

INSTRUCTION MANUAL

Orion® USB to Serial Adapter Windows XP, Vista, Win7 & Mac OS X #52419

The Orion USB to Serial Adapter provides a useful virtual COM port to Laptops or computers that do not have a COM port available thus allowing telescope control via software such as Starry Night to be used.

Adding a virtual COM port gives the following benefits.

- Slewing goto telescopes to targets using planetarium software rather than using the hand controller.
- Updating firmware of goto hand controllers.
- Guiding using camera/mount without dedicated ST4 guide port (pulse guiding) using software such as PHD Guiding or EQMOD

NOTE: *In order to connect the USB to Serial Adapter to a telescope goto mount, the serial cable that came with the mount should also be used. The serial cable should be connected to the USB to Serial Adapter and also to the bottom of the hand controller (Synscan/NexStar).*



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Driver Installation

In order to use your USB to Serial adapter software drivers must first be installed.

Windows Driver Installation

Select from the installer CD “USB to Serial Drivers” to be taken to an additional page to select the driver to install based upon your operating system.

The main drivers for windows are XP, Vista and Windows 7.

Additional OS drivers can be found by selecting “Explore additional drivers and tools”. A new window will open showing you the additional software.

Select the driver that matches your OS and follow the on screen installation instructions.



Within this additional software directory (**Figure 2**) a tool called SetCom.exe can be copied locally and used to reconfigure the COM port to a desired port number rather than the default. This tool can also be used to view which COM port the device is automatically set to so that the user can enter the same COM port into other software such as Starry Night.

Mac OS Driver Installation

Included on CD are 3 different Mac OS X drivers to be selected based upon the target Operating System (**Figure 3**).

PL2303-1.2.1r2 (For Mac OSX 10.1)

MacOS 10.1 or later for PowerPC based Mac
MacOS 10.4 or later for Intel based Mac

PL2303-1.4.0 (For Mac OSX 10.6)

MacOS X 10.6 Snow Leopard (32 & 64 bit kernel)
MacOS X 10.7 Lion (32 & 64 bit kernel)

PL2303-LION (For Mac OSX 10.7 or higher)

MacOS X 10.7 Lion (32 & 64 bit kernel)

Select the directory that matches your OS with the correct driver above.

Double click the DMG disc image to extract the PKG Package file. Double click the PKG file within the selected directory and follow on screen installation instructions to install the correct driver.



Figure 1. Windows CD Launcher.

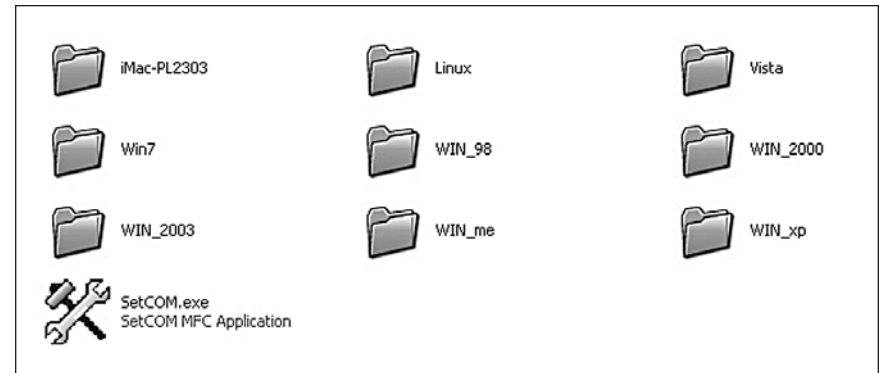


Figure 2. Additional Drivers and Tool.

Compatible Software

Once the serial Driver is installed a variety of software can now be used with the USB to Serial adapter. The Windows CD launcher contains web links to compatible software for your USB to Serial adapter (**Figure 1**). The links below can also be used to be taken to each website.



Figure 3. Mac Serial Adapter drivers.



Starry Night

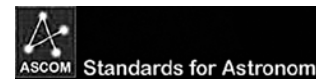
<http://www.starrynight.com>

The following versions of Starry Night are telescope control enabled.

- Starry Night Pro
- Starry Night Pro Plus
- Starry Night Orion Special Edition

In order to use Starry night software to control your telescope you may also need to download ASCOM drivers for your mount.

Windows



Download the appropriate **ASCOM** Telescope/ Mount driver plugin for your telescope mount here. For Orion Atlas and Sirius mounts select the Celestron Driver.

<http://www.ascom-standards.org/Downloads/Index.htm>

Mac OS

On the Macintosh, Starry Night Pro controls telescopes with its own telescope plug-in.

