CTS-0678

Assy, Lamp, Deuterium
Equivalent to: Waters® WAT080678

Technical Data Sheet

1.0 Description

This Deuterium Lamp Assembly is designed to be compatible with Waters® 486 Variable Wavelength Detector. It is equivalent to Waters® part number WAT080678.

2.0 Specifications

2.1 Operating Specifications

Aperture Diameter: 0.5mm
Lifetime: 1000 hours

2.2 Materials

Socket Contacts: Pre-Tinned Brass
Connector Plug: Nylon
Lamp Envelope: UV Glass

3.0 Installation Information

CTSôs parts are designed to be compatible and interchangeable with the OEM parts.

1. Turn off the 486 detector.
2. Unplug the 486 power cord.
3. Allow the old lamp to cool for at least 15 minutes.
4. Remove the cover of the detector.
5. Remove the safety cover if your instrument is so equipped.
6. Disconnect the old lamp cable from the detector.
7. Remove the three lamp adjustment plate screws.
8. Remove the old lamp. (Caution: lamp may still be hot to the touch!).

9. Make & record a rough measurement of the gap between the lamp base & the lamp adjustment plate.
10. Loosen the locknut on the lamp height adjustment screw. Remove the screw.
11. Set the lamp adjustment plate on a table, so the lamp is pointing up. Note that the lampôs aperture is pointing toward the large cutout in the perimeter of the lamp adjustment plate. Remove the three long shoulder screws & the springs that are around them. Remove the lamp from the lamp adjustment plate.
12. Set the new lamp on the lamp adjustment plate, with the aperture pointing toward the large cutout in the perimeter of the lamp adjustment plate (as noted above).
13. Install & tighten the three shoulder screws with the springs around them, through the lamp base & into the

lamp adjustment plate.

14. Install the lamp height adjustment screw & its locknut. Tighten the screw until the gap between the lamp base & the lamp adjustment plate is what you previously measured & recorded. Leave the locknut loose for now.
15. Put the wires in the slot in the lamp housing and insert the new lamp into the lamp housing. The cutout in the perimeter of the lamp adjustment plate will be pointed towards the right-front of the 486. (Caution: When handling the new lamp, take care not to touch the glass envelope. Oils from your fingers can create hot spots affecting lamp performance and life. If the envelope is accidently touched, wipe it clean with methanol using a lint free cloth and allow to dry thoroughly.)
16. Install the three lamp adjustment plate hold-down screws. Rotate the lamp adjustment plate fully clockwise. Tighten the screws.
17. Connect the lamp cable to the instrument.
18. Reinstall the safety cover if your instrument is so equipped.
19. Plug in the 486 power cord. Turn on the 486.
20. If calibration is successful, go to the next step. If not, press any key (which will cause the 486 to display reference energy) & skip the next step.
21. Set the wavelength to 230nm. Enter Diagnostic 19, which will cause the 486 to display reference energy.
22. While monitoring the displayed reference energy, turn the lamp height adjustment screw in or out until maximum reference energy is displayed.
23. Loosen the three lamp adjustment plate screws. While monitoring the displayed reference energy, rotate the lamp adjustment plate until maximum reference energy is displayed; tighten the three screws. BE CAREFUL: the lamp adjustment plate began warming up when the lamp fired, & it can become quite hot.
24. Repeat the height adjustment; tighten the locknut.
25. If the 486 previously didnôt calibrate, skip to the next step. If the 486 previously did calibrate, hit any key to exit diagnostic 19. Replace the top cover & enter diagnostic 4. This will force another calibration, which will be done in a couple minutes. When calibration is done, the 486 is ready to use ï ignore the rest of this procedure.
26. Power-down the 486 detector, wait a minute, then power-up. After the 486 finishes calibration, repeat the lamp adjustments previously described, beginning with setting the wavelength to 230nm & entering diagnostic 19.

4.0 Operating Recommendations

4.1 Lamp Intensity

It is recommended that a lamp intensity test be run after lamp installation. The test should be repeated at regular intervals throughout the normal service life of the lamp thereafter. It is recommended that the lamp be replaced once the lamp energy drops to less than 50% of the original lamp energy.

4.2 Flow Cells

Flow cell cleanliness can impact the apparent lamp intensity. It is imperative that the flow cell is kept clean. If lamp intensity does not improve with the installation of a new lamp check the flow cell to make sure it is clean and leak free.

5.0 Warranty

We view your business with us as a partnership based on mutual trust.

We extend a Lifetime Warranty against any manufacturing defects on all CTS parts. On the rare occasion that you experience a problem, we invite you to contact your Account Manager directly.

Returns can only be accepted if a Return Material Authorization Number (RMA) is obtained prior to shipment. Please call (1) 952-895-8292 or email: ctssales@ctshplc.com to get an RMA.