

## MEA2268 ABug Soil Moisture Logger

The MEA Bug soil moisture loggers are a low cost, continuously recording, soil moisture monitoring system. The Bug system is simple to use and incorporates all the functionality needed for soil moisture monitoring.

The ABug is one of four soil moisture loggers in MEA's Bug range. It is designed to work with the AquaFlex soil moisture sensor manufactured by Streat Instruments.

The ABug is used with the MEA Retriever to capture soil moisture and soil temperature data from 1 or 2 connected AquaFlex sensors, without the need for expensive cable or telemetry systems.



Readings can be collected in the field in a matter of seconds. The data can be analysed on the spot and taken back to the office for interpretation on a computer.

The AquaFlex sensor is an accurate volumetric soil moisture sensor. It uses a modified Time Domain Reflectometry

technique and averages soil moisture over its 3 metre length which is approximately 6 litres of soil, making it ideal for use in shallow rooted annual crops, industrial applications, organic recycling/composting, turf and sports fields.

Readings of soil moisture are taken automatically every 15 minutes. The readings are stored within the memory of the ABug.

The memory is structured so that it always holds the last 28 days worth of readings: eight days at 15 minute intervals and 20 days at two hourly intervals.

Data from the ABUGs is collected using the MEA Retriever. The readings are transferred to the Retriever by wireless connection.

To download data, hold the Retriever within a metre of the ABug, tap the ABug to wake it up and the data is automatically transferred.

The Retriever display will show the current readings, confirming that the transfer has been successful. In the field assessments can be made without the use of a laptop computer.

The Retriever can download between 25 and 100 sites depending on the mix of ABUGs, TBUGs, GBUGs and GTBUGs in use.

The data stored in the memory of the Retriever is then downloaded to a Windows compatible PC using the software program provided. Soil moisture data can be viewed in graph or tabular form. Full and refill points can be set for the soil moisture values and data can be exported easily to other programs.

The ABug is connected to the sensors via a pair of 4-pin connectors. Power for the ABug and sensors comes from a set of 4 alkaline batteries.