



## Monitor Employee Safety Anywhere

### Portable satellite & cellular base station

Blackridge Solutions is pleased to introduce the industry's most comprehensive employee safety monitoring system for remote operations - the Loner Bridge System. Comprised of two parts, this system includes the Loner BRIDGE portable satellite and cellular base station and the Loner 900 employee-worn safety monitoring device.

Loner® Bridge communicates with up to (10) Loner 900 devices through an industrial quality 900 MHz radio link. Loner 900 devices are able to operate up to 2 km away from Loner Bridge without requiring a line of sight to maintain communications. Employees can reliably work indoors with confident monitoring.

Incorporating dual-mode satellite and cellular uplinks, Loner Bridge communicates all received Loner 900 safety alerts and employee locations to a hosted monitoring infrastructure. Loner BRIDGE automatically and seamlessly transitions to satellite communications when beyond cellular networks. Loner Bridge features internal GPS location technology and can provide organizations with a simple alternative to elaborate fleet management systems. Its location provides an additional point of reference that can aid the coordination of an efficient emergency response to an employee's precise location, when required.

Loner BRIDGE is self-powered and portable, allowing users to quickly move it from one vehicle to another, such as from a work truck to an all-terrain vehicle (ATV). If they run into trouble, monitoring personnel can be reached via two-way text messaging.

Loner BRIDGE was designed for extreme conditions - when plugged into a charger or optional hard-wiring cable, Loner BRIDGE's display is heated when the temperature drops for a responsive user interface at all times.

**Protect the safety of your workforce with  
Loner safety monitoring solutions**



#### Portable

Move from vehicle to vehicle in seconds



#### Dual mode Communications

Satellite & cellular radio links for universal coverage



#### 900 MHz Communications

Industrial-grade, license-free 900 MHz radio link



#### Heated Liquid Crystal Display

Responsive user interface at cold temperatures



#### IP65 Sealed design

Durable and weatherproof for extreme field use



#### Flexible Mounting

Magnetic, multi-purpose, and truck/pole options



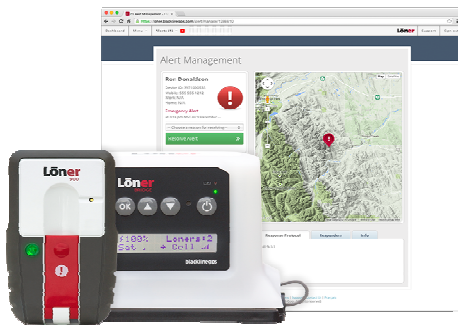
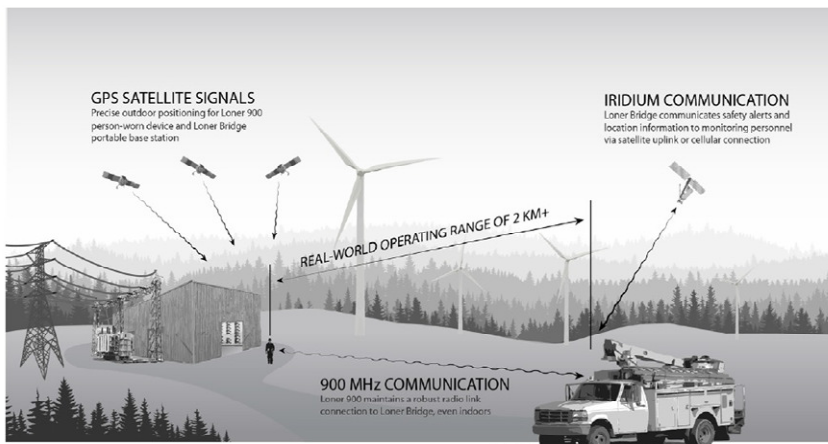
#### Designed for Work Crews

