

User Guide

Löner BRIDGE

Mobile Worker Safety Device



TeamAlert™

Triggers a return to team-based muster alarm

blacklinesafety

Alert. Locate. Respond.

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Warranty

Your Loner is warranted against defects in materials and workmanship for up to one year from date of purchase. For further details regarding your Blackline warranty, please refer to your Terms and Conditions of Service.

More Information and Support

Visit <http://www.blacklinesafety.com> for more information.

FCC Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for further assistance.

FCC Radiation Exposure Statement

This device is only authorized for use in a mobile application. At least 20 cm of separation distance between the Loner Bridge device and the user's body must be maintained at all times.

Industry Canada Notice

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Industry Canada Radiation Exposure Statement

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the Loner Bridge and your person.

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Safety Precautions

Blackline takes your safety and the safety of those around you very seriously. It is important for you to be aware of the following precautions.



DANGER

Do not use Loner Bridge in areas classified as hazardous locations, where there is risk of explosion due to the presence of gas, vapor, or dust. Loner Bridge is not certified intrinsically safe.

Do not place Loner Bridge in or near an open flame.

Loner Bridge is shipped with strong magnets. Use caution when handling these magnets to prevent personal or property damage. Strong magnets can damage magnetic media such as computer hard drives, credit cards, floppy disks, magnetic ID cards, and similar devices that use magnetic media. Individuals with pacemakers or other medical devices and mechanical implants should use caution when handling the magnets that accompany Loner Bridge.

WARNING

When in a hospital or other health care facility, observe the restrictions on the use of mobile devices, such as cellular phones. Do not operate Blackline products where you are not able to operate your mobile/cellular phone.

Switch Blackline products off before boarding an aircraft and make sure that it cannot be inadvertently turned on. To prevent interference with communication systems the operation of wireless applications, including Blackline products, is forbidden aboard aircraft. Failure to observe these instructions may lead to the suspension or denial of cellular services to the offender, legal action, or both.

Electrical equipment may be hazardous if misused.

- **Do Not** operate Blackline products outside their specified operating temperature. Consult the specifications section.
- **Do Not** store Blackline products outside their specified storage temperature. Consult the specifications section.
- **Do Not** dispose of Blackline products in your household trash. Seek advice from your local electronics recycling authority. Blackline products may contain an internal lithium-ion battery pack.

Getting Started

Activate your Device

To acquire a service plan and activate your Loner 900 device, contact the Blackline customer care team.

North America (Between the hours of 8am-5pm Mountain Time)

Toll-free: 1-877-869-7212 | support@blacklinesafety.com

United Kingdom (Between the hours of 8am-5pm Greenwich Mean Time)

+44 1787 222684 | esusupport@blacklinesafety.com

International (Between the hours of 8am-5pm Mountain Time)

+1 403 451 0327 | support@blacklinesafety.com

Website

support.blacklinesafety.com

Overview

The Blackline Loner® Bridge System is a comprehensive employee safety monitoring solution designed for remote locations where personnel are working outside cellular networks and in hazardous conditions. This system is divided into two components - the Loner® Bridge portable satellite base station and the employee-worn Loner® 900 safety monitoring device. As a portable base station, Loner Bridge connects the employee-worn Loner 900 safety monitoring device to the Blackline Safety Monitoring Network that manages safety alerting, data storage, mapping, and configuration tasks.

Loner Bridge is typically mounted to a truck or car and can be quickly moved to an all-terrain vehicle, boat, snowmobile, or even a backpack. It is ruggedized and was designed to meet IP65 ingress protection against dust and water spray from all directions. This system operates reliably at extreme temperatures ranging from -40° Celsius to +55° Celsius. Loner Bridge features a heated liquid crystal display to ensure that the user interface is responsive even at cold temperatures (while charging).

This user guide specifically discusses the operations of the Loner Bridge device. Where appropriate, interaction with the Loner 900 device is described, however for complete instructions on Loner 900 device usage, consult the Loner 900 User Guide.

