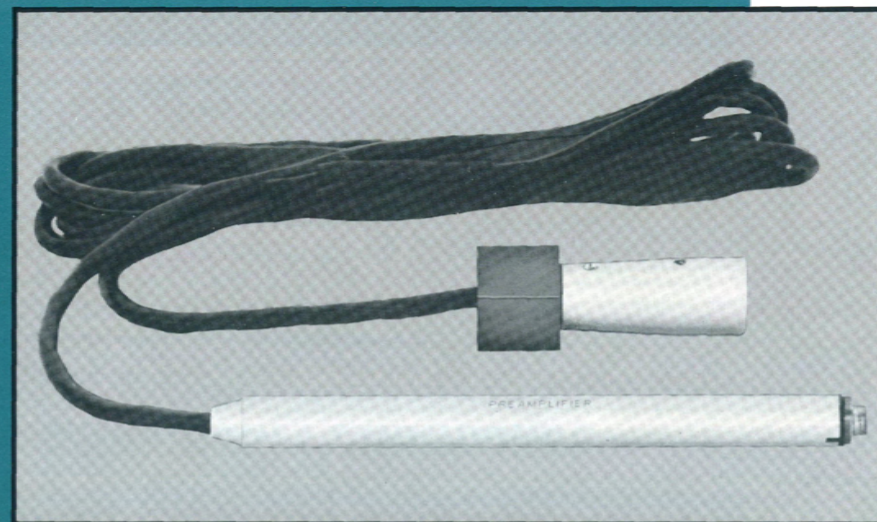


1560-P42 PREAMPLIFIER

Delivers High-Input Impedance/ Low Noise for a Variety of Acoustic Equipment

- ☐ High-input impedance, low-noise preamplifier for amplifying the output of capacitive sources
- ☐ Built-in 200 volt polarizing voltage
- ☐ Provides voltage gain choice of 1 or 10 (0 dB or 20 dB)



With high-input impedance and low noise, the GenRad 1560-P42 Preamplifier is well suited for amplifying the output of capacitive sources, including all GenRad electret-condenser microphones, air-condenser microphones, ceramic microphones, and vibration pickups.

The preamplifier is ideal with GenRad sound-level meters and analyzers when you want to "drive" very long cables at high levels (between the microphone and the instrument) without losing signal integrity.

The preamplifier is also an effective probe amplifier for various other electrical signals.

And you can use the 1560-P42 for increasing the sensitivity and input impedance of analyzers, recorders, amplifiers, null detectors, counters, frequency meters, voltmeters, and oscilloscopes.

Output from the preamplifier is through a removable three-wire shielded cable. DC supply voltage is applied from one of the wires to ground.

SPECIFICATIONS

GAIN: 1:1 or 10:1 (20 dB) ± 0.3 dB at 25° C, slide-switch controlled; $< \pm 0.3$ dB gain change, from that at 25° C, from -30 to +65° C.

FREQUENCY RESPONSE: (at 1-V rms open-circuit output behind 600 Ω , -30 to +55° C):

	3 Hz	5 Hz	20 Hz	100 KHz	300 KHz	500 KHz
1:1 gain	± 3 dB	± 1 dB	± 0.25 dB	± 1 dB		
10:1 gain	± 3 dB	± 1.5 dB	± 0.3 dB	± 2 dB		

IMPEDANCE: INPUT: ≈ 2 G in parallel with < 6 pF; driven shield reduces input-capacitance loading for condenser microphones. OUTPUT: ≈ 15 Ω in series with 3.3 μ F.

OUTPUT: SIGNAL: Up to 11 V pk-pk to 10 KHz into open circuit with 15-V supply, decreasing to 2 V pk-pk for 1:1 gain and 1 V pk-pk for 10:1 gain at 100 KHz. Up to 10-mA rms output with 1560-P62 Power Supply. **POLARIZING VOLTAGE:** +200 V $\pm 5\%$ behind ≈ 1.2 G Ω dc source resistance; on-off slide-switch controlled; temperature coefficient $\approx 0.1\%$ /° C; frequency > 50 KHz.

NOISE: < 3.5 - μ V equivalent input with 390-pF source capacitance, C-weighted, 10-KHz effective bandwidth.

DISTORTION: $< 0.25\%$ harmonic distortion at 1 KHz with 1-V rms into open circuit load; $< 1\%$ at 10 KHz with 1-V rms output into 0.1 μ F (equivalent to 2,000 ft. of cable).

INSERT TERMINALS: Accepts insert calibration signal. Insert resistance 10 $\Omega \pm 20\%$. Nominal loss between connector and microphone terminals < 0.5 dB. Maximum insert voltage 1 V rms.

CONNECTORS: INPUT CONNECTOR: 0.460-60 thread for direct connection to 1/2-in. microphones and adaptors. OUTPUT (SIGNAL) CONNECTOR: (male) 4-pin shielded GenRad Type 1933-0410. Mates with 1560-2370 10-foot cable with Switchcraft Type A3 3-terminal microphone connector on opposite end.

POWER: +15 to +25 Vdc, 1 to 2 mA idling (200 V off) or 3 to 5 mA idling (200 V on). Available directly from 1523, 1558, 1568, 1564, 1909, 1911, 1913, 1921, or 1925 Analyzers, 1525 Recorder, 1561 Sound-Level Meter, 1934 Noise-Exposure Meter, 1566 Multichannel Amplifier, or from 1560-P62 power supply when preamplifier is to be used with 1565 or 1551 Sound-Level Meter, 1553 Vibration Meter, and 1910 Analyzer.

MECHANICAL: DIMENSIONS (less cable): 6.75 in. (170 mm) long x 0.5 (13 mm) dia. WEIGHT (with cable): 1 lb. (0.5 kg) net, 3 lb. (1.4 kg) shipping.

ORDERING INFORMATION

Description	Order No.
1560-P42 Preamplifier	1560-9642