

SWAMI SHRADDHANAND COLLEGE
(University of Delhi)
Alipur, Delhi-110036

Tender No- ssnc/chem/spm/01/2018-19

Date: 23/10/2018

TENDER NOTICE

Sealed tender are invited from impaneled/Govt. Registered Suppliers/Contractors/Agents to supply a Perkin Emer- LAMBDA™ 365, UV / VIS- Spectrophotometer for laboratory of the Chemistry Department. Interested Suppliers/Contractors/Agents may send their offers containing all the requisite details in sealed envelope to the Principal, Swami Shraddhanand College, Alipur, Delhi-110036 by 3:00 P.M. of 15/11/2018, through registered post/speed post/Courier only. The Authority reserves the right to accept or reject any or all the offers without assigning any reason thereof. For details visit our college website and download prescribed documents from www.ssncollege.ac.in

Am
(C.G. Ariz)

Sd/- Yd
Principal

To

The Principal
Swami Shraddhanand College
Allpur, Delhi-110036

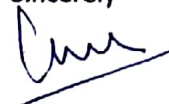
Subject: Proposal for purchasing a UV/VIS-Spectrophotometer for laboratory in Chemistry Department

Respected Sir,

Being induction of new and advanced courses, department is looking to acquire suitable lab instruments to fulfill the requirements of laboratory. In this order department is required a **UV/VIS-Spectrophotometer** and as per your kind permission, a market survey was conducted to select a suitable **UV/VIS-Spectrophotometer** for laboratory with required technical specifications. In this order various instruments were examined on technical basis with various Make/Brand. Finally an appropriate instrument is selected as **Perkin Emer, LAMBDA-365, UV/VIS Spectrophotometer**. It is accordance to our requirements and fulfills all our lab requirements. The details of the instrument with its specifications is attached along with it. The quotations were also collected of the instrument. As per collected quotations the estimated cost will be approximately Rs. 09 Lac therefore, kindly arrange to purchase the instrument adopting appropriate mode of purchase as per Govt. Procurement rules as soon as possible.

Thanking you,

Sincerely



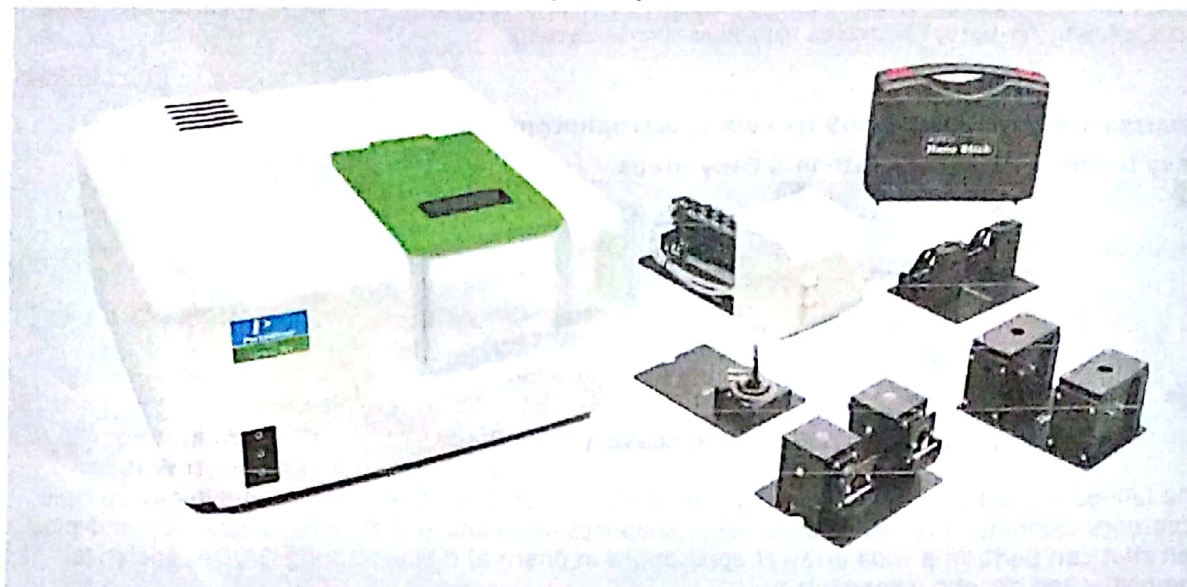
Dr. Gajendra Gaur
TIC, Chemistry Deptt.

