Data Sheet

Switching DC Power Supplies
1900B Series

Full-Featured DC Power Supplies to Meet Your High Power Needs

B&K Precision models 1900B, 1901B, and 1902B are laboratory grade switching DC power supplies with high current output in a small, lightweight form factor. The 1900B Series provide various configurations of high output voltage or high output current and feature rotary encoder control knobs, which make setting voltage and current fast and precise. Its dual action push button allows the user to set both coarse and fine, voltage and current levels.

In addition to constant voltage (CV) and constant current (CC) modes, these high efficiency DC power supplies offer preset and remote control modes. Save up to three different presets of voltage and current values for quick recall. The analog remote control function allows the output power, voltage, and current to be adjusted without touching the front panel of the power supply. A remote sensing terminal (model 1900B only) is also available to compensate for voltage drop across load leads.

These features make the 1900B, 1901B, and 1902B suitable for a wide range of applications requiring high current including production testing, telecommunications, R&D, service, and university labs.

Features and Benefits

- Automatic CV (constant voltage)/CC (constant current) crossover operation
- Up to 60 A output current
- Lightweight and compact
- Rotary encoder control for precise voltage and current setting
- Save up to 3 user-defined voltage and current presets for quick recall
- Analog remote control function
- USB interface
- Remote sensing terminal (model 1900B only)
- Overvoltage, overtemperature, and overload protection
- Flexible operating modes: Front panel (normal), Preset, or Remote Control
- Front panel 5 amp auxiliary output

Model	1900B	1901B	1902B
Variable Output Voltage	1 - 16 V	1 - 32 V	1 - 60 V
Variable Output Current	0 - 60 A	0 - 30 A	0 - 15 A

Technical data subject to change
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B&K PRECISION
ELECTRONIC TEST INSTRUMENTS

Designed to Make Your Work Easier

Fully Protected

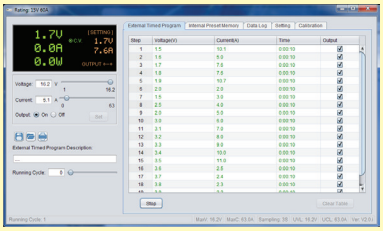
Have peace of mind knowing that these power supplies come with built-in OVP (overvoltage protection), OTP (overtemperature protection), and OLP (overload protection) circuitry. These protections help prevent serious damage to equipment in case of power supply failure.

Custom Presets

Quickly use common voltage and current settings with a flip of the Recall preset switch. Up to three different presets can be set and recalled.

Analog Remote Control Capability

Use the included connector to wire up to an external variable DC voltage source or variable resistor to remotely control the power supply's output voltage and current or to turn the output on/off.

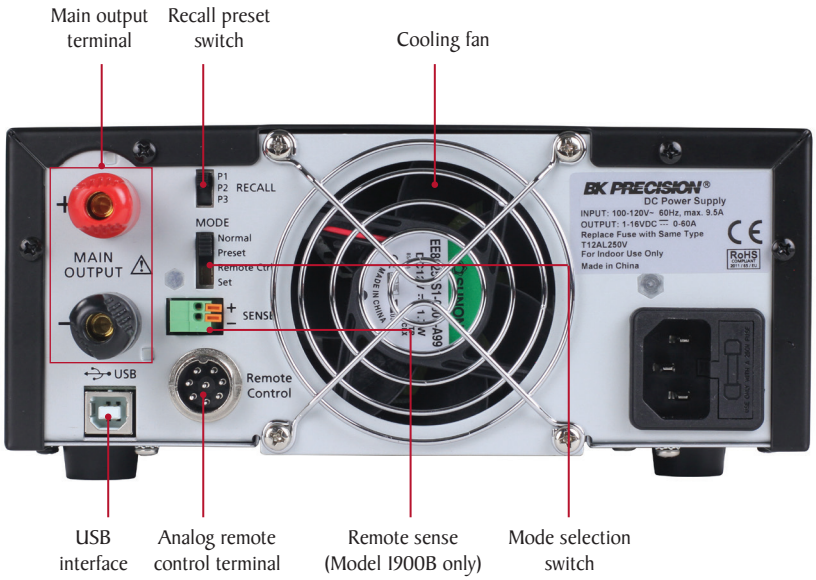


PC Connectivity

Control your instrument through remote control PC software or use programming commands to communicate with your instrument.

