

ACR Digital Mammography Phantom

Model 086



DISCONTINUED

USER GUIDE

CIRS

900 Asbury Ave • Norfolk, Virginia 23513 • USA • Tel: 757-855-2765 • WWW.CIRSINC.COM

DESCRIPTION OF THE PHANTOM

The ACR Digital Mammography Phantom Model 086 was designed, under the sponsorship of the American College of Radiology (ACR), to test the performance of DM systems. The ACR Digital Mammography phantom approximates a 4.2 cm thick compressed breast consisting of 50% glandular and 50% adipose tissue. Objects within the phantom simulate calcifications, ducts and tumor masses. The phantom is designed to determine if your DM system can detect small structures that are important in the early detection of breast cancer.

The critical component of the phantom is a 7 mm thick wax insert positioned within a matching cavity milled out in a polymethyl methacrylate (PMMA) block. The total attenuation under the wax insert is matched with the 4.1 cm thick surrounding PMMA by the use of a 0.23 mm "compensator" placed under the wax insert. The wax insert contains targets as per map (Figure 2). Fibers are monofilament nylon, simulated calcifications or "specks" are made of spherical glass and the masses simulate 10% adipose - 90% glandular breast tissue.

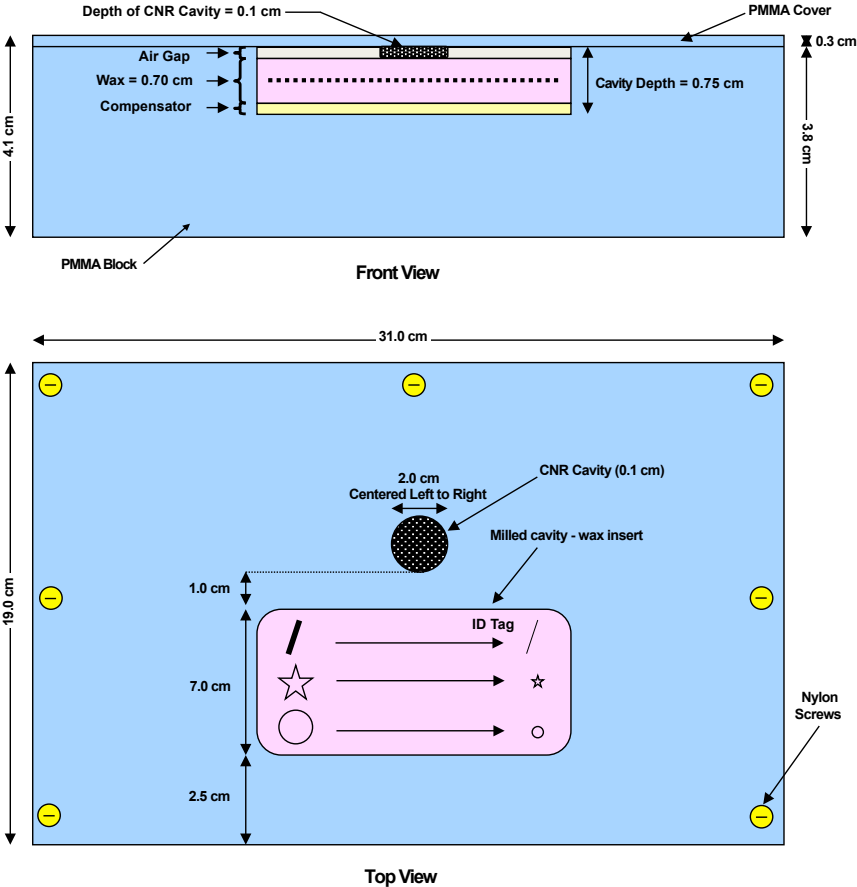


Figure 1. ACR Digital Mammography Phantom

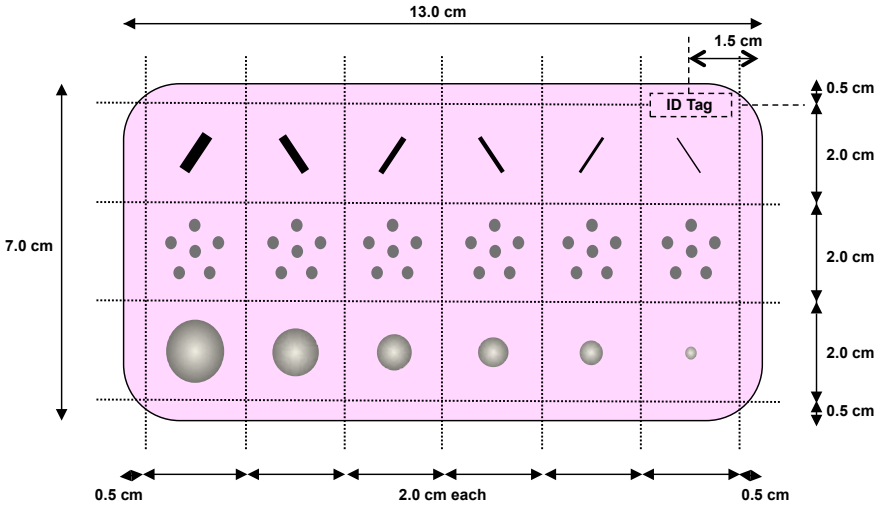


Figure 2. Wax Insert Map

TEST OBJECTS

	Fibers	Specks (diameter)	Masses (thickness)
1	0.89 mm fiber	0.33 mm sphere	1.00 mm mass
2	0.75 mm fiber	0.28 mm sphere	0.75 mm mass
3	0.61 mm fiber	0.23 mm sphere	0.50 mm mass
4	0.54 mm fiber	0.20 mm sphere	0.38 mm mass
5	0.40 mm fiber	0.17 mm sphere	0.25 mm mass
6	0.30 mm fiber	0.14 mm sphere	0.20 mm mass

CARE OF THE PHANTOM

The phantom is fragile to impact and is adversely affected by extended exposure to temperatures above 110°F. The phantom should be kept clean and stored in a cool dry place when not in use. It is recommended the phantom be stored in the foam-lined case provided. Clean with a damp cloth only if needed.

USE OF THE PHANTOM

Please refer to the 2016 ACR Digital Quality Control Manual at www.acraccreditation.org.

WARRANTY

All standard CIRS products and accessories are warranted by CIRS against defects in material and workmanship for a period as specified below. During the warranty period, the manufacturer will repair or, at its option, replace, at no charge, a product containing such defect provided it is returned, transportation prepaid, to the manufacturer. Products repaired in warranty will be returned transportation prepaid.

