

Welcome to our new top-of-the-line shoulder support system for cameras up to 15 lbs - the ZG Rig. In addition to its totally unique vertical balancing mechanism, this system is designed to be configurable to virtually any body type or camera setup, so there are some adjustments and operational parameters to discover before you begin using the equipment. The Rig requires minor assembly (see assembly diagram). It should approximately resemble the picture at the right. Included are: 3-part shoulder rig, support pod, belt, camera plate, accessory mount, removable counterweight. **Read the instructions to ensure that you don't damage the system or camera.**



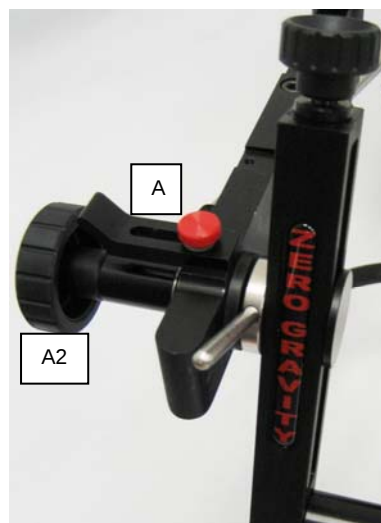
1A – The first and most important element to understand is the **Tilt Mechanism**. Look at the **safety lock (A)**, and notice how it slides laterally when the red thumbscrew is loose. When the tilt arm (w/ “Zero Gravity” label) is perpendicular to the horizontal support member (w/ “VariZoom” label), the safety lock will slide into the slot of the tilt arm. Once the red thumbscrew is tightened, the safety lock prohibits the tilting action of the ZG Rig. The safety lock allows you to set the ZG Rig down without the system inadvertently tilting and flopping over, which could cause damage to your camera. Always engage the safety lock before setting the ZG Rig down. Conversely, while operating the ZG Rig, the safety lock should be disengaged so you can tilt freely.

1A2 – Always keep the **tensioner knob (A2)** tightened close to the max – only tiny adjustments are needed. The tilt mechanism should never have any play/wobble, or damage may result.

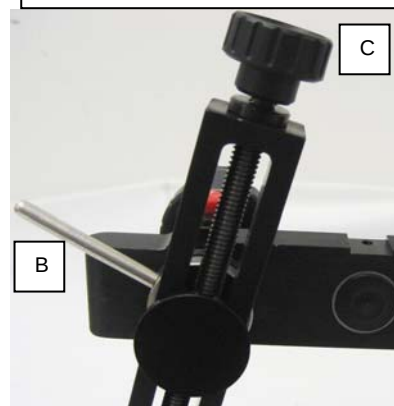
1B – The **position lock lever (B)** for the vertical balancing mechanism is essentially a stainless steel clamping lever. It is VERY IMPORTANT that this lever is *tightened* while operating the ZG Rig and *loosened* while adjusting the vertical balance. If the position lock lever is loose while operating the ZG Rig, there will be excess play in the tilt mechanism that can cause unwanted shaking and even result in damage to the ZG Rig. If the position lock lever is tight while you attempt to adjust the vertical balance, you may cause irreparable damage. Loose = lever up; Tight = lever down. *Basic rule of thumb: if it feels wrong, check your locks and tensioner knob before proceeding.*

1C – The **vertical adjustment knob (C)** will allow you to raise or lower the camera platform precisely, but the position lock lever (B) and safety lock (A) must be disengaged before you make this adjustment, otherwise **DAMAGE MAY OCCUR**.

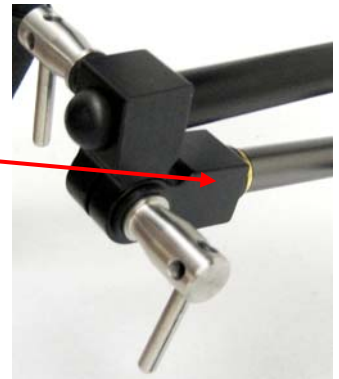
WARNING: FOR OPERATION, THE LOCK LEVER (B) MUST BE FULLY TIGHTENED AND TENSIONER KNOB (A2) MUST BE TIGHT ENOUGH TO REMOVE ANY SIDE-TO-SIDE WOBBLE/PLAY IN THE TILT MECHANISM, OR SEVERE DAMAGE MAY RESULT!!!



