

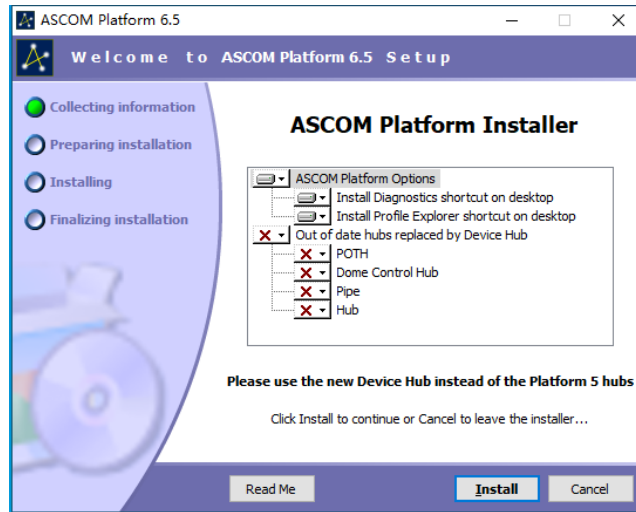
## Connect an iOptron Strain Wave Gear Mount (B&C Serial) to a Computer

An iOptron Strain Wave Gear (SWG) B&C serial mount can be connected to a computer via the USB-C port on the mount (B&C) or a built-in Wi-Fi (C only). A USB-C cable is needed to make the connection work if connected to a computer USB port.

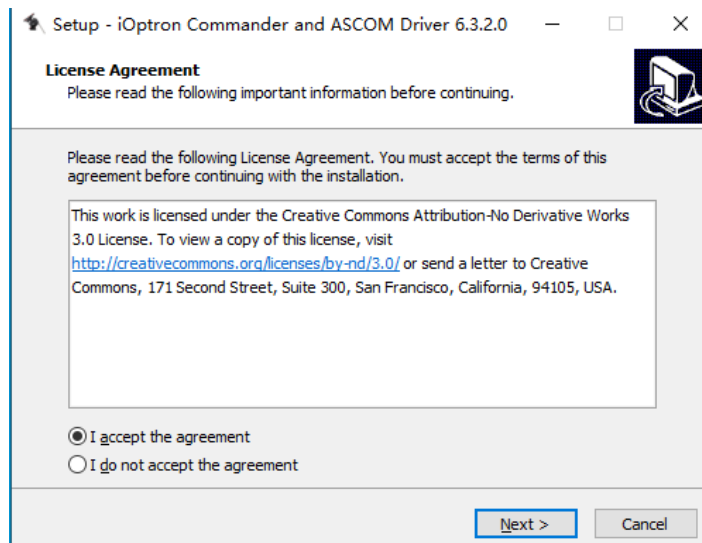
### 1. Software/Firmware Needed

Connection to a Windows computer is via ASCOM Platform (please refer to <http://www.ascom-standards.org> for detailed info.) The software/firmware needed:

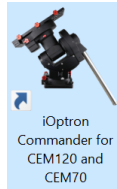
- Windows 10/11 64bit system (Windows 7 /8.1 may also work) with .NET Framework 4.8 installed. For Win10 and 11, make sure that .NET Framework 3.5 is activated.
- ASCOM Platform 6.6 or late version. Download and install it from <http://www.ascom-standards.org>;



- iOptron Commander and ASCOM Driver Installer 9.0 or later. Download and install it from the device product page.



