ENJOYING THE VIEW IN THE FIELD OF LOCATING

by Steve Benzie, Technical Manager, Vivax-Metrotech

After recognising that utility location activities exist in a three-dimensional sphere, Vivax-Metrotech has advanced locating technology with the introduction of the vLoc3-Pro. With the technology, operators can access a range of viewing modes suited to different locating situations and the internal capacity to store 50 million records.

Locating buried utilities has fundamentally stayed the same ever since it was discovered that conductors carrying a current radiate an electromagnetic field can be detected by a few copper windings positioned in the magnetic field. Of course, things have refined since those early days, but fundamentally the techniques are the same: the signal strength from a radiating source is detected and shown on a display in two dimensions.

A NEW APPROACH

Vivax-Metrotech has taken a fresh look at the fundamental procedure and approached the problem by acknowledging that the space around us is three dimensional and the signals are also three dimensional. The vLoc3-Pro, which the company has recently introduced, uses six antennae to analyse the signals, allowing new and exciting views of the locate environment and offering a total of five viewing options.

CLASSIC SCREEN

The machine's classic screen displays all of the features you expect to see, in addition to a colour coded bar graph indicating the quality of signal received and the ability to switch to 'omni mode' that allows the user to detect a service from any direction, speeding up the locate procedure.

VECTOR SCREEN

The vector screen shows a cross sectional view of the ground below the locator and the position of the line is shown accurately even when not directly over the line. The operator receives continuous information, with the display indicating lateral displacement and the depth to the service.

The size of the ring around the utility indicates confidence level – the smaller the ring the better the confidence. It also offers a simultaneous plan view of the utility being located.

THE VLOC3-PRO

Dimensions: 321 mm x 124 mm x 676 mm

Weight: 2.1 kg

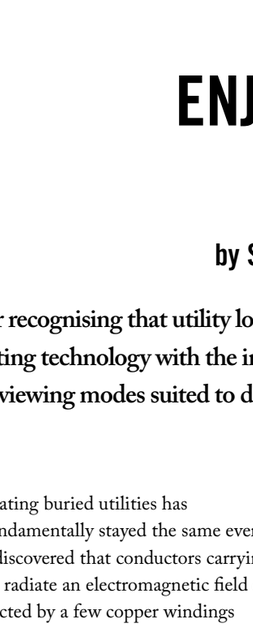
Display: 480 x 272 px high visibility LCD

Battery life: approximately 12 hours intermittent use with six AA alkaline batteries; approximately 27 hours intermittent use with rechargeable lithium-ion batteries.

Data export formats: .xlx, .txt, .fhp, .kml

Optional accessories:

- A-frame fault locator
- remote antenna
- Bluetooth module
- GPS module
- vehicle charging DC lead
- radio link
- range of sondes



The vLoc3-Pro displaying the classic screen.

The vLoc3-Pro.

PLAN VIEW SCREEN

This screen shows a plan view, as if the operator were looking into the ground. It uses 'tram lines' to indicate confidence level; the further apart the tram lines are, the less confidence there is in the information. It also provides continual depth and current updates.

TRANSVERSE SCREEN

The transverse screen is for those wishing to analyse the quality of signal radiating from a utility line. Sweeping over a service records the horizontal (peak indication) and vertical (null indication) fields. In an ideal 'pure' signal, the peak and null indicators should coincide with each other.

SONDE SCREEN

Operators that have tried to locate non-metallic pipes using devices called 'sondes' will know that the process is complicated and can lead to mislocates. This unique screen and process takes the complexity out of locating sondes, allowing the operator to follow the arrow until the sonde icon is centralised – it's as simple as that.

KEEPING RECORDS

The features of the vLoc3-Pro do not end with the availability of different displays.

The machine is housed in a robust plastic housing designed to last in harsh construction environments and has an environmental rating of IP65. The vLoc3-Pro's vast memory allows for the storage of 50 million records of locate data, which is further enhanced by the optional Bluetooth module enabling integration with external GPS and mapping devices.

The unit is also compatible with Vivax-Metrotech's mobile mapping app 'VMMAP' and allows for seamless integration with the cloud, making data instantly available for access.

A factory fitted radio link, which is an optional accessory that can be ordered, allows control of the transmitter from the receiver. This means the operator can control the transmitter, without time consuming trips back and forward to the unit. **T**

ABOUT VIVAX-METROTECH

Vivax-Metrotech is a leading company for the development and manufacture of equipment for locating pipes and cables, fault location, and CCTV inspection cameras. The company provides equipment to a range of market sectors, including electrical networks, pipe networks, trenchless technologies, communications networks and diesel control.

For more information visit **www.vivax-metrotechaus.com**