MOLECULAR BIOLOGY & ELECTROPHORESIS

THERMAL CYCLER
PLATE SEALER
GEL BOXES
BLOTTING
POWER SUPPLIES
TRANSILLUMINATORS
GEL DOCUMENTATION

Labnet
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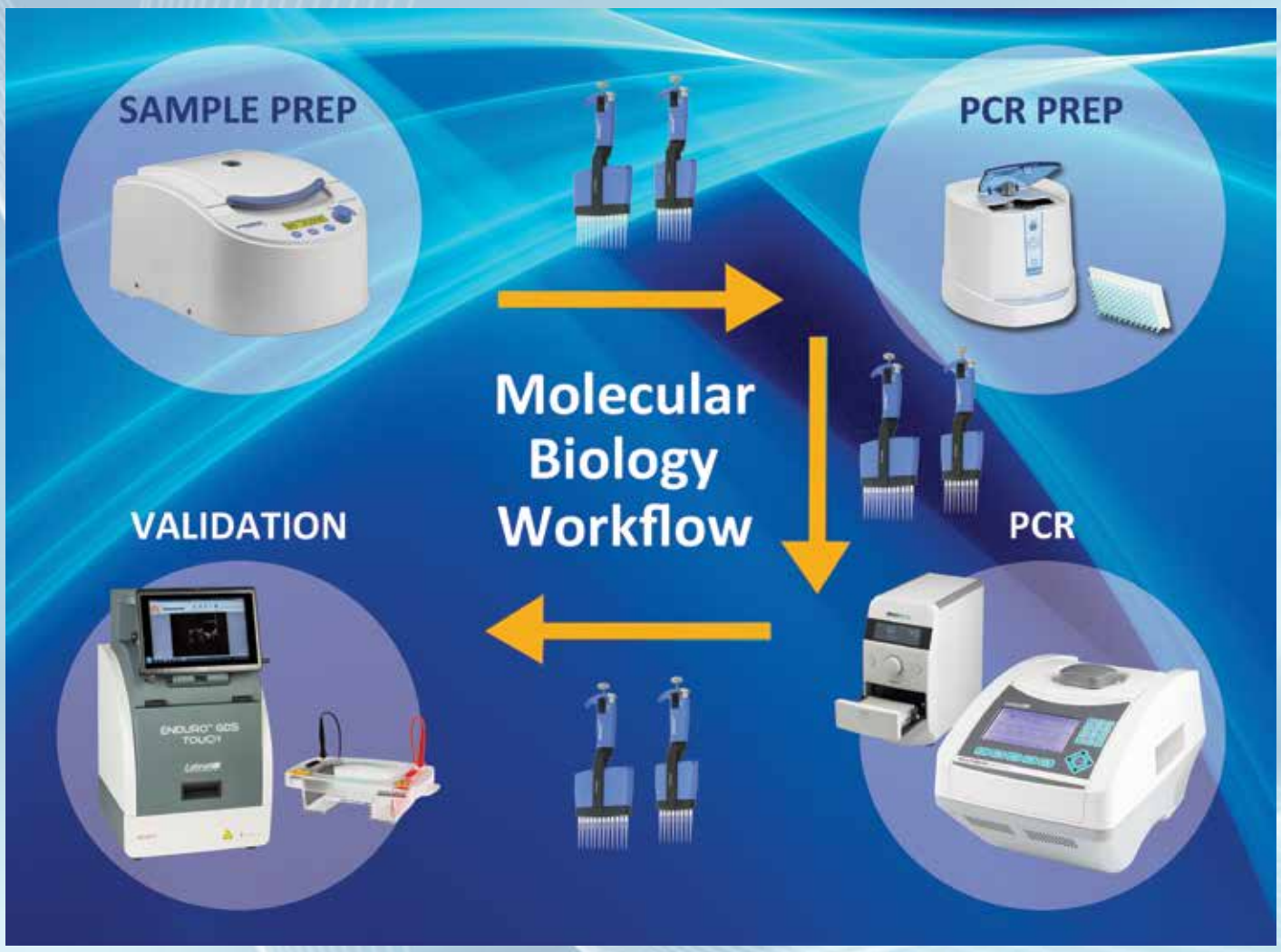

Molecular Biology Workflow
Sample Prep: Prism High Speed Microcentrifuge, C2500
PCR Prep: MPS1000 Plate Spinner, C1000
PCR: Optimax Thermal Cycler, TC9610 & Plate Sealer, PS1000
Validation: GDS Gel Document System, GDS-1302 & Horizontal Gel Box, E1010-10
In between steps: BioPette Plus Autoclavable Pipettes

Labnet has a complete offering of general laboratory equipment for the Molecular Biology Workflow that includes microtube and Plate Spinner centrifuges for PCR sample preparation, liquid handling for transfer of valuable samples, thermal cycler and plate sealer for running PCR and electrophoresis and gel documentation systems for validating the results. Each of these components were designed for optimal performance and ease of use. For additonal information please visit our website or call Labnet customer service.

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MultiGene™ Mini Personal Thermal Cycler

The MultiGene Mini combines a versatile and precise cycling unit with fast ramping, up to 5ºC/second. Not limited to the amplification of nucleic acids, the unit is also useful for enzymatic digestion, ligation, and other procedures that require temperature controlled incubation of small samples.

In addition to the standard parameters of time and temperature, the software also allows for successive time and temperature increments and decrements (for touchdown amplification and auto-extension), auto-restart after a power failure, end of cycling elongation steps and extended soaks at 4ºC.

Programming the MultiGene Mini is simple and intuitive. The control pad combines function keys, a key pad and arrow keys for easy navigation and entering of parameters. The large graphical display is easy to read.

The MultiGene Mini is available with either a 24 x 0.2 mL tube block or 18 x 0.5 mL tube block. Blocks are easily interchanged. The MultiGene Mini is supplied with a heated lid.

Licensed for PCR

SPECIFICATIONS

Block Capacity	24 x 0.2 mL or 18 x 0.5 mL tubes	Max. number segments	9
Temp. control range	4° to 99°C	Max. holding time/step	99 minutes 59 seconds
Max Heating/cool rate	5ºC per sec/4ºC per sec	Program storage	up to 100 programs
Accuracy/uniformity	±0.3ºC/±0.5º at 55ºC	Dimensions (W x D x H)	21.8 x 28.5 x 17.8 cm
Heated lid temperature	105°C	Weight	7.1 lbs/3.2 kg
Max. number of cycles	99	Electrical	230V~ or 120V~, 50/60 Hz

CAT NO.	DESCRIPTION
TC020-24*	MultiGene Mini Personal Thermal Cycler with 24 x 0.2 mL tube block, 120V
TC050-18*	MultiGene Mini Personal Thermal Cycler with 18 x 0.5 mL tube block, 120V

*To order 230V units add -230V to the end of the catalog number. 230V units includes EU and UK cords.

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MultiGene™ OptiMax Thermal Cycler

The MultiGene OptiMax Thermal Cycler delivers advanced speed and features while providing premium performance at an affordable price. This simple to program unit is compact in design and built to perform. Programming is intuitive with the large display and multiple pre-programmed templates supplied with unit. The OptiMax comes with standard built in 2-step, temperature optimization, touchdown and time increment protocols that are easy to adjust to meet your cycling needs. You can select lid temperature or turn it off depending on your needs. The faster ramp rates allow more work to be done in a work day.

