

The Howie TuBlug™ barlowed laser accessory

Tube+Barlow+Plug = TuBlug

Features:

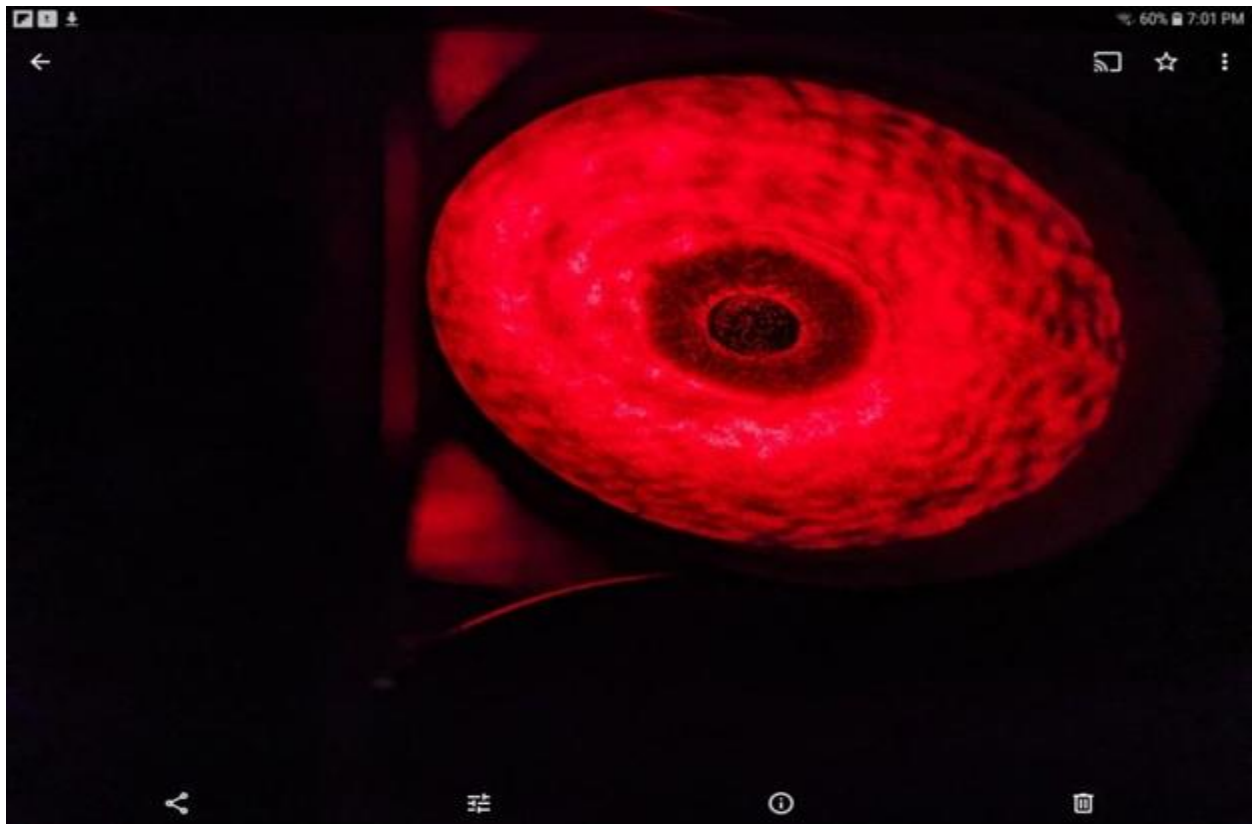
- Available for 1.25" or 2" lasers
- Large white screen makes primary center marker shadow more visible
- Visible outside focuser so screen is visible if collimating the primary mirror from below.
- Incorporated Barlow lens eliminates need for external Barlow
- Nylon screws hold laser firmly without marring

How to Use:

Insert the TuBlug in the focuser, and tighten the focuser binder against the Tublug. Be sure to aim the window toward the primary mirror if you are going to use the tool and look at the white screen while crouching below the primary mirror.

Remove the aperture stop on the laser if it has one—you want a large beam—and insert the laser fully in the TubBlug. The beam hitting the primary is large and defocused and should easily cover the primary mirror's center marker.

The shadow of the primary mirror** is returned to the white screen (it is more easily seen in twilight or darkness than on a sunny afternoon). Adjust the primary mirror until the primary mirror's center marker shadow is perfectly centered on the central hole in the TuBlug.



**If the center marker is of a certain size, there will be a small red circle of light outside the central hole of the TuBlug screen and inside the shadow of the primary's center marker. You can use this as an aid to collimation by making that small illuminated ring perfectly uniform in thickness.

Tip: If you wish to adjust the primary mirror from down below the primary mirror end of the telescope, but you cannot see the shadow of the primary center marker on the screen of the TuBlug from there, you can use a simple 5-6x close-focusing monocular from down below to see it clearly. Or, alternatively, on smaller scopes, you can sit between the bottom of the scope and the focuser and merely lean down to turn a collimation knob, then lean the other way to see the TuBlug screen more easily.