

81 GDS Helpsheet



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

Hardware

Standard Controller

Upgrading/changing firmware Chips

1. Introduction

This document describes how to install new or upgraded Standard controller firmware chips.

This requires the exchange of two electronic chips on the motherboard of the Standard Controller. The firmware chip is a 28 pin, and the μ chip is 8 pin.

2. Changing the Chips

To change the chips first remove the controller top-plate. To do this, get a colleague to help you. Undo the screws around the top plate and gently raise the front edge. You will see two ribbon cables. Be careful not to stretch them too far. Note the orientation of the connectors on the board. While your colleague holds the top in the raised position, unplug the ribbon cables. You will now be able to lift the top plate clear of the case. Do this by rotating the top plate so it rests on the bench top behind the case.

Looking at the main board, remove the components labelled U4 and U17. Use a small screwdriver to lever gently each end of the chip. Make sure you do not damage the board or any components while you are doing this.

Replace the removed chips with those supplied by GDS. If you are unfamiliar with the procedure of putting a new chip in place please ask a qualified electronics technician to carry out the procedure for you.

3. Note: Orientation of the Chips

Both chips have small 'cut-outs' at one end. This signifies pin 1 is at this end. Pin 1 on both chips should face towards the back of the controller (or up the page on the picture below). Also, although chip U4 has 28 pins, the chip housing has 32 pins. The chip should be placed at the very bottom of the housing, thereby leaving a TOTAL of 4 holes spare at the top of the housing.

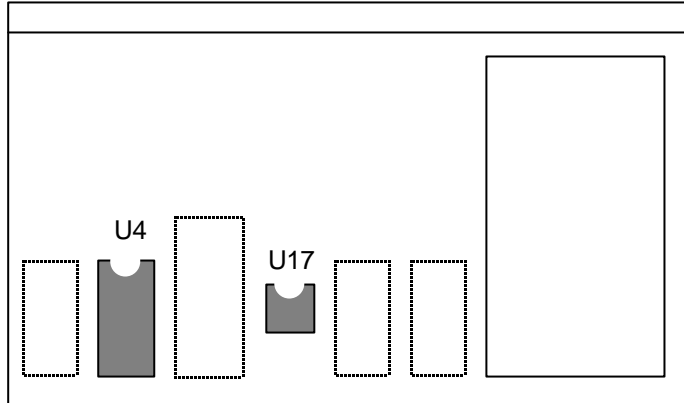


Diagram of Standard Controller main motherboard with chips U4 and U17 to be replaced.