

blacklinesafety

G6 Dock

Technical User Manual

Contents

1	OVERVIEW	4
1.1	G6 DOCK CONNECTIVITY	4
1.2	BLACKLINE LIVE.....	4
1.3	WHAT'S IN THE BOX	5
1.4	HARDWARE DETAILS	6
2	SET UP.....	8
2.1	GAS INLET CONFIGURATION.....	8
2.2	CONNECTING G6 DOCK TO A GAS CYLINDER	9
3	OPERATING	9
3.1	REQUIREMENTS	9
3.2	POWERING ON G6 DOCK	9
3.3	LOCKING G6 INTO G6 DOCK.....	10
3.4	REMOVING G6 FROM G6 DOCK.....	11
3.5	VIEWING G6 DOCK INLET SETTINGS	12
3.6	VIEWING G6 DOCK INFORMATION	13
3.7	BUMP TESTING G6	13
3.8	CALIBRATING G6.....	16
3.9	CONFIGURING G6 DOCK IN BLACKLINE LIVE	18
3.10	UPDATING G6 DOCK.....	19
4	MAINTENANCE AND TROUBLESHOOTING	21
4.1	MAINTAINING G6 DOCK.....	21
4.2	CLEANING G6 DOCK	21
4.3	TROUBLESHOOTING.....	21
5	SUPPORT	24
5.1	LEARN MORE.....	24
5.2	CUSTOMER CARE	24
6	SPECIFICATIONS AND LEGAL NOTICES.....	25
6.1	DETAILED SPECIFICATIONS.....	25
6.2	LEGAL NOTICES.....	26

WARNING

Electrical equipment may be hazardous if it is not disposed of properly. Seek advice from your local electronics recycling authority regarding the disposal of your device. Do not dispose Blackline products in your household trash.

DANGER

Do not use G6 Dock in areas classified as hazardous locations, where there is risk of explosion due to presence of gas, vapor, or dust. G6 Dock is not certified as intrinsically safe. Do not place G6 Dock in or near open flame or submerge in liquid.

1 OVERVIEW

G6 Dock is Blackline Safety's accessory for completing compliance operations (bump testing and calibration) on G6.

1.1 G6 DOCK CONNECTIVITY

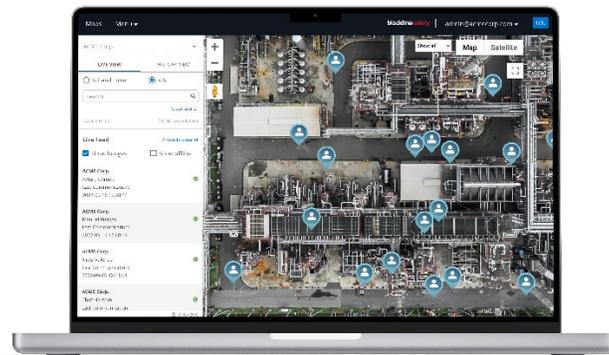
G6 Dock is not inherently connected to any network or Blackline Live. When a G6 is placed in G6 Dock, the device communicates to G6 Dock.

When locked into G6 Dock, your G6 automatically connects to Blackline Live so that bump test and calibration data can be uploaded, and G6's compliance certifications synchronized.

In addition, locking a device into G6 Dock enables the dock to update. For more information on how to update G6 Dock, refer to [Updating G6 Dock](#).

NOTE: G6 does not need to be connected to Blackline Live to charge or complete calibrations and bump tests using G6 Dock.

1.2 BLACKLINE LIVE



Blackline Live keeps track of G6 and G6 Dock events, including notification history, gas calibrations, and bump tests, and eliminates the need to manually retrieve data logs from the field. When in G6 Dock, all G6 compliance data is communicated to Blackline Live.

For more information, please see [Blackline Live](#).

