**EDM Calibration**

**Unknown baseline check**

This is a method of checking the total station prism combination. It is a simple procedure that requires 3 tripods and tribrachs and one prism. Set the three tripods up in a line, lined up by eye is good, at a spacing of 30 to 50 metres, they do not need to be setup over anything. The tripods or tribrachs are **NOT TO BE MOVED** during the procedure

Tripod A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Tripod B\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Tripod C

30-40m 30-40m

1: Place the instrument in the tribrach at B. Measure B to A and B to C (horizontal distance.)

2: Place instrument in the tribrach at A. Measure horizontal distance A to C

Any error is contained in each measurement. B to A, B to C and A to C, therefore the sum of (B to A) + (B to C) contains the error twice, while (A to C) contains the error only once.

**USE ONLY ONE PRISM PER CHECK. DO NOT MOVE TRIPODS or TRIBRACHS.**

**SET UP 1: Instrument at ‘B’. Move the prism from ‘A’ to ‘C’.**



**SET UP 1: Instrument at ‘A’**



**Instrument at ‘B’:**

Measure ‘B’ to ‘A’

**Move the prism to ‘C’**

measure ‘B’ to ‘C’.

**Instrument at ‘A”:**

measure ‘A’ to ‘C’

The table should look like this.



THEREFORE: the error equals (B to A) + (B to C) – (A to C)

The most important thing to remember is that we are testing the EDM / PRISM combination. We are not testing the ability to setup, tribrachs or anything other than the above.