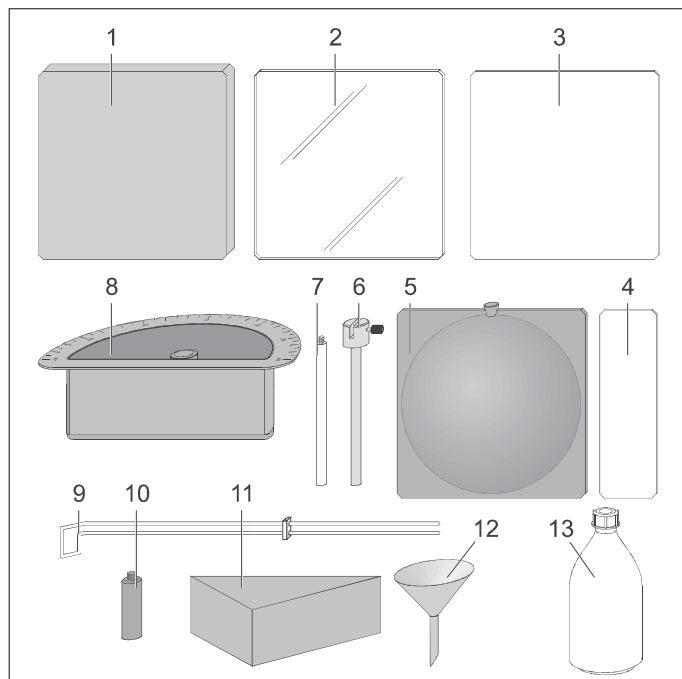


09/02-W97-Bb



- 1 Dielectric plate, 20 mm thick
- 2 Transparent plate
- 3 Metal plate, 230 mm wide
- 4 Metal plate, 60 mm wide
- 5 Prism
- 6 Collecting lens (hollow, 230 mm × 230 mm × 50 mm)
- 7 Half-cylinder (hollow, 230 mm × 115 mm × 75 mm)
- 8 Plastic bottles with quartz sand
- 9 Funnel (665 010)
- 10 Lecher line with short-circuit slider
- 11 Cylindrical adapter
- 12 Stand rod with thread
- 13 Plate holders

Instructions for Use 737 275

Accessories Physics Microwaves II (737 275)

1 Description

The accessory kit enables more extensive microwave physics tests: refraction, diffraction, validation and measurement of standing waves.

2 Items included

- 1 dielectric plate (PVC, 230 mm × 230 mm × 20 mm)
- 1 transparent plate (plastic, 230 mm × 230 mm × 3 mm)
- 1 metal plate (aluminium, 230 mm × 230 mm × 1 mm)
- 1 metal plate (aluminium, 230 mm × 60 mm × 1 mm)
- 1 prism (PVC, 226 mm × 160 mm × 75 mm)
- 1 collecting lens (hollow, 230 mm × 230 mm × 50 mm)
- 1 half-cylinder (hollow, 230 mm × 115 mm × 75 mm)
- 2 plastic bottles with quartz sand (1 kg)
- 1 funnel (665 010)
- 1 Lecher line (400 mm) with short-circuit slider
- 1 cylindrical adapter
- 1 stand rod with thread, 160 mm
- 2 plate holders

3 Procedure

3.1 Collecting lens setup:

- Fill collecting lens with quartz sand and erect plate holder in front of horn antenna.

3.2 Law of refraction

- Fill half-cylinder with quartz sand. Screw in adapter and threaded stand rod from below.

3.3 Lecher line:

- Slide Lecher line into cylindrical adapter.

3.4 Wavelength reduction in the dielectric:

- Stand dielectric plate in plate holder.

3.5 Prism:

- Screw cylindrical adapter into prism and threaded rod.

3.6 Diffraction at slit:

- Set up metal plate from accessories I and metal plate from accessories II.

3.7 Diffraction at double slit:

- Set up metal plate from accessories I together with narrow and wide metal plate from accessories II.

3.8 Beam divider:

- Transparent plate as beam divider e.g. for Michelson interferometer