



SPORTS IMPORTS
your source for Senoh

VERTEC INITIAL ASSEMBLY, DAILY SET-UP & BASIC OPERATION
---FREESTANDING VERSION---

ALIGNMENT & CALIBRATION

1. Your **VERTEC** is (and with reasonable treatment will remain) a precise and reliable instrument. The height of the bottom vane (in 6-inch increments) is indicated by the scale on the side of the upper (inner) pedestal tube. The readings thereon will be accurate when:
 - a) the unit is properly aligned (the base holds the pedestal perpendicular to the floor);
 - b) the pedestal height-scale is calibrated (the head is inserted to, and stopped at the appropriate depth on top of the upper pedestal tube);
 - c) the pedestal tubes are correctly oriented to the base (the **SPORTS IMPORTS** label on the lower tube faces forward, away from the base) and to each other (the lock-screw at the top of the upper tube is pointed backward);
 - d) the three lock screws (base-pedestal, height-adjust & pedestal-head) are tightened.
2. Your **VERTEC** was carefully aligned and calibrated at the factory. The pedestal was aligned - perpendicular to the floor - by adjusting and locking the two rear base-leg feet. If the respective locking bolts & nuts are not disturbed (and the rest of the unit is not damaged/deformed, etc.), the alignment and calibration should be retained indefinitely.

INITIAL ASSEMBLY (ONE-TIME)

1. The **VERTEC** is shipped with the two base sections disassembled. Using two 7/16" or adjustable wrenches, loosen & remove the lock-nuts from the two bolts that have been inserted through the center of the 3'-long rear base-leg (near the middle), but leave the bolts in place. Hold the front (pedestal-supporting) section of the base so that its bottom tube-cap faces down, and the holes in its back flange align with & fit over the threaded ends of the rear base-leg bolts. Replace & tighten the lock nuts firmly.
2. Put the base on the floor, and place the two disk weights over the pilot tubes. Then carefully center and tap in the two, flanged tube-caps supplied. Once on, the caps are difficult to remove and guard against the weights becoming lost, or falling on someone's foot when carrying the base separately; they also ensure that the weights will always be in place on the base whenever the pedestal is subsequently inserted - so that the unit will not tip over.

DAILY SET-UP (if head and/or pedestal are separated from base for storage)

1. Loosen the base-pedestal lock-screw, insert the pedestal (the pedestal label - **SPORTS IMPORTS** - faces forward), and tighten the lock-screw firmly (by hand, do not use a wrench).
2. Pick up the head, slide the clear vinyl tube back, push or shake the vanes forward, and reposition the vinyl tube about half-way back on the head frame. Loosen the head lock-screw on the pedestal, insert the head as far as possible, and re-tighten the lock screw by hand.

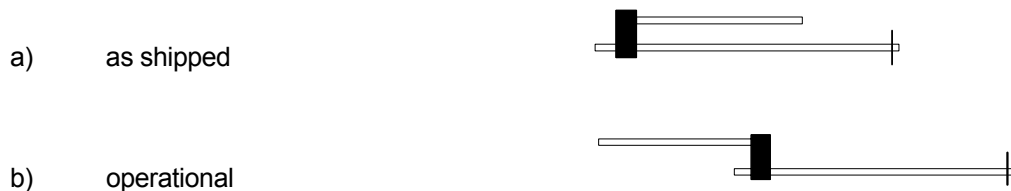
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HEIGHT ADJUSTMENT

1. Loosen the height-adjust lock screw, raise the pedestal until the desired bottom vane height is indicated (when the associated horizontal line is just showing over the top of the lower pedestal tube). Re-tighten the lock-screw by hand (moderate pressure is sufficient here). NOTE: two spring-loaded buttons inside the pedestal impart just enough friction to the inner tube so that it cannot slide freely down of its own weight. This makes it easier to adjust the pedestal height (using both hands) and guards against the pedestal sliding down unexpectedly.
2. Remember to heed the warning at the lower end of the height scale, and do not overextend the pedestal, or the buttons will pop out. If this ever happens, you will need to remove the height-adjust lock-screw and squeeze in the two inner buttons, small end in, with channel-lock pliers in order to re-insert the upper pedestal tube (with its lock screw facing opposite to the lower tube **SPORTS IMPORTS** label.) NOTE: the pedestal may be a little stiff at first, but will wear in with usage. If necessary, rest your foot on a base leg when raising the pedestal.

