

EZ BALANCER II

Parts List

(Color version available at: <https://www.ezbalancer.com/https-www-ezbalancer-com-products>)

- 2ea. Aluminum Angle Base Frame Members
- 2ea. 1/2"x1" Aluminum Angle Cross Frame Members
- 2ea. Aluminum Uprights
- 2ea. Aluminum Cradles
- 4ea. Rubber Cradle Guards
- 4ea. Rubber Base Frame Member Guards
- 2ea. 10-24 Shoulder Bolts
- 2ea. 10-24 Nylon Insert Stop Nuts
- 2ea. 1/4-20 Carriage Bolts
- 6ea. 1/4-20 Hex Bolts
- 6ea. 1/4-20 Hex Nuts
- 2ea. 1/4-20 Wing Nuts
- 2ea. 5/16" i.d. Washers
- 12ea. 1/4" i.d. Washers
- 4ea. Lock Washers



Please note: The hardware and accessories listed may not be the same as shown. We are always improving the product.

Tools Required

- 7/16" Wrench or Socket.
- Pliers, Needle Nose and Regular.
- 1/8" Allen Wrench.

Black Hills Manufacturing

BlackHillsManufacturing@outlook.com

www.ezbalancer.com

Step 1 ASSEMBLY OF UPRIGHTS

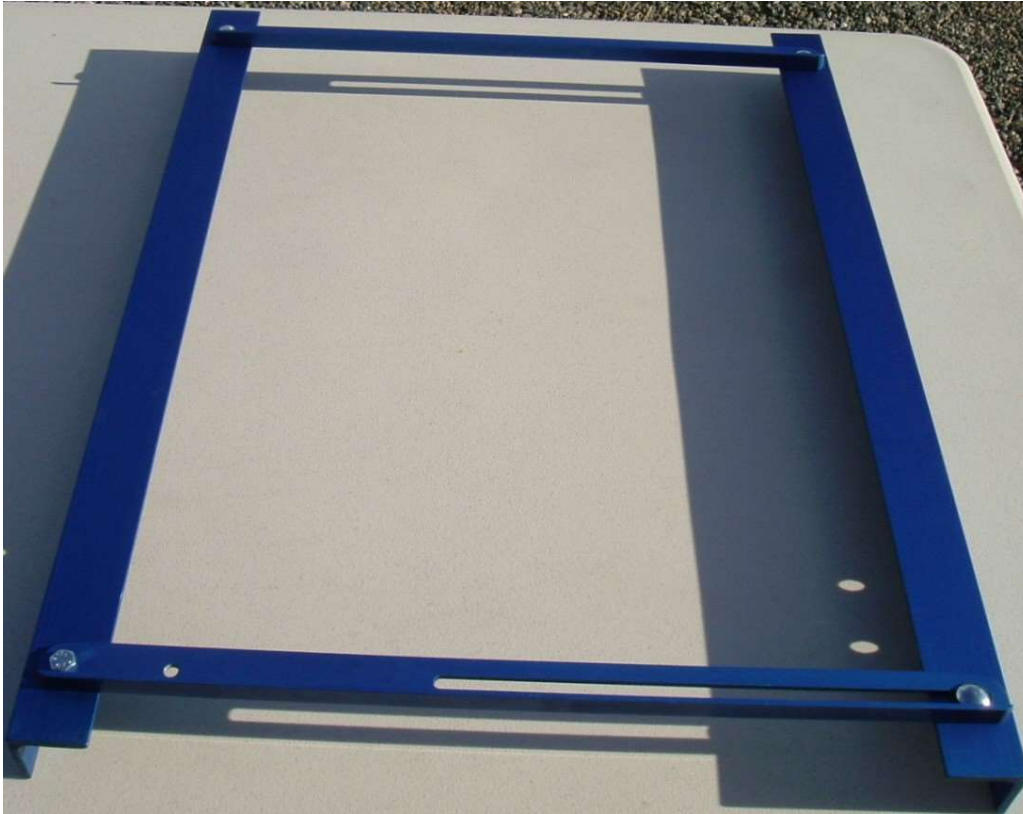


The split ring/anti-rotation pins are now factory inserted for your convenience.

