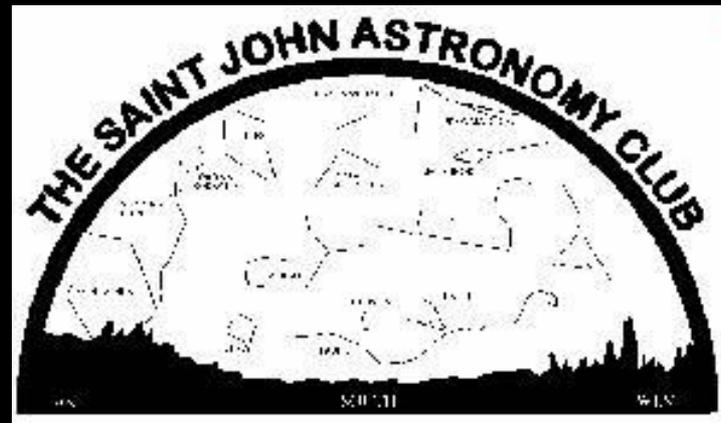


Welcome



SJAC
Monthly
Meeting



What are Finders and how to use them.



By Mike Powell

What is a “FINDER”

A finder is a component of a telescope that aids in pointing your telescope at objects in the night sky.

The magnification provided by a telescope actually makes it hard to point to something up there in the night sky. The higher the magnification the smaller your Field of View.

There are also stars in the telescopes Field of View that can not be seen with the naked eye, making what you see in the scope, different from what you see with the naked eye.

Even finding a bright star or planet can sometimes be difficult.



There are many different types of Finders out there, but the principals for aligning and using them is much the same.



What is a Finder Scope

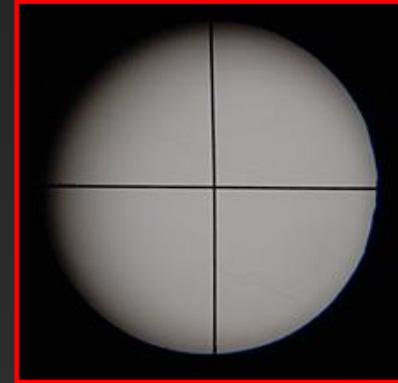
Finder scopes have been around for years. They are basically a low powered telescope mounted to your telescope.

Because they are low power they have a large field of view.

Once aligned with your telescope, if you center an object in the finder, it should be pretty close to the center of your Field of View in the telescope.



How to Align a finder scope



Put a low power eyepiece in the telescope and focus on something really bright like Venus, Jupiter , or a daytime terrestrial object.

Put the object right in the middle of the Field of View of the telescope, then look through the Finder Scope and see if the crosshairs are centered on the object.

There are 2 or 3 little adjustment knobs on the Finder Scope bracket. As you look through the finder, turn each of these slowly back and forth and watch the effect it has on the crosshairs.

Adjust the knobs until the object is dead center in both the telescope eyepiece and the finder crosshairs. Your ready to Go!!!

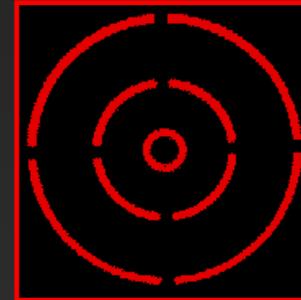
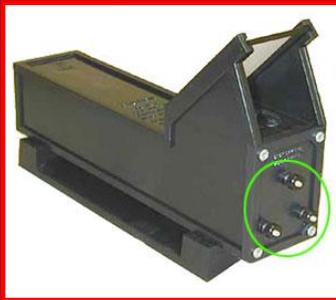
What is a Telrad Finder

The Telrad finder works on a similar principle to the head up display as seen in an aircraft.

It consists of a target of concentric rings illuminated by a variable intensity red led, this illuminated target is visible via a mirror and flat glass plate, and is viewed while looking up the scope tube with both eyes open.