Additonally, The MultiGene OptiMax employs a new protocol optimization process improving on older gradient features. This "Better than Gradient" capability allows users to select up to 6 distinct annealing temperatures to be run simultaneously. This is ideal for method optimization as well as applications like genotyping.

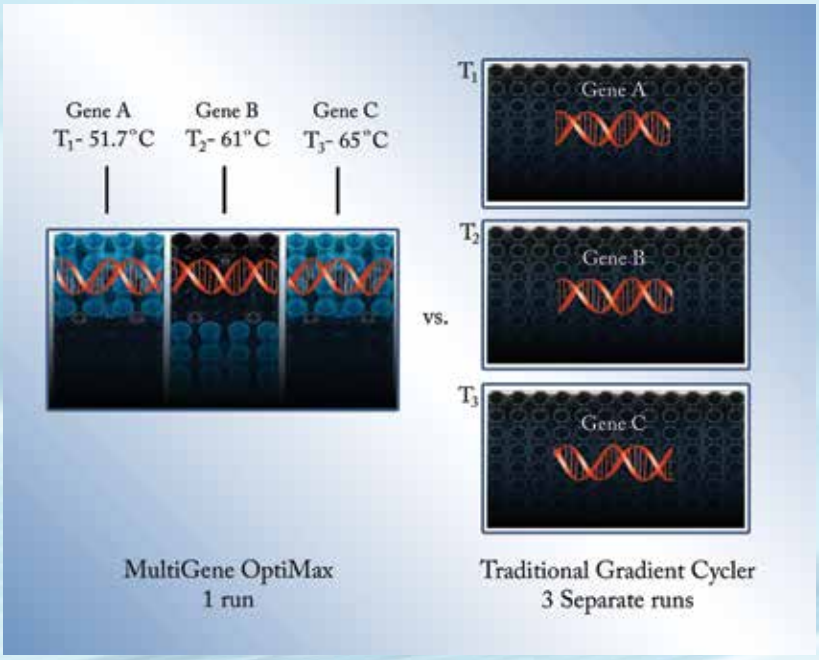
Licensed for PCR

SPECIFICATIONS

Sample Capacity	1 x 96 well plate, 12 8 x 0.2mL strip tubes, 96 x 0.2mL tubes
Programmable Temperature Range	4°C to 99.9°C
Temperature Control	Calculated or block
Temperature Accuracy/Uniformity	±0.5°C/±0.5°C
Optimization temperature range	30°C to 99°C. Annealing Temperatures of each 6-segment block can be set independently. Maximum Temperature difference between each 6-segment temperature block 24°C
Orientation	6 segmented block each 4 x 4 wells in size
Programmable lid temperature	60° to 65°C, 100° to 115°C or off
Program memory	200 complete programs
Temp. increments/decrements	Yes
Time increments/decrements	Yes
User program folders	50 sets
Password protected programs	Yes
Dimensions (W x D x H)	9.4 x 16.5 x 9.8 in/ 24 x 42 x 25 cm
Weight	19.8 lbs/9 kg
Electrical	240V or 120V, 50/60 Hz
Ramp Rates	High 5°C heating/ 3.5°C cooling Low 3°C heating/ 2°C cooling
Sample volume range	5-100µl
Warranty	3 Years
Display	LCD

CAT NO.	DESCRIPTION
TC9610	MultiGene OptiMax with 96 well block, 120V
TC9610-230	MultiGene OptiMax with 96 well block, 230V
TC96-CM-10	Compression mat, Silicone, pk of 10

The Labnet MultiGene OptiMax is ideal for streamlining the genotyping workflow. A typical genotyping experiment requires the ability to evaluate multiple transgenes in a single animal. In an existing gradient thermal cycler verifying the integrity of your line requires three separate runs/experiments to achieve what the MultiGene OptiMax allows in one method. This is achieved by assigning the appropriate annealing temperatures for each gene in each peltier block (up to 6 different ones) and running that method. Results have confirmed that the data generated in the MultiGene OptiMax were comparable to running 3 individual runs/experiments thereby saving time and reagents and making for a greater efficiency in the workflow.



Download a copy of the application note. "Streamlining the Genotyping Workflow with the MultiGene OptiMax" at www.labnetinternational.com

The 6 distinctive blue and black peltier elements on the 96 well block can each be set to a unique and distinctive annealing temperature in your single method.

AccuSeal™ Semi Automated Plate Sealer

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Labnet's new AccuSeal semi automated plate sealer is ideal for the low to medium throughput laboratory that requires uniform and consistent sealing of microplates. Offering complete versatility, the AccuSeal will accept a full range of plates for PCR, assay or storage applications, and can be used for standard height to deep well plates. Operation is easy. Sealing parameters are set and displayed via the user-friendly control panel, and the sealing operation is automated to guarantee consistent results.

Controls and Operation:

The AccuSeal's control system allows optimal settings for all types of plates and sealing material. Sealing time (in 0.1 second increments), and sealing temperature (in 1.0°C increments) can be accurately set using the control knob.

Operation is simple: Place a microplate with a sealing film onto the drawer. Press the "SEAL" button and the motorized drawer will automatically close, the heated sealing platen will press down on the seal, and then the drawer will open to present the sealed plate.

Versatility and Convenience:

Labnet's AccuSeal can accept a variety of plate heights – the AccuSeal adapter is used for assay plates and PCR plates. The motorized heated platen adjusts automatically for different height plates, and provides uniform pressure to ensure a quality seal.

SPECIFICATIONS	
Dimensions (W x D x H)	6.75 x 12.75 x 14.25 in/17.1 x 32.4 x 36.2 cm
Weight	27 lbs / 12 kg
Sealing Temperature	OFF, 100 °C to 190°C, (increments of 1.0°C)
Temperature Accuracy	+/- 1.0 °C
Temperature Uniformity	+/- 1.0 °C
Sealing Time	0.5 to 10 sec. (increments of 0.1 sec)
Compatible Plate Materials	PP (Polypropylene) PS (Polystyrene) PE (Polyethylene)
Compatible Plate Types	Standard Assay Plates, Deep-Well Plates, PCR Plates
Maximum Plate Height	45mm

CAT NO.	DESCRIPTION
PS1000*	AccuSeal Semi Automated Plate Sealer
PS1000-PCR	Accuseal Adapter for sealing assay and PCR plates
PS1000-ADAPT	Accuseal Adaptor for sealing assay plates and plates needing more support

*To order 230V units add -230V to the end of the catalog number. 230V units includes EU and UK cords.

AccuSeal™ Heat Sealing Films

Labnet offers a full range of heat sealing films optimized for use in the Accuseal plate sealer. Please utilize the following guide to find out which film is best for your application.