After installation, you should see an icon like this on your computer desktop, or your designated folder:

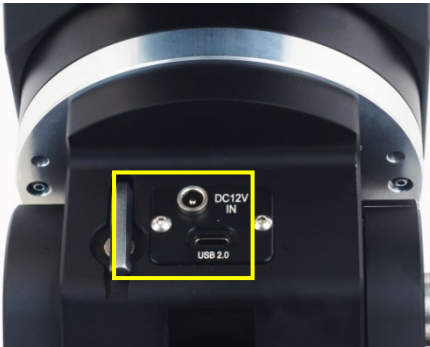



- PL2303 VCP driver for mount connection
- Latest mount firmware

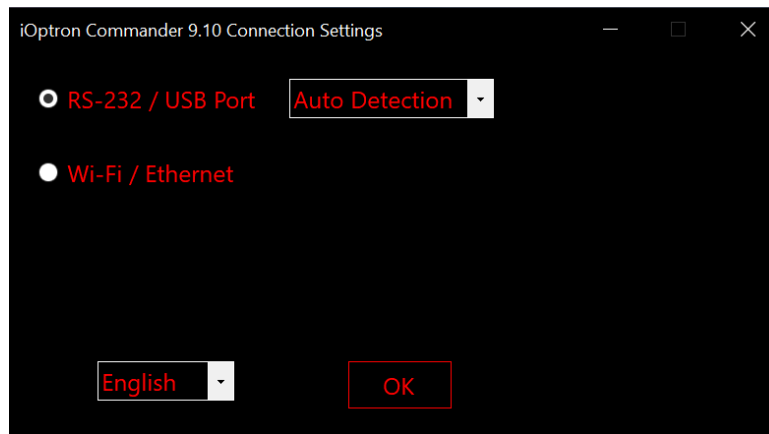
## 2. Connect a Mount to a Computer

### 2.1. Connecting via USB

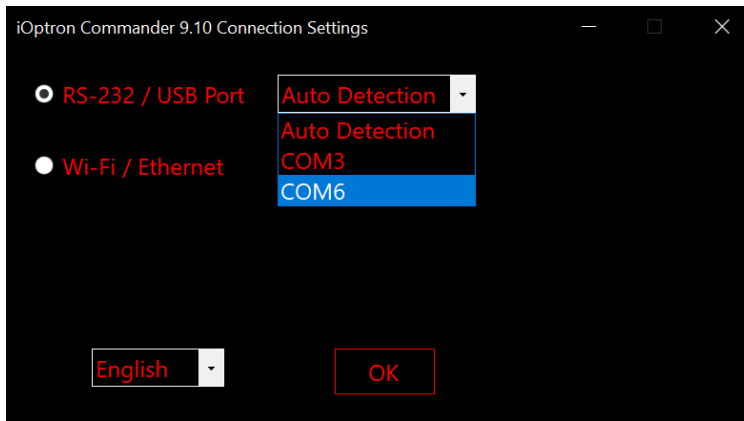
Plug a DC12V power into DC12V IN on mount base. Plug USB-C plug of a USB cable into the USB 2.0 port on the mount base (B&C version) or one the saddle (C version only). Flip the ON/OFF power switch to turn on the mount.



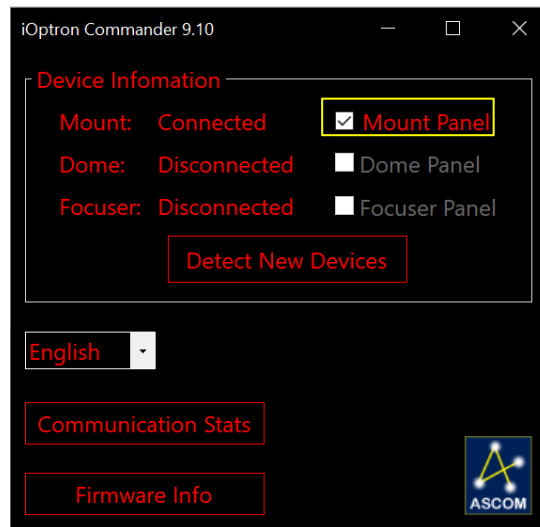
Click on iOptron Commander icon  on desktop to launch the Commander. An **iOptron Commander Connection Setting** window will open:



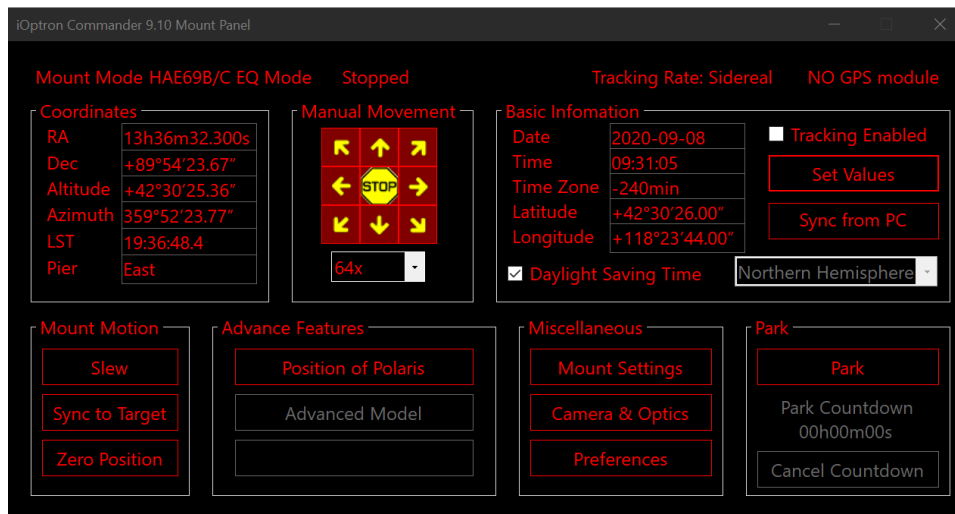
Select “**RS-232/USB Port**” with “**Auto Detection**”, or click on the RS-232/USB Port pull down menu to select a COM port manually. The COM6 is selected as shown below.



Click **OK** to connect. An iOptron Commander Connection panel will display when the computer connected to the mount.



Check the mount panel to bring up the Commander. If you are using a third party software to control the mount via ASCOM driver, there is no need to load the Mount Panel.