Putup for Approval



PRINCIPAL

Specifications for LAMBDA 365 UV/Vis Spectrophotometer



Shown with Accessories

The LAMBDA 365 UV/Vis Spectrophotometer has a double-beam photometric system ideal for applications requiring high stability and low stray light. Units are equipped with software compatible with Microsoft® guidelines making it easier to store, share and integrate data.

Parameter	LAMBDA 365
Source Lamp	Tungsten/Deuterium
Monochromator	Blazed holographic grating with 1200 gr/mm Czerny-Turner with 0.2 m focal length
Detector	Si diodes, Sample and Reference
Photometric System	Double Beam Optics
Wavelength Range	190-1100 nm
Spectral Bandwidth	0.5, 1, 2, 5, 20 nm
Data Interval	0.05, 0.1, 0.5, 1, 2 nm
Wavelength Accuracy	± 0.1 nm at D2 peak @ 656.1 nm, ± 0.3 nm for full range
Wavelength Reproducibility	± 0.1 nm
Photometric Range	± 4A
Photometric Accuracy	± 0.002A (0 - 0.5 Abs) ± 0.004A (0.5 - 1 Abs)
Photometric Reproducibility	< 0.001 AU @ 0.5 and 1.0 AU
Stray Light	< 1.0% (198 nm KCL) < 0.02% (220 nm NaI) < 0.02% (340 nm NaNO ₂)
Baseline Stability	< 0.0003 Abs/h (700nm, after one hour warm up)
Baseline Flatness	± 0.00005 Abs (after one hour warm up)
Photometric Noise	< 0.00005 Abs (at 700nm, RMS)
Photometric Stability	N/A
Maximum Scan Rate	3000 nm/min
Maximum Slew Rate	8000 nm/min
Interface	USB
Weight	55.2 lbs. (25 Kg)
Dimensions	19.5"W x 19.7"D x 10.6"H (495 x 500 x 270 mm)
Electrical	100-240 v 50/60 Hz (Contact us about 240 V models)

Environmental Requirements

Temperature: 15-35°C
Humidity: 30 - 80%
Non-condensing

See [LAMBDA 365 UV/Vis Spectrophotometer](#)
Accessories: [Transmission and Reflectance Holders](#), [Variable and Fixed Angle Reflectance Accessories](#) and [Base Plates](#), [Peltier Controllers](#), [Software](#), [LAMBDA Warranties](#), [Nano Sticks](#), and [Autosamplers](#)

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Accessories for LAMBDA 365 UV/Vis Spectrophotometers

Easy to Install and Calibrate in 3 Easy Steps

1



Open Compartment

2



Snap Accessory Into Place

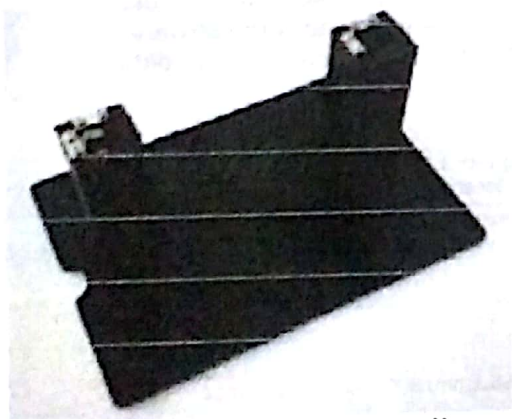
3



Close Sampling Compartment

The LAMBDA 365 has a large sampling compartment that accepts more than 10 different sample accessory combinations. Accessories easily snap into place and self-align for a true plug-and-play unit that can perform a wide array of applications in pharma, manufacturing QA/QA, analytical chemistry and genetic research labs.