PS1000-GP300	**Easy to use, paper backed general purpose film is peelable and good for low temperature compound storage and PCR plates**	**100 films/case**
PS1000-100	**Clear polyester backed film forms a weld seal to PP microplates. Good optical characteristics make it suitable for QPCR**	**100 films/unit 5 units/case**
PS1000-150	**Clear polyester backed film forms a peelable seal to PP, PS and COC microplates. Good optical characteristics make it suitable for QPCR**	**100 films/unit 5 units/case**
PS1000-200	**Peelable film is ideal for PP and COC microplates. It can be peeled directly from the freezer. Provides a good barrier resistance to aqueous solutions and moderate resistance to solvents at room temperature.**	**100 films/unit 5 units/case**
PS1000-300	**Forms a weld seal to PE plates. Good for low temperature compound storage and PCR. Aluminum foil film ideal for use with PP plates. It is a very strong pierce seal that provides a high degree of sample protection and good solvent resistance to DMSO when stored at room temperature or below.**	**100 films/unit 5 units/case**
PS1000-400	**Peelable film good for PP and COC microplates. Can be peeled directly from the freezer. Ideal for low and room temperature compound storage. Forms a weld seal to PE plates. Good barrier resistance to aqueous solutions and solvents especially DMSO at room temperature or below.**	**100 films/case 5 units/case**

Recommended sealing temperature and time for all PP microplates is 175°C and 3 seconds. TIme and temperature can vary depending upon combination of film and microplates being utilized.

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ENDURO™ Horizontal Gel Boxes

The ENDURO Horizontal Gel Boxes have been designed with safety and ease of use in mind. Constructed of quality materials, they stand up to everyday use and provide a long, trouble-free service life.

The gel boxes are molded from UV transparent acrylic, for leakproof performance. Cassettes enclose the electrodes to protect them from breakage and allow for easy cleaning and replacement.

Rubber casting gates fit easily onto the gel trays for tape-free gel casting. Positioning slots on the sides of the trays hold combs in place while pouring gels. The supplied combs are 1.5 mm thick and are adjustable to control well depth.

Each gel tray is supplied with a Wellcomb Mat that can be placed underneath to aid in visualizing wells when loading. The domed lid and drip ring prevent condensation from falling onto the gel.

The Enduro line includes a full range of sizes, from a compact mini system to a large system that accommodates as many as 450 samples. Additional gel trays and different sizes of combs are available as well as Enduro™ molecular weight markers. New are the Bicaster and Tricaster models that provide casting trays for multiple sized gels in a single package.

SPECIFICATIONS	Enduro 7.7	Enduro 7.10	Enduro 10.10	Enduro 15.10	Enduro 15.15	Enduro 20.20
Gel (W x L cm)	7 x 7	7 x 10	10 x 10	15 x 10	15 x 15	20 x 20
Unit (W x L x H cm)	9 x 21 x 9	9 x 21 x 9	12.5 x 22 x 9	17.5 x 26.5 x 9	17.5 x 26.5 x 9	23 x 39.5 x 9
Buffer volume	225 mL	225 mL	300 mL	500 mL	500 mL	1,200 mL
Max sample capacity	32	64	100	140	210	450
Supplied combs	8 tooth (2)	8 tooth (3)	10* tooth (2)	16* tooth (1) 20 tooth (1)	16* tooth (1) 28* tooth (1) 20 tooth (1)	20 tooth* (2) 40 tooth* (2)

SPECIFICATIONS	Enduro 96	Enduro 7 BiCaster	Enduro 10 BiCaster	Enduro 15 TriCaster	Enduro 20 BiCaster
Gel (W x L cm)	10 x 12	7 x 10	15 x 10	15 x 15	20 x 20
Unit (W x L x H cm)	12.5 x 22 x 9	9 x 21 x 9	17.5 x 26.5 x 9	17.5 x 26.5 x 9	23 x 39.5 x 9
Buffer volume	300mL	225 mL	500 mL	500 mL	1,200 mL
Max sample capacity	96 plus	64	140	210	450
Supplied combs	96 well 1 mm	8 tooth (3)	16* tooth (1) 20 tooth (1)	16* tooth (1) 28* tooth (1)	20 tooth* (2) 40 tooth* (2)
Supplied Casting Trays		7 x 7, 7 x 10	10 x 7, 10 x 10	15 x 7 15 x 10 15 x 15	20 x 10 20 x 20

*Denotes multichannel compatible combs

R1000-10BP	ENDURO MW Marker, 10bp ladder (100-2,000 bp), 0.1 µg/µl, 500 µl vial
R1000-1KB	ENDURO MW Marker, 1 kb ladder (300-10,000 bp), 0.1 µg/µl, 500 µl vial
E1007-7	ENDURO 7.7 Horizontal Gel Box
E1007-10	ENDURO 7.10 Horizontal Gel Box
E1010-10	ENDURO 10.10 Horizontal Gel Box
E1015-10	ENDURO 15.10 Horizontal Gel Box
E1015-15	ENDURO 15.15 Horizontal Gel Box
E1020-20	ENDURO 20.20 Horizontal Gel Box
E1010-9611	ENDURO 96
E1007-BI	ENDURO 7cm Horizontal Gel Box with 2 casting trays
E1010-BI	ENDURO 10cm Horizontal Gel Box with 2 casting trays
E1015-TRI	ENDURO 15cm Horizontal Gel Box with 3 casting trays
E1020-BI	ENDURO 20cm Horizontal Gel Box with 2 casting trays

*Labnet offers a wide range of combs, spacers and other accessories for your electrophoresis needs. They are available on our website or by requesting our ENDURO Full Line electrophoresis catalog.

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ENDURO™ Gel XL - A Complete Electrophoresis System

The compact design of ENDURO Gel XL results in a much smaller footprint than that of traditional gel boxes and power supplies. The 150V power supply connects directly into the gel box, eliminating tangled leads. Casting gels is quick and easy - place the gel tray in the stand, slide the comb into the slots and pour. Combs are multichannel compatible and gel trays are UV transparent.

The molded gel tank provides leak-proof performance while the vented lid aids in dispersing heat. For safety, a magnetic sensor recognizes the presence or absence of the lid and allows current to flow accordingly. Operating parameters are set digitally, including amperage and voltage with automatic crossover. A run can be paused at any time and the parameters changed. A micro casting set for four 6 x 6 cm gels is available separately.

SPECIFICATIONS	
Output voltage/current	10V to 150V/10 - 400 mA
Timer	0 - 99 hr or continuous, audible alert
Overall Dimensions (W x D x H)	10 x 6.7 x 2.5 in./24.5 x 17 x 6.2 cm
Gel Capacity	1 large (12.5 x 12 cm), 2 small (12.5 x 6 cm), 4 micro (6 x 6 cm)
Program memory	Last programmed parameters saved
Electrical	Universal 100V- 240V, 50/60 Hz

CAT NO.	DESCRIPTION
E0160*	ENDURO Gel XL, with standard casting set (E0168), gel tank with safety lid and power supply
E0161	Large Gel Tray Set (12.5 x 12 cm), pk of 2
E0162	Small Gel Tray Set (12.5 x 6 cm), pk of 2
E0163	Micro Gel Tray Set (6 x 6 cm), pk of 4
E0164	Large Comb Set, 14/28 teeth, reversible, pk of 2
E0165	Micro Comb Set, 5/8 teeth, reversible, pk of 2
E0166	Micro Casting Set, includes 4 micro gel trays, 2 micro combs and a casting stand
E0167	Casting Stand, for all gel sizes
E0168	Standard Casting Set, includes 1 large and 2 small gel trays, 4 large combs and a casting stand

*To order 230V units add -230V to the end of the catalog number. Specify cord type by adding -EU or -UK.