Flexibility & Performance

Rear Panel



Specifications

Models	1900B	1901B	1902B
Output			
Variable Output Voltage	1 – 16 V	1 – 32 V	1 – 60 V
Variable Output Current	0 – 60 A	0 – 30 A	0 – 15 A
Auxiliary Output Current	5 A		
Maximum Output Power	960 W	960 W	900 W
Voltage Regulation			
Load (0-100% Load)	≤ 50 mV		
Line (90-132 VAC, 170-264 VAC Variation)	≤ 20 mV		
Current Regulation			
Load (10-90% Rated Voltage)	≤ 200 mA	≤ 150 mA	≤ 100 mA
Line (90-132 VAC, 170-264 VAC Variation)	≤ 50 mA		
Ripple & Noise			
Ripple & Noise Voltage (rms)	≤ 5 mV		
Ripple & Noise Voltage (peak-peak)	≤ 50 mV	≤ 50 mV	≤ 100 mV
Current Ripple & Noise (rms)	≤ 100 mA	≤ 50 mA (110 VAC) ≤ 40 mA (230 VAC)	≤ 15 mA
Meter Type & Accuracy			
Voltage Meter	3-Digit LED Display ± 0.2% + 3 counts		
Current Meter	3-Digit LED Display ± 0.2% + 3 counts		
Other			
AC Input	100 - 120 VAC 60 Hz, 220 - 240 VAC 50 Hz*		
Full Load Input Current	9.4 A (110 VAC) 4.7 A (230 VAC)	9.0 A (110 VAC) 4.5 A (230 VAC	9.3 A (110 VAC) 4.5 A (230 VAC
Efficiency	84% (110 VAC) 85% (230 VAC)	87% (110 VAC) 86% (230 VAC)	87% (110 VAC) 88% (230 VAC)
Switching Frequency	65 – 85 kHz	75 – 95 kHz	65 – 85 kHz
Tracking Overvoltage Protections	O/P 1-5 V: set voltage +2 V O/P 5-16 V: set voltage +3 V	O/P 1-5 V: set voltage +2 V O/P 5-20 V: set voltage +3 V O/P 20-32 V: set voltage +4 V	O/P 1-5 V: set voltage +2 V O/P 5-20 V: set voltage +3 V O/P 20-60 V: set voltage +4 V
Transient Response Time (50-100% Load)	1.5 ms		
Power Factor Correction	> 0.95 at optimal load		
Cooling Method	Thermostatically controlled fan from zero to full speed		
Protections	Overload, Short Circuit by Constant Current, Overvoltage, Overtemperature		
Special Features	3 User-Defined Voltage and Current Presets, Analog Remote Control, Remote Sense (model 1900B only)		
Operating Temperature	32 °F to 104 °F (0 °C to 40 °C), ≤80% R.H.		
Storage Temperature	5 °F to 158 °F (-15 °C to 70 °C), ≤85% R.H.		
Dimensions (W x H x D)	7.9" x 3.5" x 10.8" (200 x 90 x 275 mm)		
Weight	7 lbs (3.2 kg)		
			Two-Year Warranty
Included Accessories	Power cord, instruction manual, USB cable, remote control connector		

Note: All specifications apply to the unit after a temperature stabilization time of 15 minutes over an ambient temperature range of 23 °C ± 5 °C.
*Special order instructions: For 230 V version, request model 1900B-220 V, 1901B-220 V, or 1902B-220 V.