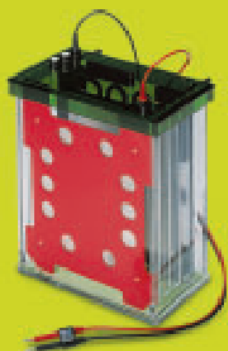




PowerPac Universal™

power supply



Trans-Blot® Plus Cell



Trans-Blot® SD Cell



PROTEAN® Plus Dodeca™ Cell

Plug in for great performance.

BIO-RAD

Open a World of Powerful Possibilities

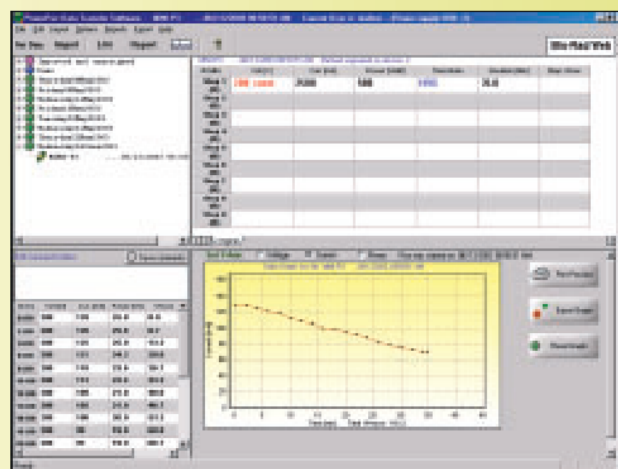
If you've ever wondered whether there's a power supply that fits virtually all your power requirements, explore the new PowerPac Universal. You'll discover that its specifications encompass a broad range of applications — from mini vertical and high-throughput electrophoresis to blotting — firmly establishing the PowerPac Universal as the most universal power supply on the market today.



Data Tracking via Innovative Wireless Transfer

With PowerPac data transfer software it's easy to organize, display, print, analyze, export, and annotate run data from the PowerPac Universal power supply. It has built-in wireless infrared (IR) capability so you can place the PowerPac Universal anywhere in your laboratory. Send your run data first to a personal digital assistant (PDA) and then to a PC, or directly to a PC with a peripheral IR receiving device. Once data are collected from the PowerPac Universal, the data transfer software allows you to:

- See and track the programmed method
- See actual method and run conditions (voltage, current, power, method edits, error conditions, run date and time) recorded periodically during the run
- Annotate a run with notes
- Identify the serial number of the unit that generated the data
- Document all run-related information with reports
- Organize your run data into projects
- Customize data presentation



Data from an SDS-PAGE run on a Mini-PROTEAN® 3 cell.

Move Beyond the Ordinary

In both performance and appearance, the PowerPac Universal is unlike any power supply you've ever seen. With fully adjustable output to 500 V, 2.5 A, and 500 W, it takes you beyond conventional power supplies. Extensive programmability brings new versatility to your electrophoretic separations, and its streamlined design, stackable case, and see-through green cover make the PowerPac Universal stand out in any laboratory.

Extraordinary User Interface and Programmability

The alphanumeric keypad and graphics display combine for straightforward programming of single- or multi-step methods. The PowerPac Universal user interface provides:

- Simple methods programming for starting a run with minimal keystrokes
- Repeat of the previous run with a single keystroke
- Continuous, timed, or volt-hour operation
- A running screen displaying large numbers that can be seen from a distance, as well as helpful run details such as the constant variable, elapsed time, and volt-hours

