FocusLynx Quick Start Guide

Thank you for purchasing the FocusLynx Dual-Focuser Hub. The FocusLynx system can control a wide variety of focusers including the popular Feathertouch© focusers from Starlight Instruments and the Optec TCF Temperature Compensating Focusers. The package includes ASCOM driver software for use with any ASCOM compliant software client, flash upgradable firmware for additional focuser support, and an easy-to-use interface program. FocusLynx offers a variety of connection options and optional add-on components. Refer to the FocusLynx User Manual for more details regarding these options.

The purpose of this document is to quickly get you up and running using the standard items included with every FocusLynx product.

What's in the Box:

- FocusLynx controller hub,
- 12VDC power supply and wall plug,
- USB/Serial cable, 6-ft. length,
- Focuser Control Cable, (standard Cat-5e cable or similar),
- Software CD disk.

Note that the focuser or focus motor is purchased separately. Follow the instructions provided with your focuser or focus motor to properly connect to your telescope.

Wiring Connections:

1. Plug the wall plug into the 12VDC power supply and local 110/240VAC wall outlet,
2. Plug the 2.5x5.5mm plug into the 12VDC socket on the FocusLynx hub,
3. Plug the USB/Serial cable RJ12 plug into the Serial socket on the FocusLynx hub,
4. Plug the Focuser Control Cable into the Focuser 1 socket on the FocusLynx hub,
5. Do not plug the opposite end of the Focuser Control Cable into the focuser at this time,
6. Slide the power switch on the left side of the FocusLynx hub to the On position (up). The LED will illuminate after the boot-load process completes (about 3-4 seconds).

Install FocusLynx Commander Software:

1. Insert the Software CD disk into any Windows™ based PC,
2. Check to ensure the ASCOM platform version 6 or newer is already installed,
3. Visit www.ascom-standards.org to download and install the latest platform if necessary,
4. From the Software CD, install FocusLynx Commander. The latest version is available online – visit http://www.optecinc.com/astronomy/downloads/ to download and install.

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Connect USB/Serial cable to PC:

1. Plug the flat USB-A connector of the USB/Serial cable into any USB port on the PC,
2. Allow Windows to automatically load the drivers for the FTDI USB-to-Serial device,
3. If Windows prompts to search for new drivers, click OK, or visit the FTDI website at http://www.ftdichip.com/Drivers/VCP.htm to download the latest version driver,
4. Allow the USB device to complete the USB enumeration & assign a COM port number,
5. Confirm the new COM port assignment in Windows Device Manager. Expand the **Ports (COM & LPT)** section to verify a new **USB Serial Port (COMxx)**. Note the COM port number assigned by Windows.

Start FocusLynx Commander:

1. Double-click the FocusLynx Commander icon on the desktop to start the program,
2. The default display will show the interface for Focuser 1. Click **Focusers**, then **Setup…** under Focuser 1,
3. Under **Connection Setup** select **Serial** and select the Com Port noted in Device Manager,
4. Click the **Connect** button and the adjacent red dot should indicate the connection is active,
5. Click the pull-down for **Focuser Type** to select your focuser type,
6. Note and read the warning about selecting the wrong focuser. At this time, plug the Focuser Control Cable into the appropriate socket on your focuser,
7. For *absolute* focusers a **Home** button will appear to the right. For *relative* focusers a **Sync** button will appear instead,
8. For *absolute* focusers, click **Home** to home the focuser,
9. For *relative* focusers, position the focuser fully IN (manually if possible), type 00000 in the **Steps** value and click **Sync** to synchronize to focuser,
10. Give the focuser a descriptive **Nickname** and note the other options on the Setup form,
11. Click **OK** to exit Setup and return to the FocusLynx Commander interface.

Test Focuser Controls:

- Click **Center** to set the focuser to the center of its travel position.
- Click **IN** and **OUT** buttons to move the focuser by a fixed **Increment**. Note the units of the **Increment** field vary with the value shown in the **Position** display.
- Click the **Position** display to toggle between Steps (default), Microns, and millimeters. Note the units of the **Increment** field have changed.
- Click the Temperature display to toggle between degrees in Celsius (default), Fahrenheit, and Kelvin.
- Enter a valid value into the **Absolute Focus Adjust** field and click **Go To.**

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- For focusers supplied with temperature probes, click Temperature Compensation **On** or **Off** to enable or disable Temperature Compensation.
- A Temperature Compensation Wizard is available under the **File** pull-down.
- Test the **Relative Focus Offsets** and **Absolute Focus Presets** for additional functionality.
- Click the **View** pull-down to selectively enable or disable the various sections of the FocusLynx Commander interface. Click **Show All** to enable all view panels.
- Note that Focuser 2 will only be available with the optional second stepper control board installed. Follow the same procedures to set up Focuser 2 as outlined above.

ASCOM Focuser Setup and Selection:

After completing the FocusLynx Commander setup above, your FocusLynx system will be ready to use in any ASCOM application. Follow these steps for ASCOM use:

1. In your ASCOM application with focuser support, click the **ASCOM Focuser Chooser** to select **FocusLynx Focuser 1** or **FocusLynx Focuser 2** (if available) to select the desired focuser.
2. Click **Properties** to review the Setup options configured above,
3. Note that FocusLynx uses the ASCOM Local Server model for all operations. Thus ASCOM Platform 6 or above is *required for FocusLynx to operate*.
4. FocusLynx Commander may remain open while under control from any ASCOM application. In fact, any number of ASCOM applications may simultaneously connect to the FocusLynx hub.

Additional Resources:

Within FocusLynx Commander, click **Help**, **User Manual** at any time for more detailed help with setting up FocusLynx with your focuser or for additional information regarding any of the options. Detailed instructions are provided in the **User Manual** for each of the following options:

- Second focuser stepper control option,
- Network and Ethernet setup options,
- Wi-Fi wireless network setup options,
- iPhone and Android setup options,
- FocusLynx Hand Controller option,
- Remote IN/OUT Keypad option.

Contact support@optecinc.com with any configuration questions, issues, comments or bug-fixes.

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