

P4330, P4332, P4334, P4336, P4345
Evolution Baseplate and Dosimeter Holder System

DESCRIPTION

A baseplate and dosimeter holders to fit B3 film, FWT-60, and PMMA dosimeters. The holders integrate into the sample compartment of the Thermo Evolution (“Evo”) Spectrophotometer. The baseplate fits into the sample compartment of the Evolution. The dosimeter holders are ‘hot-swappable’ making it quick and easy to take in and out of the baseplate without the use of any tools.

APPLICATION

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

SPECIFICATIONS

Physical Specifications:

GEX Part No.	Product Description	Product Dimensions	Packaging Dimensions	Product Weight
P4330	Evo Dosimeter Holder System	20.0 (L) x 17.2 (W) x 3.7 (H) cm	12.7cm x 12.7cm x 12.7cm (13" x 10" x 2")	0.5 kg (1.0 lbs.)
P4345	Evo GEX B3 Holder	50.8 (L) x 44.5 (W) x 35.8 (H) mm	12.7cm x 12.7cm x 12.7cm (5" x 5" x 5")	0.2 kg (0.5 lb.)
P4332	Evo DoseStix Holder	44.5 (L) x 50.9 (W) x 60.6 (H) mm	12.7cm x 12.7cm x 12.7cm (5" x 5" x 5")	0.2 kg (0.5 lb.)
P4334	Evo Cuvette and Hinged Dosimeter Holder	Receiver: 44.5 (L) x 50.9 (W) x 44.3 (H) mm Hinged Holder: 73.7 (L) x 12.7 (W) x 13.34 (H) mm	12.7cm x 12.7cm x 12.7cm (5" x 5" x 5")	0.2 kg (0.5 lb.)
P4336	Evo PMMA Holder	44.5 (L) x 50.9 (W) x 33.5 (H) mm	12.7 cm x 12.7 cm x 12.7cm (5" x 5" x 5")	0.2 kg (0.5 lb.)

Material	Holders: Nylatron Baseplate: Anodized aluminum
Color	Grey
Packaging	Cardboard box and wrapped in bulk packaging to provide protection and prevent movement inside the product box during transport.

Calibration:

Not applicable.

Maintenance:

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.

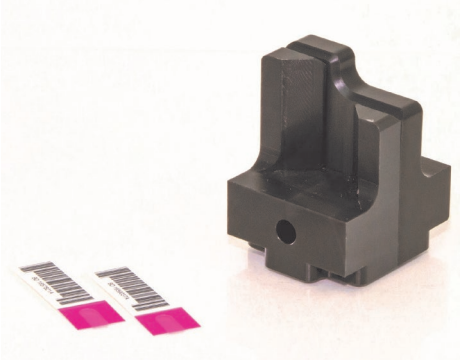
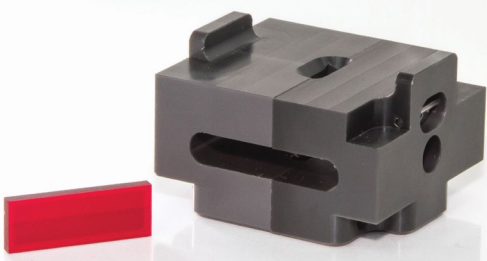
The holders should be cleaned with a lint-free wipe, compressed air and/or isopropyl alcohol or equivalent at least annually. For extremely dusty environments, or concerns about particulate build-up inside the holder, the holder can be physically taken apart and cleaned.

Avoid dropping or physically damaging the holders. If damage occurs, verify performance, and consult GEX Customer Service.

Storage:

No environmental storage requirements.

PRODUCT PHOTOS

<p>P4330 Evolution baseplate</p>	
<p>P4345 GEX B3 dosimeter holder for Evolution baseplate</p>	
<p>P4332 B3 DoseStix dosimeter holder for Evolution baseplate</p>	
<p>P4334 Cuvette and Hinged Dosimeter Holder for Evolution baseplate</p>	
<p>P4336 PMMA dosimeter holder for Evolution baseplate</p>	

USAGE

Installation:

1. Remove the Thermo aluminum base from the Evolution Spectrophotometer. Remove the provided cuvette holder but retain the flathead screw. See *Figure 1*.

