

Lambda 465 Fiber Optic Probe Installation Instructions

This instruction sheet describes the installation of this accessory which is used with the Lambda 465 Spectrophotometer.

NOTE: *Read these instructions before you install this accessory.*

Contacting PerkinElmer

Supplies, replacement parts, and accessories can be ordered directly from PerkinElmer, using the part numbers.

See our website:

<http://perkinelmer.com>

PerkinElmer's catalog service offers a full selection of high-quality supplies.

To place an order for supplies and many replacement parts, request a free catalog, or ask for information:

If you are located within the U.S., call toll free 1-800-762-4002, 8 a.m. to 8 p.m. EST. Your order will be shipped promptly, usually within 24 hours.

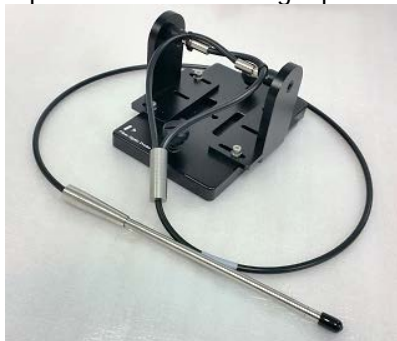
If you are located outside of the U.S., call your local PerkinElmer sales or service office.

Introduction

The probes provide a convenient way of performing absorption or transmission measurements by dipping or inserting the probe end into the medium or environment. This accessory is especially useful for embedding into process streams for real-time, on-line sample monitoring.

Features

- Easy to install
- Dip Probe for measuring liquid samples without using a cell



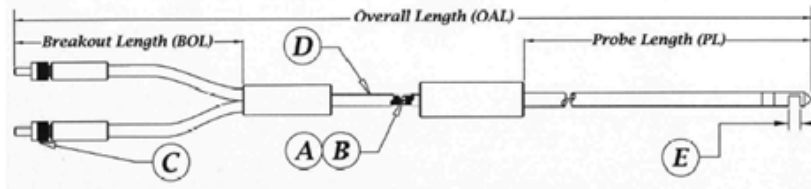
**Figure 1 Lambda 465 Fiber Optic Probe [P/N: N4104012]
with Fiber Optic Probe [Part No: N4101048]**



PerkinElmer, 710 Bridgeport Avenue,
Shelton, CT 06484-4794, U.S.A

Produced in the USA.

Dimensions and Specifications



Physical Characteristic		Specification
Fiber Optic Probe	A: Fiber Type	Fused Silica
	B: Fiber Size	600 μm
	C: Connector	SMA 905
	D: PVC Jacket	∅ 0.19" OD
	E: Path Length	10 mm
	Spectral Range	200 nm ~ 1100 nm
	Overall Length (OAL)	100 ~ 120 cm
	Breakout Length (BOL)	18 ~ 23cm
	Probe Length (PL)	15.2 cm
Fiber Coupling Mount	Dimension (mm)	150(W) X 100(H) X 84(L)
	Weight (Kg)	0.75

