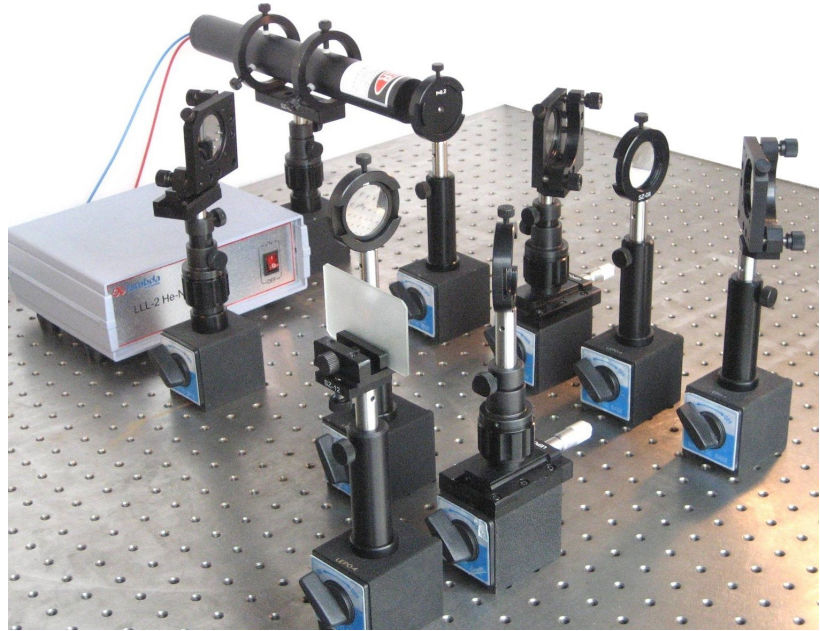


LEOK-40 Modern Optics Experiment Kit

- Including He-Ne laser, Sodium, Mercury, and white-light lamps with power supplies
- Including air chamber with gauge for refractive index measurement of air
- Flexible configurations to cover 18 experiments in modern optics
- Detailed instruction manual



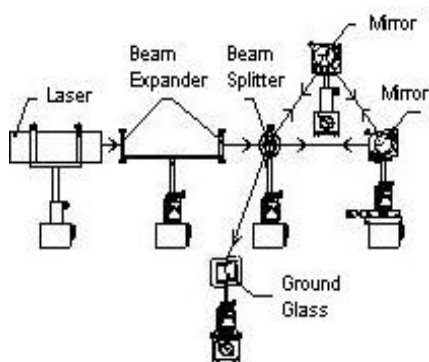
LEOK-40 is a comprehensive experiment kit designed to cover a wide range of experiments in modern optics, such as applied optics, information optics, physical optics, and holography. Composed of multiple optical components, adjustable holders, and light sources, this kit can be configured flexibly for conducting various experiments in modern optics. By using this comprehensive kit, students can get a better understanding of modern optics, and enhance their experimental skills and problem solving ability.

The following experiments can be conducted using this kit:

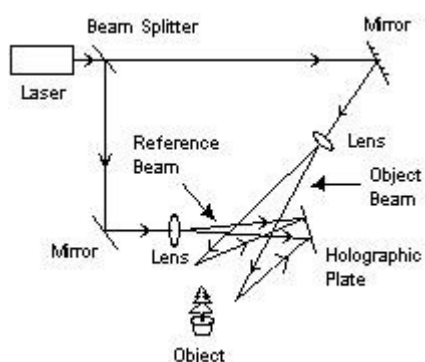
1. Measure lens focal length using auto-collimation method
2. Measure lens focal length using displacement method
3. Measure air refractive index by building a Michelson interferometer
4. Measure the nodal locations and focal length of a lens-group
5. Assemble a telescope and measure its magnification
6. Observe the six types of aberrations of a lens
7. Construct a Mach-Zehnder interferometer
8. Construct a Sagnac interferometer
9. Measure wavelength separation of Sodium D-line using a FP interferometer
10. Construct a prism spectrographic system
11. Record and reconstruct holograms
12. Record a holographic grating
13. Abbe imaging and optical spatial filtering
14. Pseudo-color encoding
15. Measure grating constant
16. Optical image addition and subtraction
17. Optical image differentiation
18. Fraunhofer diffraction

Parts & Specifications

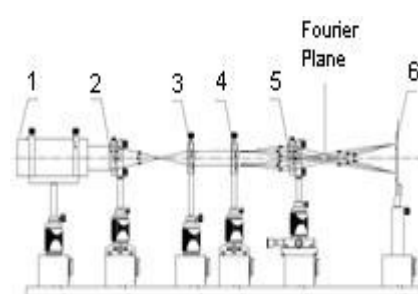
| | | | | | |
|------------------------------------|-------|---|---|-------|---|
| XYZ translation base | SZ-01 | 1 | Lens (f=15, 45, 50, 70, 190, 225, 300 mm) | | 7 |
| Two-axis stage | SZ-02 | 2 | Lens (f=150 mm) | | 2 |
| Z adjustable post holder | SZ-03 | 2 | Doublet Lens (f=105 mm) | | 1 |
| Magnetic base | SZ-04 | 4 | Direct measurement microscope (DMM) | | 1 |
| Two-axis tilt holder | SZ-07 | 2 | Plane mirror | | 3 |
| Lens holder | SZ-08 | 2 | Beam splitter (7:3) | | 1 |
| Grating/Prism table | SZ-10 | 1 | Beam splitter (5:5) | | 2 |
| Plate holder | SZ-12 | 1 | Dispersion prism | | 1 |
| White screen | SZ-13 | 1 | Transmission grating (20 l/mm & 100 l/mm) | | 2 |
| Object screen | SZ-14 | 1 | Composite grating (100 l/mm & 102 l/mm) | | 1 |
| Iris diaphragm | SZ-15 | 1 | Character with grid | | 1 |
| 3-D adjustable holder | SZ-16 | 1 | Transparent crosshair | | 1 |
| 2-D adjustable holder | SZ-19 | 1 | Checkerboard | | 1 |
| Sample stage | SZ-20 | 1 | Holographic plates (12 pcs of 9x24 cm/pc) | | 1 |
| Multi-pinhole disc assembly | SZ-23 | 1 | Millimeter ruler | | 1 |
| Single-sided adjustable slit | SZ-27 | 1 | Theta modulation plate | | 1 |
| Lens group holder | SZ-28 | 1 | Hartman diaphragm | | 1 |
| Standing ruler | SZ-33 | 1 | Small object | | 1 |
| Direct measuring microscope holder | SZ-36 | 1 | Filter | | 2 |
| Single-sided rotary slit | SZ-40 | 1 | Spatial filter set | | 1 |
| Biprism holder | SZ-41 | 1 | He-Ne laser(>1.0 mW@632.8 nm) | LLL-2 | 1 |
| Laser holder | SZ-42 | 1 | Low-pressure Mercury light source (20W) | LLE-1 | 1 |
| Ground glass screen | SZ-43 | 1 | Low pressure Sodium light source (20W) | LLE-2 | 1 |
| Paper clip | SZ-50 | 1 | White light source (variable, 12 V/30 W) | LLC-4 | 1 |
| Beam expander holder | | 1 | Fabry-Perot interferometer | | 1 |
| Beam expander (f=4.5, 6.2 mm) | | 2 | Air chamber with pump and gauge | | 1 |
| | | | Manual counter | | 1 |



Schematic of Sagnac interferometer



Schematic of recording hologram



Schematic of optical spatial filtering

Note: above product information is subject to change without notice.