Your Loner Bridge device contains the following internal components:

- Iridium® Satellite radio and internal antenna
- Cellular radio and internal antenna
- Large capacity 6000 mAh rechargeable battery
- Tri-axis accelerometer
- User interface with Menu Buttons and Heated Liquid Crystal Display
- Micro USB port for charging and optional connection to a vehicle's power system
- Indicator Light Array
- Integrated waterproof and dust-proof case
- Removable magnetic mount with 224 lb mounting force

Box Contents

- Quick reference wallet card
- Loner Bridge device
- Magnetic mount
- Multi-purpose mount
- Wall charger and Micro USB to USB cable
- Vehicle 5V USB charger
- Loner Bridge User Guide

Requirements

Loner Bridge requires the following to operate:

- Service activation within a Loner Portal account
- Sufficient battery capacity to operate when portable or availability of vehicle power connected to the optimal Hard-wiring Cable or included vehicle 5V USB charger
- A line of sight between Loner Bridge and Iridium communication satellites or sufficient cellular signal level to communicate
- Any Loner 900 devices in use must be within range of the Loner Bridge radio link

Accessories

- Optimal Hard-wiring kit
- Optimal stainless steel mounting bracket (lockable)

Radio Link

Employee-worn Loner 900 safety monitoring devices communicate with Loner Bridge via a robust radio link (900 MHz). Personnel equipped with a Loner 900 device are able to operate at significant distance away from the Loner Bridge device while maintaining a radio link.

DESCRIPTION	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

Satellite Communications

Loner Bridge is equipped with an internal Iridium satellite radio and antenna that facilitates communication of safety alerts when beyond the reach of cellular networks. When mounted to a vehicle, all-terrain vehicle, snowmobile, boat, or backpack, Loner Bridge must remain out in open sky, a recommended minimum of 10 meters (30 feet) away from any buildings. This will help to ensure that Loner Bridge is able to send and receive signals to Iridium satellites.

Cellular Communications

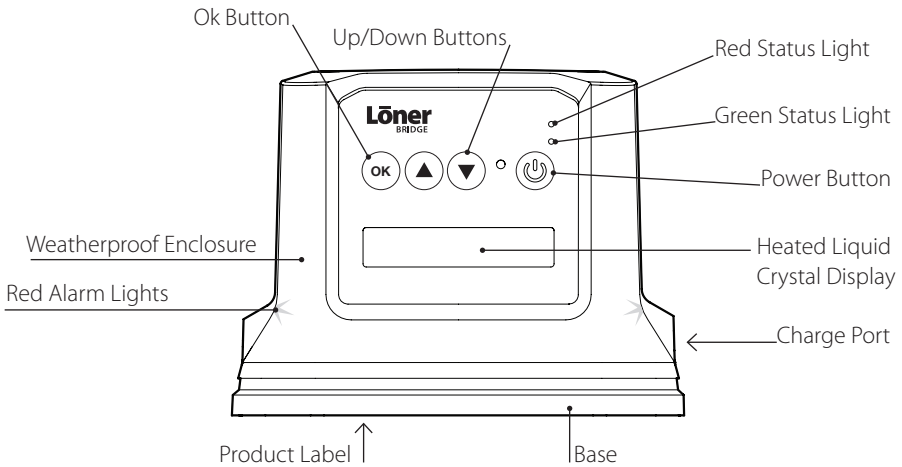
For communication within urban environments, Loner Bridge incorporates cellular communications. Loner Bridge will automatically and seamlessly transition communications to the Blackline Safety Monitoring Network via satellite or cellular communications as available.

Location Technology

Loner Bridge incorporates an internal Global Positioning System that enables reporting of its location to facilitate an efficient, pin-point emergency response to safety incidents.

Using Löner Bridge

Löner Bridge Hardware Details



PHYSICAL FEATURE	USE
OK Button	Opens and selects items in the menu
Up/Down Buttons	For navigating Löner Bridge menu system
Red Status Light	Indicates charge status
Green Status Light	Indicates satellite/GSM connection status
Power Button	Powers Löner Bridge/returns to status menu
Heated Liquid Crystal Display	Displays messages, menu system elements, and device connection status information
Charge Port	Charges Löner Bridge
Base	For mounting to Blackline Magnetic and Multi-purpose Mounts
Product Label	Provides product information, unit ID and activation code
Weatherproof Enclosure	Protects Löner Bridge from water and dust ingress

Charging Loner Bridge

If Loner Bridge is being used as a portable base station and not hard-wired to a vehicle's power system, it will need to be charged regularly based upon the amount of use. The internal rechargeable battery will provide up to 44 hours of continuous run-time at room temperature.

Charging status can be determined by observing the Red Charging Light. See the section Red Charging Light for more detailed information.

1. Plug the wall charger into an electrical outlet (some outlets are controlled by a wall switch)
2. Unplug the Sealing Plug from the Micro USB Charging Port on Loner Bridge
3. Insert the Micro USB Cable Plug into the corresponding Micro USB Charging Jack on Loner Bridge ensuring the appropriate orientation of the plug
4. Completely charge Loner Bridge for 10 hours or until charging is complete as shown on the Liquid Crystal Display
5. Remove the power cable from Loner Bridge and replace the Sealing Plug

If Loner Bridge is in a very low power state, it may take up to an hour of charging before the charging state can be observed via the Red Charging Light. Loner Bridge is able to operate while being charged.

