

INSTRUCTION MANUAL

Orion Counterweight Shaft Upgrade for Atlas EQ-G Mount

#10144



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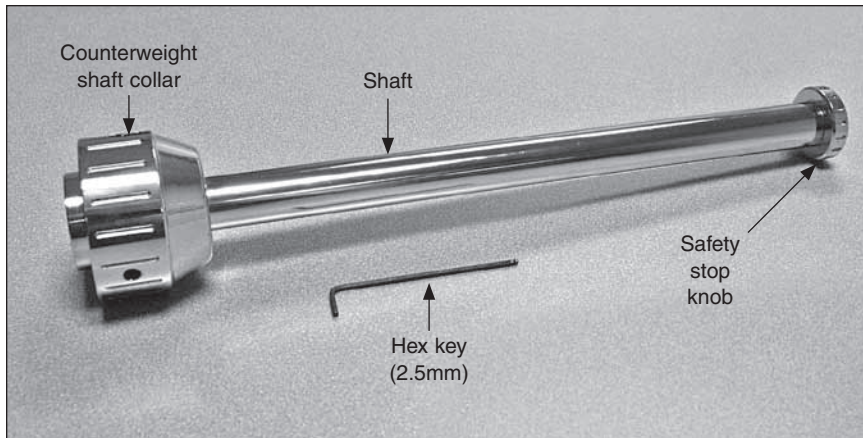


Figure 1. Parts of the CC18 Counterweight Shaft Upgrade.

Congratulations on your purchase of the Counterweight Shaft Upgrade for the Orion Atlas EQ-G Mount! The shaft replaces the thinner counterweight shaft that comes standard with the Atlas EQ-G. The upgraded shaft is longer and has a larger diameter (25mm vs. 18mm for the standard shaft). It threads securely into the included, chrome-plated declination shaft collar, providing a sturdier, more-robust and aesthetically pleasing counterweight shaft option for your Atlas EQ-G mount. Furthermore, its longer length means that some loads will be able to be balanced with fewer weights than with the standard shaft. The Deluxe Counterweight Shaft accepts counterweights that fit a 25mm (~1") shaft, such as the Orion #9600 11-lb. counterweight.

Enjoy!

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WARNING: *Never look directly at the Sun with the naked eye or with a telescope – unless you have a proper solar filter installed over the front of the telescope! Otherwise, permanent, irreversible eye damage may result.*

1. Included Parts

The Counterweight Shaft Upgrade for Atlas EQ-G includes these parts (see **Figure 1**):

- 1 Counterweight shaft
- 1 Counterweight shaft collar
- 1 Safety stop knob
- 1 Hex key (2.5mm)

2. Removing the Standard Counterweight Shaft of the Atlas EQ-G

1. Rotate the EQ head on its RA axis so that the counterweight shaft collar is pointing upward (**Figure 2**). Doing this will prevent the thrust bearing inside from falling out when the collar is removed.
2. With the 2.5mm hex key, loosen each of the three setscrews in the counterweight shaft collar 2 or 3 full turns (**Figure 3**).
3. Make sure that the declination clutch lock lever on the mount is tightened (see **Figure 2**), then unthread the collar with the attached counterweight shaft by turning it counterclockwise and remove it from the housing. It may take a bit of torque to get it started! With the collar removed the end of the declination axis and a thrust bearing and washer are exposed, as shown in **Figure 4**.

Now you're ready to install the new Counterweight Shaft!

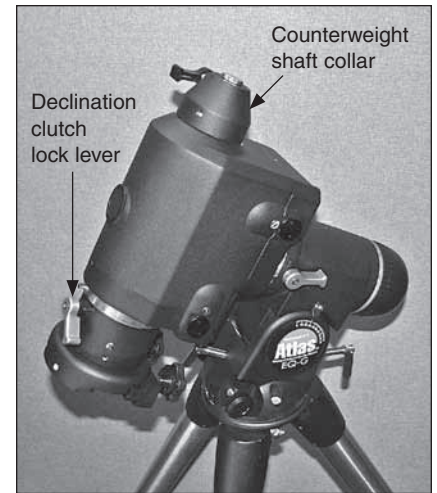


Figure 2. Turn the EQ head upside down before removing the counterweight shaft collar.

