

## PROCEDURE TO SET UP AN INSTRUMENT WITH OPTICAL PLUMMET

1. **Set up tripod with head approximately level and in close proximity to the survey point.**
2. **Place instrument gently on tripod head; and tighten with fastening screw.**
3. **Be sure optical plummet is focused correctly. The reticle should be adjusted for your eyes and the survey point should be in clear focus.**
4. **Move tripod until survey point can be seen through optical plummet, & set tripod legs firmly in the ground.**
5. **Turn the leveling foot screws to center the surveying point in the reticle.**
6. **Observe the off-center direction of the bubble in the bull's eye level. Shorten the leg nearest that direction or lengthen the leg farthest from that direction. (Generally, two legs must be adjusted to center the bubble.)**
7. **Align level vial over two foot screws and adjust the level vial by turning one of those screws.**
8. **Rotate instrument to be perpendicular to those two foot screws. Now adjust level vial using the third foot screw. (This may need to be repeated more than once.)**
9. **Check optical plummet again. If the surveying point is off-center, loosen the tripod fastening screw and re-center the point. (Be sure to slide the instrument directly toward the point. Do not rotate the base of the instrument during this procedure.) Tighten the fastening screw.**
10. **Recheck plate level vial. If it is not precisely level in both directions, repeat step 7 and 8.**