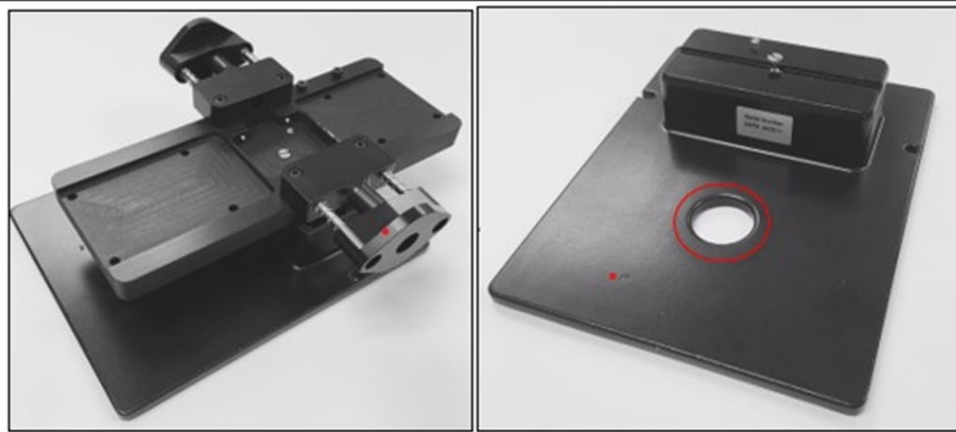


FIGURE 1: Thermo Aluminum Baseplate

FIGURE 2: Thermo base with GEX P4330 baseplate attached

2. Attach the **GEX baseplate (P4330)** to the Thermo base using the flathead screw that is provided. See *Figure 2* above. The longer end of the platform faces forward and will face the front of the Evo.
3. Insert the baseplate assembly into the sample compartment of the Evolution Spectrometer 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*).

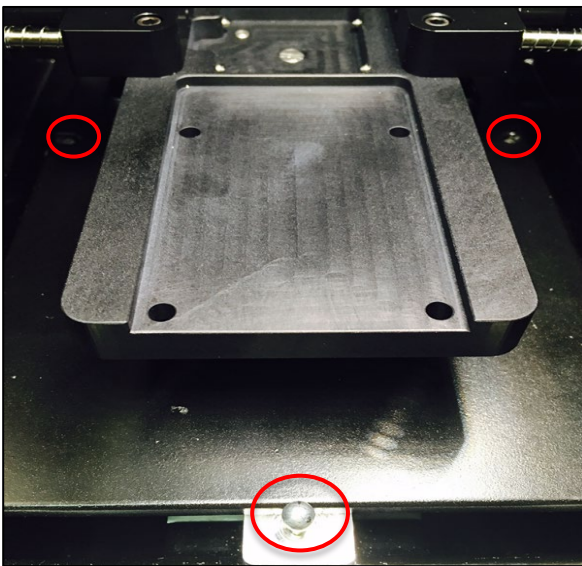


FIGURE 3: Registration pins and front slip-pin

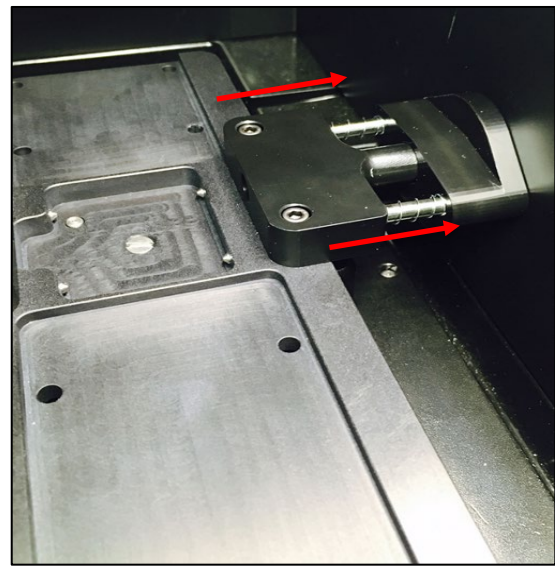


FIGURE 4: Spring-loaded beam tubes

4. All dosimeter holders are keyed and only insert into the baseplate in one orientation. Ensure proper orientation (see *Figure 5*) and insert the selected dosimeter holder so that it clicks firmly into place (see *Figure 6*). The dosimeter holder is held in place by spring-loaded detent pins.

