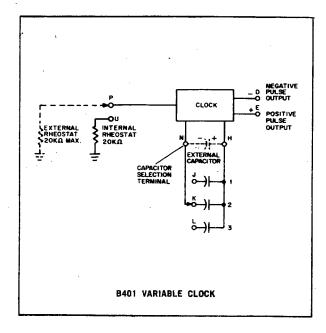
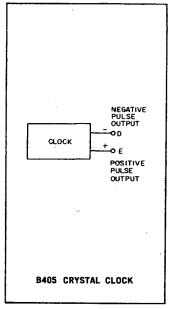
CLOCKS TYPES B401, B405

B SERIES





The B401 Variable Clock produces standard pulses from a stable, RC-coupled oscillator with a wide range of frequencies. The variable clock is often used as a primary source of timing for large systems. Where very precise timing is needed, the B405 Crystal Clock, which contains a single-frequency crystal oscillator, may be used.

B401 FREQUENCY RANGE

PIN	Capacitance	Approx. Range
J	100 pf	1 mc-10 mc
К	1000 pf	100 kc-1 mc
L	.01 mfd	10 kc-100 kc
EXTERNAL	0.1 mfd	1 kc-10 kc
EXTERNAL	1 mfd	100 cps-1 kc

The frequency of the B401 is variable from 10 kc to 10 mc. Three capacitors determine the frequency

range, and a potentiometer provides fine control. For lower frequencies, an external capacitor may be used. When terminals U and P are connected together, the internal rheostat provides fine control. If desired, an external rheostat can be connected between terminals P and C. A 20% change in power supply voltage will change the frequency less than 1%. Pulse-to-pulse jitter is less than 0.3%.

The B405 contains a series resonant crystal oscillator circuit and a pulse-shaping buffer amplifier which produces standard 40-nsec pulses. The frequency, specified by the customer, can be between 2 and 10 mc. The frequency is stamped on the crystal. Stability is 0.01% over the temperature range of $-20\ {\rm to}\ +55^{\circ}{\rm C}.$

OUTPUT (EITHER CLOCK): Standard 40-nsec pulses at the preselected frequency. The negative output is active if the positive output terminal is grounded; the positive output is active if the negative output terminal is grounded. Each output can drive eight 10-mc inverter bases and an appropriate terminating resistor.

POWER: B401: +10 v(A)/0 ma; -15 v(B)/70 ma. **B405:** +10 v(A)/51 ma; -15 v(B)/25 ma.