Tilt Mechanism (front/side views)



2 - MOUNTING THE CAMERA - Make sure the safety lock is engaged on the tilt mechanism. Attach the support belt to your waist, holster in front. Mount your camera to the camera plate, tightening the screw thoroughly. Slide the plate into the receiver and secure the plate locking lever. Insert the brass tip of the support pod into the socket at the end of the curved bar. Angle the pod roughly 30° downward and raise the entire assembly over your shoulder, carefully inserting the lower end of the support pod through the plastic D-ring and into the holster. Unlock the support pod knobs to engage spring action.



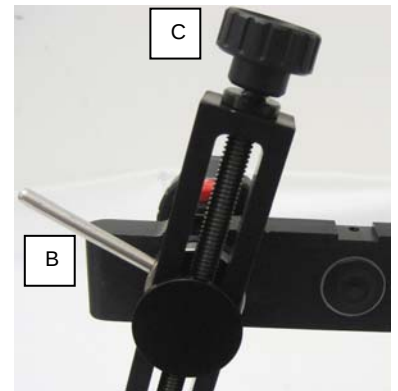
3 - ACCESSORIES – If you wish to use the **accessory mount (D)** for attaching lights, monitors, mics, etc., go ahead and attach it and mount the accessories before proceeding with adjustments or balancing. This mount allows you to keep accessories off your camera and aids in balancing the weight of the Rig. Four ¼"-20 holes are provided, and the mount rotates to allow fine positioning.



4 - BALANCING – Once it's fully loaded, you can focus on adjusting and balancing the unit. Think of the balancing as an X-Y-Z affair. Start by adjusting the position of the camera plate so it is balanced front-to-back. Then adjust the position of the camera platform left-right by loosening the knob directly below and moving the platform until it feels relatively balanced and doesn't lean to one side. You can also affect the side-to-side balance by adjusting the **counterweight position (E)** at the rear of the shoulder arch. These are the familiar 'X-Y' adjustments.



Now comes the 'Y' adjustment that is unique to the ZG Rig – the vertical balance adjustment. As mentioned previously, you must disengage the safety lock (A) and position lock lever (B) in order to adjust the vertical balance. Loosen the tensioner knob to the minimum setting – the loosest point where the knob is still slightly tight against the washer/bearing set and there is no wobble in the tilt mechanism.



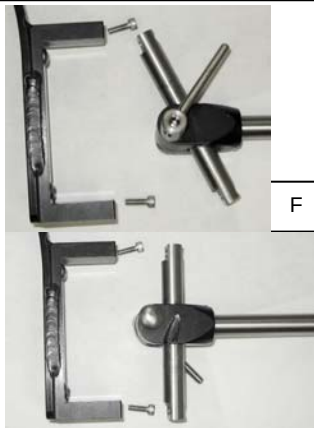
Test the vertical balance of the camera as-is by tilting it straight up (or as close as possible) and see if it has a tendency to drift up or down. If it drifts down, you need to raise the camera platform by turning the vertical adjustment knob (C) counter-clockwise (left). If it drifts up, you need to lower the camera platform by turning the vertical adjustment knob clockwise (right).

Once the vertical balance is set, tighten the position lock lever (B) and set the tensioner knob to your preferred level of resistance. You should be able to tilt effortlessly and the tilt mechanism should hold any angle unaided.

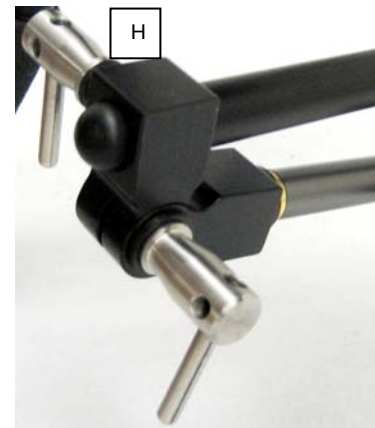
5 - ADJUSTMENT – If you haven't already done so, now would be a good time to fine tune the ergonomic adjustments of the Rig. There are several points of adjustment that should enable you to wear the Rig with comfort and stability. The photos on the following page highlight some of these adjustment points.

