

ColorDome LabCradle

Advanced Animal ERG Testing



LabCradle™ Features

High speed testing

- Integrated Ganzfeld stimulator & test platform
- Ergonomic design enables rapid test cycling
- Quick electrode placement using magnetic ball mounts
- Simple clean up after test

Superior performance and repeatability

- Integrated self-regulating heater
- Diagnosys Espion™ software and controls
- High repeatability from advanced design

ColorDome™ Features

Advanced flash capabilities

- >Trillion-to-1 flash luminance range: 10^{-8} to 2,000 $\text{cd}\cdot\text{s}/\text{m}^2$ (with xenon)
- Flash duration from nanoseconds to hours
- Any color background from RGB & amber LEDs

Easy to use, ultimate performance

- Self-calibrating
- Full electronic color control
- Flash or flicker stimuli in any color & duration
- Ultraviolet LED (upgrade option)

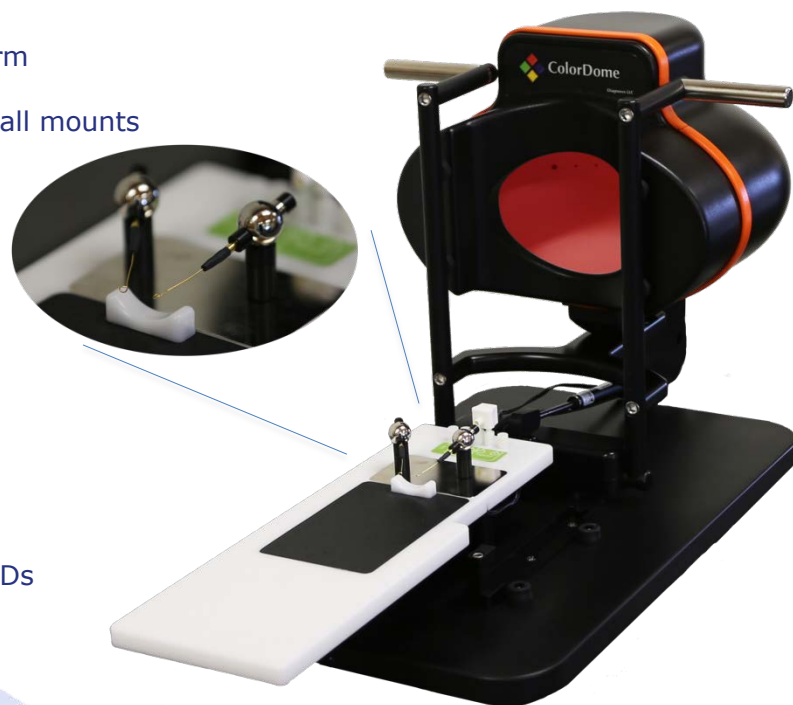
Applications

- Protocol development and validation
- Genetic and stem cell research
- Drug discovery and screening
- Clinical trials

Specifications

System performance

Animal types	Mice and rats (other animal models available; contact Diagnosys)
Amplifier	<ul style="list-style-type: none">• Full DC 2-channel, fully differential, 32-bit amplifiers have 1 nano Volt resolution, which provide the highest resolution in the industry; ultra low noise• 5 Volt input range, ensures amplifier will not over-range• Two options:<ul style="list-style-type: none">- Integrated amplifier: best signal-to-noise; <u>no</u> impedance check, preview mode only- Stand-alone amplifier: very good signal-to-noise; <u>includes</u> impedance check capability
Test table	<ul style="list-style-type: none">• Magnetically secured to the main platform• Universal table: equipped with an integrated, self-regulating heater
Animal platform heater	<ul style="list-style-type: none">• Temperature: 99°F (37°C), ±3%• Heater is grounded and causes no electrical artifacts to the recordings
Platform cleaning	Flat table top makes for simple and fast table clean up after testing
Electrode options	Gold wire or platinum electrodes held in a magnetic ball mount (position adjusts on table)
Test reports	Exports to .csv, .txt or clipboard for easy import into Excel®, SigmaPlot or MATLAB®
Computer	Desktop all-in-one or Tablet computer
Communications	Infrared camera with IR LEDs built in; USB interface & video monitor output



Industry leading protocols

- Full-field ERG
- C-wave ERG
- UV full-field ERG (with UV ColorDome)
- On/Off ERG
- Flash VEP
- Photopic negative response (green/white)
- Scotopic Threshold Response (STR)
- Bleach recovery ERG
- Others in development

ColorDome LED flash

Any color flash from RGB and amber LEDs
Ultraviolet LED (optional upgrade): 365 nm
LEDs produce 9 order-of-magnitude luminance range
Flash duration of nanoseconds to hours
Proprietary CIE compensation yields ultra-stable luminance & color output
Maximum white flash >60 cd·s/m ²
On/off flashes of any duration, waveforms including sine & exponential, arbitrary wavetable
Auto calibration

ColorDome xenon flash (option)

Xenon flash calibrated from 0.001 to 2,000 cd·s/m ²
Flash duration of nanoseconds to minutes

Product characteristics

Dimensions	<ul style="list-style-type: none"> Overall; ColorDome raised (LxWxH): 32 x 16 x 17 inches (813 x 406 x 432 mm) Animal platform (LxW): 12.5 x 6 inches (318 x 152 mm) Heater table (LxW): 6.1 x 4.0 inches (155 x 102 mm) Computer (typ, 22" all-in-one): 21 x 14 x 2.5 inches (533 x 356 x 64 mm)
Weight	<ul style="list-style-type: none"> LabCradle: 44 lbs (20 kg) LabCradle with ColorDome: 57 lbs (26 kg) Computer (typ, 22" all-in-one): 14 lbs (6.4 kg)

Software

Key features	<ul style="list-style-type: none"> Automatic rejection Peak/trough detect & measure SQL relational database Multiple operator modes
ERG software	Diagnosys Espion
Computer OS	Runs on Windows® 7 through 10

LabCradle configurations

Model number: D315

Configuration: select 1 option per field below

Note: all systems come with an E³ console, computer, Espion software and starter accessory kit.

D315	Configuration family	1	110 Volt power supply	A3	Standard 32-bit amplifier -9 input	LC	Lab Cradle	CD1X	1 ColorDome, Xenon	R	Include UV LED; drop Red LED	1	Colorburst Handheld Stimulator	D	Desktop computer & Espion S/W
		2	220 Volt power supply	A4	Standard 32-bit amplifier -11 input	OR	Ergotron Arm	CD1N	1 ColorDome, NO Xenon	B	Include UV LED; drop Blue LED	N	No Colorburst Handheld Stimulator	P	Portable computer & Espion S/W
						OT	Ergotron Arm & Lab Cradle	NNNN	No ColorDome	A	Include UV LED; drop Amber LED			N	No computer
						NN	No Lab Cradle			N	No UV LED				

An E³ Espion console, computer and Espion software are included with each LabCradle system



The LabCradle shown closed: a safe and secure environment for animals with an ergonomic design to facilitate efficient lab experimentation



Optional accessories

Model	Description
D198	Electrode ball assembly (1 or 2)
D200	Extra gold wire electrodes
D239	Extra platinum needle electrodes
	Additional electrodes available

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