



Expanding range of Capacitance Meter

Some time ago I constructed your 4-digit Capacitance Meter (August 1985). However, I found that the range of the μF range was too small, so I devised this circuit to add another two digits. This now gives me full scale readings of: 9999.99 μF , 99999.9nF and 999999pF. The modification is very simple to construct and fit, and is very cheap.

Clock pulses are fed into the dual counter (4518B) from the carry output (pin 14) of the 74C926 in the original circuit, advancing counter 1. When counter 1 is at a count of 9 (8 & 1), the "8" and "1" lines are added and fed into counter 2's enable input. This advances both counters to change the

tens. Counter 2 is then disabled and counter 1 continues to count. The RST signal just resets the counters while the LE signal is inverted so as to latch the displays at the right time.

Power for the additional circuitry is obtained from the meter and fed to the chips. All other signals can be taken from the base of the 74C926, under the board and routed to the circuit.

I mounted the two new displays between the left most digit and the power switch. There's just room to do this.

Note: The 7400 was used as this was available. A 4011 CMOS chip will do equally well.

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