

## Accessories for the ST-402ME / 1603ME / 3200ME Cameras



### CFW402 Filter Wheel with RGB+C Filters

This is the internal filter wheel for the ST-402ME only. It contains very high quality interference filters custom made for this camera. Note that the filters are permanently attached to the filter carousel and cannot be changed. Also, due to the size of the CCDs, the internal filters will not cover the KAF-1603ME or KAF-3200EM CCDs in this camera body. Therefore, for the larger ST-1603ME and ST-3200ME cameras, the external CFW10 filter wheel with 1.25" filters must be used.



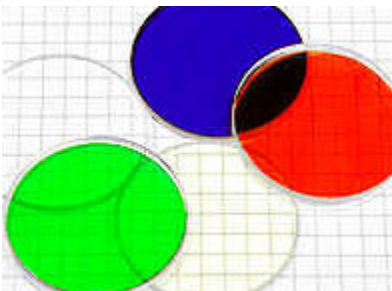
### CFW402 Filter Wheel with BVI+C Filters

This product is in development. We have been asked to provide an inexpensive internal filter wheel for the ST-402ME for photometric work using the B, V, I filters of the common UBVRI filter set used by professionals. Contact SBIG for further details.



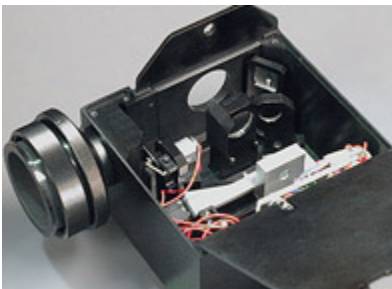
### CFW10-SA Ten Position Filter Wheel

Also seen here attached to an ST camera for comparison. The CFW10 allows you to carry a large array of filters in one filter wheel without having to change carousels. LRGB+Clear filters for color imaging can be installed along with several narrow band filters such as H-alpha, O[III] and S[II], or a complete color plus photometric set. The CFW10 adds only 0.56" of backfocus to SBIG cameras and can be used with camera lens adapters. A stand alone model is available for other cameras.



### RGB and UBVRI Filters for CFW10-SA Filter Wheel

Red, Green, Blue, plus Clear and Luminance filters for color imaging are available in several varieties. Our standard set suppresses light pollution while giving an excellent balance for all ST cameras. Astrodon filters are parfocal with other Astrodon narrowband filters and offer 1:1:1 exposure ratios. H-alpha, O[III] and S[II] filters are available for narrow band imaging of emission nebula. UBVRI filters are available for photometric studies.



### DSS-7 Deep Space Spectrograph

The DSS-7 is a lower cost alternative to the SGS. The DSS-7 is actually more sensitive than the SGS making it excellent for Deep Space objects. It does not self-guide and it has slightly lower resolution than the SGS. It is optimised for popular Schmidt-Cassegrain telescopes but can be used on any system with an F/10 focal ratio.



### **Extra Nosepiece: 1.25" and 2"**

These T-thread nosepieces screw into the female t-threads on ST cameras. All ST cameras include at least one nosepiece. Each nosepiece is threaded to accept filters and notched for extra security in the event the retaining screw comes loose slightly during the night. For a more solid connection to Schmidt-Cassegrain scopes, we also offer the SCT to T-thread Visual Back (see below).



### **eFinder focal reducer and 25mm f/4 guiding scope**

Many owners of the ST-402ME use it as an autoguider. The eFinder accessory originally made for the STV works very well with the ST-402ME. The efinder consists of a doublet lens held at the end of a tube that screws into the t-threads on the face of the camera. The entire assembly is extremely rigid. When attached, the lens acts as a 100mm FL f/4 guide scope capable of 1 arcsecond guiding with a wide field of view.



### **Precision Rotating Nosepiece**

This nosepiece with micrometer adjustment attaches to the ST-402/1603/3200 camera body by way of the 1/4-20 tripod mounting hole. It allows a small but precise rotation of the camera for aligning the CCD with the direction of drift of stars when setting up for TDI (Time Delay Integration) imaging - also called drift scan imaging. During TDI imaging, the telescope drive is turned off and the image scrolls out of the CCD at the same rate as the stars drift across the image plane. Thus there is no drive error, no tracking and the image can be quite large.



### **SCT to T-thread Visual Back**

For a more secure attachment of your camera to a Schmidt-Cassegrain telescope (or any scope using typical SCT threads) replace your nosepiece with this adapter. One end screws into the female t-threads on the front of the camera or filter wheel, and the other end screws onto the rear cell threads typically found on most commercial Schmidt-Cassegrain telescopes. A matching hard plastic dust cap screws over the t-thread end if the camera is removed for any period of time.



### **Quick Disconnect**

The Quick Disconnect accessory lets you quickly remove the camera from the telescope, replace it with an eyepiece, and then return the camera to the telescope all without losing focus or position. It also lets you easily rotate the camera without losing focus. It is designed for use with an SCT.



#### **Male-to-Male T-thread adapter**

This adapter is also threaded internally for 1/25" filter cells, so it can be used to hold a single filter when attached to the front of the camera.



#### **110VAC to 12VDC Wall Transformer**

This 110VAC to 12VDC supply is a replacement for the power supply that is included with the ST-402ME camera. The polarity is correct for this product (center pin positive) and the plug has a locking ring to hold it in place. The locking ring differentiates it from a similar supply with negative center pin used for the STV.



#### **Power Supply Extension Cable**

This cable extends the cord from the wall transformer to the camera. It is custom made with heavy gauge conductor for minimum voltage loss, similar to the extension cables offered for the ST and STL series cameras. (The ST-402/1603/3200 versions may appear slightly different from the STL version shown in the photo).



#### **CLA-5 Camera Lens Adapter with T to C Mount Adapter**

This lens adapter comes in two parts: A T-to-C Thread adapter ring and a C-thread to 35mm lens adapter. Both are necessary for using a 35mm camera lens with the ST-402/1603/3200 cameras. However, if you have C-mount lenses, only the T-to-C Thread adapter ring is required.



#### **Relay Adapter**

The relay adapter box converts the ST-402/1603/3200 electronic relays to mechanical relays. Most commercially available mounts such as those from Software Bisque, AP, Meade and Celestron do not require mechanical relays, but others, such as the classic Losmandy G-11 do require some other form of electrical isolation between the camera and the mount. If you are not sure, check with your mount manufacturer.