

Clinical Chemistry

ENVOY 500+

*Delivering proven
results in clinical
chemistry*



VitalScientific
Diagnostics for Life

Why choose the Envoy 500+?

► Performance matters



Faster test results

With the Envoy, you receive test results faster than almost any other benchtop chemistry system on the market, allowing you to make your treatment decisions sooner.

Cost Savings

The Envoy 500+ was designed to deliver the performance of large floor model analyzers but provide the cost efficiency of a benchtop. From reusable glass cuvettes to low maintenance, the Envoy 500+ saves your laboratory money.

Room to grow

No other benchtop chemistry system on the market provides the throughput and flexibility of the Envoy 500+. When your laboratory needs to grow, the Envoy 500+ will be able to handle the new workload.



► Support you can count on

VitalScientific's commitment to providing the best service and support in the industry continues with the Envoy 500+. When you purchase an Envoy 500+ you receive a 1 year warranty which provides you with unlimited technical support and on-site service calls as needed, as well as an annual preventative maintenance visit.

Newly featured remote diagnostics allows for quick and easy troubleshooting to maximize uptime. System concerns are frequently resolved on-line and in real time, often without the need for an on-site visit.



► Highest quality reagents

The Envoy 500+ reagents, manufactured by VitalScientific, are liquid-stable, ready to use and referenced to industry standards. This ensures quality results, maximum performance, and the best overall value. The Envoy 500+ reagents also feature barcoded labels, allowing the Envoy to efficiently identify each reagent.



All the features you need.

► Software



Touch Screen

The Envoy 500+ has a built-in LCD touch screen and is driven by the Windows® operating system. This provides greater ease of use and space savings by eliminating a bulky external monitor and CPU.

Quality Control

Quality Control results are stored in memory and are easily displayed on the screen. QC can be evaluated using up to six Westgard rules and graphs can be viewed or printed using either the theoretical or calculated means.

Pre-Programmed Parameters

The Envoy reagent application parameters are pre-loaded into the software, saving you time and eliminating the possibility of data entry mistakes.



► Reagent Handling

Large Capacity

The Envoy 500+ holds up to 40 individual Envoy reagents (mono or dual), providing a longer walk-away operation.

Refrigerated Reagent Tray

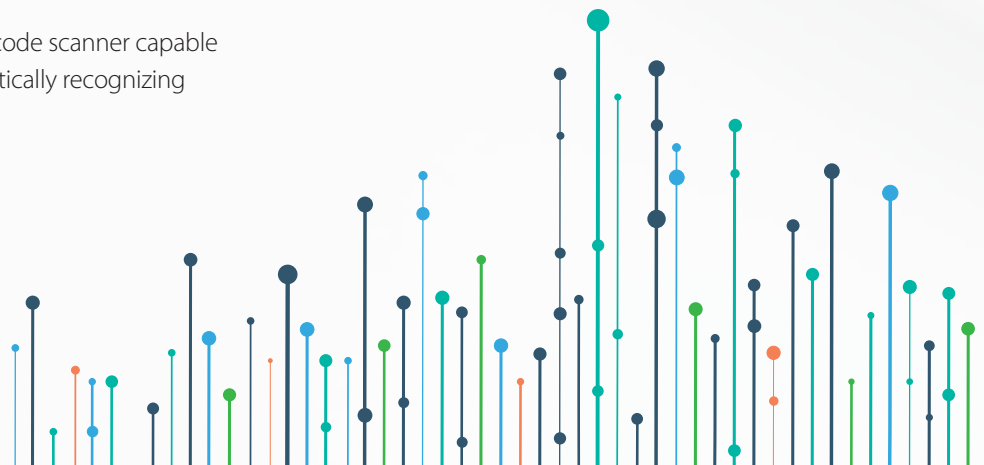
Onboard refrigeration and storage ensures reagent stability, which increases reliability of results while lowering laboratory costs.

Continuous Inventory Monitoring

Continuous inventory monitoring enables the operator to know the number of tests remaining for each reagent, minimizing waste.

