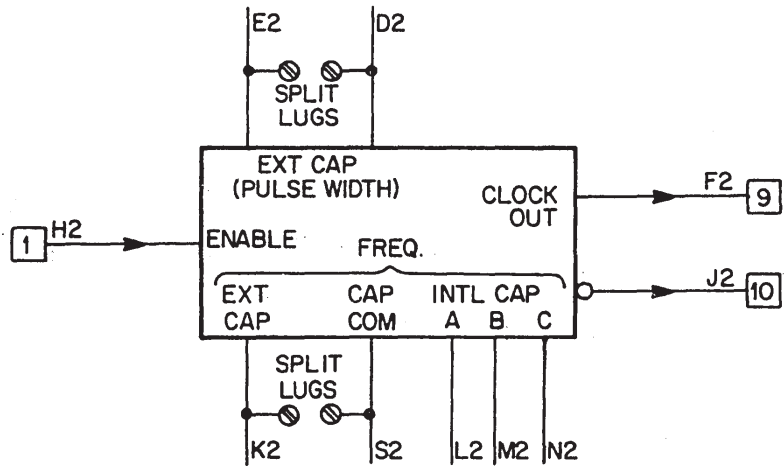


# M403 RC MULTIVIBRATOR CLOCK

<b>TIME RELATED</b>
<b>M SERIES</b>

**Length:** Standard  
**Height:** Single  
**Width:** Single

**Price:**  
**\$30**



Volts	Power	Pins
+5	mA (max.)	A2
GND	70	C2, T1

The M403 is an RC Multivibrator Clock which produces standard 10-micro-second timing pulses at repetition rates adjustable from 1 kHz to 50 kHz in three ranges. Internal capacitors, selected by jumper pin connections, provide coarse frequency control, while an internal potentiometer provides continuously variable adjustment within each range.

**APPLICATIONS**

This module can be used as a source of digital timing signals.

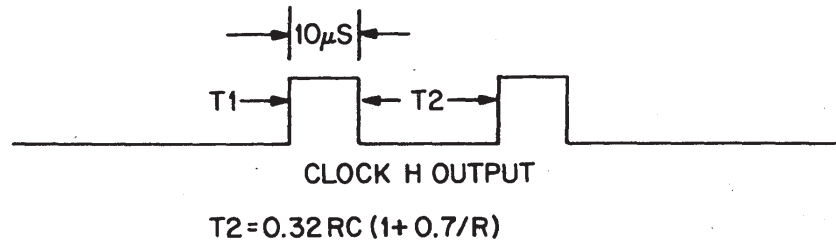
**FUNCTIONS**

**ENABLE Input:** The clock circuit is enabled by a HIGH level on pin H2. If a LOW level is applied to pin H2, the clock output at F2 will time out and return to ground and the output at pin J2 will time out and go HIGH. To prevent an erroneous count, pin H2 should not be retriggered for one complete period. This will allow the circuit to settle.

**Selecting Frequency Range:** The frequency range is selected by jumpers at backplane pins:

<u>FREQUENCY RANGE</u>	<u>INTERCONNECTION REQUIRED</u>
1 kHz to 5 kHz	N2 — S2
5 kHz to 20 kHz	M2 — S2
20 kHz to 50 kHz	L2 — S2

**Lowering Frequency:** If frequencies below the capabilities of this circuit are necessary, external capacitance can be added. Time 2 (see illustration) can be changed by installing capacitors to the split lugs provided or between pins K2 and S2. New timing values can be calculated using the following equation:



T2 is in seconds, R is in ohms, and C is in farads. The internal potentiometer varies between 5.1K and 50K ohms.

**Increasing Pulse Width:** Larger pulse widths can also be obtained by adding capacitance to the other set of split lugs provided or between pins E2 and D2. The same equation as above may be used for T1 with the following exception:

$$C = 4.7 \text{ picofarads} + \text{capacitance added}$$

#### **SPECIFICATIONS**

**Rise Time:** 25 ns (max.)

**Fall Time:** 25 ns (max.)