

# Spectromètre Raman portable i-Raman Prime 532H

BWT-840000673

L'i-Raman Prime 532H est un système Raman à faible bruit entièrement intégré à haut débit, avec une tablette PC intégrée et une sonde à fibre optique. Faisant appel à un détecteur à barrette CCD à haute efficacité quantique, refroidi par cryogénie thermoélectrique (-25 °C) et une gamme dynamique élevée, ce spectromètre Raman portable offre la possibilité de réaliser des analyses Raman de qualité recherche, incluant quantification et identification en temps réel. Le haut débit délivre des spectres Raman avec un excellent rapport signal/bruit, ce qui permet de mesurer des processus rapides, de même que les signaux Raman les plus faibles afin de détecter les différences les plus fines entre les échantillons.

Outre le concept d'appareil portable, l'i-Raman Prime 532H propose aussi la combinaison unique d'une vaste gamme spectrale et d'une haute résolution, qui permet des mesures de 150 cm<sup>-1</sup> à 3 400 cm<sup>-</sup>-1. L'i-Raman Prime peut fonctionner sur batterie, ce qui facilite son transport. Ainsi, quel que soit le lieu, il est possible de réaliser des analyses Raman de qualité recherche, à la fois de haute précision et de haut niveau qualitatif et quantitatif. Le système est optimisé pour une application de notre technologie STRaman® pour des analyses au travers d'emballages non transparents.



# Contenu de la livraison BWT-840000673

Qt.	Order no.	Description	
1 PCS	BWT-810000044	BWSpec Software	
	control and data trending. BWSpector of all B&W Tek pot designed with feat measurements are multiple data form parameters, such addition to data a	Tek's general spectroscopy software for instrument acquisition, including real-time peak analysis and is the operating software included with the purchase rtable Raman systems and spectrometer products. It is tures for broad range applications, performing complex and calculations at the click of a button. It supports nats and provides the option to optimize measurement as integration time and laser output power control. In equisition and data processing, it also offers automatic extral smoothing, baseline correction, as well as peak ending.	1000 1500 2000 3000 3000 3000 5000 5000 5000 5

BWT-810000721 Carrying Case for i-Raman Pro/Prime Series

Carrying Case for i-Raman Pro and Prime series. Includes a soft, black carrying case with wheels and custom-cut foam for packing and safely carrying the i-Raman Pro, i-Raman Prime, STRam, or QTRam.

CCRM



1 PCS BWT-840000009 Laser safety goggles (532 nm)

Laser safety goggles for 532 nm lasers – suitable only for Class IIIB laser systems from B&W Tek.





1 PCS

Validation Cap with integrated ASTM-standard polystyrene for use with the BAC100/BAC102 lab-grade Raman Probe with shaft diameter of 9.5 mm.



1 PCS BWT-840000296 Stylus/pen

Stylus/pen combo for touch screens.

NR-STY



1 PCS BWT-840000907 High Throughput Raman Trigger Probe (532 nm)

High Throughput lab-grade fiberoptic Raman probe assembly with hand trigger 105um diameter 0.22NA fiber for 532 nm excitation 300um diameter 0.22NA for Raman pickup, optical density >6; down to 150 cm-1; 1.5 m fiber length terminated in FC/PC on the spectrometer end and FC /PC on the laser end. Adhesive sealed quartz window for non-contact sampling. 5.4 mm working distance. Not for immersive use. This probe is compatible with the i-Raman Prime family 532 only.



BAC102-532-HT



# Accessoires optionnels

#### Order no. Description

### BWT-810000389 Raman Cuvette Holder for 9.5 mm measurement probe

The BCR100A Raman cuvette holder allows you to easily measure Raman spectrum of liquids and powders by attaching a Raman probe to the holder. This accessory part uses an internal mirror with a three-point precision locking mechanism for unmatched reproducibility, thereby increasing the Raman signal up to 3x higher than conventional cuvette holders. It is designed so that the probe shaft does not directly contact the cuvette and includes a light trap to reduce background fluorescence. The BCR100A is available in model versions for probes with a diameter of 9.5 mm or 12 mm and can be used with any standard cuvette of 12.5 mm x 12.5 mm outer diameter (1 cm path length) for sampling liquids or powders.



#### BWT-810000468 Connection cleaner

Cleaner for SMA905 and FC/PC connections.



#### BWT-810000469 Cleaner for ferrule end surfaces

FC/PC and FC/APC receptacle cleaner recommended for i-Raman Pro/Prime, STRam, QTRam. Do not use on SMA.

