



# Model P702B General purpose power unit and amplifier

## Features

- Amplifier gain of 1, 10, 100
- Acceleration or velocity output
- Visible overload/fault alarm
- Can be used with model CC701 for charge mode transducers
- Low noise
- Wide dynamic range
- Powered by 9V transistor batteries
- Battery test light

### Input characteristics

|                                  |        |
|----------------------------------|--------|
| Voltage to transducer .....      | 27 VDC |
| Current to transducer, ±20%..... | 2.4 mA |
| Input impedance.....             | >1 MΩ  |

### Output characteristics

|   |             |
|---|-------------|
| Output Impedance .....                                      | 100 Ω       |
| Maximum output voltage.....                                 | 6.0 Vpk     |
| Output mode, switchable                                     |             |
| Acceleration .....  | mV/g        |
| Velocity .....  | mV/in/sec   |
| Noise, 2 Hz - 25 kHz , referred to input:                   |             |
| maximum, gain = 10, or 100 .....                            | <4.5 μV rms |
| Spectral noise, referred to as input, dB relative to 1V/Hz: |             |
| 10 Hz.....  | -149 dB     |
| 100 Hz.....   | -154 dB     |
| 1 kHz .....   | -154 dB     |
| 10 kHz.....   | -154 dB     |

### Transfer characteristics

|  |                 |
|--|-----------------|
| Gain, acceleration.....                  | 1, 10, 100      |
| Gain, velocity .....                     | 1, 10, 100      |
| Gain accuracy:                           |                 |
| maximum error for acceleration mode..... | ±0.3 dB         |
| maximum error for velocity mode .....    | ±0.5 dB         |
| Frequency response, -3 dB:               |                 |
| Acceleration .....                       | 0.5 - 50,000 Hz |
| Velocity .....                           | 1.0 - 20,000 Hz |
| Amplitude nonlinearity.....              | <1%             |
| Total harmonic distortion .....          | <1%             |

### Power requirements

|                               |                  |
|-------------------------------|------------------|
| Internal batteries .....      | (3) 9 V alkaline |
| Battery life.....             | 80 hours typical |
| External power, optional..... | 24 to 30 VDC     |

### Environmental

|                         |           |
|-------------------------|-----------|
| Temperature range ..... | 0 to 55°C |
|-------------------------|-----------|

### Physical characteristics

|                               |                        |
|-------------------------------|------------------------|
| Weight .....                  | 1.25 lb.               |
| Dimensions.....               | 3" W x 1 7/8" H x 6" D |
| Connectors: Signal input..... | BNC                    |
| Signal output.....            | BNC                    |

Accessories available: LA704B line adaptor; LA704B-220 line adaptor; CC701 series charge converter, NC3 Nicad kit

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