To order 120V units for Canada add -CAN to the end of the catalog number.

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ENDURO™ VE 10 Vertical Gel System

Labnet's ENDURO Modular Mini Vertical Gel System for protein electrophoresis is ideal for screening new samples and evaluating sample preparation conditions. It is a great research tool that can run a maximum of 4 gels within an hour. These gels can be either custom cast or pre-cast. The same system allows for either PAGE or Electroblotting to be carried out in the same tank by changing the insert.

Each VE10 electrophoresis system can accommodate up to 4 handcast gels and 2 commercial precast gels to provide complete flexibility for individual research needs. The unique sliding clamp technology within the PAGE insert facilitates fast, intuitive leak-free casting. Reversible combs also serve as loading indicators to aid pipette-well alignment, preventing sample loading errors. Insert your comb into a freshly poured gel which is allowed to set before inverting the comb to use a loading template that sits conveniently above the newly formed sample wells.

With easy set up and reliable performance, the VE10 Mini Vertical systems are perfect for today's laboratories where the ability to generate reproducible results quickly is of prime importance.

SPECIFICATIONS	
Number of gels (Handcast)	1-4
Precast gel compatability (Up to 2 gels/run)	Novex®, SERVAGel™,Thermo Precise Pierce Protein Gel, BIO-RAD Mini PROTEAN® Precast gels.
Glass Plate Dimensions (W x H x T)	10x10x0.2 cm
Gel Dimensions (W X H)	8 x 8.5 cm
Total buffer volume	Min 250mL Max 1200mL
Standard run time for SDS-Page	1-2 hours at from 90-225V
Unit Dimensions (W x H)	19 x 13 x 15 cm
Unit Weight	1.8Kg

CAT NO.	DESCRIPTION
E2010-PA	ENDURO VE10 PAGE system, includes PAGE insert, buffer tank with leads and cooling pack
E2010-PBA	ENDURO VE 10 PAGE system with Electroblotting Insert . (E2010-BM + E2010-PA)
E2010-PCA	ENDURO PAGE casting system
E2010-BM	ENDURO VE10 Electro blotting Module for use with VE10 vertical gel system, includes 4
	cassettes and 8 fiber pads

*Labnet offers a wide range of combs, spacers and other accessories for your electrophoresis needs. They are available on our website or by requesting our ENDURO Full Line electrophoresis catalog.

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ENDURO™ VE 20 Vertical Gel System

The ENDURO VE20 is Labnet's new large format vertical gel electrophoresis system. Designed to perform a variety of separations, including first and second-dimension SDS-PAGE, native, preparative, gradient, high-resolution nucleic acid electrophoresis and electroblotting, the VE20 is one of the most versatile large format vertical systems available.

The VE20 distinguishes itself in its flexibility of applications, ease of gel casting and set-up requiring only 4 screws to secure 4 (16 x 17.5 cm) gels. The VE20 vertical screw-clamp configuration distributes pressure evenly along the height of the gel rather than in the center to eliminate plate bowing and gel compression. The new configuration still maintains a leak-proof seal during casting; while the ergonomic wave-like design of the PAGE insert aids both handling and set up.

Whether it is running 2 or 4 gels, electroblotting or IEF using IPG strips, all of these techniques may be performed using the same base unit while retaining the benefits provided by large format electrophoresis, such as extended separation distances, greater sample throughput and superior resolution. Whatever your large format gel requirements are, the VE20 can be made to meet them.

SPECIFICATIONS	
Plate dimensions: (W x H x D)	20 x 20 x 0.4 cm
Standard spacer dimensions: (W x H)	2 x 20 cm
IPG spacer dimensions: (W x H)	0.6 x 20 cm
Unit dimensions: (W x H x D)	30 x 27 x 18 cm
Unit deight	5.5 lbs/ 2.5 kg
Number of gels	1-4
Total volume inner buffer chamber	640 mL
Total buffer Volume for 2 gels	5.3 L
Total buffer Volume for 4 gels	4.8 L
Std run time without cooling	4-5 hours
Std run time with cooling	3-4 hours

CAT NO.	DESCRIPTION
E2020	ENDURO VE20 Vertical Gel System includes glass plates, 2 x 24 well combs, cooling coil and casting base
E2020-CU	ENDURO VE20 Dual Casting System 2 sets of glass plates, 1 mm thick bonded spacers, 2 x 24 well 1 mm
	thick combs, cooling coil, dummy plate and caster with external
E2120-EC	ENDURO VE20 External Casting Stand
E2120-CAST	ENDURO VE20 Casting Base
E2120-PI	ENDURO VE20 Page insert
E2120-CC	ENDURO VE20 Detachable Cooling Coil
E2120-RM	ENDURO VE20 Replacement Rubber mats for 20 x 20 cm caster.
E2120-MCB	ENDURO VE20 Maxi Cooling Block
E2120-CC	ENDURO VE20 Detachable Cooling Coil
E2120-LD	VE20 lid (No cables)

*Labnet offers a wide range of combs, spacers and other accessories for your electrophoresis needs.
They are available on our website or by requesting our ENDURO Full Line electrophoresis catalog.

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ENDURO™ VE 10 Blotter

This ENDURO VE10 blotter has a 4 mini gel (10 x 10 cm) capacity and can be purchased either as a stand-alone tank blotter or part of an integrated mini-gel/blotting system utilizing one shared tank.

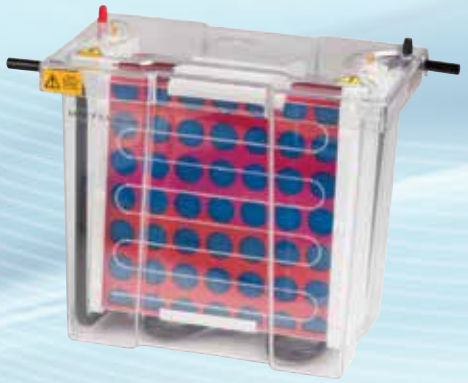
This electroblotting system includes tank, blotting inserts and 4 cassettes with fiber pads.

CAT NO.	DESCRIPTION
E2010-BT	ENDURO Electroblotting System, includes tank, blotting insert & 4 cassettes
E2010-BM	Mini Vertical Electroblotting Module for use with mini vertical gel system, includes 4 cassettes and 8 fiber pads
E2010-PMA*	Mini Vertical PAGE module for use with mini vertical gel system.
E2110-B-MC	Blotting Cassette
E2110-B-FP	Fiber Blotting Pads, pack of 8 pads
E2110-CP	Mini Cooling Pack for use with mini vertical gel system

*Glass plates, combs & caster not included.

**specifications based on VE10, see page 62

ENDURO™ VE 20 Blotter



The ENDURO VE20 blotter has a large capacity that can hold up to 16 mini-gels or 4 large format gels. The VE20 electroblotting system provides all necessary components for performing transfers from vertical slab gels. It comes with tank, lid, platinum wire electrodes, 4 cassettes, 18 fiber pads and cooling coil. It has interchangeable modular inserts that can combine with VE20 vertical PAGE to use the same universal tank and lid. Complete flexibility is provided as the VE20 can be run with most power settings required. It can perform overnight transfers at voltages as low as 35V and rapid, high-intensity transfers up to 200V in 1-2 hours.

