



# FocusLynx QuickSync SV20 Installation

Step-by-Step Instructions for Installing the QuickSync SV Motor Assembly to your Stellarvue 2-inch Focuser.

The QuickSync SV motor assembly fits directly in place of the coarse and fine focus knobs on the right side of the Stellarvue 2-inch manual focuser. The gold knob on the QuickSync SV will attach to the smaller diameter shaft of the pinion assembly and allow fine manual focus when the motor is disengaged. Coarse manual focus can usually be accomplished by disengaging the motor and adjusting the black focus knob on the opposite side of the focuser.



#### **Package Contents**

Confirm the contents of your QuickSync SV package. The package should contain the following:

- QuickSync SV motor assembly
- Cat-5e Ethernet cable
- Tool kit including 1/16", 7/64", and 2mm hex keys





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If you've purchased the QuickSync SV as part of a FocusLynx kit package you will also have the following items:

- FocusLynx control hub
- 12VDC power supply with cord
- USB/Serial cable
- Software CD



### **Installation Procedure: Step-by-Step**

#### **Step 1 - Remove Knobs**

Remove the silver fine focus and black coarse focus knobs using the 2mm hex key.







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#### Step 2 - Attach QuickSync Motor

Slide the QuickSync SV motor assembly onto the pinion assembly. Use care to locate the gold focus knob onto the small shaft. Loosen the setscrew in the gold knob if needed. The fit will likely be snug. Use a gentle back and forth motion to slide the motor assembly on the shaft and then locate the clamp onto the stainless housing.









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#### Step 3 - Adjust Clamp

Rotate the motor assembly so that the knob will be easily accessible for your thumb during operation. Ensure the clamp is pushed firmly onto the stainless housing before tightening. Use the 7/64" hex key to tighten the clamp onto the stainless housing. Ensure the knob can move freely.





#### **Step 4 - Tighten Fine Focus**

Make sure the motor is disengaged by rolling the motor cap down about 30 to 40-degrees (about 1/8<sup>th</sup> of a turn). The clamp should hold the motor assembly in place. Center the gold knob side to side and use the 1/16" hex key to tighten the setscrew holding the gold knob against the small shaft. Rotate the black knob to confirm the gold knob moves freely and test the fine focus gold knob motion as well.







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**Step 5 - Adjust Knob and Clutch** 

Roll the motor cover up to engage the motor assembly.





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#### Step 6 - Attach Cable

Connect the Cat-5e Ethernet cable into the RJ45 socket on the end of the motor housing and connect the other end to the FocusLynx control hub using either the Focuser 1 or Focuser 2 port.



#### **FocusLynx Software Setup**

Your QuickSync SV motor is now installed. Consult the *FocusLynx Quick Start Guide* to install the FocusLynx Commander software. Once installed, you will need to configure the FocusLynx Commander for your new QuickSync SV motor. Configuration in FocusLynx Commander will also configure the ASCOM driver.

#### FocusLynx Commander Focuser Type selection

Select the **QuickSync Hi-Speed** Focuser Type option first. If you find the pinion assembly is slipping try the **QuickSync Hi-Torque** setting. With stepper motors, speed and torque typically work inversely. That is, higher speeds will usually result in lower torque. If you find your pinion assembly continually slips contact Optec support (<a href="mailto:support@optecinc.com">support@optecinc.com</a>). You may need to slightly tighten the internal tension nut inside the pinion assembly.

If the motor begins to stall you may hear a buzzing or chattering sound. First, try the **QuickSync Hi-Torque** selection. In cases where there is exceptional friction in the pinion assembly you may need to loosen the internal tensioning nut slightly. Alternatively, you may try selecting the **FeatherTouch Motor Hi-Torque** setting which operates the stepper motor at an even slower rate. This setting is similar to the



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unipolar motor settings for the original Micro-Touch and Feather Touch Motor assemblies but will also work well with the bi-polar motor used in the QuickSync SV assembly. Contact Optec support (<a href="mailto:support@optecinc.com">support@optecinc.com</a>) if your focus motor cannot be adjusted without slippage or stalling.

#### Sync the Zero position

With FocusLynx Commander running and connected to the QuickSync motor, manually set the focuser to the beginning of travel (all the way IN). Re-engage the motor and enter "0" in the box next to the Sync button. Press **Sync** and wait a few seconds. Test the OUT and IN buttons to ensure proper operation. If the focuser moves in the wrong direction you will need to check the Reverse box in setup.

**NOTE**: Effective with version 2.0 of FocusLynx Commander software and firmware, long travel focusers can move throughout the entire travel range without the need to reset the zero point. Refer to the FocusLynx Commander Help documentation for additional details for configuring the step size, step range, and "Sync" technique for best results.