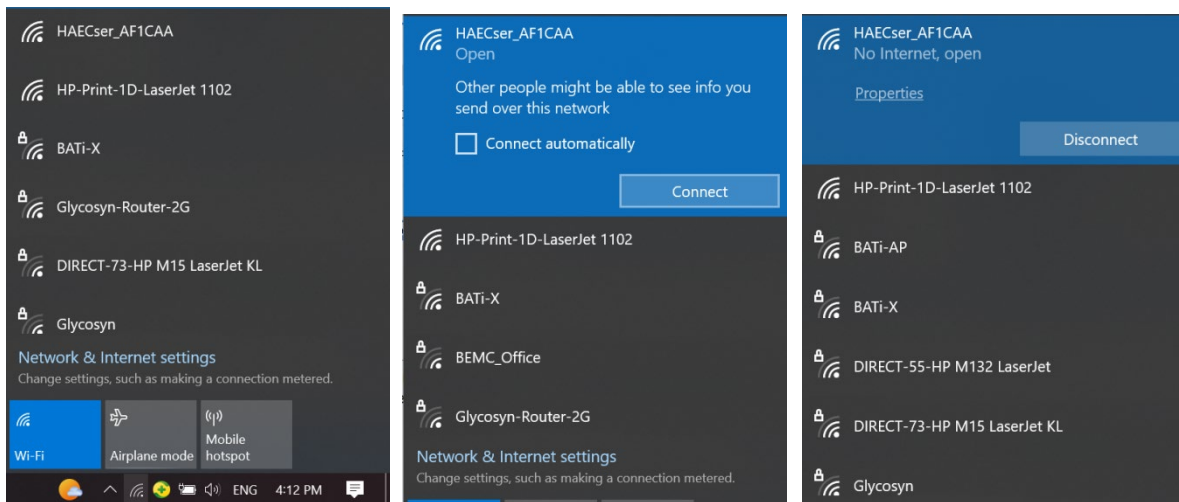



## 2.2. Connect a mount via Wi-Fi (HAE\_C Only)

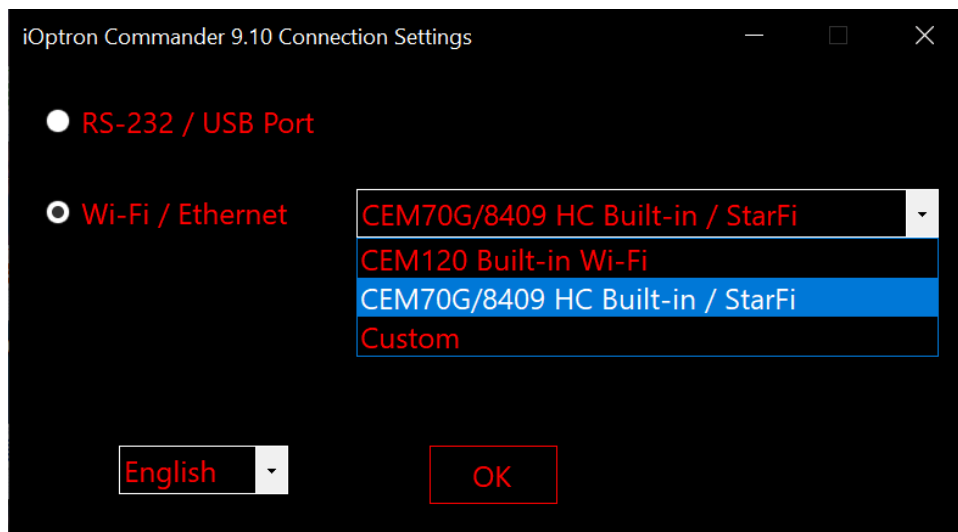
Thread Wi-Fi antenna onto coaxial base on the mount. Plug a DC12V power into DC12V IN on mount base. Turn the mount power on.



Click on the Wi-Fi sign located on right bottom corner of your computer to bring up Wi-Fi network menu. The Wi-Fi SSID for an HAE\_C is in a form of HAECser\_XXXXXX. Select the HAE Wi-Fi network, here is HAECser\_AF1CAA. Click to connect to it.



Click on iOptron Commander icon  on desktop to launch the Commander. An **iOptron Commander Connection Setting** window will open. Select **"Wi-Fi/Ethernet"** and choose **"CEM70G/8409 HC Built-in/StarFi"** from pull down menu. Click **OK** to connect.

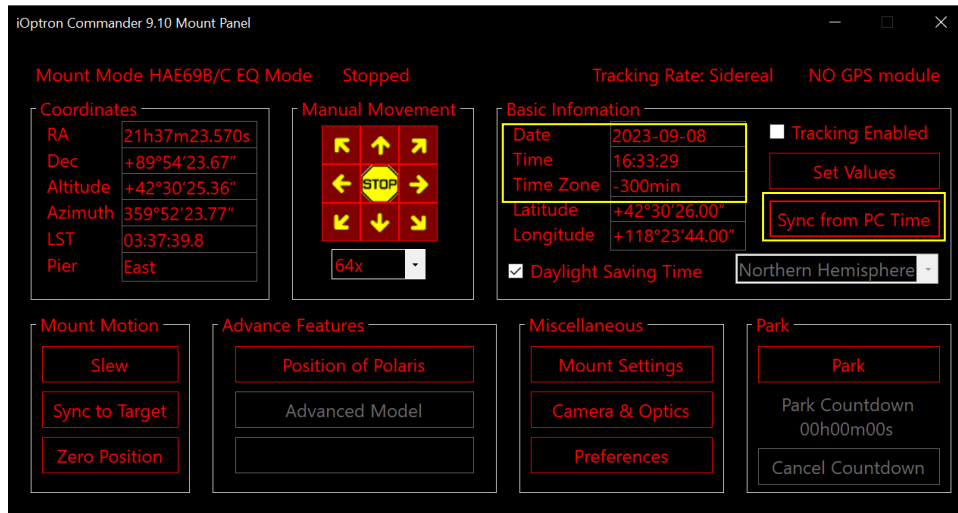


An iOptron Commander connection panel will display when the computer connected to the mount. Check the mount panel to bring up the Commander.