The VE20 comes standard with platinum wire electrodes 8 cm apart for increased capacity. A high intensity insert with plate electrodes 4 cm apart for rapid transfers is also available, E2020-HITB. The detachable cooling coil, which connects to the laboratory water supply or a recirculating chiller, prevents buffer depletion to allow overnight transfers and fast high-intensity blots. It also maintains the low temperatures important for protein stability during native transfers. The open design and rigid cassettes maximize current transfer and eliminate 'shadow band' formation. Color-coded cassettes prevent polarity reversal ensuring proper blotting. This is a well thought out high capacity tank blotter and a great value.

CAT NO.	DESCRIPTION
E2020-TB	ENDURO VE20 Blotting System, system Including tank and lid, 4 cassettes, 18 fibre pads, cooling coil
E2020-TBI	ENDURO VE20 Maxi Platinum Wire Blotting Inset, 4x compression cassettes and 18x fibre pads
E2120-TBC	ENDURO VE20 Blot Maxi Cassette
E2120-TBFP	Fibre pads - pk of 6
E2020-HITB	ENDURO VE20 HS Blotting System, High Intensity System including tank and lid, 1 casettes, 6 fiber pads, cooling coil
E2120-HITBI	ENDURO VE20 HS Blotting System High intensity insert - includes 1 casette and 6 fibre pads
E2120-CC	ENDURO VE20 Detachable Cooling Coil
E2120-LD	VE20 lid (No cables)
E2120-T	VE20 Tank

*specifications based on VE20, see page 63

ENDURO™ Semi Dry Blotter

The ENDURO Semi Dry Blotter offers rapid transfer times for DNA, RNA and protein blotting – typically 15 to 30 minutes. Western , Northern and Southern Blots can be easily accomplished via uncomplicated buffer and set up procedures. The Semi Dry Blotter is compatible with gel thicknesses from 0.25 mm up to 10 mm without the need for additional equipment.

The Semi Dry Blotter has the added benefit of economic transfers due to very low buffer volumes – typically only a few milliliters of buffer is required per transfer. The SemiDry Blotter utilizes a screw down lid, which secures the blot sandwich and allows complete control of pressure ensuring even transfer. The electrodes, comprising platinum coated anode and stainless steel cathode, will exhibit practically no corrosion therefor providing many years of trouble free use. Uniform heat dispersion across the blot sandwich ensures stable transfer times and no heat induced sample loss or transfer distortions. Electrode plates are fully separated to prevent arcing or damage.

SPECIFICATIONS	
Dimensions (L x W x H)	12.8 x 9.8 x 2.2 in
	32.5 x 25 x 5.5 cm
Recommended current	.8mA / cm2
Active transfer area	20 x 20 cm
Weight	3 lbs/1.4 kg
Buffer volume	20 mL
Sample capacity	
4 Blots:	8 x 8.5 cm
2 Blots:	16 x 8.5 cm
1 Blot:	16 x 17.5 cm
Run time	15 - 30 min

CAT NO.	DESCRIPTION
E2020-SDB	ENDURO Semi Dry Blotter for Western, Southern and Northern Blots
E2020-SDBPS*	ENDURO Semi Dry Blotter/ 250V Power Supply Kit -115V
E0203*	ENDURO Model 250V Power Supply 250V, 3A, 300W programmable with timer
R1000-10BP	ENDURO MW Marker, 10bp ladder (100 - 2,000 bp), 0.1µg/µl, 500 µl vial
R1000-1KB	ENDURO MW Marker, 1 kb ladder (300 - 10,000 bp), 0.1µg/µl, 500 µl via

*To order 230V add -230V to end of catalog number.

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ENDURO™ Power Supplies

The ENDURO power supplies meet a wide range of applications for DNA, RNA and protein electrophoresis as well as blotting. Designed with safety in mind, they are loaded with features that todays applications demand. 3 models are available to meet your needs. Operating modes depending on model include constant voltage, current or wattage all with automatic crossover.

Operational parameters are easy to set using the membrane keypad and are displayed digitally on the large backlit LCD. The large display is visible from across the laboratory. The Model 250V allows 10 steps per program. Four sets of color coded output terminals allow multiple gels to be run simultaneously except in the Mini which allows 2 sets of gels at once. In the event of a power failure, the ENDURO units have an automatic recovery feature to maintain the previous settings.

The Mini 300V Power supply has an optional Power Stack. This combination rack and power source allows you to ergonomically stack 3 units only using one plug on the lab bench while providing optimal air flow around power supplies.

SPECIFICATIONS	Model 300V	Model 250V
Output voltage/range/increments	2-300V/1V	5-250-V/1V
Output current range/increments	4-500mA/1mA	10-3,000mA/10mA
Output power range/increments	90W max/na	1-300W/1W
Timer	1 min – 999 min. or continuous	1 min – 999 min. or continuous
Programmable	No	Yes, 10 steps/program, 20 program memory
Dimensions	19 x 25 x 8 cm	19 x 25 x 8 cm
Weight	4.8 lbs/2.2 kg	5.5 lbs/2.5 kg
Input voltage	120-230V	120V-230

SPECIFICATIONS	Model Mini 300V
Output voltage/range/increments	10-300V/1V
Output current range/increments	10-400mA/1mA
Output power range/increments	60W
Timer	1 min - 99 hr 59 min or continuous
Programmable	No
Dimensions	15.6 x 21.2 x 8.4 cm
Weight	2.5 lbs/1.141 kg
Input voltage	100-240V

CAT NO.	DESCRIPTION
E0303*	ENDURO Model 300V
E0203*	ENDURO Model 250V
E0304*	ENDURO Model Mini 300V
E0304-R	ENDURO PowerStack
E0304-BUN*	ENDURO mini power supply and powerstack bundle, includes two mini power supplies

*To order 230V units add -230V to the end of the catalog number. 230V units include EU and UK power cords.

