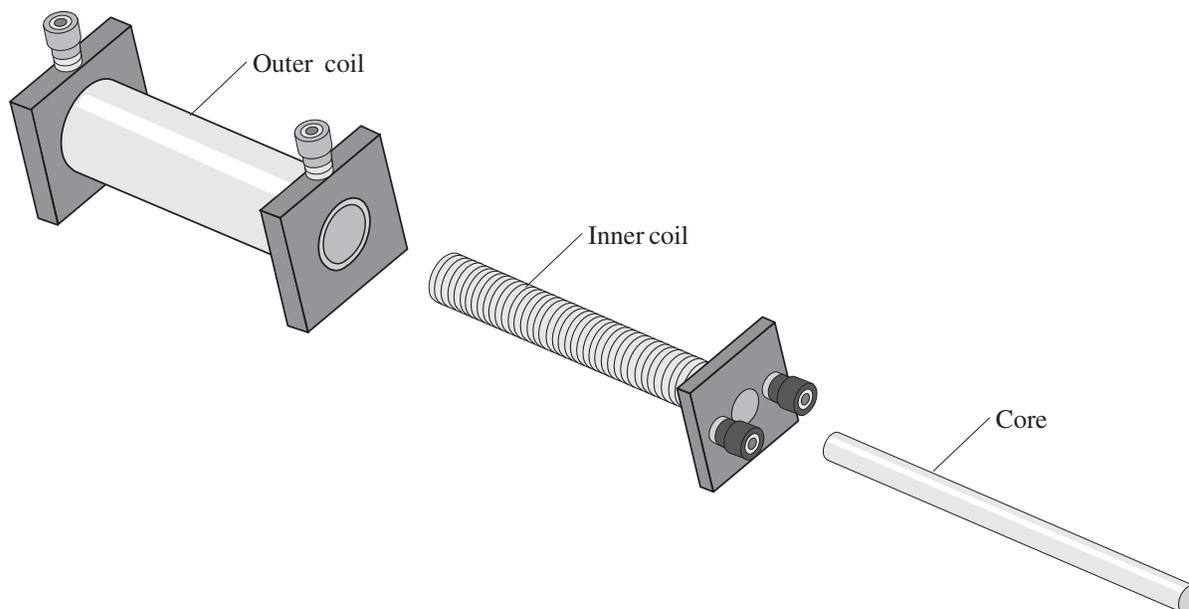


## **PRIMARY and SECONDARY COILS**



### **Introduction**

The PASCO Primary and Secondary Coils set consists of an outer coil, an inner coil, and a soft iron core. The coils and core may be used to investigate and perform experiments in electro-magnetism, inductive reactance, and transformer coupling. Two way binding posts are used in the coils for convenient connection.



**Hazardous voltage and currents capable of producing injury can be produced by improper use of the Primary and Secondary Coil set. This apparatus should only be used under the supervision of experienced, trained personnel.**

**The Primary and Secondary Coils must never be used in a configuration which uses a voltage to be produced in excess of 30V r.m.s. 42.4V peak or 60V d.c. Never connect the Primary and Secondary Coils to the AC power mains.**

### **Specifications**

**Inner Coil:** 235 turns, #18 wire approx. 1mm, inductance:  $78 \pm 22\mu\text{H}$ . resistance:  $0.4 \pm 0.1\Omega$ , capacitance:  $142 \pm 2\text{pF}$ .

Dimensions: 12cm coil length X 1.7cm coil outside diameter.

Base: 5cm X 5cm.

**Outer Coil:** 2920 turns, #29 wire: approx. 0.29mm, inductance:  $63 \pm 3\text{mH}$ , resistance:  $76 \pm 2\Omega$ , capacitance:  $124 \pm 2\text{pF}$ .

Dimensions: 11 cm coil length X 3.5cm coil outside diameter.

Base: 5cm X 5cm.

**Core:** 16.5cm X 0.8cm.

**Ratio of turns:** 12.4:1.

**Ratio of voltage:** approximately 10:1.

## 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.