Transmission and Reflectance Holders



Accepts standard 10mm cells

Perkin Elmer Part #	Description	Cat. #	Price
N4101027	Single Cell Holder, 10mm	5102-31	Call TUI

- For use with LAMBDA 365 UV/Vis Spectrophotometer
- Accommodates any standard 10 mm cells



Measures transmittance of various sample types

Perkin Elmer Part #	Description	Cat. #	Price
N4101001	Advanced Transmission Holder	5102-32	Call TUI

- For use with LAMBDA 365 UV/Vis Spectrophotometer
- Measures transmittance of various sample types such as films, glass, plates and more
- Adjustable fixing arms for measuring varying sample thickness



Transmits measurement of samples with various thickness

Perkin Elmer Part #	Description	Cat. #	Price
N4101002	Variable Angle Transmission Holder 0-75°	<u>5102-33</u>	Call TUI

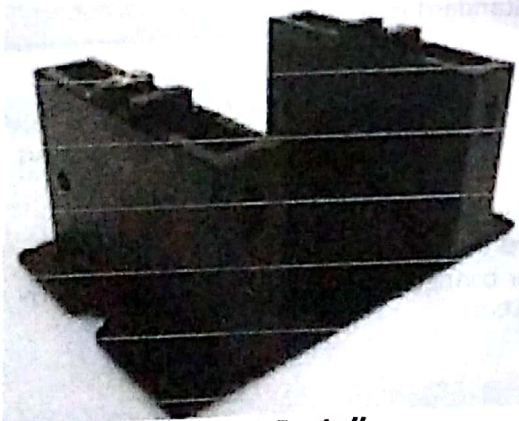
- For use with LAMBDA 365 UV/Vis Spectrophotometer
- Angle adjustable from 0-80°
- Transmits at various angles samples of film, glass, plate and more
- Adjusts angle of solid samples for transmission measurements
- Accommodates sample with various thickness and large samples



Measures specular reflectance spectra at a fixed angle

Perkin Elmer Part #	Description	Cat. #	Price
N4101003	Fixed Angle Reflectance Holder	<u>5102-34</u>	Call TUI

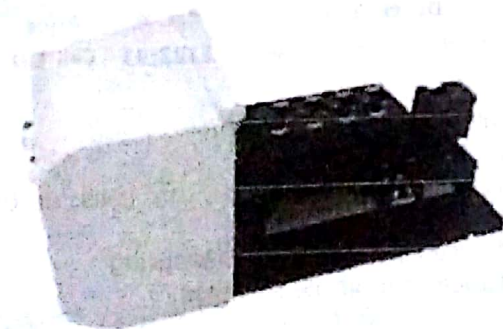
- For use with LAMBDA 365 UV/Vis Spectrophotometer
- Measures specular reflectance spectra at a 30° fixed angle
- Used for film thickness measurements



Easy to Install

Perkin Elmer Part #	Description	Cat. #	Price
N4101005	Variable Pathlength Cuvette Holder	<u>5102-35</u>	Call TUI

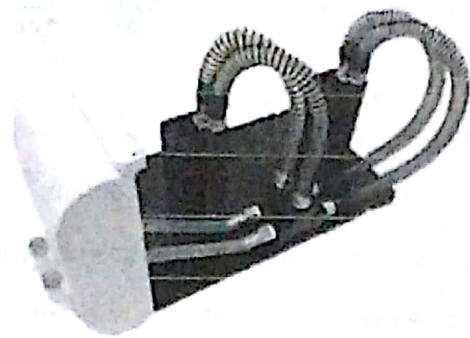
- For use with LAMBDA 365 UV/Vis Spectrophotometer
- Accommodates 5, 10, 20, 40, 50, and 100 mm pathlength cells
- For rectangular cells of varying pathlength
- Partition plate allows cells to be supported throughout analysis