NOTE: If the fit is too tight, loosen the screws that hold the beam tube mounts to the baseplate with the 7/64" driver tool (see *Figure 6*). These screws do not need to be very tight and loosening them slightly will allow a very good fit.

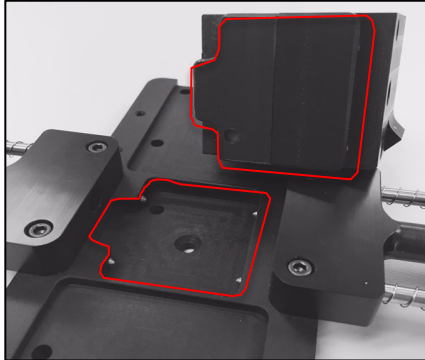


FIGURE 5: Dosimeter Holder orientation

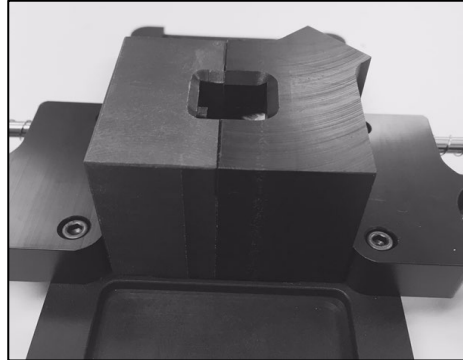
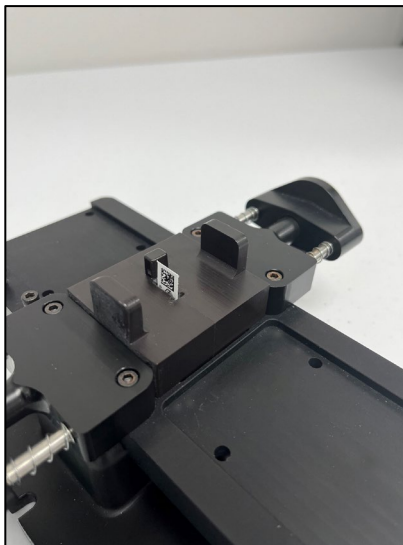


FIGURE 6: Dosimeter Holder installation

GEX B3 Dosimeter Holder (P4345)

The GEX B3 dosimeter holder is used for GEX B3 dosimeters.

1. The dosimeter is inserted into the holder with the barcode facing out of the slot which allows for barcode scanning. The user slides the dosimeter into position, pushing the DoseStix until it stops



FIGURES 7 & 8 GEX B3 dosimeter placement in the P4345 dosimeter holder

DoseStix Dosimeter Holder (P4332)

- The DoseStix dosimeter holder allows any DoseStix dosimeter to be inserted with the barcode facing out of the slot which allows for barcode scanning. The user slides the dosimeter into position, pushing the DoseStix until it stops (see *Figures 9 and 10*).

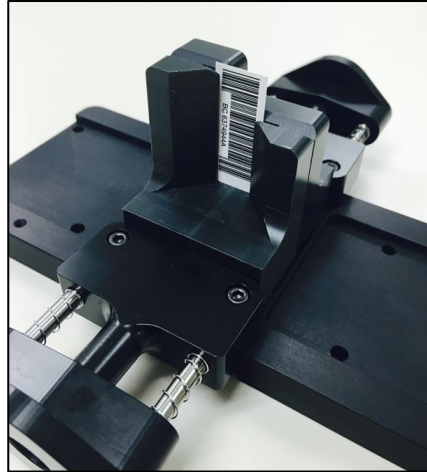
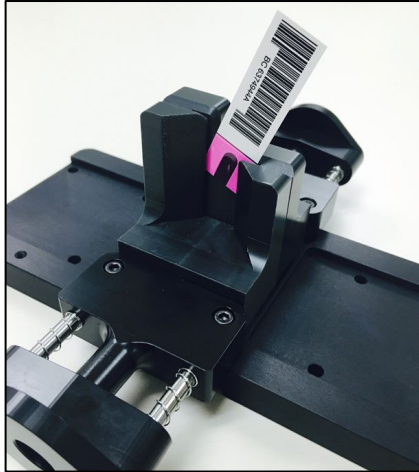
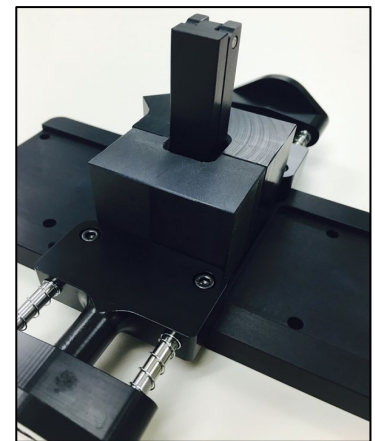
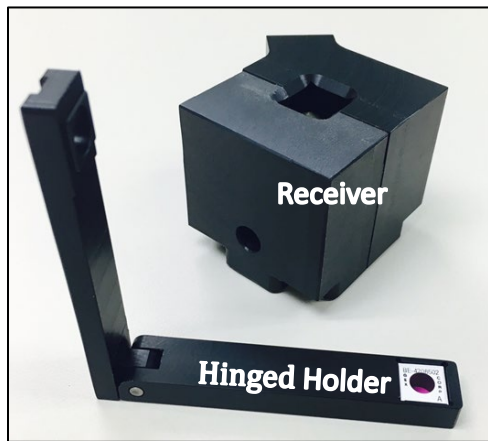


