UltraTEV Plus+™

Multi-functional Partial Discharge (PD) instrument

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

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.

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technology instruments

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 purpose 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.

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

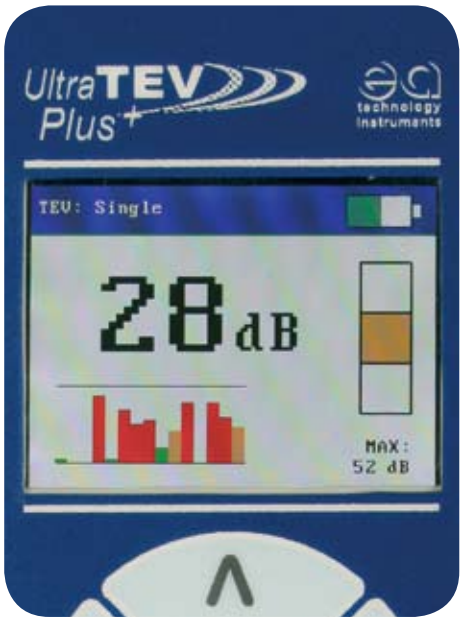
Add-on for UltraTEV Plus+™ owners includes:

- **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 (LTOS™) 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	18V DC
Charging Current	2500 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

PRODUCT CODE: UTP1

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