



SG-4

Stand-Alone “Smart” Autoguider



SBIG began with the ST-4 autoguider nearly 20 years ago. This venerable stand-alone unit is still used by many for digital astrophotography. We later made the STV video stand-alone autoguider, and now offer the SG-4. After two decades of experience making self-guiding cameras and autoguiders, we have developed the SG-4 for those who just don't want to use a computer to guide or image with their digital camera or non-self-guiding CCD camera. The SG-4 is made to piggy-back on your scope and perform its guiding functions without being connected to any external computing device. Simply attach the tracking cable between the SG-4 and your telescope drive's autoguider input and plug in the 12V power and its ready to go. An RS232 port will allow an initial setup for your particular scope and drive after which operation is completely independent. An optional Bluetooth transmitter may be connected to the RS232 port for wireless setup and download of the image if desired.



Some highlights of the camera:

- Stand-alone configuration, no computer or other external device required for operation
- Perfect for DSLR users
- KAI-340 CCD 640 x 480 @ 7.4u with low read noise and low dark current
- Single button operation
- Mechanical shutter for automatic dark frames
- RS232 port for image download and setup, USB Adapters available
- Wireless image download with optional Bluetooth device



The KAI-340 CCD has exceptional read noise and dark current characteristics.

The mechanical shutter makes taking dark frames automatic, no need to cover the camera or the scope by hand to capture a dark frame. Dark frames are desirable for autoguiding to remove any hot pixels that might otherwise be mistaken for stars by the guider. A (user supplied) Bluetooth transmitter can be plugged into the RS232 port for wireless setup and image download.

The SG-4 will also support SBIG's differential guiding (patent pending) by providing power to illuminate an artificial star.

Preliminary Specifications	
CCD	KAI-0340S
Array	640 x 480
Pixel Size	7.4u
Full Well Capacity	50,000e-
Read Noise	9.8e-
A/D	16 bits
Peak QE	55%
Exposure time	0.05 to 600 seconds
Power Requirements	12VDC (9-18V), 200 mA, unregulated
Power Supply	Universal 100-240VAC to 12VDC supply included
Size	4.4 x 3.8 x 2.8 in. (11.2 x 9.7 x 7.1 cm)
Weight	20oz. (580g.)
Mechanical interface	T-threads included, C-mount adapter optional
Computer interface	RS-232 (USB and Bluetooth adapters optional)
Telescope Interface	Opto-isolated relays, RJ-11 type 6P6C jack out
Nosepiece	1.25" nosepiece included, 2" nosepiece optional
Camera Lens Adapters	C-mount adapter or CLA-5 for Nikon optional
Image Transfer	15 sec.
Guiding Sensitivity (Limiting Magnitude)	10th magnitude with 60mm aperture

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