

PARTIAL DISCHARGE TESTER

An affordable and convenient method of detecting discharge activity, particularly relevant to RMU's and Fuse Switches.

By Greg Linton, HV Diagnostic Services Ltd

A series of versatile instruments are available for online condition assessment of 11kV switchgear and are particularly suited to testing Oil filled fuse switches and Ring Main units. With the focus frequently on larger Zone Substations, these distribution units are often overlooked when it comes to preventative maintenance policies.

The UltraTEV from EA Technology combines both Transient Earth Voltage and Ultrasonic sensors. It is intended to quickly detect the presence of discharge activity, and give an indication if further investigation is needed through detection of both Airborne and Electromagnetic activity.

Surface tracking or Corona is detected by scanning any air paths to the inside of the switchgear while TEV activity may be detected non-intrusively by placing the probe on the outside of the switchgear whilst it is in service.

PROVEN THRESHOLDS

The instrument allows an operator with minimal training to rapidly assess the

insulation condition by performing a 'Level 1' survey. Indication is immediate and provided by two multi-level LED's, the proven thresholds are based on over 6000 Substation surveys and the many thousands of individual switch readings on record.

A cost effective method to enhance your current asset management practices, or as a way to introduce Partial Discharge condition monitoring techniques to your network, the UltraTEV will integrate easily into present inspection routines or can be used to drive industry best practice programs that will assist with maintenance planning.

MONITOR ONGOING TRENDS

As a personal safety device it is uniquely placed in the market to offer protection to front line staff allowing fast verification that a switch is in good order prior to operating. It is also an excellent tool for confirming the effectiveness of repairs and maintenance allowing 'before' and 'after' checks to be made, or as a way to monitor ongoing trends.

The UltraTEV is a lightweight handheld scientific instrument capable of up to 8 hours continuous operation. It is supplied in a protective case and comes complete with Charger, Function checker, Calibration certificate and a comprehensive Manual.

MORE DETAILED EXAMINATION

The range also includes the MicroTEV & MiniTEV, all of which allow the Network owner to identify and prioritise equipment in need of a more detailed examination. They are designed to compliment the professional PD Location and Continuous Monitoring services provided in New Zealand by HV Diagnostic Services Ltd. Those units identified as requiring further analysis can often be included for survey during the annual visit and checkup of their Zone Substation switchgear.

Increasingly, Network companies and contractors are adopting these instruments to assist with maintenance and planning.

Further information is available online at www.hvds.co.nz.

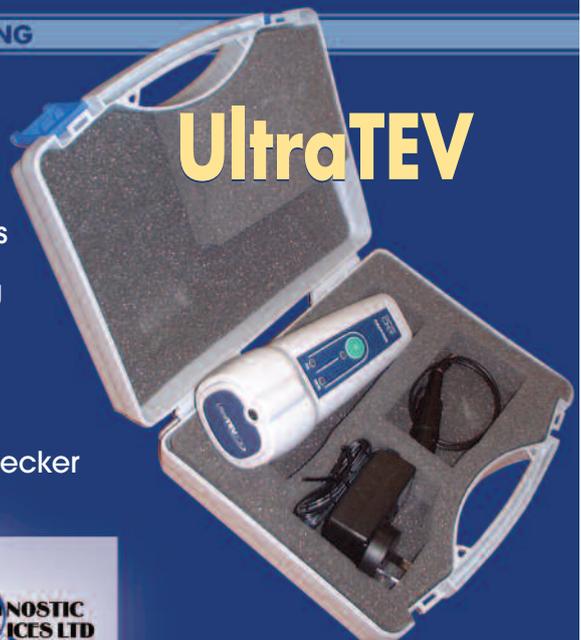
Alternatively, please contact Greg Linton of HV Diagnostic Services Ltd.

SPECIALISTS IN PARTIAL DISCHARGE LOCATION & MONITORING

Now Ring Main Units don't have to miss out on PD

- Electromagnetic (TEV) & Ultrasonic Sensors
- Proven thresholds require minimal training
- Rapidly gather plant condition data
- Lightweight & easy to use
- Supplied with case, charger & function checker

UltraTEV



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For further information on UltraTEV, contact Greg Linton. Locating Partial Discharge since 1998, no-one's been doing it longer!