

## Re: Skysensor 2000-PC availability?

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**Date:** 01/10/05

Date: Mon, 10 Jan 2005 11:37:33 GMT

"Szaki" <szaki10@comcast.net> wrote in message  
news:T96dnU0rN4Ms53zcRVn-oQ@comcast.com...

- > *Why you had to move the goto to your GP mount?*
- > *Not happy with the Celestron GT?*
- > *All these cheap goto systems, that Meade or Celestron makes uses standard*
- > *DC motors, vs. SS2K use stepping motors, lot more accurate. For example,*
- > *I can be over 100x power or more and slew from one object to another and*
- > *they all come into my eyepiece field view. SS2K even locate objects on*
- > *the Moon, after proper alignment, controler has the database too.*
- > *I owned LX200 and Nexstars, but I'm very impressed with the SS2K. There*
- > *is the reason for the high price and demand for the SS2K. FCC killed it*
- > *off here in the US.*
- > *Julius*

Incorrect.

The Meade, Celestron, and SS2K systems, all use DC servo motors, not steppers. The difference is in the quality of the motor itself (the design in the SS2K, is a 'zero cogging' servo motor, while the ones used in the Meade scopes, on early units, were basically 'slot car' motors – the Celestron NS scopes, and the CGE, both use proper servo motors, while the advanced series, and the current normal Meade units, use a slightly higher quality 'normal' motor – more poles to the armature, but not a zero-cogging design).

Steppers are not better than DC servos. The former is an 'open loop' system, and is reliant on having enough power to move as required, no matter what the load. The servo system, actually measures how the motor shaft moves, and will attempt to compensate as the load changes.

The SS2K, is one of the finest hand controllers around, but with some significant 'caveats'. The connectors have historically been fragile, and software updates almost non-existent (you have to replace the ROMs, and getting these from Vixen, can be a 'struggle'...). It has some noticeable 'oddities', with (for instance), RA/Dec coordinates being 'rounded', when received via the RS232, so while you can 'nudge' the scope a few arc seconds with the autoguider input, or the buttons on the hand controller, this does not give fine control if you try to do the same via the RS232. I took a long time 'proving' that the coordinates were being rounded, and after several emails to Vixen, they replied that it did round the coordinates, but offered no 'fix'...

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Unfortunately, there is no 'development' being performed on the SS2K at all, and repair is likely to become harder in the future... :-(  
Availability in the US, of the controller is poor, and given the current dollar rate, when it does exist, it is expensive. The only ones around, tend to be very 'old stock', because the unit does not have current US RF noise approval...

Two 'bargain basement' routes do exist, to add a controller to such a mount, both of which perform quite well. One is to take the controller/motors of a Celestron advanced mount, and add them to the EQ5, and the other is to add an Meade Autostar controller, with suitable motor assemblies. The first is a relatively 'new' upgrade, and is possibly the easier (The Celestron mount comes with the hand knobs to convert it to manual operation, so can be sold without the controller to recoup quite a large percentage of the cost). The Autostar route requires sourcing the correct motor assemblies. These used to be available as a 'kit' with the #494 controller, but in latter years this has largely disappeared, but when available, often comes with the #497 controller (better), instead. A couple of suppliers in the US, were selling these kits, and sometimes even metalwork to attach them to common mounts.

<http://bedair.org/ScopeStuff.html>

<http://www.data-plumber.com/autostarupgrade.htm>

Do a search for Meade part number #493, for the motor kit.

Both routes work. I have a friend, who updated his mount using the Autostar route some time ago, and does guided CCD imaging quite well on this. I have also helped recently, with a user doing the 'Celestron swap', and again this was not too hard, and appears to work quite well.

I have a SS2K, and still think it is my 'favourite' hand controller, but the cabling is very untidy compared to the Celestron route, and the pointing accuracy of all the units is quite capable of hitting any target that is wanted.

Best Wishes

> "Stephen Paul" <smarshallpaul@gmail.com> wrote in message  
> news:jb2dnQfy4vDw03zcRVn-rA@comcast.com...  
>> Fred wrote:  
>>> Hi \*,  
>>> I'm considering upgrading my old EQ5 which came with my C8 with GOTO  
>>> capabilities and I'm almost set for a Skysensor 2000-PC (I'd love a  
>>> Celestron CGE or a Losmandy but not for now :) )  
>>> Now the big question is where to find the toy (at a decent price, of  
>>> course). I found a couple of potential sources around USD1200 but with  
>>> no immediate availability. Is there a shortage or something similar?  
>>> Do you happen to know where I could buy it, preferable online, within  
>>> a fair timeframe?  
>>>  
>>> Bonus question for existing users: is the 'PC' option worth the delta  
>>> or could you live without it?  
>>>  
>>> Thanks in advance.  
>>>

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>>  
>> *Consider the Celestron CG5 Advanced Series GT mount. It seems to have*  
>> *accurate aiming capabilities provided it heads off in the correct*  
>> *direction (I've seen it fail this a couple of times), and there's an*  
>> *optional accessory that provides an auxiliary port, hand controller*  
>> *port, and serial port for Nexremote (formerly HC Anywhere) PC control.*  
>> *It also has an autoguider port on the main controller board which is*  
>> *mounted on the RA axis.*  
>>  
>> *I just did a transplant of the complete GoTo system to my Vixen GP. I*  
>> *\_finally\_ got it out for a trial run thanks to a break in the clouds*  
>> *the other night, and the accuracy was identical to the CG5. Using just*  
>> *a quick centering of Polaris in the polar scope, and rough centering of*  
>> *the alignment stars in a 1 degree TFOV eyepiece, all objects were off*  
>> *center in the same location, but within the field of view.*  
>>  
>> *The next ideas:*  
>> *remote control*  
>> *aiming correction using the Meade DSI as a field star imager*  
>> *autoguiding with the Meade DSI*  
>> *remote focus of a DSLR*