FRC





BAC151x-TRI tripod adapter for the BAC151x sampling system with Raman video microscope.



BWT-810000682 External rechargeable battery pack for portable Raman instruments

External Lithium-Ion battery that provides constant 12 VDC. (Compatible with the i-Raman-Plus, i-Raman Pro and i-Raman EX models).

EBP106



BWT-810000719 Power cord for EU power for use with portable Raman systems

Power cord for EU power for use with portable Raman systems.

**BWPC-EU** 



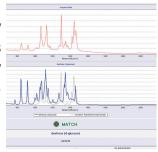
BWT-840000117 Raman Flow Cell (BAC160-SS)

Raman flow-through cell made of stainless steel, for inline Raman measurements of liquid samples by interfacing with standard laboratory probe (9.5 mm diameter; probe is not included in scope of delivery).



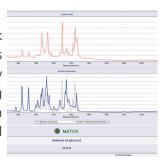


Data acquisition, material identification and reporting software for B&W Tek portable Raman spectrometers to rapidly identify or verify materials based on user-built libraries, proprietary B&W Tek and third-party libraries. Includes system performance tests. One user license provided. Free upgrades included within one year of purchase date.



#### BWT-840000127 BWID Pharma Raman ID Software

Data acquisition and material identification software for B&W Tek portable Raman spectrometers to rapidly identify or verify materials based on user-built libraries, proprietary B&W Tek and third-party libraries. Meets all the requirements of FDA 21 CFR Part 11, including system access security, audit trail of data activities, and system performance tests. One user license provided. Free upgrades included within one year of purchase date.



#### BWT-840000130 Immersion shaft for portable Raman instruments

Optional immersion shaft for BAC100/BAC102 Raman probes with an excitation wavelength of 532 nm or 785 nm. Equipped with a 76.2 mm long body made of 316L stainless steel with an outer diameter of 12.0 mm and a silica window that is sealed with an O-ring made of perfluoro rubber. Operating distance 5.0 mm in air. Can be used at -55 °C to 200 ° C. The seal is liquid-tight at low pressure (< 1 bar).



## BWT-840000131 Immersion shaft for portable Raman instruments

Optional immersion shaft for BAC100/BAC102 Raman probes with an excitation wavelength of 532 nm or 785 nm. Equipped with a 76.2 mm long body made of 316L stainless steel with an outer diameter of 12.0 mm and a sapphire-glass window that is sealed with an O-ring made of perfluoro rubber. Operating distance 5.0 mm in air. Can be used at -55 °C to 200 °C. The seal is liquid-tight at low pressure (< 1 bar).



Raman flow-through cell made of titanium, for inline Raman measurements of liquid samples by interfacing with standard laboratory probe (9.5 mm diameter; probe is not included in scope of delivery).



#### BWT-840000280 GemID Software

Data acquisition and identification software for the analysis of gemstones and minerals with B&W Tek portable Raman spectrometers. Includes Raman Spectral Library and images of more than 450 gemstones from Gem Expert and Japan Germany Gemmological Laboratory. One user license provided. Free upgrades included within one year of purchase date.



#### BWT-840000287 Vial Holder Adapter

Vial holder adapter for use with the BAC100/BAC102 lab-grade Raman Probe with 9.5 mm shaft diameter. Compatible with vials with a diameter of 15 mm. Shipped with 6 vials made from borosilicate glass (15 mm).



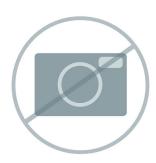
#### BWT-840000295 Vials for liquids, 15 mm in diameter

Borosilicate glass vials (diameter 15 mm), package of 6, with pouch.



Microscope objective, infinity-corrected, 10x, working distance (mm) = 16, focal length (mm) = 20, numerical aperture (NA) = 0.3.

RML110A



BWT-840000323 Video Microscope Objective, 20x (RML120A)

Microscope objective, infinity-corrected, 20x, working distance (mm) = 12, focal length (mm) = 10, numerical aperture (NA) = 0.4.

RML120A



BWT-840000325 Video Microscope Objective, 50x (RML150A)

Microscope objective, infinity-corrected, 50x, working distance (mm) = 9.15, focal length (mm) = 4, numerical aperture (NA) = 0.55.

RML150A



BWT-840000328 Video Microscope Objective, 100x

Microscope objective, infinity-corrected, 100x, working distance (mm) = 3.2, numerical aperture (NA) = 0.8, Focal length (mm) = 2.