Built for the Real World

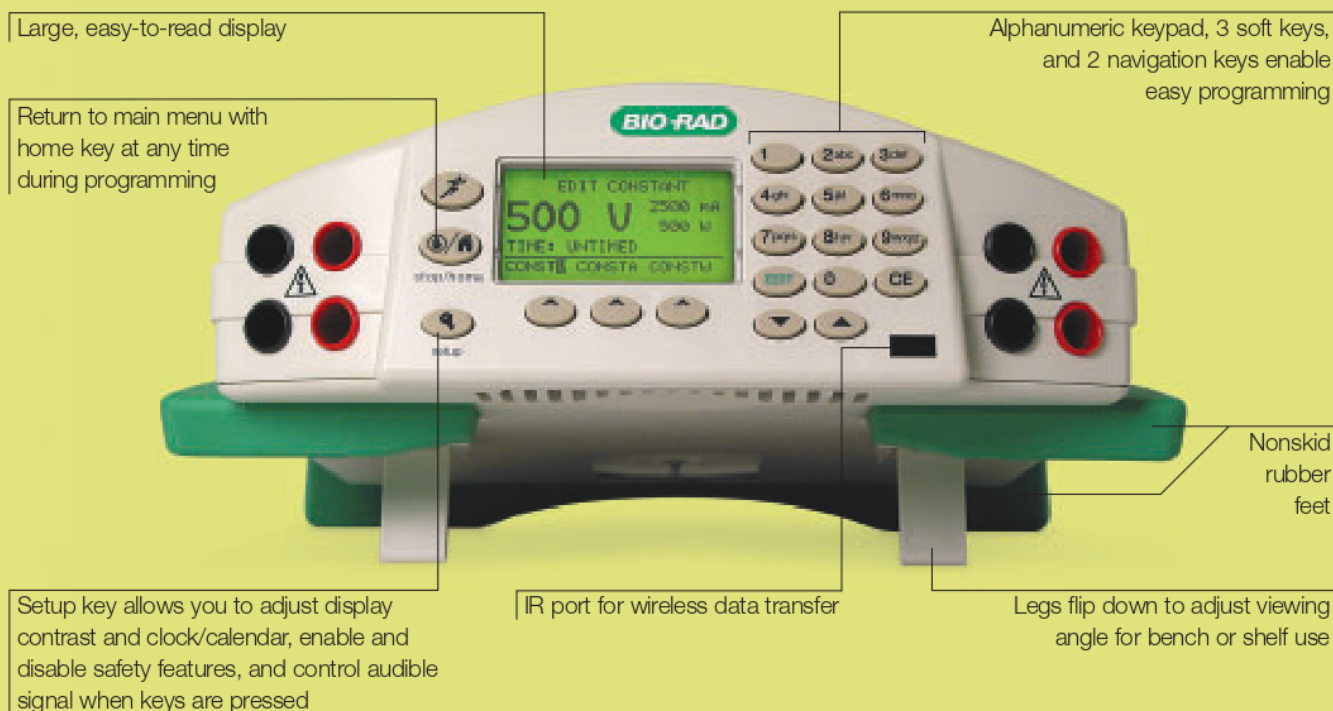
The PowerPac Universal power supply is designed for long-term reliability. Each power supply is manufactured in a state-of-the-art facility utilizing automated testing equipment to ensure that it arrives at your laboratory ready to deliver top performance.

A Helping Hand With IQ/OQ

To support installation qualification and operational qualification (IQ/OQ) within GLP- and FDA-regulated environments, the PowerPac IQ/OQ protocol and test box are available for use exclusively with the PowerPac Universal power supply. The first part of the user-customizable PowerPac IQ/OQ protocol provides an installation checklist and procedure to check performance of a newly installed PowerPac Universal. The second part of the protocol checks actual performance against specified performance over time. The test box houses a factory-calibrated resistive load. When used with the appropriate meters to monitor output voltage and current, the test box determines the power supply performance against its specifications.

Bundled With Cells

The PowerPac Universal is available as part of complete systems for electrophoresis and blotting. See the ordering information on the back page for available combinations.