Hard-wiring Loner Bridge

Loner Bridge may be hard wired to a vehicle power system using the optional Hard-wiring Cable connected to the Micro USB Charging Port. The Hard-wiring Cable is compatible with vehicle power systems of 12 and 24 nominal Volts DC. This cable converts this broad range of vehicle power system voltages to the 5 Volts DC required by Loner Bridge.

1. Install the Hard-wiring Cable to the vehicle's power system per the instructions that accompany the cable
2. Fully remove the Sealing Plug from the Micro USB Charging Port on Loner Bridge and retain for future portable operation
3. Insert the Hard-wiring Cable Micro USB Plug into the corresponding Micro USB Charging Jack on Loner Bridge ensuring that the plug is fully seated

Refer to the *Installation Guide: Hard-wire Kit for Loner Bridge* for further information.

Loner Bridge is environmentally protected only when the Sealing Plug is fully inserted into the charging port, or the Hard-wiring Cable is fully inserted into the Charging Port.

WARNING: Always wire the Loner Bridge device to a vehicle circuit that incorporates a fuse.

Turning Loner Bridge On

1. Press the Power button for 1 second to turn Loner Bridge on
2. Loner Bridge will attempt to connect to a cellular or satellite network

Loner Bridge requires sufficient battery power, or charging cable attached, to connect to the wireless network. It takes approximately 2 minutes for Loner Bridge to connect to the cellular or satellite network.

Turning Loner Bridge Off

1. Press any button once to wake up the Display Sleep Mode.
2. Press the Power button for three seconds to power Loner Bridge off.

Loner Bridge will flash both the Green Status Light and the Red Charging Light during the shutdown sequence.

When Loner Bridge is off, employee's using a Loner 900 employee safety monitoring device will no longer be monitored.

If the Bridge is in a challenging environment that makes communication difficult, it will extend the shutdown sequence until all priority messages are transmitted over the Cell or Satellite network. The Bridge will extend the shutdown sequence for up to 20 minutes.

During the extended shutdown sequence the Bridge can be forced to shut down at any time by pressing and holding the power button for three seconds.

Green Status Light

Loner Bridge features a Green Status Light with following functions.

PHYSICAL FEATURE	USE
Light flashing	Indicates that Loner Bridge is powered and not connected to the network, or indicates that Loner Bridge is turning off, during the shut-down sequence
Light On	Indicates that Loner Bridge is powered and connected to the network, either via satellite or cellular
Light Off	Indicates that Loner Bridge is either powered off or is powered on and has entered the Display Sleep Mode

Loner Bridge is referred to as being offline and is not connected to the Blackline Network when the Green Status Light is blinking or the device is powered off.

Loner Bridge is referred to as being online and connected to the Blackline Network when the Green Status Light is on continuously.

Display Sleep Mode

Loner Bridge features a Display Sleep Mode that turns off the Liquid Crystal Display two minutes for portable use after the last button press. This feature ensures that Loner Bridge maximizes battery life by reducing overall power consumption.

Waking the Display

If Loner Bridge is in the Display Sleep Mode, you may wake up the light by pressing any button on the user interface. The Liquid Crystal Display will wake up, indicating whether Loner Bridge is connected to the wireless network (online) or not (offline).

If the Liquid Crystal Display does not wake up, the internal battery of your Loner Bridge has been depleted and needs to be charged.

Red Charging Light

Loner Bridge features a Red Charging Light with the following functions.

PHYSICAL FEATURE	USE
Light Off	Device is not charging
1 light blink	Device is charging but does not have enough power to log onto the cellular or satellite network
2 light blinks	Device is charging with battery between 0 – 50%
3 light blinks	Device is charging with battery between 50 – 80%
Light solid On	Device is charging with battery between 80 – 100%

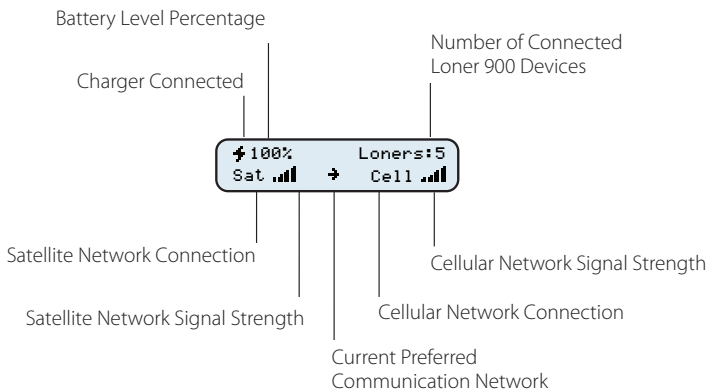
The Red Charging Light will flash with the Green Status Light and the Red Alarm Lights if Loner Bridge is in the shut-down sequence.

