



PD Hawk™

outdoor substation and switchgear PD locator

SAFELY locates internal Partial Discharge (PD) activity in
open bus substations and switchyards

www.eatechnologyusa.com

unique instrument

The world's most effective PD locator for open bus substations and switchyards

business benefits

- Prevents costly failures
- Rapid return on investment
- Gathers valuable data on asset condition
- Extends asset life

user features

- Uniquely fast & accurate
- Easy to use
- Portable & rugged
- Safe



scan a whole switchyard in minutes



1. Switch on – the PD Hawk™ is instantly ready for action
2. Sweep the open bus substation or switchyard for radio emissions
3. Filter out irrelevant emissions e.g. mobile phone, television signals and non-destructive corona activity
4. Watch/listen to readings as they peak, to focus on the source of emissions
5. Rotate instrument for polarity, to locate strongest signals
6. Use pulse mode to confirm emissions are PD
7. Note the severity and location of PD emissions
8. Rate the health of the asset and its risk of failure
9. Decide whether to investigate further and/or intervene

fast focus on internal PD

The PD Hawk™ measures emissions in the 50 – 1000MHz frequency range but is factory tuned to focus around 800MHz, which is typical of internal PD activity. This enables the operator to disregard non-PD emissions, including harmless corona activity, and eliminate false readings.

The operator can listen to emissions via the built-in speaker and/or over headphones and/or view them on menu-driven screens, which display them as:



Frequency

Tunes out interference/corona



Magnitude

Locates problem assets



Pulse timing

Identifies signal type

Locate internal PD activity in:

- Instrument transformers
- Circuit breakers
- Isolators
- Disconnectors
- Surge arrestors
- Cable terminations
- Transformer bushings

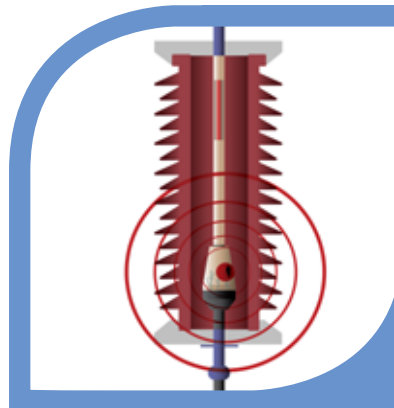
cost-effective outage prevention

The first sign of problems in open bus substation or switchyard assets is often sudden failure, causing expensive damage and outage.

The PD Hawk™ identifies problems in assets BEFORE they fail, at a fraction of the cost of a single outage.



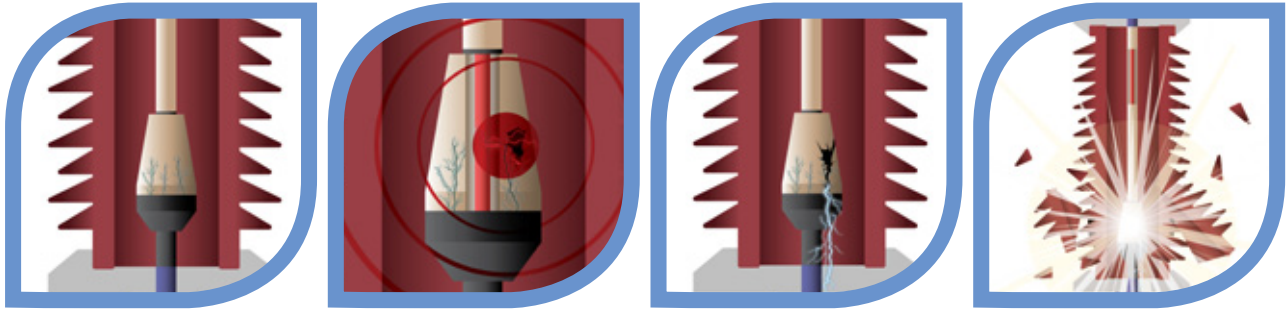
PD scanning identifies problems BEFORE they lead to failures



Undetected PD often leads to sudden failure



example: internal PD failure



1. PD starts to erode insulation
2. PD activity, damage and detectable emissions increase
3. Undetected PD causes flashover and sudden failure
4. Sudden failure can be explosive

PD Hawk™ specifications

MEASUREMENT		DIMENSIONS	
Sensor	UHF Directional Antenna	Size	420mm x 420mm x 120mm
Measurement Bandwidth	50 - 1,000MHz	Weight	2.4kg
Resolution	1dB	POWER SUPPLIES	
Accuracy	±1dB	Internal Batteries	3.7V 6.8Ah Lithium-Ion
HARDWARE		Typical Operating Time	approx. 8 hours
Enclosure	Self-colored vacuum formed plastic case	Battery Conservation	Automatic 'switch off' when low battery detected
Indicators	Color back-lit LCD Charging indicator LED	BATTERY CHARGER	
Controls	2 off Rotary Encoders with Push-Buttons	Rated Voltage	90 - 264V AC
Connectors	2.1mm LV DC Charger Input 3.5mm stereo headphone socket	Frequency	47 - 63Hz
Headphones	Min. 8 ohms	Charging Voltage	18V DC
ENVIRONMENTAL		Charging Output Current	0.7 A
Operating Temperature	0 - 55 degrees C	Battery Charging Current:	2.6 A @ 4.2V
Humidity	0 - 90% RH non-condensing	Time for Full Charge	3 hours
IP Rating	65	Dimensions	74mm x 44mm x 34mm
		Weight	0.12 kg
		Operating Temperature	0 - 40 degrees C
		Humidity	20 - 85% RH non-condensing

Watch the PD Hawk™ ONLINE VIDEO at www.eatechnologyusa.com/pd-hawk

Contact us now to learn more

Eastern Canada: Spectrum Instruments Ltd

E: info@spectrum-instruments.com P: 1-613-439-8767

Eastern US Regional Office
1001 East Baker Street
Suite 200
Plant City, FL 33563

tel 813 752 6051
cell 863 393 2451
email don.genutis@eatechnologyusa.com
web www.eatechnologyusa.com

Western US Regional Office
121 Elk Ridge Lane
Idleyld Park
OR 97447

tel 541 498 2226
cell 541 530 0283
email dustin.ashleigh@eatechnologyusa.com
web www.eatechnologyusa.com

Central US Regional Office
11490 Westheimer Suite
850 Houston
Texas 77077

tel 713 425 6395
cell 832 640 2353
email vincent.demaio@eatechnologyusa.com
web www.eatechnologyusa.com



Improving Network
Performance



Facilitating Low
Carbon Energy



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Developing
Your Team



Communicating
the Message