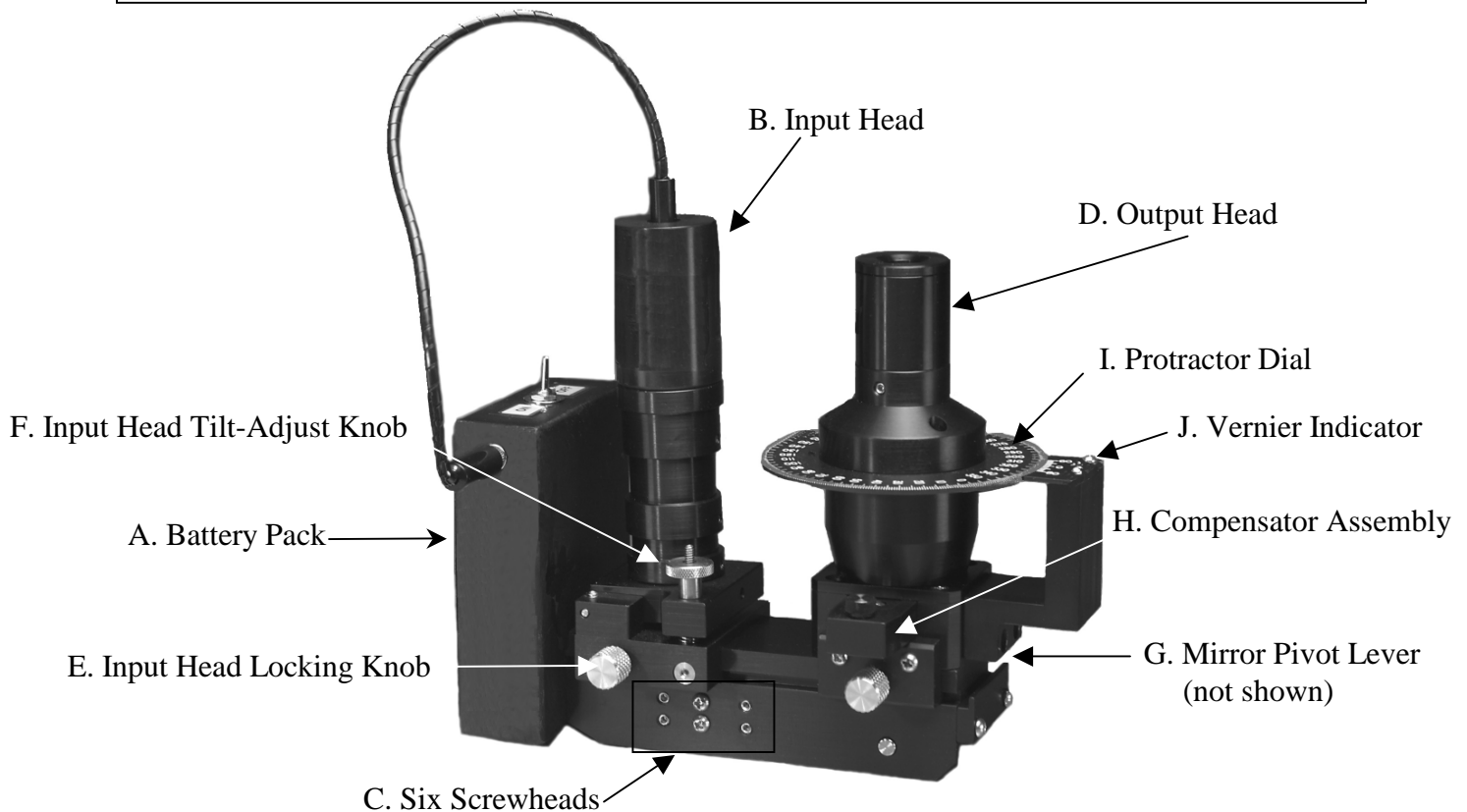


Strainoptics Laser GASP[®]

Quick-Start Guide

Note: These instructions are not meant to replace the full Strainoptics Laser GASP instruction manual supplied with your instrument. If you are not yet familiar with the initial setup, general operation, and maintenance requirements of the Laser GASP, or if questions arise, please refer to the complete manual for further details.

CAUTION: TO AVOID EYE DAMAGE, DO NOT LOOK DIRECTLY AT THE LASER LIGHT.



