Prior Scientific Help Guides and Installation Instructions

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Installing the focus motor – generic instructions

The following instructions refer to the standard split sleeve mounting. Please note that these are generic instructions. If you wish for more information, please go to www.prior.com and navigate to the 'Help Sheets and Installation instructions' page of the 'Downloads section' and scroll down for instructions for your specific microscope. If your microscope is not featured here, please contact Prior Scientific directly for advice and support.

1. Loosen the clamp screw on the focus motor assembly and remove the focus motor from the focus adapter.



- 2. Loosen the 3 socket grub screws around the periphery of the focus adapter using a 2mm Allen wrench until the focus sleeve is able to fit inside the adapter. Note that it is important to insert the sleeve in the correct orientation with the lip furthest inside the adapter (the chamfered edge of the sleeve will be inserted first). Note the orientation of the sleeve as it has a recess around its outer surface, which will hold the sleeve in when the setscrews are tightened. This recess must line up with the tips of the socket set screws.
- 3. With the sleeve in place, tighten the 3 socket set screws in sequence until they all just touch the sleeve, ensuring that the split in the sleeve does not line up with any of the set screw positions. **DO NOT TIGHTEN UP ANY OF THE SETSCREWS AT THIS STAGE.**

- 4. Push the adapter onto the preferred coarse knob of the microscope as far as it will go. The controller is factory configured to drive the focus motor in the correct direction when mounted to the right hand side of an upright microscope. If the left hand coarse control knob is preferred by the user or the focus drive is to be mounted on an inverted microscope, the motor direction can be reversed by using a PC with a terminal emulation programme e.g. Prior Terminal and changing the settings of the ZD command (see section 6) via RS232 communication. The inside fitting diameter of the sleeve is designed to be slightly larger than the coarse knob, provided the setscrews have not been tightened and are compressing the sleeve.
- 5. While holding the adapter in place, tighten the set screws in sequence only enough to secure the unit onto the coarse focus knob. The focus knob will have to be rotated to gain access to all of the screws.
- 6. Check that the unit has been tightened sufficiently by taking hold of it and turning it. If the adapter is correctly fitted it will stay attached to the coarse knob.
- 7. Slide the focus motor into the adapter as far as it will go and while applying gentle pressure to the motor, tighten the clamp screw. This will hold the motor in place. The rubber drive bush on the end of the motor spindle should now be pressing against the end surface of the fine focus control knob. This can be confirmed by manually rotating the exposed fine focus knob on the opposite side of the microscope and feeling for the resistance caused by the detent positions of the stepper motor as it rotates. This will not cause any damage to the focus motor.
- 8. Confirm that the controller is switched off before connecting the 9 way D type plug on the focus motor lead to the socket on the rear of the controller.