Reading the LCD Status Display

The Liquid Crystal Display indicates the following information while in normal operating mode.

- Whether Löner Bridge is connected to a Cellular or Satellite network. If it is not connected to any network, the display will show [--] and the green connection status light will flash
- The network signal strength
- The number of Löner 900 devices connected to the Bridge
- Current battery level and charging status

The Liquid Crystal Display Explained





The Network Connection Icons

Cell	Cellular communications
Sat	Satellite communications
Searching...	Looking for connection


Loner Bridge LCD Display Menu

The Loner Bridge LCD Display menu allows you to perform a variety of functions that can assist you in communicating with the safety network and connected Loner 900 devices.

Navigating the Display Menu

The top line indicates the **menu** or **submenu**. This menu is navigated using the  and  arrow buttons






The bottom line indicates the **action**, which can be selected by pressing the  button.



Pressing  once, at any time, will return you back to the status display screen.



Receiving a Message on Loner Bridge

Messages can be sent from the Loner Portal web application. When a message is sent from the monitoring personnel, it will appear on the LCD display and engage a TeamAlert™ muster alarm on each Loner 900 connected to the Loner Bridge. Upon receiving the alert, you can stop the TeamAlert muster and respond with a message from the Bridge.

1. A message is received by Loner Bridge and displayed on the LCD display
2. A TeamAlert muster alarm is triggered and all connected Loner 900 devices will go into muster alarm, which is indicated by yellow flashing light.
3. Upon arriving back at the Loner Bridge, check the display for a message and once read, press .
4. You will see "Muster started". Press .
5. Press  again to stop the TeamAlert Muster. Stopping the muster alarm on the Bridge will stop the muster alarm on all connected Loner 900 devices.



Checking Loner Bridge Message Inbox

The "Message Inbox" stores the last received message. When a new message is received the previous message is deleted. Power cycling clears the Message Inbox.

1. From the main menu, navigate to **Message Inbox** and press .
2. View the last received message by using the down arrow and press  to view the full message



Sending a Message from Loner Bridge

Loner Bridge can be used to notify or respond to the Blackline Safety Network during an emergency. There are ten pre-programmed messages that can be selected to be sent. To send a message follow these steps.

1. From the main menu, navigate to **Send Message** and press  button.
2. Select the message you would like to send using the arrow buttons and press .
3. The LCD Display will say "Txt Msg sent"



Initiating a TeamAlert Muster

A TeamAlert Muster can be used to call all connected Loner 900 devices back to the Bridge. When initiated, the connected Loner 900 devices will go into muster alarm, which is indicated by a yellow light. The Bridge will also go into simultaneous alarm.

1. From the main menu, navigate to **TeamAlert Muster** and press  button
2. Navigate to "Start" and press .
3. The display will say "Muster started" and Loner Bridge and connected Loner 900 devices will go into alarm, alerting the Team to return back to Loner Bridge

Silencing a TeamAlert Muster

Silencing the teamAlert Muster will stop the alarm on both the Bridge and connected Loner 900 devices. As a result, the yellow muster light on the Loner 900 will stop flashing.

1. From the main menu navigate to **TeamAlert Muster** in the main menu and press .
2. Navigate to "Stop" and press .
3. The display will say "Muster stopped" and Loner Bridge and connected Loner 900's will stop generating the muster alarm

Once a TeamAlert muster has been silenced, the Loner 900 device will continue to remain in alarm state, however the yellow light will stop flashing. To fully silence the device, press down on the safety latch.

Checking Loner Bridge Diagnostics

Diagnostics contain information about the firmware version and advanced satellite information. This information will not be required for typical operation.



Pairing a Loner 900 to a Loner Bridge

Normal Operation

When Loner Bridge is powered on, it will automatically find a Satellite or Cellular network connection to the Blackline Safety Monitoring Network and then accept a connection from a paired Loner 900. In most cases, it is not necessary to interact with the Loner Bridge beyond powering it on or off. The Loner 900 connection to Loner Bridge will occur automatically as long as Loner 900 is powered on.

Pairing New Loner 900 Devices with Loner Bridge

The pairing process only needs to take place once for each Loner 900. It tells the Bridge which Loner 900 devices it is allowed to accept connections from. This feature allows Bridges from multiple organizations to operate in the same area without interfering with your Loner/Bridge connection.