Perkin Elmer Part #	Description	Cat. #	Price
N4101006	Water Jacketed 8-Position Multi-Cell Holder	<u>5102-36</u>	Call TUI

- For use with LAMBDA 365 UV/Vis Spectrophotometer
- Accommodates any standard 10 mm cells
- Uses recirculating liquid to control temperature

Uses recirculating liquid to control the temperature of up to 8 samples



of up to 8 samples

Perkin Elmer Part #	Description	Cat. #	Price
N4101007	Water Jacketed Single Cell Holder	5102-37	Call TUI

- For use with LAMBDA 365 UV/Vis Spectrophotometer
- Uses recirculating liquid to maintain temperature control over standard 10 mm cells

Maintains temperature control over standard 10 mm cells



Perkin Elmer Part #	Description	Cat. #	Price
N4101011	50 mm Transmission/Reflectance Sphere, High Sensitivity	5102-38	Call TUI

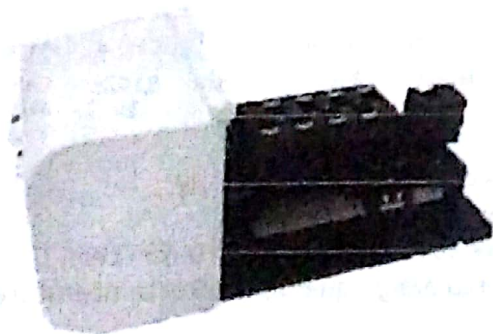
- For use with LAMBDA 365 UV/Vis Spectrophotometer
- Measures diffuse reflectance (SCE), total transmittance, diffuse transmittance and performs color analysis
- Spectral Range of 230~1100 nm (UV and visible)
- Port size: 10.00 mm
- Spectral bandwidth: 20mm
- White Standard included

High Sensitivity



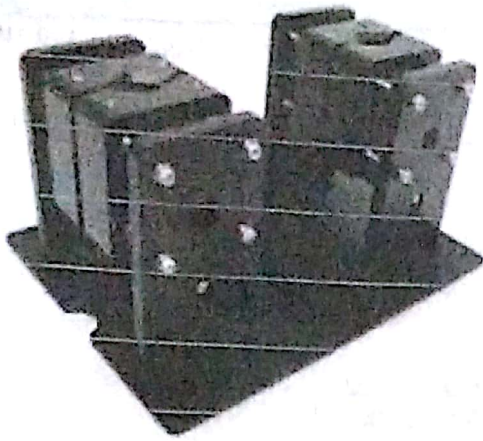
Perkin Elmer Part #	Description	Cat. #	Price
N4101013	Fiber Coupling Module	5102-40	Call TUI

- For use with LAMBDA 365 UV/Vis Spectrophotometer
- Used for connecting Dip Probe Fiber Optic with the system



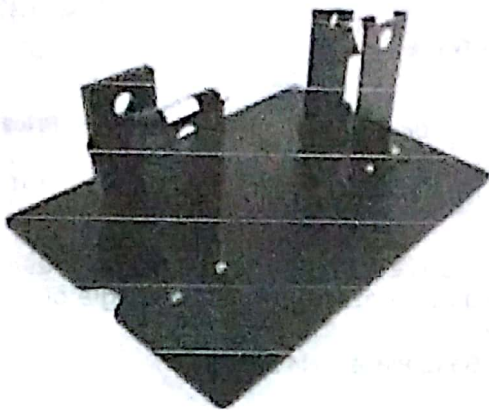
Perkin Elmer Part #	Description	Cat. #	Price
N4101014	8-Position Multicell Holder	5102-41	Call TUI

- For use with LAMBDA 365 UV/Vis Spectrophotometer
- Accommodates any standard 10 mm cells; up to 8 samples
- Standard accessory used for measuring transmittance in multiple samples



