diagnosys

leading the wave

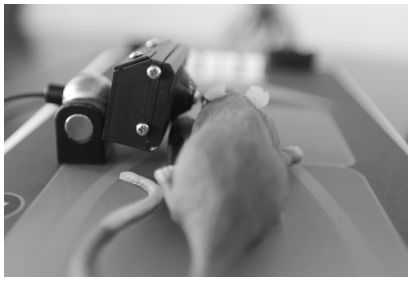
CELERIS

Next generation rodent ERG testing

Revolutionary stimulators.

Electrodes are built into the stimulator, reducing setup time to **seconds**.

Celeris
A new paradigm in rodent ERG testing.



Speed is key

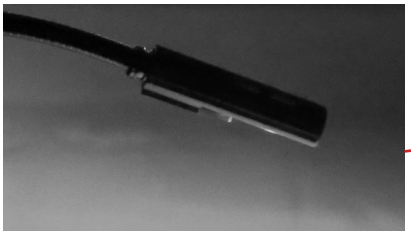
Position animal, place electrodes, get data.

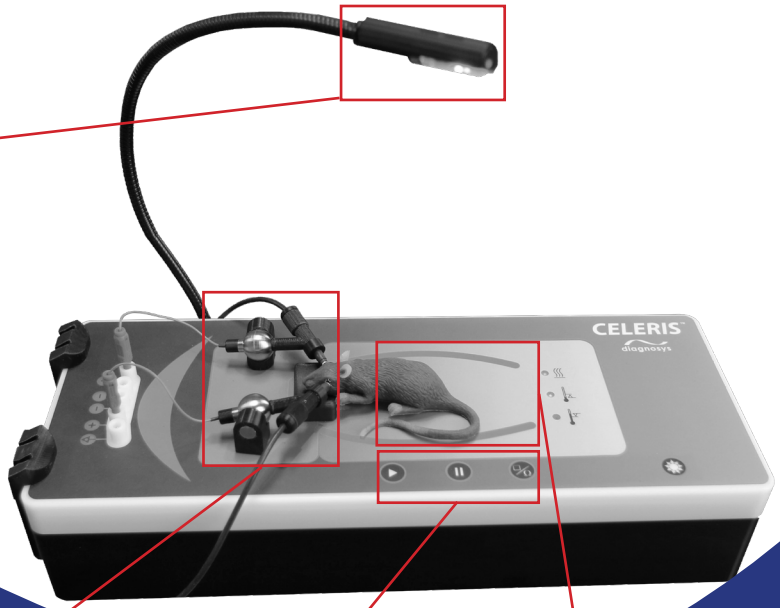
- Innovative stimulators allow for extremely high throughput. Test 10-20 mice per hour (or more, depending on protocol length).
- Patented technologies
- Touch stimulator to each eye. Ground and reference electrodes NOT required for sequential eye protocols.
- Full-field and Pattern stimulator electrodes available.

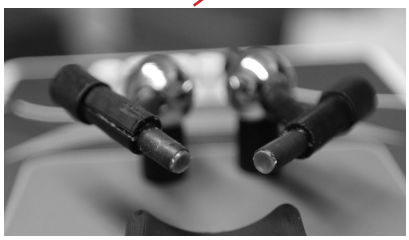
Consistent readings made simple.

Flexible Overhead Lamp

Red LED provides clear illumination without compromising dark adaptation.

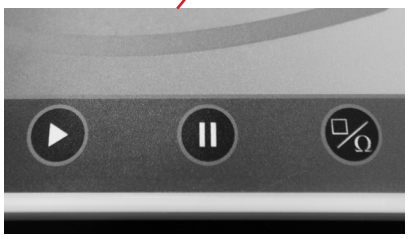






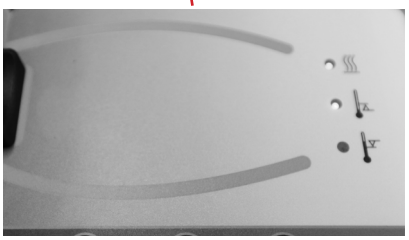
Light Guide Electrodes

Establish robust electrical and optical connections, monitor impedance and ensure corneal hydration.



Single Touch Control

Table top buttons offer instant access to key test functions.



Thermal Regulation

Precisely controlled integrated heater maintains stable body temperature throughout experiment.

