

SAMPLING KITS

If you are not sure where to start, check out PIKE Technologies' sampling kits. You will immediately find everything you need for the most basic FTIR experiments, and you will be able to collect your first spectrum in less than 30 minutes from the time the kit arrives.

The kits are carefully designed to include all necessary components. They eliminate guesswork and assure that you have everything you need for immediate productivity.

Premium Transmission Sampling Kit
Highest-performance, single reflection ATR and back-up accessories to do it all!

Standard Transmission Sampling Kit
Everything you need to run liquid and solid samples by transmission IR spectroscopy

Comprehensive Transmission Sampling Kit
Complete gas, liquid and solid sampling

Educational Transmission Sampling Kit
An economical assembly of FTIR sampling tools for transmission sampling

Valu-Line Kit
High-performance set of modern FTIR accessories addressing all solid and liquid sampling needs

Ultima Sampling Kit
Highest-performance, single reflection ATR and back-up accessories to do it all!

Premium Transmission Sampling Kit – All the Tools for Easy Preparation of Transmission Measurements of Liquids and Solids



FEATURES

- Complete kit for transmission FTIR sampling
- Pixie small hydraulic press for making KBr pellets
- Making mulls for solid samples
- Run liquid samples for qualitative and quantitative analysis

The Premium Transmission Sampling Kit is general purpose kit contains tools and materials for liquid and solid sampling. A demountable cell (drilled and undrilled windows with precision Teflon spacers, plus 2" x 3" standard cell holder) is provided for measurements of liquid samples. Viscous liquids can be measured directly as a thin film between the KBr windows. The kit includes a small bench top hydraulic press for the easy preparation of 7 mm KBr pellets. A mortar with pestle and Nujol™/Fluorolube® are provided for mull making – another popular method for preparation of solid samples. In addition, the kit contains a set of the most popular sample holders including the universal holder for polymer films, KBr pellet holder and PIKE disposable/storage cardboard cards for pellets and polymer films. For a complete product listing, please refer to the table below.

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
162-1010	Premium Transmission Sampling Kit <i>Includes Pixie hydraulic pellet press, sample preparation tools, mull liquids, cells, windows and cell holders required for preparation and analysis of solid and liquid samples</i>

INCLUDED PARTS AND MATERIALS

PART NUMBER	DESCRIPTION
160-8010	KBr Powder, 100 g
161-0510	Fluorolube, 1 oz
161-0500	Nujol, 1 oz
042-3035	Spatula, spoon
042-3050	Spatula, flat
161-5030	Mortar and Pestle, 35 mm
181-1400	Pixie Hydraulic Pellet Press
161-1010	7-mm Die Set
161-1011	7-mm Collar
161-1018	KBr Pellet Holder
161-6000	Finger Cots (12 ea.)
162-1100	Demountable Liquid Cell Assembly
160-1010	Window, KBr, 32 x 3 mm (6 ea.)
160-1015	Window, KBr, 32 x 3 mm, drilled (6 ea.)
162-1290	Teflon Spacers, assortment
161-0521	Syringe, 2 mL (2 ea. in kit)
162-3610	Press-On Demountable Liquid Cell Holder for 32-mm windows
162-5600	Universal Sample Holder*
162-5300	Magnetic Film Holder for 13-mm pellets and film samples
162-5400	Film Sampling Card, 20-mm clear aperture (10 ea.)*

* Note: Cell holders marked "*" fit all standard slide mounts, but due to their height may not allow for a complete sample compartment door closure on some smaller spectrometers. Please consult PIKE Technologies before placing an order.

