

Atomic Absorption

# AAAnalyst 200 atomic absorption system



finally, a **better** way to do **AA**

expect **more** from **flame AA!**



## QUICK GLANCE

### Expect more from flame AA

- Intuitive touch screen is easy to use, no training required
- Snap-in, snap-out parts are easily replaced so there is no down time
- Rugged design can handle the toughest matrices
- PerkinElmer reliability and performance at a price that's easy to afford

You can expect more from your flame Atomic Absorption (AA) system than ever before. The AAnalyst 200 provides a no compromise approach to Atomic Absorption—from sample introduction to results. Confusing keypads and tiny screens have been replaced with a large full-color, easy-to-use touch screen, so virtually no training is required.

The modular plug and play design ensures easy maintenance and allows you to simply switch out components for quick service, saving time and getting your instrument up and running right away.

The AAnalyst 200 dramatically changes the way instruments are used and serviced, while

maintaining all of the performance users have come to expect from PerkinElmer. The system incorporates innovations typically only offered on expensive research-grade instrumentation. True double-beam Echelle optics combined with the power of a solid-state detector delivers performance levels not typically available with flame AA. And, fully automated gas controls and integrated safety checks yield the safest flame AA system available today.

The AAnalyst 200 is easy to use and easy to own, making it the perfect choice for any laboratory needing a reliable, trouble-free solution for metals analysis.



# intuitive touch screen makes operation simple!

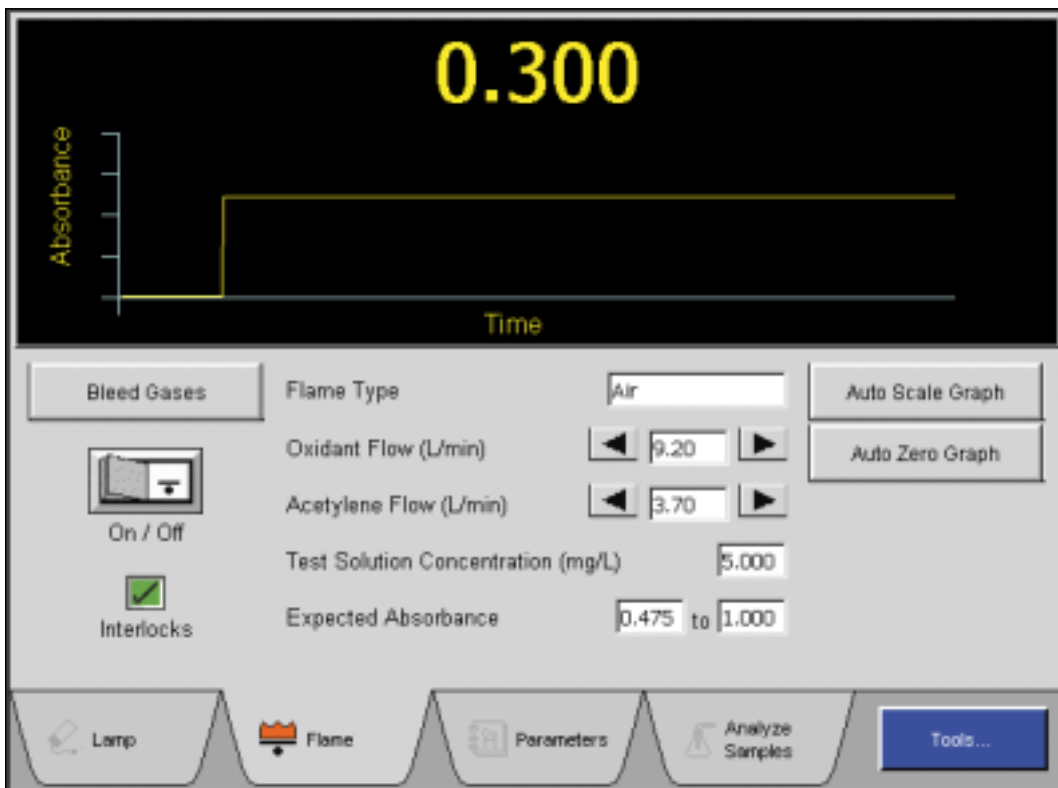
## Just touch... and GO

The AAnalyst 200 features a new touch-screen user interface bringing a new level of flexibility and unparalleled ease of use to flame AA. Operators no longer have to settle for hard-to-read systems with numeric or small monochrome displays, which provide little real information.

The large, color LCD touch screen puts AA analysis at your fingertips, literally. Simply touch the built-in screen to choose instrument options, and you are on your way. Leveraging the power of Microsoft Windows CE®, the touch-screen interface brings many new features never available before on low-cost AA systems. This intuitive touch screen makes running samples easier than ever before.



