

OCI MOTOR INSTALLATION

Dear Sir/madam.

Thank you for purchasing this great product, I am sure you will have many years enjoyment from it. Please find below the instructions you require to attach the motor and gears to your existing OC1 focus mount.

- Remove Crayford mount from telescope (fig 1)
- Turn your focus mount upside down (fig 2)
- Loosen the two M4 grub screws on the base of the mount (one at either side by the focus knobs)
- Loosen the two silver M6 grub screws at the back of the mount
- Slide the spindle toward you and away from the draw tube using the focus knobs
- Remove the draw tube (fig3)
- Loosen the two grub screws, one in each focus knob and remove them
- Take note of the positing of all of the parts before continuing
- Remove both of the PTFE bearings (one at either side of the mount) that are holding the spindle in place
- Remove the spindle and pressure plate

Note: If you have a 10:1 device in your mount remove this and the single PTFE bearing in your mount (a 10:1 device can not be used with a motor)

- Remove the black plastic plug from in the back of the mount.
- You will now need the new parts that we have sent to you (fig 4)
- Take the spindle that we have sent to you with a gear attached to it and place it into your mount at an angle so the large gear sits in the open space readily machined. (fig 5)
- Next take the supplied motor and unscrew the nut off the black input socket
- Now place your motor into your mount so that the two gears meet (the gear on the spindle and one on the motor). The screw protruding down underneath the motor goes into the cylindrical hole that is in your mount next to the spindle. (fig 6)
- Place the input socket into the hole on the focus mount, were you removed the plastic plug from and replace the nut (Tighten this moderately but be careful not to scratch your mount also check that the socket doesn't over hang the mount and will obstruct the replacement of the mount to the base) (fig 7)
- Place the M4 countersunk screw supplied into the hole on the left of the metal bracket that is attached to the motor
- Screw this into the mount until it looks almost flush but don't tighten this too much as the motor needs to be able to pivot towards and away from the large gear on the spindle. (fig 8)
- Take the supplied spring and place it into the hole on the left side of the mount above the square hole were you removed the PTFE bearing or 10:1 device from (if there is a grub screw in this hole remove it first)
- Feed the spring into the hole and in the metal bracket that is attached to the motor (you may need to wiggle the motor to achieve this) the spring should stick out of your focus mount. (fig 9)
- Take the supplied M4 grub screw and place it onto your allen key, now push it onto the end of the spring and while pressing the spring into the hole screw it into the mount, screw this in until flush with the mount or until it is to tight to screw it in any more (which ever occurs first). (fig 10)
- Place the new square PTFE bearing supplied into the square hole on the left side of your mount and ensure that the spindle goes into the slot
- If you look at your mount from the side this slot should be horizontal. (fig 11)
- Place the rounded PTFE bearing onto the opposite side of the mount feeding it onto the spindle and into the hole
- Place the focus knobs back onto your new spindle and tighten the grub screws one at a time
- If it is necessary slide the bigger of the two gears towards the right side of the mount so that it is close and the two gears meet (when doing this leave a gap between the gear and the mount to ensure free movement)
- Tighten the small black grub screw on the gear to hold it in place on the spindle. (fig12)
- Next you will need to replace the PTFE pressure plate back behind the spindle
- The best way to do this is to slide the spindle forwards away from the motor
- Next stand the mount up so the motor is closer to your working surface. (fig 13)

- Place the pressure plate onto the two silver M6 grub screws that you loosened towards the beginning of this procedure. (fig 14)
- Lower the spindle towards the motor, move the pressure plate accordingly so that it is clamped in place by the spindle (if the pressure plate doesn't clamp in place tighten the two grub screws slightly and repeat the process)
- Move the pressure plate left or right so it is in the centre of the mount. (fig15)
- Place the mount back into the upside down position and replace the draw tube so that the flat on the tube is facing towards you
- Pick the mount up slightly off the surface (about half the length of the draw tube) the tube should still be touching the surface. (fig16)
- Next tighten the two silver M6 grub screws on the focus mount until you can lift the mount and the draw tube will also rise
- Tighten the two grub screws an extra quarter of a turn after this point
- If when you turn the focus knobs the draw tube is too loose tighten the grub screws slightly and if it is too tight loosen them slightly, adjust these to your required tension. (fig17)
- Now tighten the two black M4 grub screws that you have previously loosened
- Next take the silver M4 knurled grip screw that we have supplied and screw it in the hole in between the two silver M6 grub screws on the back of the mount
- This is used to move the motor towards and away from the spindle for manual and motorised use(engage the motor when you want to use it with the controller). (fig18)
- Test that all functions work properly
- Now your mount is ready to place back onto your tube.

If you have any problem please contact us on sales@orionoptics.co.uk or john@orionoptics.co.uk
Or if you have bought it from your local dealer please contact them directly.

Thank you for purchasing another great product from Orion Optics.

Some pictures to help you with the sequence of events from the above instructions