TeamAlert® empowers local response



#### Two-way messaging

Monitoring personnel are just a message away



The Loner BRIDGE system is comprised of the Loner BRIDGE and Loner 900

## Highlights

- ✓ Global awareness of your workforce's real-time safety
- ✓ Improves awareness of remote workers' safety
- ✓ Quickly mobilize an emergency response by mapping worker locations in Loner Portal
- ✓ Real-time safety alerting increases awareness of safety incidents
- ✓ Achieves regulatory compliance as required in some regions
- ✓ Reduces mobile worker anxiety about safety
- ✓ An automated system that does not require manual worker check-in
- ✓ Immediate alert is triggered if the worker is incapacitated
- ✓ High capacity battery provides up to 44 hours of operation
- ✓ Customizable location scheduling provides bread-crumbs of worker vehicle locations
- ✓ Easy training for workers and monitoring personnel
- ✓ Affordable for both small business or enterprise deployment
- ✓ Loner Background Services alert monitoring personnel even when Loner Portal is not used
- ✓ Emergency escalation list provides multiple layers of alerting to ensure an incident is addressed
- ✓ Loner Web Services enable software developers to integrate safety monitoring within a call center
- ✓ Easy-to-use web-based Loner Portal for efficient setup and mapping
- ✓ Customizable Loner Portal account implementation for diverse customer needs.
- ✓ Sharing of Loner devices across multiple Loner Portal user accounts
- ✓ Firmware upgradable over-the-air to accommodate future enhancements
- ✓ Web-hosted Loner Portal user account—no software to install

## Specifications

### Size & Weight

**Size:** 73 mm W x 107 mm D x 141 mm L (2.87" x 4.21" x 5.55") | **Weight:** 540 g (19.04 oz)

### Buttons & Indicator Lights

**Power button:** Power on/off | **Red indicator light array plus buzzer:** Safety alert | **Green indicator light:** Blinking (powered), continuous (connected) | **LCD Screen:** display menu, battery status, communication link status | **Menu Navigation buttons:** Up, Down, OK

### User Notification

**Indicators:** Acoustic buzzer, indicator lights | **LCD Screen:** display notifications/messages from monitoring team, heated at cold temperature when charging

### Wireless Communication

**Radios:** Quad-band GSM/GPRS (850 and 1900 MHz), Iridium Satellite (1621 MHz), 900 MHz Radio (902.0–928.0 MHz, 1 Watt) | **Antennas:** internal | **Communication:** real-time, bidirectional

### Location Technology

**GPS Radio:** 48 channel high sensitivity | **GPS Antenna:** internal Ultimate Sense GPS antenna | **GPS Accuracy:** ~5 m (16 ft) outdoors, ~50 m (165 ft) indoors | **Real-time location turnaround time:** ~20 seconds

### 900 MHz Radio Link Range

**General use:** up to 2 km | **Hilltop to hilltop:** 10+ km, terrain, foliage, and buildings will affect overall 900 MHz radio link range

### Alert Messages

Emergency, Low Battery, Power-off, messaging to monitoring personnel

### Mobile Messaging Methods

Email, text message (SMS)

### Power & Battery

**Rechargeable Li-ion battery:** 6800 mAh capacity | **Battery life:** 44 hours @ 20°C (68°F), 30 hours @ -20°C (-4°F) | **Charging connector:** Micro USB

### Environmental

**Storage temperature:** -50 to 75°C (-58 to 167°F)  
**Operating temperature:** -40 to 55°C (-40 to 131°F)  
**Charging temperature:** -20 to 45°C (-4 to 113°F)  
**Ingress Protection:** Designed to meet IP65

### Regulatory Compliance

FCC, IC, RoHS | FCC ID: W77BLGSM1, Q639602, and KQNMLINK900, IC: 7830A-BGS2, 4629A-9602, and 2361A-MLINK900

### Device Requirements

Activation within Loner Portal, service plan, GPS coverage for locating, cellular coverage or line-of-sight to Iridium satellites for communication, 900 MHz radio link to one or more Loner 900 devices for monitoring

