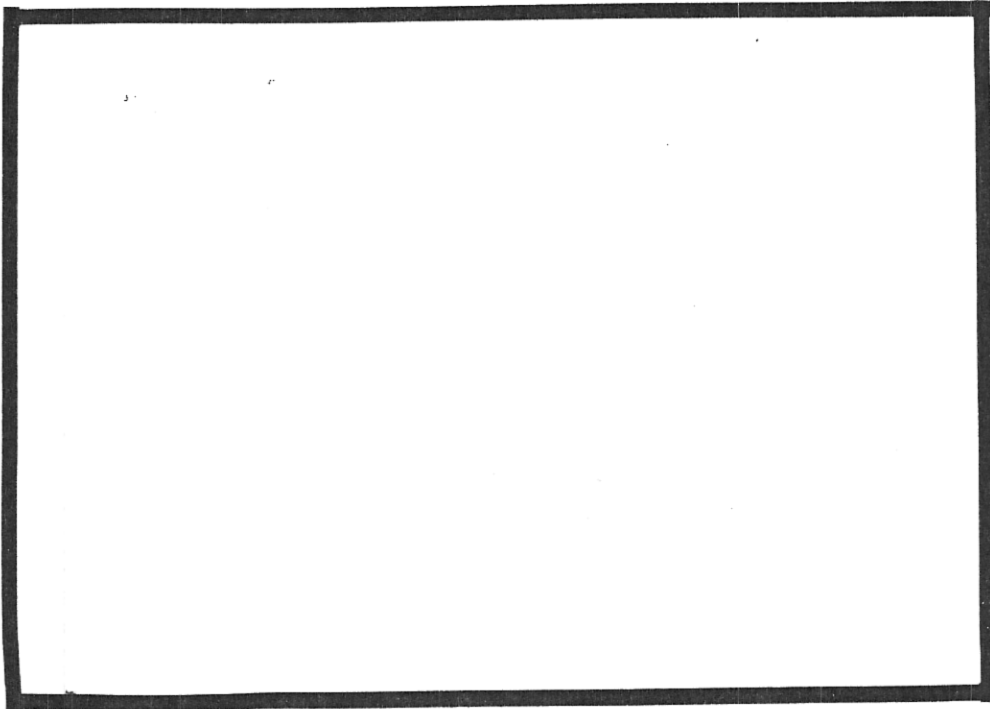


MULTIPLE BEAM SET UP



NOTES

This set up allows complete control of the object's lighting. The object may be hit from the side, top, or from multiple sources. (If more than one object beam is used, all the object beam path lengths must be equal to the reference beam path length.) Master holograms for copy plates are made with multiple beam transmission set ups.

SET UP STEPS

- I. Place components in relative positions.
- II. Equalize beam path lengths, measured from the beamsplitter. It's easiest to manipulate the reference beam path to match the object beam path.
- III. Spread the beams.
- IV. Measure the intensities of the object beam and the reference beam with the white diffusing cap on, to find the ratio.*
- V. If the ratio is not in the proper range, change it by adjusting the beamsplitter or by changing the spread of the lenses.
- VI. Once the exposure is set, make the exposure reading (with the white diffusing cap off to the side of the light meter) at the film plane, of the reference beam only.
- VII. Make the exposure and process.
- VIII. Reconstruct the image by replacing the film in the holder and letting the reference beam hit it for transmission holograms, or view the reflection holograms under white light.

*Reference to object beam ratio for transmission holograms should be in the range of 2:1 to 16:1, while reflection holograms must be 1:1.

10/21/80
FW