ENDURO™ Power Supplies selection guide

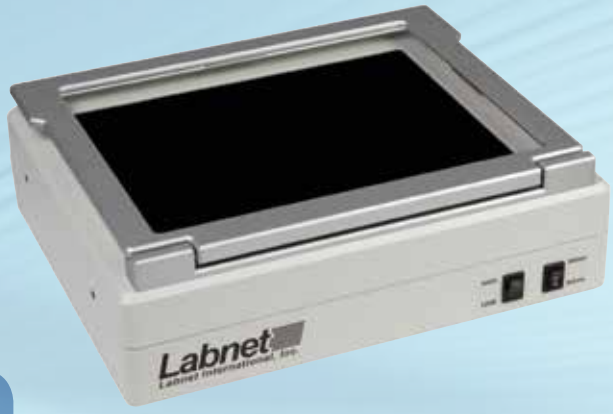
			Start Run				End Run					
	Gel Size (W x L x H)	# of Gels	Voltage	CST	Current	CST	Voltage	CST	Current	CST	Run Time	Power Supply
SDS-PAGE, SECOND-DIMENSION 2D												
VE10	80 x 85 x 1 mm	2-4	200v	✓	120-240mA		200v	✓	120mA		40-60 min	E0303, E0304, E0203
VE20	160 x 175 x 1 mm	2-4	100v		35mA	✓	350v		35mA	✓	5 hr. max.	N/A
DNA RESTRICTION ANALYSIS												
E1007-7	70 x 70 x 5 mm	1	80v	✓	40mA		80v	✓	45mA		45 - 60 min	E0303, E0304, E0203
E1007-10	71 x 70 x 5 mm	1	80v	✓	40mA		80v	✓	45mA		45 - 60 min	E0303, E0304, E0203
E1010-10	100 x 100 x 5 mm	1	90v	✓	50mA		95v	✓	55mA		45 - 60 min	E0303, E0304, E0203
E1015-10	100 x 150 x 5 mm	1	90v	✓	50mA		95v	✓	55mA		45 - 60 min	E0303, E0304, E0203
E1015-15	150 x 150 x 5 mm	1	90-150v	✓	50 - 80mA		90-150v	✓	55 - 90mA		60 - 90 min	E0303, E0304, E0203
E1020-20	200 x 200 x 5 mm	1	100-150v	✓	50 - 80mA		100-150v	✓	55 - 90mA		60 - 90 min	E0303, E0304, E0203
HIGH THROUGHPUT DNA ELECTROPHORESIS (HORIZONTAL)												
E1010-9611	100 x 120 x 5 mm		70v	✓	40		80v	✓	45mA		30-45 min	E0303, E0304, E0203
WESTERN BLOTTING												
E2010-BT	80 x 85 x 1 mm	4	100v		250mA		100v	✓	400mA		2 hr.	E0303, E0304, E0203
E2020-TB	160 x 175 x 1 mm	4	50 / 100v	✓	150 - 250 /1000mA	✓	50 / 100v	✓	150 - 250 /1000mA	✓	5-20hr / 1-5hr	E0203
			Wire/Plate Electrode		1600 Wire/Plate Electrode		Wire/Plate Electrode		1600 Wire/Plate Electrode			
E2020-SDB (semi-dry)	200 x 200 x 2/5 mm	1 lg 4 sm	75v	✓	1200mA		75v	✓	1200mA		15 - 30 min	E0203

*CST=Constant

CE
CSA Compliant

ENDURO™ UV Transilluminators

The ENDURO UV Transilluminator represent a great new imaging product true to the ENDURO name. These UV transilluminators have been designed for rugged use and durability with exceptional performance. The unique hinge design and frame on the UV shield prevents the lid from cracking and hinge damage predominant on most transilluminators in the market. The compact size and quality of image offer a great value. These UV transilluminators come in single or dual wavelength models.



SPECIFICATIONS	Model U1001	Model U1002
Outer Dimensions	253 x 340 x 80 mm	253 x 340 x 80 mm
Viewing Dimension	210 x 260 mm	210 x 2260 mm
Wavelength	302 nm	302 nm / 365 nm
UV tubes - 302 nm	8W x 6	8W x 6
UV tubes - 365 nm		8W x 6
Power	100V-240V, 50/60 Hz	100V-240V, 50/60 Hz
Weight	5 kg	5 kg

CAT NO.	DESCRIPTION
U1001*	ENDURO UV Transilluminator with 302 nm wavelength, 115V with US plug
U1002*	ENDURO UV Transilluminator with 302 nm and 365 nm wavelengths, 115V with US plug.

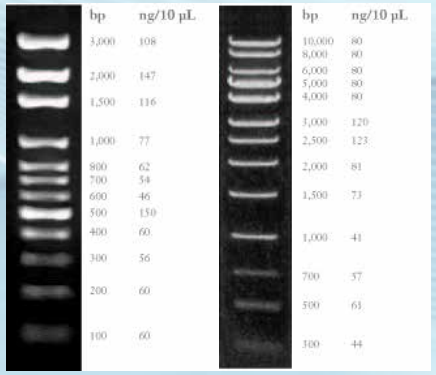
*To order 230V units add -230V to the end of the catalog number. 230V units includes EU and UK cords.

ENDURO™ MW Markers

The 100 bp and 1 Kb DNA markers are designed to allow the sizing of a wide range of crisp and precise DNA fragments ranging from 100 bp to 10000 bp. These markers are stable at ambient temperature with 2 years shelf life. They are ready-to-use, formulated with loading buffer and Bromophenol blue for easy loading and tracking on the gel.

The 100 bp DNA ladder contains 11 discrete DNA fragments ranging in size from 100 bp to 3,000 bp, this marker is ideal for the size determination of PCR products.

The 1 Kb DNA ladder contains 13 discrete DNA fragments ranging in size from 300 bp to 10,000 bp. This marker is ideal for the size determination of digested DNA



R1000-100bp R1000-1KB

CAT NO.	DESCRIPTION
R1000-100bp	ENDURO Molecular Marker 100bp DNA ladder: 11 fragments, 100-2,000bp, 500 µL
R1000-1Kb	ENDURO Molecular Marker 1 Kb DNA ladder: 13 fragments, 300-10,000bp, 500 µL

ENDURO™ GDS Gel Documentation System

The ENDURO GDS Gel Documentation System is a state-of-the-art imaging system providing an incredible combination of performance, value and ease of use. It is a perfect fit with the rapidly expanding ENDURO Electrophoresis and Labnet Molecular Biology product line.

The ENDURO GDS provides exceptional resolution with a 5MP scientific camera, a built in UV transilluminator with a safety shut off switch, and viewing port are unique in this price range. The large field of view (20 cm x 24 cm) allows for large gel imaging, or the imaging of many gels at once. The system was designed to always be in focus, which means no manual manipulation of the lens is required, ever.

Application flexibility is achieved through the UV transilluminators, the optional white light conversion screen, and optional blue conversion screen. The standard filter on the ENDURO GDS is compatible with Ethidium bromide, SYBR® Safe, gel red and SYBR Green to name a few. The optional Clear Gel Tray provides a great tool to make gel handling easier. The tapered end allows safe transfer of gel reducing risk of damaging gel in transport. The GDS is ready to use right out of the box. Just connect a PC and run.

The ENDURO GDS was designed to save images as either jpg. files for publications or tiff. files for quantitative analysis. Labnet offers Total Lab 1D software in either single, multiple user or network licenses. Total Lab 1D provides for the rapid analysis of images and can get you results in a single click of the mouse. The user has the ability to review each stage of the workflow analysis and intervene or edit if required. Combining high levels of automation with final user review allows rapid and accurate quantitative analysis. The user then has full control of the visualization tools and data display - outputting only those data fields that are of importance as well as the images of choice. Reports can easily be generated including quantitative data, gel image and band profile. This is a full featured analytical software package that is the result of decades of software refinement.

