

- Optimized for Micro Channel Plate devices
- 2 Stable High Voltage Outputs
- 1 Grazing Incidence Suppression Voltage Output
- Precision 10-Turn Adjustments
- Vacuum Monitoring & Status, Audible Alarm
- ARC Protected with Status LED
- Remote Operation: TTL, analog, contact closure
- Reliable Internal Cooling Fan
- Supply: 100 to 240 VAC Universal Input

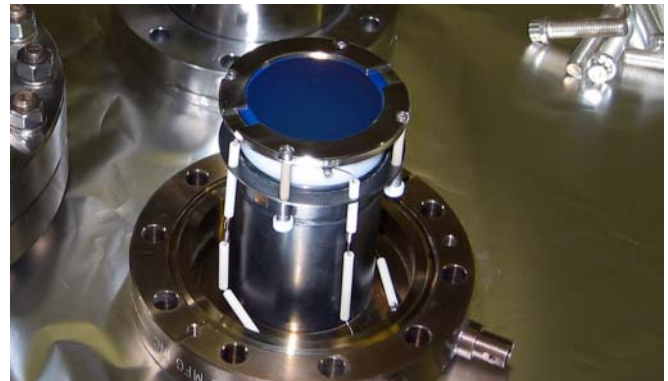
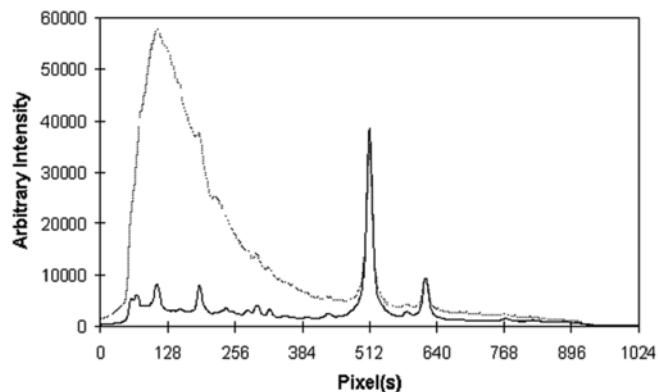


Designed from the ground up to be the power supply of choice for stable and safe bias of microchannel plate (MCP) intensifier devices. Loaded with extra features, our standard Model 735 Power Supply provides variable 1KV and 5KV high voltage for operation of open, single-stage MCP intensifiers. It has a low voltage source too, useful when noise suppression is necessary.

Operation of a microchannel plate requires a vacuum of at least mid  $10^{-6}$  torr. Vacuum systems, however, are subject to power failures or human error. The Model 735 features a vacuum interlock circuit that when connected to a suitable vacuum gauge, adds a safety factor not available with other power supplies.

Protects your investment in MCP devices with additional features, including arc protection circuit, preset voltage limit capability, and a ramping feature that extends MCP life and phosphor by eliminating 'instant' charge that may cause arcing and damage the MCP during initial power up.

### Suppression Feature



On grazing incidence spectrometers sometimes "noise" caused by stray electrons and ions overwhelms the signal of interest. Use of a suppression voltage eliminates this unwanted contribution. The graph above left shows electron noise as a gray line eliminated from the spectra (black) by applying a low negative voltage to the face of the microchannel plate. The suppression feature is standard in the Model 735 microchannel plate power supply.

### Applications

Alternate high voltage configurations are available to suit your application. Ideal for MCP use in X-Ray, EUV, Astronomy, Cluster Physics, Nuclear Physics, High-Energy Physics, E-Beam Fusion, and more.

## Model 735 Microchannel Plate Power Supply Specifications

	Standard Configuration			Optional Configurations			
	CHL1	CHL2	CHL3	CHL1	CHL2	CHL2	CHL3
Output Voltage (max)	+5000V	+1000V	-10V	-5000V	+5000v	±2000V	+10V
Output Current (max)	0.5mA	2.5mA	1mA	0.5mA	2.5mA	1mA	1mA
Ripple (p-p, max)	10mV	4mV	10mV	10mV	4mV	4mV	10mV
Stability	<.005% (.02%/8 HR)		.05%/HR	<.005% (.02%/8 HR)			.05%/HR
AC Input	90-264 VAC						
Frequency	47 - 63Hz						
Leakage Current	<3.5mA						
Efficiency	>70%						
Current Limit	120%						
Protection	Short Circuit and Arc						
HV Startup Ramp	45 Seconds						
Voltage Adjustment	Three instant, front panel controls, 10 turns each						
Local / Remote Select	Front panel switch with LED status						
Display	4.5 digit with back light						
Vacuum Alarm	Audible, adjustable volume						
HV, arc, Vacuum Status	LED indicators						
Remote Operation	TTL, analog contact closure						
Rear Connectors	CHL1 MHV, CHL2 MHV, CHL3 SHV, vacuum DB9, remote DB15						
Operating Temp	0 - 50° C						
Storage Temperature	-20 to 60° C						
Dimensions	5.22" (13.3cm)H x 16.75"(42.6cm)W x 14.38"(36.5cm)D						

Unit delivered complete with AC Power cord and documentation. Interface cables may be purchased separately if needed. The addition of a high voltage pulser module allows the end user to gate the channel voltage if the application requires it.