1. Place your glass sample and the Laser GASP on a clean, flat, and level surface with the TIN SIDE up. To verify that you are measuring on the tin side of the glass, use a UV lamp (available from Strainoptics, part #UV-STI-4).
2. With the power switch on the battery pack (A) in the OFF position, insert the small silver plug attached to the Input Head (B) into the small jack on the side of the battery pack. Turn the power switch to the ON position. Verify that the laser light is on by lifting the instrument slightly and noticing the red reflection on the surface of the glass or table. Note: When the instrument is not in use, always turn the power switch OFF to save battery power.
3. To minimize the possibility of damage to the Laser GASP's prisms, be sure that the point of measurement is free of abrasives. Place a few drops of index matching fluid (approximately 1/2-inch diameter) on the sample where the measurement is to take place. Carefully lower the Laser GASP body onto the glass so that the pool of fluid completely covers the prism faces on the bottom of the instrument. This is the area directly underneath the six screwheads (C) located on the side of the Laser GASP body. Move the instrument back and forth (lengthwise) slightly to distribute the fluid evenly over the prism faces. Both prisms should have good contact with the glass.

Strainoptics Laser GASP[®]

Quick-Start Guide, Continued

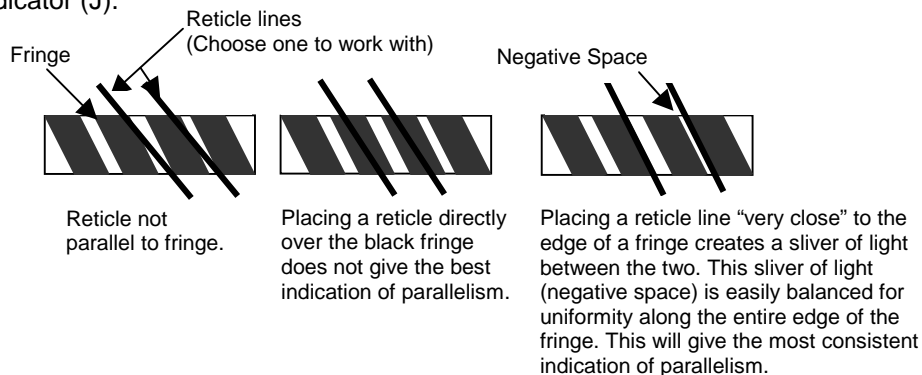
CAUTION: TO AVOID EYE DAMAGE, DO NOT LOOK DIRECTLY AT THE LASER LIGHT.

- For the best viewing image, the intensity of the laser light passing through the sample should be maximized. For reading accuracy, the light path must be directed to travel through the stress layer near the surface of the glass. If these adjustments have not been made, follow these instructions using the practice sample supplied with your Laser GASP:

To maximize light intensity – Position the practice sample lengthwise on the table, perpendicular to your body so that you can look into the sample from its edge. Place the Laser GASP at a midpoint on the surface of the sample, with its output head (D) facing you. With your eyes level to the sample, you should be able to see the laser light exiting the glass edge. Loosen the input head locking knob (E) and, while observing the light intensity, slowly move the input head (B) backward or forward until maximum light intensity is seen. Tighten the input head locking knob.

To optimize the laser light path – Slowly turn the input head tilt-adjust knob (F) while observing the laser light exiting the sample at the edge. Adjust the light path until it is as close to the top surface of the sample as possible, without losing light intensity.

- While looking down into the eyepiece, slowly adjust the mirror pivot lever (G) until a red laser light or alternating red and black lines (known as fringes) are visible. Slowly rotate the tilt-adjust knob (F) until the lines are well defined. If the image appears cut off at either end, slowly slide the wedge compensator assembly (H) left or right to center the image and maximize the viewing area.
- Once a good image is obtained, rotate the protractor dial (I) until the reticle lines in the eyepiece are aligned parallel to the black fringe lines in the image. NOTE: The reticle lines do not have to be placed over the fringe lines. To ensure parallelism, position the reticle lines slightly offset from the fringe lines and use the “negative space” between the fringe line and the reticle lines to arrive at the proper position (refer to illustration). Note the angle of the protractor scale at the zero point of the vernier indicator (J).



- To convert the angle reading to a stress value, use the angle vs. stress table that came with your instrument. This conversion chart was calibrated specifically for your Laser GASP and is not interchangeable with any other instrument.
- If you are having difficulty using the Laser GASP, and cannot solve the problem by referring to the complete instruction manual, please contact a Strainoptics Technical Support Representative.