1.3 WHAT'S IN THE BOX

Your G6 Dock comes with:

- G6 Dock, configured for H₂S
NOTE: If your G6 has a CO, O₂, or SO₂ sensor, you must follow the directions in [Configuring G6 Dock in Blackline Live](#) before using G6 Dock.
- Tubing
- Quick-connects (3 male)
- Power components:
 - USB cable
 - USB power adapter
- Dock filter
- Gas identification label sheet
- G6 Dock Getting Started Guide

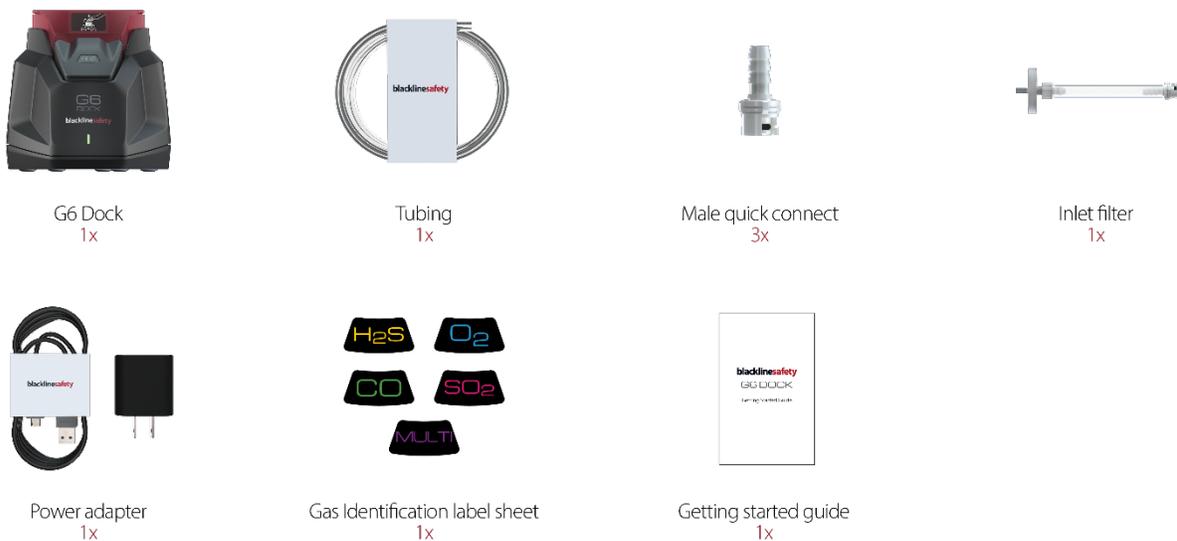


Figure 1-1: What's in the Box

1.4 HARDWARE DETAILS



Figure 1-2: G6 Dock Front



Figure 1-3: G6 Dock Back



Figure 1-4: G6 Dock Right



Figure 1-5: G6 Dock Left



Figure 1-6: G6 Dock Top



Figure 1-7: G6 Dock Bottom

2 SET UP

2.1 GAS INLET CONFIGURATION



G6 Dock is equipped with Gas out exhaust, Purge gas inlet, and Gas inlet ports:

- The Gas out exhaust is used to transfer calibration gas to a safe exhaust location, depending on your company's safety policy.
IMPORTANT: Never connect a gas cylinder to the Gas out exhaust port.
- The Purge gas inlet supplies clean air to remove residual gas from G6 Dock. This can be ambient air, or you can connect an air tank, depending on your operating environment.

NOTE: When using G6 Dock in dusty or humid environments, you can attach the optional inlet filter subassembly (ACC-INLET-FILTER) to the Purge gas inlet to ensure the Dock is being purged with clean, dry air.

- During calibration and bump tests, a calibration gas cylinder is connected to the Gas inlet to supply the gas used by the dock to calibrate and bump test your G6.

NOTE: If your G6 has a sensor other than H₂S, your Blackline Live administrator must select the target gas for G6 Dock, based on your G6 sensor type.