Lamp set up page automatically sets up the instrument when using a coded Lumina lamp.



Simply touch the Flame ignite button, the fully automated gas box ensures safe operation.

# it's never been so easy!

## Set up has never been easier

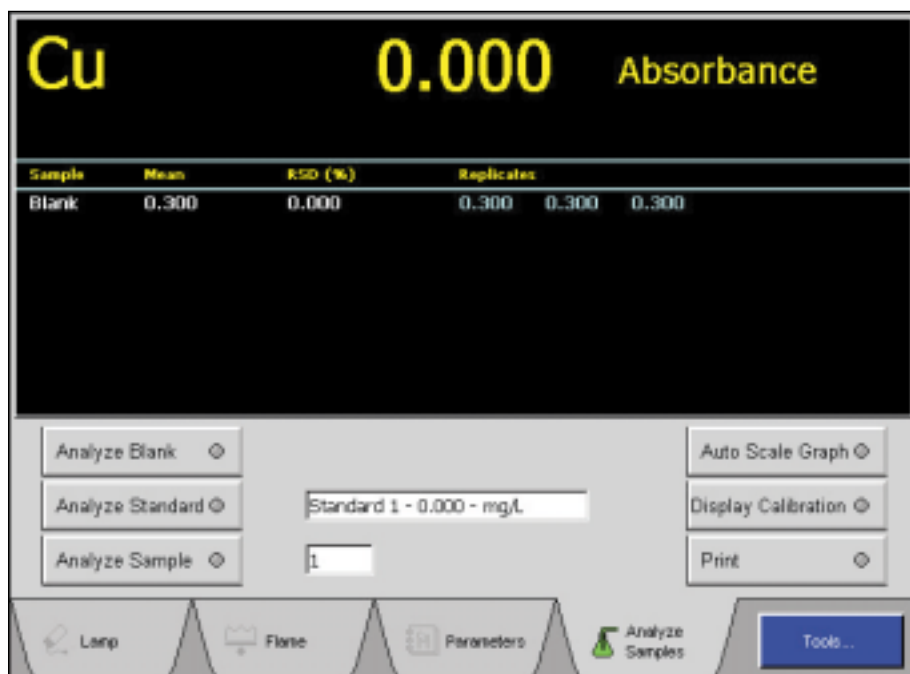
The AAnalyst 200 instantly recognizes PerkinElmer's cableless Lumina™ lamps and sets-up the wavelength, slit and lamp parameters. Then the built-in lamp turret automatically aligns the lamp. Simply touch the flame ignite button, recall a stored method (or use the built-in cookbook to set up a new method) and start the analysis.

The system allows users to select up to eight calibration standards and seven different calibration algorithms. Samples can be analyzed manually, or you can fully automate the analysis with a PerkinElmer autosampler. And, since the software is based on our popular WinLab32™ operating software, switching from the AAnalyst 200 to other PerkinElmer AA or ICP instrumentation is effortless.

We even built in support for electrodeless discharge lamps (EDLs). EDLs provide much higher light output and lifetime when compared to conventional hollow cathode lamps. They are ideal for the analysis of certain elements in the low UV range such as Arsenic or Selenium.



Easily set up the parameters and sample handling options for the analysis.



The Analyze Samples page provides an easy way to manually analyze samples or add an autosampler to completely automate the analysis.

# we speak your language!

## Work in your language

The AAnalyst 200 comes with multiple language capability so you can work in your language of choice. And, you can easily switch to different languages. This ensures your entire staff is at ease operating the system. So whether your lab personnel speak English, Spanish, French, Russian, Japanese, German, Italian or Chinese, the AAnalyst 200 makes perfect sense to everyone.



Multiple languages make the AAnalyst 200 easy to use anywhere in the world.

## Tools you need

The Tools button on the touch screen provides access to powerful options that make the AAnalyst 200 even easier to use. A built-in cookbook has recommended conditions for each element. New methods can easily be created and stored. If your lab uses the same method each day, then all the user has to do is recall the stored method, and the instrument will automatically be ready to run. The service and diagnostics sections are used to help troubleshoot instrument problems and maximize uptime. Software upgrades can be downloaded from the Internet and installed automatically so that your AA never becomes obsolete.