1. From the main menu navigate to **Pair New Loners** in the main menu and press .
2. Navigate to "Start" and press .
3. Loner Bridge will stay in pairing mode for 3 minutes in order to complete pairing with a Loner 900 device

Using the Loner 900 System

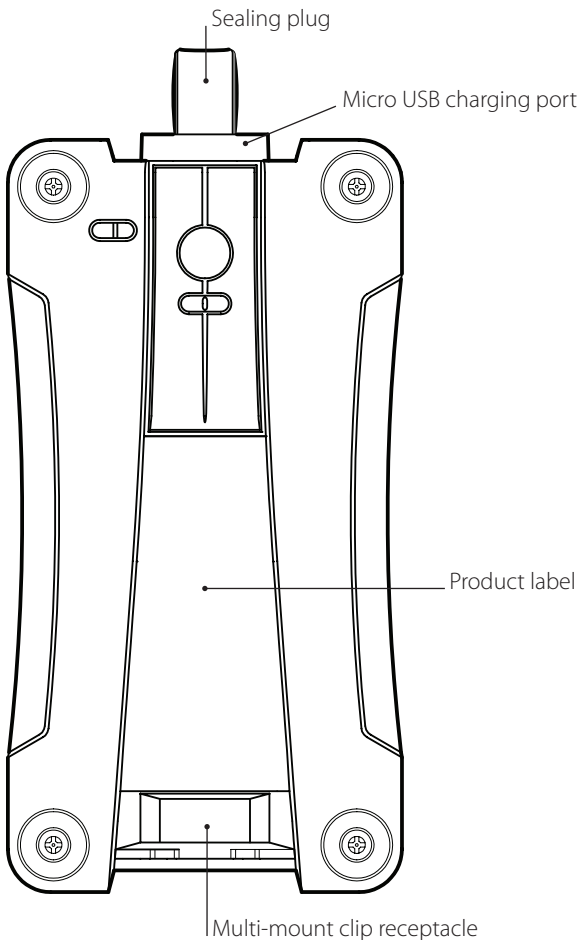
Perform the following to ensure you are being protected with Loner Bridge and Loner 900.

1. Press the power button to turn on the Loner Bridge device. The green Power Button Indicator Light on Loner Bridge will begin to flash.
2. Mount the Loner Bridge on your vehicle in an open location, with a broad, clear, unobscured view of the sky for satellite communications. Keep it away from tall buildings and from underneath tree cover. Satellite communication will not operate indoors or performance will be impaired.
3. Press the power button to turn on Loner 900. The device's internal vibration motor, beeper, and red visual indicators will announce the power on sequence. The green SureSafe™ Power Button Indicator Light on Loner 900 will begin to flash.
4. Wear Loner 900 at all times that you require remote safety monitoring. Perform your duties as you normally would. Loner 900 automates remote monitoring of your safety.
5. Power off Loner 900 when remote monitoring of your safety is no longer required by pressing and holding the green Suresafe power button until it stops beeping (about three seconds).
6. Power off Loner Bridge only when no Loner 900 devices are connected to ensure that real-time monitoring of other employees is not inadvertently stopped. Press and hold the power button until Loner Bridge stops beeping (about three seconds).

