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How I adapted the Alan Gee Telecompressor Mark II to my N11GPS

Hello,

I am very fond of using my Baader/Zeiss binoviewer and especially in conjunction with the Alan Gee II Telecompressor to achieve wider FOVs using my 25mm eyepieces. The Alan Gee II is a focal reducer which changes the focal ratio of the N11GPS from f/10 to f/5.9 and also acts as a field flattener. After some trials I ended up with the following setup to be able to include and remove the Telecompressor very quickly. Thus I can change the magnification of my setup quickly by using the binoviewer alone, with the Alan Gee II (Shapley lens) for less magnification / larger FOV or with a Barlow lens for higher magnification. I find it easier to swap the Alan Gee II and Barlow lens then to exchange the eyepieces.

The common interface for all combinations / configurations is the 2" clamp of my Baader Maxbright Star diagonal. From here I either use 2" eyepieces or change to my 1 1/4" equipment which is all adapted by the Baader T2 quick-changer system.



2" Baader Maxbright Star diagonal



Baader T2 Quick-Changer System

So I need an adapter from 2" to T2. I first thought of stacking 2 adapters which I already had available but I disliked the mechanical length. So I asked a friend of mine with a nice tool shop and he machined a single adapter which is much shorter. The optimum distance between the Alan Gee II and the eyepiece's focal plane is 121mm. Because of the T2 system I can use the filter wheel as shown later and still achieve focus.



Both pictures at left: 2 stacked adapters 2" to SC & SC to T2, at right: new adapter 2" to T2



From left to right: T2 quick change ring, T2 quick changer, T2 extension 7.5mm, Alan Gee II, special adapter 2" to T2 which also holds the Alan Gee II

In the next pictures you can see how the setup is assembled. The Alan Gee II is plugged into the new adapter. Then a 7.5mm T2 extension (with a T2 outside thread at one side and a T2 inside thread at the other side) is screwed on and effectively clamps the Alan Gee II in the adapter. Then the T2 quick changer is screwed onto the T2 extension.



Alan Gee II left before plugged into adapter



Alan Gee II plugged into adapter



Alan Gee II in adapter



T2 extension clamping Alan Gee II



T2 quick changer on T2 Extension

As mentioned before I decided for this setup to be able to change magnification easily by using the binoviewer on its own, include the Alan Gee II shapely lens to reduce the focal length of the telescope or include a Barlow lens to increase the focal length.

Here are the modules I insert into the 2" clamp depending on the needed focal ratio:



Adapter 2" to T2 quick changer only (without any optical elements, #1)



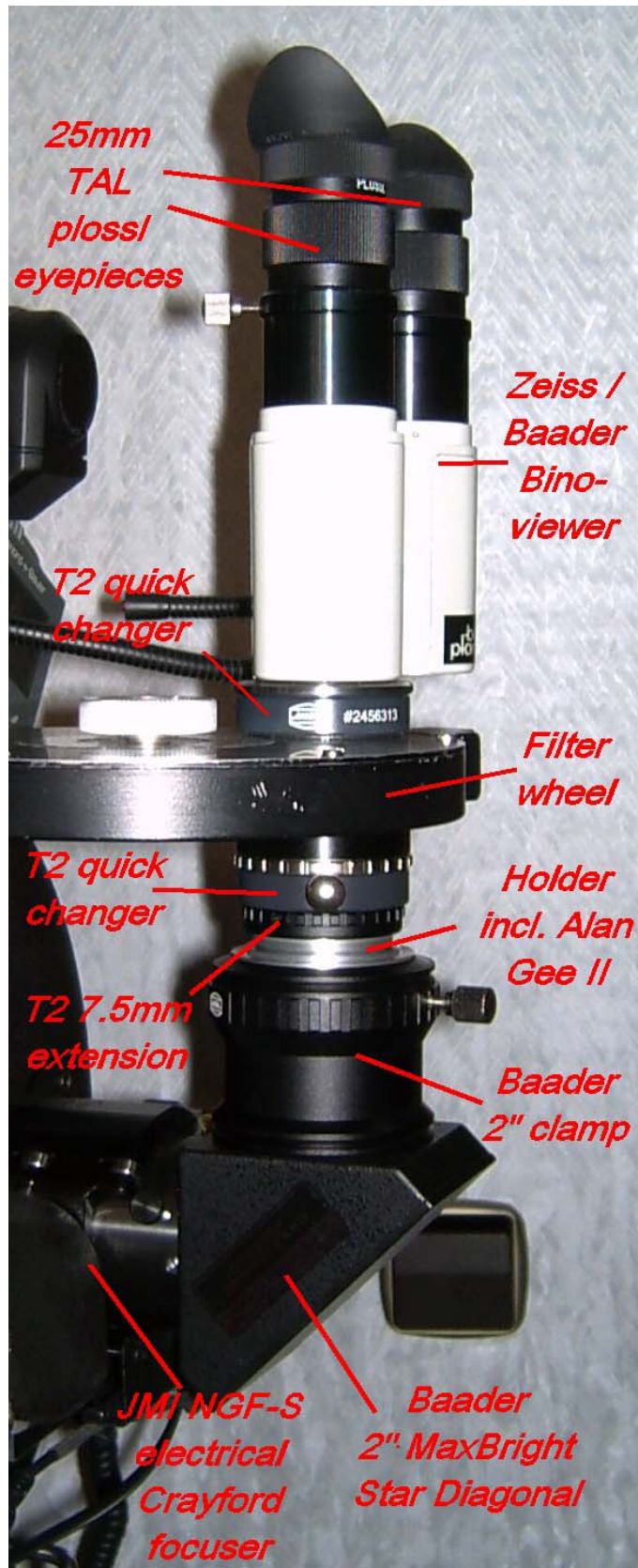
Adapter 2" to T2 quick changer incl. AG II (Alan Gee focal reducer, #2)



Adapter T2 to T2 including Barlow lens (#3) (Barlow lens with multiple T2 extension rings, changing the length of the adapter by inserting/removing extension rings varies the effective magnification of the Barlow)



Barlow assembly #3 stacked on adapter #1 (This is how it is inserted when used)



Finally here is a picture of my complete setup including JMI NGF-S electrical Crayford focuser, Baader 2" MaxBright Star Diagonal, 2" deluxe clamp, Alan Gee II Telecompressor in special machined holder, T2 7.5mm extension ring, T2 quick changer, 1 1/4" 10x filter wheel, T2 quick changer, binoviewer, 1 1/4" eyepieces

Many thanks to my friend Robert Pudlo for producing this special adapter for the Alan Gee II.

I appreciate your feedback. Please send it to my Email address below. Have fun !

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