RESET TOOL SET-UP AND USAGE

1. To set-up the reset tool: loosen and remove the wing-nut & screw holding the shorter tube, remove the tube, and re-insert it as in the drawing below. Replace and re-tighten the screw and wing nut.



2. The reset tool can be used for presetting or resetting some or all of the vanes as desired, simply by holding the tool free-hand, and pushing the vanes (in easy 6-inch groups) ahead or back with the tip of the tool. When there are a large number of vanes to be reset, the extended upper-tip of the handle tube can be inserted into the socket under the head and the upper tube rotated around this axis. If the upper tube deflects slightly at the top, orient the tool a little ahead of vertical to compensate. NOTE: If it seems that there is somewhat more resistance than usual when rotating the entire stack of vanes around with the reset tool, it is a sign that the vanes could use a little light lubrication. This is easily applied by BRIEFLY spraying the attached ends of the vanes and associated spacers with a light aerosol lubricant (a smooth sweep from top to bottom is ample). We recommend "WD-40" or a silicone spray-lubricant.

READING HEIGHT SCORES

1. With a little practice, jump-height scores can be read quickly - knowing the bottom vane height, and remembering the vane color code: red & blue vanes - full inches, with red vanes every 6th inch; white vanes - half inches. To determine the height of the highest touched/displaced vane, simply look towards the axis area of the vane stack, and scan your eyes upwards from the bottom - first looking for any higher displaced 6th inch red vanes, then for full-inch blue vanes, and finally for (one) half-inch white vane, if any. For example, with the head adjusted for a bottom-vane height of 9 feet, and one higher red, three blue, and one white vanes displaced, the score would be 9' 9 1/2".
2. When figuring a number of NET vertical jump values (distance gained over standing reach) you may find it easier to convert both the standing and jump reach values into straight inches, and then perform an easy subtraction. The new **VERTEC** pedestal height-scale lists the 6-inch bottom-vane increments in straight inches, as well as in feet & inches to facilitate this, or you can use the conversion table included with this manual.

SAFETY CONSIDERATIONS

Vertical jump measurement/practice instruments are certainly one of the safer types of athletic equipment to use - when used normally and sensibly. Muscle or joint injuries incurred in the act of jumping itself would appear to be extremely rare, and even those that do occur are far more likely to result from inadvertent or forced unnatural jumps or landings during game actions, than when executing planned jumps during practice sessions. Moreover, considerable thought was put into the design of the **VERTEC** to ensure, among other things, that the pedestal and base would be amply clear of the normal jumping & landing area - so that jumpers could fully concentrate on improving their jump execution, and not have to worry about their safety. But the **VERTEC** is not a toy to be used casually, and without guidelines. You will soon discover that athletes and others find it irresistible to regularly test their jump prowess on the **VERTEC**, given the opportunity - which in fact is part of the secret of its training advantage. However, the following common-sense suggestions are offered:

1. Do not leave the unit out where it is likely to be used by individuals who have not received any guidelines and/or basic rules as to its usage.
2. Prohibit jump approaches by more than one individual at a time, or from other than a normal right-angle direction, e.g. not from an impromptu circuitous/off-line approach; it is helpful, when locating the unit on a gym floor, to position it so that a particular floor stripe marks (at right angles) the very outer edge of the extended vanes, and represents the optimal approach line for the CENTER of the body - the up stretched arm will then naturally intersect with the outer-half of the vane(s).
3. Prohibit usage without proper footwear, i.e. no street shoes, socks, bare feet, and do not use on a surface with unpredictable traction, e.g. a wet floor.
4. Prohibit (pointless) usage by tired individuals, or after a maximum of ten consecutive practice efforts without a rest (2 minutes nominal).