Perkin Elmer Part #	Description	Cat. #	Price
N4101016	Test Tube Holder	5102-44	Call TUI

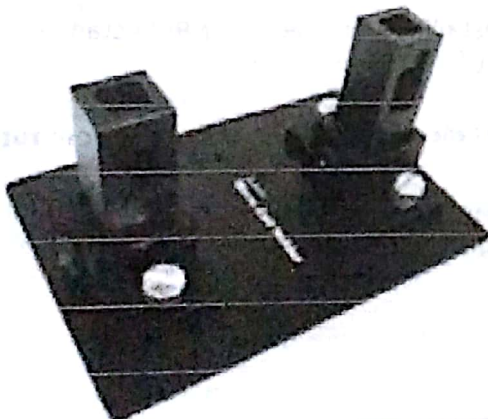
- For use with LAMBDA 365 UV/Vis Spectrophotometer
- Designed for test tubes, vials, ampules, cylinder type, cuvette, etc.



Perkin Elmer Part #	Description	Cat. #	Price
N4101019	Film Holder	5102-45	Call TUI

- For use with LAMBDA 365 UV/Vis Spectrophotometer
- Measures transmittance of various features of thin samples such as film, glass and plate

Measures transmittance of thin samples



Perkin Elmer Part #	Description	Cat. #	Price
N4101028	Micro Cell Holder, 10mm Cuvettes	5102-50	Call TUI

- For use with LAMBDA 365 UV/Vis Spectrophotometer
- Accommodates standard 10 mm cells and Nano Sticks
- Accurately positions small volume cuvettes

Perkin Elmer Part #	Description	Speed Range	Operating Temp	Cat. #	Price
N4101018	Magnetic Stirrer, Manual	120 to 1200 rpm	-10°C to 50°C	5102-42	Call TUI

- Includes magnetic stirring controller, stirring head and magnetic stirring bar for 10 mm pathlength cuvette
- Stirring power: 10W
- Continuous speed selection, OFF position
- Adds stirring capability to single cell and multicell holders
- Ideal for small to medium stirring volumes of low-viscosity liquids

Perkin Elmer	Description	Speed Range	Operating Temp	Cat. #	Price
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Part #					
N4101016	Magnetic Stirrer, Automatic, 2 ch	100 to 1600 rpm	-10°C to 50°C	5102-43	Call TUI

- Includes magnetic stirring controller, stirring head and magnetic stirring bar for 10 mm pathlength cuvette
- Stirring power: 20W
- Adds stirring capability to single cell and multicell holders
- Graphic display for easy view of settings

See [LAMBDA 365 UV/Vis Spectrophotometer](#)

Accessories: [Transmission and Reflectance Holders](#), [Variable and Fixed Angle Reflectance Accessories](#) and [Base Plates](#), [Software](#), [LAMBDA Extended Warranties](#), [Nano Sticks](#) and [Autosamplers](#)

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Variable and Fixed Angle Reflectance Accessories and Base Plates



Perkin Elmer Part #	Description	Cat. #	Price
B0137314	Variable Angle Reflectance Accessory	5102-46	Call TUI

- Ideal for relative specular reflectance studies requiring data from more than one angle of incidence
- Requires Base Plate #N4101025

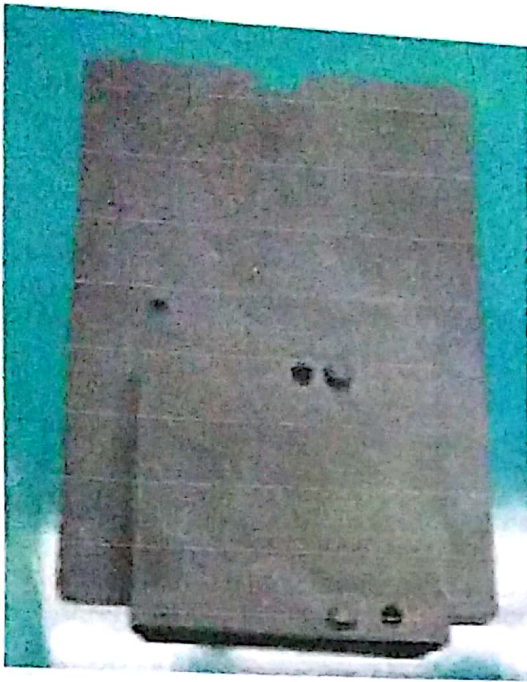
N4101025	Base Plate for Variable Angle Reflectance Accessory (shown)	5102-47	Call TUI
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Base Plate #N4101025 for variable angle reflectance

