



Electronic Focuser for iOptron Ritchey-Chrétien OTA Dual-Speed Focuser # 8451

Instruction Manual

March 2023 V2.0

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The #8451 Electronic Focuser (eFocuser) is designed for iOptron 6", 8" and 10" Ritchey-Chrétien telescope dual-speed focuser. The eFocuser then can be controlled by a compatible iOptron mount. It should work for many other RC OTA's, such as GSO, TPO (from OPT), Astro-Tech (from Astronomics), and Orion. It may also work with other RC scopes use the similar dual-speed focuser.

Features:

- Whisper quiet operation
- Powerful stepper motor
- Zero backlash
- Plug into iOptron Port with no external power source needed
- 3 speed control by a compatible iOptron hand controller
- ASCOM compatible

Currently supported mount (with firmware version V161208 or later):

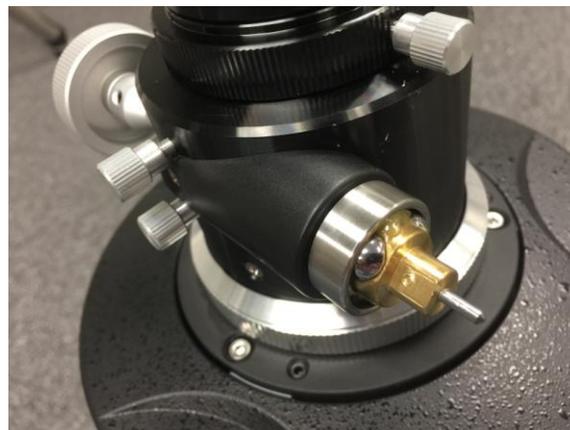
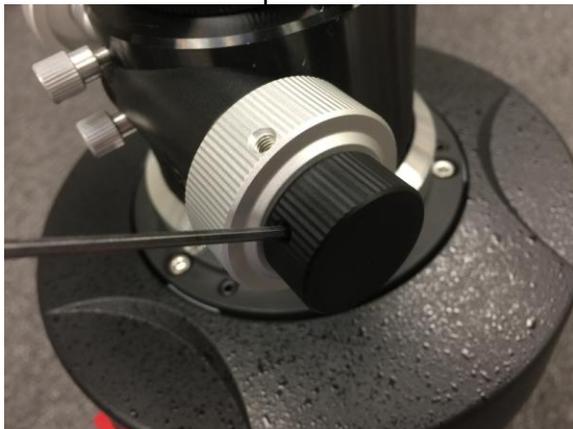
- CEM26/GEM28
- CEM40/GEM45
- CEM70
- CEM120
- CEM25
- CEM60
- iEQ30 Pro
- iEQ45 Pro

Package includes:

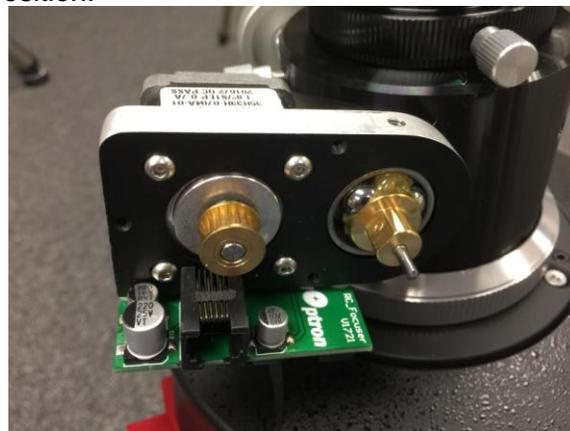
- 1X eFocuser for RC
- 1X Pulley
- 1X Synchronous belt
- 1X Control cable

Installation:

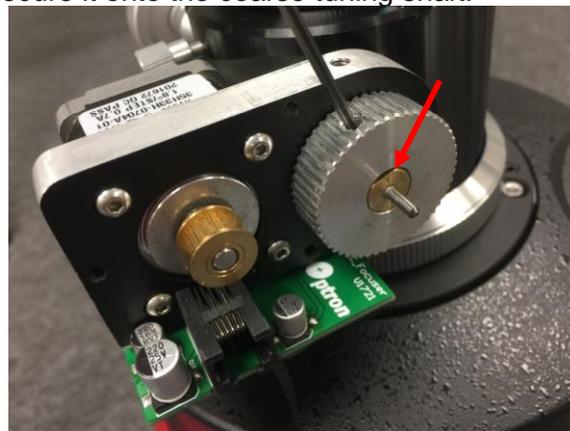
1. Remove both fine tuning and coarse tuning knobs from the dual-speed focuser.



2. Slide the iOptron eFocuser mounting ring onto the telescope focusing tube and adjust its position.

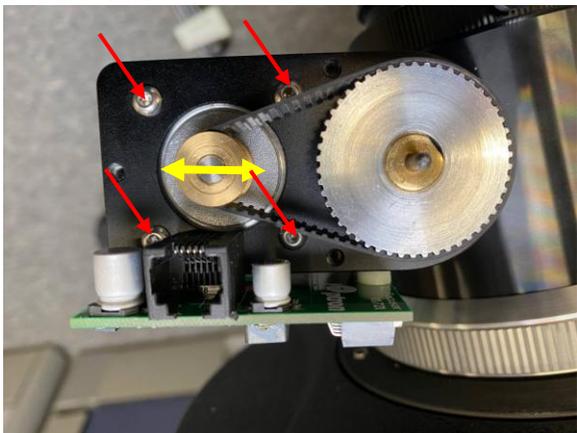


3. Put the eFocuser pulley onto the dual-speed focuser tuning shaft. Tighten the set screw to secure it onto the coarse tuning shaft.

