

14 Helpsheet



World Leaders in Computer Controlled Testing
Systems for Geotechnical Engineers and Geologists

Hardware

Advanced Controller

Setting Gain of Pressure Measurement – Mark II

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

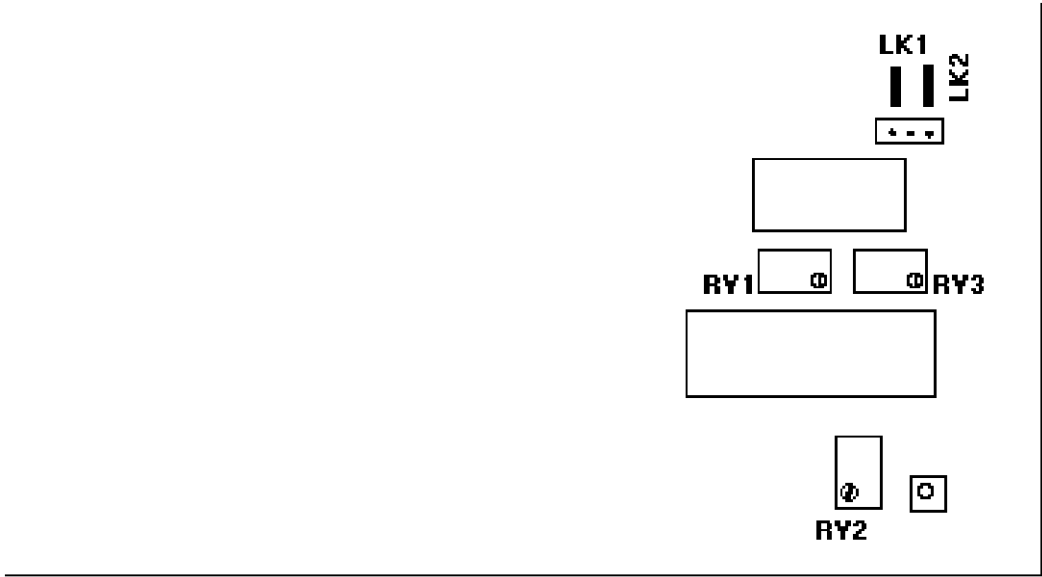
To set the gain on a MKII controller the following procedure should be followed:

1. Ensure that the controller has been on continuously for a period of 24 hours.
2. Remove the soft zero offset by using the keystroke sequence RESET, ZERO, EIGHT
3. Remove the eight screws holding on the front panel and gently lift the front panel so that access can be gained to RV2, RV1, RV3 and LK1 and LK2.

WARNING: Do NOT touch the POWER SUPPLY to the right of the main PCB.

4. Using a calibrated voltmeter check that the reference voltage across the two metal links LK1 and LK2 is exactly 10.000 volts. If it is not it can be adjusted with potentiometer RV3.
5. Connect the pressure outlet to a zero reference pressure and use the ZERO potentiometer on the front panel to set the pressure reading to zero.
6. Connect the pressure outlet to a reference pressure of 2000 kPa and use the potentiometer RV2 to adjust the pressure reading to 2000 kPa.
7. Replace the front panel.

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



Layout of components at bottom right of MKII circuit board