

# 88 GDS Helpsheet



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

Hardware

CSWS

System Configurations

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## 1. Introduction

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The system comes as standard with three geophones. An additional 3 geophones (optional) can be included at additional cost to extend the length of the array. This allows a more representative area to be tested. The use of 6 geophones also enables two tests (using 3 geophones each) to be carried out in orthogonal directions (at right angles) simultaneously.

## 2. Large Vibrator or Small Vibrator

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The use of the large vibrator allows more energy to be transferred into the ground. This is of particular benefit on soft sites allowing lower frequencies to be reached. The larger vibrator will generate useful frequencies down to 5-6Hz, whereas the small vibrator will only impart useful energy levels down to 8-9Hz. This difference is very important when using the factored wavelength method of inversion because the difference in penetration depth may be quite large, even with this small change of frequency.