

Katalog

WAVE & OPTICS LABORATORY



**PHYSICS DEPARTMENT
FMNS UNIVERSITAS NEGERI SURABAYA**

JURUSAN FISIKA FMIPA UNIVERSITAS NEGERI SURABAYA

KATALOG PERALATAN EKSPERIMEN

LABORATORIUM FISIKA MODERN

1. MECHANICAL WAVE DRIVER *SF-9324*

No	Equipment	Code
1	Mechanical Wave Driver	SF-9324
2	Sloted String Holder with Plug	
3	String Holder with Plug	
4	Banana Plug Patch Cords	SE-9751
5	Function Generator	PI-8127
6	ScienceWorkshop 750 interface	CI-7650
7	Data Studio	

Experimen Topics :

Determine the resonant frequencies as a function of length, or examine the relationship between wave velocity and the tension and mass per unit length of the string or wire



Figure 1: Apparatus



Figure 2: Sloted



Figure 3: String Holder



Figure 4: Banana Plug



Figure 5: Function Generator



Figure 6: Interface

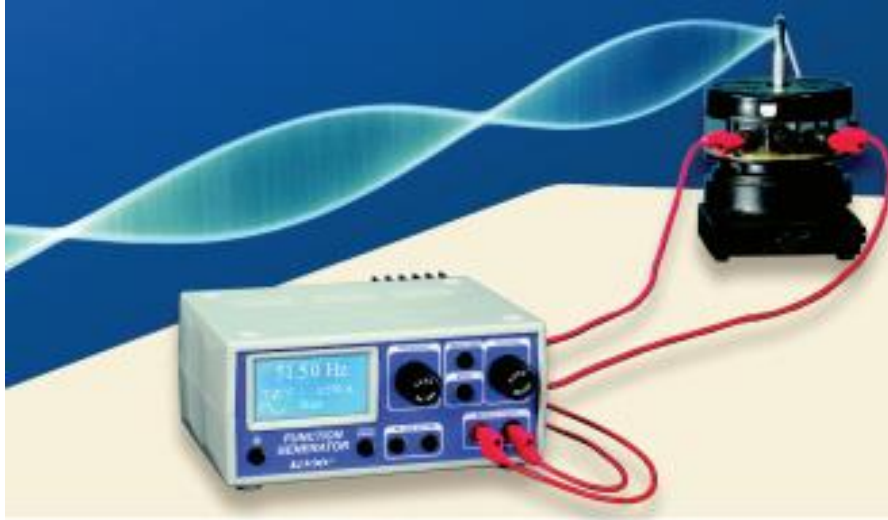


Figure7: Experiment Setting in Laboratory

2. MICRO WAVE

No	Equipment	Code
1	Microwave Transmitter with Power Supply	WA-9315
2	Microwave Receiver	
3	Attaching the Transmitter and Receiver Stands	
4	Goniometer	
5	Fixed Arm Assembly	
6	Rotating Table	
7	Component Holder	
8	Rotating Component Holder	
9	Metal reflector	
10	Partial reflector	
11	Polarizers	
12	Slit Extender Arm	
13	Narrow Slit Spacer	
14	Ethafoam Prism Mold w/ Styrene Pellets	
15	Tubular Plastic Bags	
16	Cubic Lattice with 100 metal spheres—5x5x4 array	
17	Polyethylene Panel	

Experiment Topics :

1. Reflection
2. Standing Waves_Measuring Wavelengths
3. Refraction Through a Prism
4. Polarization
5. Double- Slit Interference
6. Lloyds Mirror
7. Fabry-Perot Interferometer
8. Mechelson Interferometer
9. Fiber Optics
10. Brewster Angle
11. Bragg Diffraction

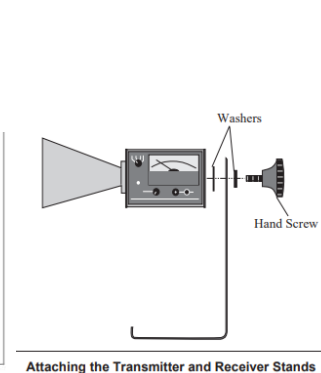
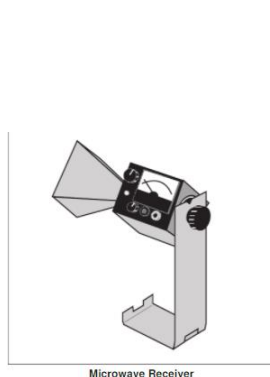
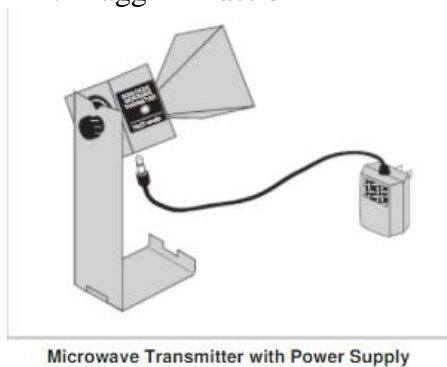