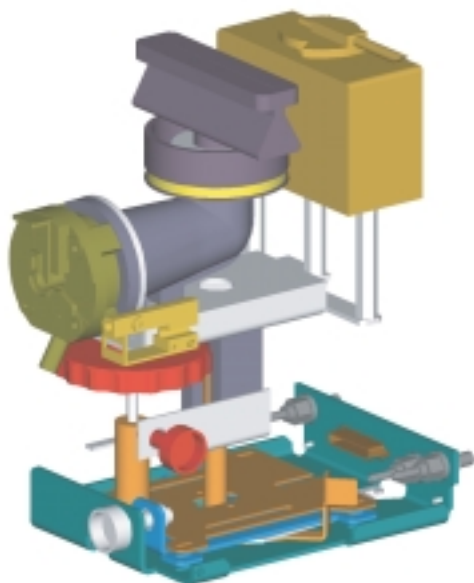
The Tools page provides powerful features that make the AAnalyst 200 easy to use.



# easy maintenance and modular design ensures **maximum uptime**

## Designed for easy maintenance

The sampling compartment is extremely spacious (25cm wide by 25cm deep) allowing easy access when you need to change burner heads or nebulizers. The burner system uses a new innovative quick-lock design. The components simply glide and lock into place in seconds. All connections are made automatically so tedious manual disconnection of gas lines to remove the spray chamber and nebulizer is eliminated. There are no fittings to tighten or connections to make and most importantly no tools are required.



Improved sample introduction system and burner assembly makes operation safe and easy.

## No down time

The AAnalyst 200 makes troubleshooting and repair easy. All electronics are located in a single, user-replaceable module. The operator can just slide the module out from the front of the instrument and replace it with a new one. Instrument operators can replace most parts quickly and easily without a service visit. In addition, integrated diagnostics can be used to help quickly troubleshoot the system. All error messages are clearly written to provide useful troubleshooting information, eliminating cryptic numeric codes. These capabilities ensure maximum uptime and reduces the cost of ownership.



User-replaceable modules simply slide out for easy replacement.

“With the AAnalyst 200 touch screen training will be very easy.”



# designed to handle the toughest matrices

## Rugged design for real-world applications

Whether your AA is in a state-of-the-art laboratory or a remote mining location, the AAnalyst 200 ensures dependable operation. The entire optical system in the AAnalyst 200 is sealed in a protective housing to shield it from corrosive environments. The optical system can also be purged to ensure optimum performance in extremely dirty environments.

The PerkinElmer burner is equally user friendly. The corrosion-resistant solid titanium burner heads install easily in the burner chamber, while a fail-safe mechanism ensures that the heads are always properly restrained without the need for hold-down cables. No tools are required to assemble or disassemble the burner system for routine maintenance. For convenience, a large corrosion-resistant tray is included that can accommodate a wide variety of sample vessels. The tray is detachable and mounts quickly and easily on the front of the instrument.

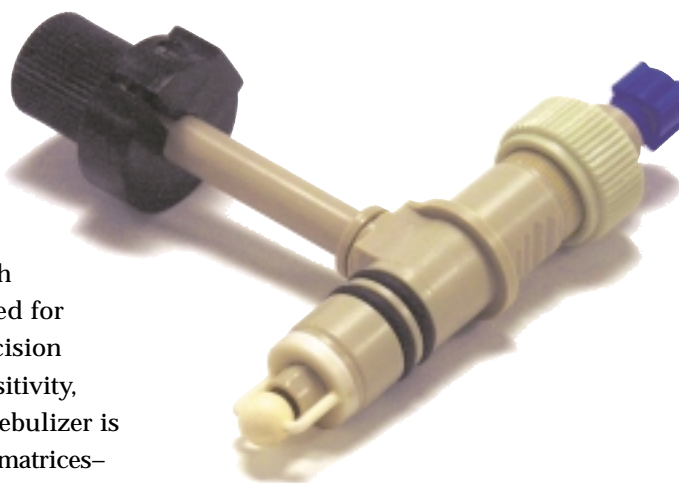
## Worry-free sampling

An inert polymer spray chamber provides superior performance for analysis of corrosive and high solids matrices. The spray chamber is manufactured from a high strength composite, which eliminates the need for pressure relief devices. The high precision nebulizer maximizes stability and sensitivity, even for the toughest matrices. The nebulizer is adjustable so a wide variety of sample matrices—aqueous or organic, acids or bases, dilute or concentrated—can be analyzed under optimum conditions. Whatever your application, the AAnalyst 200 provides trouble-free operation.

## Safety first

The entire instrument is not only easy to use and maintain, it also includes safety features normally found only on top-of-the-line AAs. The fully automatic gas box is standard on every system, providing the highest level of safety available on any flame AA. The system automatically recognizes which burner head is installed and adjusts the gas settings correctly for the type of flame used, providing worry-free and safe operation.

