

Pole Vault Zeroing Standards and Pit Setup

1. Pit placement. Move the entire pit so there's 10-15 cm between the back of the box and the back pad. Make sure the standards can travel from 0 to 80 without obstruction by the side pads; if not, remove any zero marking from the bases and move them so there's 80 cm range of movement.
2. Match standards' zero marks to the zero line. Align the zero point on the standards to the white zero line that extends through the front edge of the back of the box.
 - If there's no zero line, remove the front pads, lay a crossbar across the back of the box out to each standard; or attach a bungee cord low on the back of each standard & move them until the cord is over the back of the box. Place a mark or tape on the ground to indicate the zero line, and align the zero point on the bases to the zero line/mark.
 - If there's no zero mark on the base, move the standards to nearly the front of the base (ensuring there's a range of 80 cm movement with the side pads in), make a zero point mark on the bases, and align the zero point on the bases to the zero line/mark.
3. Check that the bases are properly spaced. Measure the distance between the inside edge of each base to the center point of the back of the box on the zero line – they should be equidistant; adjust the bases as necessary. Set the standards to zero. Put a bar up and check (eyeball it) that the bar overlaps the pegs by 5 to 11 cm at each end (since the pegs must be 4.30 to 4.37 meters apart, and the bar is 4.48 to 4.52 meters long). Now move the standards to 80 and again check the overlap; adjust the bases as necessary.
4. Check that bases are parallel to the runway. Place a thumbtack in the middle of the runway at the longer white line, and another also in the middle, but 80 cm closer to the box.
 - With the standards at zero, measure the distance from the 1st tack to the metal bracket that sets the height of the bar on the left standard. (See Figures 1 & 2 below.) Now move the standard to 80 and measure the distance from this second point to the same point on the upright.
 - If the 2nd measurement is *less* the 1st, pull the back of the standard base *away* from the pit. If the distance is *greater*, push the back of the standard base *toward* the pit. Do not move the front of the base. Repeat this for the right standard. It doesn't matter what point on the runway you use or what point on the standard you measure to, as long as you're consistent in measuring to the same point on both standards.
5. Check the vertical plane. Place a level vertically on the outer edge of a standard and shim the base as necessary to make it vertical. Then place the level on the front or back of the standard and again shim as necessary to make it vertical. Repeat for the other standard. (If the standards are tilted inward or outward, the bar will not properly overlap the pegs as it's raised; if they're tilted forward or backward, the bar will not match the desired standards settings at ground level.)
6. Check zero. With the standards at zero, put a bar up at a height of 8 to 10 feet and check zero with a plumb bob suspended over the *front* center of the bar (side closest to the runway). The plumb bob should be directly above the front edge of the back of the box. Move the standard bases forward or back as needed. Then raise the bar and check the plumb again at 15 or 16 feet.
7. Check the horizontal plane. Place a bar on the lowest peg at the lowest possible height and place a level on the middle of the bar if you can reach it. If you can't reach it, stretch a string tautly between the standards at the same point on both scales and use a hanging level in the middle of the string. If the bar or string isn't level, adjust the height on one standard until it is level and note the adjustment. Place a piece of tape on that standard and note that it must be set at plus or minus the adjusted amount for all competition heights.
8. Check accuracy of the scales on the standards. Set the measuring device at a height, measure it with a steel tape, and set both standards to the same height. Set the standards at zero, put up a bar and measure its height. If it doesn't match the device, adjust both standard heights until the bar is at the measuring device height. Note the difference for the flight coordinator and pit crew -- both standards must be set at plus or minus the adjusted amount in order to get the right (measuring device) height.

Figure 1 Top View

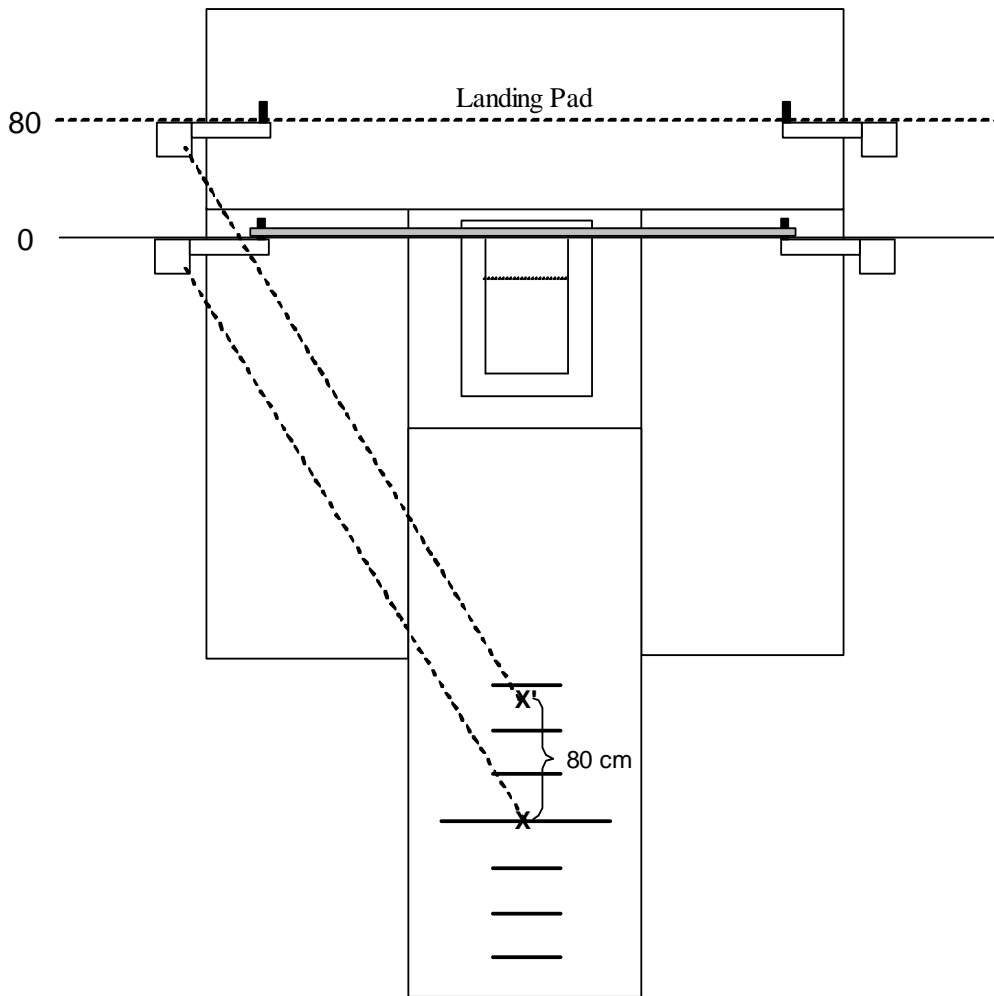


Figure 2 Side View