### Warranty

One year limited factory warranty

### Loner Portal Web Application

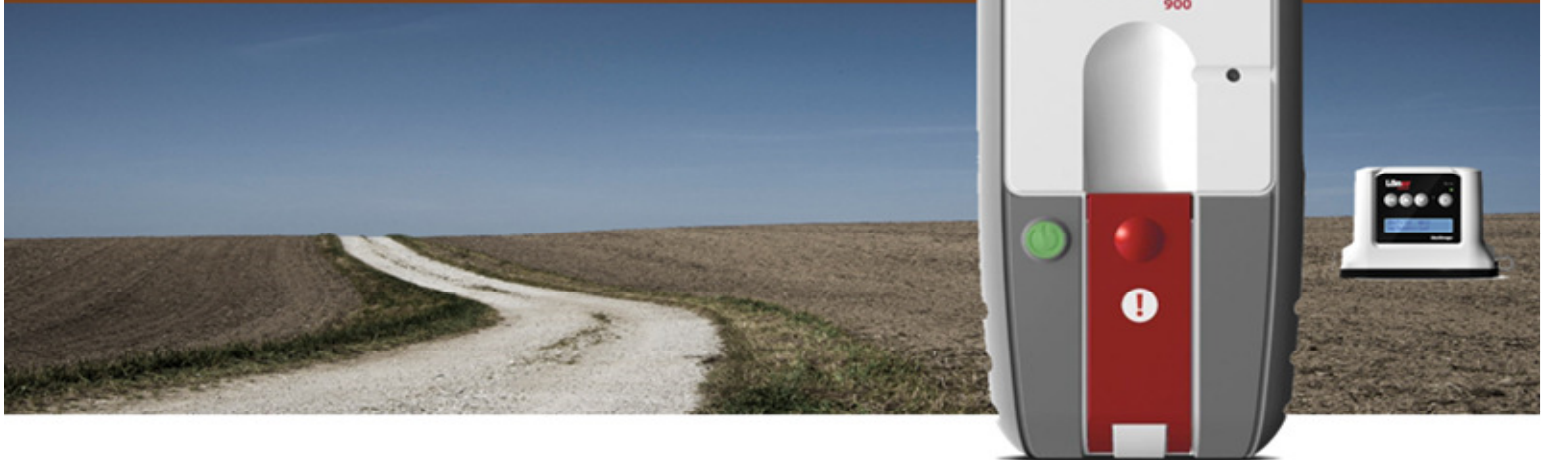
**Features Include:** Alarm banner, event history, device location mapping, device management, alert & notification settings and more.

### Wireless Coverage and Activated Service Plans

**Cellular coverage:** Service Group A offers over 100 countries, additional countries available | **Satellite coverage:** Global | 900 MHz operation: ITU Region 2 (Americas, Greenland, Eastern Pacific Islands)

# Loner 900

INTRINSICALLY SAFE



## Monitor Employee Safety Anywhere

### Person-worn component of the Loner BRIDGE System

Until now, there has been no true safety monitoring solution for employees working in remote locations. The Loner BRIDGE System is the first comprehensive solution and consists of two parts - the Loner BRIDGE portable satellite base station and the Loner 900 employee-worn safety monitoring device.

Certified intrinsically safe, Loner 900 continuously monitors an employee's real-time safety. Its SureSafe™ monitoring light provides confidence to the user that his or her safety is being monitored continuously. When an incident occurs, Loner 900 instantly communicates a safety alert and the worker's precise location to monitoring personnel, empowering an efficient, pin-point emergency response.

Loner 900 was designed from the ground up to operate as well indoors as it does outside. A robust, industrial-grade radio link maintains a connection with Loner BRIDGE that provides freedom to employees to operate up to 2 km away in real-world conditions – even further when line of sight permits. Loner 900 is compatible with the Loner Beacon indoor positioning technology, providing precise positioning when GPS is unavailable or imprecise.

