

# RECOMMENDED BALANCING TECHNIQUES TO OPTIMIZE GUIDING

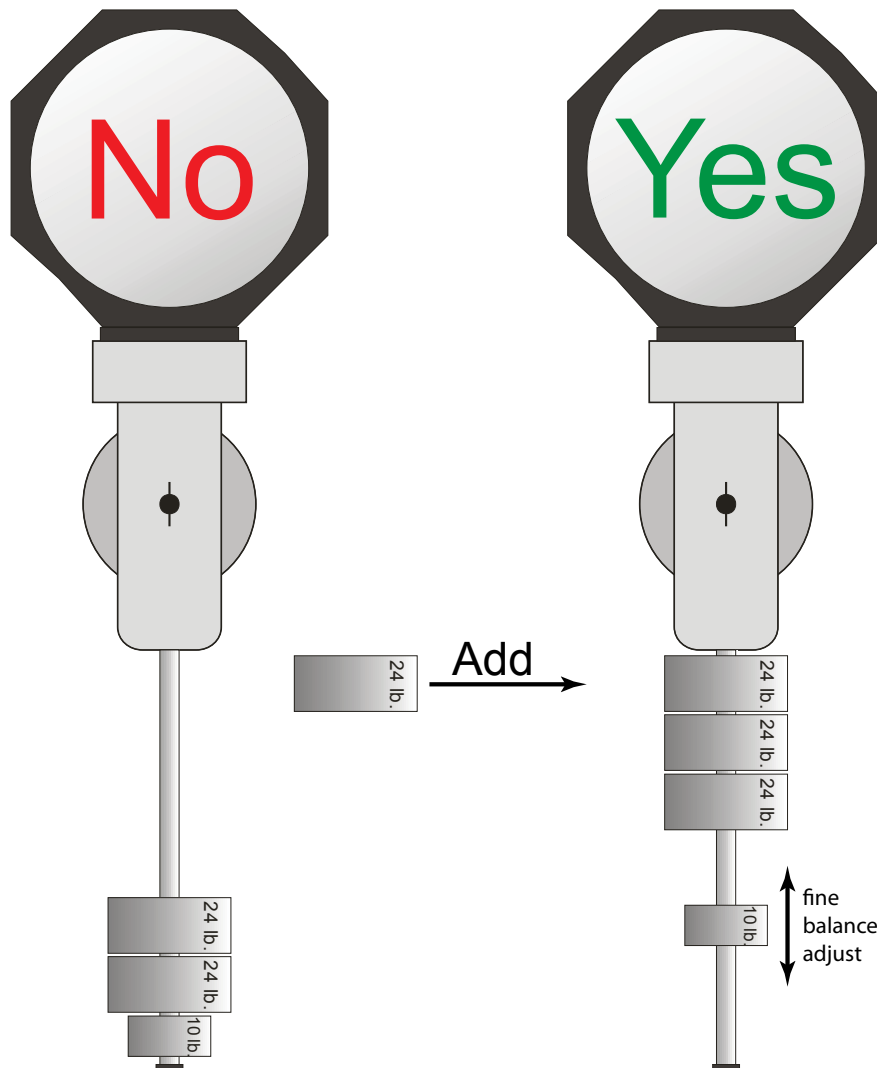
It is always important to balance your telescope. However, when imaging one should strive for as much precision as possible. There are some steps and techniques that we have found that will help when seeking to guide with sub arcsecond accuracy.

It is important to remember that the R.A. and Dec. axes do not guide the same way. The R.A. axis is always pushing in one direction. When it needs to "change directions" it does not actually reverse; rather, it simply slows or stops its tracking. However, the Dec. axis actually reverses direction.

We recommend a slightly heavy RA balance towards the counterweights and a slightly heavy Dec balance toward the camera end of the scope when imaging.

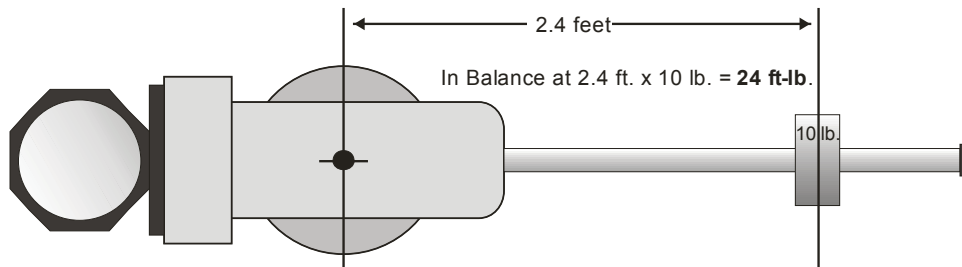
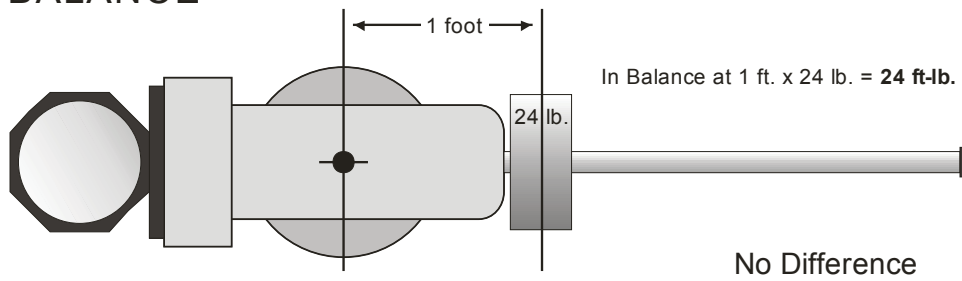
## Optimizing Balance

Both examples provide balance, but the example to the left will experience a huge inertial moment arm. The examples on the following page will show the calculations.

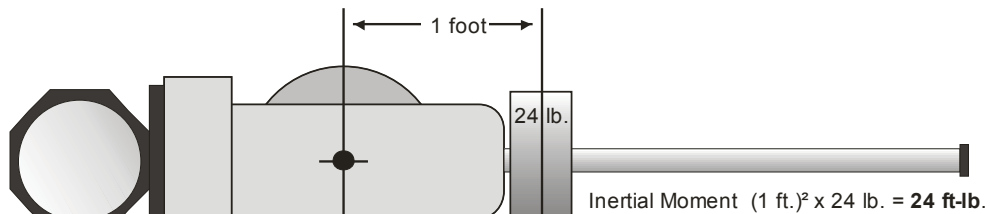


# Why More Weight Higher Up the Shaft is Better!

## BALANCE



## INERTIAL MOMENT ARM



**HUGE** Difference  
*Distance is squared!*