Positive Reagent Identification

The reagent chamber contains an infrared barcode scanner capable of scanning Envoy barcoded reagents, automatically recognizing reagent position and lot expiration intervals.



▶ Sample Handling

Sample Wheel

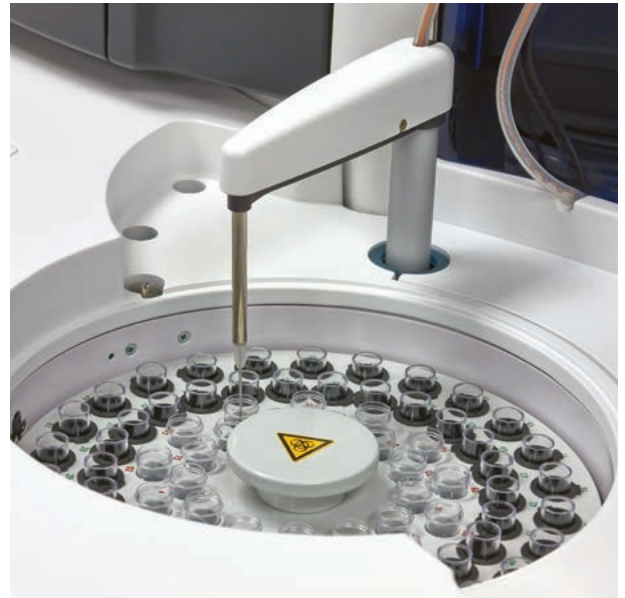
The Envoy 500+ sample wheel has 52 positions available for patient samples and 26 for calibrators and controls, providing your laboratory high throughput capability. Primary tubes or sample cups can be used, providing the testing flexibility you need.

Clot and Liquid Sensor Detection

Clot and liquid sensor detection prevents reporting of invalid results from insufficient and difficult samples. This ensures accurate results and proper treatment decisions.

Positive Sample Identification

The sample chamber contains an infrared barcode scanner, capable of scanning your patient barcodes, eliminating the need to manually enter patient information and reducing the risk of sample errors that can cost you time and money.



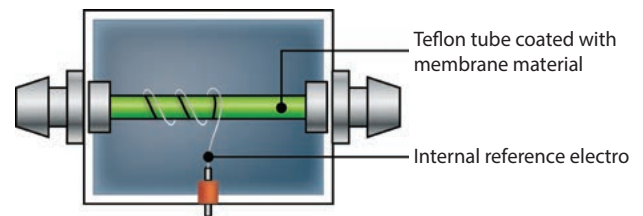
▶ Dry ISE

Dry Electrodes

The Envoy 500+ electrodes have a permanent gel which limits routine priming with ISE reference solutions. Because they can be left dry when not in use, it reduces reagent consumption and costs.

Four Parameters

The ISE system has four electrodes, Na⁺, K⁺, Cl⁻ and CO₂, providing a complete test panel without adding an enzymatic procedure or using a traditional 'wet' electrode. This significantly reduces costs and maintenance time, while increasing reliability of results.



Ion Selective Electrode

▶ Highest quality reagents

Glass Cuvettes

The Envoy 500+ contains 34 reusable glass cuvettes that are automatically washed on board, which eliminates the cost of expensive disposable cuvettes.

Increased Walk-away Time

The reusable glass cuvettes also provide your lab longer walk-away time than a system using disposable cuvettes, which requires you to return to the instrument to reload cuvettes on a regular basis.



TEST MENU

General Chemistry Assays

Albumin
Bilirubin, Direct
Bilirubin, Total
Calcium
Creatinine
Glucose
Iron, Total
Magnesium
Phosphorus
Protein, Total
Urea Nitrogen (BUN)
Uric Acid

Enzyme Assays

Alanine AminoTransferase
Alkaline Phosphatase
Amylase
Aspartate Transaminase
Creatine Phosphokinase
Gamma Glutamyl Transferase
Lactate Dehydrogenase
Lipase