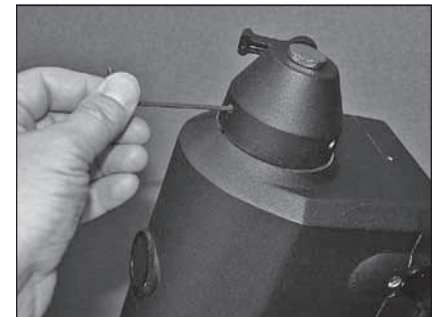


Figure 3. Loosen the three setscrews in the counterweight shaft collar.

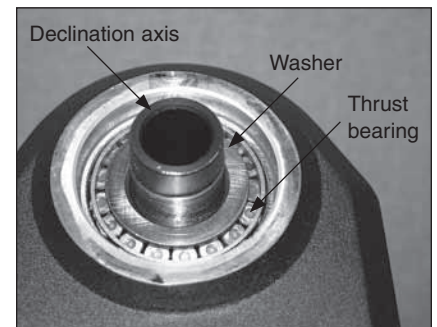


Figure 4. View of the thrust bearing after the counterweight shaft collar is removed.

3. Installing the Counterweight Shaft Upgrade

1. With the EQ head still rotated “upside down” on the RA axis as is **Figure 4**, thread the new counterweight shaft collar onto the mating threads of the declination axis as shown in **Figure 5**. Make sure first that the three setscrews in the new collar are backed out so that they won’t contact the declination axis.
2. Then use the 2.5mm hex key to tighten the three setscrews against the declination axis.
3. Rotate the EQ head on its RA axis 180 degrees until the collar is pointing downward. Then thread the counterweight shaft into the counterweight collar until tight (**Figure 6**).
4. Install one or more Orion #9600 11-lb. or similar counterweights on the shaft – enough weight to balance your telescope payload.
5. Lastly, thread the safety stop knob onto the bottom of the counterweight shaft.

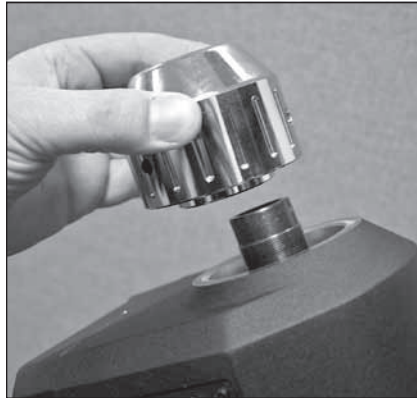


Figure 5. Loosen the three setscrews in the counterweight shaft collar.



Figure 6. The counterweight shaft threads into the collar.

Figure 7 shows the completed assembly on the Atlas EQ-G.

4. Using the Counterweight Shaft Upgrade

Before transporting your Atlas EQ-G mount in a vehicle, remove all counterweights, then unthread the counterweight shaft from the collar. (The collar should never have to be removed.)



Figure 7. The Counterweight Shaft Upgrade installed on an Atlas EQ-G mount.

Keep the shaft in a safe place between uses to protect the exposed threads and the chrome finish.

5. Specifications

| | |
|--------------------------------------|---------------------------|
| Counterweight shaft collar material: | Aluminum |
| Shaft material: | Steel, chrome finish |
| Shaft length (excluding collar): | 337mm (13-1/4") |
| Shaft diameter: | 25mm (0.98") |
| Declination collar size: | 74mm (2.9") x 61mm (2.4") |
| Total weight: | 4.1 lbs. |

One-Year Limited Warranty

This Orion product is warranted against defects in materials or workmanship for a period of one year from the date of purchase. This warranty is for the benefit of the original retail purchaser only. During this warranty period Orion Telescopes & Binoculars will repair or replace, at Orion's option, any warranted instrument that proves to be defective, provided it is returned postage paid. Proof of purchase (such as a copy of the original receipt) is required. This warranty is only valid in the country of purchase.

This warranty does not apply if, in Orion's judgment, the instrument has been abused, mishandled, or modified, nor does it apply to normal wear and tear. This warranty gives you specific legal rights. It is not intended to remove or restrict your other legal rights under applicable local consumer law; your state or national statutory consumer rights governing the sale of consumer goods remain fully applicable.

For further warranty information, please visit www.OrionTelescopes.com/warranty.



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