

Installation and Adjustment

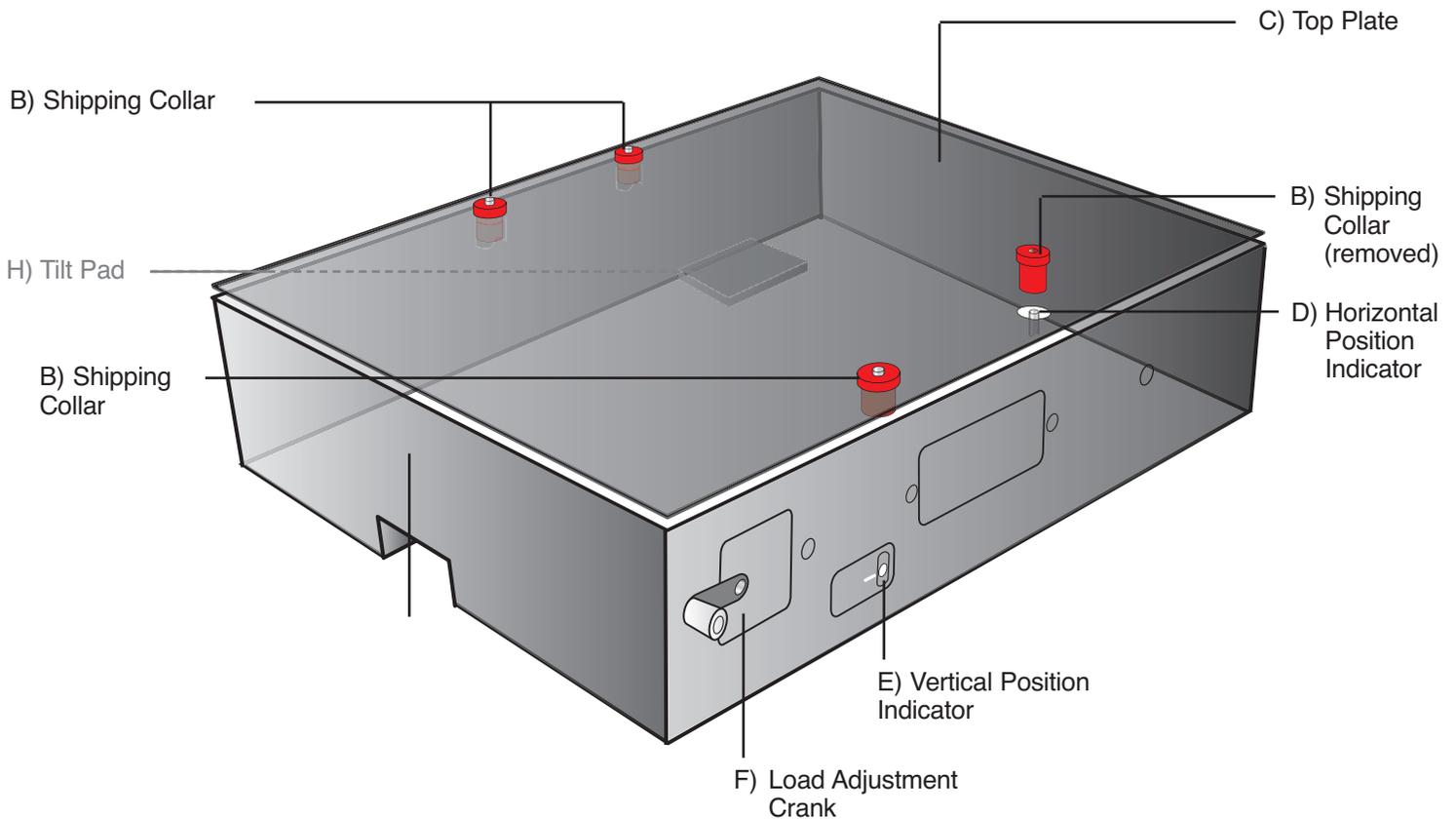
BM-6 Bench Top Vibration Isolation Platform

Dimensions: 18" W x 20" D x 4.6" H (457mm W x 508mm D x 117mm H)	
Approximate payload weight range:	
Model	Payload Range
25BM-6	10 - 30 lb (4.5 - 14 kg)
50BM-6	25 - 55 lb (11 - 25 kg)
100BM-6	50 - 105 lb (23 - 48 kg)

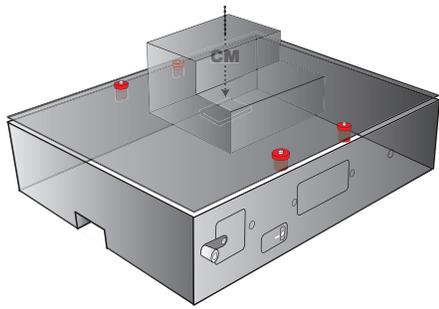
BM-6 Bench Top Vibration Isolation Platform *Installation and Adjustment*

