

Spotlight Atmospheric Enclosure Accessory

The Spotlight Atmospheric Enclosure Accessory (L1860312) fits over the front of a Spotlight imaging system to surround the standard stage.

The enclosure helps mitigate atmospheric effects from draughts, temperature, and local variations in humidity and carbon dioxide level. In dusty environments, the enclosure can also help minimize contamination of the optical components or your samples.

NOTE: The larger atmospheric enclosure (L1860344) is suitable for Spotlight imagers fitted with either the standard stage or the optional large stage.

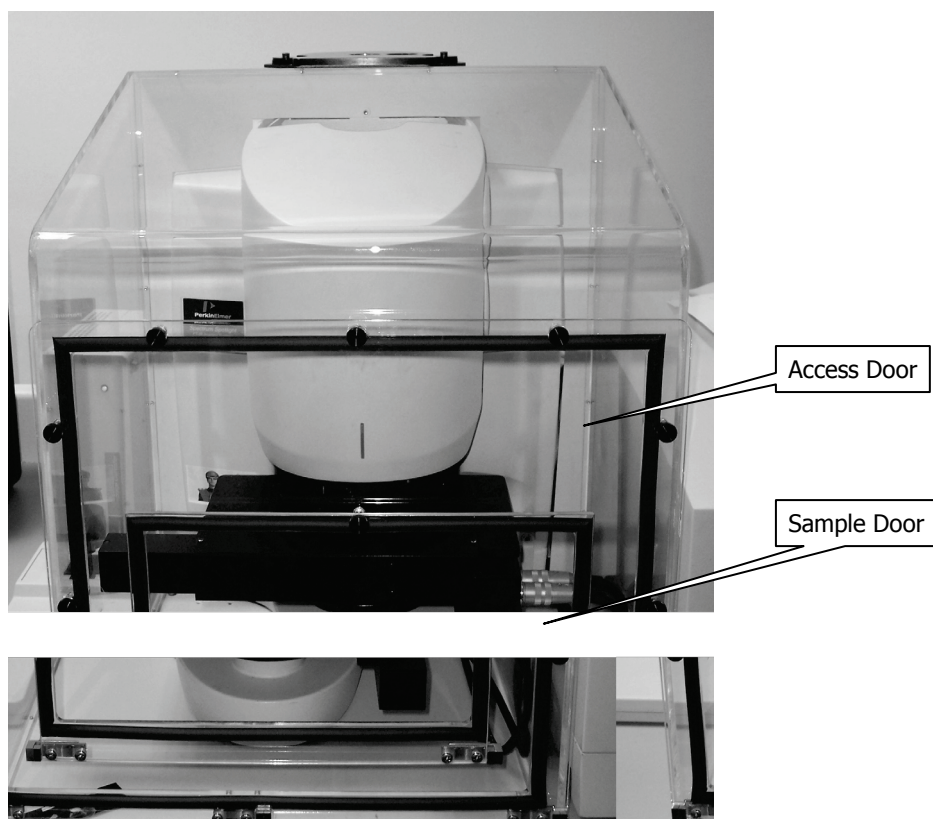


Figure 1 The Spotlight Atmospheric Enclosure Accessory



PerkinElmer Ltd, Chalfont Road, Seer Green,
Beaconsfield, BUCKS, HP9 2FX, United Kingdom.

Produced in the UK.

Fitting the Atmospheric Enclosure Accessory

The atmospheric enclosure fits over the standard stage.

NOTE: If a Spotlight Liquid Nitrogen Reservoir (L1860345) is fitted, begin the following procedure at step 5. You may find it convenient to lift off the empty reservoir.

1. Open the detector Dewar lid on the top of the imager, and then remove the three screws fixing the lid to its hinge.
2. Fix the rear portion of the new split lid to the hinge.
This allows the detector Dewar to be filled with liquid nitrogen when the atmospheric enclosure is in place.
3. Remove the two imager cover fixing screws from the front of the detector area.
4. Insert the shorter spacer in the cover screw recess on the left, and the longer spacer in the cover screw recess on the right.
5. Orientate the mounting plate and bracket so that its plain drilled mounting holes are towards you, align the mounting plate with the spacers, and then fix using the new cover screws.

OR

If a Spotlight Liquid Nitrogen Reservoir (L1860345) is fitted, replace the clear plastic splash shield and its L-shaped bracket with the L-shaped bracket from the supplied mounting plate (the brackets are fixed using two M4 screws and lock washers).

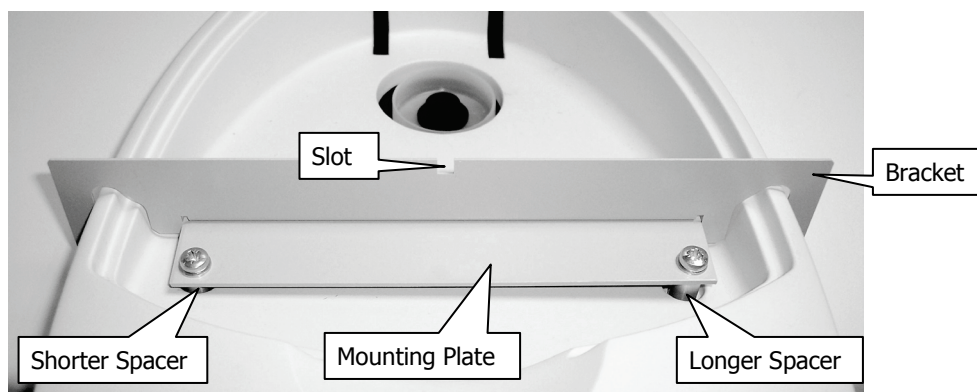


Figure 2 Mounting Plate Fixed to the Imager

The slot at the top center of the enclosure bracket is used to secure the enclosure back plate at step 10.

