



Amniocentesis Ultrasound Training Model

1600 Series

Instructions and User Guide

52209rev2.0



Giving you the confidence only experience can offer™

Congratulations on your purchase of Blue Phantom's™ ultrasound simulation model(s) for hands-on training. Every product we manufacture at Blue Phantom is specifically designed to be the most realistic and resilient ultrasound simulation phantoms available anywhere. Our high standards for quality manufacturing and design guarantee that you receive only the absolute best.

About Blue Phantom

Blue Phantom™ brings you the most realistic and durable ultrasound hands-on training models available anywhere. At Blue Phantom we know that learning to use ultrasound requires practice. You gain confidence and skill through experience. That is why we offer you the best ultrasound simulation training available.

Blue Phantom Warranty

Blue Phantom takes pride in its quality design and manufacturing standards. Our products are warranted to you by Blue Phantom for 1 year from the date of purchase against defects in workmanship and materials. During the warranty period, a defective part or product will be replaced either with a new or reconditioned part or product, depending on the availability at the time.

This warranty covers normal consumer usage and does not cover damage incurred through use not consistent with the product design. Failure that results from alteration, accident, misuse, vandalism, or neglect is not covered under this warranty. This warranty does not extend to any products that have been used in violation of written instructions.

IMPORTANT SAFEGUARDS

1. Read Instructions – All safety and operating instructions should be read before the unit is operated.
2. Upon receiving unit, inspect to make sure that the model appears intact and was not damaged during shipping. If you detect any problems, please report this immediately to Blue Phantom

Telephone: (425) 881-8830

Email: customersupport@bluephantom.com

Web: www.bluephantom.com
3. Retain Instructions – The safety and operating instructions should be retained for future reference.
4. Heed Warnings – All warnings in the operating instructions should be adhered to.
5. Follow instructions – All operating and maintenance instructions should be followed.
6. Accessories – Do not place this unit on an unstable cart, stand, tripod, bracket, or table. The unit may fall causing serious injury to a child of adult, and serious injury to the unit.
7. CAUTION: Please use extreme care when using needles and sharp objects as to not accidentally injure yourself during training.
8. Servicing – Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified personnel.



Amniocentesis Model Use and Care Instructions

Model # BPOB1200/BPOB1210/BPOB1220

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Included in this package

- Amniocentesis Ultrasound Training Model
- Use and Care Instructions

Introduction to Your Training Model

This model is intended as a platform for amniocentesis ultrasound hands-on technique training. In order to get the most out of your training platform, it is important that you properly care for your model.

Using Your Training Model

1. Place the model in an appropriate position for scanning.
2. Place ultrasound gel on the transducer in adequate quantities so that the probe slides naturally on the model. Add more gel as necessary.
3. Adjust the ultrasound system controls per the manufacturer's instructions, increasing and decreasing the depth and gain controls until the desired image is obtained.

Using Needles and Catheters

1. In order to experience the best performance from your training platform, it is **IMPORTANT** that you use the appropriate sized needles and catheters on your model. For the best performance, we recommend that you utilize a new 18 - 21 gauge needles when accessing the fluid in the model. While Blue Phantom tissue simulation materials will tolerate larger bore needles, their use may cause needle tracks to take longer to absorb or even become permanent. Do not use any needle larger than 18 gauge or permanent damage to your model may occur. Smaller bore needles (>22 gauge) used aggressively can bend during use and damage your model as the needle tip is dragged through the material rather than coursing smoothly through the tissue. Dull needle tips create the same dragging effect and may also cause permanent damage to the tissue. Therefore it is important to replace needles about every ten uses.

CAUTION: Please use extreme care when using needles and sharp objects as to not accidentally injure yourself during training.

Accessing & Refilling the Amniotic Fluid

1. The simulated amniotic fluid contained in the model is a specially formulated fluid offering optimal performance of the model. It is very important that you only utilize Blue Phantom's simulated amniotic fluid solution. Using other fluid will

cause problems including; change in the imaging qualities of the model and fungal and bacterial growth within the vessels.

