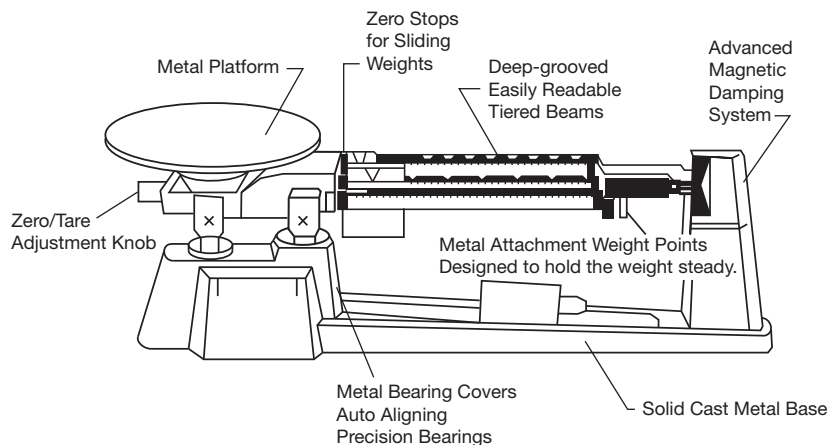


# Flinn Triple Beam Balance Operating Instructions



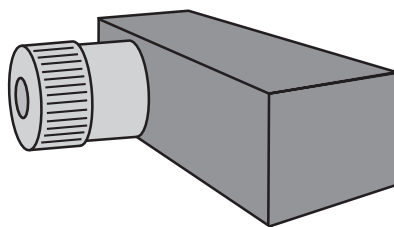
## Unpacking and Setup:

Carefully remove the balance and separate sliding weight from the box. Remove the polystyrene surroundings. Two rubber washers, one underneath the platform and the other located above the pointer, are used to protect the balance during shipping. Rubber washers must be removed prior to the first use.

Place balance on a smooth, flat surface. Slide the separate sliding weight up into the slot on the back side of the center beam. Angle the sliding weight until it attaches correctly to the beam. Move all the sliding weights to the zero position. The pointer should be near zero.

## Zeroing:

The zero knob is located on the left side of the balance underneath the metal platform. Adjust the knob until the pointer is located at exactly zero. Verify the pointer is at zero prior to each use.



## Weighing:

Place the object on the center of the pan and continue as follows:

1. Begin with the largest capacity beam (500g), adjust the 500 g sliding weight to the right until it reaches the first notch causing the pointer to drop. Next, move it back to the left one notch causing the pointer to rise.
2. Repeat step 1 with the 100 g sliding weight.
3. Repeat step 1 with the 10 g sliding weight until the pointer rests at zero.

The mass of the object is the sum of the values on each sliding weight. For example, for each beam the sliding weight rests on the following locations:

100 g beam: 70 g  
500 g beam: 100 g  
10 beam: 2.7 g

The total mass of the object would be 172.7 grams.

### Capacity:

The capacity of the triple beam balance without the attachment weights is 610 g. When all three attachment weights are used, the maximum capacity of the balance is 2610 g.

### Maintenance:

Keep the triple beam balance clean at all times to maximize longevity. Most debris is easily moved using a can of compressed air. Never apply lubricants to the knives or bearings. Make sure that beams are also kept free of debris so that the unit can accurately mass objects.

### Troubleshooting:

#### General Issues

Before troubleshooting further, make sure the balance was unpacked completely. Remove both rubber washers and packing bands so that the balance may mass accurately. Also, verify the sliding weights are all at the zero position.

#### Specific Issues

Q: The balance will not zero.

A: *During shipment the beams sometimes become unbalanced. When this occurs adjusting the zero knob will not enable the balance to zero. If this occurs weights can be added or removed to the balance cup by unscrewing the pan counterclockwise.*

Q: Why is the balance is reading less than zero? I have to push down on the tray to get to zero.

A: *Turn the pan counterclockwise to remove it. Add a small amount of weight, such as a paperclip or coin, to the cup and adjust as required to reach zero.*

Q: Why is the balance is reading more than zero? I have to pull up on the tray to get to zero.

A: *Turn the pan counterclockwise to remove it. Once open, remove a small amount of weight, from the cup and adjust as required to reach zero.*

### Specifications:

#### Beam Calibrations:

Rear Beam:	100 g × 10 g
Center Beam:	500 g × 100 g
Front Beam:	10 g × 0.1 g

Readability: 0.1 g

#### Capacity:

Without weight attachments:	610 g
With weight attachments:	2,610 g

#### Additional Features:

- Three beam direct reading.
- Attachment weights.
- Magnetic damping system.