- Used for installing Variable Angle Reflectance Accessory (7-75°) B0137314

B0086703	Fixed Angle Reflectance Accessory (6°)	5102-48	Call TUI
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- For reflectance of thickness measurements. 6° angle of light incidence



Perkin Elmer Part #	Description	Cat. #	Price
N4101030	Base Plate for Fixed Angle Reflectance Accessory	<u>5102-49</u>	Call TUI

- Used for installing Fixed Angle Reflectance Accessory (6°) B0086703

Base Plate #N4101030 for fixed angle reflectance

See [LAMBDA 365 UV/Vis Spectrophotometer](#)

See LAMBDA 365 Accessories: [Transmission and Reflectance Holders](#), [Peltier Controllers](#) [Software](#), [LAMBDA Extended Warranties](#), [Nano Sticks](#) and [Autosamplers](#)

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Peltier Controllers

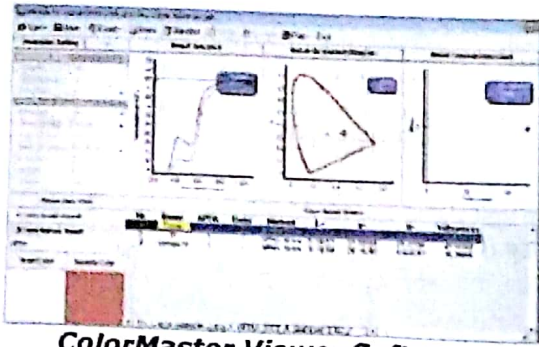


Perkin Elmer Part #	Description	Cat. #	Price
N4104009	Peltier Controlled Single Cell, with Peltier Controller (shown)	<u>5102-60</u>	Call TUI
N4104008	6-Position Peltier Controlled Cell Changer, controller (without heated reference)	<u>5102-51</u>	Call TUI
N4104029	6-Position Peltier Controlled Cell Changer, controller (with heated reference)	<u>5102-52</u>	Call TUI
N4104010	Peltier Control Multi-Cell (8), with Peltier Controller	<u>5102-61</u>	Call TUI
N4100040	Peltier Temperature Controller (without cell)	<u>5102-15</u>	Call TUI

Peltier Controlled Single Cell, with Peltier Controller #N4104009 Shown

- Systems are available with single cell or multi-cell versions designed for thermal denaturation, kinetics and other applications requiring precise temperature control. Select models accommodate single, 6 or 8 samples for automated measurement with or without heat

LAMBDA 365 Software



**ColorMaster Viewer Software
#N4108003 Shown**

Perkin Elmer Part #	Description	Cat. #	Price
N4108002	Multi-Component Analysis Software	5102-53	Call TUI

- Analyzes up to 4 components in a mixture
- Used to analyze complex solutions and mixtures
- Defines concentration of individual components
- Evaluates content of standard components in unknown samples

N4108003	ColorMaster Viewer Software (Shown)	5102-54	Call TUI
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- Illuminants: A, C, D50, D65, F1~F12 (Total 16)
- CIE Standard Observers: 2 or 10 degrees
- Various Color Indices: Whiteness, Yellowness, Tint, Brightness, Metamerism Index, Strength and etc.
- Color/Color Difference Scales: CIE L*a*b*, CIE L*u*v*, CIE XYZ, CIE Yxy, CIE L*C*H, Hunter Lab and etc.
- Software Mode: ColorMaster Viewer Mode, color Calculation Mode