Telescope Control via Starry Night Software

After downloading the ASCOM driver (Windows), make sure the USB to Serial adapter is connected to a computer and also connected to a mount (using the appropriate serial cable that came with the mount) Next run the Starry Night software and select Telescope->Setup and press the Configure button (Figure 4).

Now select the type of telescope you have. For Orion Atlas, Sirius and StarSeeker mounts select the **Celestron** Telescope Driver (Figure 5).

Next Click the **Properties** button to enter the Driver setup menu.

Now select the type of telescope you have (Figure 6). For Orion Atlas and Sirius mounts select **Celestron NexStar 5** Telescope Driver.

Choose the COM port number of the USB to Serial device (you can check what port the device is assigned to using the tool SetCOM.exe included on CD)

Press OK to return to the Telescope selection and press OK here to return to the setup screen.

Now click the Connect button to connect your computer to the mount. Once connected you can now use the onscreen indicator to see where the telescope is pointing.

Right click to select targets to slew telescope to.

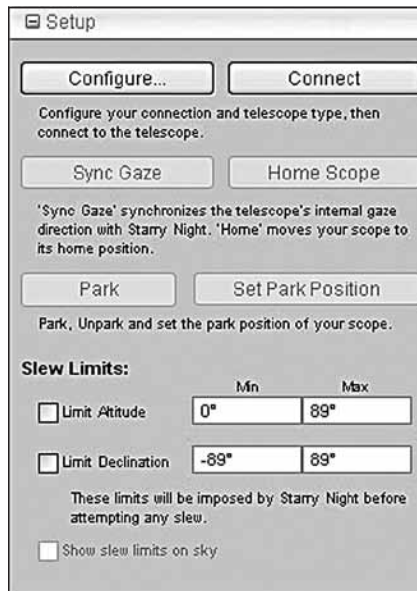


Figure 4. Starry Night Setup.



Figure 5. Starry Night Telescope selection.

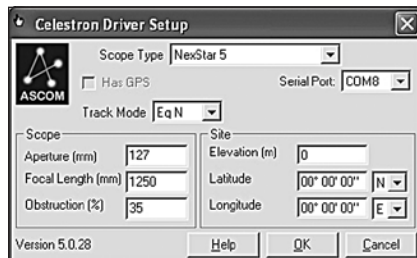


Figure 6. Starry Night Driver Setup.



EQMOD

The EQMOD project consists of a suite of open source applications that can provide an alternative to using the hand controller on Supported German Equatorial mounts. Follow the link below or from the CD launcher (Windows only) to download latest software and instructions.

<http://www.eq-mod.sourceforge.net>



Skywatcher (SynScan) HandController Firmware Loader

Download the SYNSCAN Firmware loader and latest firmware for your EQ or ALT/AZ goto mount **SynScan** hand controller. Follow the link below or from the CD launcher (Windows only) to download latest software and instructions.

(Compatible with Orion Atlas/Sirius mounts)

http://www.skywatcher.com/swtinc/customer_support.php?class1=1



Celestron HCupdate

Download the HCUpdate Firmware loader and latest firmware for your EQ or ALT/AZ goto mount **NexStar** hand controller. Follow the link below or from the CD launcher (Windows only) to download latest software and instructions.

(Compatible with Orion Starseeker mounts)



NexRemote

NexRemote software provides a virtual hand control that performs all of the functions of the standard hand control - and more. Follow the link below or from the CD launcher (Windows only) to download latest software and instructions.

(Compatible with Orion Starseeker mounts)

http://www.celestron.com/c3/support3/index.php?_m=downloads&_a=view

NexStar Resource Site

A great resource of PC Control software and firmware for NexStar hand controllers. Follow the link below or from the CD launcher (Windows only) to download latest software and instructions.

<http://www.nexstarsite.com>

One-Year Limited Warranty

This Orion USB to Serial Adapter is warranted against defects in materials or workmanship for a period of one year from the date of purchase. This warranty is for the benefit of the original retail purchaser only. During this warranty period Orion Telescopes & Binoculars will repair or replace, at Orion's option, any warranted instrument that proves to be defective, provided it is returned postage paid to: Orion Warranty Repair, 89 Hangar Way, Watsonville, CA 95076. If the product is not registered, proof of purchase (such as a copy of the original invoice) is required.

This warranty does not apply if, in Orion's judgment, the instrument has been abused, mishandled, or modified, nor does it apply to normal wear and tear. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. For further warranty service information, contact: Customer Service Department, Orion Telescopes & Binoculars, 89 Hangar Way, Watsonville, CA 95076; (800) 676-1343.



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