



## **Laser Level Trouble shooter**

### **2. Manual level going out of level during the day.**

You set the laser level up in the morning and it seems to go out of level as the day goes on.

There are four main causes of this:

- 1. The tripod the level has been set up on gets knocked.**
- 2. Vibration by people or machinery close to the level makes the tripod move in the soil.**
- 3. If the soil is excessively wet the tripod can sink as the day goes on.**
- 4. As the sun heats up and clouds cool down the work site the tripod will expand and contract slightly.**

This is a normal problem that can affect all manually leveling and non-continuously auto leveling laser levels. The answer for all situations is to check the level, re-check the level and continue to re-check the level as the day goes on. There are, however, precautions you can take to help prevent this:

- 1. Locate the laser level and tripod away from people and machinery.**
- 2. Locate the tripod on solid ground.**
- 3. Locate the tripod in constant shade if possible.**

One further note on heat changes. Bubble vials are affected by heat, in that you will notice the bubble shrink as the temperature rises this does not have any effect on CMI manually levelling lasers as long as the bubble is still central in the vial the laser will still be level.

Some brands of lasers using a gradient vial where the edge of the bubble is used for setting the level point. In these lasers changes in size of bubble will alter the accuracy of level considerably and in fact the laser will only be accurate when the ambient temperature is the same as when the level was calibrated in the first place.

An automatically leveling laser using a continuously leveling system will automatically take effect of any of the changes mentioned above, however, care should be taken as the height the laser beam was set may change as the day goes on which may be relevant in your job.

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