Celeris™

Next generation rodent ERG testing

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Features

High speed testing

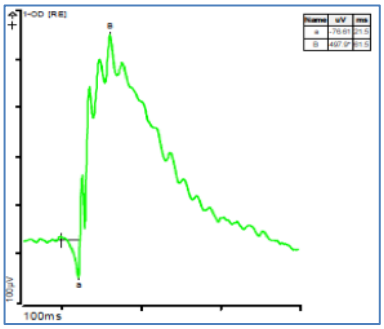
- Patented Celeris™ light guide electrodes
- Set up and test in seconds
- Test 20+ mice per hour
- Mice, rats, rabbits, guinea pigs, gerbils

Superior performance and repeatability

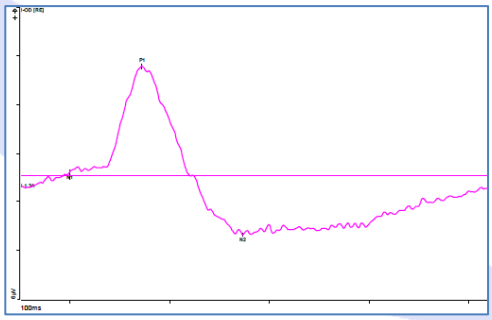
- Proven Diagnosys Espion™ software and controls
- Infinitely adjustable filter settings
- 32-bit ultra low-noise amplifiers
- Built-in impedance testing
- Both eyes tested individually and automatically
- Custom protocols easily programmed

Broad range of testing protocols

- Full-field ERG/VEP and Pattern ERG/VEP
- Luminance range ($5x10^{-7}$ to 1,000 cd·s/m^2)
- Frequency series
- Flash VEP
- Scotopic threshold response (STR)



Celeris Full-field ERG waveform testing a mouse



Celeris Pattern ERG waveform testing a mouse

Applications

- Basic science
- Genetic research
- Stem cell research
- Drug discovery and screening
- Protocol development

Specifications

System performance

Testing speed	Test 10 to 20, or more, rodents per hour (depending on your protocol length)
Rodent set up time	Seconds
Rodent types	Mice, rats, rabbits, guinea pigs, gerbils and others in development
Eye testing modes	• Ability to stimulate both eyes independently • Ability to run tests with one eye as a reference, or test both eyes simultaneously • Matched dual luminance guarantees uniform stimulation in both eyes, or test eyes independently in dichoptic mode
Amplifier	• 2-Channel, fully differential, 32-bit amplifiers have 1 nano Volt resolution over a 4V input range, which provide the highest resolution and linearity in the industry • Ultra low noise • 5 Volt input range, ensures amplifier will not over-range • Common mode rejection: 100 dB
Rodent platform heater	• Temperature: 99°F (38°C), ±1°C • Measured temperature displayed in software
Overhead light	Red and IR LED: center wavelength 660 and 940 nm, respectively (typical)
Platform cleaning	Flat, sealed table top & magnetic accessories: simple and fast table clean up after testing
Test reports	Exports to .csv, .txt or clipboard for easy import into Excel®, SigmaPlot or MATLAB®
Computer	Computer options: a) 20” desktop all-in-one, or b) laptop

Protocols supported

Bright & Standard Full-field stimulators	• Full-field ERG, flash VEP and other custom protocols • Luminance (range of 1 stimulator type; see below) and frequency series • Both eyes tested individually or simultaneously
Dim (scotopic threshold) Full-field stimulators	• Scotopic threshold Response (STR) • Custom protocols easily programmed
Pattern stimulators	• PERG, Pattern VEP, other custom patterns

FULL-FIELD light guide electrodes

Animals supported	• Mice, rats, guinea pigs, gerbils, rabbits
Electrodes	• Ag/AgCl or Ag; hot-pluggable, calibration data automatically read from stimulator

Rodent

Luminance Type	Animal Type	Colors	Peak White Flash Luminance Range (cd*s/m^2) Low	Peak White Flash Luminance Range (cd*s/m^2) High	Stimulator Diameter (mm)	Electrode Type	D430 & D431 Product Code Dash #
Bright	Mouse	Red, Green, Blue	0.01	1,000	3	Ag	-01
	Rat	Red, Green, Blue	0.01	1,000	5	Ag	-03
	Baby mouse	Red, Green, Blue	0.01	1,000	2	Ag	-07
Dim	Mouse	Red, Green, Blue	$5x10^{-7}$	0.1	3	Ag/AgCl	-02
	Rat	Red, Green, Blue	$5x10^{-7}$	0.1	5	Ag/AgCl	-04
	Baby mouse	Red, Green, Blue	$5x10^{-7}$	0.1	2	Ag/AgCl	-08
Standard	Mouse	Red, Green, Blue	0.001	100	3	Ag/AgCl	-10
	Rat	Red, Green, Blue	0.001	100	5	Ag/AgCl	-11
	Baby mouse	Red, Green, Blue	0.001	100	2	Ag/AgCl	-12
UV	Mouse	RGU or GBU	contact Diagnosys; stimulators calibrated in uWatts/cm^2 for each of the 3 colors		3	Ag	-05
	Rat	RGU or GBU			5	Ag	-06
	Baby mouse	RGU or GBU			2	Ag	-09

Rabbit

Luminance Type	Animal Type	Colors	Peak White Flash Luminance Range (cd*s/m^2) Low	Peak White Flash Luminance Range (cd*s/m^2) High	Stimulator Diameter (mm)	Electrode Type	D433 Product Code Dash #
Standard	Rabbit	Red, Green, Blue	0.0001	15	33	N/A	N/A

Wavelengths (typical, center), nm: Red (630), Green (515), Blue (455), UV (365)