PowerPac Universal power supply



Specifications

Output specifications	500 V, 2.5 A, 500 W
Output range (programmable)	10–500 V, fully adjustable in 1 V steps 0.01–2.5 A, fully adjustable in 0.001 A steps 1–500 W, fully adjustable in 1 W steps
Type of output	Constant voltage, constant current, or constant power with automatic crossover
Output terminals	4 pair recessed banana jacks floating in parallel
Timer control	1 min–99 hr, 59 min, fully adjustable
Volt-hour control	99,000 V-hr
Pause/resume function	Yes
Programmable methods	Stores 9 methods, each with up to 9 steps
Real-time clock	Yes
Automatic recovery after power failure	Yes
Display	128 x 64 pixel, backlit, graphics LCD
Safety compliance	EN61010
EMI	Conforms to CE standards for Emissions and Immunity class A, tested at 120/230 V. TÜV EMC certification
Safety features	No-load detection, sudden load change detection, ground leak detection, overload/short circuit protection, overvoltage detection, input line protection, auto power-up after power failure
Input power (nominal)	100–120/220–240 VAC, 50 or 60 Hz, autoswitching
Operating conditions	0–40°C; 0–95% humidity in the absence of condensation
Dimensions (W x D x H)	27.5 x 34 x 10 cm
Weight	2.5 kg

Minimum Hardware Requirements for PowerPac Data Transfer Software

PC requirements	Windows XP or 2000 operating system 400 MHz processor 256 MB RAM minimum, 512 MB recommended 1,024 x 768 pixel screen resolution with true color mode (24 or 32 bits) 6 GB hard drive CD-ROM drive IR port
PDA requirements	Palm OS software version 4.0 or 5.0 16 MB memory

Ordering Information

Catalog #	Description
PowerPac Universal Power Supply, 100–120/220–240 V	
164-5070	PowerPac Universal Power Supply, includes PowerPac Universal, power cord, instructions
164-5067	PowerPac Data Transfer Software
164-5069	PowerPac IQ/OQ Protocol and Test Box
PowerPac Accessories	
165-5061	PowerPac Adaptor, 1 each
165-5066	PowerPac Adaptor, 2 each
High-Throughput Electrophoresis Systems, 100–120/220–240 V	
165-4142	PROTEAN Plus Dodeca Cell (100/120 V) and PowerPac Universal Power Supply
165-4143	PROTEAN Plus Dodeca Cell (220/240 V) and PowerPac Universal Power Supply
165-4144	PROTEAN Plus Dodeca Cell (100/120 V), Trans-Blot Plus Cell, and PowerPac Universal Power Supply
165-4145	PROTEAN Plus Dodeca Cell (220/240 V), Trans-Blot Plus Cell, and PowerPac Universal Power Supply
165-4139	Criterion™ Dodeca Cell and PowerPac Universal Power Supply
Blotting Systems, 100–120/220–240 V	
170-3992	Trans-Blot Plus Cell and PowerPac Universal Power Supply
170-3873	Criterion Blotter With Plate Electrodes and PowerPac Universal Power Supply
170-3849	Trans-Blot SD Cell and PowerPac Universal Power Supply

Palm OS is a trademark of Palm Computing, Inc. Windows 2000 and Windows XP are trademarks of Microsoft Corp.

BIO-RAD

**Bio-Rad
Laboratories, Inc.**

Life Science
Group

Web site www.bio-rad.com **USA** (800) 4BIORAD **Australia** 02 9914 2800 **Austria** (01)-877 89 01 **Belgium** 09-385 55 11 **Brazil** 55 21 507 6191
Canada (905) 712-2771 **China** (86-21) 63052255 **Czech Republic** + 420 2 41 43 05 32 **Denmark** 44 52 10 00 **Finland** 09 804 22 00
France 01 47 95 69 65 **Germany** 089 318 84-177 **Hong Kong** 852-2789-3300 **India** (91-124)-6398112/113/114, 6450092/93 **Israel** 03 951 4127
Italy 39 02 216091 **Japan** 03-5811-6270 **Korea** 82-2-3473-4460 **Latin America** 305-894-5950 **Mexico** 55-52-00-05-20
The Netherlands 0318-540666 **New Zealand** 64 9 415 2280 **Norway** 23 38 41 30 **Poland** + 48 22 331 99 99 **Portugal** 351-21-472-7700
Russia 7 095 721 1404 **Singapore** 65-6415 3188 **South Africa** 00 27 11 4428508 **Spain** 34 91 590 5200 **Sweden** 08 555 12700
Switzerland 061 717-9555 **Taiwan** (8862) 2578-7189/2578-7241 **United Kingdom** 020 8328 2000