

# TABLETOP SHIELD

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## OPERATION MANUAL

042-224  
042-228  
042-227  
042-226



# BIODEX

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**This manual contains installation and operation procedures for the following Biodex products:**

#042-224	Shield, Tabletop, .5" lead
#042-228	Lead Glass Plate, 2.0 mm, 12" x 12"
#042-227	Side Shield, .25" lead
#042-226	Bottom Shield, .25" lead

## **Introduction**

This Tabletop Shield provides protection while working with mid to low-energy beta and gamma radioactive materials. The shield is designed to resist tipping and incorporate shielding overlap to eliminate radiation streaming. The entire interior work surface is one continuous piece of steel designed with a built in splash tray containing a spill proof lip for fast, contained clean up.

The front wall of the shield is constructed of .5" (1.2 cm) thick lead and completely encased with powder-coated steel. A lead glass window (2 mm LE) and a Plexiglas® panel are included. This shielding combination attenuates gamma and beta radiation, and errant bremsstrahlung, with unimpaired viewing of the work area. An optional 2 mm LE lead glass window is available to achieve 4.0 mm lead equivalency.

Optional side and bottom shields offer additional protection. Manufactured to be durable, the Beta/Gamma Tabletop Shield is framed in steel with a powder-coat finish.

## Assembly Instructions

*Tools required: 1/8" Allen Key and a knife*

### Installing the Tabletop Shield Lead Glass Panels, Model 042-224

Remove the shield from the packaging and carefully remove the lead glass and clear acrylic from their packaging. You will need a 1/8" Allen Key to assemble the tabletop shield lead glass panel part (042-228) and the Acrylite panel (042-225) into the tabletop shield.

1. Using a 1/8" Allen key, remove the Allen head screws located at the rear of the top of the shield; remove the panel. (This panel holds the lead glass and acrylite panels in position in the shield.)
2. Insert lead glass (042-228) into slot closest to the operator.
3. Insert Acrylite panel (042-225) into the slot closest to the work area of the shield.
4. If you have purchased an additional lead glass panel, it should be inserted into the middle slot in the shield.
5. Replace the top support panel that you removed in Step 1. Secure with the Allen head screws.

### Installing the Optional Bottom Shield, Model 042-226

**NOTE:** *If you have purchased the optional bottom shield, you should install this before installing the lead glass panels to protect the lead glass panels.*

1. Carefully turn the tabletop shield sideways so it is resting on the upright panel.
2. Remove the Allen head screws located on the rear side of the shield at the base. Also, loosen (do not remove), the screws located on each side of the base, near the bottom of the shield. These screws should be backed up enough so they are not projecting beyond the portion of the base they are screwed into; they should be clear of the opening.
3. Lift the lead for the base shield (042-226) and hold it with the cutouts facing the bottom of the lead. Place the opposite end into the lip that is now upright and slide the lead into position. Tighten the Allen head screws on either side of the base of the shield. The lip and the screws secure the bottom shield in position. Also, replace the Allen head screws located on the rear side of the shield at the base.
4. Turn the shield upright and insert the lead glass and lead acrylic panels into the top of the shield and secure the top.

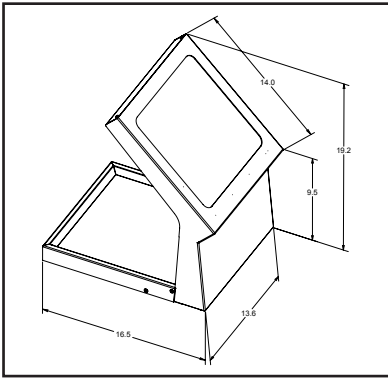
## Installing the optional Side Shields, Model 042-227

1. With the tabletop shield in position at your work station, **loosen** (do not remove) the Allen head screws located on either side of the rear of the tabletop shield near the bottom of the vertical surface facing the work area. Remove the Allen head screws on the rear side of the work surface. These screws will be used to secure the side shields in position.
2. Lift the side shield and carefully place it onto the work surface of your tabletop shield. Slide the slotted piece into the screws on the loosened vertical panel. Slide the slots behind the screws and tighten the screws once slots are in position.
3. Replace the screws on the rear side of the tabletop shield work surface. The screws go through the side shield panel back into the base of the tabletop shield. Your tabletop shield is now assembled and ready for use.

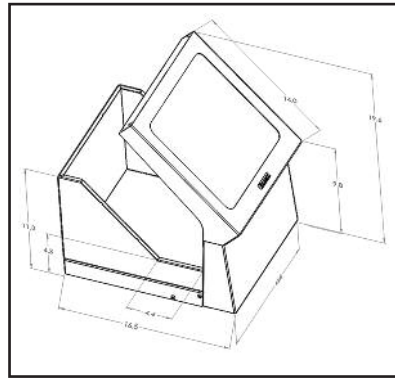
## Maintenance

Biodex Tabletop Shields are virtually maintenance-free. Simply wipe down the barrier, including the lead glass window, with mild soap and water or isopropyl alcohol as needed. Periodically check all visible screws to ensure tightness.

**NOTE:** *Do not clean the lead glass with Radiacwash or other decontaminating solutions as fogging of the lead glass may occur.*



*Dimensions of Tabletop Shield*



*Tabletop Shield shown with optional side shield, 042-227*

## Specifications

### *Tabletop Shield*

**Dimensions:** see drawings featured

**Lead Shielding:** 0.5" thick (1.2 cm)

#### **Viewing Panel:**

**Lead Glass:** 2.0 mm lead equivalency (an optional lead glass panel can be added to achieve 4.0 mm lead equivalency)

**Clear Plexiglas®:** 0.374" thick (9.5 mm) clear acrylic

**Viewing Area:** 11.1" x 11.1" (28.2 cm x 28.2 cm)

**Finish:** Silver powder coat

### *Optional*

#### *Side Shield*

**Dimensions:** see drawings featured

**Lead Shielding:** 0.25" thick (0.64 cm)

**Finish:** Silver powder coat

#### *Bottom Shield*

**Dimensions:** 12.75" x 13.625" (32.4 cm x 34.6 cm)

**Lead Shielding:** 0.25" thick (0.64 cm)

#### **Shipping Weights:**

042-224 Tabletop Shield: 79 lb (35.8 kg)

042-228 Lead Glass Plate: 10 lb (4.5 kg)

042-227 Side Shield: 42 lb (19 kg)

042-226 Bottom Shield: 10 lb (4.5 kg)

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