

iOptron Commander and ASCOM Driver

iOptron Commander and ASCOM driver provides a connection between an iOptron mount and a computer through serial cable or wireless adapter. It also includes a full functional control panel, iOptron Commander, with which one can set up and control the mount. iOptron ASCOM driver uses the latest iOptron Mount RS232 Command language 2014.

The supported mounts are:

- CEM60/CEM60-EC, with firmware version 151016 and later
- iEQ30 Pro/iEQ45 Pro/iEQ45 Pro AZ, with firmware version 151016 and later
- CEM25/CEM25-EC with 8408 hand controller firmware 151020 and later
- Future new mounts

Other hardware needed:

- A computer or laptop with a RS232 serial port or USB port. Windows XP/ Vista/ 7 /8 /8.1 /10 with .NET (dotNET) Framework 4.0 installed.
- RS232-RJ9 serial cable if connecting via RS232 port (included with the mount purchase);
- Optional USB to RS232 converter and driver, if your computer does not equip a 9-pin D-shaped RS232 port except the USB port. You may buy a USB to RS232 converter form a computer hardware store or online. **We highly recommend buying a reliable USB to RS232 converter, such as one using FTDI chipset, even your computer equipped a native RS232 port.** iOptron also carry a fully tested converter (#8435).
- Optional StarFi wireless adapter if via Wi-Fi connection (part #8434)

The software needed:

- Windows XP/ Vista/ 7 /8 /8.1 /10 with .NET (dotNET) Framework 4.0 installed;
- ASCOM Platform 6.1 or later. Download and install it from <http://www.ascom-standards.org>.
- iOptron Commander and ASCOM Driver Installer 5.0 or later. Download and install it

from <http://www.ioptron.com>, under Support directory. An iOptron Commander shortcut



will be created on the desktop.

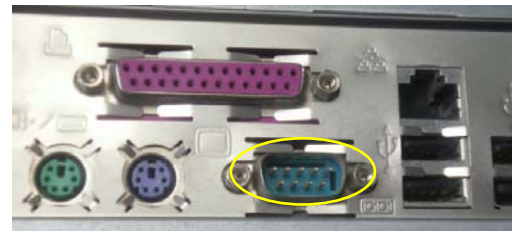
- Buy/download planetarium software and install it.

1. Connect your mount to a computer

In order to enable planetarium software to control the mount, the communication between the PC and the mount has to be established.

1.1 Connect the mount to computer via a serial cable

If the computer has a 9-pin, D-shape male serial port (*i.e.*, COM port or RS232 port), connect the supplied serial cable between the computer RS232 port and the mount RS232 port.




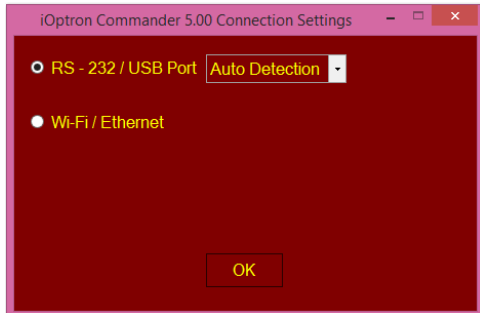
If the computer only has USB ports, like most laptops do, a USB to COM converter is needed to convert one USB port to a COM port. Here are two examples of USB2COM converters. **iOptron suggests you to acquire one with FTDI chipset.**



Follow the instruction comes with the converter to install the driver. Plug the converter into one of the available USB port of the computer. Then connect

the serial cable between the RS232 ports of the converter and the mount.

Click on the iOptron Commander shortcut  on the desktop screen to bring up the Communication Port Settings manual. Select **RS-232/USB** Port with **Auto Detection**, and click **OK**.

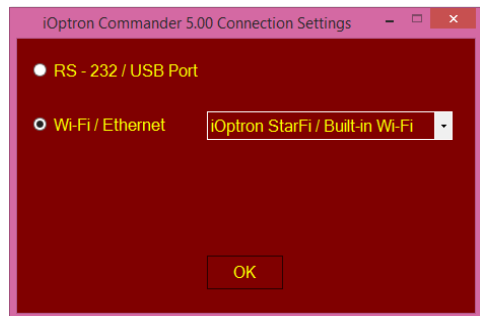


The Device panel will be displayed. Click on the Mount Panel to bring up the Commander for mount setting and direct control. If you are using planetarium software to control the mount, you may just minimize this window.



