

Instructions and User Guide

Renal Biopsy Ultrasound Training Model BPRB2011





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Overview 1

Giving you the confidence only experience can offer™

Congratulations on the purchase of your Blue Phantom™ ultrasound model(s) for hands-on training. Every product we manufacture at Blue Phantom™ is specifically designed to be the most realistic and ultra-durable 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 hands-on ultrasound 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 one 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.

Chapter 1: Overview 3



Product Cautions

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Please read this instruction guide carefully. Do not begin using this model until you fully understand these safeguards and have read the user guide in its entirety.

Important Safeguards

1. Read Instructions – All safety and operating instructions should be read before the unit is operated.



- 2. While all parts of this user guide are important, the red flag that you see to the left denotes especially important content. Please familiarize yourself with all of the content prior to using your training model or damage to the model can occur.
- 3. This user guide includes instructions applicable to a variety of model configurations.
- 4. Retain Instructions The safety and operating instructions should be retained for future reference.
- 5. Heed Warnings All warnings in the operating instructions should be adhered to.
- 6. Follow Instructions All operating and maintenance instructions should be followed.
- 7. Weight Warning—Use caution as this model is heavy. Use proper lifting techniques to prevent bodily injury. Notify others of the heavy weight warning to prevent others from being injured while operating or moving the model. Product weight is approximately 25lbs (11kg).
- 8. Care must be taken to place the model in a position in which it will not fall off of the bed or surface, as this may cause injury.
- 9. 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 or adult, and serious injury to the unit.



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



Product Information

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Blue Phantom™ Renal Biopsy Ultrasound Training Model

Blue Phantom™ Renal Biopsy Ultrasound Training Model (BPRB2011)

Included in this Package

- Blue Phantom™ Renal Biopsy Ultrasound Training Model (<u>BPRB2011</u>)
- User Guide and Utilities CD

Additional Items Required for Training

- For optimal performance, please use 18-21 gauge sharp and unbent needles (please see Chapter 4: Utilizing Your Training Model—Using Needles section on page 7 of this user guide)
- Ultrasound system configured with appropriate transducer for Renal Biopsy procedures
- Ultrasound gel

Optional Accessories for Your Training Model

- Renal Biopsy Replacement Tissue (BRB2012)
- Renal Biopsy Replacement Kidneys (<u>BPRB2013</u>)
- Soft Storage Case (BPH602-B)

Introduction to Your Training Model

This model is intended as a hands-on training platform for Renal Biopsy training. The model is designed to be extremely realistic and Blue Phantom's self healing design provides you with superb durability. In order to get the most out of your training platform, it is important that you properly care for your model.

Quick Facts about Your Training Model

- Excellent for training clinicians the psychomotor skills associated with ultrasound guided kidney biopsy procedures
- Anatomically correct adult male torso with an ultrasound tissue module containing skin, ribs, and right kidney with surrounding tissue
- Easy to reposition or replace kidney as needed after significant core biopsy use
- Superb ultrasound imaging characteristics using any standard ultrasound system
- Made in USA





Utilizing Your Training Model

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Blue Phantom™ Renal Biopsy Ultrasound Training Model BPRB2011

Anatomy of Your Training Model

1. Remove your training model from its shipping container and make sure that you have received all of the items listed in *Chapter 3: Product Information—Included in this Package section* on page 5 of this user guide. If you did not receive one of the listed items, or if you received the wrong items, please contact Blue Phantom™ Customer Support immediately:

Telephone: (425)881-8830

Email: <u>customersupport@bluephantom.com</u>

Web: www.bluephantom.com

2. Familiarize yourself with your training model.



Blue Phantom™ ultrasound training models are constructed using our patented simulated ultrasound tissue and mimics imaging characteristics to that of human tissue. Care must be taken to not place the model on rough surfaces as the model can take on the characteristics of that surface. Do not place objects under the model as the tissue is soft and will conform to the shape of the object.

Using Your Training Model

- 1. Remove your Blue Phantom™ from its packaging and place on a clean, hard, flat surface.
- 2. If utilizing ultrasound guidance, place ultrasound gel on the model or on the ultrasound transducer in adequate quantities so that the probe slides effortlessly across the surface of 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.



If you intend on guiding sharp objects into the phantom, never place the model in a location where you might accidentally puncture yourself.



Using Needles



- 1. For best performance, we recommend that you utilize new, sharp, unbent 18-21 gauge needles when accessing the structures in the model.
- 2. Do not use any needle larger than 18 gauge or permanent damage to your model may occur.
- 3. Smaller bore needles (>21 gauge) can bend during use and damage your model's simulated tissue.
- 4. Aggressive repositioning of needles rather than removing and repositioning can cause stubborn or permanent needle tracks due to the needle tip dragging through the simulated tissue.
- 5. Dull needles may also cause permanent damage to the tissue. It is important to replace needles approximately every ten cannulations.

Performing Core Biopsies on Your Training Model

The Blue Phantom™ Renal Biopsy ultrasound training model allows you to perform core biopsies and remove tissue from the kidney in the model. Please heed the following warnings before performing core biopsies on your training model.



- Each model is configured with a conduit to store the right kidney. The model includes the right kidney; an extra pair of kidneys can be purchased from Blue Phantom™ at an additional cost (BRRB2013).
- 2. Removing a core renal tissue sample from the model leaves an air filled void in the kidney the same size as the core sample.
- 3. Once a tissue sample is removed from the kidney, it cannot be reinserted.
- 4. Damage caused to the surrounding tissue from performing core biopsies cannot be repaired.
- 5. Each kidney can withstand approximately 30 core biopsies until it is destroyed.
- 6. Once a particular section of the kidney is destroyed, you may reposition the kidney within the conduit to target a different section.
- 7. Once the kidney is destroyed, you must install a replacement kidney (BRRB2013). Please refer to *Chapter 5: Caring for Your Training Model—Installing Replacement Kidneys* section on page 8 of this user guide.



Caring for Your Training Model

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Proper Use and Care

Proper care of your training model will result in tremendous utility. Please heed all instructions contained in this user guide when using your model.

Installing Replacement Kidneys

Installing a replacement kidney into your Blue Phantom™ Renal Biopsy ultrasound training model is a simple process that will take approximately 5 minutes.

Directions

- 1. Position your Renal Biopsy training model on a clear workspace.
- 2. Holding onto the top of the tissue insert, gently lift the tissue insert module superiorly so that it pulls the tissue insert out of the model.
- 3. Completely remove the tissue insert module from the base Renal Biopsy platform.
- 4. Gently remove the kidney from the conduit located within in the tissue insert module.
- 5. Now you are ready to insert the new kidney. Place the replacement kidney into the conduit located within the tissue insert.
- 6. Gently position the tissue insert back into the recess until it is positioned flush with the surface of the Renal Biopsy platform.
- 7. Make any necessary adjustments to the tissue insert so that the insert is properly positioned.

Cleaning Your Training Model

After each use, your training model can be easily cleaned using mild soapy water. For best results, mix one part liquid soap with one part tap water. Gently rinse the model with the soapy water to remove any accumulated debris.

Use a clean, soft, lint-free cloth to dry after cleaning. Dry the model using a dabbing motion, rather than wiping or rubbing the model.



Wiping or rubbing the surface aggressively can result in scuffing the simulated tissue.



Storing Your Training Model

The model can be stored at room temperature either in the open or in the Blue Phantom™ soft storage case (optional).



Do not store the model in contact with other objects. This can cause the simulated tissue to become deformed.

Blue Phantom™ Customer Support

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:

Telephone: (425)881-8830

Email: customersupport@bluephantom.com

Web: www.bluephantom.com