Standard Transmission Sampling Kit – *Everything You Need to Run Liquid and Solid Samples by Transmission IR Spectroscopy*



This general purpose kit contains tools and materials for liquid and solid sampling. A demountable cell (drilled and undrilled windows with precision Teflon™ spacers, plus 2" x 3" standard cell holder) is provided for measurements of liquid samples. Viscous liquids can be measured directly as a thin film between the KBr windows. The kit includes a hand-operated press for the preparation of 7-mm KBr pellets. A mortar with pestle and Nujol™/Fluorolube® are provided for mull making – another popular method for preparation of solid samples. In addition, the kit contains a set of the most popular sample holders including a universal holder for polymer films, a KBr pellet holder and PIKE disposable/storage cardboard cards for pellets and polymer films. For a complete product listing, please refer to the table below.

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
162-1000	Standard Transmission Sampling Kit <i>Includes sample preparation tools, mull liquids, cells, windows and cell holders required for preparation and analysis of solid and liquid samples</i>

INCLUDED PARTS AND MATERIALS

PART NUMBER	DESCRIPTION
160-8010	KBr Powder, 100 g
161-0510	Fluorolube, 1 oz
161-0500	Nujol, 1 oz
042-3035	Spatula, spoon
042-3050	Spatula, flat
161-5035	Mortar and Pestle, 35 mm
161-1027	PIKE Hand Press for KBr pellets
161-1010	7-mm Die Set
161-1018	KBr Pellet Holder
161-6000	Finger Cots (12 ea.)
162-1100	Demountable Liquid Cell Assembly
160-1010	Window, KBr, 32 x 3 mm (6 ea.)
160-1015	Window, KBr, 32 x 3 mm, drilled (6 ea.)
162-1290	Teflon Spacers, assortment
161-0521	Syringe, 2 mL (2 ea. in kit)
162-3610	Press-On Demountable Liquid Cell Holder for 32-mm windows
162-5600	Universal Sample Holder*
162-5300	Magnetic Film Holder for 13-mm pellets and film samples
162-5400	Film Sampling Card, 20-mm clear aperture (10 ea.)*

* Note: Cell holders marked "*" fit all standard slide mounts, but due to their height may not allow for a complete sample compartment door closure on some smaller spectrometers. Please consult PIKE Technologies before placing an order.

FEATURES

- Complete kit for transmission FTIR sampling
- Make KBr pellets and mulls for solid samples
- Run liquid samples for qualitative and quantitative analysis
- Convenient padded carrying and storage case

Comprehensive Transmission Sampling Kit – Complete Gas, Liquid and Solid Sampling



FEATURES

- Complete sampling kit for analysis of solids, liquids and gas samples by transmission
- Make KBr pellets and mulls for solid samples
- Run qualitative and quantitative analysis of liquid samples
- Identify and quantify gas samples
- Convenient padded carrying and storage case

The Comprehensive Transmission Sampling Kit includes a 100-mm pathlength, 38-mm diameter gas cell, in addition to all the sample preparation and mounting tools described in the Standard Transmission Sampling Kit on the previous page. The cell body is made of Pyrex® glass and features straight-tube inlet and outlet ports with stopcocks. The gas cell comes with all necessary gaskets, two KBr windows and slide-mounted cell holder, and is designed for gas measurements at ambient temperature and normal atmospheric pressure.

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
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162-2000	Comprehensive Transmission Sampling Kit <i>Includes sample preparation tools, mull liquids, cells, windows and cell holders required for preparation and analysis of gas, solid and liquid samples</i>
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INCLUDED PARTS AND MATERIALS

PART NUMBER	DESCRIPTION
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160-8010	KBr Powder, 100 g
161-0510	Fluorolube®, 1 oz
161-0500	Nujol™, 1 oz
042-3035	Spatula, spoon
042-3050	Spatula, flat
161-5035	Mortar and Pestle, 35 mm
161-1027	PIKE Hand Press for KBr pellets
161-1010	7-mm Die Set
161-1018	KBr Pellet Holder
161-6000	Finger Cots (12 ea.)
162-5300	Magnetic Film Holder for 13-mm pellets and film samples
162-1100	Demountable Liquid Cell Assembly
160-1010	KBr Window, 32 x 3 mm (6 ea.)
160-1015	KBr Window, 32 x 3 mm, drilled (6 ea.)
162-1290	Teflon® Spacers, assortment
161-0521	Syringe, 2 mL (2 ea. in kit)
162-3610	Press-On Demountable Liquid Cell Holder for 32-mm windows
162-5600	Universal Sample Holder*
162-2200	Gas Cell, 100-mm pathlength, 38-mm diameter
160-1320	Window, KBr, 38 x 6 mm (2 ea. in kit)
162-5400	Film Sampling Card, 20-mm clear aperture (10 ea.)*

