







M O D E L 2221

PREAMPLIFIER POWER SUPPLY

- 6 x AA batteries or DC adapter powered
- 0 & 200 volt polarization
- Selectable weighting (A, C, or Z)
- Drive long cables up to 500 ft (150 m)
- Settings retained when powered off
- Selectable gain (0 40 dB in 10 dB steps)
- Overload indicator

TYPICAL APPLICATIONS

- In-House calibration of vibration instrumentation
- Power a variety of precision microphones and preamplifiers
- Signal conditioning for use with recorders, data loggers and analyzers

FOR LOW NOISE AND 200 V MICROPHONES

The Model 2221 is an excellent choice for when you need a traditional preamplifier power supply. The Model 2221 includes all the features needed for demanding applications such as low noise amplification and the ability to drive long cables up to 500 feet.

Combine the Model 2221 power supply with a traditional preamplifier like the model PRM902 and an externally polarized microphone to make a complete analog front-end. The Model 2221 will operate on AA batteries for 40 hours and includes A, C, and Z weighting filters which makes it an excellent choice for portable applications. Signal is output on a BNC connector, making it easy to interface with a variety of data acquisition devices.

When you purchase PCB and Larson Davis products you can rely upon our excellent customer support and Total Customer Satisfaction policy to ensure our commitment to your success.

SPECIFICATIONS						
Performance						
Frequency Response						
A-weighted	63	63 Hz to 20 kHz (± 0.3 dB)				
C-weighted	2	25 Hz to 20 kHz (± 0.3 dB)				
Z-weighted	10	10 Hz to 100 kHz (± 0.2 dB) 1 Hz to 150 kHz (-3 dB)				
		1 Hz to 150) kHz (-3	dB)	
With respect to response at 100	U HZ					
Electrical Specifications		0				
Microphone Bias		0 and 200 V (± 0.25 V)				
Preamplifier Voltage		± 18 V				
Output Current (Max)		25 mA				
Input Level (Max)		18 Vpeak				
Overload Indicators	Blir	Blinking LED = Instantaneous Solid LED = latched				
Overload Level		± 16.5 Vpeak				
Gain	0	0 to 40 dB in 10 dB steps				
Fine Gain Adjustment		-10 to 0 dB				
Electrical Output Noise (with inp	ut shorted)					
20 Hz to 20 kHz	Gain	А	С		Z	
	0	5.9 µV	4.4 μV		1.9 µV	
	20	20 µV	6.6 µ\	V	7.8 µV	
Cable Length (capacitance = 30	oF/ft)					
Length	14 Vpeak	4.2 V	peak		1.4 Vpeak	
250 ft (76 m)	38 kHz	120	kHz	300 kHz		
500 ft (152 m)	19 kHz	62 kHz		180 kHz		
Power Supply		1				
Internal Batteries		6 x AA cells				
Battery Runtime		40 hours with PRM902				
DC Input Voltage		10.5 to 30 V				
DC Input Current	65	65 mA @ 12 V with PRM902				
Input Connector						
PIN		SIG	INAL			
1		No connection				
2		Signal ground				
3	Micr	Microphone polarization voltage				
4		Signal Input				
5		No connection				
6		Power Supply (+18 V)				
7		Power Supply (-18 V)				
	С	Connected to case ground				
Shell	C	Connected to case ground				

SPECIFICATIONS (continued)						
Physical						
Dimensions (H x W x D)		8.02 x 4.10 x 1.29 in (204 x 104 x 32.8 mm)				
Weight (incl. batteries)		15 oz (425 g)				
Input Connector		7-pin LEMO [@] 1B Female				
Output Connector		BNC Female				
Power Connecto	r	2.5 x 5.5 circular, center positive				
Operating Tempe	erature	-40 °F to 140 °F	-40 °C to 60 °C			
Operating Humic	lity	0 to 90% relative humidity, non-condens				
Compliance						
IEC 61672-1 (2002) and ANSI S1.40 1984 for Class 1 A, C and Z-weighted filters						
IEC 61010-1 (2001) Safety						
CE						
Ordering Information						
2221	Single channel power and amplification for precision mic, 7-pin LEMO® input, internal batteries, 0 and 200 V polarization, flat (Z), A or C-WT, 0 to 50 dB gain range.					
Supplied Accessories						
PSA027	90 – 264 VAC to 12 VDC power adapter					
Optional Accessories						
EXAxxx	Microphone extensions cables with 7-pin $LEMO^{\circledast}$ connectors					
Related Products						
PRM902	1/2" microphone preamplifier					
CAL200	Class 1 acoustic calibrator					

LARSON DAVIS

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