

## ENDOSCAN-V™ AND MICROTREND SOFTWARE

Our instrumentation and software are important elements in our comprehensive range of products to improve the quality and proficiency of lab testing programs. Charles River Laboratories' kinetic instrumentation and software products are designed specifically for the LAL laboratory and provide a wide variety of options to meet a range of testing needs.

### Kinetic Software

Charles River's software package includes EndoScan-V™, 21 CFR Part 11 compliant endotoxin measuring software, and Microtrend™, a database trending software specific for LAL testing. This unique software package is compatible with a variety of microplate and tube readers.

### Endosafe® EndoScan-V™ Software

EndoScan-V™ has been verified and validated to be consistent with FDA requirements. It performs the requisite calculations and creates batch reports for product release. For added protection, it generates secure data files and audit trails on all actions involving files and test data. The program was designed with flexible configuration capabilities for networking and performance options for gaining operational efficiencies.

#### Features of EndoScan-V™

- Click and drag functions for fast and easy template setup
- User-defined database for selection of validated test parameters
- Help section with regulations, user manual, and published endotoxin limits
- Flexible exporting function from supported readers that facilitates interfacing with trending software, Excel™, LIMS, and centralized databases
- Enhanced security features
- Installational Qualification (IQ), Operational Qualification (OQ), and Performance Qualification (PQ) packages available
- Available in English, French, and German

### Endosafe® Software

	Code
EndoScan-V™ endotoxin measuring software	M1200
EndoScan-V™ validation package	TS600
Microtrend database trending software	M804
Microtrend software validation package	TS1000

### Endosafe® Microtrend Software

Microtrend is the next generation data-trending package from Charles River Laboratories. Microtrend leverages the power of Structured Query Language (SQL) to provide a comprehensive trending tool that tracks and trends LAL test data. Microtrend can be tailored to meet a range of objectives, from creating simple and complex queries to distributing and displaying illustrated results across a network to facilitate an in-depth review of available data. The software works in conjunction with EndoScan-V™ 3.1.4 or higher to organize and analyze data. Data from EndoScan-V™ is exported directly to Microtrend for analysis. EndoScan-V™ provides additional fields to allow accessory materials and test samples to be tracked and queried by Microtrend.

#### Features of Microtrend

- Compiles, organizes, and analyzes historical LAL testing data
- Eliminates the need to input data into a spreadsheet program for analysis
- Allows viewing of imported data over a period of time to observe trends in production
- Monitors results at the system level or isolates subsystems for detailed analysis
- Trends standard curve data by reaction times or by back-calculated endotoxin values
- Monitors proficiency of analysts



## EndoScan-V™ and Microtrend Software

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## Robotic System

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### Robotic System

Charles River Laboratories now offers two robotic systems designed to meet the demands of the LAL laboratory for increased throughput and decreased analyst variability. These versatile systems come in different sizes and have a variety of components available to meet our customers' testing needs. The standard package is a semiautomated system that includes a Tecan™ Freedom EVO™ robotic sample processor with templates customized by Charles River according to customers' SOPs.

The second package is a completely automated robotic system designed specifically for the LAL assay. This package includes the Tecan™ automated robotic system with custom scripts, a robotic arm, and fully integrated endotoxin measuring software for a totally automated LAL robotic system. The Tecan™ Freedom EVO™ series platform for robotic liquid handling has been designed to meet the needs for flexibility and expansion.

### Features of Endosafe® Robotic System

- Increased sample throughput
- Reduced assay variability
- 3D simulator previews assay in real time
- Simple to use, with drag and drop EVOware software
- Three worktable sizes for different throughputs
- Advanced pipetting precision
- Versatile system with a variety of robotic arms available with flexible configurations
- Hardware is field-upgradeable, allowing for expansion as needed
- Liquid handling, robotic arm, and P & P arm have separate electronics, allowing independent control
- Available with a 3-year warranty
- New safety features for improved sample containment, process safety, and test security
- 21 CFR Part 11 compliant software on a Windows XP™ platform

### Robotic System

	Code
Automated robotic system with custom scripts	MG200
Total Endogration robotic system	MG400
Automated robotic system with custom scripts	
Robotic arm	
Integrated software package	



*Charles River's automated system includes the Freedom EVO™ robot with an open platform for a wide range of applications and throughput requirements.*



## Endosafe® Plate Readers

Charles River's LAL reagents and software are compatible with several plate and tube readers. The plate readers are compact, multiuse spectrophotometers that offer superior temperature uniformity and excellent optical performance. The readers offered, manufactured by Tecan™ and Bio-Tek® Instruments, both world leaders in the area of diagnostic equipment, are capable of running kinetic and end-point LAL assays, as well as general applications such as ELISAs.

Charles River provides technical support for our plate readers, including on-site annual calibration with a service contract agreement and on-site user training.

## Endosafe® Temperature Logger

The Endosafe® Temperature Logger (ETL) is used for the validation of temperature uniformity in incubating microplate readers.

The ETL makes it possible to accurately validate temperature uniformity within the microplate chamber of a spectrophotometer, replacing the cumbersome method of attaching thermocouples to the microplate wells. With the ETL, the reader drawer can be closed for more precise readings.

### Advantages of the ETL

- Five embedded temperature sensors measure temperature distribution
- Sensor accuracy to +/- 0.1°C
- Compliance with 21 CFR Part 11 guidelines
- Multiple interface capabilities, including RS232 and USB
- Effective with Tecan™ and Bio-Tek® plate readers
- ETL package includes temperature data-logging software, microplate, interface connections, software operating manual, and a certificate of calibration

# Plate Readers and Endosafe® Temperature Logger

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## Plate Readers and Accessories

	Code
Tecan® incubating microplate reader	MS200
Bio-Tek® incubating microplate reader	M200
QC-Pac 2 calibration system	MS400
Bio-Tek® calibration plate	M400
Qualification of reader/software	TS500
On-site training of reader/software	TS400
Microplate stand	M1000
Marking template for 96-well plate	M1100
Endosafe® Temperature Logger (ETL)	MT400