FIGURE 9: DoseStix Dosimeter Holder installation

FIGURE 10: DoseStix Dosimeter Holder installation

GEX Cuvette and Hinged Dosimeter Holder (P4334)

- The Cuvette and Hinged dosimeter holder is used for 1 cm square radiochromic films. There are two parts; the receiver and the Hinged Holder (see *Figures 11 to 13*).



FIGURES 11 to 13: WINdose Dosimeter Holder

PMMA Dosimeter Holder (P4336)

4. The PMMA dosimeter holder is used for Red or Amber Perspex dosimeters. The dosimeter is inserted into the holder and the spring-loaded pin will position the dosimeter repeatably (see *Figures 14 and 15*).

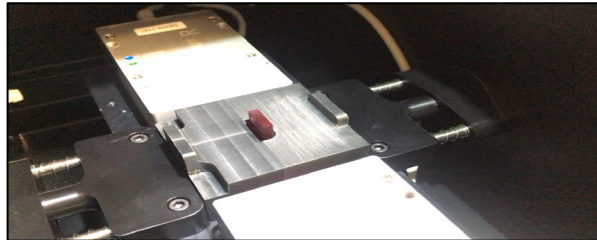
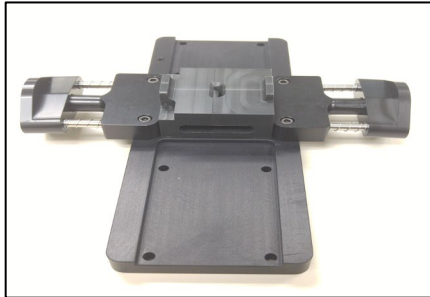


FIGURE 14 PMMA Dosimeter Holder

FIGURE 15 Dosimeter in PMMA holder with laser micrometer installed

GUARANTEE

Guarantee:

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

RELATED DOCUMENTS

Download from the GEX website document library: <https://library.gexc corp.com/>

- [GEX Doc #100-101](#) B3 Film Dosimeter Products – Product Specifications and Usage
- [GEX Doc #100-156](#), P4300 Thermo Evolution Spectrophotometer – Product Specifications and Usage
- [GEX Doc #100-280](#), DoseControl IQOQ Protocol for DoseControl Dosimetry System

REVISION HISTORY

DATE	CHANGE DESCRIPTION	REVISION
12/01/2021	- Revised title from “Evo220 Dosimeter Holder System” to “Evolution Dosimeter Holder System”. - Description and Application sections updated reference of Evo220 to Evolution Spectro. - Related Documents section: added reference to the company website https://library.gexc corp.com/ECO 70593	C
02/06/2023	- Added P4345 GEX B3 dosimeter holder product information and photos to the Specifications and product description sections. ECO 70633	D
07/25/2024	- Updated the following: a. Physical Specifications for P/N P4334, Product Photos for P/N P4334, and Product Usage (Installation) for P/N P4334. - Revised the Related Documents section, changed product description from “Evolution Dosimeter Holder System” to “Evolution Baseplate Dosimeter Holder System”. - Related documents: Updated titles of documents to current. ECO 75019	E

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APPROVED

By Dominique Taylor at 11:37 am, Jul 29, 2024