There are no warranties, expressed or implied, including without limitation any implied warranty of merchantability or fitness, which extend beyond the description on the face hereof. This expressed warranty excludes coverage of, and does not provide relief for, incidental or consequential damages of any kind or nature, including but not limited to loss of use, loss of sales or inconvenience. The exclusive remedy of the purchaser is limited to repair, recalibration, or replacement of the product at manufacturer's option.

This warranty does not apply if the product, as determined by the manufacturer, is defective because of normal wear, accident, misuse, or modification.

NON-WARRANTY SERVICE

If repairs or replacement not covered by this warranty are required, a repair estimate will be submitted for approval before proceeding with said repair or replacement.

RETURNS

If you are not satisfied with your purchase for any reason, please contact your local distributor prior to returning the product. Visit <https://www.cirsinc.com/distributors/> to find your local distributor. If you purchased your product direct through CIRS, call Customer Service at 800-617-1177, email rma@cirsinc.com, or fax an RMA request form to 757-857-0523. CIRS staff will attempt to remedy the issue via phone or email as soon as possible. If unable to correct the problem, a return material authorization (RMA) number will be issued. Non-standard or "customized" products may not be returned for refund or exchange unless such product is deemed by CIRS not to comply with documented order specifications. You must return the product to CIRS within 30 calendar days of the issuance of the RMA. All returns should be packed in the original cases and or packaging and must include any accessories, manuals and documentation that shipped with the product. The RMA number must be clearly indicated on the outside of each returned package. CIRS recommends that you use a carrier that offers shipment tracking for all returns and insure the full value of your package so that you are completely protected if the shipment is lost or damaged in transit. If you choose not to use a carrier that offers tracking or insure the product, you will be responsible for any loss or damage to the product during shipping. CIRS will not be responsible for lost or damaged return shipments. Return freight and insurance is to be pre-paid.

WITH RMA NUMBER, ITEMS MAY BE RETURNED TO:

CIRS
Receiving
900 Asbury Ave,
Norfolk, Virginia, 23513 USA

PRODUCT	WARRANTY PERIOD
ACR Digital Mammography Phantom (Model 086)	60 Months

