



**Z AXIS (VERTICAL) TRIM  
—ACHIEVING CORRECT  
BOTTOM-HEAVINESS**

*Grasp the lower Spar and hold it out to either side, until the camera is tipped over flat on its side (you'll have to tilt the Grip a little to allow this.) Imagine that the whole unit is a seesaw, balanced on the Gimbal. If the camera were in perfect Z axis balance, it would float like this when you let go. Now release the lower Spar.*

- If it's top heavy, the camera will stay tilted over.
- If it's excessively bottom heavy, the Spar will fall too quickly.
- If it's slightly bottom heavy, as it should be, the lower Spar will slowly fall and the camera will right itself. The Spar should take just over a second to swing through the bottom of its travel like a slow pendulum. Stop its swinging by grasping the upper Spar

**If the Unit is Too  
Top-Heavy:**

*Raise the Gimbal by screwing in the Guide ring. Carefully pull the unit by the upper Spar, push in the small black latch and rotate the Guide ring clockwise.*

*If screwing the Guide nearly all the way in does not provide sufficient bottom heaviness (as tested by rolling the lower Spar sideways and letting it fall), try adding weights one at a time, starting with the lightest weights you have left.*

*Note: Because the battery compartment is to the rear of the center-of-gravity, adding a weight will have the effect of tipping the camera backward, while removing weights will tip the camera forward. After changing weights, you will always need to re-trim fore and aft. But DO NOT use the addition or subtraction of weight to the lower Spar as a way of adjusting fore and aft trim.*

*If adding all the weights does not make the unit sufficiently bottom heavy, change the stop block to lower the center-of-gravity. If you are on the light stop block, switch to normal; if you are on the normal stop block, switch to heavy. This will have the effect of lowering the Spar by 10°, and thereby lowering the center-of-gravity. Retrim fore and aft, as lowering the Spar will have tipped the camera forward. Note that changing the Stop block also makes the camera tilt up or down and you will need to readjust fore and aft trim.*

*If you are on the heavy stop block and still top heavy, you will need to add further weight to the lower Spar battery compartment.*

*If changing the stop block and lowering the Spar makes the unit too bottom heavy, take a weight out.*

*Lower the Gimbal by unscrewing the Guide ring. Hold the unit carefully by the upper Spar and rotate the Guide ring counterclockwise.*