

User DR400 Static Tilt Compensation Calibration Check

Note: Before each use, be sure to check the DR400 for signs of damage. If the DR400 has been dropped or subjected to other rough treatment, it should be checked for accuracy. See the check procedure below.

Equipment

Grade Rod
Rod clamp
Transmitter
Instructions

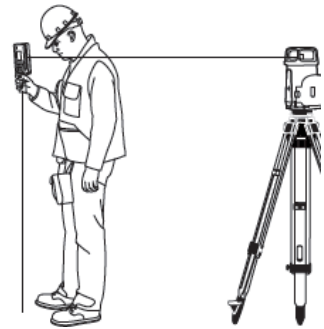
Procedure

To perform the static tilt compensation calibration check use the following procedure:

1. Select a flat and level target surface 20cm (8 inches) in diameter or larger and a target that is flat and level within 1mm (<1/16 in).

Note: The target surface should be of good LDM reflection material (not black).

1. If using a floor or large surface, mark the surface to ensure readings are taken inside the flat level area.
2. Set up a known good transmitter at 3-8m (10 – 26 ft) range away from the DR400.
3. Set the DR400 UNITS to Meters.



CAUTION: Do not disturb the transmitter or target surface during the test.

4. Attach the DR400 to a grade rod for stability. Take a BM reading of the target while holding the DR400 static & plumb.
5. Set the BM elevation to 0.000m and take 4 point readings of the same target relative to the BM as described in the next 2 steps.
6. Tilt the DR400 to the RIGHT to the maximum 30 degrees tilt angle allowed and take a point reading of the target. Record the reading.
7. Repeat step #7 with the DR400 tilted to the LEFT, FORWARD, and BACK until you have recorded a total of 4 readings covering all tilt directions. CAUTION: Hold the DR400 still during readings.

Note: If the any of the 4 point readings vary from the bench reading by more than 3cm (0.030m), have the unit re-calibrated by a service center. For example, if the BM elevation was 1.500 meters, the 4 point readings should all be between 1.470 and 1.530 meters.

Calibration

Your main point of contact for all communication for DR400 calibration are:

CT_Support@Trimble.com in the Americas, Asia Pacific

Kaiserslautern@Trimble.com for Europe Middle East and Africa