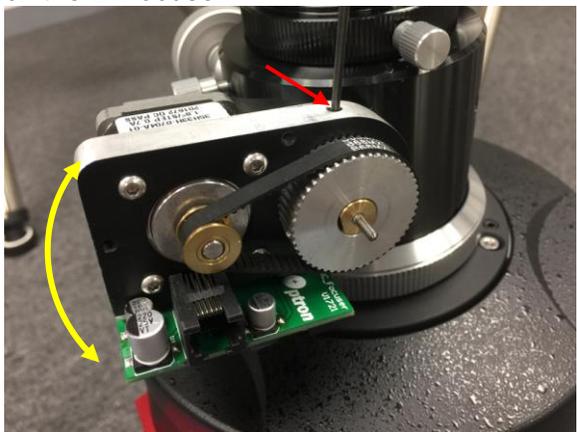


4. Loosen four screws that hold the motor in place so you can move the motor shaft close to the eFocuser pulley. Wrap the belt on motor shaft first. Then put the belt onto the eFocuser pulley. You may turn the pulley while install the belt. Tension the belt by push the motor away

from the focuser pulley while tightening the motor screws.



5. Tilt the eFocuser so there is enough clearance to put the cover on. Tighten two set screws to lock the E-Focuser.



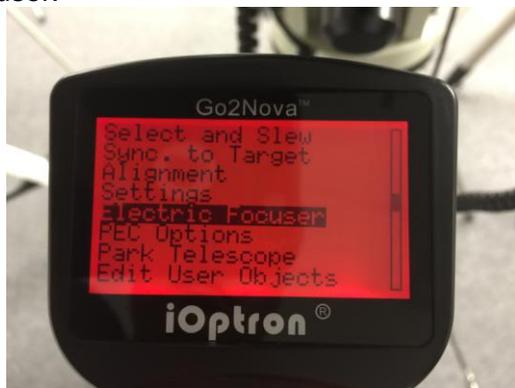
6. Put the cover on. Make sure that the cover is not blocked by the telescope body or dual-focuser. The fine tuning shaft is sit inside the small opening. Secure the cover by tightening three long screws.



7. Connect the eFocuser to the mount use supplied 6P6C cable (same as the hand controller cable.) One end to the iPORT on the eFocuser. The other end to the PORT (or iPoat) on an iOptron mount.



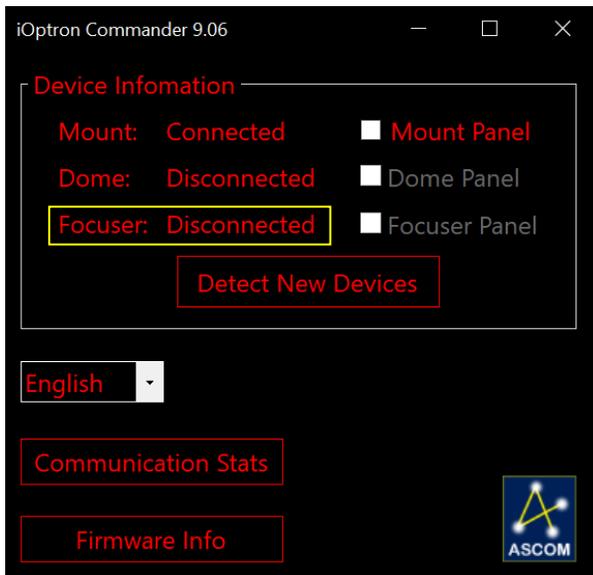
8. Power the mount on. After pass the initial screen, press MENU on the hand controller and move the cursor to "Electronic Focuser". Press ENTER to bring Electronic Focuser menu. Follow the on screen instruction to control the focuser.



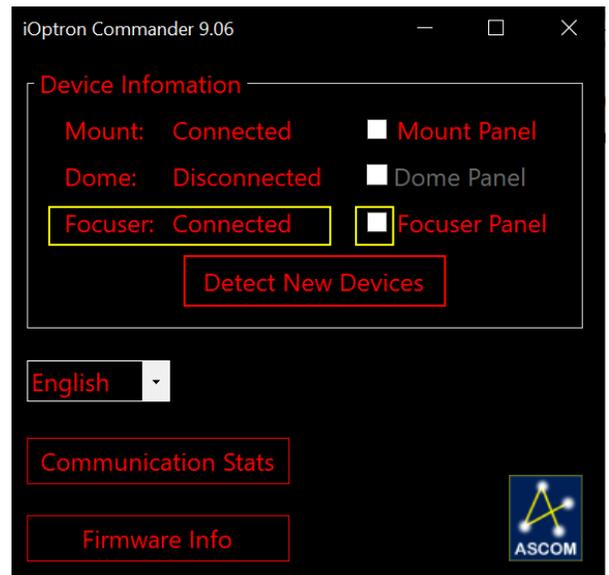
9. The ASCOM driver of an eFocuser is included in iOptron Commander. To control the

eFocuser via ASCOM protocol, please follow the specific mount computer control instruction to install the iOptron Commander. Launch the iOptron Commander and connect the mount to the computer.

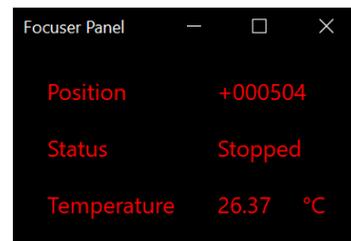
The Focuser is disconnected.



Click on Detect New Devices to connect the focuser.



Check the Focuser Panel to monitor the focuser status.



Now you can control the eFocuser from imaging software via ASCOM.