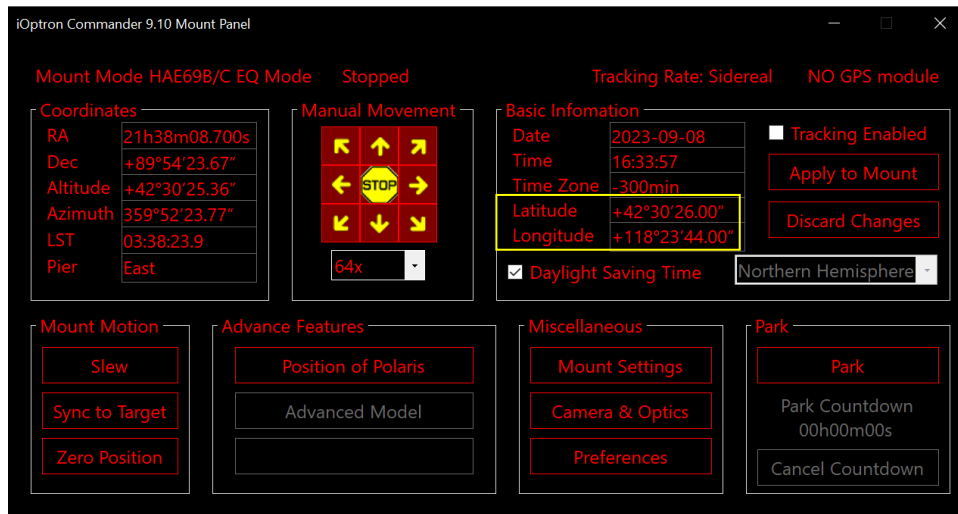
### 3. Use iOptron Commander

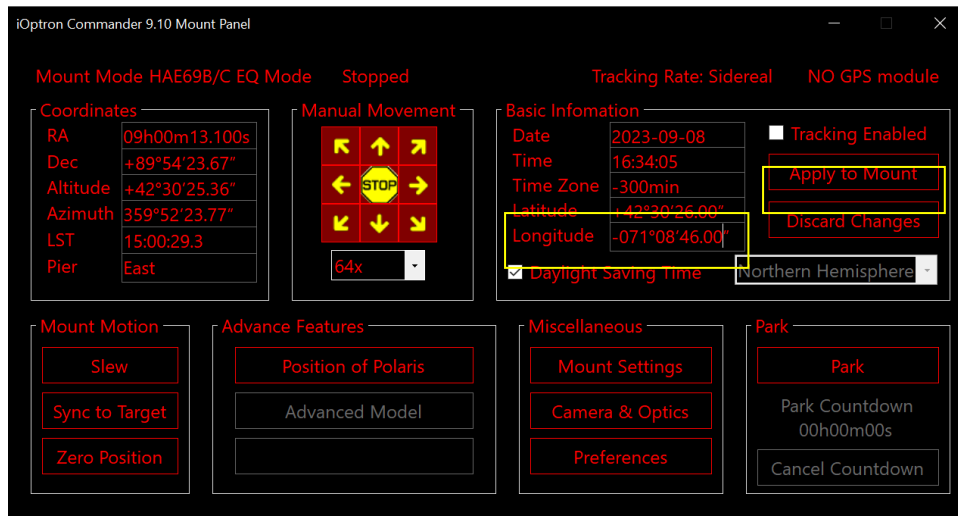
#### 1.1. Set up Time and Site

Click on **Sync from PC** to set up the mount time.



Click on **Set Values** to change GPS info, as well as Date and Time if needed.