USING FLUID OTHER THAN THAT SUPPLIED BY OR PURCHASED THROUGH BLUE PHANTOM WILL VOID YOUR WARRANTY.

2. Users can remove fluid after the amniotic fluid has been properly accessed to confirm needle placement. Please note that any fluid withdrawn from the amniotic sac will require refilling.
3. It is important to maintain a good fluid level within the amniotic sac.
 - A. Using ultrasound: An optimally filled amniotic sac will be identified by the presence of a black echo-free lumen (refer to image C below). A low fluid environment is identified by the inability to visualize the amniotic sac during normal imaging situations. This is due to the presence of air within the amniotic sac which will reflect all of the sound energy (refer to image D below).
 - B. Non-imaging; the presence of air in the Quick Fill tube.

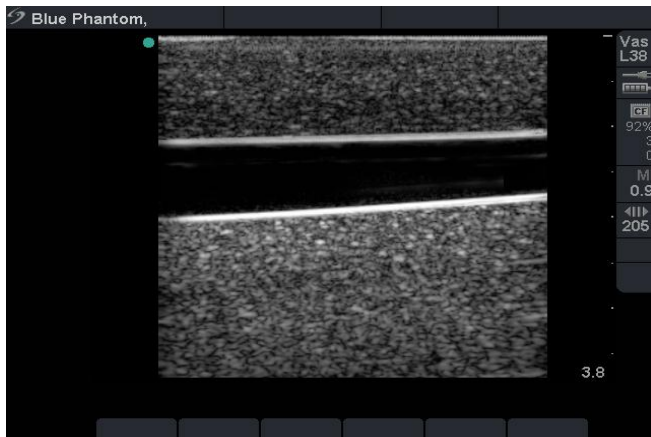


Image C



Image D

4. There are a number of acceptable ways to refill the amniotic sac. Choose the method that works best for your training environment.
 - A. **Injecting fluid after each cannulation.** By far the simplest way to maintain a good fluid level in the amniotic sac is to have users inject the accessed fluid back into the model after gaining access to the amniotic sac.
 - B. **Using the Quick Fill luer lock fill port.** High volume users will benefit from connecting an I.V. bag containing Blue Phantom™ Simulation Solution to the luer lock located on the superior portion of the model. As users withdraw fluid from the amniotic sac, the fluid automatically refills the vessels.

CAUTION: Use refill solution as directed. Not intended for human consumption. If accidental consumption occurs, drink a glass of water and consult a physician. May irritate eyes; flush well with water. May contain pigments that may stain clothing; wash immediately with cold soapy water. Keep out of reach of children.

Overfilling the Amniotic Fluid

It is possible for you to overfill the amniotic sac if you inject too much fluid into the amniotic sac during the refill process. If you use an IV bag, it is much less likely that this will occur unless the I.V. bag is placed at an elevation significantly higher than the training platform. It will be obvious when the amniotic sac are overfilled when small dimples of simulated blood appear on the



surface of the model at the site of previous cannulations. Simply removing excess fluid and air from the vessels will alleviate this issue. Overfilling the vessels will unlikely cause any permanent problems with your model but take care to avoid overfilling.

If you are uncomfortable refilling the vessel for any reason, contact us and we can refill the phantom for you for a nominal fee.

Cleaning and Storing Your Model

After each use your model can be easily cleaned using mild soapy water. Use a soft cloth to dry after cleaning. It is preferred to dab the tissue insert module dry rather than rubbing it as this will help preserve the finish of the tissue insert model by minimizing scuffing. The model can be stored at room temperature either in the storage container or in the open.

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Help and Technical Assistance

Blue Phantom is committed to providing you with superb products and uncompromising customer support. Should you require assistance feel free to contact us directly at (425) 881-8830.