<u>**Instructions for KIT 10**</u>

SET-UP AND OPERATION OF EDM

(Electromagnetic Distance Measurement)

<u>**Horizontal Jumps**</u>

Preliminaries: Ensure all batteries are put on charge well before the meeting.

1. **For Long and Triple Jump**

a) **Location:** Must give a clear and complete view of the landing sand pit and take off board.

b) **Assembly and Levelling:**
   i. Ensure tripod is set firmly into the ground at a convenient working height for all users with top plate as level as possible (use spirit level).

   ii. Fit tribrach, making sure securing screw is tight and base cannot move.

   iii. Level Tribrach, use two foot screws to centre bubble between them then adjust remaining screw to centre bubble in bubble-level.

   iv. Fit geodimeter on tribrach (power socket goes in recess), lock tribrach in place.

   v. Adjust for parallax - hand in front of telescope and check hairlines are sharp, adjust lens as necessary.

   vi. Connect external batteries or mains power source (if used).
   TO POWER SOCKET ON TRIBRACH, NOT KEYPAD.

c) **Setting up the Instrument:**
   i. Turn power on.

   ii. Either press **YES (enter)** to continue if already set up or **NO (←)** for machine to go to set up.

   iii. Check level on display - if necessary carefully adjust on tribrach foot screws to centre both index marks *[Prolonged adjustment will force return to c) i.]*, and press **ENTER (Yes)**.

   iv. Machine will perform self checks and rotate around then rotate back again.

   Note:

   v. Enter approx. temperature, press **ENTER (Yes)** (*it may be necessary to press 'ENTER' twice*).

   vi. Enter approx. atmospheric pressure, press **ENTER (Yes)** (*it may be necessary to press 'ENTER' twice*).

   vii. Enter prism constant **Offset = 0.00**, press **ENTER (Yes)** (*it may be necessary to press 'ENTER' twice*).

   viii. Enter **HA ref = 00.00.00**, press **ENTER (Yes)**.

Machine Serial Number 61210057 Keypad 60413166
Instructions correct 11/10/09

ix.   Press **PRG 24,** then enter

x.   Enter Job No. **'1'**, press **ENTER(Yes)**.   Instrument reads: **IMEM**

                                                                                         EXMEM

                                                                                         SERIAL

xi.   Ignore, press **ENTER(Yes)**.

xiv.   Screen shows :   **1 Known Line**

                                      2. Unknown Line

xv.   **Select 2**

xvi.   Screen shows   **STN = 1**   **- press YES**

xvii.   Screen shows   **HT measure?**   **- press YES**

xviii.   Screen shows   **Ih = 0**   **- press YES**

xix.   Screen shows   Ref. line point A
                                     Pno =   **- Enter 1, press YES**

xx.   Screen shows   **SH = 0.000**   **- press YES**

xxi.   Screen shows   **STD**
                                     HA
                                     VA

xxii.   Focus on prism on one end of take off board   **- Press A/M**

xxiii.   Instrument shows "measuring", when finished - **Press Reg**

xxiv.   Screen shows   Ref. line point B
                                     Pno =   **- Enter 2, press YES**

xxv.   Screen shows   **SH = 0.000**   **- press YES**

xxvii.   Screen shows   **STD**
                                       HA
                                     VA

xxviii.   Focus on prism on other end of take off board **- Press A/M**

xxix.   Instrument shows "measuring", when finished - **Press Reg**

xxx.   Screen shows   **Dist A – B =**
                                     Start = 0.000   **-   Press YES**

xxxi.   Screen shows   **1. Measure**

| | | **2. Setout** | | |
| | | **3. Exit** | - | **Select 1** |

xxxi.	Screen shows	**Slope** = *xx.xxxx*	-	**Press YES**
xxxii.	Screen shows	**SH = 0.000**	-	**Press YES**

xxxiii. Screen shows **STD**
HA
VA

Set-up is finished.

d) Taking Measurements.

i.   For a measurement, focus on the prism.

ii.   **Press A/M**

iii.   Screen shows
STD   = ……………
RAD OFFS = ……………
RT of s   = ……………
DELE: = ……………

iv.   **Read RT of s** -   This is the distance and may show as negative.

iv.   For the next jump just focus on the prism and press A/M again and so on.

v.   Immediately before and after the competition, confirm the instrument accuracy on two pre-measured check marks at either end of the pit and at the centre of the take-off board (this last one should of course read zero)

vi.   Helpful hint:- Refocus on the centre of the pit between jumps to minimise change when measuring.