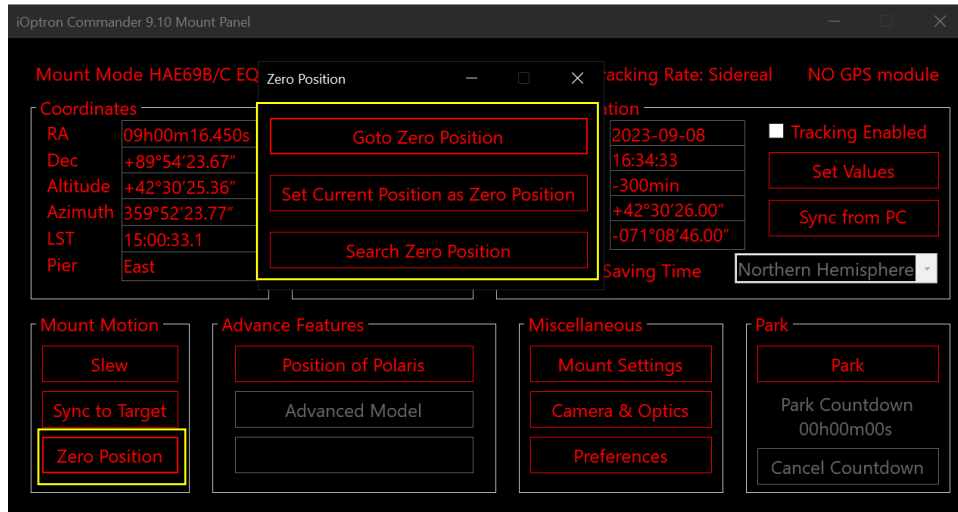




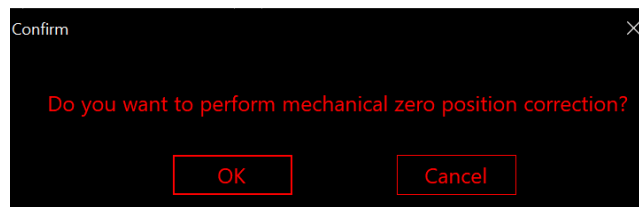
Click on **Apply to Mount** to save the changes.

### 1.2. Set Zero Position

Click on **Zero Position** to bring up **Zero Position** submenu.

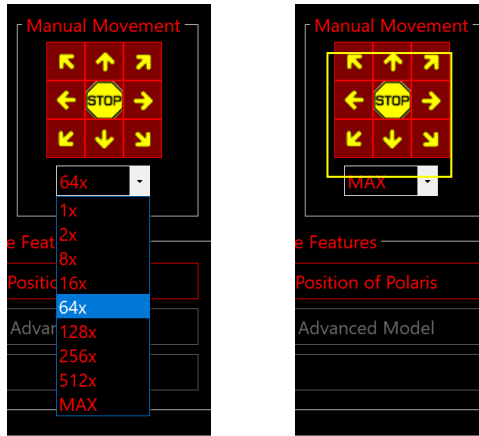


Click on **Goto Zero Position**. The mount will start searching the Zero Position. Check the mount RA and DEC position visually. Click **OK** if any adjustment is needed.



