

13 Helpsheet



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Systems for Geotechnical Engineers and Geologists

Hardware

Digital Pressure Interface

Setting Gain of Pressure Measurement

1. Introduction

Sometimes the range of pressure measurement may change owing to movement of the gain setting potentiometer caused by thermal effects or vibration during transportation, or by ageing of the electronic components. This effect is rare but when it occurs it is necessary to reset the gain against a standard pressure i.e. to recalibrate.

2. Recalibration

To set the gain on a digital pressure interface (DPI) the following procedure should be followed:

1. Ensure that the DPI has been on continuously for a period of 24 hours.
2. Remove the soft zero offset by selecting "remove zero offset" from the "SYSTEM" menu and then pressing "YES".
3. Remove the six screws holding on the top-plate and gently lift the front edge of the top-plate by about 150mm so that access can be gained to R62, R600, R68 and CON9, on the main board directly beneath the control panel.

WARNING: Do NOT touch the POWER SUPPLY to the right of the main PCB, put a piece of thick insulating card between the potentiometers and the power supply while you are adjusting the potentiometers.

4. Using the connector provided, connect the pressure outlet to a zero reference pressure* and use the potentiometer R600 to set the pressure reading to zero.
5. Connect the pressure outlet to a reference pressure* of 2000 kPa and use the potentiometer R62 to adjust the pressure reading to 2000 kPa.
6. Replace the top plate.

* ***The pressure reference could be a GDS digital controller that has also been powered on for at least 24 hours.***