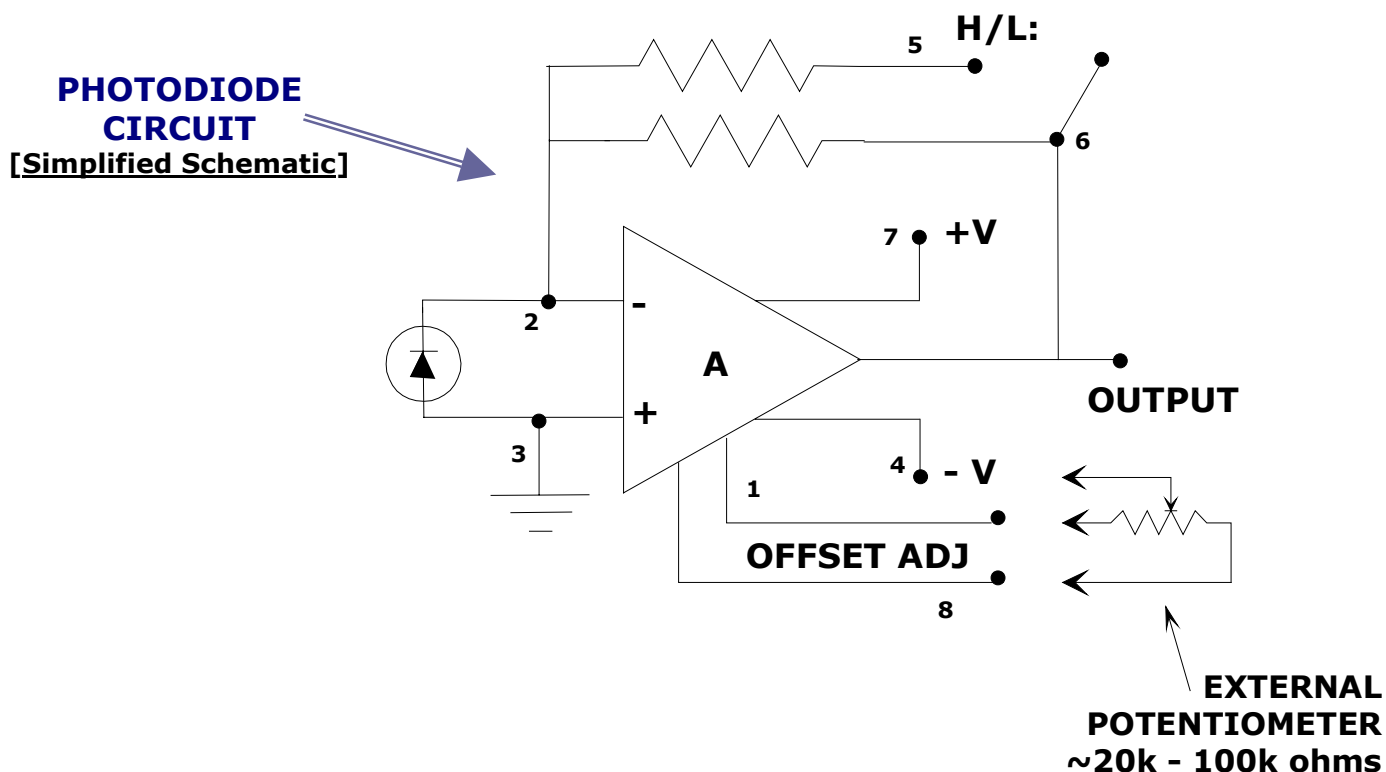


E8 PHOTODIODE/AMPLIFIER OPERATION



OPERATING THE E8 PHOTODIODE/AMPLIFIER

POWER SUPPLY: A bipolar supply is required, +,- 5VDC to +,- 15VDC, 20mA.

The power supply pins should be bypassed physically close to the amplifier module. Double check wiring prior to turning on power. Improper/reverse wiring will damage the unit.

GAIN SELECT: The unit is supplied with a feedback resistance of 10^9 ohms. For convenience, a 10^8 ohm resistor has also been installed inside the module, giving a 10:1 gain decrease by shorting pins 5 & 6. Other gain settings may be obtained by installing external resistance.

OFFSET ADJUSTMENT: Small adjustment to the output voltage may be made by installing an external potentiometer as shown, connected to pins 1 & 8 and 4 (-V). This adjustment is meant for zeroing out amplifier input errors and not for offsetting signals due to light leakage.

AMBIENT LIGHT: Because of the high gains involved, the unit must be shielded from ambient background light during operation. Measurement errors and/or saturation can result from improper shielding.

NOTES ON SOLDERING: Because of the high impedance values associated with the photodiode and the amplifier circuit it is extremely important to install the unit properly. All residues from the solder and flux must be thoroughly cleaned/removed or leakage will occur resulting in measurement errors and/or saturation of the unit. The photodiode and amplifier are static sensitive and should be handled in a static-controlled workstation. Use only grounded-tip soldering irons. Do not overheat the header pins.