

**DESCRIPTION**

The Thermo Evolution 220 Spectrophotometer (Evo22) is supplied with specially designed dosimeter holders to fit a variety of dosimeters, including the B3 DoseStix and B3 WINdose dosimeters. The holders are ‘hot-swappable’ making it quick and easy to install in and out of the baseplate without the use of any tools, and requires no additional action once installed.

**APPLICATION**

For use in conjunction with the Evolution 220 Spectrophotometer to measure the optical absorbance of dosimeters.

**SPECIFICATIONS**
**Physical Specifications:**

GEX Part No.	Product Description	Product Dimensions	Packaging Dimensions	Product Weight
P4330	Hot-swappable Base Plate with beam tubes	20.0cm (L) x 17.2cm (W) x 3.7cm (H) (7.9" L x 6.8" W x 1.5" H)	12.7 cm x 12.7 cm x 12.7 cm (13" x 10" x 2")	1.5 kg (1.1 lbs.)
P4332	DoseStix Holder	44.5mm (L) x 50.9mm (W) x 60.6mm (H) (1.8" L x 2.0" W x 2.4" H)	12.7 cm x 12.7 cm x 12.7cm (5" x 5" x 5")	0.08 kg (0.18 lb.)
P4334	WINdose Holder <ul style="list-style-type: none"> <li>• Receiver component</li> <li>• Hinged Holder component</li> </ul>	44.5mm (L) x 50.9mm (W) x 44.3mm (H) (1.8" L x 2.0" W x 1.7" H)  <b>Outer Dimensions:</b> 2.900" (L) x 0.500" (W) x 0.525" (H) (±0.005") <b>Inner Window Pocket:</b> 0.414" (W) x 0.413" (L) (±0.005") <b>Slot Dimensions:</b> 1.330" (L) x 0.200" (W) (±0.005") <b>Aperture Dimensions:</b> 0.315" ±0.002"	12.7 cm x 12.7 cm x 12.7cm (5" x 5" x 5")	0.15 kg (0.32 lb.)
P4336	PMMA Holder	44.5mm L x 50.9mm W x 33.5mm H (1.8" L x 2.0" W x 1.3" H)	12.7 cm x 12.7 cm x 12.7cm (5" x 5" x 5")	0.06 kg (0.14 lb.)
<b>Material</b>	Holders: Nylatron Baseplate: Anodized aluminum			
<b>Color</b>	Grey			
<b>Packaging</b>	Cardboard box and wrapped in bulk packaging to provide protection and prevent movement inside the product box during transport.			

**Calibration:**

Not applicable.

**Maintenance:**

The Evo220 Spectrophotometer and holders should be installed in a location where they will not be exposed to excessive dust or other particulate matter. The holders should be cleaned as part of a preventative maintenance program at a frequency dependent on the level of cleanliness of the area. Any accumulated particulate can be removed using compressed air. The holders should be physically taken apart and cleaned with a lint-free wipe and isopropyl alcohol or equivalent at least annually.

Avoid dropping or physically damaging the holders. Although they are made of very hard plastic they can still become damaged. If damage occurs verify performance and consult GEX Customer Service.

**Storage:**

There are no environmental storage requirements.

## PRODUCT PHOTOS

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## USAGE

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### Installation:

1. Remove the aluminum baseplate from the Evolution 220 Spectrophotometer.



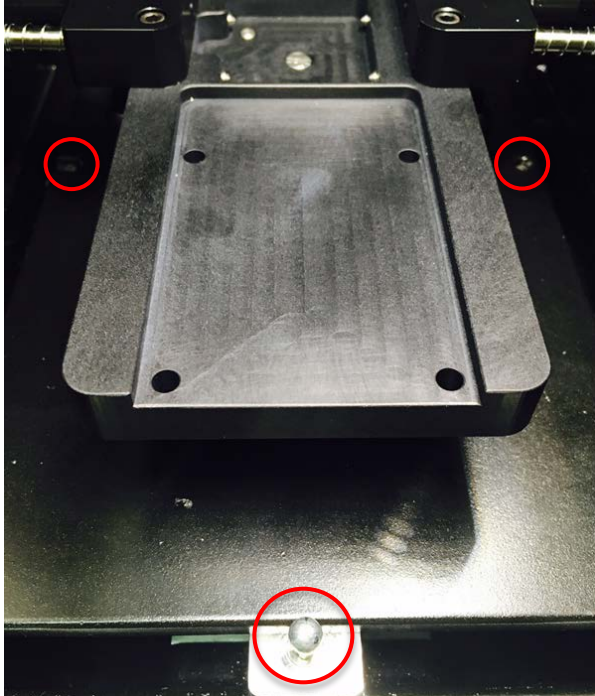
**FIGURE 1: Aluminum Baseplate**

2. Attach the GEX hot-swappable baseplate (GEX P/N: P4330). See Figure 2 below.  
Note the locating pin at the top-left of the stand, highlighted red as shown in Figure 1 above.