The AAnalyst 200 continuously monitors critical components, including burner, flame ignition, gas pressure and flow rates, drain status, and many others. If any system check indicates an unsafe operating condition, the flame is automatically extinguished. When nitrous oxide is used, the gas box will automatically light the flame under air-acetylene conditions and properly switch to nitrous oxide and adjust the gas flows to the proper levels for safe operation.



New nebulizer is designed to handle the toughest samples.

# the performance you expect

## Combining double-beam optics with a solid-state detector improves performance

The AAnalyst 200 features the first true double-beam Echelle optical system used in an AA. True double-beam systems compensate for changes that may occur in lamp intensity during an analysis. The system ensures a more stable baseline and improved performance—precision and detection limits—plus simpler operation. Compared to pseudo double-beam systems offered in other systems, which move an optic or the burner head, the AAnalyst 200's true double-beam system compensates for any drift multiple times per second rather than only once between each sample.

At the heart of the high performance optical system is a unique solid-state detector designed to provide high quantum efficiency in the UV region. When combined with the high-light throughput of the Echelle optical system, even “difficult” elements such as As and Ba can be measured with excellent signal-to-noise ratios. Plus, using a solid-state detector means that no expensive photomultiplier tubes will ever have to be replaced, once again lowering the cost of ownership.

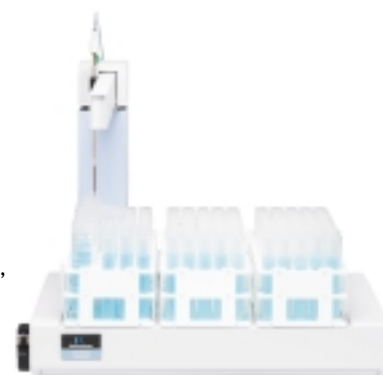
## Install, verify and go

The AAnalyst 200 comes out of the box ready to run samples. You won't need to schedule a service visit because you can do it yourself using the easy self-installation\* and verification instructions. It is as easy to install as a laser printer. In just a few minutes, you'll be running the optional Verification Test kit, which checks the system to ensure correct installation. The

\*Not available in all areas.

optional Verification Test kit includes everything you need, including test solution, verification method, and lamp. No more waiting to use your new equipment, just install and go!

Additionally, the Verification Test kit can also be used at any time to confirm the AAnalyst 200 is providing optimal performance. This process even helps your lab comply with internal and external GLP procedures.



AS-93plus autosampler for fully automated analysis.

## Providing integrated solutions for your application

Whatever your needs, you can trust PerkinElmer, the leader in inorganic analysis, to provide you with the right tools for the job. A variety of accessories designed for specific types of analysis are available for the AAnalyst 200. The accessories simply plug in and are automatically recognized by the system when you turn it on.

For automated operation, add the AS-90plus or the AS-93plus autosampler. PerkinElmer autosamplers come with a self-rinsing sampling probe and the flexibility to select from three sample tray types.

The MHS-15 Mercury/Hydride system can adapt your AA for determination of Hg and hydride-forming elements.



MHS-15 Mercury/Hydride system offers superior detection limits for hydride forming elements.

# PerkinElmer, Inc.

PerkinElmer Instruments is part of the PerkinElmer, Inc. family, which also includes Optoelectronics and Life Sciences.

## Expect MORE from the LEADER in atomic absorption

With over 40 years experience and a product line that includes flame AA systems, high performance graphite furnace AA systems, flexible ICP-OES systems, and the most powerful ICP-MS systems; PerkinElmer is the undisputed leader in inorganic analysis. We have placed over 40,000 systems throughout the world, performing inorganic analyses every hour of every day. With the largest technical service and support staff in the industry and a solid reputation for quality products and service, the AAnalyst 200 Flame Atomic Absorption spectrometer delivers more than you would expect.

## Whatever you're looking for, we've got it

PerkinElmer Instruments is a world leader in chemical analysis and imaging. Our Analytical Instrument technologies serve the fast-evolving pharmaceutical, chemical, environmental and

semiconductor industries, providing integrated solutions—from sample handling to interpretation and communication of test results.

As one of the best known brands in research, analysis and testing, ours was probably the first analytical instrument you ever used. In addition to our AA systems, we offer a broad range of solutions in Luminescence, UV-Vis, NIR, GC, GC/MS, HPLC, ICP, ICP-MS, Thermal Analysis, FTIR and LIMS. There are over 60 years of experience built into every product we make. So, for leading edge R&D and demanding QA/QC, you get the speed, accuracy and reliability you seek—for the productivity you need.

Our service and support people are located in 125 countries throughout the world and are factory trained. Compliance doesn't get any easier than with our software, including 21 CFR Part 11 technical compliance on many products. And online consumables and accessories ordering lets you get your hands on what you need fast.

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