Note: Cell holders marked "" fit all standard slide mounts, but due to their height may not allow for a complete sample compartment door closure on some smaller spectrometers. Please consult PIKE Technologies before placing an order.

Educational Transmission Sampling Kit – An Economical Assembly of Sampling Tools



The Educational Sampling Kit contains all necessary tools for the analysis of gas, liquid and solid samples. It was designed as a low-cost alternative for busy teaching laboratories. The kit offers a 100 mm x 25 mm gas cell with straight, septa protected tubes, a bolt press for making KBr pellets and a 35-mm mortar and pestle. Please refer to the table below for the detailed list of all components.

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
162-3000	Educational Transmission Sampling Kit <i>Includes sample preparation tools, mull liquids, cells, windows and cell holders required for preparation and analysis of gas, solid and liquid samples</i>

INCLUDED PARTS AND MATERIALS

PART NUMBER	DESCRIPTION
160-8010	KBr Powder, 100 g
162-1100	Demountable Liquid Cell Assembly
161-0510	Fluorolube®, 1 oz
161-0500	Nujol™, 1 oz
160-1010	Window, KBr, 32 x 3 mm (6 ea.)
160-1015	Window, KBr, 32 x 3 mm, drilled (6 ea.)
042-3035	Spatula, spoon
042-3050	Spatula, flat
162-1290	Teflon® Spacers, assortment
161-0521	Syringe, 2 mL (2 ea. in kit)
161-5035	Mortar and Pestle, 35 mm
162-3610	Press-On Demountable Liquid Cell Holder for 32-mm windows
161-2500	Bolt Press for KBr pellets
161-2511	Wrench Set for bolt press (2 ea.)
162-2100	Gas Cell, 100-mm pathlength, 25-mm diameter
160-1133	Window, KBr, 25 x 4 mm (2 ea. in kit)
161-6000	Finger Cots (12 ea.)
162-5300	Magnetic Film Holder for 13-mm pellets and film samples
162-5400	Film Sampling Card, 20-mm clear aperture (10 ea.)*

* Note: Cell holders marked "*" fit all standard slide mounts, but due to their height may not allow for a complete sample compartment door closure on some smaller spectrometers. Please consult PIKE Technologies before placing an order.

FEATURES

- Basic sampling kit for transmission FTIR sampling
- Perform qualitative and quantitative analysis
- Economical analysis of solids, liquids and gases
- Convenient padded carrying and storage case

Valu-Line Kit – High-Performance Set of FTIR Accessories Addressing All Solid and Liquid Sampling Needs



FEATURES

- Combination of most widely used FTIR accessories:
 - Multiple Reflection Horizontal ATR
 - Diffuse Reflectance
 - 30-Degree Specular Reflectance
- Full range of sampling options and applications
- Complete set of auxiliary sample preparation tools for immediate productivity
- Pre-aligned, fixed-position optical designs offering reproducible, high-quality data
- High-performance accessories providing excellent sampling sensitivity
- Economical and logical addition to any FTIR spectrometer.
- Excellent starter kit for routine applications, research or teaching

The number of available FTIR accessories can be overwhelming. Sometimes, it is not easy to decide which accessory will do the job. An answer to this problem is PIKE Technologies' Valu-Line Accessory Kit. This kit, packaged in a durable and convenient storage case, combines the most often used and practical set of FTIR sampling accessories. It includes the following components:

HATR – Multiple Reflection Horizontal ATR

Designed to analyze liquid and semi-liquid samples, pastes, gels, films, soft powders and multiple solid materials. This accessory comes with trough and flat crystal plates to accommodate all types of samples. The HATR is carefully designed to provide excellent results with minimum effort. It can be easily placed in the sample compartment and locked into position on the sample compartment baseplate, or a standard slide holder.

