

# ULD-40™

## Corona Effect Ultrasonic Detector

The ULD-40™ is an ultrasonic detector designed for corona effect, arcing and gas leak detection. Results are instantaneously displayed on its easy to read digital display and bar graph while the ultrasonic signal is converted to audible range and played back from it's built-in speaker or connected headset.

## Highlights

- Corona Effect, Arcing & Gas Leak Detection
- Built-In or External Sensor
- Array of Sensors Available
- Lightweight and Rugged Design
- Batteries Last For Hours
- Ready to Operate in Seconds
- Designed for Factory or Field Applications

Free interactive presentation:



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Technologies



## Corona Effect Arcing Gas Leak

- The ULD-40™ is perfectly suited for new installations & maintenance work
- 20+ years experience in the Partial Discharge field
- **Buy with confidence.** Training and support is included and provided by ndb Tech's skilled experts who performed hundreds of successful inspections



## Technical Specs

<b>Dynamic Range</b>	96 dB
<b>Sensitivity (Built-in Sensor)</b>	10ft : Diameter Leak 0.005 in @ 5psi 3m: Diameter Leak 0.125 mm @ 0.35 Bar
<b>Center Frequency</b>	40 kHz
<b>Operation Distance</b>	Optimized for 3 meters / 10ft
<b>Bandwidth</b>	38 to 48 kHz
<b>Output Frequency for 40 kHz</b>	2.4 kHz
<b>Sampling Frequency</b>	120 kHz
<b>Battery Type</b>	Lithium Ion
<b>Battery Voltage and Current</b>	3.6V 750mA
<b>Battery Charging Voltage</b>	5V ±10%
<b>Battery Autonomy</b>	4 hours
<b>Battery Charge Time</b>	2.5 hours
<b>Power Consumption</b>	160 mA
<b>Audio Output Impedance</b>	32 ohm
<b>Audio Output Level</b>	1V peak-peak
<b>Audio Output Center Frequency</b>	2.4 kHz
<b>Operation Temperature</b>	-20 to 60°C (-4 to 140°F)
<b>Storage Temperature</b>	-30 to 85°C (-22 to 185°F)
<b>Charging Temperature</b>	0 to 50°C (32 to 122°F)
<b>Dimensions</b>	57 x 52 x 185mm (2.2 x 2.0 x 7.2 in)
<b>Weight</b>	528g (18.6 once)

## Corona Effect

A corona discharge is an electrical discharge brought on by the ionization of air surrounding a conductor that is electrically charged. Corona will occur when the strength of the electric field around a conductor is high enough to form a conductive region, but not high enough to cause electrical breakdown or arcing to nearby objects. Corona discharge from high voltage electric power transmission lines constitutes an economically **significant waste** of power for utilities. Corona effect generates gases which are **corrosive** and can degrade and embrittle nearby materials.



## ULD-40™ Detector

Built from durable materials, the ULD-40™ detector is designed to last for years with unbeatable performance. Simply press its power button, and voilà, the instrument is ready. Its built-in cone-shaped sensor offers high sensitivity for close range gas leak or corona effect detection. The level of detected ultrasonic activity will be displayed on its dB reading and bright LED bar graph. The operator can conveniently analyse the downscaled signal from the ULD's built-in speaker in order to discriminate real corona effect from ambient noise. With years of development and research work in the partial discharge field, ndb Technologies has perfected the art

of manufacturing reliable and easy to use instruments and the ULD-40™ is no exception.



## Transportation Box

The ULD-40™ kit comes equipped with a hard shell case especially designed for the ULD-40™ and its accessories. Its rugged design will keep your instrument safe with enough space to store everything in one place.



## Noise-Isolating Headphones



Need to perform detection in noisy environments? Still want to analyze the downscaled audio coming from the ULD-40™ detector? The ULD-405™ headphones are especially chosen for their highly noise isolating properties and comfort. Simply connect the 3.5mm jack to the ULD's audio port and start scanning.



## Contact Sensor

The ULD-406™ direct contact sensor allows for convenient ultrasonic detection on metal clad cabinets (switchgear, RMU, cable box, etc..), resin dry-type transformer, cable splice, and many more. Its magnetic holders allows for easy scanning of multiple cabinet halls.

## Parabolic Sensor & Simulator

The ULD-401™ parabolic sensor allows for convenient pinpoint readings on hard-to-reach overhead accessories such as insulators, arrestors, cable termination, bushings, switches, and so on (optimized for 15m/49ft). Want to test your system periodically? The ULD-403™ ultrasonic noise generator is perfectly suited for this task.