Figure 1: Microwave Transmitter

Figure 2: Microwave Receiver Figure 3: Attaching

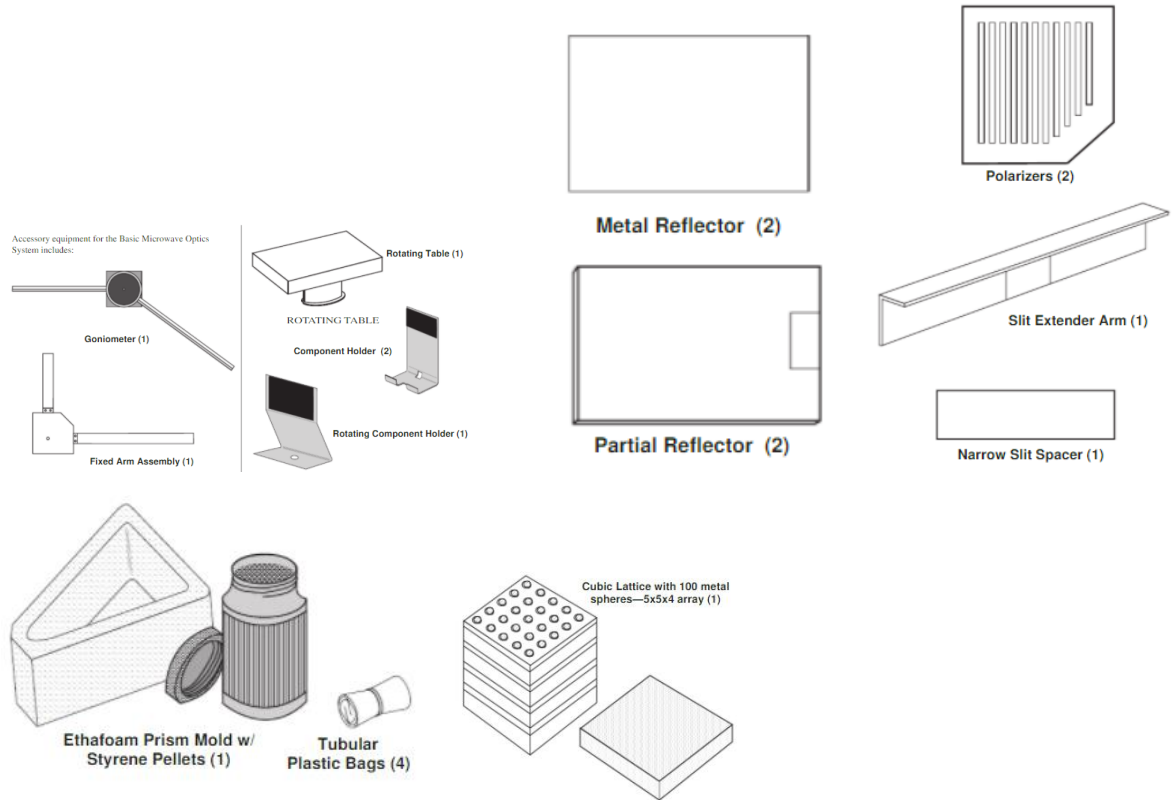


Figure 4: Microwave Accessory Package

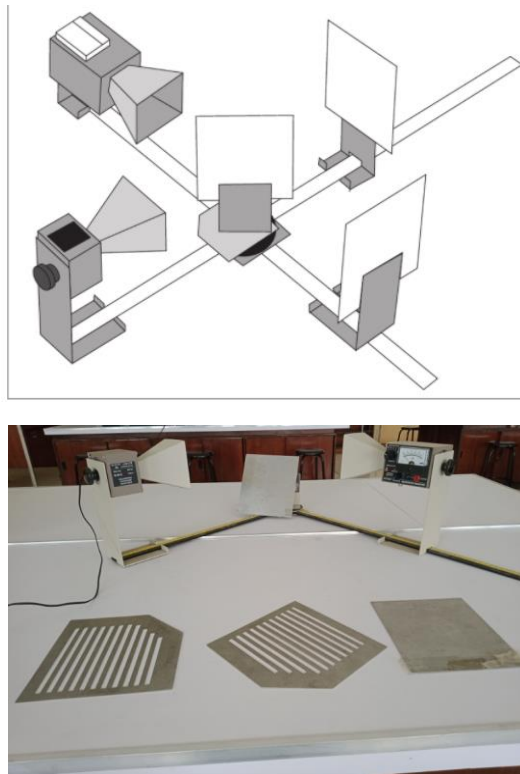


Figure 5: Experiment Setting in Laboratory

3. RIPPLE TANK WA-9897

No	Equipment	Code
1	Ripple Tank System	WA-9899
2	Light Source	WA-9896
3	Ripple Generator	
4	Standard Dipper	
5	Large Actuator	
6	Small Actuator	
7	Dipper Adapter	
8	Plane Dipper	
9	AC Adapter, 15 VDC, 1,6 A	
10	Rod	
11	Ripple Tank Assembly	
12	Scree Assembly	
13	Leg	
14	Curved Reflector	
15	Long Diffraction Barrier	
16	Short Diffraction Barrier	
17	Mini Diffraction Barrier	
18	Concave Refractor	
19	Convex Refractor	
20	Trapezoidal Refractor	
21	Bottle of Surfactant	
22	Pipette, 5 mL	