PATTERN light guide electrodes

Animals supported	• Mice, rats, guinea pigs, gerbils, rabbits
Luminance range	• Up to 300 cd/m^2
Monitor	• 800 x 600, up to 100% contrast black and white
Key features	• Fully programmable pattern screen viewed through integrated corneal electrode • Rodent stimulator projected field of view: 63 x 51 degrees
Electrodes	• Ag/AgCl; hot-pluggable

Software

Key features	• Automatic rejection; peak/trough detection and measurement • SQL relational database supporting multi-client/server environments • No limit to number of tests stored, multiple operator modes, for different levels of access
Software	Diagnosys Espion software, runs on Windows® 7 through 10

Product characteristics

Console buttons	1) Run, 2) Pause, 3) Next step, 4) Stop, 5) Impedance check, and 6) Overhead light on/off
Console status lights	1) Heater lights, 2) Power light, 3) Under temperature (device heating up), 4) Fault warning
Connection status lights	1) Lights show which connections should be made, 2) Connection quality (impedance)
Dimensions (LxWxH)	• Celeris (height to table top): 16 x 7 x 5 inches (41 x 18 x 13 cm) • Celeris heated area: 6 x 4 inches (15 x 10 cm)
Weight	• Celeris: 17 lbs (7.7 kg)
Power consumption	Celeris plus typical computer: 100-240V, 2 Amps (max)
Device ports	USB

Celeris is covered by one or more of the following US patents and their foreign counterparts: 10,820,824. Additional patents pending.

www.diagnosysllc.com

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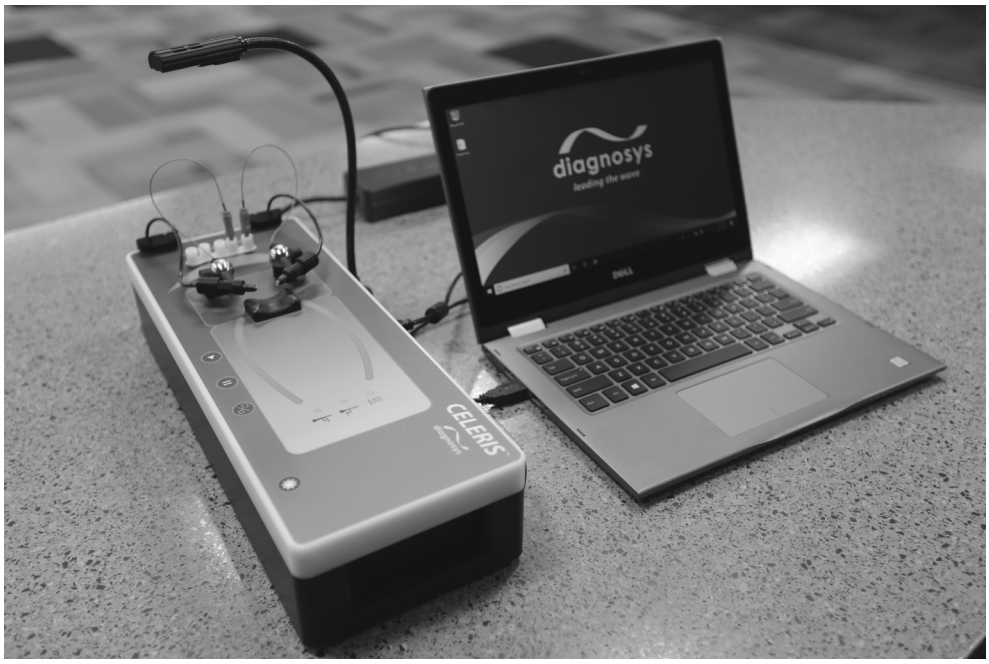
Unlock your testing potential.



Ordering information:

Celeris Model #: D430

Options:

D431: Additional rodent full-field ERG/VEP stimulators (2 stimulators included)
D432: Rodent & rabbit Pattern ERG/VEP stimulators (1 stimulator included)
D433: Rabbit full-field ERG/VEP stimulators (2 stimulators included)
D434: Rabbit add-on module base kit (need to add stimulators to this)
D385: Celeris Pattern Checker

D430	-	___		-	___ ___	
		D	Desktop computer & Espion S/W		01	3 mm Bright stimulators (RGB)
		P	Portable computer & Espion S/W		02	3 mm Dim stimulators (RGB)
		N	No Computer		03	5 mm Bright stimulatosr (RGB)
					04	5 mm Dim stimulators (RGB)
					05	3 mm Bright stimulators (RGU)
					06	5 mm Bright stimulators (RGU)
					07	2 mm Bright stimulators (RGB)
					08	2 mm Dim stimulators (RGB)
					09	2 mm Bright stimulators (RGU)
					10	3 mm Standard stimulators (RGB)
					11	5 mm Standard stimulators (RGB)
					12	2 mm Standard stimulators (RGB)
					NN	No Stimulator

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Please contact us if you would like more information on Diagnosys products.

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