Mounting Löner Bridge

Attaching Löner Bridge to the Magnetic Mount or Multi-purpose Mount

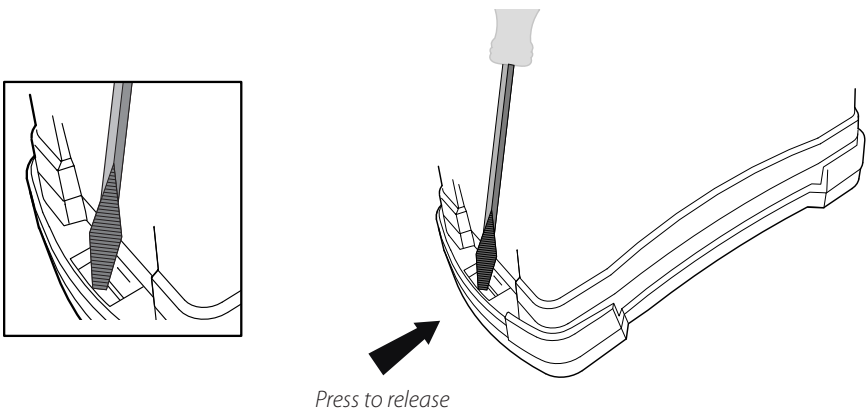
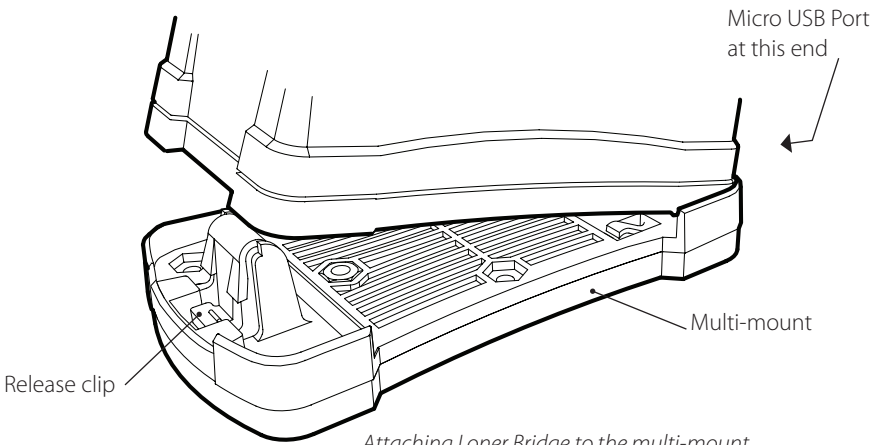
1. Engage the retaining features at the USB charging Port end of the Bridge with their mating features on the Multi-Mount at the opposite end from the Release Clip
2. Snap Löner Bridge into the mount's Release Clip
3. Test to ensure that Löner Bridge is fully engaged with the Release Clip by trying to remove Löner Bridge with your hand



Removing Loner Bridge from the Mount

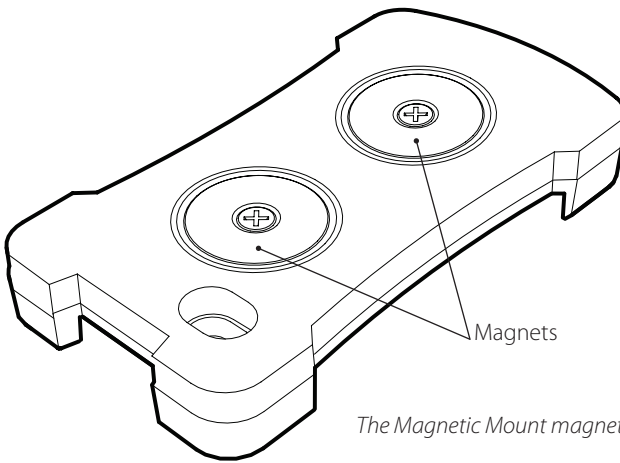
To remove Loner Bridge from the mount, use a screwdriver (or similar tool) to push the mount release lever toward Loner Bridge while holding onto the device to prevent it from falling.

Take care when releasing Loner Bridge as it takes some force to release.



Mounting Loner Bridge with the Magnetic Mount

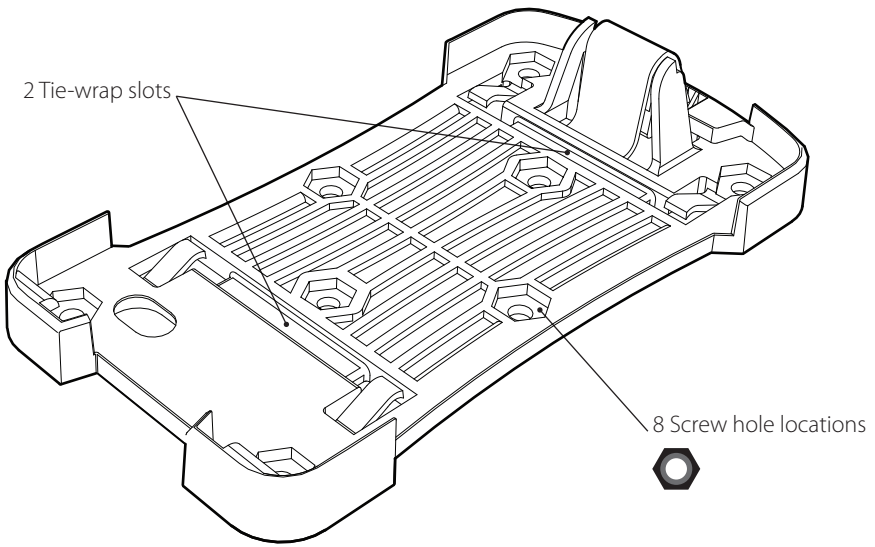
Loner Bridge is supplied with a versatile removable Magnetic Mount with two pre-installed rare earth magnets providing 224 lbs of mounting force. Use caution when attaching Loner Bridge to a vehicle using the magnetic mount.



