

# SEEKER BB-2

## Automatic Leakage Detection System

- Totally automatic operation – no operator interaction – for maximum efficiency
- Ideal for drive-outs, leak documentation and troubleshooting
- All vehicle electronics housed in tough aluminum enclosure
- Leakage record upload via WiFi or Internet to LAW central server application
- Very cost-effective



### **Leakage detection that's automatic, invisible and hands-free.**

Improve the efficiency of your leakage detection operations by eliminating operator interaction.

### **The cost-effective leakage detection solution for every truck.**

Trilithic's new Seeker BB-2 automatic leakage detection system is a fully automated, GPS-based leakage detection system that operates in the background while techs drive their routes, without any operator interaction. You can just install it and forget it.

Housed in a heavy-gauge sheet aluminum enclosure, the Seeker BB-2 can be tucked away into any convenient location in the vehicle – such as under a seat or behind the driver. The system uses a monopole antenna to monitor leaks wherever a vehicle goes, then stores the data and uploads it automatically to Trilithic's LAW (Leakage Analysis Workshop) server via a built-in WiFi adaptor when the vehicle is near a designated WiFi "hot spot."

Using the Seeker BB-2, every truck in the operator's fleet contributes useful leakage data, eliminating the need for special drive-out vehicles and personnel. At the end of the workday, the LAW server software analyzes and processes the data from the entire fleet, using a sophisticated algorithm to calculate the location of each leak to within feet of its source.

### **Completely automatic, hands-free leak recording**

While the tech is driving to a location or to work, the Seeker BB-2 automatically monitors leakage strength every second the vehicle is in motion, labeling each measurement with time and date and the leak's GPS location. The driver doesn't need to adjust the unit for different distances from a distribution line, or interact with it in any way. Distance corrections are all handled automatically when the data is processed, rather than by distracting the tech while driving or at work.

### **Convenient uploading**

Normally, the measurement data for a day (or a week) is uploaded to the LAW server using the Seeker BB-2's built-in WiFi adapter. The upload process occurs automatically whenever the unit detects the availability of a designated hot spot (typically the vehicle's parking lot). Records may also be downloaded to an ordinary USB memory stick, and then uploaded to the LAW server through any USB-equipped PC with an Internet connection.

### **Seamless analysis applications**

The LAW server processes all of the collected leakage records, typically every day, analyzing the thousands of measurements that were taken "in the street" to determine the true location of each leak source. It then corrects the measured strength of each leak for distance and generates the alerts, reports and leakage logs the operator needs to manage the leakage control program, even prioritizing the outbreaks to simplify the process.

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### Quadrangulation: pinpoint precision for improved efficiency

Trilithic's Leakage Analysis Workshop (LAW) software features a patent-pending analytical process that uses a sophisticated mathematical formula to analyze the leakage data and pinpoint the location of discrete leaks in the cable plant.

Typically, leakage detection systems have difficulty telling the difference between a weak leak located near the street and a strong leak in an easement far from the street. As a result, both leaks may appear to be of similar strengths, and so would be given the same priority.

Using a breakthrough process known as "quadrangulation," Trilithic's LAW software pinpoints the true location of each leak to within a few yards and computes the strength of a leak as if the tech had taken the measurement 10 feet from the source. This enables the system to automatically identify redundant leak reports, using them to further enhance accuracy. It also eliminates the need for structured "drive outs" of the cable plant and for technicians to adjust distance settings while driving.

This enhanced precision enables the LAW software to identify leaks and prioritize repairs more accurately, so the system operator can use technician time more efficiently, improve repair turnaround time and reduce maintenance costs.

### SPECIFICATIONS

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| <b>Frequency Range</b>                              | 109.25 to 111.0 MHz, and 118.50 to 147.25 MHz, both bands settable in 6.25 KHz steps  |
| <b>Frequency Settings</b>                           | Ten user-set operating frequencies, selectable using Seeker Setup software. Selections loaded into detector using Seeker Set up configuration S/W.  |
| <b>Calibrated Level Range</b>                       | 2 to 2000 $\mu$ V/M.  |
| <b>Leakage Sampling and Recording Rate</b>          | Sampling rate = 33/second<br>Recording rate $\geq$ 1/second   |
| <b>Automatic Noise and Overbuild Discrimination</b> | Seeker Internal circuitry discriminates between leaks and noise. Overbuild discrimination requires CT-2 or CT-3 Channel Tagger installed in hub or head end.  |
| <b>Data Connection</b>                              | Via WiFi to operator-controlled and configured hotspot. USB memory stick and Internet   |
| <b>Power</b>  | 12 VDC vehicle power  |
| <b>Supporting Software</b>                          | Seeker Set up for configuring Seeker PC application for uploading leakage data records to PC LAW Central Server Software. Computes true leakage location and strength, manages database, outputs data in various reports and logs |

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