N4108004	System Performance Validation Software	5102-55	Call TUI
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- Includes qualification documentation for 4Q (DQ, IQ, OQ, PQ) and validation software
- Complete validation package for LAMBDA 365 UV/Vis Spectrophotometer
- Ideal for federally regulated or labs required to meet ISO standards
- Requires: Traceable solution for Holmium Oxide, Traceable neutral density filters at 0.5 and 1.0 absorbance, stray light standard, Potassium Dichromate standard, and Toluene in Hexane standard Hexane standard

N4108005	Security Software	5102-56	Call TUI
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- Software facilitates compliance with the FDA's 21 CFR Part 11 code for electronic records and electronic signatures
- Ensures instrument complies with federal codes regulating the acquisition and storage of digital records
- Ideal for pharma and clinical labs

See [LAMBDA 365 UV/Vis Spectrophotometer](#)

See LAMBDA 365 Accessories: [Transmission and Reflectance Holders](#), [Variable and Fixed Angle Reflectance Accessories](#) and [Base Plates](#), [Peltier Controllers Software](#), [LAMBDA Extended](#)

LAMBDA 365 Extended Warranties

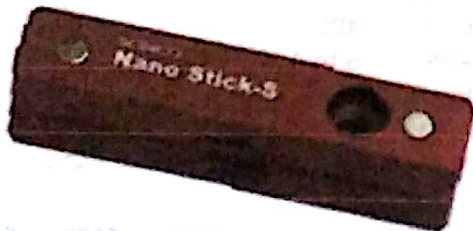
Perkin Elmer Part #	LAMBDA 265 Warranties with Software	Cat. #	Price
UVSN4100020POS0	12 Month Extended Warranty Repair Plan includes unlimited repair visits (parts, travel and labor)	5102-57	Call TUI
UVSN4100020POS1	12 Month Extended Warranty + 1 Preventative Maintenance Basic Plan Includes unlimited repair visits (parts, travel, labor, and 1 preventative maintenance visit annually)	5102-58	Call TUI
UVSN4100020POS2	12 Month Extended Warranty + 2 Preventative Maintenance Comprehensive Plan includes unlimited repair visits (parts, travel, labor, and 2 preventative maintenance visit annually)	5102-59	Call TUI

See [LAMBDA 365 UV/Vis Spectrophotometer Accessories: Transmission and Reflectance Holders, Variable and Fixed Angle Reflectance Accessories and Base Plates, Peltier Controllers, Software, Nano Sticks and Autosamplers](#)

Nano Sticks for LAMBDA 365 Spectrophotometer



- For analysis of previous low volume samples
- Requires only 2µl sample for analysis
- Pathlength: 0.5mm
- Fits into a standard 10mm cell holder
- **Includes:** a case, 1 Nano stick, 1 loading plate, 1 bubble checker, and a user guide



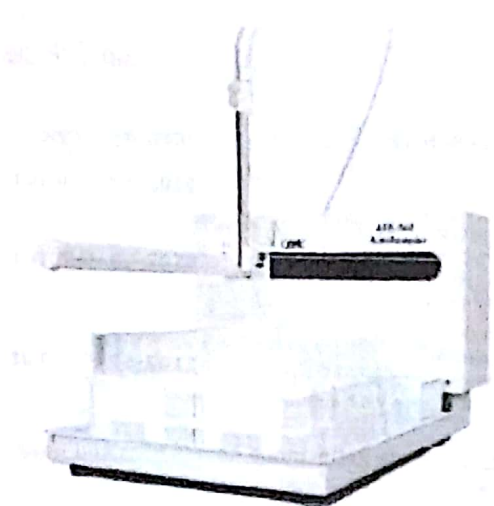
Perkin Elmer Part #	Color	Cat. #	Price
N4101020	Black	5102-19	Call TUI
N4101021	Blue	5102-20	Call TUI
N4101022	Red	5102-21	Call TUI
N4101023	Gold	5102-22	Call TUI
N4101024	Silver	5102-23	Call TUI