Use caution when handling the magnet to prevent personal injury or property damage. Strong magnets can damage media such as hard drives, credit cards, ID cards, and similar devices that use magnetic media



Individuals with pacemakers or other medical devices and mechanical implants should use caution when handling the magnet that accompanies the magnetic mount.



Mounting Loner Bridge with the Multi-purpose Mount

The Multi-purpose Mount provides five recommended methods of mounting.

- Adhesive foam pad (included)
- Industrial adhesive (not included)
- Tie-wraps (not included)
- Screw fasteners (not included)
- Hook and loop fasteners (not included)

Adhesive Foam Pad

You may adhere the Multi-purpose Mount to a clean surface using the included adhesive foam pad.

1. Clean the mounting surface to enable the adhesive to stick
2. Remove the backing from the adhesive foam pad
3. Stick the adhesive foam pad to the bottom of the Multi-purpose Mount
4. Remove the remaining adhesive backing and firmly press onto the mounting surface. Adhesive has high immediate bond strength. For best results allow 24 hours before loading the adhesive bond.
5. If desirable at this time, insert Loner Bridge into the Multi-purpose Mount.

Industrial Adhesive

You may adhere the Multi-purpose Mount to a surface using industrial adhesive such as a polyurethane adhesive (not included).

1. Clean the mounting surface and the bottom of the Multi-purpose Mount
2. Apply the industrial adhesive in sufficient quantity for bonding
3. Firmly press the Multi-purpose Mount onto the mounting surface. If desirable at this time, insert Loner Bridge into the Multi-purpose Mount.

Allow the adhesive to cure prior to removing Loner Bridge from the Multi-purpose Mount. For drying time, please reference the instructions for chosen adhesive.

The Multi-purpose Mount is fabricated from glass-filled nylon. Please select an appropriate adhesive for both nylon and your mounting surface.

Tie-wraps

You may attach the Multi-purpose Mount to a surface using tie-wraps.

1. Choose a tie-wrap of appropriate length, wrapping around the object to which the Multi-purpose Mount will be attached.
2. Thread a tie-wrap through each pair of tie-wrap holes of the Multi-purpose Mount
3. Hold the Multi-purpose Mount against the surface which it will be mounted
4. Pull both ends of the tie-wrap around the surface and engage the pointed tip of the tie-wrap into its ratcheting end and pull tightly. If desirable at this time, insert Loner Bridge into the Multi-purpose Mount.

Screw Fasteners

You may fasten the Multi-purpose Mount to a surface using wood screws or self-tapping screws.

1. Choose an imperial #8 or metric M4 pan head mounting screw that is appropriate for the application
2. Using the Multi-purpose Mount, mark the screw locations on the surface and pre-drill as necessary.
3. Fasten the Multi-purpose Mount to the surface being careful not to over-tighten the screws. If desirable at this time, insert Loner Bridge into the Multi-purpose Mount.

Hook & Loop Fasteners

You may adhere the Multi-purpose Mount to a surface using hook-and-loop fasteners however it is not a recommended method for in vehicle mounting.

1. Clean the mounting surface and the bottom of the Multi-purpose Mount
 2. Peel the backing from the loop portion of the fastener and adhere to the bottom of the Multi-purpose Mount
 3. Peel the backing from the hook portion of the fastener
 4. Adhere the Multi-purpose Mount to the surface, firmly pressing into place. If desirable at this time, insert Loner Bridge into the Multi-purpose Mount
- ❖ Prior to removing the Multi-purpose Mount or Loner Bridge, wait the time prescribed by the supplier for the adhesive to cure.

Prior to removing the Multi-purpose Mount or Loner Bridge, wait the time prescribed by the supplier for the adhesive to cure.

Car and Truck Mounting

To operate, Löner Bridge must be installed with a line-of-sight view to the sky for satellite communication and optimum GPS positioning reception. The following sections provides some options to consider when choosing a location to mount Löner Bridge.

Roof Mount

The included Magnetic Mount can be used to attach Löner Bridge to a vehicle by magnetically attaching the device to the roof of the vehicle. Alternatively, other horizontal bodywork of the vehicle can be used such as the trunk of a car. Care should be taken to ensure that positioning of the Löner Bridge device does not affect the safety systems, operation of the vehicle, or impair the visibility of the driver.

Behind the Cab Mount

An optional stainless steel Truck and Pole Mount is available for mounting to one of the four anchor points on the box of most trucks. Additionally, this mount can be attached to a pole using the supplied hardware. The Truck and Pole Mount is lockable, providing some additional security of the Löner Bridge System when the user is not present at the vehicle. When considering a location to mount Löner Bridge using this accessory, the display should be accessible by the user and the locking-key should be removable, as required.