A combination of automatic and manual safety monitoring features keep employees connected to monitoring personnel, including fall impact detection, man-down detection, periodic check-in, emergency latch, and silent emergency button.

Loner 900 was designed to support team operations and its TeamAlert feature notifies co-workers instantly of a safety incident for a rapid local response. All safety alerts communicated to monitoring personnel include the geographic location of the worker in distress for immediate and efficient emergency response. Monitoring options include email, SMS, and web portal. The Loner system can be self-monitored or externally monitored via a third-party monitoring center, or both.



#### Intrinsically Safe

Class I, Division 1, Groups A, B, C, D and Class II, Division 1, Groups E, F, G



#### SureSafe™ Monitoring Light

Confidently know when safety is monitored



#### Fall Impact Detection & Alerting

Differentiates falls from other activity



#### Emergency Latch & Alerting

Help is a latch-release away



#### Activity Monitoring & Alerting

Lack of worker motion generates a safety alert



#### 900 MHz Communications

Industrial-grade, license-free 900 MHz radio link



#### TeamAlert for Local Response

Empowers team-mates to respond in real-time



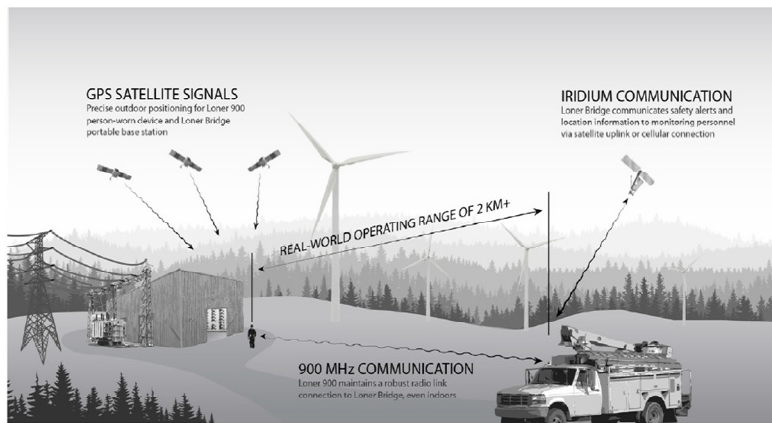
#### Precise Indoor Positioning

Location beacons provide room level resolution

Protect the safety of your workforce with Loner safety monitoring solutions

BlackridgeSolutions.com | (778) 686-5799 | info@blackridgesolutions.com

  
**BLACKRIDGE**  
SOLUTIONS



The Loner BRIDGE system is comprised of the Loner BRIDGE and Loner 900

## Highlights

- ✓ Global awareness of your workforce's real-time safety
- ✓ Improves awareness of remote workers' safety
- ✓ Quickly mobilize an emergency response by mapping worker locations in Loner Portal
- ✓ Real-time safety alerting increases awareness of safety incidents
- ✓ Achieves regulatory compliance as required in some regions
- ✓ Reduces mobile worker anxiety about safety
- ✓ An automated system that does not require manual worker check-in
- ✓ Immediate alert is triggered if the worker is incapacitated
- ✓ High capacity battery provides up to 44 hours of operation
- ✓ Customizable location scheduling provides bread-crumbs of worker vehicle locations
- ✓ Easy training for workers and monitoring personnel
- ✓ Affordable for both small business or enterprise deployment
- ✓ Loner Background Services alert monitoring personnel even when Loner Portal is not used
- ✓ Emergency escalation list provides multiple layers of alerting to ensure an incident is addressed
- ✓ Loner Web Services enable software developers to integrate safety monitoring within a call center
- ✓ Easy-to-use web-based Loner Portal for efficient setup and mapping
- ✓ Customizable Loner Portal account implementation for diverse customer needs.
- ✓ Sharing of Loner devices across multiple Loner Portal user accounts
- ✓ Firmware upgradable over-the-air to accommodate future enhancements
- ✓ Web-hosted Loner Portal user account—no software to install

