

**Instruction Sheet
for the PASCO
Model SF-9404**

METAL RESONANCE STRIPS

Introduction

The resonance strips are designed to demonstrate the relationship between the frequency and wavelength of a cantilevered beam. The apparatus provides six beams differing in length but with the same mass per length.

Additional Equipment Required:

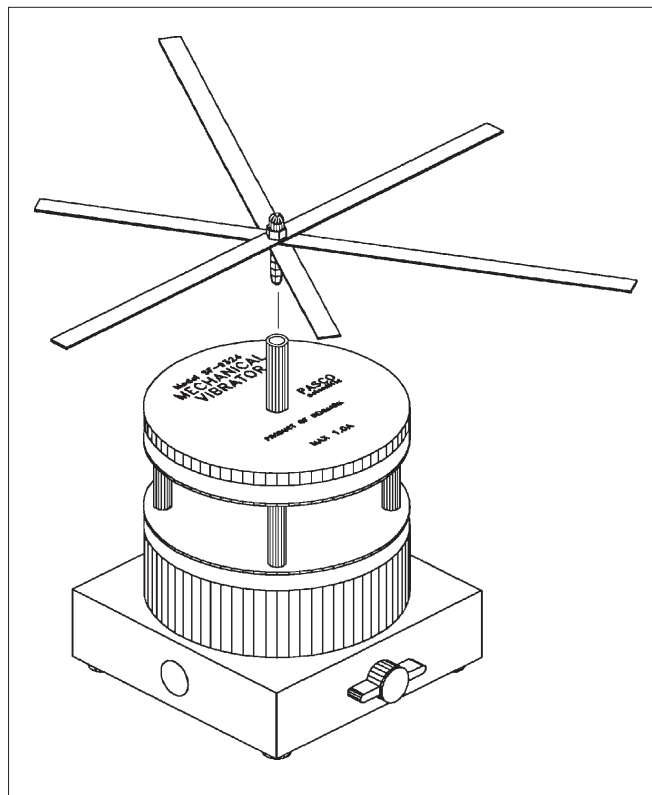
- Mechanical Driver, PASCO Model SF-9324
- Function Generator with Amplifier, PASCO Model PI-9587A or PI-9598

Setup Procedure

1. Rotate the metal strips so that they are at equal angles from each other. See Figure.
2. Insert the banana plug into the driver shaft of the PASCO Mechanical Driver. See Figure.
3. Connect the Mechanical Driver to a function generator capable of driving a speaker (The PASCO PI-9587A Digital Function Generator/Amplifier or PI-9598 Student Function Generator are excellent for this purpose.)
4. Start driving the Mechanical Driver at about 5 Hz with approximately 1 mm of amplitude and slowly increase the frequency. Note the frequencies at which each of the strips vibrates with maximum amplitude. (When resonance is attained it may be necessary to decrease the driving amplitude.)
5. Plot the resonant frequency as a function of the metal strip length.

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



Equipment Setup

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.