Special Chemistry Assays

Hemoglobin A1c

Lipid Assays

Direct LDL
Triglycerides
Direct HDL
Cholesterol

Electrolyte Assays

Carbon Dioxide
Chloride
Potassium
Sodium

User-Defined Assays*

Apolipoprotein A1
Apolipoprotein B
Carbamazepine
CRP Wide Range
CRP High Sensitivity
Cystatin C
Digoxin
Ferritin
Fructosamine
IgA
IgG
IgM
Microalbumin
Phenobarbital
Phenytoin
Theophylline
UIBC
Valproic Acid

TECHNICAL SPECIFICATIONS

OPERATIVE METHOD:	Random access
KIND:	Discrete
ASSAY METHODS:	Clinical chemistry and immunoturbidimetry
ISE MODULE:	K, Na, Cl, CO ₂
TEST MODES:	routine, batch, STAT, profiles
TESTS ON-LINE:	40 refrigerated reagents (mono or dual)
PROGRAMMABLE TESTS:	500 single or double reagent
SPEED:	300 tests/hour, ISE module 190 test/hour
SAMPLE RERUN AND DILUTION:	Automatic
CALIBRATION AND CONTROLS:	Automatic
READING:	Direct reading in 34 optical glass cuvettes
SAMPLE TRAY:	78 positions: 52 samples and STATs, 26 STD and controls. Primary tubes and/or sample cups
BARCODE READER:	Separate barcode readers for samples and reagents
SAMPLE VOLUME:	From 1 to 100 µl
REAGENT VOLUME:	From 1.0 µl to 470 µl
DIMENSIONS:	40 x 27 x 23 inches. Vacuum pump - 8 x 8 x 11 inches (W x H x D)
WEIGHT:	209 lbs. Vacuum pump - 10 lbs.
COMPUTER:	Industrial MB Pentium >650MHz IBM compatible
CD ROM:	> 48x
HARD DISK:	>10 Gb
USB DRIVES:	8 USB Ports
MONITOR:	Color LCD TFT with touch screen
INTERFACE:	Two serial port RS232C, USB, LAN + VGA
PRINTER:	Inkjet, color, IBM compatible
KEYBOARD AND MOUSE:	IBM compatible
OPTICAL SYSTEM:	Static photometric group (Biotecnica patented)
LIGHT SOURCE:	Halogen lamp 12V - 35W
FILTERS:	340-380-405-436-480-510-546-578-630-700
OPTICAL PATH:	7 mm ± 1%
PHOTOMETRIC LINEARITY:	From 0 to 2.0 Abs ± 1%; from 2.5 to 3.0 Abs ± 2%
PHOTOMETRIC SENSITIVITY:	0.001 Abs
NOISE:	± 0.0005 at 2.000 Abs
WATER TYPE:	Reagent Grade water and surfactant
WATER CONSUMPTION:	1 liter/500 tests
WORKING TEMPERATURE:	From 18 to 32°C
HUMIDITY:	From 10 to 90%
INCUBATION TEMPERATURE:	30, 32 and 37°C ± 0.1°C. Accuracy ± 0.2%
REFRIGERATION TEMPERATURE:	5 -15°C (room temperature 25°C)
VOLTAGE:	Universal 110-240 VAC with PFC
POWER CONSUMPTION:	590 Watt

* Reagents for user-defined assays are available from third-party manufacturers. VitalScientific does not manufacture or sell these reagents and performance claims are established by the respective manufacturers.



▶ VitalScientific

VitalScientific is a global leader in benchtop Clinical Chemistry, with over 50,000 analytical systems delivered worldwide. Our Scalable Systems prioritize reliability and analytical quality, empowering better medical decisions closer to the patient. With 20+ years servicing Physician Office Laboratories (POL), clinics, and small reference labs in the USA, we're renowned for excellent product quality and user-friendliness. ENVOY® 500/500+ and Selectra Pro Series offer high-quality solutions, including dedicated barcoded reagents, calibrators, controls, and consumables, supporting laboratories in delivering top-tier healthcare.

ENVOY500+ is available in the USA only. To explore VitalScientific products available in your country, please contact your local sales representative.

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VitalScientific
info@vitalscientific.com

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