EasiDiff – Diffuse Reflectance Accessory

An ideal accessory for the analysis of powders and intractable solids. With a set of convenient tools for solid sample preparation, this compact, high-performance accessory provides outstanding collection efficiency.

30Spec – Specular Reflectance Accessory

A great accessory for the analysis of thin organic films deposited on reflective surfaces and a myriad of surface coatings and surface treatments. The 30Spec is slide-mounted and comes with a set of three masks which allow for the isolation of small, predetermined spots on larger samples, and the analysis of small samples.

Please refer to the appropriate sections of the catalog for additional details about these accessories.

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
050-10XX	Valu-Line Kit Includes: HATR – combined trough and flat plate system, including 45-degree ZnSe crystal trough and flat plate, volatiles cover, powder press and sample clamp EasiDiff – diffuse reflectance accessory with two micro and two macro sample cups, EasiPrep sample preparation kit, alignment mirror, mortar and pestle, and KBr 30Spec – specular reflectance accessory with set of three masks for control of sampling spot size

Notes: Replace **XX** with your spectrometer's Instrument Code. [Click for List >](#)
Add -GE, -KR, -SI or -AM to the part number to substitute the following HATR crystal plates: Germanium, KRS-5, Silicon or AMTIR.

Ultima Sampling Kit – Highest-Performance, Single Reflection ATR and Backup Accessories to Do it All



FEATURES

- Complete kit for ATR, diffuse reflectance, and specular reflectance sampling techniques
- High-performance accessories eliminate tedious pellet making
- Analysis of liquids, solids, powders, polymers and thin film samples

In recent years, single reflection ATR measurements have become quite popular for two main reasons – they simplify sample preparation and reduce the complexity of traditional FTIR measurements. This is achieved through the reduction of the sampling area (smaller sample volume/size requirement), ease of cleaning and the introduction of more rigid, diamond-protected sampling interface, capable of withstanding higher pressures and harder samples. The single reflection ATR is capable of analyzing a wide variety of samples – including rigid solids and hard powders – which are difficult to achieve with a multi-reflection ATR. For these reasons, the single reflection ATR has gained the reputation of being a universal sampling device.

Other samples still need to be analyzed by other methods, especially when dealing with poor absorbers, some powders and films. For this reason, PIKE designed an accessory kit built around the MIRacle – Single Reflection ATR, and also included basic diffuse reflectance and specular reflectance accessories. This combination offers a complete range of sampling devices used in FTIR and covers a wide variety of sampling needs. The Ultima Sampling Kit contains the following accessories:

MIRacle – Single Reflection ATR

Designed to analyze a wide variety of solid and liquid samples. It offers a number of unique features including a universal sampling plate which accommodates liquids, solids and powders, a small sampling interface (1.8 mm) making the analysis of small and/or awkward samples easy, and interchangeable sampling plates. All the above options allow for the best selection of an appropriate spectral range, and a configuration which matches the optical, physical and chemical properties of analyzed samples. The patented optical design of the accessory offers the highest energy throughput and maximum sensitivity. The MIRacle in this kit is equipped with a pressure clamp and purge attachments.

EasiDiff – Diffuse Reflectance Accessory

An ideal product for the analysis of powders and intractable solids. With a set of convenient tools for sample preparation, this compact, high-performance accessory provides outstanding collection efficiency.