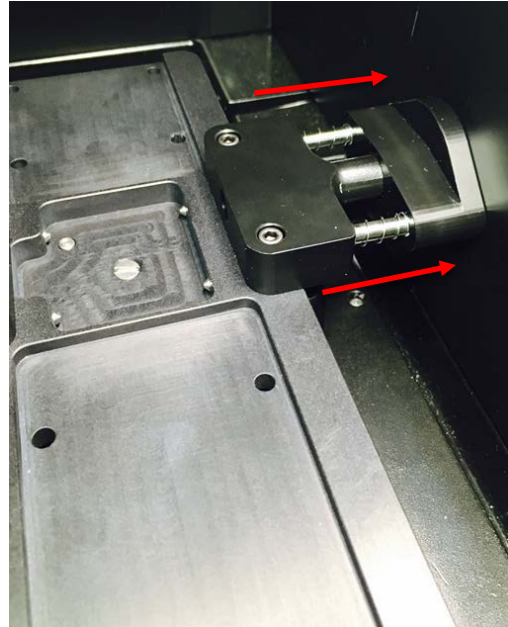


**FIGURE 2: Installation of hot-swappable baseplate (GEX P/N: P4330)**

3. Insert the baseplate assembly into the sample compartment of the Evolution 220 using the registration pins at the back, and then push down to secure the plate against the front slip-pin (see Figure 3). Ensure that the spring-loaded beam tubes fit flush against the walls (See Figure 4).

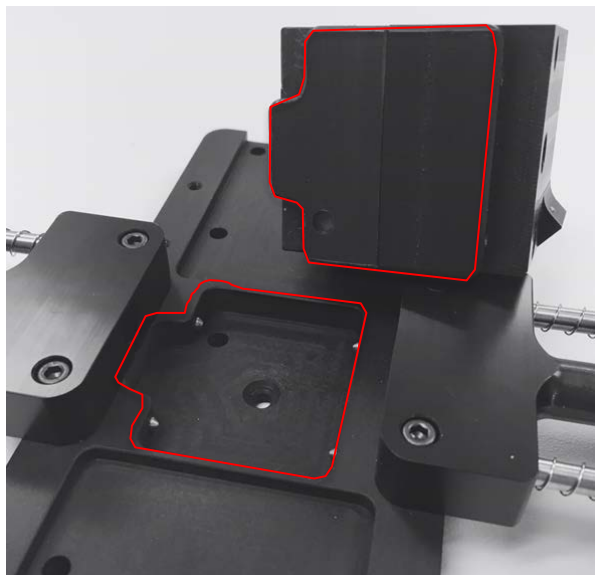


**FIGURE 3: Registration pins and front slip-pin**

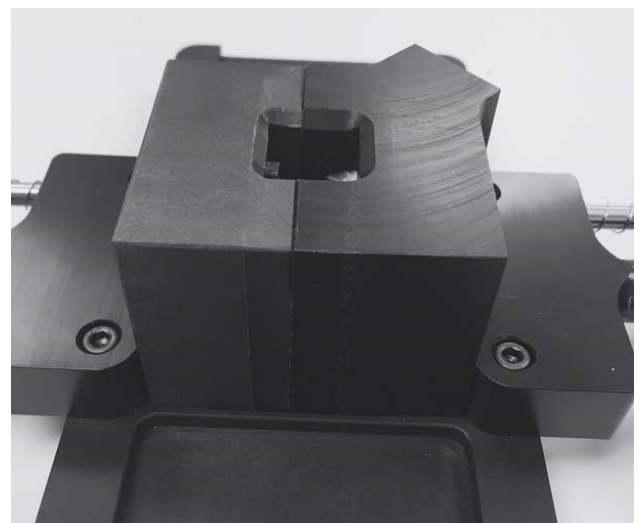


**FIGURE 4: Spring-loaded beam tubes**

4. The dosimeter holders are keyed and only insert in one direction. Ensure proper orientation (see Figure 5 – example shown is a PMMA Dosimeter holder GEX P/N: P4336). Insert the selected dosimeter holder so that it clicks firmly into place (see Figure 6). The holder is held in place by spring-loaded detent pins.