Dash Mount

Löner Bridge may be installed directly under a front windshield of a vehicle, considering that the glass is slanted, providing a high degree of visibility to Löner Bridge. The vehicle's roofline will obscure a portion of the sky and can impact the communication capability of the system. Due to communication satellite orbits, this effect is normally minimum and can cause some delay in communications as satellites move across the sky and enable communication.

Dash mounting the Löner Bridge makes use of the included Multi-purpose Mount. The Löner Bridge device must be mounted away from airbag safety systems and the display must face the interior of the vehicle for operation. Once mounted, the Löner Bridge device must not block the vision of the driver or impair the driver's operation of the vehicle, or interfere with safety systems such as air bags.

All-terrain Vehicle Mounting

Mounting the Löner Bridge device to an all-terrain vehicle (ATV) can be accomplished using the included Multi-purpose Mount. This mount can be glued to a plastic fender of the ATV using the adhesive foam pad or tie-strapped to the luggage rack.

Specifications

Specifications for Loner Bridge

Size & Weight

Size: 73 mm W x 107 mm D x 141 mm L (2.87"W x 4.21"L x 5.55"D)

Measurements do not include mount.

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, backhaul link status

Menu Navigation buttons: Up, Down, Accept (OK)

User Notification

Indicators: Acoustic buzzer, indicator lights

LCD Screen: display notifications/messages from backend

Wireless Communication

Radios: Quad-band GSM/GPRS (850, 900, 1800, 1900 MHz);

Iridium Satellite (1621 MHz); ISM band radio (915 MHz)

900 MHz Radio: 902.0 – 928.0 MHz, 1 Watt

Region: Compliant for use in Region 2 only (Americas, Greenland, Eastern Pacific Islands)

Antenna: Internal quad-band; Patch; Printed
Bidirectional communication

Location Technology

GPS Radio: 48 channel high sensitivity

GPS Accuracy: ~5 m (16 ft) outdoors, ~50 m (165 ft) indoors

GPS 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/Text messages

Mobile Messaging Methods

Email, text message (SMS)

Power & Battery

Rechargeable Li-ion battery: 6800 mAh capacity

Battery life: 44 hours @ 20° C (68 °F); 50 hours @ -20° C (-4 °F);

14 hours @ -40° C (-40 °F);

It is recommended that the hard wire kit is used anytime below -20° C

Charging connector: Micro USB

Environmental

Storage temperature range: -30 °C to 75 °C (-22 °F to 167 °F)

Operating temperature: -20 °C to 55 °C (-4 °F to 131 °F)

Charging temperature: 0 °C to 45 °C (32 °F to 113 °F)

Ingress Protection: Designed to meet IP65

Regulatory Compliance

FCC, IC, RoHS

Contains: FCCID: QIPBGS2, 0639602, IC: 7830A-BGS2, 4629A-9602

Device Requirements

Activated service plan

Satellite communications requires line-of-sight to satellites

GPS for locating

Safety monitoring requires active 900 MHz and satellite or cellular connections

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: Nearly 150 countries

Satellite coverage: Global

900 MHz operation: ITU Region 2

Service plan options: Contact Blackline

Löner Bridge Care

Consideration Regarding Use and Storage of Löner Bridge

Löner Bridge is designed to meet IP65 ingress protection ensuring that under normal operation no dirt or water can enter the device, including through car washes.

Storage temperature range: -30 °C to 75 °C (-22 °F to 167 °F)

Operating temperature: -20 °C to 55 °C (-4 °F to 131 °F)

Charging temperature: 0 °C to 45 °C (32 °F to 113 °F)

Weather-sealing Plug

Please ensure that the Sealing Plug is correctly inserted into Löner Bridge at all times when not charging or when not connected to the optional Vehicle Hard-wiring Cable. This will ensure that the Löner Bridge is able to withstand the elements at all times and provide reliable operation. Failure to have the Sealing Plug installed may permit water or other fluids to enter Löner Bridge that may cause an electronics failure, which is not covered under warranty.

Customer Care

North America (Between the hours of 8am-5pm Mountain Time)

Toll-free: 1-877-869-7212 | support@blacklinesafety.com

United Kingdom (Between the hours of 8am-5pm Greenwich Mean Time)

+44 1787 222684 | eusupport@blacklinesafety.com

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+1 403 451 0327 | support@blacklinesafety.com

Website

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blacklinesafety

Alert. Locate. Respond.

www.BlacklineSafety.com