Available in five colors

See [LAMBDA 365 UV/Vis Spectrophotometer Accessories: Transmission and Reflectance Holders, Variable and Fixed Angle Reflectance Accessories and Base Plates, Peltier Controllers, Software, LAMBDA Extended Warranties and Autosamplers](#)

Autosamplers for LAMBDA 365 Spectrophotometer

Autosamplers automates sample analysis and automatically delivers samples to cuvette. Units require the Auto Slipper Accessory.



ASX-260 Autosampler #N8122378

Perkin Elmer Part #	Description	Cat. #	Price
N8122378	ASX-260 Autosampler 110/220V 50/60Hz (Shown)	5102-24	Call TUI

- Low to medium sample capacity
- Accommodates 2 racks of autosampler tubes
- Dimensions: 13"W x 20"D x 9.8"H (330 x 508 x 250 mm)
- Height with sample probe: 24"H (610 mm)
- *Requires N4101012 Auto Slipper Accessory

N8122240	ASX-520 Autosampler 110v/60 Hz	5102-25	Call TUI
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- High sample capacity
- Accommodates 4 racks of autosampler tubes
- *Requires N4101012 Auto Slipper Accessory



For use with ASX-260 and ASX-520 Autosampler

N4101012	*Auto Sipper Accessory	5102-26	Call TUI
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- Required for operation of ASX-260 and ASX-520 Autosamplers
- **Includes:** Peristaltic Pump, Pumping Cartridge, Tube, 1 Flow-through Cell, 420 µl (SC-2) and Computer Interface Cable
- Uses complete software control of sample flow
- Automates liquid sampling
- 2 flow channels
- Electrical: 100-240V
- Speed (RPM): 1.6 to 160
- Flow Rate: 0.0003 mL/min. to 68.8 mL/min.
- Tubing I.D.: 0.13 to 3.17 mm
- Operating Temperature Range: 0 to 40°C



Used with auto sipper accessory (N4101012)

N4101026	Front Plate for Auto Sipper Accessory (for N4101012)	5102-39	Call TUI
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- Used for installing the auto sipper accessory (N4101012)

Specification of the Instrument

(Perkin Emer, LAMBDA -UV/VIS Spectrophotometer)

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Detector	Si diodes, Sample and Reference
Photometric System	Double Beam Optics
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Spectral Bandwidth	0.5, 1, 2, 5, 20 nm
Data Interval	0.05, 0.1, 0.5, 1, 2 nm
Wavelength Accuracy	+ 0.1 nm at D2 peak @ 656.1 nm, ± 0.3 nm for full range
Wavelength Reproducibility	± 0.1 nm
Photometric Range	± 4A
Photometric Accuracy	± 0.002A (0 - 0.5 Abs) ± 0.004A (0.5 - 1 Abs)
Photometric Reproducibility	< 0.001 AU @ 0.5 and 1.0 AU
Stray Light	< 1.0% (198 nm KCL) < 0.02% (220 nm NaI) < 0.02% (340 nm NaNO ₂)
Baseline Stability	< 0.0003 Abs/h (700nm, after one hour warm up)
Baseline Flatness	± 0.00005 Abs (after one hour warm up)
Photometric Noise	< 0.00005 Abs (at 700nm, RMS)
Photometric Stability	N/A
Maximum Scan Rate	3000 nm/min
Maximum Slew Rate	8000 nm/min
Interface	USB
Weight	55.2 lbs. (25 Kg)
Dimensions	19.5"W x 19.7"D x 10.6"H (495 x 500 x 270 mm)
Electrical	100-240 V 50/60 Hz
Environmental Requirements	Temperature: 15-35°C Humidity: 30 - 80% Non-condensing