Required tools:

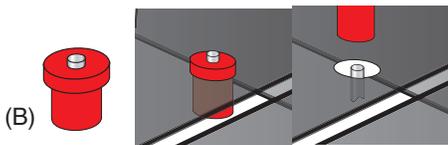
5/32 hex key



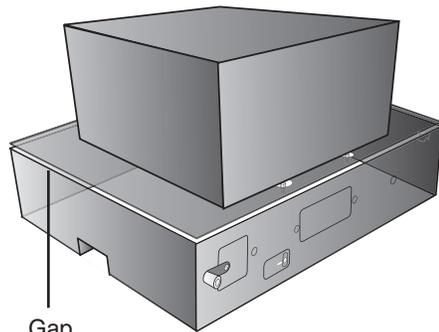
DO NOT REMOVE SHIPPING COLLARS UNTIL INSTRUCTIONS INDICATE. SHIPPING COLLARS MUST BE USED WHEN MOVING ISOLATOR.



1. Make sure you have the correct model for your payload. Payload weight **MUST** be within the recommended range.
2. Place Isolation Platform on solid, level surface.
3. Carefully position payload on top plate so its center-of-mass (CM) is close to center as possible.
4. Remove the four red shipping collars (B). **STORE SHIPPING COLLARS IN A SAFE PLACE AS THEY MUST BE USED WHENEVER MOVING ISOLATOR.** Replace the screws into the holes to serve as Horizontal Position Indicators.



CAUTION: If payload covers shipping collar holes, collars must be removed *before* placing payload. Take extra care when placing payload without shipping collars attached. Do not replace screws as they may interfere with payload.



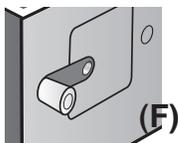
Gap should be equal on all sides

5. Check the level of the top plate. The gap between the top plate and the Isolator cover should be approximately equal on all sides.
6. If the top plate is not level reposition the payload as necessary. It is recommended that you re-install the red shipping collars if you need to re-position the payload (see Step 3). However, it is not necessary if you take extra care repositioning the payload.

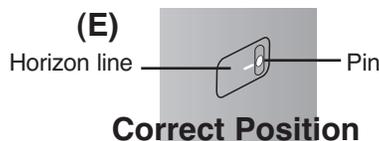
NOTE: Cables, hoses, etc. connected to the payload can effect the horizontal and vertical position. If possible make the following adjustments without attaching the cables.

Floating Isolator Vertically

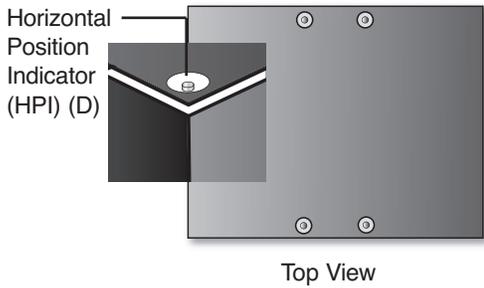
The isolator has been adjusted to support the nominal weight i.e., 25 lb for the 25BM-6, 50 lb for the 50BM-6, etc. Internal stops limit the vertical motion. The isolator must be “floated” between the stops.



7. Check Vertical Position Indicator (E). The white pin should be approximately centered on the the horizon line. **Turn Load Adjustment Crank (F) to adjust. Turn only clockwise when white dot is below the line, and only counterclockwise when it is above the line.**



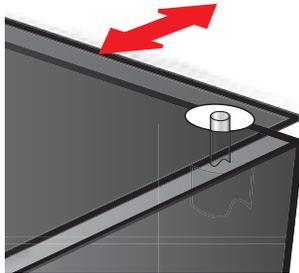
NOTE: To avoid damage never force the load-adjustment crank.



Floating Isolator Horizontally

8. Internal stops limit the horizontal motion. The isolator must be “floated” horizontally between the stops and it will be if the supporting surface is reasonably level. The Horizontal Position Indicator screws (D) will be approximately centered within their holes.

$1/2 \text{ Hz} = 3 \text{ cycles in } 2 \text{ secs.}$



VERTICAL AND HORIZONTAL NATURAL FREQUENCIES

9. The natural frequencies can be changed by varying the payload weight. When the payload weight is near the nominal (e.g., 50 lb. for the 50BM-6), the vertical natural frequency will be approximately 2.5 Hz and the horizontal natural frequency will be approximately 1.5 Hz. Increasing the weight lowers the frequencies and decreasing the weight raises them. Ballast weights can be used to adjust the frequencies.

Check the horizontal frequency by pushing horizontally on the edge of the top plate to create small horizontal oscillations, then count cycles (one back and forth movement). For example 3 cycles in 2 seconds is 1.5 Hz.

Check the vertical natural frequency by pushing vertically on the top plate to create small vertical oscillations, then count cycles (one up and down motion). For example, 5 cycles in 2 seconds is 2.5 Hz.