

RAINBOW EDGES

MAINTENANCE INSTRUCTIONS

GENERAL INFORMATION:

Rainbow Edges demonstrates a phenomenon that has always been a problem for astronomers and camera makers -- the tendency of lenses to make rainbows out of white light. In part one of this two-part exhibit, the visitor can see the fuzzy rainbows around lights caused by the lens in his or her own eye. By looking at the purple H, the visitor sees either sharp red dots surrounded by fuzzy blue halos, or blue dots with red halos. The eye's lens bends more blue light than red, so it can't focus both colors on the retina at the same time. Normally, inhibition eliminates these rainbows from view, but because red and blue are at opposite ends of the spectrum, they are too far apart to inhibit each other. Observable also is the chromatic aberration of a lens. A colorless screen of dots, seen through the lens, produces colored spots. The lens bends different wave-lengths of light at slightly different angles, which accounts for the rainbow effect.

General Cleaning:

The glass may be cleaned with glass cleaner. The finished or painted surfaces of the exhibit may be cleaned with a mild soap solution or general purpose cleaner. The acrylic panels should be cleaned with a plastic cleaner and a soft wipe that will not leave scratches, (we suggest Wype-All™). (Note: Do not use alcohol on acrylic graphic panels, or covers.)

Filter cleaning & replacement:

The air filter is located in the rear of the cabinet and accessed by unlocking the back panel. It should be checked frequently and cleaned (vacuumed) or changed as needed.

115 Vac to 230 Vac conversion:

This exhibit has a step down transformer to allow 115 Vac or 230 Vac. The circuit breaker connects directly to a duplex outlet box

located in the bottom of the exhibit. It is accessed by removing the locking panel. For 115 Vac operation, the exhibit outlet strip (or component power cord) is plugged into the duplex outlet connecting it directly to the line. For 230 Vac operation, this plug must be switched over to the step-down transformer receptacle, and the transformer is then plugged into the duplex outlet. Check this configuration during initial set-up before plugging the exhibit in. The circuit breaker will protect most accidental improper connections, however some circuits may sustain damage if connected to 230 Vac if the 115 Vac plug is left in the duplex outlet.