6. Remove the two lower cover fixing screws from the front of the Spotlight imager.
7. Gently slide the enclosure over the stage and nose of the Spotlight imager from the front.
Be careful not to scratch the nose with the unsealed edges of the enclosure backplate, and guide the stage cables into the notch in the lower right corner of the enclosure back plate.

8. Minimize any distortion of the back plate sealing strips by moving the enclosure forward slightly.
9. Undo the seven thumbscrews that secure the large access door to the front of the enclosure.
Minimize the stress applied to the door and its fixings by slackening each thumbscrew by about a turn before moving to the next. Continue in this manner until the door is free to open.
10. Fix the mounting bracket in the detector area to the slot in the enclosure back plate using an M4 screw and lock washer.

NOTE: If this slot is too high or too low, check the gap between the bench and the underside of the casting at center of the imager, in front of the foot. This is factory set to 7 mm, but the foot can be adjusted. A thin 30 mm ($1\frac{3}{16}$ " AF) spanner may be useful.

11. Place the forward portion of the split Dewar lid over the detector area in front of the enclosure bracket.
No fixings are used.
12. Secure the two brackets attached to the enclosure baseplate to the imager using the cover screws removed at step 6.

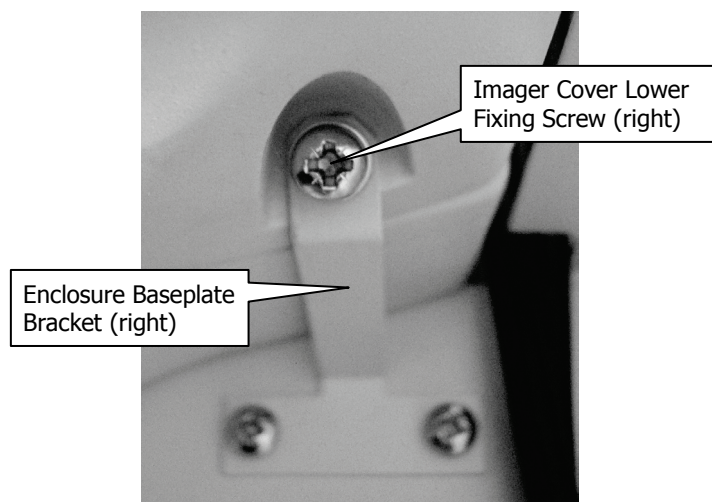


Figure 3 Securing the Enclosure Baseplate to the Imager

Using the Atmospheric Enclosure



When you are using a motorized stage, do not place your fingers between the moving and fixed parts of the stage or the atmospheric enclosure.

The motors driving the stage from side to side, from front to back, or up and down are powerful and do not stall easily.

Two doors are provided in the front of the enclosure, each hinged on its lower edge:

- Use the smaller sample door, which is within the larger door, when you want to minimize atmospheric exchange.
The sample door is large enough to access the stage with both hands.
- Use the larger door when the smaller sample door provides insufficient access.

NOTE: When opening or closing the larger door, minimize the stress applied to the door and its fixings by turning each thumbscrew by about a turn before moving to the next. Continue in this manner until the door is free to open, or is sealed shut.

Compatibility

The atmospheric enclosure is compatible with the following sampling accessories:

Accessory	Part Number
Spotlight Liquid Nitrogen Reservoir	L1860345
Spotlight Tablet Checking Accessory for standard stage	L1860335
Spotlight Powder Checking Accessory for standard stage	L1860341
Spotlight ATR Imaging Accessory	L1860320

Purging



DO NOT attempt to purge the imager, the atmospheric enclosure, or the spectrometer with a flammable gas. The system contains a hot source and an explosion will result.

Only purge using clean, dry, oil-free nitrogen or air. If you purge using nitrogen, make sure that the location has adequate ventilation.

Cleaning

CAUTION

Before cleaning the inside of the atmospheric enclosure, or any part of the imager or stage controller, make sure that the power is switched off and the supply lead is disconnected.

You can clean the outside of the atmospheric enclosure using a damp, lint-free cloth. If necessary a mild detergent can be used. When cleaning the enclosure:

- Never use a solvent or a proprietary glass window cleaner, which can damage the surface.
- Never use an aerosol cleaner, as overspray may contaminate or damage optical components.
- Avoid rubbing with a dry cloth, which may scratch the polished surfaces.
- Remove any accidental scratches by careful, and minimal, application of a proprietary acrylic polish.

Avoid spilling liquid into the enclosure or imager. If anything that is spilled enters the main body of any part of the system, switch off the power and call a PerkinElmer Service Engineer.