The most commonly used adjustments:

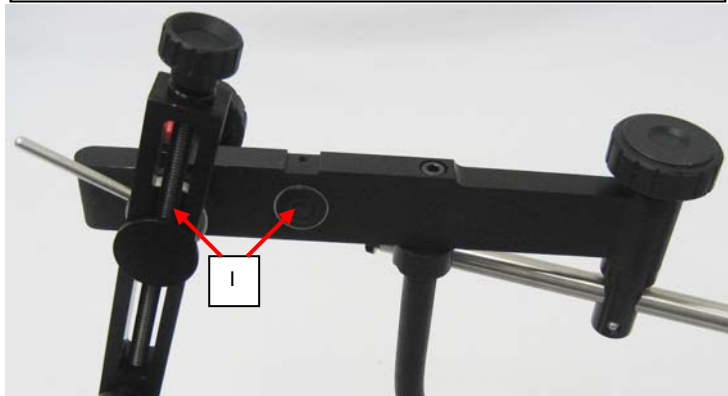
(F) = slide up/down, pivot side-to-side; ALSO: change angle of insertion from standard custom angle to right angle (straight up) and/or reverse tightening lever.
(G) = adjust position of camera mount closer/further and also adjust the angle of the shoulder arch relative to body centerline



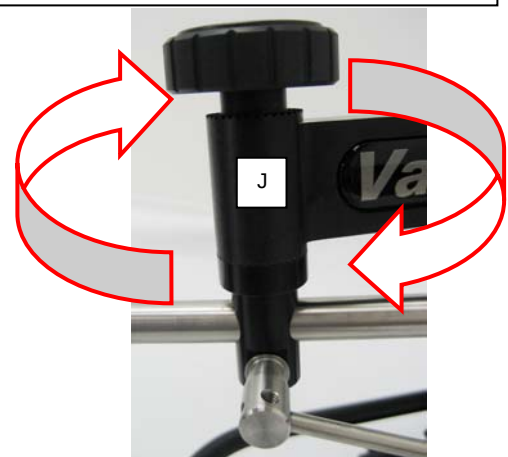
(H) = adjust the in-out position of support pod socket to change the relative height and angle of the Rig, as well as the relative loading of the spring pod



(I) = ADVANCED: shift the tilting pivot point in or out, depending on preference; further out gives more tilt range and distance to camera, while closer in brings camera closer and reduces tilt range; to shift pivot point, simply remove protective plastic cap (and SAVE IT) from unused hole, revealing a radial bearing; remove tensioner knob with external bearing/washer assembly, then remove entire tilt assembly (it is press-fit tightly, so it will take effort), finally insert tilt assembly axle through alternate bearing, pressing firmly until large black washer is flush, then thread tensioner knob assembly back through, tightening firmly; finally, move safety lock mechanism to the corresponding spot and cover unused bearing hole with plastic cap



(J) = serrated clutch allows locking incremental adjustment of angle at which stainless rod intersects horizontal support member to allow greater freedom in positioning and bring camera extremely close in some configurations; ADVANCED: clutch can be separated and inverted so it mounts to the top instead of bottom, creating a 3.25" downward shift of the entire forward assembly (for lower camera mount)



6 - OPERATION – Overall, operating the ZG Rig is pretty intuitive. Because there are so many different ways to configure the Rig, it's mostly up to the user to determine good shooting habits. One thing to keep in mind is that the spring-loaded support pod can be used with one or two sections locked. In other words, if you need less spring action (e.g., for a lighter camera), leave one of the sections locked, or if you want no spring action, leave both locked. You may even decide that you need to hold the entire unit up high for an extended period (such as shooting over a crowd), and in this case, fully extending the pod sections and locking them in place could be your best move. For most shooting, however, you will probably use a single configuration, so spend some time figuring out the most comfortable and functional setup for your needs.

7 – STORAGE/TRANSPORT – We recommend folding the unit and storing it in the supplied carrying bag to keep it clean and protected.

Sample configurations:

Common setup w/ optional V-lock plate in place of weight



Close/High right-angle setup for DSLR camera



Low, left-swept setup w/ external monitor on accessory mount

TIPS AND SUGGESTIONS

- When using a heavier camera setup (over 8lbs), try to keep the camera closer to the tilt arm, make sure the tensioner knob is adequately tightened, and experiment with the position of the support pod socket.
- If you have any questions or problems with the ZG Rig after reading the instructions, please contact VariZoom directly (512-219-7722).

WARNINGS:

1 – DO NOT OPERATE THE ZG RIG WITH ANY OF THE LOCKING JOINTS LOOSE, AS DAMAGE OR INJURY COULD RESULT.

2 – ALWAYS STORE AND HANDLE THE SPRING-LOADED SUPPORT POD IN A FULLY LOCKED STATE (KNOB TIGHTENED THOROUGHLY). ONLY LOOSEN THE KNOBS WHEN THE SUPPORT POD IS MOUNTED UNDER THE WEIGHT OF THE ZG RIG.

3 – DO NOT RUN WHILE OPERATING THE UNIT.