2.2 CONNECTING G6 DOCK TO A GAS CYLINDER

G6 Dock ports have quick-connects to allow for easy connection of a gas cylinder. Insert the provided quick-connect into the tubing, then join the tubing to the Gas inlet at the back of G6 Dock by connecting both quick-connect ends and twisting clockwise until it clicks securely into place. Ensure the other end of the tubing is attached to a demand flow regulator on the gas cylinder.

3 OPERATING

3.1 REQUIREMENTS

To operate G6 Dock, you will need the following:

- G6 personal safety monitoring device
- Gas cylinder with specific single-gas or multi-gas mixture containing G6's gas
- Tubing
- 120/240 VAC power source and power components provided with G6 Dock

CAUTION: You must use the power components provided with your G6 Dock. Using other power components could damage the dock.

3.2 POWERING ON G6 DOCK

G6 Dock is equipped with a micro-USB power cable.

To connect G6 Dock to power:

1. Insert the power cable into the port on the bottom of G6 Dock.
2. Feed the power cable through the tracks along the bottom to allow the dock to lie flat on a surface.

When plugged in, the green light on the front of G6 Dock will turn on to indicate power.



3.3 LOCKING G6 INTO G6 DOCK

To access the following G6 Dock functionality, G6 needs to be locked into G6 Dock:

- Charging G6
- Bump testing G6
- Calibrating G6
- Accessing the G6 Dock menu.

To lock G6 into G6 Dock:

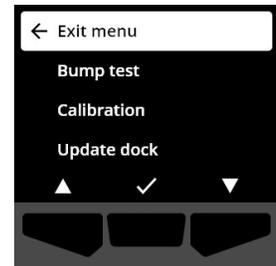
1. Place G6 into the G6 Dock cradle, ensuring that the data and power contacts of both devices are lined up.
2. Position your fingers over the top indicator lights and press G6 firmly down into the cradle until the G6 Dock locking mechanism clicks into place.



IMPORTANT: To ensure that the G6 and G6 Dock power and data contacts connect securely, avoid pressing G6 into the dock cradle using the antenna. Always lock G6 into the dock cradle by pressing directly down on G6's top indicator lights.

As you press down, the G6 Dock gas feed assembly will shift, and the assembly's soft gasket will cover and seal G6's sensor.

Once locked into place, G6 automatically establishes a connection to Blackline Live and displays the Dock menu screen.



NOTE: After timing out due to inactivity, the G6 screen will default to the docked Home screen.

To open the Dock menu from the docked Home screen, select  by pressing the center button.

IMPORTANT: G6 Dock suppresses all active (muted/unmuted) non-sensor related notifications on your G6 and the docked Home screen will always reflect an OK status.

If notifications are still applicable, they will be re-activated when your G6 is removed from the dock.

If G6 has an active sensor error, gas module error, or unknown sensor error and is locked into the dock, the G6 docked Home screen will not display and G6 will remain in regular operation with the errors displayed on its Home screen.



3.4 REMOVING G6 FROM G6 DOCK

To remove G6 from G6 Dock:

1. Press your locked G6 firmly down into the cradle until the G6 Dock locking mechanism clicks, opening the G6 Dock gas feed assembly, and releasing your device.

IMPORTANT: To avoid damaging the G6 Dock gas feed assembly and soft gasket, do not remove your device by pulling it out of the dock without unlocking the dock locking mechanism.

NOTE: If your G6 has notifications that are still applicable when the G6 is removed from the dock, they will be reactivated, and your G6 Home screen will reflect your device's current status.

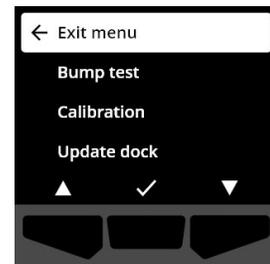
3.5 VIEWING G6 DOCK INLET SETTINGS

Display information about the dock inlet calibration gas using the Inlet settings menu item.