23	Ruler	
24	Plastic Storage Box	
25	Beaker, 1000 mL	

Experiments Topics :

1. Reflection
2. Refraction
3. Diffraction
4. Interference
5. Image Formed by a Plane Mirror
6. Wave Speed



Figure 1: Light Source and Set Figure 2: Ripple Generator Figure 3: Ripple Tank Assembly



Figure 4: Experiments Setting in Laboratory

4. SONOMETER

No	Equipment	Code
1	Driver or Detector Coils	WA-9613
2	Function Generator	PI-8127
3	Oscilloscope	
4	Mass	
5	Base	

Experiment Topics :

1. Resonance Modes of a Stretched String
2. Velocity of Wave Propagation



Figure 1: Driver or Detector Coils Figure 2: Function Generator Figure 3: Oscilloscope



Figure 4: Mass Set

Figure 5: Base

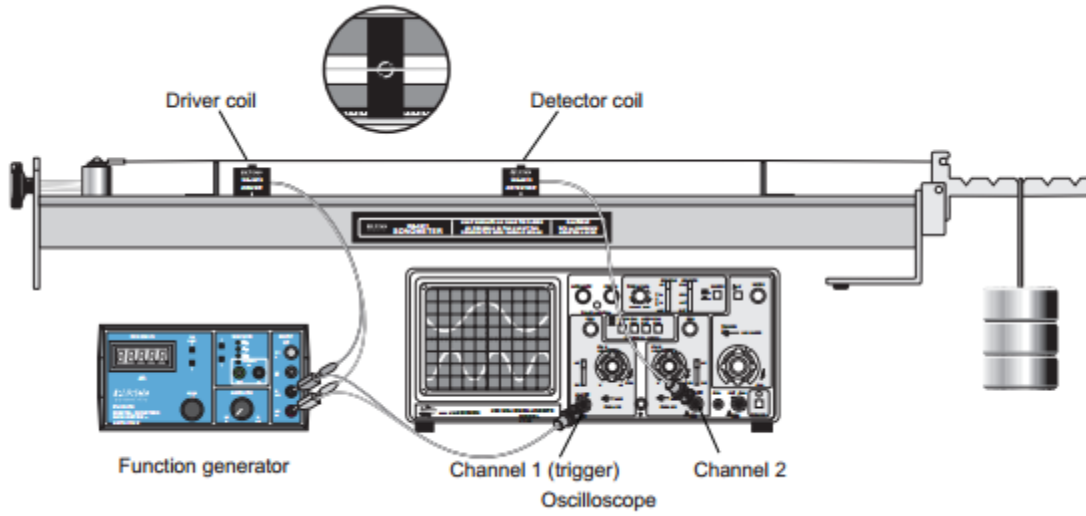


Figure 6: Experiment Setting in Laboratory

