

The power requirements are shown below.

Pins	Normal Voltage	Marginal Check Limits		Current (mA)
		Min.	Max.	
A	+10	+15	+15	100
B	-15	-10	-20	20

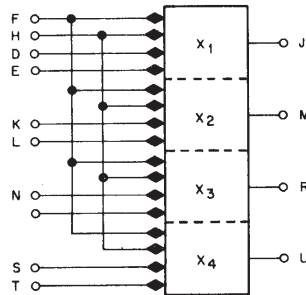


Figure 3-7 Block Diagram, G286 Center Tap Selector Module

3.6.5 G702 Disk Simulator

The G702 Disk Simulator (lamp) Module is used to indicate the ability of the disk logic to select the read/write heads, replacing the disk during the diskless diagnostic maintenance program. The module contains 16 indicators directly associated with the heads 0 through 17 (octal count). The module also simulates the photo sync mark. Pin C is grounded when the switch is closed manually. The associated photo sync circuit receives a simulated sync mark. The lamp module replaces the interconnecting cable between the logic and the disk head assembly. Use of the lamp module permits the field service personnel to test the disk logic without the disk. Associated circuits tested with the lamp module are the X-Y matrix (G285 and G286) and the writer (G284), together with their associated circuits.

The lamp module gives the operator a visual indication of the head matrix selection. The lamps can cycle in sequence, with proper operation of the matrix and associated circuits. If a lamp does not illuminate or is lit out of sequence, the matrix of its associated circuit is defective. The current flow to light the lamps is comparable with that observed while writing.

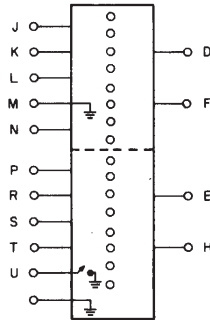


Figure 3-8 Block Diagram, G702 Disk Simulator Module

3.6.6 54-4073 Photocell Amplifier

The photocell is designed to mount directly on the DF32 base assembly. The amplifier detects the presence of a reflective spot on the disk edge, denoting the beginning of timing, address, and data tracks. The module contains the photocell light bulb and amplifier circuit on the same integrated printed circuit board. The circuit contains circuitry to maintain thermal stability, $\pm 5V$ margin on the +10, -15 supply and output signal width adjustment. This assembly is adjustable near the disk edge to compensate for mechanical tolerances.

The photo diode has a pickup surface of 1 cm square. The reflective gap on the disk edge is approximately 0.125 x 0.25 in., and activates the photo diode for approximately 200 μs . In conjunction with the photo amplifier the output signal is adjustable.

The signal output is grounded when the reflective surface is in front of the photo diode. When the reflective surface is away from the photo diode, the signal goes towards -15V. An external clamp voltage of -3V must be connected at the terminal end of the output line and must not exceed 5 mA. Output rise and fall times are 2 μs . The photo-amplifier output signal is adjustable over a range of 100 to 300 μs .

The power requirements are shown below.

Pins	Normal Voltage	Marginal Check Limits		Current (mA)
		Min.	Max.	
A	+10	+ 5	+15	100
B	-15	-10	-20	7