4 – EXERCISE CAUTION WHEN ADJUSTING THE POSITION OF THE POD SOCKET (fig. H) – DO NOT LOOSEN THE LOCKING SCREW MORE THAN ½ TURN, AS THE TIP OF THE SCREW ALSO ACTS AS A SAFETY STOP, AND IF YOU BACK THE SCREW OUT TOO FAR, THE POD SOCKET COULD SLIP OFF THE END OF THE SUPPORT BAR.

ZG RIG QUICK-START AND KEY POINTS GUIDE

The ZG Rig is a precision instrument that requires proper care to maintain its mechanisms:

1 – Tensioner Knob must always be tightened close to the max to prevent unwanted play in tilt mechanism.

The tension adjustment is only effective in a very small turning range, and the whole mechanism must be clamped together tightly to work properly and prevent damage.

Failure to operate the ZG Rig with the tensioner knob tightened will result in severe damage.



2 - Safety Lock prevents the ZG Rig from flopping over when you set it down. With the tilt mechanism at a right angle, you can loosen the red knob and slide the safety lock into the slot on the tilt mechanism.

Disengage the safety lock to operate or adjust the ZG Rig.

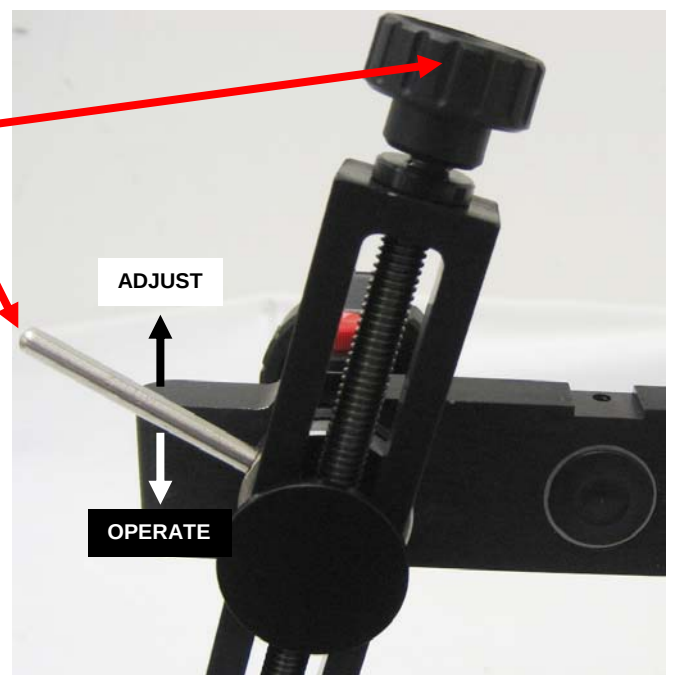


3 – Vertical Adjustment allows you to adjust the center of gravity depending on the size of your camera. There are two key parts:

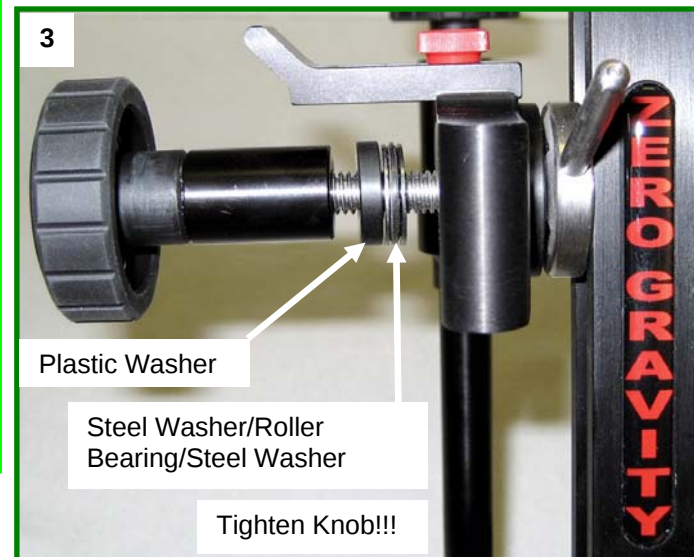
Adjustment Knob
Position Lock Lever

-The position lock lever should always be fully tightened (DOWN) when you are operating the ZG Rig with a camera. **Failure to operate the ZG Rig with the lock lever fully tightened will cause severe damage.**

-The adjustment knob raises or lowers the camera platform, but the position lock lever must be loose (UP) to make the adjustment. Do not force the knob and make sure the lever is loose when adjusting.



VariZoom ZG Rig Assembly Diagram



Last, but not least, attach counterweight to rear plate.