



Care and Maintenance of your Ritchey-Chrétien Telescope

!!! WARNING !!!

RCOS telescopes are not made for daytime use. It IS imperative that these telescopes be kept out of direct sunlight. NEVER LOOK (THROUGH THE TELESCOPE) AT THE SUN AS INSTANT BLINDNESS WILL OCCUR!"

With proper care and handling, your new RC Optical Systems telescope should last a lifetime.

Following are a few basic guidelines:

- Care should be taken to keep the carbon fiber components out of direct sunlight. UV rays can attack the epoxies in the carbon and could weaken the material over time.
- Also, be sure to keep your RC Optical Systems Ritchey-Chrétien in a dry environment, especially when stored. Moisture can attack the carbon, optical coatings, and electronics.
- The inside of the carbon tube is very coarse (diffuse flat black) and should only be dusted off with compressed air.
- Your telescope is finished on the outside with a high gloss polymer paint and then "clear-coated". It is best to clean the outside surface with a soft cotton towel and window cleaner. A paper towel may scratch the clear coat finish.
- Avoid cleaning the optics, except where absolutely necessary. If dust accumulates on the mirror, use high pressure air to blow it off, being careful not to discharge propellant from the can. Use only compressed air that is made for photographic instruments.

If you must clean the optics, please contact Spectrum Coatings, or follow the optician's (Paul Jones) recommendations listed below. Consider that every time the optics are cleaned, there is risk of damage to the coatings.

Suggestions for Cleaning the Optics:

Start with the least evasive procedure that will achieve the desired results. It may be that the optics can be "dusted off" with compressed air while inside the telescope. Consider the risk of damage while removing the optics and cleaning.

Windex, Clean Water Rinse, and Compressed Air

Spray the optical surface with Windex (Figure 1). Allow the Windex to sit on the mirror for 10 seconds or so and then rinse (Figure 2). Tap water or distilled water may be used. Do not allow the Windex to dry on the mirror. Our objective is to allow the Windex to sit on the mirror and dissolve any contaminants which can be rinsed away. This may be repeated numerous times until the contaminants are completely gone. Tip the mirror to the side when rinsing so the water drains off completely. Chase off any remaining droplets with compressed air. Leave no water on the optical surface, as this will create water spots.

If satisfied with the results, return the mirror to the optical tube assembly. Note: we have not touched the optical surface. There is very little risk of damage by using the above procedure (please check with the coating manufacturer).

Acetone and 99% Isopropanol

Some types of spots or stains can only be removed with Acetone or 99% pure Isopropanol. And it may be necessary to "drag" a tissue or optical cleaning material across the mirror (Figures 3-4). Do not use any pressure, do not scrub. Allow the weight of the tissue to do the work. Consider there is risk of damage to the coatings by this procedure. It may be better to "live" with the contaminate on the mirror, rather than trying to scrub it off.

Optical Coatings typically last 1-10 years depending on your local environment and how they are treated (cleaned). If you have any questions about cleaning your optics, please call Spectrum Coatings at (386) 789-6662 or RC Optical Systems at (928) 526-5380.



Figure 1



Figure 2



Figure 3



Figure 4