

# 6 GDS Helpsheet



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

Hardware

Advanced Controller

Installation of Pore Pressure Transducer

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## 1. Introduction

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The GDS digital pressure/volume controller is provided with a tapped hole which enables a pressure transducer to be plumbed directly to the underside of the outlet end of the pressure cylinder. This helpsheet tells you how to replace the transducer should this become necessary.

## 2. Connecting the Pressure Transducer

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With the help of a colleague remove the top plate. This is done by first removing the 8 cap-headed Allen screws fixing the top plate to the lower case. Gently raise the top plate making sure you do not stress any of the cables connecting elements of the top plate to elements in the lower case. Disconnect these linking cables making sure you make full notes including diagrams of their location and orientation i.e. which way round the connectors go, and so on. Lay the top plate back onto a soft rubber mat.

Vent the pressure outlet with a length of nylon tube down into a bucket. This will allow water in the cylinder to flow out when you remove the transducer. Remove the transducer and clean and dry the threads of the connection into the cylinder.

Apply to the threads of the new transducer a small amount of the Loctite hydraulic sealant 542 provided. Screw the pressure transducer into the connection in the underside of the cylinder.

Reassemble the top plate to the lower case being careful not to trap any cables. Make sure the cables are reconnected correctly referring to your notes made when disassembling. If you are not sure about the layout look inside another controller.

Using the FILL and EMPTY functions refill the controller with deaired water.

***Under no circumstances attempt to deair the inside of the transducer by inserting any kind of device as this will almost certainly cause damage to the transducer diaphragm. Provided you use appropriate pressures, the small amount of air in the transducer will compress and pass into solution.***