*****Please remove the rubber pin shipping protective covers from the pins before continuing the assembly process. If they aren't removed, the cradles will not rotate as designed and allow for correct balancing.*****

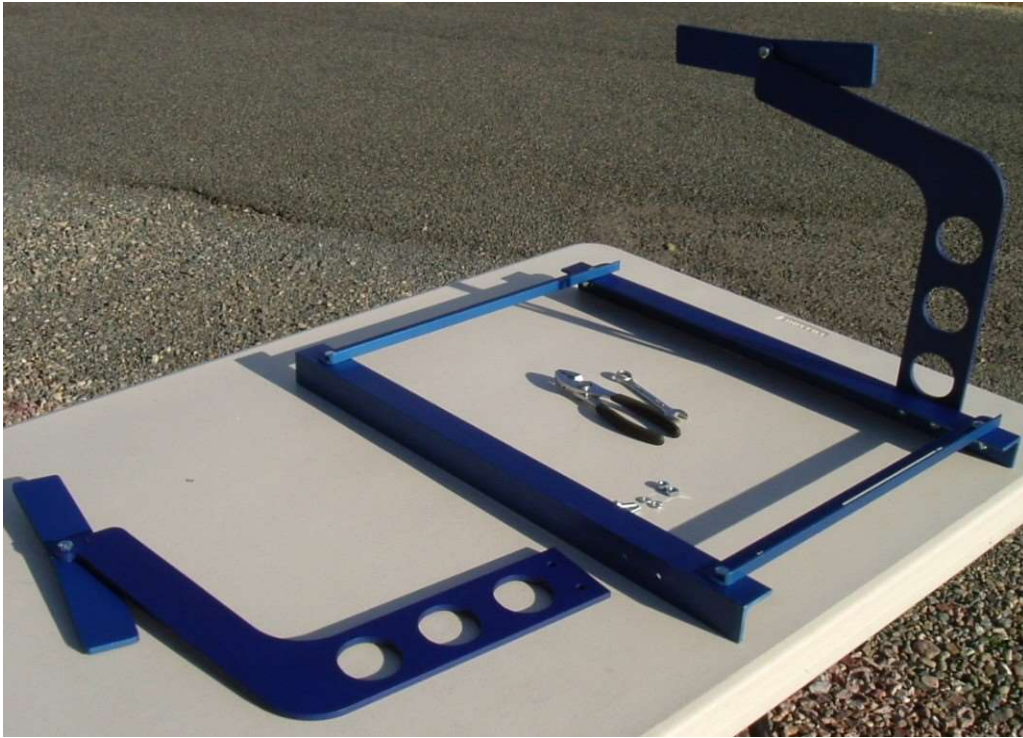
Insert the shoulder bolt through the upright. Place two washers over the shoulder bolt then place the cradle over the shoulder bolt with the “V” of the cradle going “UP”. Be certain that the split ring pin is in the lower hole of the cradle as this is how the limiter action works. Add another washer and the nylon insert 10-24 stop nut. Tighten until the cradle cannot move. Loosen the stop nut just slightly until the cradle moves freely but does not have any slop.

Step 2 ASSEMBLY OF THE BASE FRAME



Assemble the base frame as shown above. Note that we have provided you with two holes on the one side of the Aluminum Angle Cross Frame Members for additional adjustability for those extra narrow or “Profile” type fuselages. Place a $\frac{1}{4}$ -20 hex bolt through one of the two holes provided, then place a medium washer between the Cross Frame Member and the Base Angle Member. Beneath the Base Angle Member, place a medium washer and a $\frac{1}{4}$ -20 hex nut. Repeat this at the other end. Please keep both ends with the adjustment holes on the same Base Angle Member side and the adjustment slot on the other. On the adjustment slot side, place a $\frac{1}{4}$ -20 carriage bolt through the slot. Place a large washer between the Cross Frame Member and the Base Angle Member. Beneath the Base Angle member, place a medium washer and the $\frac{1}{4}$ -20 wing nut. At this point, tighten all the nuts to hold the assembly together.

