

# Nuclear Associates 18-229

## Triple-Modality Biopsy Training Phantom

Instruction Manual



**Cardinal**Health

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# General Instructions

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## 1.1 Objective

Suspect lesions discovered in x-ray mammography must often be evaluated under ultrasound to aid diagnosis. This phantom is an ideal research device because it can be imaged under both modalities and was designed specifically for needle biopsy.

## 1.2 Description of the Phantom

The Model 18-229 has physical density and attenuation characteristics that accurately simulate that of an average 45 percent glandular breast (BR-12 equivalent) under both x-ray and ultrasound.

Each phantom contains six cystic masses and six dense masses that are randomly embedded. The Model 18-229 is packaged within a semi-rigid disposable container to protect it during shipping and handling.

## 1.3 Use of the Phantom

1. Remove the phantom from its reusable semi-rigid container by peeling at the bottom left corner of the container to separate.
2. The bottom, non-anthropomorphic portion of the container can be reversed and used as a holding tray during scanning.
3. For ultrasound imaging, coupling gel is optional.
4. The phantom contains dense masses that are black in color and cystic masses that consist of a blue viscous fluid surrounded by a dense membrane.
5. When not in use, the phantom should be stored in an airtight container to avoid desiccation.
6. If the phantom gets dirty, it can be washed with mild soapy water.

<b>NOTE</b>
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1. This phantom is a disposable product. It can be reused; however, as with any disposable training device, it will continue to deteriorate with each additional puncture. When not in use, the phantom must be stored in an airtight container, such as a ziplock bag to minimize desiccation.
2. This phantom is a shelf-life item. The manufacturer's warranty extends six months from the date of manufacture. Each phantom is marked with date of shelf-life expiration. For peak ultrasonic performance, the phantom should be used within the designated shelf-life period.
3. Warranty is void once product is opened and used.

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# Radiation Management Services

For additional information, please contact  
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