FocusLynx FT QuickSync Installation

Step-by-Step Instructions for Installing the QuickSync FT Motor Assembly to your FeatherTouch Focuser.

The QuickSync motor assembly fits directly in place of the coarse and fine focus knobs on the right side of the FeatherTouch manual focusers. The gold knob on the QuickSync 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.

FocusLynx FT Model

Be sure you have the correct size QuickSync Ft motor assembly for your focuser. Review the table below if there is any doubt as to which model FeatherTouch or QuickSync motor assembly you possess.

FeatherTouch Model	Nominal Drawtube Size	Housing / Shaft Dia.	FocusLynx FT Model
FTF20xx series	2-inch	1.000” / 0.109” (7/64”)	QuickSync FT20
FTF25xx series	2.5-inch	1.330” / 0.156” (5/32”)	QuickSync FT30
FTF27xx series	2.7-inch	1.330” / 0.156” (5/32”)	QuickSync FT30
FTF30xx series	3-inch	1.330” / 0.156” (5/32”)	QuickSync FT30
FTF35xx series	3.5-inch	1.460” / 0.156” (5/32”)	QuickSync FT40
AP series scopes	4.0-inch	1.460” / 0.156” (5/32”)	QuickSync FT40
FTM-xxx series	n/a – Feather Touch Micro replacement for SCT standard focuser.	1.000” / 0.109” (7/64”)	QuickSync FT20
MPA-xxx	Micro Pinion Assembly	varies	Contact Optec

Optec

199 Smith Street · Lowell, Michigan 49331 · U.S.A.
Telephone: 616-897-9351 · Fax: (616) 897-8229 · Toll Free: 888-488-0381
sales@optecinc.com · http://www.optecinc.com · www.optec.us

FocusLynx FT with QuickSync

Installation Video

Review the installation video for the QuickSync FT40 online http://video.optecinc.com/view?q=512947ba48723.flv.

Package Contents

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

- QuickSync FT motor assembly
- Cat-5e Ethernet cable
- Tool kit including 1/16" and 7/64" Allen hex keys

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

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

Optec

199 Smith Street · Lowell, Michigan 49331 · U.S.A.
Telephone: 616-897-9351 · Fax: (616) 897-8229 · Toll Free: 888-488-0381
sales@optecinc.com · http://www.optecinc.com · www.optec.us

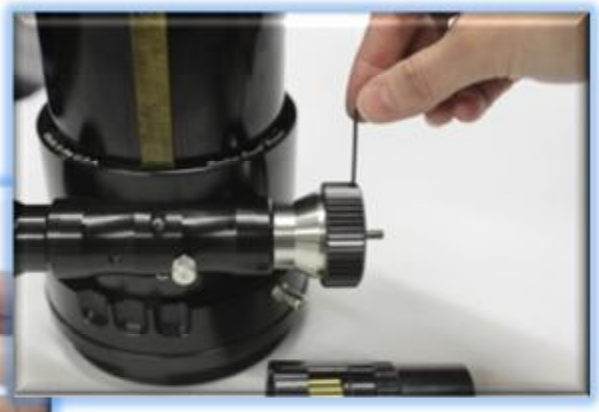
Installation Procedure: Step-by-Step

Step 1

Remove the gold fine focus knob using the 1/16” hex key.

Step 2

Remove the larger black focus knob using the 1/16” hex key.



Optec

199 Smith Street · Lowell, Michigan 49331 · U.S.A.
Telephone: 616-897-9351 · Fax: (616) 897-8229 · Toll Free: 888-488-0381
sales@optecinc.com · http://www.optecinc.com · www.optec.us

Step 3

Slide the QuickSync FT 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.

199 Smith Street · Lowell, Michigan 49331 · U.S.A.
Telephone: 616-897-9351 · Fax: (616) 897-8229 · Toll Free: 888-488-0381
sales@optecinc.com · http://www.optecinc.com · www.optec.us

Step 4

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 shaft.
Ensure the knob can move freely.

Optec

199 Smith Street · Lowell, Michigan 49331 · U.S.A.
Telephone: 616-897-9351 · Fax: (616) 897-8229 · Toll Free: 888-488-0381
sales@optecinc.com · http://www.optecinc.com · www.optec.us

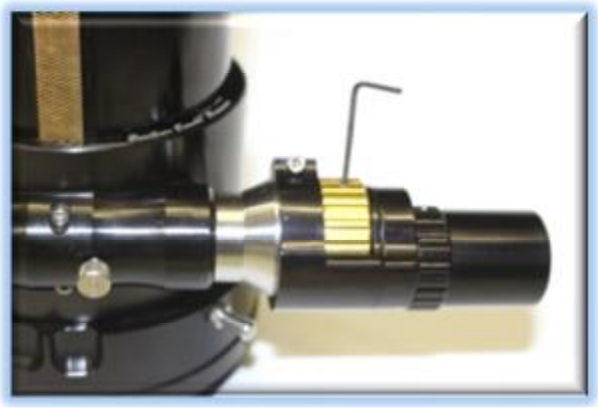
Step 5

(NOTE: This step applies only to the FTF and MPA type focusers.)