MOVING, STORING THE VERTEC

1. The **VERTEC** can be readily moved while fully assembled, from one location in a gym to another, by tipping the unit backwards over the base, and lifting and carrying the unit by the lower pedestal. For longer moves, it is usually better to disassemble and carry separately, if collectively, the base, pedestal & head sections, and then reassemble them, without fear of disturbing the calibration.
2. When storing the unit, it may be advisable to remove and place the head back in its' inner shipping carton, if there is any chance that the unit could get pushed over, or be damaged by some other piece of equipment. NOTE: while the **VERTEC** vanes are very resilient, they are not impervious to catching on doorways, etc. When storing, transporting (or using) the unit, keep it away from water, excess moisture, etc. If moisture does however enter into the telescoping pedestal, you should promptly separate the upper & lower tubes, dry each inside & out, spray a rust-inhibiting aerosol lubricant like "WD-40" inside the lower (outer) tube, and re-insert the upper tube - following the instructions noted under the second paragraph of the "HEIGHT ADJUSTMENT" section above.



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JUMP HEIGHT MEASUREMENT WITH THE VERTEC

1. To measure maximum jump reach and also compute the net vertical jump (distance actually jumped over the standing reach), it is usually best to make the standing reach measurement first (on the entire group to be tested). This can be readily done on the **VERTEC** also, but if there are a large number of individuals to be tested, and/or only a limited amount of time available, consider making the simple, static, standing-reach measurement against a wall-mounted (or other vertically supported) tape measure which works well for this purpose, and frees your **VERTEC** to simultaneously begin making the actual jump measurements.
2. We suggest making level, two-handed measurements of the standing reach because they are less subject to individual variations in the degree of one-arm, one-sided stretching, and therefore allow for better current and future comparisons of actual jumping ability. Also, it is doubtful that individuals are able to achieve their full one-arm stretching potential during the brief final instant of actual jumps.
3. The athlete must be BOTH comfortably warmed up AND loosened up to jump to his or her true current capacity, so preparation with calisthenics and stretching is desirable prior to any important vertical jump test. On the other hand, fatigue will significantly reduce jumping ability so it is best to not conduct a jump test well into or after intensive athletic practice session (unless an athlete's fatigued jump height capability is in fact what you want to determine).
4. If the jump test is conducted on a gym floor (or other striped area), position the **VERTEC** (freestanding version only) so that the outer edge of the target vanes is marked at right angles - by some particular floor stripe. This then will be the normal approach line for the center of the body, and the up-stretched arm will intersect naturally with the outer portions of the vanes.
5. Conventional jump tests as conducted with the **VERTEC** can entail natural standing jumps, one or two-step jumps, or full-speed running jumps. If necessary, demonstrate the appropriate or desired approach to the group before beginning. Of course, tests of jump-height capability with other unique situation approaches, techniques, etc. can be conducted any way you would like, and devise.
6. The 24-inch **VERTEC** head/vane span can usually be positioned at a height that will accommodate most, if not all, of the jump-reach capabilities of any group of similar jumpers. If you know, or can predict the probable range, adjust the pedestal height so that the bottom vane height will accommodate the lowest jumper(s), because it is normally preferable to have to raise the unit to accommodate someone better than the general group, than vice versa.
7. With all the vanes extended and aligned, instruct each jumper to make one preliminary jump, to gently tap forward a few vanes marking his/her approximate jump reach limit. Then, while the jumper waits, use the Reset Tool to push all the vanes, up to and including the highest touched vane, out of the way.
8. Following the preliminary jump (plus one or two more familiarization jumps if it is the athlete's first time using the **VERTEC**), allow the jumper to make some specified number of attempts to better the initial mark, or allow them to continue their jump trials as long as they keep improving on the mark, and then cannot touch any higher vanes in two successive attempts. There is no need to reset the touched vanes between efforts in this type of jump test.
9. With some first-time **VERTEC** users, after they have made some initial jumps to familiarize themselves, you may want to advise them to shift their attention from contacting the **VERTEC** vanes, to concentrating on attaining their best possible jump action (with a maximum terminal vertical velocity and jump height). Also, with certain current or would-be volleyball "power hitters," you may want to suggest that, for this purpose, a better vertical jump mark might result if they focused more of their abundant energy into their lower-limb jumping muscles, rather than into using their arm muscles to needlessly "smash" the **VERTEC** vanes forward. If possible, have some good jumpers lead off to demonstrate good, efficient jumping form. Finally, if practical with first-time jump test subjects, allow a second test bout after a minimum of five minutes rest, or in the following day(s).

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