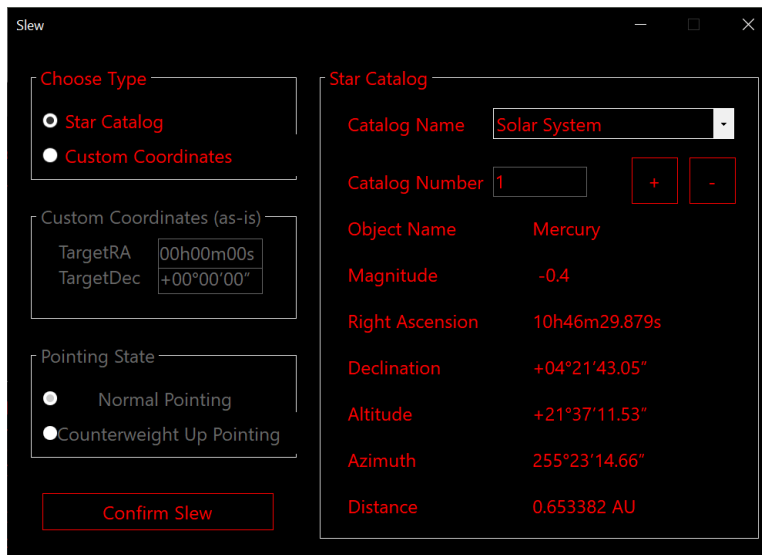
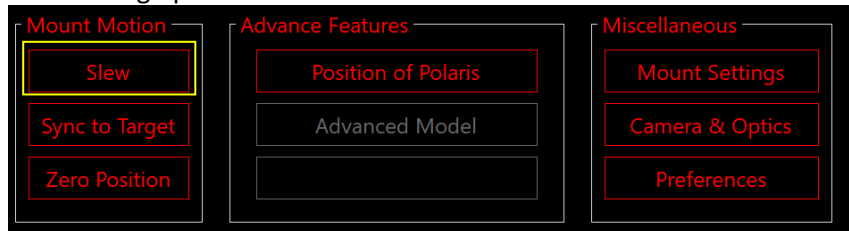
### 1.3. Move the Mount Manually

Click the speed selection pull down menu to choose a speed. Click on an arrow button to move the mount.

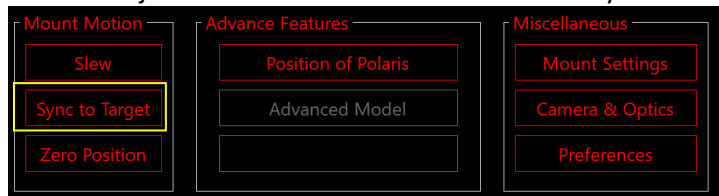


#### 1.4. GoTo an Object

Click on Slew button to bring up the Slew submenu.

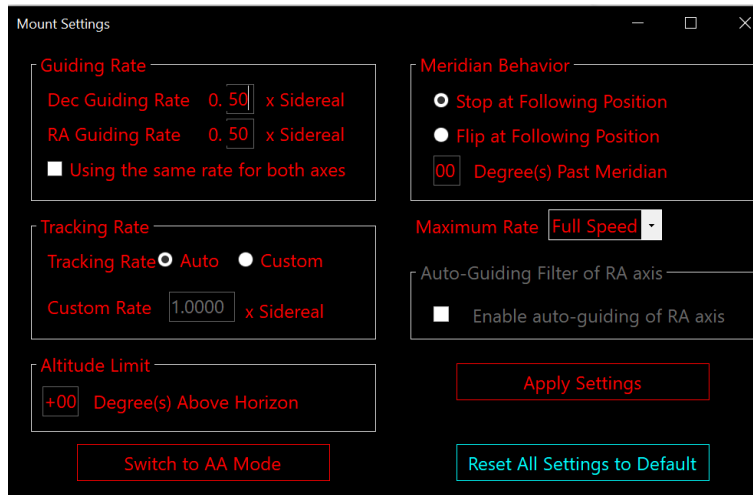
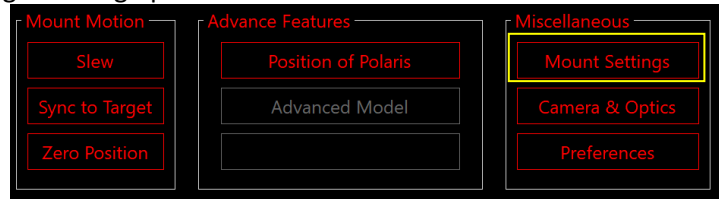


Select an object from Star catalog pull down menu and click on Confirm Slew. After the mount moving to the object, use an arrow key to center the object if it is not centered. Then click on Sync to Target.