Description

Configuration of the Fiber Optic Probe

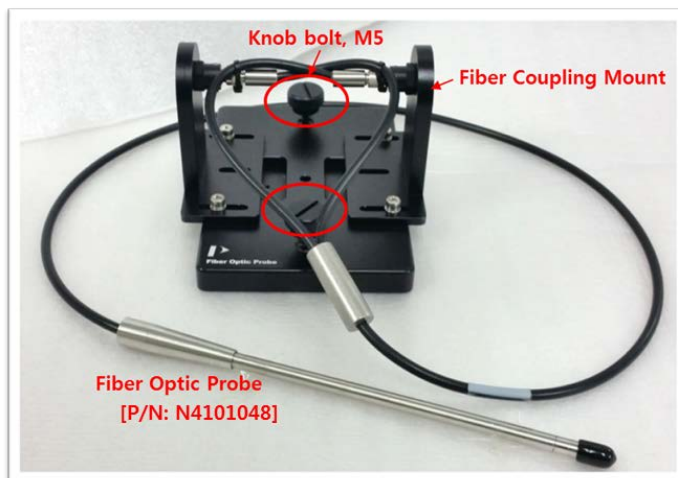


Figure 2 Lambda 465 Fiber Optic Probe include Fiber Coupling mount

Installation

1. Disassemble the existing cell holder.

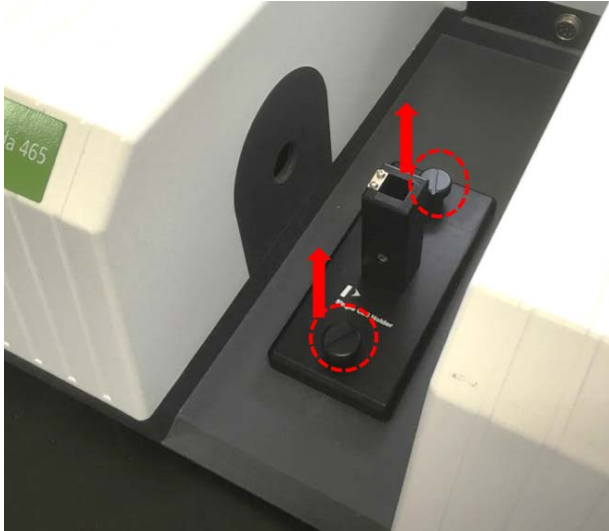


Figure 3 Location of the two knob bolts

2. Install the fiber optic probe by fastening the knob bolts.



Figure 4 Installing the fiber Optic probe

3. Connect the communication cable and the power cord, and then turn on the power of the Lambda 465.

- Place the probe into the liquid sample.

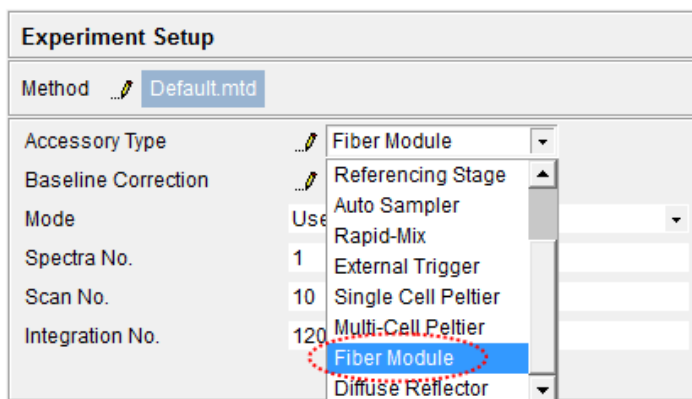


Figure 5 Placing the probe in the liquid

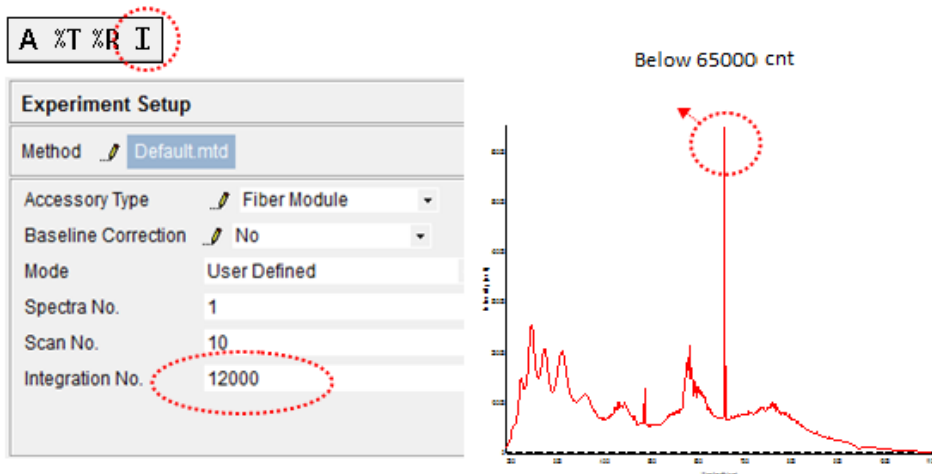
Measurement

NOTE: Start the sample measurement after warming up at least 20 minutes.

- Launch the **UV Lab** software.
- Choose the **Fiber Module** in the **Accessory Type**.



- After dipping the probe into the blank solution, select the intensity mode, and then click **Blank**. By changing the Integration no. up to 30000, adjust the D2 peak intensity not to be saturated in the spectrum as shown in the picture below.



4. Select the **Absorbance** mode and measure blank and sample.
Before measurement, make sure that bubble does not exist at the mirror side of the probe.
5. Clean the probe with D.I water after the measurement.

Troubleshooting

When the Intensity value is low

1. Make sure that bubble does not exist at the mirror side of the probe.
If bubbles existed, the intensity of the light is low due to scattering of bubbles. You should remove the bubbles completely and perform measuring.
2. Increase the Integration Number in the UV Lab Software
You should increase the Integration Number since the intensity of the light which passes through the fiber is somewhat weak.
3. Check the condition of the fiber optic probe
Check if the lens placed inside the fiber optic probe is contaminated.
Remove the contaminant with alcohol.