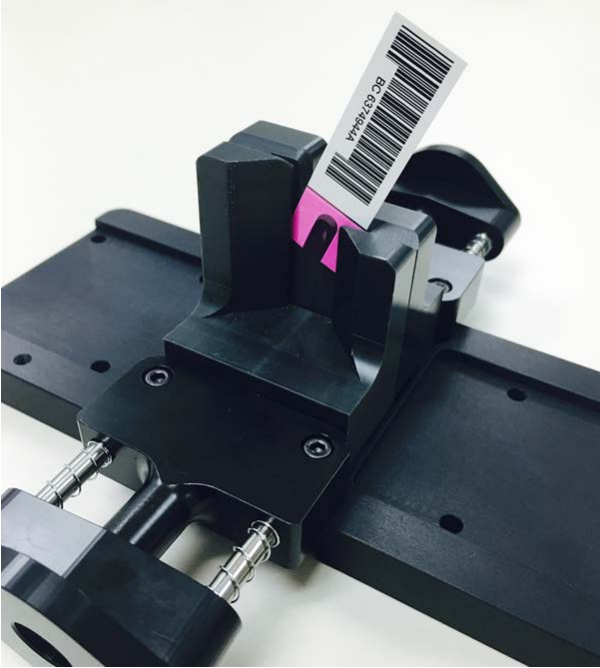
**FIGURE 5: PMMA Dosimeter Holder orientation**



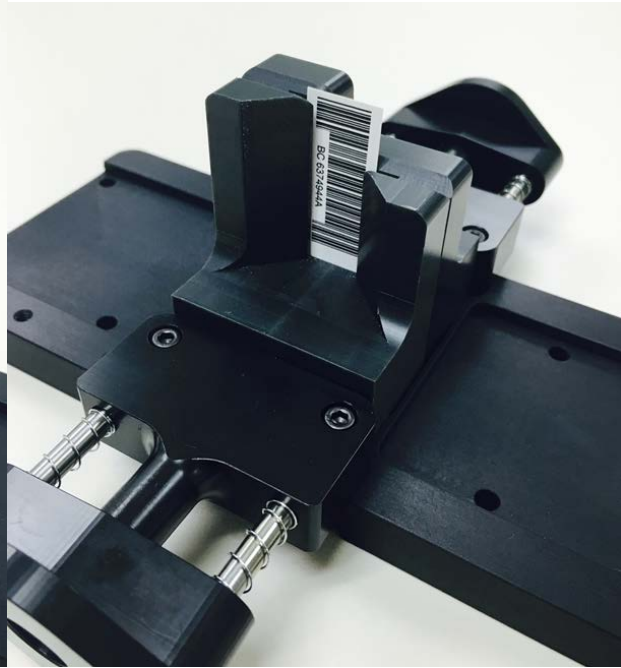
**FIGURE 6: PMMA Dosimeter Holder installation**

**DoseStix Dosimeter Holder (GEX P/N: P4332)**

The DoseStix dosimeter holder allows any DoseStix dosimeter to be inserted with the barcode facing out of the slot to allow for barcode scanning. The user slides the dosimeter into position, pushing the DoseStix until it stops. See Figures 7 and 8.



**FIGURE 7: DoseStix Dosimeter Holder installation**



**FIGURE 8: DoseStix Dosimeter Holder installation**

**WINdose Dosimeter Holder (GEX P/N: P4334)**

The WINdose dosimeter holder is used for 1 cm square radiochromic films. There are two parts; the receiver and the holder (see Figure 9).

1. The dosimeter holder is keyed to the receiver and can only be inserted when properly aligned. The dosimeter is inserted into the hinged holder and is closed (see Figure 10).