## 1.5. Other Settings

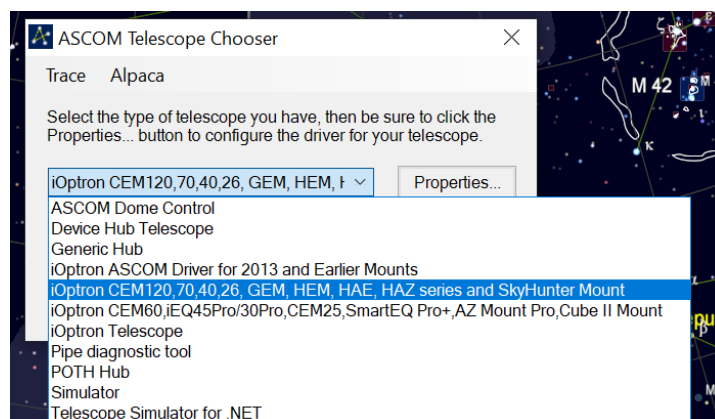
Click on Mount Settings to bring up the submenu



Click on the parameters you would like to change and click on Apply Settings at the end of the process to save the changes.

## 4. Control the Mount via Planetarium Software

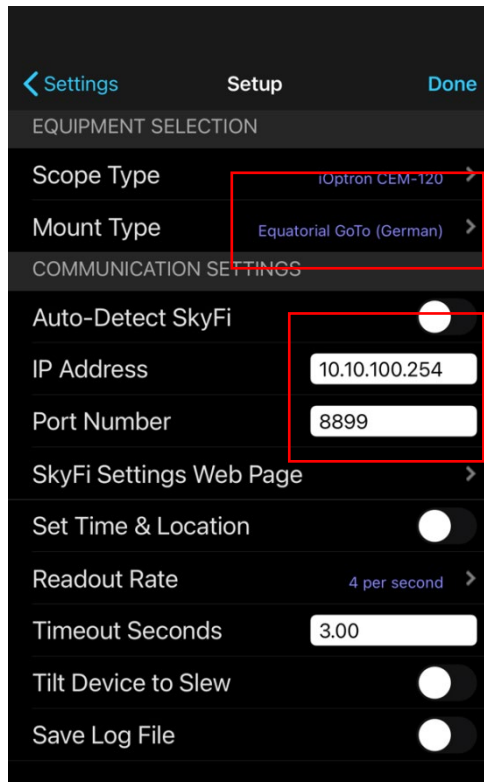
You can also control the mount with your favorite planetarium software and select “iOptron CEM120,70,...and SkyHunter Mount” for software configuration.



### Other OS control

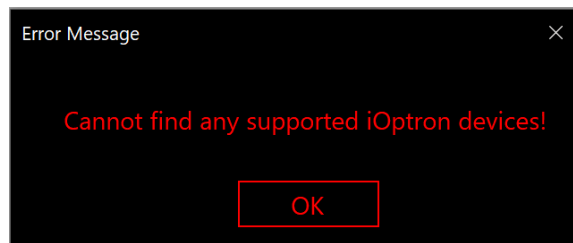
For a MacOS, it depends on if the planetarium software has a latest iOptron driver, either embedded or plug-in. You may also use an .INDI driver developed by third party. A proper USB to RS232 Virtual Com Port (VCP) driver is needed.

If you are using planetary software from a Smartphone/Tablet, such as SkySafari 6 Pro, please use the following mount and Wi-Fi settings:



For other control software, IP address is 10.10.100.154, Port Number 8899. If there is no iOptron SWG mount drive, such as HEM, HAE or HAZ, please select CEM120 or a drive based on iOptron RS232 Command V3.

### ***Error Message***



If you see this error message, please check the following:

1. Correct iOptron Commander is installed and used, especially you have multiple iOptron mounts;
2. Firmware is up to date;
3. Try another USB port on computer or a different USB cable;
4. Connection between mount and computer is established. Check Device Manager by plug and unplug the USB cable to observe the COM port changes to determine which one if from mount;
5. Delete all COM port from other devices. Power cycle the mount and computer. Then plug in the mount first and try again.
6. If Commander not start, check online FAQ's.