RML1100A



Tablet holder compatible with all models of BAC100/BAC102 lab-grade fiber-optic Raman probe with 9.5 mm shaft diameter.



#### BWT-840000361 Handheld Laser Power Meter

Laser Power Meter, Pen Type, Calibrated. Range: 5 micro-Watts to 1 Watt. Used in OQ/PQ and annual certification laser power measurement.



#### BWT-840000395 Raman Probe Holder

Probe holder for use with B&W Tek's lab-grade Raman probes. Provides manual coarse and fine XYZ adjustments.



#### BWT-840000463 BAC151x probe adapter

BAC151x Probe Adaptor to connect B&W Tek Lab grade Raman probes to BAC151x Video microscope sampling system. Remove the standard shaft and distance regulator, to use the adaptor and connect the probe head to the video microscope. 3 adaptors per pack.





Replacement shaft for BAC100/102-532 Raman probe module made of standard stainless steel. Replacement shaft with adhesive-sealed fused-silica window. Working distance 5.4 mm. Shaft diameter 9.5 mm, shaft length 76.2 mm.



#### BWT-840000609 Enclosure for Raman sampling system

Enclosure for Raman sampling system (i.e. microscope, probe holder) used to eliminate direct ocular and/or skin exposure from the laser emission. The enclosure is ergonomically designed to facilitate sample loading and system operation. For use with 532, 785 and 1064 nm wavelengths.



#### BWT-840000679 Raman Zoom Lens (20-60 mm)

Zoom lens for our BAC100/BAC102 fiber-optic Raman probes. Working distance is adjustable from 20 mm to 60 mm. Suitable for a Raman excitation range from 500 nm to 850 nm.



#### BWT-840000680 Raman Zoom Lens (60-600 mm)

Long-working-distance zoom lens for BAC100/BAC102 fiber-optic Raman probes. Working distance is adjustable from 60 mm to 600 mm. Suitable for a Raman excitation range from 500 nm to 850 nm.





A telescope Stand-off lens for BAC100/BAC102 fiber-optic Raman probes. Wide zoom range for sample measurement ranges from 0.6 meters to 6 meters. Suitable for a Raman excitation range from 500 nm to 850 nm.



RTS202-VIS-NIR

#### BWT-840000843 Raman Gemstone Spectral Library

Raman Gemstone Spectral Library for BWID and portable Raman instruments with > 450 spectra from Gem Expert and from Japan Germany Gemmological Laboratory. Library supported in BWID Version 2.02 or higher.



#### BWT-840000847 Raman Explosives Spectral Library

Raman Explosives Spectral Library for portable Raman instruments including more than 180 spectra. Supported in BWID Version 2.02 and higher.

Note: This item may be subject to Export control to some territories.



#### BWT-840000962 Raman Video Micro-Sampling System (532 nm)

Video microscope sampling system for use with B&W Tek's lab and industrial Raman probes. Includes a 20x objective with a working distance of 16 mm. Offers manual rough and fine adjustment on the X, Y, and Z-axes, coaxial LED illuminator for target alignment, video camera for sample observation, and is compatible with standard microscope objectives. Probe not included, available separately. 532 nm configuration.

BAC151C-532





Video microscope sampling system for use with B&W Tek's lab and industrial Raman probes. Includes a 20x objective at a working distance of 16 mm. Offers manual rough and fine adjustment on the X, Y and Zaxes, coaxial LED illuminator for target alignment, video camera for sample observation, and is compatible with standard microscope objectives. Probe not included, available separately. Dual 532/785 nm configuration.



BAC151C-532/785

#### BWT-840000965 Raman Video Micro-Sampling Head (532 nm)

Video microscope sampling system head for use with B&W Tek's lab and industrial Raman probes. With coaxial LED illuminator for target alignment and video camera for sample observation. Compatible with standard microscope objectives. Probe not included, available separately. Objective lens not included, available separately. 532 nm configuration.



#### BWT-840000966 Raman Video Micro-Sampling Head (532/785 nm dual)

Video microscope sampling system head for use with B&W Tek's lab and industrial Raman probes. With coaxial LED illuminator for target alignment and video camera for sample observation. Compatible with standard microscope objectives. Probe not included, available separately. Objective lens not included, available separately. Dual 532/785 nm configuration.





High Throughput lab-grade fiberoptic Raman probe assembly cut-on start from 65 (up to 70) cm-1 and hand trigger; with hand trigger 105um diameter 0.22NA fiber for 532 nm excitation 300um diameter 0.22NA for Raman pickup, optical density >6; 1.5 m fiber length terminated in FC/PC on the spectrometer end and FC/PC on the laser end. Adhesive sealed quartz window for non-contact sampling. 5.4 mm working distance. Not for immersive use. This probe is compatible with the i-Raman Prime family 532 only.



