blacklinesafety

G7 Bridge

Hardwire Cable Installation Guide

CONTENTS

1 INTRODUCTION 3
1.1 TOOLS 4
1.2 LOCATING G7 BRIDGE 4
2 HARDWIRING THE CABLE 5
3 CONNECTING G7 BRIDGE 6
4 VERIFYING THE INSTALLATION 7

1 INTRODUCTION

G7 Bridge can be hardwired to a vehicle's 12 or 24 VDC power system with the two-wire hardwire cable (ACC-BRG-HRD) to provide continuous power to the device.

Blackline recommends that you consider wiring G7 Bridge to a circuit that is switched off when the ignition key is removed (i.e., an ignition-switched circuit). This approach, compared to wiring to a circuit with continuous power, stops G7 Bridge from drawing down the vehicle's battery over time for long-term storage applications (more than one week). If you choose to wire G7 Bridge to a circuit with continuous power, turn off or unplug Bridge when it is not in use to avoid draining the vehicle battery.

G7 Bridge consumes up to 1.0 A of peak current. Confirm that the target circuit can handle the additional load.

Wiring can be done through the center/rear brake light, or another external power source. During installation, confirm that the cable is properly grounded.

CAUTION: Failure to properly wire G7 Bridge may result in loss of power to Bridge.

Blackline Safety recommends that an automotive service center install Bridge for you. Installation time varies depending on the installation, your vehicle model, and takes approximately 15 to 90 minutes. Please read through the following installation instructions before you begin.

Figure 1 G7 Bridge

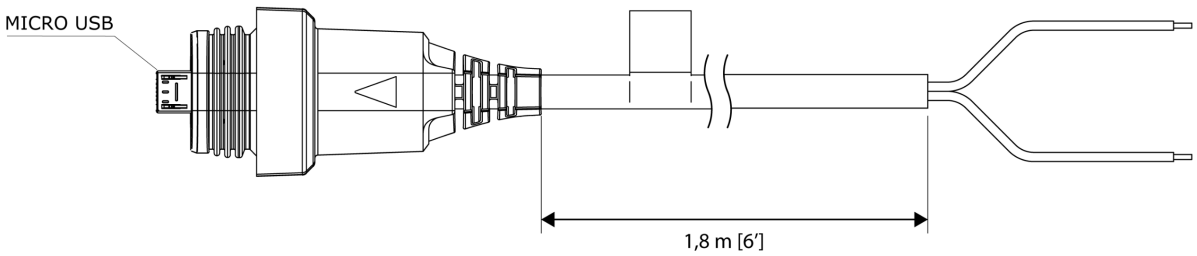


Figure 2 G7 Bridge Hardwire Cable (ACC-BRG-HRD)

1.1 TOOLS

To complete the installation, you need the following:

- Hardwire cable (ACC-BRG-HRD)
- Zip ties
- Automotive test light
- Pliers
- Wire strippers
- Drill
- Soldering iron and solder
- Heat shrink
- Heat gun

1.2 LOCATING G7 BRIDGE

Before you start the installation, consider the following to determine the best location for G7 Bridge:

- Position Bridge with a clear line of sight to the sky so that it can communicate with the Iridium satellite network unobstructed. When mounted to a vehicle or all-terrain vehicle, snowmobile, or boat, Bridge must stay in open sky, a minimum of 10 m (33 ft) away from any buildings.
- Place Bridge as high as possible on the vehicle to ensure the 900 MHz radio link can travel the maximum distance between Bridge and connected G7x devices.
- Locate Bridge close to the 12 or 24 VDC power source.

- Find a level surface to ensure that the display is readable and the buttons are accessible.
- Find an area that is clear from the operation of airbags, seat belts, where the device might interfere with the vehicle's operation or safety systems, or where it would obstruct the driver's view.
- If installing G7 Bridge in a vehicle's interior, position Bridge so that the display faces the vehicle passengers.

⚠ WARNING: Do not use Bridge in areas classified as hazardous locations where there is a risk of explosion due to the presence of gas, vapor, or dust. Do not place Bridge in or near open flame. Bridge is not certified as intrinsically safe.

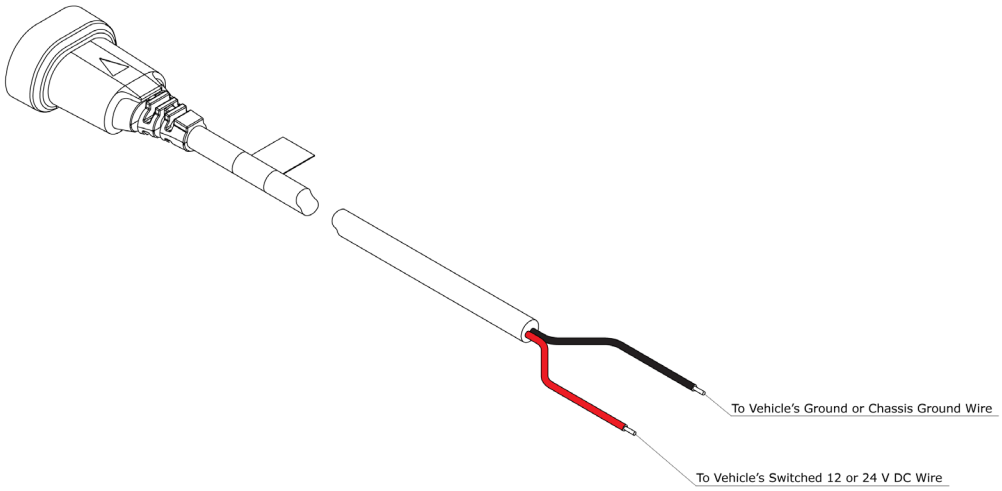
2 HARDWIRING THE CABLE

To hardwire the cable to the vehicle's 12 or 24 VDC wire:

1. Disconnect the negative connection to the vehicle's battery.
2. Use an automotive test light to identify a switched 12 or 24 VDC wire that is controlled by the vehicle's ignition key.

