



Remote IN/OUT Keypad

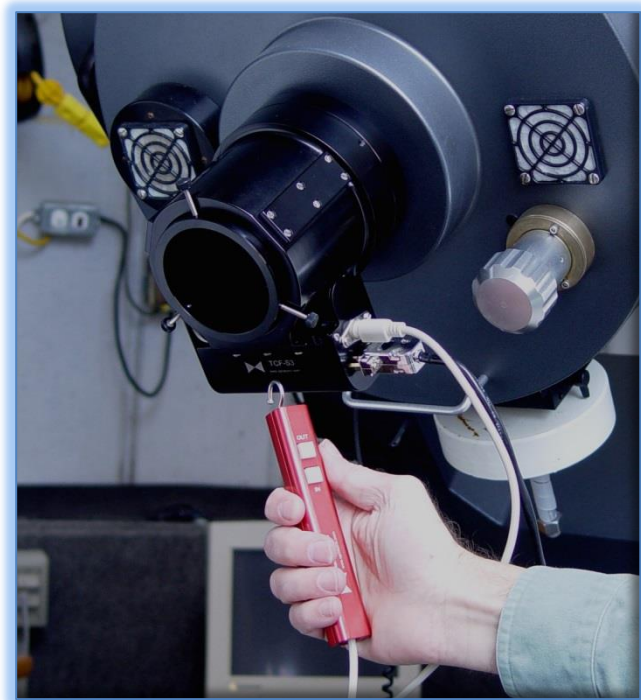
Quick Start Instructions for the Remote IN/OUT Keypad.

For TCF focuser owners seeking control at the telescope, Optec has developed the hot-swappable **Remote IN/OUT Keypad**. This robust metal hand control wand is ergonomic, easy to use, and plugs directly into the temperature probe port on the side of the focuser. The Remote IN/OUT Keypad accessory is intended for manual hand operation only.

Focuser Compatibility

The Remote Keypad works in a closed-loop fashion with the TCF-S, TCF-Si, TCF-S3, and TCF-S3i focusers. That is, with these focusers the IN/OUT keypad takes exclusive control of the focuser. Neither temperature compensation nor PC serial port control is available while the Remote Keypad is in use.

For owners of the FocusLynx control systems including the TCF-Lynx, TCF-Lynx3, and Gemini Focusing Rotator, the Remote Keypad functions with the firmware to maintain PC communications. Of course, temperature compensation cannot be used while the Remote Keypad is inserted in place of the temperature probe. FocusLynx QuickSync and DirectSync motors as well as FeatherTouch HSM and PDMS motors can also take advantage of the Remote Keypad provided the #19539 Precision Temperature Probe Kit is being used.



How to Use

To use the Remote IN/OUT Keypad, first remove the temperature probe from the focuser temperature probe port. This is the female 6-pin DIN socket on the motor housing or the splitter box for the #19539 external temperature probe kit. No need to turn off the focuser or controller since the Remote IN/OUT Keypad is hot-swappable. All power is supplied by the focus controller along the attached 3-ft. long cable. No batteries are required.



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#17680 - Remote IN/OUT Keypad



Note that if you are using one of the original TCF-S or TCF-Si focusers, you may need to disconnect the serial link in software before the Remote Keypad becomes functional. Test the IN and OUT buttons to ensure the focuser moves in the correct direction.

Press and Hold for Dual Speed

To move a single step at a time, tap either IN or OUT button. Holding the IN or OUT button down will move the focuser at low speed initially. After holding the button down for 3 to 4 seconds will shift the focuser into high speed and continue until the button is released or the focuser reaches the end of travel.



How it Works

The Remote IN/OUT Keypad simulates the function of the normally attached digital temperature sensor. As such, it will send a simulated temperature around -50 degrees C. The focus controller firmware recognizes the unique temperature and moves the stepper motor in the desired direction. The latest versions of the Optec software will display IN/OUT when the Remote Keypad is attached.

The stainless steel hook allows the keypad to be stored by hanging on any available handle at the telescope when not in use. Be sure to reinstall your temperature probe in the 6-pin DIN socket when finished with manual focusing.

Troubleshooting

The Remote IN/OUT Keypad is maintenance free and requires no batteries. The most common problem encountered by most users is forgetting the Keypad is plugged into the focuser making it impossible to connect with the older TCF Commander software. Unplug the Remote Keypad and try to re-connect.

Older TCF-S hand controllers must be running firmware version 2.32 or later for compatibility with the Remote Keypad. Contact [Optec Sales](#) if your firmware needs to be updated.

Note that the Auto temperature compensation modes are deactivated when the remote keypad is in use. Replace the temperature probe to use temperature compensation.

Contact [Optec Support](#) with any other problems or questions regarding the Remote IN/OUT Keypad.



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