

**MODEL 175N
HIGH POWER PREAMPLIFIER
WITH REMOTE GAIN SWITCHING**

 **Instruments**

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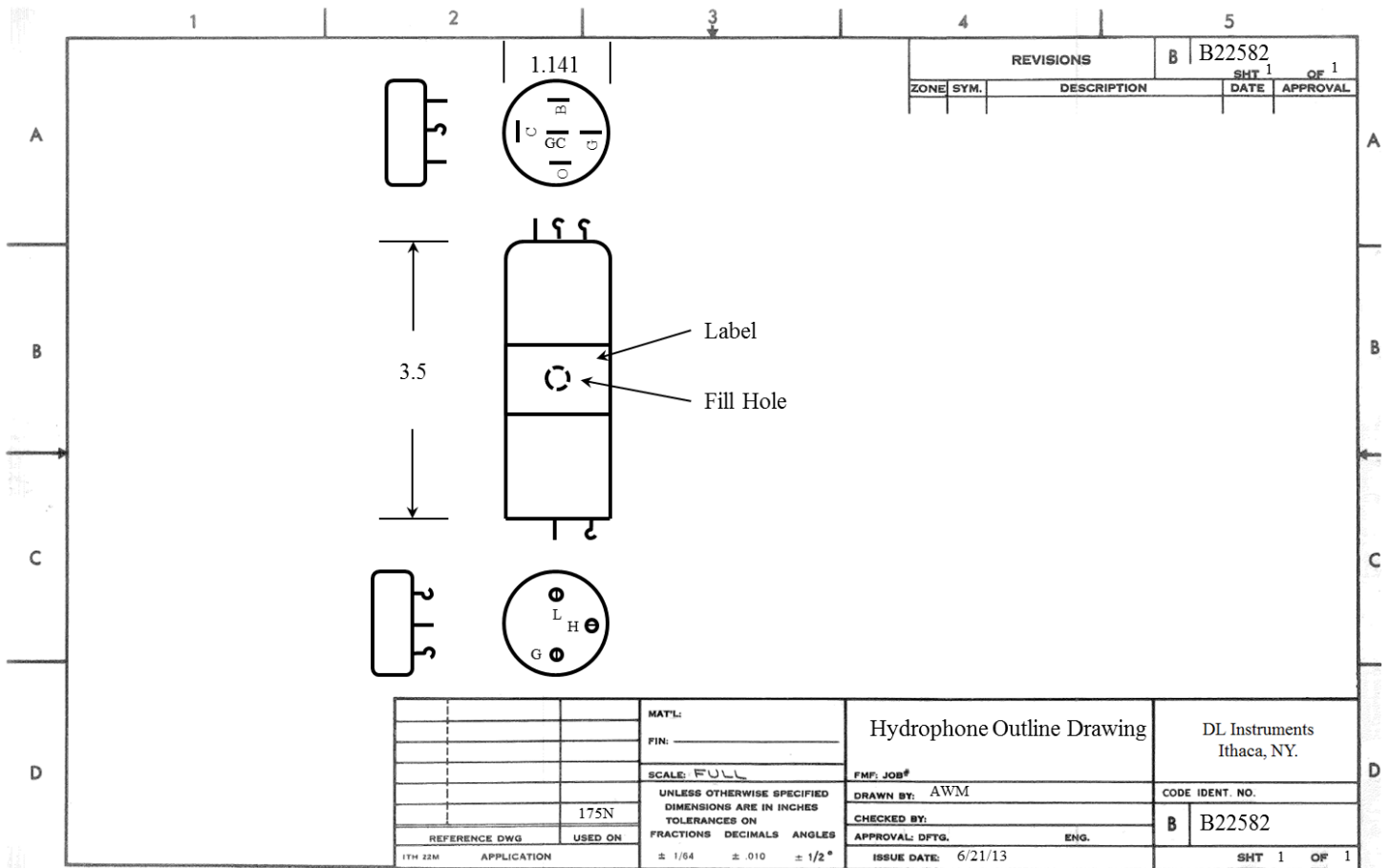
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Premium noise performance and 1000 Meg Ω input impedance are provided in a preamplifier with remotely-switchable gain and 50 Ω drive capability. Applications include hydrophones, low noise vibration work, radiometry-generally, any case where widely-varying signal amplitude is encountered.