   CAUTION: Always wire G7 Bridge to a vehicle circuit that incorporates a fuse.
3. Route the cable's positive wire (red) to the switched 12 or 24 VDC wire.

   NOTE: The hardwire cable is approximately 6 ft in length. You may need to add, splice, and insulate extra wire to the cable depending on the location of the power source. Ensure that you use a minimum 18-gauge automotive-grade wire.
4. Use a crimp or solder connection to connect the red wire to the switched 12 or 24 VDC wire. Do not use wiring taps such as 3M Scotchlok™.
5. Route the cable's negative wire (black) to the vehicle's ground wire or chassis ground.
6. Use a crimp or solder connection to connect the cable's black wire to the ground wire.



7. Insulate the soldered connections with an insulated heat shrink.

   CAUTION: Use split loom when wiring is run under the truck or exposed to rocks, mud, salt, and snow. Use grommets to protect the cable from sharp edges drilled into the body of the vehicle.

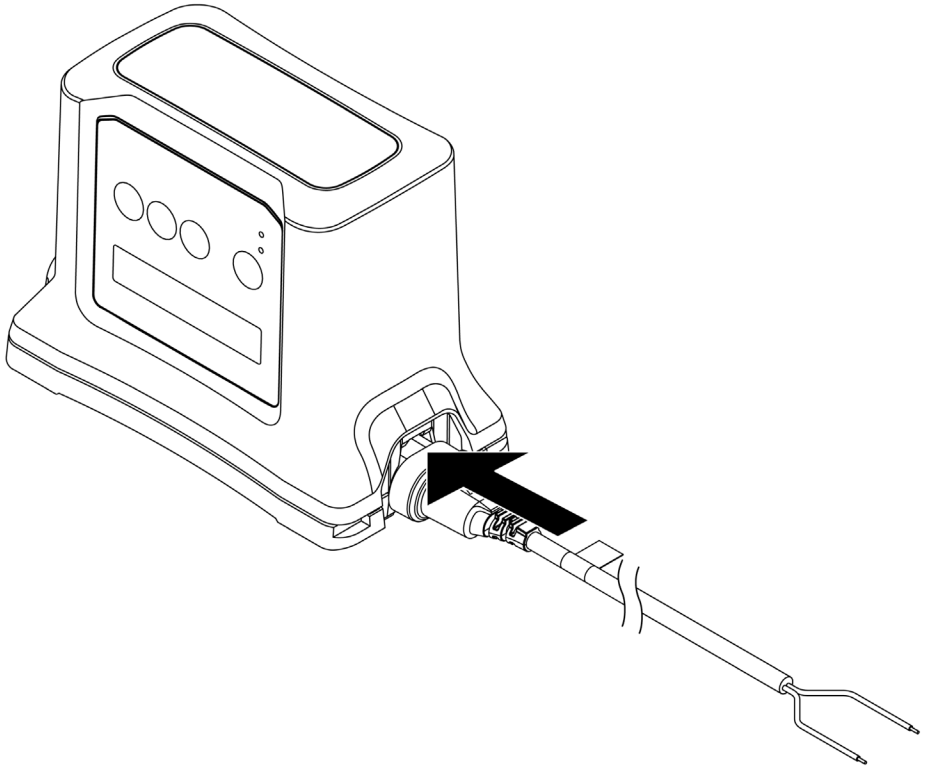
8. Reconnect the negative connection to the vehicle's battery.
9. Blackline recommends that you use cable ties or something similar to secure the cable, to prevent wear due to vibration.

3 CONNECTING G7 BRIDGE

To connect the hardwire cable to G7 Bridge:

1. Remove the Sealing Plug from Bridge and store for possible future use (for portable operation). This plug is not required for a hardwire installation.

2. Insert the micro-USB end of the hardwire cable into the Bridge USB charging port.



4 VERIFYING THE INSTALLATION

After you complete the hardwiring to the vehicle and connect the cable to G7 Bridge, check that G7 Bridge is getting power, based on if the charge to G7 Bridge is switched (controlled by the ignition key) or non-switched (continuous power).

To test the installation for an ignition-switched circuit:

1. Check that the ignition key is in the OFF position. G7 Bridge may be powered OFF or ON.
2. Check that the red Charging light on the front of G7 Bridge is OFF. If the Charging light is blinking or ON steadily, the hardwire cable is connected to a non-switched vehicle circuit—recheck the wiring.
3. Turn the ignition key to the ON position. The Charging light should begin to blink or be a steady red. If the light does not turn on, recheck the wiring.

To test the installation for a non-switched circuit:

1. Verify that the ignition key is in the OFF position. G7 Bridge may be powered OFF or ON.
2. Check the Charging light on the front of G7 Bridge. It should be a blinking or a steady red light. If the light does not turn on, recheck the wiring.