



## Fast Fourier Transform Feature for PIT-V and PIT-FV

Both Pile Integrity Tester models are offered with a FFT feature. FFT stands for Fast Fourier Transform, a computational algorithm which calculates the various frequency components of a recorded signal.

The analysis of PIT signals in the frequency domain aids in detecting anomalies and estimating their locations as well as the length or thickness of a certain structural element. In particular, the dominant frequencies may reveal the length of the foundation or the distance to a major defect and its relative dynamic stiffness.

The frequency response of PIT signals is usually determined by the PIT-W Professional software (in a computer). With the addition of the FFT feature to the PIT itself the frequency response is available immediately, on site. The FFT feature includes peak detection with automatic calculation of associated distances and length values. The hardwired PIT FFT function is particularly helpful for determining the length of relatively short foundation elements (say up to 1.5 m), for which FFT reveals a length related dominant frequency.