3B SCIENTIFIC® PHYSICS



U56001 Vibration generator

Instruction sheet

8/04 ALF



The vibration generator is for generating mechanical waves to study oscillations and resonance.

1. Safety instructions

• 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.

2. Description, technical data

The vibration generator consists of a loudspeaker fitted inside a stable plastic housing. A mounting pin with a 4-mm socket is attached to the speaker to transmit the oscillations.

Springs, Chladni plates, rubber bands and other accessories can be attached to the vibration generator and allowed to oscillate. A function generator with a power output (e.g. U21010 function generator with interface or U21015 F12 function generator) is required to generate the oscillations. Including holder for stand rod (up to 8 mm Ø) on the rear side of the apparatus for the demonstration of standing waves in a coil spring. The generator is equipped with overload protection.

- ① Input sockets (4-mm safety sockets)
- (2) Mounting pin with 4-mm socket
- ③ Fuse holder (with F 1.0 fuse for 250V)

Connection: Impedance: Frequency range: Overload protection: Dimensions: Weight:

via 4-mm safety sockets 8 Ω 0 up to 20 kHz 1 A fuse, (N 1.0 for 250 V) 200x160x70 mm 1.4 kg

2.1 Accessories

U56002 Rubber band U56003 Accessories for spring oscillations U56004 Accessories for kinetic gas theory U56005 Chladni plate, circular U56006 Chladni plate, square U56007 Resonance wire, ring shaped U56008 Accessories for rope waves

3. Changing the fuse

- Unscrew the fuse holder.
- Replace the blown fuse with a new one.
- Screw the fuse holder back in.

4. Sample experiments

- Attach appropriate accessories for the experiment to the vibration generator.
- Connect a function generator and modify the frequency.

4.1 Chladni Plate



U56006

4.2 Resonance wire



U56007

4.3 Rubber band



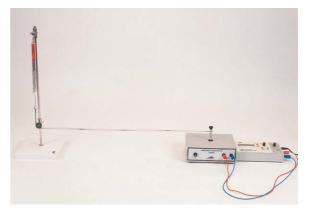
U56002

4.4 Accessories for spring oscillations



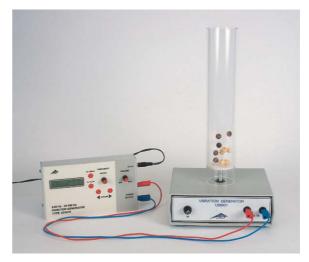
U56003

4.5 Accessories for rope waves



U56008

4.6 Accessories for kinetic gas theory



U56004