How to align a Telrad



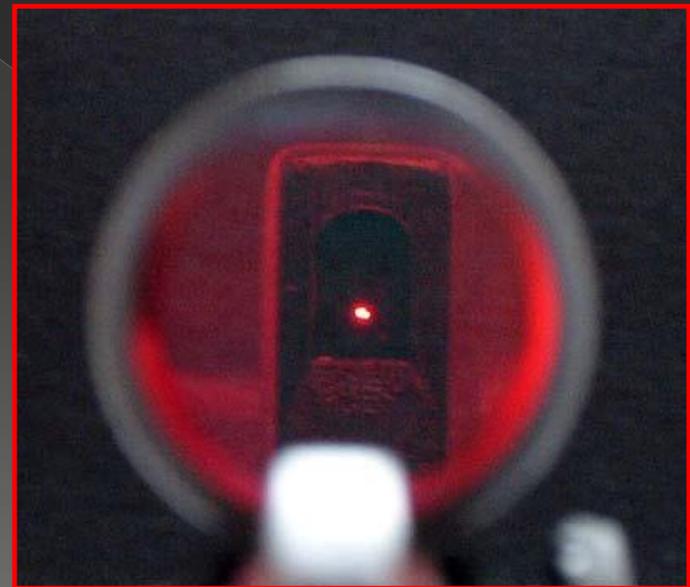
Turn the Telrad on and turn up the intensity on the reticle. Put a low power eyepiece in the telescope and focus on something really bright like Venus, Jupiter or a daytime terrestrial object.

Put the object right in the middle of the field of view of the telescope, then look through the Telrad and see if the reticle is centered on the object. There are three little adjustment knobs on the back of the Telrad, just below the glass on the back of the unit. As you look through the Telrad, turn each of these slowly back and forth and watch the effect it has on the reticle circles.

Adjust the knobs until the object is dead center in both the eyepiece and the Telrad circles. You're ready to go!!!

What is a Red Dot Finder

The Red Dot Finder is a zero magnification pointing tool that uses a coated glass window to superimpose the image of a small red dot, or reticle, onto the night sky.



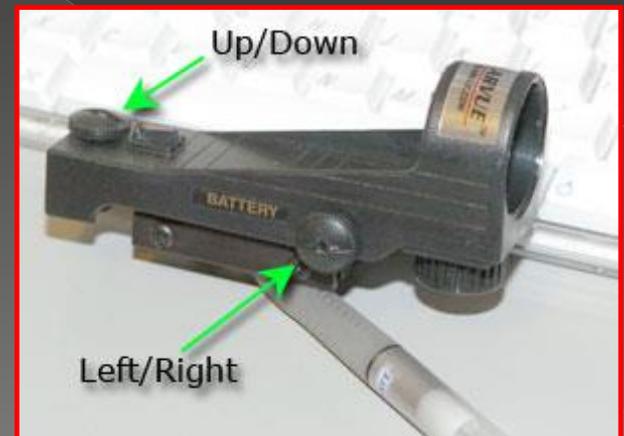
How to align a Red Dot Finder

Turn on the Red Dot Finder by rotating the variable brightness control clockwise until you hear a "click". Continue rotating the control knob to increase the brightness level.

Insert a low power eyepiece into the telescope's focuser. Locate a bright object, or a daytime terrestrial object, and position the telescope so that the object is in the centre of the field of view.

With both eyes open, look through the sight tube at the object. If the red dot overlaps the object, your Red Dot Finder is perfectly aligned. If not, turn its azimuth and altitude adjustment controls until the red dot is merged with the object.

Your ready to go!!!



View through some Finders



Using the Finder

Now that the finder you are using is aligned with your telescope.

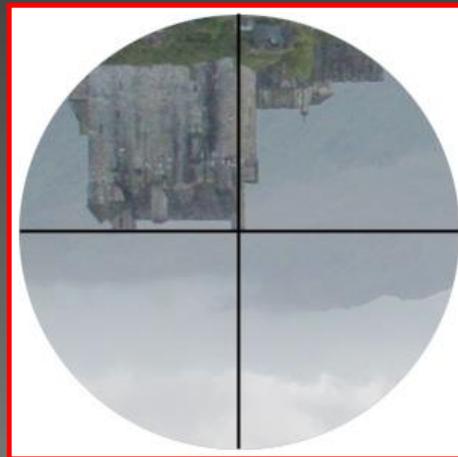
Search for the object of choice with your finder.

Center the object in the finder and it should now be in the center of the Field of View of your telescope eyepiece.

Naked Eye Object



Through Finder



Through Telescope



The End



Thank you!!!

