



Evolution Series UV-Vis Instruments

Mercury Lamp

User Guide

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For U.S. Technical Support, please contact:

Thermo Fisher Scientific
5225 Verona Road
Madison WI 53711-4495 U.S.A.
Telephone: 1 800 532 4752
E-mail: us.techsupport.analyze@thermofisher.com

For International Support, please contact:

Thermo Fisher Scientific
Telephone: +1 608 273 5017
E-mail: support.madison@thermofisher.com

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WARNING Avoid an explosion or fire hazard. This instrument or accessory is not designed for use in an explosive atmosphere.

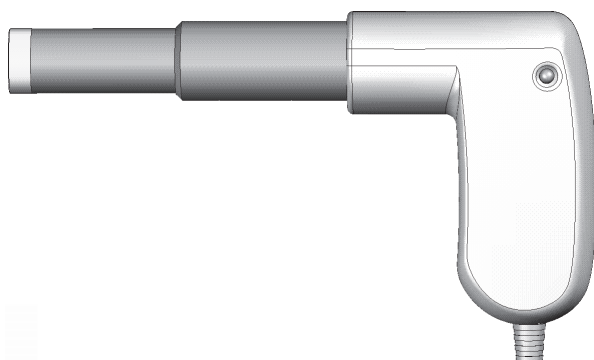
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Mercury Lamp

This mercury lamp can be used to calibrate and verify the performance of your UV-Visible spectrophotometer.



This section covers these topics:

Contents

- [Safety Considerations](#)
- [Operating Precautions](#)
- [Installation and Operation](#)

Safety Considerations

The mercury lamp has a safety interlock to prevent accidental exposure to dangerous levels of UV radiation during operation. After the lamp is installed, removing the lamp from the port while the instrument is powered on will activate the interlock to block all radiation from the lamp.

To avoid defeating the safety interlock, keep all magnets and strong magnetic fields (such as those produced by a mass spectrometer or various medical instruments) away from the lamp while the instrument is powered on and the lamp cable is connected.

Related Topics

[Operating Precautions](#)

Installation and Operation

Operating Precautions

Handle the accessory carefully:

- Do not allow moisture to leak into the accessory.
- Wipe off spilled chemicals immediately.
- Do not drop the accessory.
- Protect the accessory from mechanical shock.
- Do not touch the exposed lens near the end of the lamp shaft (fingerprints and dirt will degrade performance).
- Store the accessory in its case.

Related Topics

[Safety Considerations](#)

[Installation and Operation](#)

Installation and Operation

Use this accessory to perform wavelength and bandwidth tests or a wavelength calibration. These calibration tests must be run using the main detector for the spectrophotometer.



WARNING Avoid UV radiation hazard in the mercury lamp compartment. Protect eyes and skin from exposure.

❖ To install the mercury lamp

1. Remove any sampling accessory from the spectrophotometer if the accessory has a dedicated detector.
2. Plug the lamp cable into the Hg Lamp connector on the back of the spectrophotometer.

For more information, refer to the “Connectors” section of the Evolution Series User Guide or the INSIGHT Help system.



WARNING Avoid defeating the safety interlock. Keep magnets and strong magnetic fields away from the mercury lamp when it is installed and the instrument is running.

3. Follow these instructions to run the mercury lamp Performance Verification (PV) tests or to perform a wavelength calibration.

- To run a PV test, in INSIGHT software click **Home** and then click **Performance Verification**. If you have a custom button configuration, click **Home**, select the **Classic** group and then click **Performance Verification**.

Select the following PV tests (deselect all other tests) and then click **Run**:

- Wavelength Accuracy - Hg Lines
- Wavelength Reproducibility - Hg 546

For more information, refer to the “Performance Verification” section in the *Evolution Series User Guide* or the INSIGHT Help system.

- To run wavelength calibration, in INSIGHT software choose **System Settings > Calibrations**. In the **Lamps** group, under the **Hg Lamp** heading, click **Calibrate**.

Note Calibrate only if the instrument fails the Wavelength Accuracy test.

4. When prompted, lift the Mercury Lamp Access Cover and insert the lamp into the port. Press gently until it is secure.

For more information, refer to the “Mercury Lamp Access Cover” section in the *Evolution Series User Guide* or the INSIGHT Help system.



A blue light on the lamp handle indicates when the accessory is properly installed.

5. Click **OK** to start the selected operation (PV test or calibration).

The lamp requires a few minutes to warm up. When the lamp is ready, the selected operation starts automatically. A status bar shows the progress. When the operation is completed, a prompt appears showing the calibration or test results.

If the calibration fails, an error message appears, contact us using the information at the beginning of this document.

If a mercury lamp PV test fails, perform the wavelength calibration and then rerun both tests. If a test fails again, contact Technical Support.

6. To run another operation with the mercury lamp, leave the lamp in the instrument, click **OK** and proceed.
7. When finished, click **OK** at the prompt, remove the mercury lamp from the port and secure the access cover.

Samples can be analyzed only when the lamp is not in the port.

❖ **To disconnect the mercury lamp**

Unplug the lamp cable and place the lamp in the provided case.

Related Topics

[Safety Considerations](#)

[Operating Precautions](#)