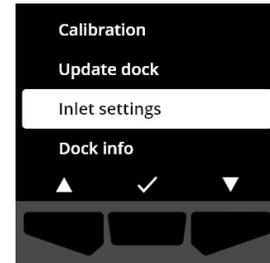
NOTE: The G6 Dock menu screen will default to the docked Home screen if it times out due to inactivity.

To view G6 Dock inlet settings:

1. Lock your G6 into G6 Dock. For more information, refer to [Locking G6 into G6 Dock](#).

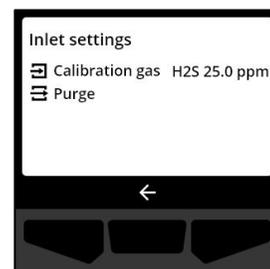


2. Using the navigation buttons, scroll through the Dock menu and select **Inlet settings** by pressing the center button (✓).



The Inlet settings screen opens, displaying the gas cylinder gas types and calibration concentrations.

3. To exit the Inlet setting screen and return to the Dock menu, select  by pressing the center button.

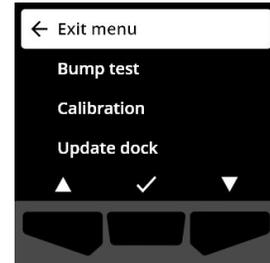


3.6 VIEWING G6 DOCK INFORMATION

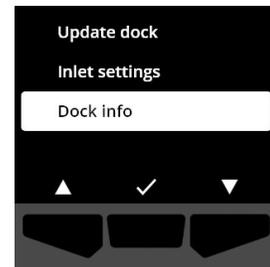
Display information about the dock Model, ID, and Firmware version using the Dock info menu item.

To view G6 Dock information:

1. Lock your G6 into G6 Dock. For more information, refer to [Locking G6 into G6 Dock](#).

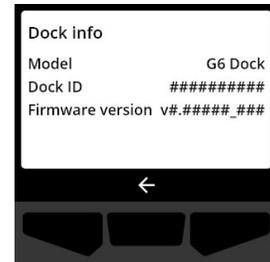


2. Using the navigation buttons, scroll through the Dock menu and select **Dock info** by pressing the center button (✓).



The Dock Info screen opens, displaying the dock Model, Dock ID, and Firmware version.

3. To exit the Dock info screen and return to the Dock menu, select  by pressing the center button.



3.7 BUMP TESTING G6

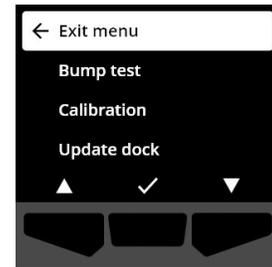
Bump testing verifies that your device’s gas sensor and notification indicators (lights, sound, and vibration) are functioning correctly. During a bump test, you apply a known concentration and amount of gas to confirm the sensors will trigger a notification in the event of a gas exposure.

Your bump test schedule should be informed by your company’s safety policy and is configurable by your Blackline Live administrator.

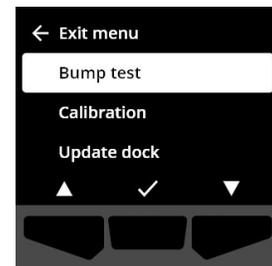
To bump test G6 using G6 Dock:

1. Lock your G6 into G6 Dock. For more information, refer to [Locking G6 into G6 Dock](#).

NOTE: If your G6 is overdue for bump testing, the Dock automatically starts a bump test of your device.

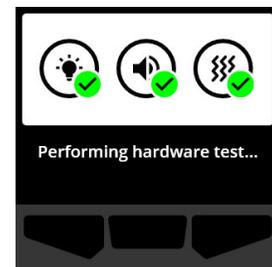


2. Using the navigation buttons, scroll through the menu and select **Bump test** by pressing the center button (✓).

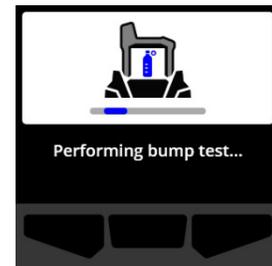


G6 will perform a hardware self test of your device's audio, visual, and vibration capabilities.

