Rubber Band 1000702

Accessories for Spring Oscillations 1000703

Resonance Wire, Ring Shaped 1000707

Instruction sheet

11/15 ALF

1. Description

1.1 Rubber Band (1000702)

The rubber band is used for demonstrating stationary waves and wave propagation using the vibration generator (1000701).

Length:	25 m
Diameter:	2 mm

1.2 Accessories for Spring Oscillations (1000703)

The accessories for spring oscillations is used for impressive demonstrations of standing longitudinal waves in a coil spring using the vibration generator (1000701). It consistsof an angled stand rod, coil spring and connector pin for attachment of the spring to the vibration generator.

Rod:	450 mm x 8 mm diam.
Spring constant:	3,9 N/m

1.3 Resonance Wire (1000707)

The resonance wire is a wire ring with 4 mm plug and is used for demonstrating the vibration knots at different frequencies using the vibration generator (1000701).

Diameter:	290 mm

2. Operation

To perform experiments the following equipment is also required:

1 Vibration generator	1000701
1 Function generator FG 100 @230 V	1009957
or	
1 Function generator FG 100 @115 V	1009956

Experiment leads

- When plugging in or removing accessories, take care not to apply too much pressure or force on the mounting in order to avoid damaging the loudspeaker.
- Hold the mounting still with one hand whilst inserting or removing the accessory with the other.
- Attach appropriate accessories for the experiment to the vibration generator.
- Connect the function generator.
- At the function generator choose sine as the wave form and set a sweep with an initial frequency of about 10 Hz and a final frequency of about 80 Hz.
- Let the sweep run slowly through the selected frequency range and observe the formation of vibration nodes and antinodes at the different frequencies.
- If necessary vary the frequency range.

Fig 1 Experimentel set-up with the rubber band

Fig. 2 Experimentel set-up with the coil spring

Fig. 3 Experimentel set-up with the resonance wire