

# PRECISION GEOMATICS

## CHECKING SETTING OUT CAPABILITY ON SET 6F, SET600 AND SERIES100 INSTRUMENTS.

Refer to setting-out instructions for individual instruments for the setting-out procedures. This is designed for checking operation of instrument and 'operator' over the telephone.

### Set6F:

Switch on instrument and initialise.

Go to S-O mode.

Press Stn\_P and input co-ordinates of: E. 100.000 enter  
N. 100.000 enter  
Z. 10.000 enter

Press BSang, select BSP, and input co-ordinates of:  
E. 110.000 enter  
N. 110.000 enter  
Z. 10.000 enter

Obs? Yes to calculate the back bearing.

HAR should now read 45°00'00" Enter.

Press SO\_P and input co-ordinates of: E. 100.000 enter  
N. 110.000 enter

Press SO\_D, the distance should read 10.000m

Press SO\_HA, dHA should read -45°00'00"

HAR should still read 45°00'00"

### Set600:

Select Setting Out function, FUNC, S-O, and then scroll to:

Stn data -- Enter the co-ordinates of: EO. 100.000 ↓  
Using the Edit key. NO. 100.000 ↓  
ZO. 10.000 OK

Scroll to Set H angle, and then Back sight.

Enter co-ordinates of Back Sight as: EBS. 110.000 ↓  
NBS. 110.000 ↓  
ZBS. 10.000 OK

This then displays Stn co-ordinates. OK.

Set H angle -- Take BS -- YES.

This calculates back bearing. ESC to show HAR 45°00'00"  
S-O, and then scroll to S-O data, Enter, COORD.

Enter the setting out data using co-ordinates of:

Ep. 100.000 ↓

Np. 110.000 ↓

OK, the SO dist should be 10.000m, and SO hang 0°00'00"

### Set100 Series:

Select Setting Out function, FUNC, S-O, and then scroll to:

Stn data -- Enter the co-ordinates of: EO. 100.000 ↓  
NO. 100.000 ↓  
ZO. 10.000

OK.

Scroll to Set H angle, and then BS. This shows the EO,  
NO, ZO co-ordinates of the set-up point.

Scroll down to EBS.

Enter co-ordinates of Back Sight as: EBS. 110.000 ↓  
NBS. 110.000 ↓  
ZBS. 10.000

OK, -- Take BS -- YES.

This calculates and displays back bearing, 45°00'00"  
Enter.

Scroll up to S-O data.

Enter the setting out data using co-ordinates of:

E. 100.000 ↓

N. 110.000 ↓

OK, the SO dist should be 10.000m, and SO hang 0°00'00"

If the 10.000 distance OK and/or the setting out angle are incorrect then the instrument is likely to be not working correctly. If the answers are correct, but when the engineer puts his setting out data in and the points are in the wrong place then the coordinates are likely to be wrong. Get them to check the coordinates they have been given.