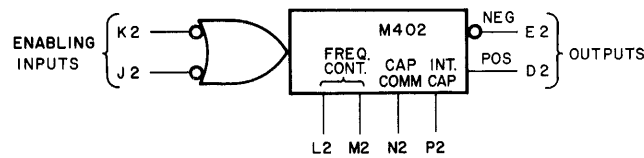


M402 Photo Mod Clock

The 402 module contains a stable RC-coupled multivibrator that produces standard 100-ns timing pulses at adjustable repetition rates.

The module is intended for use as a source of timing signals in a digital system. Repetition rate is adjustable from 1 Hz to 500 kHz in two ranges. An internal capacitance, selected by a jumper wire, facilitates coarse frequency control; and an internal light source provides continuously variable adjustment within the selected range.



15-0115

M402 Simplified Diagram

Coarse Frequency Range

Frequency Range	Cap	Interconnections Required
250 Hz to 500 kHz	0.01 μ F	None
1 Hz to 6 kHz	2.00 μ F	N2 - P2

A 2-input OR gate input is provided for start-stop control of the pulse train. A level change from HIGH to LOW with fall time less than 400 ns is required to enable the clock.

Fine frequency adjustment is obtained by applying a control voltage to pins L2 and M2. This voltage changes the intensity of a lamp inside the module, which in turn adjusts the recovery time of the multivibrator. The voltage applied between pins L and M should be limited to the range of 0V to 5V.

The following are the input, output, and power characteristics of the M402 module.

- INPUTS:** Each ENABLE input presents 1 unit load. For input characteristics of pins L and M, refer to text above.
- OUTPUTS:** Output pin D supplies positive 100 ns pulses capable of driving 10 unit loads. Output pin E supplies pulses that are the reverse of pin D. This output is capable of driving 9 unit loads.
- POWER:** Power dissipation of the M402 module is 5V at 100 mA (maximum).