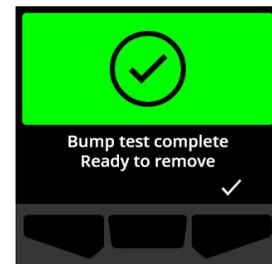
NOTE: If the hardware self test fails, the device will trigger a device error notification after G6 is removed from the dock.



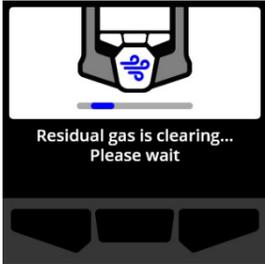
Once the hardware test has completed, G6 Dock will automatically apply gas and start the bump test.



3. Once the bump test has successfully completed, acknowledge the bump test result by pressing the right button (✓).
4. Remove your G6 from G6 Dock. For more information, refer to [Removing G6 from G6 Dock](#).



NOTE: If you acknowledge the bump test result while residual gas is still present, regardless of whether G6 is locked into the dock or removed from the dock, your device stays in the bump test maintenance state until the residual gas clears.



IMPORTANT: Following each docked bump test, your device automatically uploads the bump test results to Blackline Live.

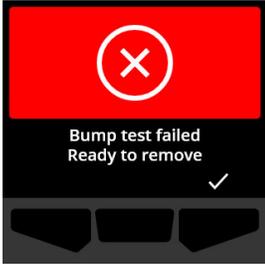
If a G6 firmware update is available, G6 immediately installs the update after you remove your device from the dock. During installation, your device will power off and automatically restart, displaying the firmware update version before device initialization begins.



For more information on G6 firmware updates, refer to the [G6 Technical User Manual](#).

IMPORTANT: If the bump test fails, you can retry by pressing the right button (✓) to return to the Dock menu.

To disconnect your device without retrying, remove your G6 from G6 Dock. For more information, refer to [Removing G6 from G6 Dock](#).



In the event of a failed bump test, and if bump test intervals are enabled for your device in Blackline Live, your G6 will have a bump test overdue status when you remove G6 from the dock.



3.8 CALIBRATING G6

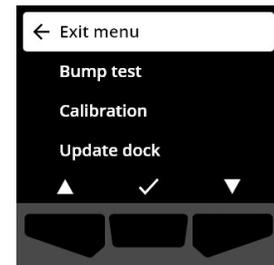
Gas sensors should be periodically calibrated by applying a known concentration of gas for a set amount of time. This procedure ensures the gas sensor can accurately detect gas levels throughout its operating life. G6's calibration also tests the operation of lights, sound, and vibration indicators. Blackline recommends not exceeding 365 days without a calibration.

The calibration schedule is configurable in Blackline Live by your Blackline Live administrator. Your calibration schedule should be based on your company's safety policy.

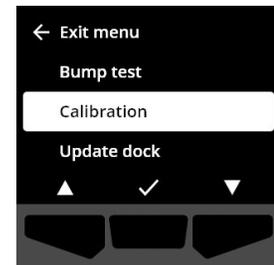
To calibrate G6 using G6 Dock:

1. Lock your G6 into G6 Dock. For more information, refer to [Locking G6 into G6 Dock](#).

NOTE: If your G6 calibration is overdue, G6 Dock automatically starts a calibration of your device. Successful completion of a G6 calibration also counts as a successful bump test.

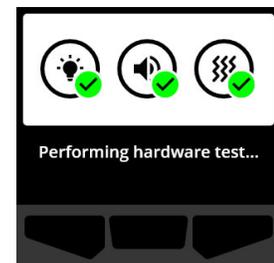


2. Using the navigation buttons, scroll through the menu and select **Calibration** by pressing the center button (✓).

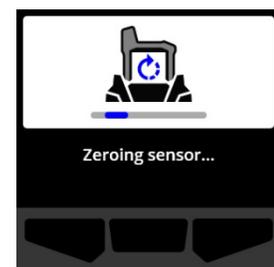


G6 will perform a hardware self test of your device's audio, visual, and vibration capabilities.