## Specifications

### Size & Weight

**Size:** 63 mm W x 107 mm H x 26 mm L (2.48" x 4.21" x 1.02") | **Weight:** 137 g (4.8 oz)

### Safety Monitoring Features

**Fall detection technology:** True Fall Detection<sup>®</sup>, tri-axis accelerometer, tri-axis gyro, plus software processing | **Emergency latch:** open latch to trigger alert | Silent emergency: press & hold acknowledge button to trigger alert | **Worker No-motion detection:** configurable time window (1 – 30 min, or Off) | **Worker check-in:** configurable check-in period (5 – 180 min) | Automatic Check-in on GPS motion option

### Buttons & Indicator Lights

**Power button:** Power on/off | **Acknowledge button:** check-in/Silent Emergency/cancel pending alerts/acknowledge alerts | **Emergency latch:** send emergency alert | **Red indicator light array plus vibration and buzzer:** safety alert triggered | **Green indicator light:** blinking (not connected), continuous (connected) | **Yellow indicator light:** TeamAlert™—return to Loner Bridge to coordinate local emergency response | **Blue indicator light:** Monitoring personnel acknowledged received alert

### User Notification

**Indicators:** acoustic buzzer, LEDs, and vibration motor

**Acoustic beeper sound pressure level:** ~90 dB @ 10 cm (3.94")

### Wireless Communication

**900 MHz Radio:** 902.0–928.0 MHz, 1 Watt | **Antenna:** internal | **Communication:** real-time, bidirectional

### Location Technology

**GPS Radio:** 48 channel high sensitivity, mobile assisted | **GPS Antenna:** internal Ultimate Sense GPS antenna | **GPS Accuracy:** ~5 m (16 ft) outdoors, ~50 m (165 ft) indoors | **Indoor positioning radio:** 2.4 GHz, Loner Beacon compatible | **Loner Beacon resolution:** ~5 m (16 ft) indoors/outdoors | **Real-time location turnaround time:** ~20 seconds

### 900 MHz Radio Link Range

**General use:** up to 2 km | **Hilltop to hilltop:** 10+ km, terrain, foliage, and buildings will affect overall 900 MHz radio link range

### Alert Messages

Fall Detected, Emergency, Silent Emergency, No-motion, Missed Check-in, TeamAlert, Low Battery, Power Off

### Mobile Messaging Methods

Email, text message (SMS)

### Power & Battery

**Rechargeable Li-ion battery:** 1500 mAh Li-ion | **Battery Life:** 20 hours continuous at 20°C (68°F), ?? hours at -20°C (-4°F) | **Charging connector:** 4-pin sealed connection

### Environmental

**Storage temperature:** -30 to 75°C (-22 to 167°F) | **Operating temperature:** -20 to 55°C (-4 to 131°F) | **Charging temperature:** 0 to 45°C (32 to 113°F) | **Ingress Protection:** Designed to meet IP65

### Regulatory Compliance

SAR, RoHS | FCC ID: W77LNR900, IC: 8255A-LNR900 | Intrinsically safe: Class I, Div. 1, Groups A, B, C, D and Class II, Div. 1, Groups E, F, G, T4, Class I Zone 0, Group IIC, T4

### Device Requirements

Activation within Loner Portal, service plan, GPS/Loner Beacon coverage for locating, real time 900 MHz radio link to Loner Bridge, satellite or cellular communications

### Warranty

One year limited factory warranty

### Loner Portal Web Application

Features Include: Alarm banner, event history, device location mapping, device management, alert & notification settings and more | Comprehensive safety alert life cycle management: includes alert configuration profiles, safety protocol, and emergency contacts

### Wireless Coverage and Activated Service Plans

**Cellular coverage:** Service Group A offers over 100 countries, additional countries available | **Satellite coverage:** Global | 900 MHz operation: ITU Region 2 (Americas, Greenland, Eastern Pacific Islands)