1.2 Connect the mount to computer via a Wi-Fi connection

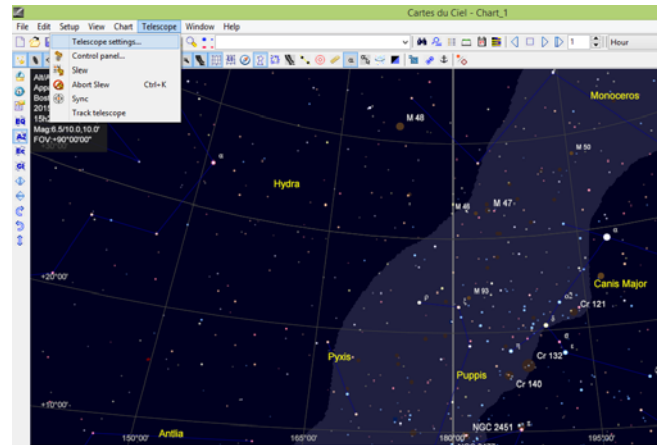
Now with iOptron Wi-Fi adapter, StarFi (#8434), you can convert an iOptron mount to a wireless controllable mount. Please refer to StarFi manual for detailed information.



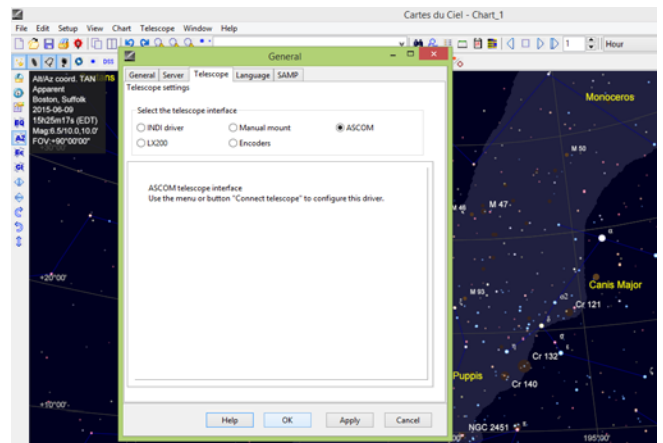
2. Establish the ASCOM connection between the mount and the planetarium software:

As a general instruction, freeware planetarium software, *Cartes du Ciel*, is used as an example. Please refer to your own software manual for detailed operation.

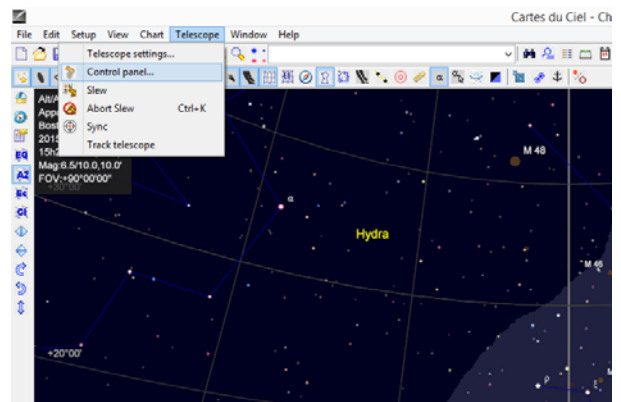
(1) Open *Cartes du Ciel*. Select **Telescope settings** in **Telescope** pull-down manual.



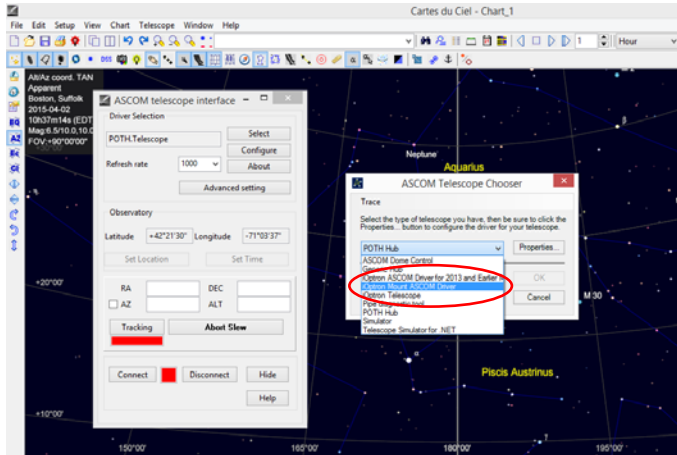
(2) Select **ASCOM** as the telescope interface and click **OK**.