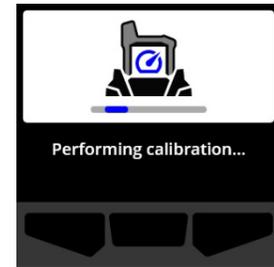
NOTE: If the hardware self test fails, the device will trigger a device error notification after G6 is removed from the dock.



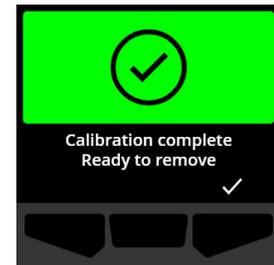
G6 will zero the sensor before calibration starts.



Once zeroing has completed, G6 Dock will automatically begin applying gas and start calibrating the device.



3. Once the calibration has successfully completed, acknowledge the calibration result by pressing the right button (✓).
4. Remove your G6 from G6 Dock. For more information, refer to [Removing G6 from G6 Dock](#).



NOTE: If you acknowledge the calibration result while residual gas is still present, regardless of whether G6 is locked into the dock or removed from the dock, your device stays in the calibration maintenance state until the residual gas clears.



IMPORTANT: Following each docked calibration, your device automatically uploads the calibration results to Blackline Live.

If a G6 firmware update is available, G6 immediately installs the update after you remove your device from the dock. Your device will power off and automatically restart, displaying the firmware update version before device initialization begins.

For more information on G6 firmware updates, refer to the [G6 Technical User Manual](#).

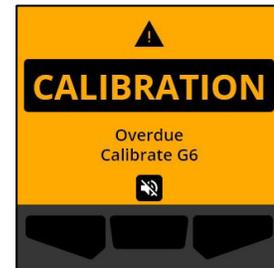
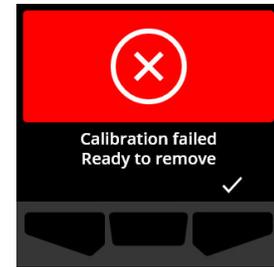


IMPORTANT: If the calibration fails, you can retry the calibration by pressing the right button (✓) to return to the Dock menu.

To disconnect your device without retrying, remove your G6 from G6 Dock. For more information, refer to [Removing G6 from G6 Dock](#).

In the event of a failed calibration, and if calibration intervals are enabled for your device in Blackline Live, your G6 will have a calibration overdue status when you remove G6 from the dock.

If you see a Calibration failed message on your LCD screen, refer to [Troubleshooting](#) for more information.



3.9 CONFIGURING G6 DOCK IN BLACKLINE LIVE

Update your dock's settings in your G6 Dock's configuration profile, available from the Docks page on Blackline Live.

IMPORTANT: By default, G6 Dock's Gas inlet is preconfigured in Blackline Live for 25 ppm H₂S. If your G6 does not have an H₂S sensor, you will need to update your Dock's inlet in Blackline Live.

NOTE: You will need Account User permissions in Blackline Live to complete the following steps. Talk to your manager if you have not been given the correct permissions.

For detailed information, refer to the [Blackline Live Technical User Manual](#).

To update your Dock's inlet in Blackline Live:

1. From the Main menu, select **Docks**. The Docks page opens.
2. Select the **G6** tab.
3. Select the dock you want to update. The Dock configuration details page opens.

NOTE: The activation code on the back of dock can be used to identify it from the list of G6 Docks in Blackline Live. If you are having difficulties accessing this page or finding your G6 Dock in Blackline Live, please contact the Blackline Safety [Customer Care](#) team.

