

□ Op amps, like the popular 741, are usually operated with matching plus and minus power supplies. However, for simple signal amplification applications, the single positive supply shown below has been found to work quite nicely. Resistors R3 and R4 may be fixed at about 5000 ohms each, or replaced with a 5K or 10K

potentiometer, if it is desired to adjust the no-signal output level so that high-amplitude signals will not be clipped. Sometimes, intentional clipping is desired, so this feature may be retained for general experimental applications. Note: If a potentiometer is used for R3, R4, connect center terminals of pots to pin #3 of IC1.

PARTS LIST FOR OP AMP

VARIATION

C1—0.01- μ F ceramic capacitor, 15 VDC (gain=10)

—0.10- μ F ceramic capacitor, 15 VDC (gain=100)

C2—1 to 100- μ F electrolytic capacitor, 15 VDC (increase value with frequency)

C3—100- μ F electrolytic capacitor, 15 VDC

IC1—741 op amp

R1—10,000-ohm, $\frac{1}{2}$ -watt resistor

R2—100,000-ohm, $\frac{1}{2}$ -watt resistor (gain=10)

—1,000,000-ohm, $\frac{1}{2}$ -watt resistor (gain=100)

R3, R4—5,000-ohm, $\frac{1}{2}$ -watt resistor or 5,000-10,000 ohm linear taper potentiometer