CONSTRUCTION

1.141 inch diameter X 3.5 inch long hermetically sealed cylindrical module. Input on one end, all other functions on opposite end to make it convenient for applications where signal flow is in a straight line.



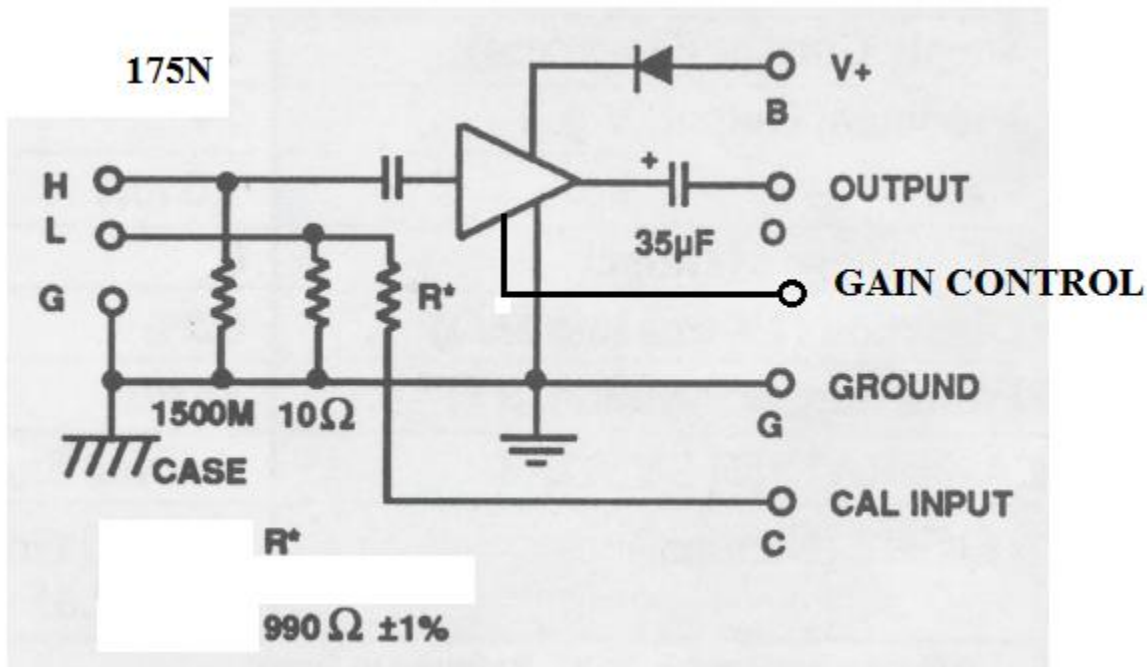
PIN CONNECTIONS

INPUT :

- G** GROUND
- H** INPUT HI
- L** INPUT LO

OUTPUT:

- C** CALIBRATE
- O** OUTPUT
- G** GROUND
- B** POWER
- GC** GAIN CONTROL



175N Block diagram

SPECIFICATIONS

VOLTAGE GAIN 40dB with control pin connected to B+
20dB with control pin grounded

GAIN ACCURACY ±0.5dB

GAIN STABILITY ±0.1dB over rated supply voltage range

MAXIMUM NOISE REFERRED TO INOUT

1000 pF source	-166 dB V re 1 volt, 1 Hz BW@10kHz 1.5μV broadband, 5 Hz-100kHz
100 pF source	-140 dB V re 1 volt, 1 Hz BW@100kHz 3μV broadband, 20 Hz-100kHz 5μV broadband, 5 Hz-100kHz

FREQUENCY RESPONSE -3dB maximum at 1 Hz and 200 kHz

INPUT IMPEDANCE 1000 meg Ω minimum shunted by 15 pF maximum

OUTPUT IMPEDANCE 15 Ω maximum in series with 100 μ F

DISTORTION 0.5% at 1 V rms output

OPERATING TEMPERATURE -25 $^{\circ}$ C to +55 $^{\circ}$ C operation
-55 $^{\circ}$ C to +85 $^{\circ}$ C storage

POWER SUPPLY 15 Volts to 30 Volts

NOMINAL CURRENT 15 mA* to 32 mA**

MAXIMUM OUTPUT 7Vpk-pk to 19V pk-pk

PEAK SHORT CIRCUIT CURRENT 30 mA pk to 100mA pk

SINE OUTPUT INTO 50 Ω 1V rms to 3V rms

***33 mA@max load@15V**

****77mA@max load@30V**

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