4. In the Inlet section, select **EDIT**.
5. Select the correct G6 gas and update the calibration gas concentration, entering the gas cylinder details if available, and then select **SAVE**.



- 6. When the settings have been saved, place your G6 into the dock and select **Dock update** from the Dock menu. For more information on updating the dock, refer to [Updating G6 Dock](#).

3.10 UPDATING G6 DOCK

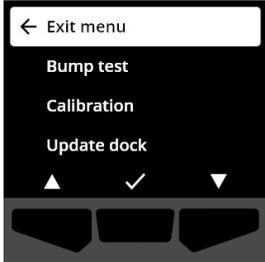
Update G6 Dock configuration settings by locking your G6 into the dock and updating the dock.

NOTE: G6 does not need to be connected to Blackline Live to charge, or complete calibrations and bump tests, but G6 does need to be connected to the network to upload bump test and calibration results to Blackline Live, or to update G6 Dock configuration settings.

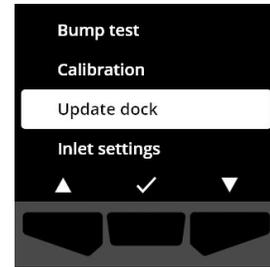
For more information on configuring G6 Dock in Blackline Live, refer to [Configuring G6 Dock in Blackline Live](#).

To update G6 Dock using G6:

- 1. Lock your G6 into G6 Dock. For more information, refer to [Locking G6 into G6 Dock](#).



- Using the navigation buttons, scroll through the Dock menu and select **Update dock** by pressing the center button (✓).

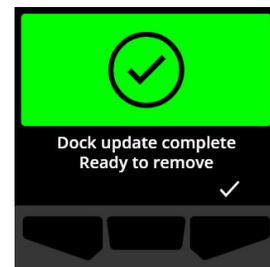


G6 Dock automatically starts the update.



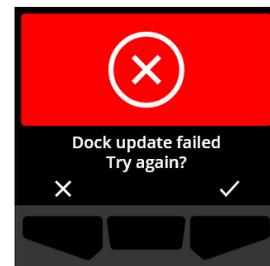
- When the update has successfully completed you can return to the Dock menu by pressing the right button (←).
- Remove your G6 from G6 Dock. For more information, refer to [Removing G6 from G6 Dock](#).

NOTE: After you have updated your inlet settings and updated G6 Dock, check your G6 Dock inlet settings to ensure that the update was successful. For more information, refer to [Viewing G6 Dock Inlet settings](#).



IMPORTANT: If the dock update fails, select ✓ by pressing the right button to try the update again.

To return to the Dock menu, select ✕ by pressing the left button.



4 MAINTENANCE AND TROUBLESHOOTING

4.1 MAINTAINING G6 DOCK

To make sure G6 Dock is in working condition, ensure the following:

- Gas valve and gasket located in the dock cradle move easily and is clean and free of debris.
- Gas inlets and outlet are clean and free of debris.
- Power and data contacts are clean and free of debris.

4.2 CLEANING G6 DOCK

To clean G6 Dock, disconnect the power and wipe the dock down with a damp cloth. Do not use pressure sprays or cleaning solvents.

For best performance, G6 Dock should be operated in a quiet, dry, clean, and well-ventilated environment.

4.3 TROUBLESHOOTING

Why is my G6 unresponsive when I put it into G6 Dock?

If your device does not respond when locked into G6 Dock, it may not be properly connected to the dock, or the dock may not be connected to a power supply. Remove your device from G6 Dock and check to see if the dock's power light is on.

If the power light is on, ensure that:

- G6 is seated properly and locked into place when connecting it to the dock.
- Charge contacts on both the G6 and G6 Dock are clean and free of debris.
- Charge contacts on both the G6 and G6 Dock are properly connected (i.e., the red led on G6 is on and the battery charging icon appears in the banner).

If the power light is off, ensure that:

- The power cable is properly plugged into the dock and the power adaptor.
- The power source being used is 120/240 VAC.
- The power cable and adapter are functioning correctly.

