TheSky Fusion™ Quick Start Guide

Overview

If you are familiar with setting up an astronomical imaging system, follow the steps below to quickly get started using TheSky Fusion.

1. Physically attach TheSky Fusion to your telescope.
2. Supply 12V DC power with sufficient amperage to all power your equipment to TheSky Fusion.
3. Plug in both power and communications for your equipment.
4. Remotely connect to TheSky Fusion through a web browser, the VNC app, or TheSky HD.
5. Establish communication to your astronomical equipment from TheSky Imaging Edition.
6. Observe.

Figure 1: A high-level TheSky Fusion setup diagram.

Detailed Instructions

1. Physically attach TheSky Fusion to your imaging system

TheSky Fusion it typically attached on the mount's Dec axis, near the optical tube assembly (OTA) which will minimize the number of cables that must be run through or alongside the mount.

TheSky Fusion includes a combination Losmandy D-Series and Vixen V-Series dovetail saddle. Mounting holes are located on the top and bottom of the external housing so you can orient TheSky Fusion housing to suit your system. The dovetail saddle incorporates ¼-20 threaded, 60-mm spaced mounting holes and are compatible with many third-party dovetail bars and saddles.

2. Supply power to TheSky Fusion

Power must be supplied to TheSky Fusion using one of the following methods:
- A 12V DC, 11.5A or 21A power supply (sold separately).
- A 56V EGO™ battery coupled to TheSky Fusion Battery Adaptor (sold separately).
- A custom 12V AC-DC or battery solution.

Power Supply Disclaimer

Always use great care when plugging any cable into TheSky Fusion! When supplying power, make sure to use the port on the *back* of the unit. Plugging a powered cable into one of the *power out ports* on the front of TheSky Fusion may cause instant and irreversible damage the internal electronics and voids the warranty.

Connect the provided power cable from the power supply unit to the TheSky Fusion's power input port which is located on the back side of unit.   The unit automatically turns on when the power cable is first connected. Press the circular power button on the front of the unit to subsequently turn it off and on.

Paramount robotic telescope mount owners can run the power cable through the mount (when connecting and powering non-Paramount mounts, please reference the manufacturer's instructions regarding running cables for equipment). There are other cables that typically run through or along the telescope mount as well:

- Optionally a USB or RS232 serial cable for serial mount control, (that is, from TheSky Fusion back "down" to the mount's communication port). Wireless mount control is covered in TheSky Fusion User Guide.
- Optionally an ethernet cable for connecting TheSky Fusion to an infrastructure network.

3. Plug in your equipment

Equipment Communication Cables

Astronomical USB equipment can be plugged in to any of the four USB 3.0 ports on TheSky Fusion. A single serial device can be plugged in to the RS-232 port on TheSky Fusion.

Note, if four USB 3.0 ports are not enough for your imaging system, Software Bisque offers a powered USB 3.0 hub, or you can use any USB 3.0 hub (A powered hub is strongly recommended, please see TheSky Fusion User Guide for details on how to switch one of the power outputs to 5V for a USB hub).

Equipment Power Cables

By default, all eight power output ports are set to 12V. Please refer to the specifications etched onto the bottom of TheSky Fusion for specifics of how much amperage and what alternative voltages and features each power output can provide.

As a general guideline, high-amperage equipment (such as large format cameras or dew heaters) should be connected to output ports 4-7; lower power equipment can be connected to any power output port. Ports 1 and 2 can be configured to output 5V. Ports 6 and 7 can be used as basic dew heater controllers. Port 8 can be configured to power DSLR or mirrorless system cameras. Please see TheSky Fusion User Guide for more information.

4. Remotely connect to TheSky Fusion through a web browser, VNC app, or TheSky HD

TheSky Fusion takes about one minute to startup after powering on. When ready for operation, the external screen displays the text ***Ready***. From here, you can connect to the Wi-Fi network and then control TheSky Fusion with either a web browser, a VNC app, or with TheSky HD.

The Wi-Fi access point network, by default, is named ***TheSkyFusion-XXXXXX*** where *XXXXXX* is the last six characters of TheSky Fusion's ethernet mac address.

Connect to TheSky Fusion's Access Point

The default Wi-Fi access point password is: **12345678**

Before you can remotely control TheSky fusion, first connect your computer to TheSky Fusions' access point. Follow the instructions specific to your operating system to connect your computer to TheSky Fusion access point using the above password.

Web Browser

The default password for Web browser access is: **12345678**

1. Open your preferred web browser.
2. In the browser's address bar, type **theskyfusion.local** or **192.168.42.1**, (either should work, if by name does not, use the ip address) and browse to this address.
3. Login to TheSky Fusion using the default password above.

VNC App

Software Bisque recommends *VNC Viewer* by VNC Connect as we have validated and tested it on multiple platforms.

To download VNC Viewer, visit: https://www.realvnc.com/en/connect/download/viewer/

Figure 2: QR Code to RealVNC web site.

The default password for VNC access is: **fusion**

1. Launch VNC Viewer.
2. Follow the viewer's tutorial if you have not used the app before.
3. On iOS or Android tap the ***+*** button. On Windows, macOS, or Linux click ***File > New Connection.***

4. Enter the hostname (default: ***theskyfusion.local***) or IP address (default: ***192.168.42.1***) in the ***Address*** field on iOS or Android or the ***VNC Server*** field on Windows, macOS, or Linux.
5. Enter the password above, then tap ***Connect***.

From now on, tap or double click TheSky Fusion icon in the VNC app and enter the password to connect.

5. Establish communication to your astronomical hardware from TheSky astronomy software

From TheSky Imaging Edition, click ***Telescope > Setup*** to select and configure your equipment.

6. Observe

You are now connected and ready to use TheSky astronomy software just like you would on any other computer. Configure each device and begin observing.

If you need additional information about other features of TheSky Fusion, please see *TheSky Fusion User Guide*. If you need additional information about configuring and using TheSky astronomy software, plea see *TheSky Professional Edition User Guide*.

7. The Next Steps

Please refer to *TheSky Fusion User Guide* for details and *TheSky Imaging Edition User Guide* for information about using TheSky to control your equipment.

Serial Number Registration

Visit www.bisque.com/register for instructions how to get your TheSky Fusion registered. As this is a manual process, please allow 2-3 business days to process the request. Thanks for your patience. In the meantime, you can download the latest patch by logging into the Software Bisque website, then clicking ***Support > TheSky Fusion.*** Read *TheSky Fusion Updates and Change Log* post (the first one) to download the patch.