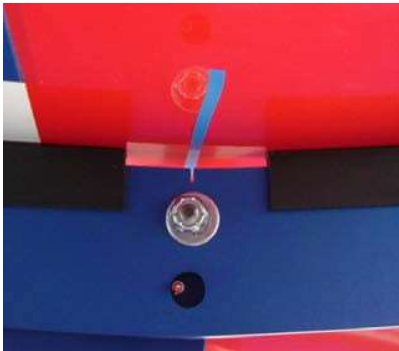
Step 3 ASSEMBLY OF UPRIGHTS TO BASE FRAME



Install the right hand Upright Assembly to the outside of the right side of the Base Frame using 2ea. $\frac{1}{4}$ -20 hex bolts, 2ea. lock washers, and 2ea. $\frac{1}{4}$ -20 hex nuts. Make certain that the cradle is on the outside of the Upright Assembly. This will give you the maximum width between the cradles. Repeat this procedure for the left side again making certain that the Upright Assembly has the Cradle to the outside.

At this point, all that is left is to install the Base Frame Rubber Guards (the shorter, narrower ones) onto the Base Frame to act as a protector for your workbench (Please, please, please, use these if you work on the dining room table). Lastly, install the Cradle Rubber Guards (the longer, larger ones) onto the Cradles aligning the outside edge of the rubber with the outside edge of the Cradle. This should leave a gap between the Cradle Guards so you can easily see the C.G. notch in the center of the Cradles.

Step 4 BALANCING FOR THE CENTER OF GRAVITY (C.G.)



Now comes the fun part, balancing the model. We recommend that you put a piece of fine-line tape on the wing where the manufacturer calls out for the C.G. location, or where you want it to be if you like it different than that recommended. In lieu of fine line tape, a piece of masking tape with a pencil mark on it will also work just fine. Place the model on the balancer and align these marks with the notches on the cradles. Make certain that the model swings freely. Don't worry, the limiters will not allow it to swing far enough to fall off. At this point you are virtually hands-free.

Level the model so it looks as if it is flying. If it stays in that position and you cannot easily tip it by just touching the nose or tail, you are done and the model is balanced. If not, add weight to the high side until it does stay in the level position. Keep putting the model into the level position after adding weight. If you add enough weight to make the model start to swing back from the nose down or nose up position, it will be too much weight and will cause the model to swing to the other extreme. We always try to balance the model with weight that already exists for it such as the batteries, smoke pumps, etc. If you absolutely need more weight, then of course, go ahead and add it.

Step 5 STORAGE



To store the EZ Balancer, slightly loosen the wing nuts on the Cross Frame Members, then, using a Pantograph type of movement, push the Base Frame Members towards each other until they are touching.

You can now hang the unit on the wall or slide it under a cabinet for storage when not in use.

ADDENDUM TO EZ BALANCER II MANUAL

As a convenience to our customers, we have packaged the hardware in three separate packages to make assembly as easy as possible. The packages are for the upright assembly, the base assembly, and the upright to base assembly.



The upright assembly package contains the following:

2ea. 10-24 Shoulder Bolts, 6ea. 1/4" i.d. Washers,
2ea. 10-24 Nylon Insert Stop Nuts

The base assembly package contains the following:

2ea. 1/4-20 Carriage Bolts, 2ea. 1/4-20 Hex Head Bolts,
2ea. 5/16" i.d. Washers, 6ea. 1/4" i.d. Washers,
2ea. 1/4" Wing Nuts, 2ea. 1/4" Hex Nuts

NOTE: The 5/16" i.d. washers are to be used between the Base Angles and the Cross Angles on the Carriage Bolts.

The upright to base assembly package contains the following:

4ea. 1/4-20 Hex Head Bolts, 4ea. lock Washers, 4ea. 1/4" Hex Nuts

NOTE: We are always trying to upgrade the balancer, since taking the assembly and parts list photos we have replaced the [Green Corner Guards](#) with Heavy Duty Rubber Base Frame Guards.