



Amplifier  
Gain ~ (R5+R2)/R2  
TL071 may be replaced  
with the TL2071 device.

Single-supply operation  
Reference points at  
R4 R3 and its biased slightly  
high due to piezo characteristics.  
Note that piezo's load resistor  
is referenced to this point.

R1 is piezo load forming an  
RC time constant dictating  
lower frequency response of  
circuit:  
cutoff = 1/(2piR1Cpiezo)

Resistors are 1/8-1/4W, 5%  
except where noted

Diodes are 1N914 types

Capacitors are rated 25VDC minimum

### Hydrophone PreAmplifier

Supply range: 9-18VDC  
Frequency response <3Hz to  
>70KHz (+/- 1.5dB max)

Typical Current Drain:  
<2mA normal operation  
using +12VDC supply.