

**MODEL 11-102
PRO-US UNIFORM PHANTOM
INSTRUCTIONS FOR USE**

May 2025

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Product Features

The Model 11-102 Pro-US Uniform meets the requirements of:

- Complies with:
 - Real-time B-mode ultrasound quality control test procedures: Report of AAPM Task Group No. 1
 - Quality assurance of U.S.-guided external beam radiotherapy for prostate cancer: Report of AAPM Task Group 154
- The manual provides guidelines for carrying out each test and results assessment.

Product Description

The Model 11-102 Pro-US Uniform Ultrasound Phantom is a homogenous, tissue-mimicking phantom for use as a routine technical quality assurance test device.

The phantom is a homogenous block of polyvinyl alcohol (PVA) based material wrapped in polyvinyl chloride (PVC) cover. The PVA based material mimics the sound velocity and acoustic attenuation of human tissue and is nontoxic, durable, and easy to handle and maintain.

The phantom provides a consistently comparable and reproducible result from a single image, making it a reliable daily QA tool.

Technical Data and Contents of Package

Overall Dimensions: 110 x 110 x 60 mm (4.3 x 4.3 x 2.4 in.)

Top and Bottom Cover: made of PVC

Test Insert Dimensions: 100 x 100 x 50 mm (3.9 x 3.9 x 2 in.)

Tissue-Mimicking Material: based on Poly (vinyl alcohol) (PVA), a synthetic polymer

Carrying Case

Working, Transport, and Storage Conditions

| Mode | Temperature and Humidity |
|--------------------|---|
| Work | 15 to 25 °C (59 to 77 °F); max 75% non-condensing |
| Storage Conditions | 15 to 25 °C (59 to 77 °F); max 75% non-condensing |
| Transport | 5 to 35 °C (41 to 95 °F); max 75% non-condensing |

Note:

The product or its accessories cannot be used in the patient environment (further than 1.5 m [4.9 ft] away from the patient examination area). The product serves only as an evaluation of the physical parameters of the diagnostic equipment, using ionizing radiation. The device cannot be used to control radiographic, radio-therapeutic, or similar devices.

Recommendations for Washing and Storing Phantoms

1. Phantoms should be washed with water up to 25 °C (77 °F), using a soft cloth or anti-static fluid designed for plastics.
2. Do not use powders, rough cloths, scrapers, etc.
3. Protect from scratching.
4. Do not wash with agents containing alcohol, which destroy the phantom's structure, resulting in cracks and micro-cracks.
5. Ozonation method or cleaning with non-alcohol detergents (e.g. soap, dishwashing liquid) can be used to disinfect all phantoms.
6. Do not leave or store in aggressive environments like solvents, alcohols, etc.
7. When the washing is complete, dry with a soft cloth.
8. Protect from falling. A fall can result in damage to the product and injury to people.
9. Phantoms must not be washed in dishwashers or warmed up in microwaves, heaters, or similar devices.
10. Store at room temperature.
11. Protect from solar radiation.
12. Use the products only as intended, in accordance with the manual provided.

General Information

The user manual is an integral part of the product and should always be kept near the device. An understanding of the manual is a prerequisite for proper performance and correct operation of the device.

Operator safety, specific measuring accuracy, and interference-free operation is guaranteed only if original parts and accessories are used. Should accessories from other manufacturers be used, safe and proper performance cannot be guaranteed.

Dispose of packaging material according to the local rules and regulations.

The product should be kept out of reach of children.

Before using the device, the operator must ensure that it is in the correct working order and that working conditions are adequate. The product does not require any special installation.

These products do not require any special training to operate. All necessary information is contained in the operating instructions supplied with the products.

Ludlum Measurements, Inc. cannot be held liable for any damage resulting from using accessories from other manufacturers. The warranty period is one year and begins on the day of delivery, unless specified differently at purchase. It is unaffected by repairs under warranty. Ludlum Measurements, Inc. considers itself responsible for safety, reliability, and performance of the device only if assembly, extension, calibration, modification, or repairs are carried out by the factory.

This technical documentation is in agreement with the device specifications and all safety standards (if applicable) valid on the day of printing. All rights are reserved for devices, techniques, and names appearing in the manual.

Warranty and Phantom Lifetime

Ludlum Measurements, Inc. warrants the product covered in this manual to be free of defects due to workmanship, material, and design for a period of 12 months, which is calculated from the moment of delivery, unless otherwise specified at the time of purchase. It is not affected by warranty repairs. The phantom lifetime is 10 years.

Proper Disposal

When a service cycle of the product is over, the method of disposal should be handled in accordance with local rules and regulations.