

LCR

Connect the 3 cables, one to the signal generator 50 ohm output and two to the oscilloscope channels

Turn on the power and connect the wires to the circuit

Give the signal generator amplitude dial half value and a frequency of 10, 000 hertz.

Press the Run/stop button on the upper right of the oscilloscope

Adjust the horizontal time per box using the dial at the top so that you see a waveform. If the waveform is not a sinewave then choose a sinewave from the waveforms given on the signal generator.

Adjust the vertical volts per box by using the dials for channels 1 and 2 near the middle of the panel until the waveforms for each of the two signals are clearly seen.

For each frequency, measure the peak to trough voltage by counting the number of boxes encompassed by the waveforms to get the input and output voltages.

(press the autoscale button near the middle to help with any triggering problems)

Speed of light

After you have connected the two oscilloscope wires to the pulse generator:

Turn down the time per box on the horizontal axis by adjusting the dial at the top middle of the oscilloscope until you see the individual pulses

Adjust the voltage per box using the middle dials so the pulses are easily measurable

With the short optical cable connected, use the delay dial on the pulse generator to make the pulses overlap.

Remove the short cable and put in the 20 meter cable.

Observe the time delay for the light pulse as accurately as you can by using the smallest time per box that still allows you to see two pulses on the oscilloscope screen.

(press the autoscale button near the middle to help with any triggering problems)