30Spec – Specular Reflectance Accessory

A great accessory for the analysis of thin organic films deposited on reflective surfaces and a myriad of surface coatings and surface treatments. The 30Spec is slide-mounted and comes with a set of three masks which allow for the isolation of small, predetermined spots on larger samples, and the analysis of small samples.

Please refer to the appropriate sections of the catalog to review the theory and detailed descriptions of kit components.

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
050-20XX	Ultima Sampling Kit Includes: MIRacle – single reflection ATR with ZnSe crystal, universal configuration for solid and liquid analysis, and high-pressure clamp EasiDiff – diffuse reflectance accessory with sampling tools, two micro and two macro sample cups, EasiPrep sample preparation kit, alignment mirror, mortar and pestle, and KBr 30Spec – specular reflectance accessory with set of three masks for control of sampling spot size
050-20XX-DI	Ultima Sampling Kit with Diamond ATR Includes: MIRacle – single reflection ATR with diamond/ZnSe crystal, universal configuration for solid and liquid analysis, and high-pressure clamp EasiDiff – diffuse reflectance accessory with sampling tools, two micro and two macro sample cups, EasiPrep sample preparation kit, alignment mirror, mortar and pestle, and KBr 30Spec – specular reflectance accessory with set of three masks for control of sampling spot size

Notes: Replace **XX** with your spectrometer's Instrument Code. [Click for List >](#)
Add -GE or -SI to part number 050-20XX to substitute Germanium or Silicon MIRacle crystal plates.

ORDERING TERMS, CONTACT INFORMATION AND GUARANTEE

PART NUMBERS AND PRICE

The PIKE price list includes accessories that may be used with a variety of makes and models of spectrometers. Please specify the part number and description when ordering, including your instrument type and model number. [Click here](#) for a list of spectrometer and spectrophotometer instrument codes. When placing an order, substitute these codes for the final two digits (XX) in the accessory part number.

PIKE Technologies is continually extending the accessory product range. If you are unable to find a required item, please contact us to discuss your needs. We will be glad to assist.

PAYMENT TERMS

Purchase Order Number, cash in advance, MasterCard and Visa are acceptable. Payment is net 30 days, and shipments are FOB Madison, WI USA. Freight charges are prepaid and added to your invoice. If you wish to pay freight charges, please specify this on your order. Prepayment is required for international customers.

INTERNATIONAL HANDLING FEE

For orders placed from outside the United States or Canada, a handling fee of \$40 will apply per order to cover the costs associated with the additional documentation and bank charges required for international shipments.

WAYS TO ORDER

Many products are available for purchase directly through our website. These items are marked on our website with a red shopping cart icon.

Please include the following information when placing an order: your name, phone number, product part number, quantity, ship to address, bill to address, purchase order number and spectrometer model on which the accessory will be used.

Orders may be placed via mail, phone, fax, e-mail or on our website. We accept Visa and Mastercard via phone and direct online purchases. For security purposes, do not send credit card information via e-mail. An electronic order form is available on our website (for P.O. Numbers only – do not use this form for credit card orders). There is no minimum order requirement. Please use the following addresses and phone/fax numbers when placing your orders:

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Madison, WI 53719
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(608) 274-0103 (FAX)
orders@piketech.com (E-MAIL)
www.piketech.com

DELIVERY

The delivery/shipment date is confirmed upon receipt of an order. Special requirements and custom accessories are subject to different lead times. Please contact us for price quotes and delivery information on these products.

GUARANTEE

All PIKE products are guaranteed to be free from defects in material and workmanship for a period of 12 months from the date of shipment. Should you be dissatisfied, or have any queries, please contact us immediately and we will promptly repair or replace the product at no charge.

PRODUCT RETURNS

Please contact PIKE to receive your Return Material Authorization (RMA) number if you wish to return any of our products. A restocking fee may apply. Customers are responsible for shipping charges for all returned products. For products under warranty, back-to-customer shipping charges will be covered by PIKE. Please do not return any products without obtaining the RMA number first.