SPECIFICATIONS

Camera	5 Megapixels (2592 x 1944), scientific grade sensor
Lens	8 mm, f1.4 hands-free lens with Smart Capture technology
Cabinet	Built in UV transilluminator (302 nm or 365 nm) with: UV viewing port
Software controls of UV light with automatic shut-off switch	
UV safety override switch in door	
Maximum field of view 20 x 24 cm	
Software	Application-driven imaging offers streamlined workflow
Optional:	TotalLab 1D for quantitative analysis*
Dimensions	34.6 x 31.1 x 68.6 cm (13.6’ x 12.2’ x 27’)
Weight	21.4 kg (48 lbs)

* Recommended that Microsoft Excel is loaded on the PC to use optional TotalLab 1D software

PC SPECIFICATIONS
Operating System
Windows 7
Windows 8
Windows 10

Minimum hardware requirements
1.4 GHz processor speed
2GB RAM
16 GB Free Hard Disk Space
2 USB (camera and printer)

CAT NO.	DESCRIPTION
GDS-1302*	ENDURO GDS Imaging System, 302 nm - Universal Voltage
GDS-1365*	ENDURO GDS Imaging System, 365 nm - Universal Voltage

*Unit includes US, EU & UK power cords

Labnet International

ENDURO™ GDS Touch Gel Documentation System

The ENDURO GDS Touch is an integrated system for DNA analysis and gel documentation. It is based on the GDS but incorporates an integrated tablet PC with a three position filter wheel with both EPI-Blue and EPI-White light sources standard. The market has shown a growing demand for being able to image DNA at higher wavelengths so as to prevent DNA nicking for downstream applications.

The powerful EPI-Blue light can discriminate bands stained with SYBR®Safe up to 3 levels of magnitude greater than imagers using blue light conversion screens. Just like the ENDURO GDS, there is no need to touch the camera. Installation and operation is simple and acquisition of image can be achieved in 4 touches of the tablet. The ENDURO GDS Touch is ideal for life science research labs who need a flexible system with a small footprint.

SPECIFICATIONS

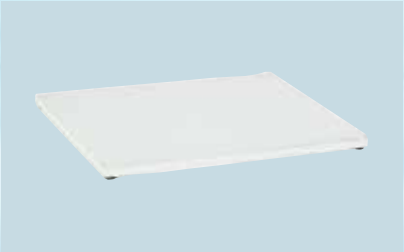
Camera Resolution	5MP
Lens	Manual F 1.4 Lens (No Focus Required)
Field of View	20cm x 24cm
Standard Illumination	Epi blue and white light, 302 or 365nm UV transillumination
Pull out UV	For visualizing and cutting bands
System Controls	Integrated Touchscreen computer
Filter	Three position (EtBr included)
Image Capture Software	
Annotation and email features	Yes
5 minute auto shut-off of UV	Yes
UV on/off in software	Yes
White light on/off in software	Yes
Blue light on/off in software	Yes
Desktop compatible	No
Touchscreen/tablet compatible	Yes
Communications USB .	Tablet has wireless and bluetooth options
Footprint	14” by 12.5” x 25”

CAT NO.	DESCRIPTION
GDST-1302*	ENDURO GDS Touch Imaging System, 302 nm - Universal Voltage
GDST-1365*	ENDURO GDS Touch Imaging System, 365 nm - Universal Voltage

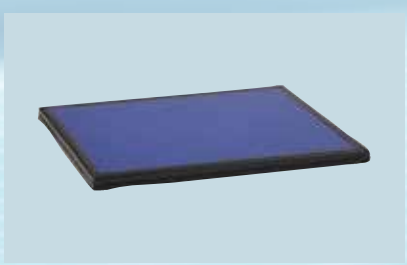
*Unit includes US, EU & UK power cords

ENDURO™ GDS Documentation System Accessories

GDS-12018
Clear Gel Tray
Use for gel transfer and cutting



GDS-12019
White Light Conversion Tray
Use for Coomassie and Silver stain



GDS-12020
Blue Light Conversion Screen (for GDS only)
Use for Gel Green, SYBR®Safe stain, and stains that excite at 490 nm

STAIN GUIDE

Fluor/Stain	Description	Part Number
Ethinium Bromide	302nm UV	Standard
Gel Red	302nm UV	Standard
SYBR Green	302nm and 488nm	Standard
Gel Green	Blue Light Conversion Screen	GDS-12020
SYBR®Safe	Blue Light Conversion Screen	GDS-12020
Coomassie Stain	White Light Conversion Screen	GDS-12019
Silver Stain	White Light Conversion Screen	GDS-12019

OPTIONAL FILTERS (For GDS Touch only)

GDST-676R	Red filter (676 nm)
GDST-572G	Green Filter (572 nm)
GDST-497B	Blue Filter (497 nm)

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Labnet International

ENDURO™ GDS II Gel Documentation System

The basic GDS II model is a full featured gel documentation system designed for DNA and visible Protein stained applications. This system requires but does not include a PC and comes with either 302nm or 365nm UV transilluminator good for 30,000 hours of illumination. It is designed to generate high quality 16 bit tiff files or jpg images ideal for publication and lab notebooks. It is compact taking up little bench space and has an easy user interface. You can capture images in less than 30 seconds for even the most difficult exposures with the "Region of Interest" tab. The area of interest on gel is highlighted and the system will auto expose to the most intense band within the selected area. No more need to do multiple exposures. No fucus, no need to manipulate camera and 4 clicks to get an ideal result. The GDS II has a 2 year all inclusive warranty since no replacement bulbs will be needed for 30,000 hours.

Recommended accessories include a blue light conversion screen for Safe Dye applications, white light conversion screen for visible dyes and stains like Coonmassie Blue, gel carrying tray for transporting your gels and providing a safe surface for cutting out bands.

Small footprint with storage on top

SPECIFICATIONS

Camera Resolution	3.2 MP
Field of View	15 x 20 cm
Standard Illumination	UV (302 or 365nm), epi white
System Controls	Windows 10 PC or laptop (not included) Must meet following min. specs: • Intel processor • 1.4 GHz processor speed • 2 GB RAM • 16 GB free hard disk space • 2 USB 2.0 or higher ports
Dimensions	12 " x 15" (31 x 38 cm)
Certifications	cTUVus; CE

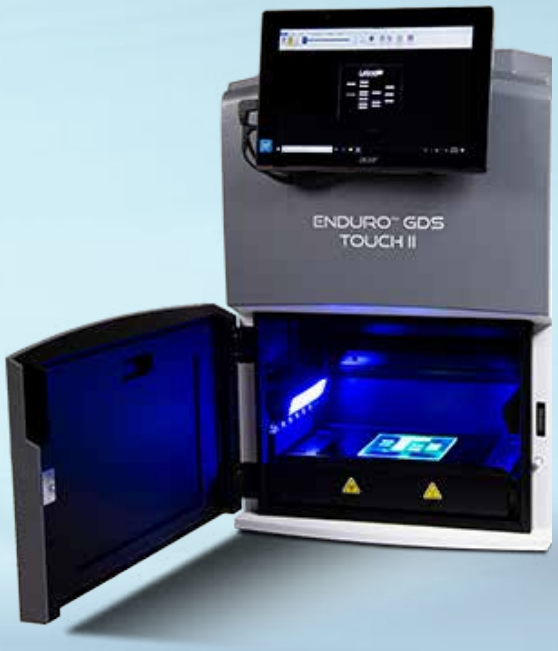
CAT NO.	DESCRIPTION
GDS2-1302*	ENDURO GDS II Imaging System, 302 nm - Universal Voltage
GDS2-1365*	ENDURO GDS II Imaging System, 365 nm - Universal Voltage

*Unit includes US, EU & UK power cords

ENDURO™ GDS II Touch Gel Documentation System

This advanced GDS Touch II model is a full featured gel documentation designed for DNA and visible protein stained applications. This system includes a Windows 10 tablet built on to the system with either 302nm or 365nm UV transilluminator good for 30,000 hours of illumination and 470nm epi-blue lights. It is designed to generate high quality 16 bit tiff files or jpg images ideal for publication and lab notebooks. It is compact taking up little bench space and has an easy user interface. You can capture images in less than 30 seconds for even the most difficult exposures with the "Region of Interest" tab. The area of interest on gel is highlighted and the system will auto expose to the most intense band within the selected area. No more need to do multiple exposures. No focus, no need to manipulate camera and only 4 clicks to get an ideal result. The GDST II has a 2 year all inclusive warranty since no replacement bulbs will be needed for 30,000 hours.

