



UltraTEV Plus+™

multi-functional Partial Discharge (PD) instrument

All the features of our award-winning UltraTEV Detector™ - plus a great deal more

www.eatechnology.com

PRODUCT CODE: UTP1

Delivering Innovation in Power Engineering

benefits

- Measures accurate data on PD activity
- Works with many different types of assets
- Highly user friendly with little training required
- Low ownership cost - one instrument replaces several
- Excellent value and return on investment

features

- The core functionality of the UltraTEV Plus+™, is a combination of our UltraTEV Detector™ and UltraMet Plus+™ – all in one hand-held instrument
- Detects and measures PD activity as numerical values for both ultrasonic and TEV emissions
- Menu-driven backlit colour screen and keypad
- Locate and listen to ultrasonic PD activity with headphones included
- Switchable modes: one-shot PD detection or continuous measurement
- Lightweight, ergonomically designed and tough
- Long-life rechargeable internal Lithium-Ion (Li-Ion) battery
- 3.5mm headphone socket and external ultrasonic sensor port

valuable data for power engineers

Detecting and measuring Partial Discharge (PD) activity is the key to understanding the condition of your MV assets – and achieving greater network reliability and safety.

With the UltraTEV Plus+™ you can instantly check whether:

- Assets are free of partial discharge
- PD activity is at a level which warrants further investigation
- Activity is at a level which requires immediate maintenance intervention
- Assets are in a dangerous condition

multiple functions

The UltraTEV Plus+™ combines the functionality of our UltraTEV Detector™ and UltraMet™ – all in one hand-held instrument.

This amazingly versatile instrument is designed to provide Power Engineers with:

- Ultrasonic detection of surface PD activity as numerical decibel values AND as audible signals, which you can hear through the headphones provided.
- Measurement of internal PD activity in the form of TEV (Transient Earth Voltage) signals, which you can view on screen as numerical values.
- Continuous PD measurement mode, incorporating displays of maximum level, pulse count per cycle, severity level etc.
- Single shot PD measurement function also provided.
- UltraDish™ option for overhead assets

multiple uses

Use the UltraTEV Plus+™ to:

- Investigate UltraTEV Detector™ ‘red lights’
- Rapidly survey the condition of whole substations
- Compare changes in PD activity levels between assets and over time
- Gather valuable data for asset condition registers
- Check working environments for safety

To find out more, why not see the Podcasts at:
www.eapodcasts.com

UltraTEV Plus+™ service packs

When you purchase an UltraTEV Plus+™, we can provide you with additional condition assessment Service Packs. These are supplied by EA Technology's Services Business and offer exceptional value for money.

The packages offered with the UltraTEV Plus+™ are:

service packs

UltraTEV Plus+ Service Pack 1

Add-on for UltraTEV Plus+™ owners includes:

- Benchmark PD Survey of up to 30 assets
- On-site training in use of UltraTEV Detector™ or UltraTEV Plus+™
- 12 month technical support
- FREE instrument calibration after 12 months

UltraTEV Plus+ Service Pack 2

Add-on for UltraTEV Plus+™ owners includes:

- Full benchmark survey including PD Survey, Live Tank Oil Sampling (LTOSTM) and analysis, plus trip timing tests
- Collection of condition data and history to prepare asset register with health indices
- Control of hazard database
- 12 month periodic collection of oil samples and trip time tests, returned to EA Technology for analysis and recommended actions
- 12 month technical support
- FREE instrument calibration after 12 months



Menu-driven, multi-functional display of TEV and ultrasonic values.



Optional external microphone extends reach.

specification UltraTEV Plus+™

TEV	
Measurement Range	0 – 60 dBmV
Resolution	1dB
Accuracy	±1dB
Max Number of Pulses/Cycle	655

ULTRASONIC	
Measurement Range	-7 dBµV to 68dBµV
Resolution	1dB
Accuracy	±1dB
Transducer Sensitivity	-65 dB (0dB = 1volt/µbar rms SPL)
Transducer Centre Frequency	40 kHz
Transducer Diameter	16mm
Heterodyning Frequency	38.4 kHz

HARDWARE	
Enclosure	Self-coloured injection moulded plastic case
Indicators	Colour back-lit LCD Charging indicator LED
Controls	Membrane keypad
Connectors	2.1mm LV DC charger input 3.5mm stereo headphone socket External Ultrasonic sensor
Headphones	Min. 8 ohms
Battery Charger	90 - 264V 47 - 53Hz, 6V 0.5A

ENVIRONMENTAL	
Operating Temperature	0 – 55 degrees C
Humidity	0 – 90% RH non-condensing
IP Rating	54

DIMENSIONS	
Size	205 x 72 x 35mm
Weight	0.3kg

POWER SUPPLIES	
Internal Batteries	3.7V 3.6Ah Lithium-ion
Typical Operating Time	approx. 5 hours
Battery Conservation	Automatic 'switch off' when low battery voltage detected or 10 minutes elapsed

BATTERY CHARGER	
Rated Voltage	90 – 264V AC
Frequency	47 - 63Hz
Charging Voltage	6V DC
Charging Current	500 mA
Time for Full Charge	7 hours
Dimensions	74 x 44 x 34mm
Weight	0.12 kg
Operating Temperature	0 - 40 degrees C
Humidity	20 – 85% RH non-condensing

accessories and options

UltraDish™ Parabolic Waveform Concentrator

The UltraDish™ is ideal for investigating PD activity in overhead assets or at a distance. Includes carrying case

Peltor Neckband Headset

Medium attenuation, low-profile shells for easy and comfortable use together with other PPE devices

In-Car Battery Charger

Flexible Sensor

Plug-in flexible microphone extension enables you to probe enclosures and tight spaces

UltraTEV Plus+ Case

Available for Kit 1, Kit 2 and Kit 3

Ultrasonic Contact Probe

Detects surface discharge activity through ultrasonic vibrations

Kit 1

Function Checker, Clip-on Headphones, Battery Charger and Systainer Carrying Case with high density foam insert

Kit 2

Peltor Neckband Headset, Ultrasonic Contact Probe, Flexible Sensor, Function Checker, Battery Charger and Systainer Carrying Case with high density foam insert

Kit 3

Peltor Neckband Headset, Ultrasonic Contact Probe, Flexible Sensor, UltraDish, Function Checker, Battery Charger and Systainer Carrying Case with high density foam insert

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