasound training are listed on the back cover of this manual.

Fetus assessment and measurement



BPD

AC



FL

estimate the fetal weight

3 After training

- ① Wipe off the gel completely with wet wipes not to leave the gel on the surface of the phantom and the torso. You can wash the phantom unit and the protection bowl with water. Do not wash the body torso with water.





Caution

Don't mark on the phantom with pen or leave printed materials contacted on its surface.
Ink marks on the phantom will be irremovable.

• Training Items

Assessment of development and condition of fetus, amniotic fluid amount, abnormality, placenta position, presentation, position, fetal habitus, sexuality and so on.

* compatible with 2D and 3D probes.

① Measurement of fetus (measuring at 3 points)

BPD: biparietal diameter - measures BPD using the transparent septum as landmarks .

AC: Abdominal circumference - measures AC using the stomach, abdominal aorta and umbilical vein as landmarks.

FL: Femur length - measures the total length of the bone.

Estimates the weight by measuring at 3 points to evaluate the development condition of the fetus.

② Measurement of amniotic fluid volume

Measures the maximum vertical depth of the amniotic fluid (the maximum amniotic fluid depth).

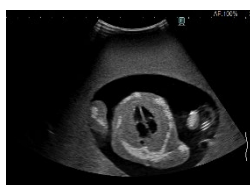


③ Assessment of head, breast, abdomen, spine and so on

- Assessment of figures of bones of skull and assessment of the brain
- Assessment of the spine and limbs
- Assessment of the cardiac chambers and blood vessels, inclination, and the lung
- Assessment of the viscera such as the stomach, kidney, and bladder and the vasculature



brain (transparent septum)



cardiac chambers



stomach



kidney



abdominal aorta



bladder

- Whole fetus assessment - head, breast, abdomen, spine, limbs, and genitalia
- Fetus measurement - BPD, AC, and FL
- Observation of the other appendages-amniotic fluid amount, placenta, and umbilical cord



BPD



AC



FL



estimate the fetal weight

④ Assessment of umbilical cord and placenta

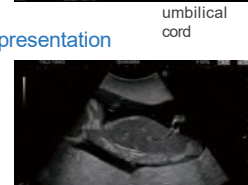
Scan the umbilical cord and blood vessels, placenta attachment condition, and placenta position.



blood



vessel position



umbilical cord

⑤ Determination of fetus presentation (cephalic or breech)

Rotate the phantom unit and determine the fetus presentation (cephalic or breech).



breech

⑥ Determination of sex

(This product represents a male fetus.)



male fetus

* This product does not reproduce the heart beat and the bloodstream.

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

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Dear customer,

Note

Thank you for choosing our ultra sound phantom SPACEFAN-ST.
There may be a case that the surface of SPACEFAN-ST is in a wet condition.
The ultra sound image will not be affected. In such case, wipe the surface with medical use alcohol. **Do not wipe the surface with strong solvent such as benzene.**

If you have any questions regarding this matter, please do not hesitate to contact us at any time.

Faithfully yours,

Kyoto Kagaku Co., Ltd.

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