Recommended accessories include a white light conversion screen for visible dyes and stains like Coomassie Blue, orange goggles for visualizing bands for excision using epi-blue lights, and gel carrying tray for transporting your gels and providing a safe surface for cutting out bands.



470nm Epi blue lights
Ideal for DNA "Safe Dyes"

SPECIFICATIONS	
Camera Resolution	3.2 MP
Field of View	15 x 20 cm
Standard Illumination	UV (302 or 365nm), epi -white, epi-blue
System Controls	Windows 10 Tablet (built-on)
USB 2.0 ports	2
Dimensions	12 " x 15" (31 x 38 cm)
Computer Specifications	Tablet Included
Certifications	cTUVus; CE

CAT NO.	DESCRIPTION
GDST2-1302*	ENDURO GDS II Touch Imaging System, 302 nm - Universal Voltage
GDST2-1365*	ENDURO GDS II Touch Imaging System, 365 nm - Universal Voltage

*Unit includes US, EU & UK power cords

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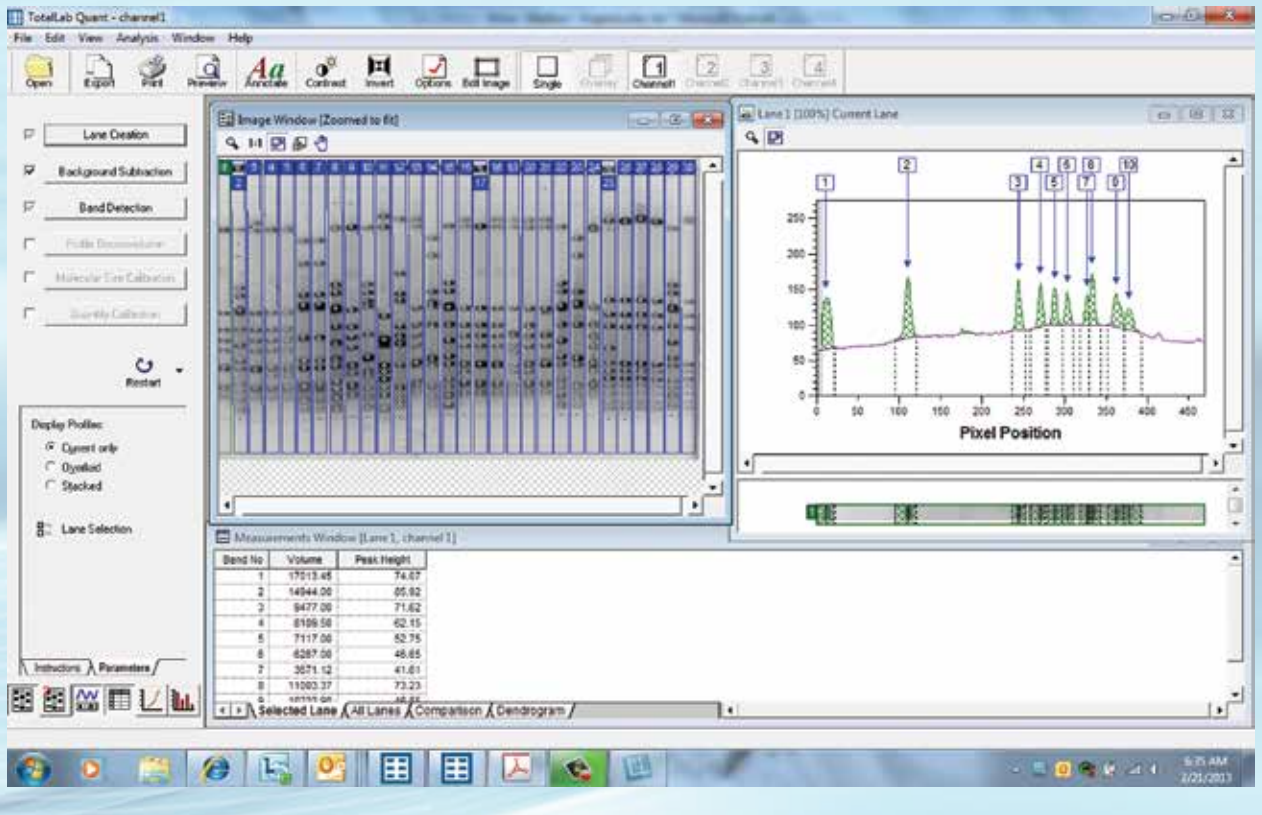
ENDURO™ GDST II Documentation System Accessories

CAT NO.	DESCRIPTION
GDS-TL1D-1	Total Lab 1D single user license for quantitative analysis
GDS2-GCS	Gel Cutting Surface
GDS2-GCT	Gel Carrying Tray
GDS2-OG	Orange Goggles
GDS2-WLCS	White light Conversion Screen
GDS2-USBS	USB Splitter
GDS2-USBMK	USB Mouse/Keyboard
GDS-12021	Mitsubishi P-95DW Thermal Printer
GDS-12022	High Gloss Thermal Paper
GDS2-BLCS	Blue Light Conversion Screen

ENDURO™ TOTAL LAB

Labnet offers TotalLab 1D software in either single, multiple user or network licenses. TotalLab 1D provides for the rapid analysis of images and can get you results in a single click of the mouse. The user has the ability to review each stage of the workflow analysis and intervene or edit if required. Combining high levels of automation with final user review allows rapid and accurate quantitative analysis. The user then has full control of the visualization tools and data display - outputting only those data fields that are of importance as well as the images of choice. Reports can easily be generated including quantitative data, gel image and band profile. This is a full featured analytical software package that is the result of decades of software refinement.



New Features

-New User Interface with simplified menus

-Can save frequently used protocols

-Unique Tutorial mode steps you through analysis

By pressing “Automatic” the first three actions in the experimental overview have been completed

1) Lane Creation
2) Backgroung subtraction
3) Band detection

CAT NO.	DESCRIPTION
GDS - TL1D-1	TotalLab 1D 1 user license
GDS - TL1D-2	TotalLab 1D 2 user license
GDS - TL1D-3	TotalLab 1D 3 user license
GDS - TL1D-1U	TotalLab Quant upgrade 1 user license
GDS - TL1D-3U	TotalLab Quant upgrade 3 user license