With the gold knob still loose, disengage the motor by rolling the motor cap down about 30 to 40-degrees (about 1/8th of a turn). The clamp should hold the motor assembly in place. Now rotate the original black knob on the opposite side of the focuser, ensuring the gold knob is centered and does not rub against the housing.

Step 6

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. Test the fine focus gold knob.

Optec

199 Smith Street · Lowell, Michigan 49331 · U.S.A.
Telephone: 616-897-9351 · Fax: (616) 897-8229 · Toll Free: 888-488-0381
sales@optecinc.com · http://www.optecinc.com · www.optec.us

Step 7

Roll the motor cover up to engage the motor assembly. Ensure the engagement is tight for best performance.

Step 8

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 FT 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 Ft motor. Configuration in FocusLynx Commander will also configure the ASCOM driver.

FocusLynx Commander Focuser Type selection

Select the FocusLynx FT Hi-Speed Focuser Type option first. If you find the pinion assembly is slipping try the FocusLynx 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 (support@optecinc.com). You may need to slightly tighten the internal tension nut inside the pinion assembly.

Optec

199 Smith Street · Lowell, Michigan 49331 · U.S.A.
Telephone: 616-897-9351 · Fax: (616) 897-8229 · Toll Free: 888-488-0381
sales@optecinc.com · http://www.optecinc.com · www.optec.us

If f the motor begins to stall you may hear a buzzing or chattering sound. First, try the FocusLynx FT 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 designed for the unipolar motors in the original Micro-Touch and Feather Touch Motor assemblies shown below, but will also work well with the bi-polar motor used in the QuickSync FT assembly. Contact Optec support (support@optecinc.com) if your focus motor cannot be adjusted without slippage or stalling.

Sync the QuickSync position

With FocusLynx Commander running and connected to the QuickSync motor, manually set the focuser near the center of travel. Re-engage the motor and enter 32,767 in the box next to the Sync button. Press Sync and wait a few seconds. Test the In and Out movements to ensure proper operation.

NOTE: For some very long travel focusers like the FTF3545 and all the FTM Micro Pinion Retro-Fits, you may need to manually re-focus and Sync again to utilize the full focuser travel range. Each step corresponds to approximately 1 micron for the FTF focusers (much less with the FTM) so the 16-bit resolution of FocusLynx will allow up to about 65mm of travel. Fortunately, you will find that you will only need a few hundred steps to maintain focus once it has been achieved.

FocusLynx QuickSync motor with Feather Touch
FTM Micro Pinion Retro-fit on a Celestron C11 HD.

199 Smith Street · Lowell, Michigan 49331 · U.S.A.
Telephone: 616-897-9351 · Fax: (616) 897-8229 · Toll Free: 888-488-0381
sales@optecinc.com · http://www.optecinc.com · www.optec.us

Backward Compatibility for MicroTouch©

What if you already own a MicroTouch motor housing and want to continue using it? For owners of existing MicroTouch motors, Optec offers a special low cost cable option to control the unipolar motor of the original Starlight Instruments MicroTouch. While you won't enjoy the higher resolution, higher torque, and *QuickSync* convenience the FocusLynx FT offers, the FocusLynx controller can drive the MicroTouch unipolar motor quite well with no other loss of performance.

A simple MicroTouch motor control cable can be made from any Ethernet Cat5 cable. Optec offers complete packages which include the FocusLynx hub and this motor cable, or a full temperature probe kit to allow temperature compensation with the FocusLynx controller and MicroTouch motor.

FocusLynx Controller Hub configured for MicroTouch motor.
(Shown with FeatherTouch MPA/TRF pinion assembly on Takahashi TOA-130)

Optec

199 Smith Street · Lowell, Michigan 49331 · U.S.A.
Telephone: 616-897-9351 · Fax: (616) 897-8229 · Toll Free: 888-488-0381
sales@optecinc.com · http://www.optecinc.com · www.optec.us

FocusLynx FT with QuickSync

FocusLynx FT QuickSync with FeatherTouch Focusers

Optec

199 Smith Street · Lowell, Michigan 49331 · U.S.A.
Telephone: 616-897-9351 · Fax: (616) 897-8229 · Toll Free: 888-488-0381
sales@optecinc.com · http://www.optecinc.com · www.optec.us