

Metal Resonance Strips (WA-9404)

Introduction

The Metal Resonance Strips are designed to demonstrate the relationship between the frequency and wavelength of a cantilevered beam. The apparatus provides six beams of different lengths but with the same mass per length.

Required equipment

- Wave Driver (WA-9855)
- 2x Banana Plug Patch Cords (SE-9751)
- Any of the following function generators:
 - 850 Universal Interface (UI-5000)
 - 550 Universal Interface (UI-5001)
 - Sine Wave Generator (WA-9867)
 - Function Generator (PI-8127)

Setup procedure

1. Rotate the metal strips so that they are at equal angles to each other.
2. Insert the banana plug of the Metal Resonance Strips into the drive post of the Wave Driver.
3. Connect the Wave Driver to your chosen function generator from the list above.
4. Begin driving the Wave Driver at about 5 Hz with an amplitude of about 1 V. Slowly increase the frequency, noting the frequencies at which each of the strips vibrates with maximum amplitude.



NOTE: 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.



Figure 1. Proper setup for the Metal Resonance Strips on the Wave Driver (WA-9855).

Technical support

Need more help? Our knowledgeable and friendly Technical Support staff is ready to answer your questions or walk you through any issues.

- ☐ Chat [pasco.com](https://www.pasco.com)
- ☎ Phone 1-800-772-8700 x1004 (USA)
+1 916 462 8384 (outside USA)
- ✉ Email support@pasco.com

Regulatory information

Limited warranty

For a description of the product warranty, see the Warranty and Returns page at www.pasco.com/legal.

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