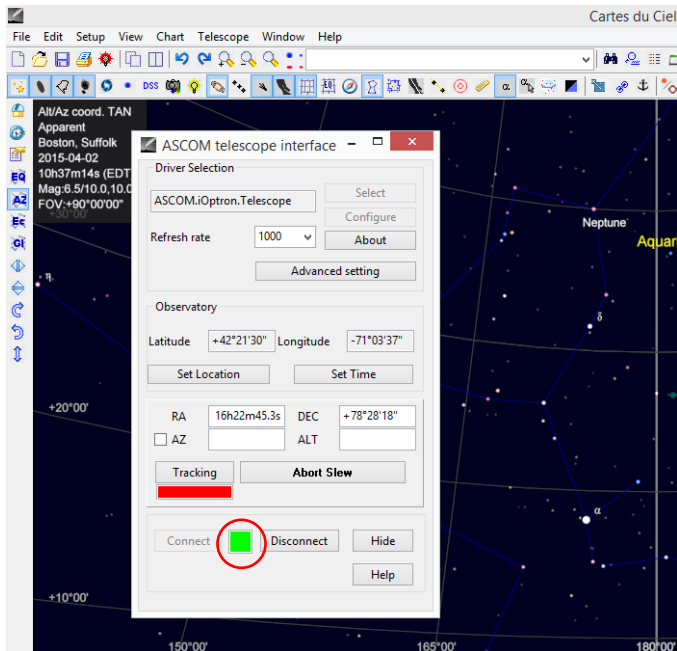
(3) Select **Control panel** in **Telescope** pull-down manual.



(4) Click on **Select** button, an **ASCOM Telescope Chooser** window will pop-up. Click on the pull-down menu to select **iOptron ASCOM Driver**, then click **OK**.



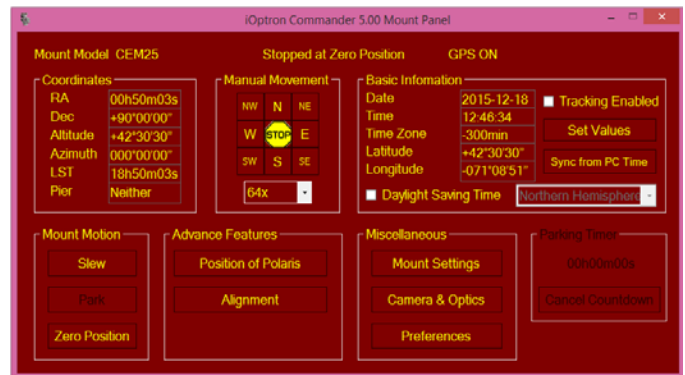
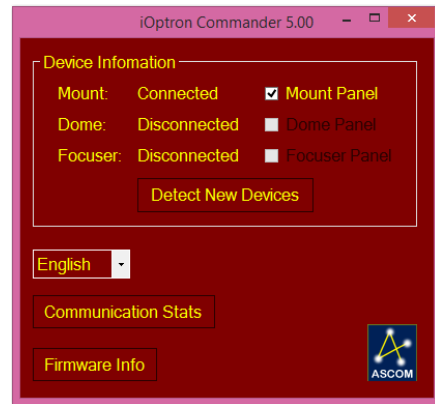
(5) Click **Connect** button. The **RED** status square will change to **GREEN**. Now you are ready to GOTO and tracking.



3. Use iOptron Commander:

The iOptron Commander 5.0 is a standalone control center that you can use it to set up and control a supported mount.

Click on the Mount Panel to bring up the Commander 5.0 Mount Panel:



The Commander Mount Panel displays mount model, here is CEM25, with GPS ON but not connected to the satellite and is not slew or tracking. You may click on the related button to perform the mount settings and movements.

You can perform most of the functions that a hand controller do. Click on **Set Values** in Basic Information window to change the settings.

The Commander also consists of the star catalogs that you can slew to, by click on Slew and select Catalog Name.

