

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

## **168** GDS Helpsheet

Hardware

## ELDPC

## How to calibrate an ELDPC using GDSLab

Start by opening GDSLab and connecting the ELDPC to the computer.

Connect (using the object display) the controller and make sure the correct serial number appears.

Left click on the ELDPC and a window should pop up (below)

GDS Entry Level Controller Driver					
GDS Entry Level Controller	Driver				
OSS INSTRUMENTS LIMITED Winkl Leaders in Computer Control of Tentog Systems for Carolonical Experimentation wave generationent aco					
Controller Serial Number GDS13720					
GDS ELDPC Connected					
Select ELDPC Controller					
Disconnect ELDPC Controller from PC					
User Calibration					
Close					

Select 'User Calibration' and the following (below) box should pop up

Callibration & Settings	second lines have				
File					
User Callibration Pressure Sensitivity Pressure Offset Volume Sensitivity	0.3886198 52- 0.0941712	P.Units/Count Counts V.Units/Step	Least Squares Calculator	Reset to Factory Retrieve User Write User	

Using the least squares method calibrate the transducer with a known source, i.e. a Buddenburg calibration rig, please be careful not to over range the transducer (Max pressure is 1MPa) as this will not be covered by GDSInstruments.

Least Squares Calcula	ator	×		
Callibrate from Pres	sure Reference:	Calculate		
Pressure (P.Units)	Counts	Least Squares Fit		
		Insert		
		Load		
		Save		
		Clear		
Reference (kPa)	Counts (LT Av)	Remove		
0	-54	Add		
Calculated Parameters Sensitivity (P.Units/Count Offset (Counts)				
Correlation Coeffic	ient Cancel	Use		

Load incrementally the controller with known loads and fill out the form following the steps below

- 1) Load the transducer
- 2) When as targeted load click 'add'
- 3) Repeat until all loads have been recorded
- 4) Click on calculate least squares fit
- 5) Click save the store the calibration

Once complete save the calibration and restart the controller to complete the calibration