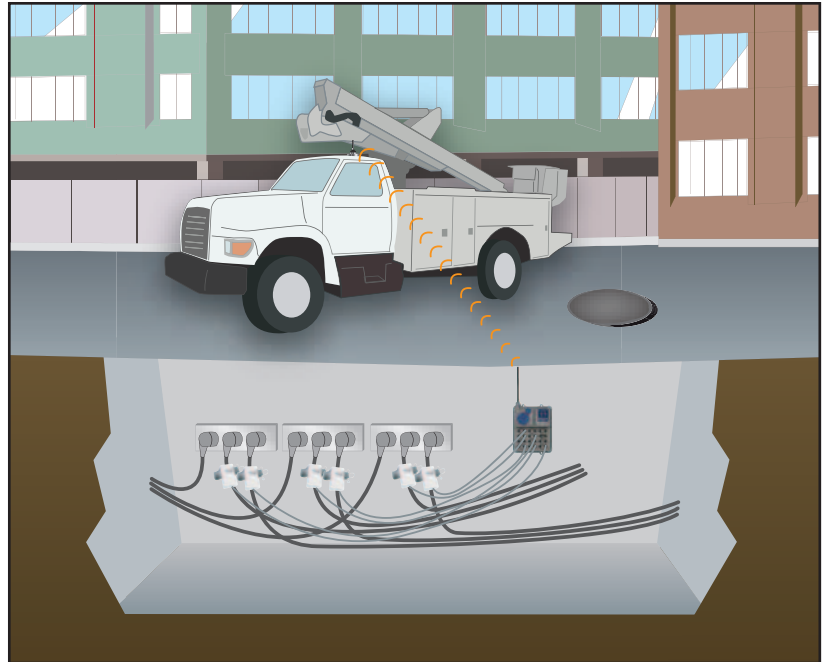# SEL RadioRANGER®
WIRELESS FAULT INDICATION SYSTEM

Reduce Fault-Finding Time in Subsurface Vault Applications

Also Applicable in Pad-Mounted Enclosures

Communicate subsurface fault indicator status to street-level personnel.

Let the RadioRANGER® Wireless Fault Indication System point you to the underground fault location.

Features and Benefits

- Minimize fault-finding time and troubleshooting crew size. No need to open, enter, pump, or ventilate multiple vaults while blocking traffic.

- Improve line crew safety. Avoid leaving the truck to enter vaults in busy streets.

- Benefit from the proven reliability and quality record of SEL fault indicators.

- Choose from multiple SEL fault indicator types to match your application and system requirements.

- Display fault-path information on the handheld Remote Fault Reader.

- Maximize application efficiency using the modular and scalable system in a variety of vault configurations.

UTC UTILITIES TELECOM COUNCIL **2007 Best Wireless Equipment**

SEL-8310 Remote Fault Reader

Making Electric Power Safer, More Reliable, and More Economical®

Wireless Fault Indication System Components

SEL-8310 Remote Fault Reader

Identify the phase and location of underground faults with the handheld Remote Fault Reader.

① Flexible antenna

② Operates on three alkaline or rechargeable AA batteries

③ Display for up to eight unique Wireless Interface IDs

④ Easy-to-use keypad

⑤ Durable, buoyant case rated to IP54

⑥ Wireless Interface health monitor

⑦ Communicates fault indicator presence and status

> Red—Tripped Fault Indicator
> Green—Untripped Fault Indicator
> Off—No Fault Indicator Present

SEL-8300 Wireless Interface

The Wireless Interface communicates fault indicator information to the Remote Fault Reader.

① Integral antenna (remote antenna also available)

② Eight easy-to-set IDs allow for application in dense areas

③ Maintenance free: system health monitored remotely via the Remote Fault Reader

④ Estimated 15-year product life

⑤ Sealed, waterproof, and IP68 rated

⑥ Connect up to 12 fault indicators wired with RadioRANGER Interface Probes

Fault Indicator Options

Choose the most appropriate SEL fault indicator model for your application. Multiple phase sensor and reset choices provide the flexibility to complete your RadioRANGER solution. Equipped with the RadioRANGER Interface Probe, SEL fault indicators connect to the Wireless Interface.

Underground AutoRANGER®

- Closed-core design provides adjacent phase immunity
- Timed or automatic reset upon load restoration
- Automatically adjusts its trip level based on load current

Test Point Reset

- Durable, easy-to-install sensor
- Automatic reset upon voltage restoration

Current Reset

- Closed-core design provides adjacent phase immunity
- Automatic reset upon load restoration

RadioRANGER Interface Probe

- Communicates fault indicator status to the Wireless Interface via a magnetic interface
- No expensive watertight electrical connections required
- Fitting an SEL fault indicator with a RadioRANGER Interface Probe provides application flexibility

Timed Reset

- Timed Reset provides immunity from backfeed-induced reset concerns
- Ideal for applications where minimum current and/or voltage levels are not present

RADIORANGER®

WIRELESS FAULT INDICATION SYSTEM

System Features

- Simple street-level fault indicator status retrieval eliminates the need for fault-finding crews to access multiple vaults.

- Multiple IDs allow a crew to easily identify the vault, way, and phase on which the fault occurred.

- Remote Fault Reader displays Wireless Interface system health and fault indicator status.

- IP68-rated Wireless Interface and waterproof interconnection system (rated to 15 feet submersion) ensure environmental integrity required for vault applications.

- SEL fault indicators made by the SEL Fault Indicator and Sensor Division have a 50-plus-year history of accuracy and reliability.

- Two-way communications link prevents ambiguity by transmitting both tripped and reset fault indicator information at 900 MHz (902 to 928 MHz range). Users can retrieve Wireless Interface and fault indicator status at any time.

Remote Fault Reader

*RadioRANGER®
Interface Probe*

Wireless Interface

Fault Indicator

SEL fault indicators equipped with magnetic RadioRANGER Interface Probes communicate their status to the Wireless Interface. Utility personnel can quickly retrieve subsurface FCI status at street level via the wireless communications link between the Wireless Interface and Remote Fault Reader. The RadioRANGER solution reduces the need to access vaults to retrieve FCI status, reducing fault-locating time and improving utility personnel safety.

Tip From Ranger
Contact SEL Fault Indicator and Sensor Division or your local sales representative to order a RadioRANGER sample kit. Visit **www.selinc.com** to learn more about the RadioRANGER and other SEL fault indicator solutions.