TECHNICAL ASSISTANCE

PIKE Technologies offers comprehensive technical assistance. Please contact us via mail, phone, fax or e-mail with your questions.

INTERNATIONAL DISTRIBUTION

PIKE Products are available worldwide. Call or send us an e-mail and we will provide you with an address of the sales office closest to your location. All exports are handled in accordance with the US Export Administration Regulations.

PIKE ON THE WEB

Visit our web site to find out more information about new products, up-to-date PIKE news, pricing, and to see the latest copy of the PIKE Reflections Newsletter! www.piketech.com • info@piketech.com

Customer satisfaction is very important to all of us here at PIKE Technologies, Inc. We have hopefully made the ordering process very fast and easy for you. If you have any questions or concerns about our products or services, please don't hesitate to contact us. We will be happy to make adjustments to fit your needs.

Products and prices are subject to change without notification.

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FTIR AND UV-VIS INSTRUMENT CODES

When ordering a PIKE accessory, replace the **XX** or **XXX** portion of the product's part number with your spectrometer's instrument code below. For assistance, please contact a PIKE customer service representative at (608) 274-2721 or sales@piketechnology.com.

FTIR INSTRUMENT CODES (XX)

ABB Bomem

FTLA2000-100 (Arid Zone)	80
Michelson 100, MB Series	81
MB 3000	82

Agilent

Excalibur™, Scimitar™, FTS, 600-IR Series	10
Excalibur™, Scimitar™, 600-IR Series with recognition	13

Analect (See Hamilton Sundstrand)

Bio-Rad (See Agilent)

Bruker Optics

IFS™, Vector™, Equinox™ Series.	50
Tensor™, Vertex™ with recognition (Quick-Lock)	51

Buck Scientific

M500	65
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Digilab (See Agilent)

Hamilton Sundstrand AIT

Diamond 20	60
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Horiba

7000 Series	35
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Interspectrum

Interspec 200-X	90
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Jasco

300/600 Series	56
400	57
4000/6000 Series	58

JEOL

Winspec™ Series	46
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Lambda Scientific

Lambda FTIR 7600	66
Lambda FTIR 8600	64

Lumex

INFRA LUM FT-02, FT-08	67
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Mattson (See Thermo Electron)

Midac

M Series	30
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Nicolet (See Thermo Electron)

Oriel	95
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Optical Table

	99
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PerkinElmer

1700 Series	70
Spectrum™ GX, 2000	71
Spectrum BX / RX, 1600, Paragon 1000	73
Frontier, Spectrum One, 65, 100, 400 with recognition	74
Spectrum Two with recognition	75

Shimadzu

8300, 8400 Series, IRPrestige™-21, IRAffinity-1s	15
IRPrestige™-21, IRAffinity-1s with recognition (QuickStart)	16
IRTracer™-100	18
IRTracer™-100 with recognition	19

Thermo Electron / Nicolet / Mattson

Infinity, Galaxy, RS Series	20
Genesis™, Satellite, IR 300	21
Impact™ 400, Magna, Protege™, 500 / 700 Series	40
Avatar™, Nexus™, Nicolet™, iS™10, iS™50	40
Model 205/210	41
Nicolet iS™5	42
Avatar, Nexus, Nicolet Series with recognition (Smart)	47

Varian (see Agilent)

UV-VIS INSTRUMENT CODES (XXX)

Agilent/Varian

Cary 50	100
Cary 60	111
Cary 100, 300	110
Cary 4000, 5000, 6000i	120

Jasco

600 Series	600
Optical Table	999

PerkinElmer

Lambda 650, 750, 850, 950 and 1050	700
Lambda 25, 35, 45	730

Shimadzu

1600 and 1700	200
1800 Series	210
2600	240
3600	220

Thermo Fisher Scientific

Evolution 300/600	400
Evolution 200	410

HELPFUL LINKS

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