BAC102-532E-HT

#### BWT-840001123 Bluetooth 1D barcode scanner

Bluetooth 1D barcode scanner for use with BWID software operating a portable Raman instrument



#### BWT-840001136 Vision Pharma 4.1

Vision Pharma is data acquisition and method development software solution for spectroscopic analysis and control of B&W Tek portable Raman instruments, Metrohm XDS laboratory and process NIRS instruments. A user-friendly graphical analysis interface enables a simple application of chemometric algorithms for creating identification, qualification, and quantification methods and running them in real-time. With Vision you can store, manage, reprocess and exchange data. Vision Pharma is complies with the US FDA's 21 CFR Pt 11 regulations for electronic signatures and records.





Vision is data acquisition and method development software solution for spectroscopic analysis and control of B&W Tek portable Raman instruments, Metrohm XDS laboratory and process NIRS instruments. A user-friendly graphical analysis interface enables a simple application of chemometric algorithms for creating identification, qualification, and quantification methods and running them in real-time. With Vision you can store, manage, reprocess and exchange data.



BWT-840001182 High-Throughput Raman Trigger Probe (532 nm) with 5m fiber length

High Throughput Lab grade fiberoptic Raman probe assembly with hand trigger 105um diameter 0.22NA fiber for 532 nm excitation 300um diameter 0.22NA for Raman pickup, optical density >6; down to 150 cm-1; 5.0m fiber length terminated in FC/PC on the spectrometer end and FC /PC on the laser end. Adhesive sealed quartz window for non-contact sampling. 5.4 mm working distance. Include one set of 5M Remote Interlock/Emission Indicator Plug. Not for immersive use. This probe is compatible with the i-Raman Prime family 532 only.



BAC102-532-HT-5M

#### BWT-840001204 Hastelloy immersion shaft for 532nm Raman probe

RIS100-HS-532-08: Hastelloy immersion shaft for BAC102/BAC100B Raman probes with excitation wavelength 532 nm. Features a 0.5" (12.7 mm) O.D. x 8" (203.2 mm) L Hastelloy C-276 shaft and a gold- sealed sapphire ball lens. Working distance 0.4 mm in air, 0.6 mm in water. Shaft operating temperature is up to 250 degrees C, pressure up to 4000 psi. Shaft must be purchased with B&W Tek Raman probe.



RIS100-HS-532-08



RIS100-SS-532-08: Stainless steel immersion shaft for BAC102/BAC100B Raman probes with excitation wavelength 532 nm. Features a 0.5" (12.7 mm) O.D. x 8" (203.2 mm) L stainless steel shaft and an epoxied sapphire ball lens. Working distance 0.5 mm in air, 0.8 mm in water. Shaft operating temperature is up to 200 degrees C, pressure up to 4000 psi. Shaft must be purchased with B&W Tek Raman probe.



RIS-SS-532-08

#### BWT-840001240 Polystyrene validation cap for ball lens probe shaftsIMPS-PCC

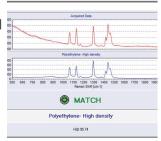
Polystyrene validation cap for system performance testing for ball lens probe shafts. Compatible with Raman fiber optic probes with a 0.5" O.D. shaft and a ball lens.

**IMPS-PCC** 



#### BWT-840001254 BWID Illicit and General Chemicals Library

BWID library of illicit materials includes drugs, TICs, TIMs, precursors, and general chemicals.



#### BWT-840001255 BWID CWA Library

Raman Chemical Warfare Agent (CWA) Library for BWID.





Metrohm Comprehensive USP Raman Library for BWID containing ~ 900 traceable certified items.



BWT-840001265 BWID Comprehensive Raman Library

BWID Metrohm Comprehensive RamanLibrary - More than 27,700 spectral entries of chemicals, minerals, organic chemicals, solvents, polymers, dyes and pigments, TICs, TIMs, inorganics and organometallics, personal care products, and illicit materials.

PTL-MCRL



BWT-840001305 BWID MCRL - Polymers and Polymer Additives

Metrohm Comprehensive Raman Library (MCRL) Polymers and Polymer Additives for BWID.



BWT-840001309 BWID MCRL - Dyes, Pigments, and Stains

Metrohm Comprehensive Raman Library (MCRL) Dyes, Pigments, and Stains for BWID.

