

**MODEL L-760
ACRYLIC MODULAR X-RAY PHANTOM**

August 2024

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Table of Contents

Introduction	1
Configurations	2
Chest X-Ray Phantom	2
Abdomen/Lumbar Spine Phantom	3
Skull X-Ray Phantom	4
Extremity X-Ray Phantom	5
Make-Your-Own Phantom Modular Kit	6

Introduction

The Acrylic Modular X-ray Phantom is made up of a series of acrylic and aluminum plates that provide the various attenuation characteristics of various body-part thickness. The variation in the number of acrylic plates and/or spacers simulates either a standard chest, abdomen, skull, or extremity.

The acrylic phantoms conform to AAPM recommendation noted in report #31 (Standardized Methods for Measuring Diagnostic X-ray Exposure); and those noted in Report #60 (Instrumentation Requirements for Diagnostic Radiological Physicists).

The phantom set is also useful for making exposure technique charts for commonly used projections. The latter has been a long-standing requirement of the JCAHO (Joint Commission on Accreditation of Health Care Organizations).

These phantoms are ideal for adjusting automatic exposure controls and automatic brightness controls on diagnostic and fluoroscopic systems.

Configurations

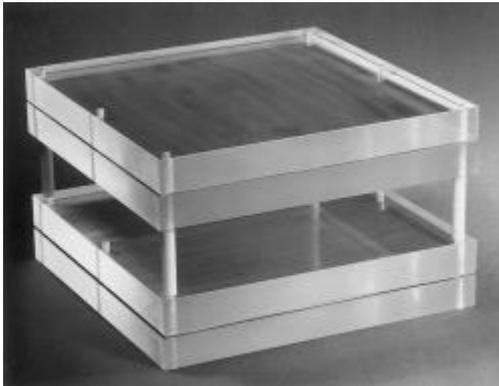
Chest X-Ray Phantom

The chest phantom configuration consists of:

- Four sheets of 25 x 25 x 2.5 cm thick clear acrylic
- One sheet of 25 cm x 25 cm x 1 mm thick high-purity aluminum
- One sheet of 25 cm x 25 cm x 2 mm thick type-1100 high-purity aluminum
- Spacers to provide a 5.1 cm air gap

Clinical testing of this phantom has shown it to be equivalent to a 23 cm patient for PA chest projection.

Weight: 8 kg (17.5 lb)



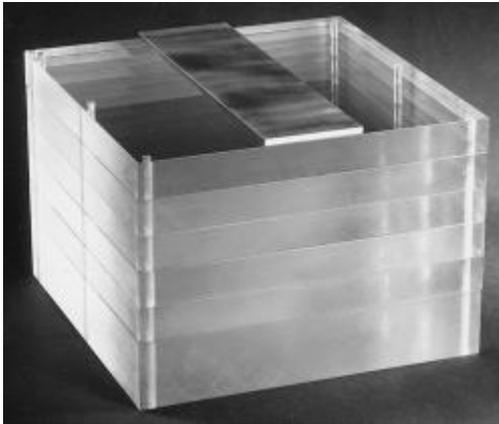
Abdomen/Lumbar Spine Phantom

The abdomen/lumbar spine phantom configuration consists of:

- Five sheets of 25 x 25 x 2.5 cm thick clear acrylic
- One sheet of 25 x 25 x 5.1 cm thick clear acrylic
- One piece of 7 cm x 25 cm x 4.5 mm thick high-purity alloy aluminum

This configuration will achieve a 17.8 cm thick phantom. The alloy aluminum will provide additional attenuation in the spinal region.

Weight: 17 kg (37 lb)



Skull X-Ray Phantom

The skull phantom has the same configuration as the chest phantom, but without the air gap. This one consists of:

- Four sheets of 25 x 25 x 2.5 cm thick clear acrylic
- One sheet of 25 cm x 25 cm x 1 mm thick clear acrylic
- One sheet of 25 cm x 25 cm x 2 mm thick high-purity alloy aluminum
- A center sheet of 25 x 25 x 5.1 cm thick clear acrylic

Weight: 12 kg (26.5 lb)



Extremity X-Ray Phantom

The extremity phantom configuration consists of:

- One 25 cm x 25 cm x 2 mm thick piece of high-purity alloy aluminum
- Two sheets of 25 x 25 x 2.5 cm thick clear acrylic

The alloy aluminum is sandwiched between the two sheets of acrylic.

Weight: 4.5 kg (10 lb)



Complete Acrylic Modular X-Ray Phantom Set

Set includes the following:

- Five sheets of 25 x 25 x 2.5 cm thick acrylic
- One sheet of 25 x 25 x 5.1 cm thick acrylic
- One sheet 25 cm x 25 cm x 1 mm thick aluminum
- One sheet of 25 cm x 25 cm x 2 mm thick aluminum
- One sheet of 7 cm x 25 cm x 4.5 mm thick aluminum
- Spacers for a 5.1 cm air gap

Weight: 15.3 kg (34 lb)