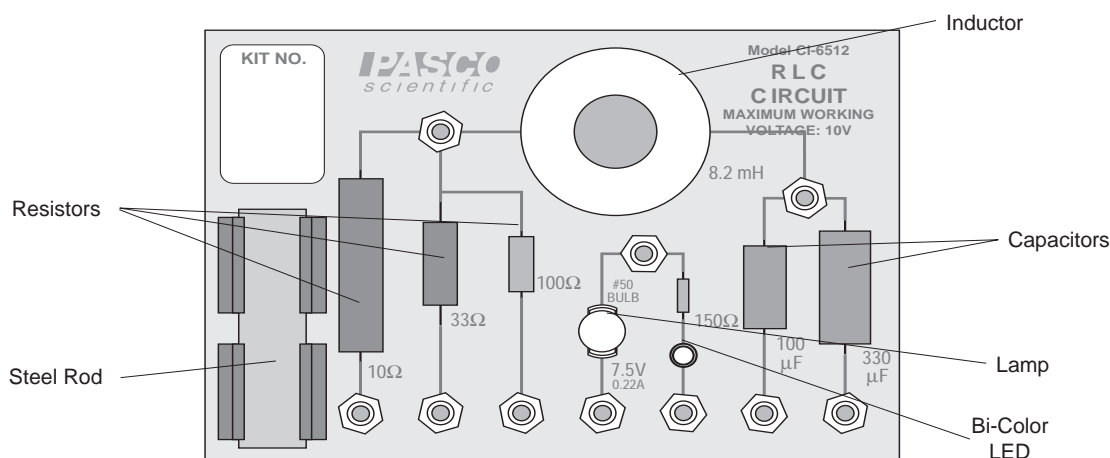


**Instruction Sheet
for the PASCO
Model CI-6512**

RLC Circuit



Introduction

The RLC Circuit board is designed to be used with a PASCO *ScienceWorkshop* 700 Series Computer Interface or 6500 Series Computer Interface to study the behavior of resistors, inductors and capacitors in an AC circuit. The board includes several resistors, two capacitors, a #50 miniature screw lamp, a bi-color light emitting diode and an air-core inductor. A $\frac{5}{8}$ " X $2\frac{1}{2}$ " steel rod (included) can be used to increase the inductance of the coil.

► Note: Prior to the first use, remove the bolt that secures the coil (Inductor) during shipping.

Additional Equipment Required:

- *ScienceWorkshop* 700 Series Computer Interface or 6500 Series Computer Interface
- Power Amplifier, (CI-6502, CI-6552)
- Banana Plug Patch Cords, PASCO Model SE-9750 or SE-9751.

► Note: The RLC circuit can be used with the built-in power amplifier of the *Science Workshop* 750 Interface and does not require the external Power Amplifier (CI-6552A) for most experiments.

© 1992 PASCO scientific

This instruction sheet written/edited by: Dave Griffith

Setup Procedure:

- ① Connect the Power Amplifier to Analog Channel A or B of the PASCO Computer Interface.
- ② Connect the output of the Power Amplifier to the RLC Circuit with banana plug patch cords.
- ③ Refer to the Power Amplifier experiments guide, the Computer Interface experiments guide, or the Experiment Guide diskette for specific suggestions on using the RLC Circuit.

Specifications

Resistors: 100 Ω , 1 W; 33 Ω , 5W; 10 Ω , 10W

Capacitors: 100 μ F, 16V and 330 μ F, 16V

► **NOTE:** Capacitance values may vary by $\pm 20\%$

Lamp: 7.5V, 0.22A, #50 miniature screw style

LED: red (655 nm)/green (565 nm); typical forward voltage = 1.7-2.1 volts; average brightness @ 20 mA = 1.5 mcd

Inductor: 8.2 mH @ 1 kHz, 6.5 Ω maximum DC resistance, 0.8A current rating RMS, 3/4" I.D. X 1 3/4" O.D.

Replacement Parts:

#50 Lamp	Part No. 526-031
Steel core	Part No. 648-04783
LED	Part No. 527-019

Limited Warranty

PASCO scientific warrants this product to be free from defects in materials and workmanship for a period of one year from the date of shipment to the customer. PASCO will repair or replace, at its option, any part of the product which is deemed to be defective in material or workmanship. This warranty does not cover damage to the product caused by abuse or improper use. Determination of whether a product failure is the result of a manufacturing defect or improper use by the customer shall be made solely by PASCO scientific. Responsibility for the return of equipment for warranty repair belongs to the customer. Equipment must be properly packed to prevent damage and shipped postage or freight prepaid. (Damage caused by improper packing of the equipment for return shipment will not be covered by the warranty.) Shipping costs for returning the equipment, after repair, will be paid by PASCO scientific.

Equipment Return

Should this product have to be returned to PASCO scientific for any reason, notify PASCO scientific by letter or telephone BEFORE returning the product. Upon notification, the return authorization and shipping instructions will be promptly issued.

► **NOTE:** NO EQUIPMENT WILL BE ACCEPTED FOR RETURN WITHOUT AN AUTHORIZATION FROM PASCO.

When returning equipment for repair, the units must be packed properly. Carriers will not accept responsibility for damage caused by improper packing. To be certain the unit will not be damaged in shipment, observe the following rules:

- ① The carton must be strong enough for the item shipped.
- ② Make certain there are at least two inches of packing material between any point on the apparatus and the inside walls of the carton.
- ③ Make certain that the packing material cannot shift in the box, or become compressed, thus letting the instrument come in contact with the edge of the box.