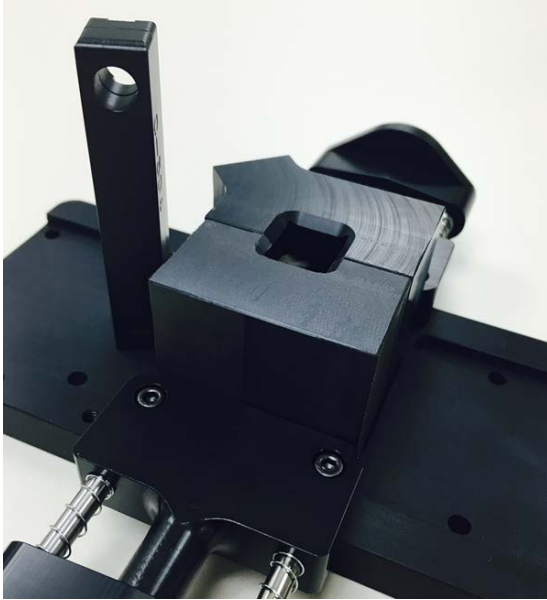
**FIGURE 9: WINdose Dosimeter Holder- Receiver and hinged holder**



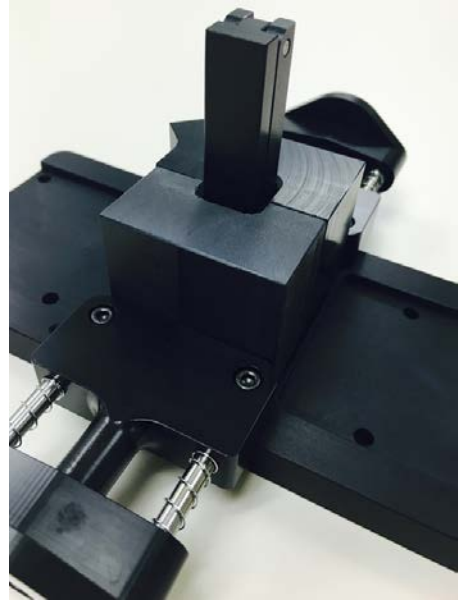
**FIGURE 10: WINdose Dosimeter Holder loaded with dosimeter and featured keyed slot**



2. The WINdose dosimeter holder is inserted into the receiver.

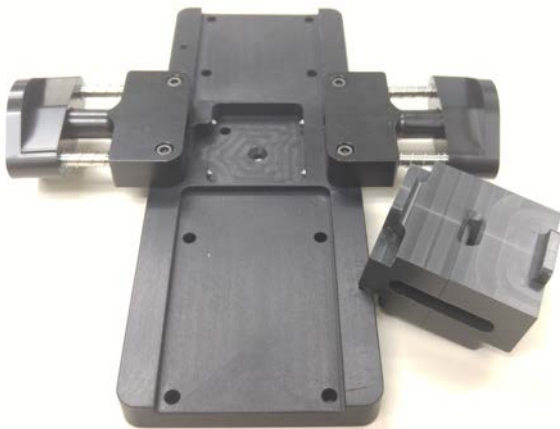


**FIGURE 11: WINdose Dosimeter Holder outside receiver**

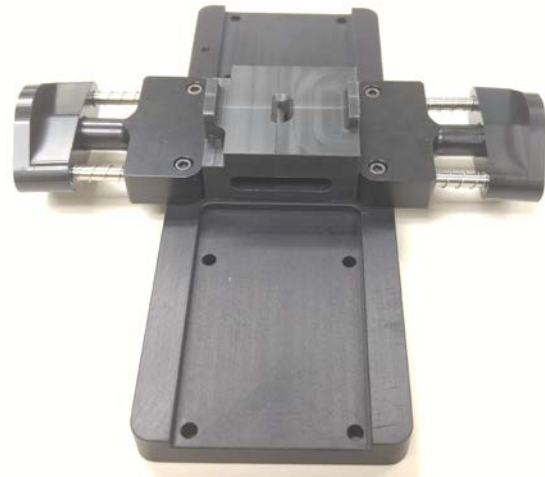


**FIGURE 12: WINdose Dosimeter Holder inside receiver**

**PMMA Dosimeter Holder**



**FIGURE 13: PMMA Dosimeter Holder un-inserted**



**FIGURE 13: PMMA Dosimeter Holder inserted**

## **GUARANTEE**

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**Guarantee:**

1 year satisfaction guarantee. Product may be returned within one year from the date of delivery for any customer dissatisfaction.

## **REFERENCES**

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**GEX Product Specification and Usage (PSU):**

- GEX Doc#100-156 P4300 Evolution 220 Spectrophotometer

To learn more about GEX products and services, visit [www.gexcorp.com](http://www.gexcorp.com) or contact a GEX representative at +1 303 400-9640.