Why isn't my G6 charging when I lock it into G6 Dock?

G6 will automatically start charging and the G6 docked Home screen banner will display a charging battery icon when locked into a powered G6 Dock. It will take a maximum of four hours to fully charge G6.

NOTE: If your device battery is depleted, it may take up to 10 minutes for the charging icon to appear on your device.



If G6 does not begin charging:

- Confirm that the power contacts of both devices are clean and can connect.
- Confirm that you are not trying to charge G6 in adverse temperature conditions.

If your charging location has a temperature of 0°C (32°F) or lower, your G6 will warn you to move to a warmer location.



If your charging location has a temperature of 45°C (113°F) or higher, your G6 will warn you to move to a cooler location.



Why are my bump tests and calibrations failing?

Calibrations and bump tests can fail if there is not enough gas reaching the sensors. To ensure that gas is flowing from the gas cylinder to G6 Dock, check that:

- G6's gas sensor filter is clean.
- There are no kinks, crimps, or leaks in the tubing.
- The gauge on the gas cylinder indicates there is gas inside (i.e., check that the gas cylinder is not empty), and the gas tank valve is open.
- The gas cylinder is using a demand-flow regulator.
- The quick-connects are properly connected to G6 Dock.
- The gas tubing is connected to the correct inlet.
- Gas concentrations in the gas cylinder match dock configurations.
- There is no ambient gas present.

If G6 Dock is still not operating correctly, please contact Blackline Safety [Customer Care](#).

What if my device has a low or high urgency event while it is locked into G6 Dock?

Because G6 Docks are assumed to be kept in gas free environments, the G6 will suppress any non-sensor related notifications on the device (lights/vibration/sound) as though they are resolved. The following notifications will not be communicated when G6 is locked into the dock:

- STEL
- OL
- High gas
- Low gas
- UL
- Hardware test error
- Bump test overdue
- Calibration overdue
- Low battery

If G6 is locked into the dock while any of the notification types described above are active and unmuted, the notification will automatically be muted, and the docked Home screen will always reflect an OK status.

If the device is removed from the dock and any of the above conditions are present, the device will activate the related notification.

If G6 has an active sensor error, gas module error, or unknown sensor error and is locked into the dock, the G6 docked Home screen will not display and G6 will remain in regular operation with the error(s) displayed on its Home screen.

5 SUPPORT

5.1 LEARN MORE

Visit support.blacklinesafety.com to find support and training materials for G6 Dock.

5.2 CUSTOMER CARE

For technical support, contact our Customer Care team.

North America (24 hours)

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

United Kingdom (8am-5pm GMT)

+44 1787 222684 | eusupport@blacklinesafety.com

International (24 hours)

+1-403-451-0327 | support@blacklinesafety.com

6 SPECIFICATIONS AND LEGAL NOTICES

6.1 DETAILED SPECIFICATIONS

Size & Weight

Size: 144mm x 121mm x 120mm (5.65" x 4.75" x 4.75")

DxWxH

Weight: 400g (13.9oz)

Gas configuration

1 customizable gas inlet, 1 purge air inlet, 1 gas outlet

Power Supply

Blackline requires using the power supply provided with your G6 Dock.

Input voltage: 5 VDC @ 1000 mA

Power connector: Micro-USB 120/240 VAC power adaptor and USB cable included.

Regulatory Compliance

RCM

CAN ICES-3(B)/NMB-3(B)

FCC

CE

Features

- Over-the-air configuration updates
- Automatic bump
- Automatic calibration
- Dock usage reports
- Gas usage reports

Warranty

Two year warranty

6.2 LEGAL NOTICES

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FCC Compliance

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.

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. Note: the grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

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.

Warranty

Your G6 Dock is warranted against defects in materials and workmanship for up to two years from the date of purchase. For further details regarding your Blackline warranty, please refer to your Terms and Conditions of Service. Visit <http://www.blacklinesafety.com> for more information.