

Wireless Blast Gauge[®] System



What do I need to know?

The Basics

1. Do I need software to use my Blast Gauges and what platforms does it work on?

Software is required to set-up, activate, and scan your gauges. The software is available to download from blastgauge.com/software. You will need to register and be approved as a user on the website. Once approved, you may then download the newest version of the Blast Gauge System Manager. The application is only supported on Windows 10. Please follow the **Quick Start Guide** to get the Blast Gauge System App for Android™ devices and help setup your Blast Gauges for the first time. The **Quick Start Guide** can be found in your delivery materials or at blastgauge.com/tutorials/.

2. What mobile devices support my Blast Gauges?

The military version of the gauges (running secure Interrogated Wireless™) require specific tablets that run Android. We recommend the Samsung Galaxy Tab S5e or similar tablet, although others with similar specifications may work. Contact BlackBox Biometrics to check if your device will work.

The law enforcement and research version of the gauges (Commercial Version) work on most modern devices that run Android and have BLE 4.1 or greater. Contact BlackBox Biometrics for specifics.

3. How do I mount my Blast Gauges?

If you are wearing the gauges, they are designed to be attached on the head (e.g. back of the helmet), non-firing shoulder, and chest. Use either the attached bungie or a Velcro patch (ordered separately) to mount the Blast Gauges to your gear. An optional shoulder strap is available if the shoulder placement of the gauge interferes with a backpack or rucksack. The gauges are color coded with letters on the back: H for Head (Orange), S for Shoulder (Gray), C for Chest (Blue).

The Battery

1. Are the Blast Gauges rechargeable?

No. Blast Gauges run on high-capacity batteries that are not rechargeable or replaceable.

2. How long will my Blast Gauges last before the battery runs out?

With common military use, specifically 30% operational tempo and exposure to temperature extremes, the Wireless Blast Gauge System will last 12 months. The battery life remaining is displayed in the mobile and PC applications which is based on a predictive model using the previous two weeks of usage. When a gauge is low on battery, it will flash all three LEDs when the button is pressed; when a gauge has no remaining battery, there will be no LED response. With lower operational tempos, such as a training environment, there is a much higher lifespan of up to 2 years.

The gauge's Shelf Life is 5 years at room temperature.

Wireless Blast Gauge[®] System



What do I need to know?

The Battery *continued*

3. Are there any power saving modes to extend the life of my Blast Gauges?

Sleep Mode: Enabled during the set-up process on the Blast Gauge System Manager by choosing “Personnel.” This will put the device in a low-power mode after a short period of inactivity. In Sleep Mode, it will not record any blast events or connect over Bluetooth. Movement of the gauge will automatically return it to active Monitor mode. If you mount gauges on a structure, select “Structure” instead of “Personnel” to disable Sleep Mode.

Off Mode: Select this option on the Blast Gauge System Manager during setup or press and hold the recessed button until all 3 LED lights turn on in sequence. The gauge will enter an ultra-low power mode and will not record any blast events, connect over Bluetooth or turn back on upon detecting movement. The user must press and hold the recessed button on the gauge until the LED’s light up. The LED’s will light up according to the gauge’s status (i.e. solid green, blinking yellow, etc.)

Blast Events

1. How many blast events will my Blast Gauge record and store?

Wireless Blast Gauges hold 500+ full waveform events or more than six thousand summary data events. The mobile and PC apps allow you to choose which storage and viewing method you prefer by using a quick scan or full data scan. A quick scan will increase download times, but only download summary data. A full data scan is slower but will download full waveform data.

2. What is the difference between summary data and full waveform data?

Summary data only provides the peak pressure, peak total positive impulse, peak acceleration, and time metrics, while the full waveform data also provides the pressure-time trace and acceleration-time trace.

3. Can I disable the Bluetooth Wireless feature?

Yes. Bluetooth Wireless can be disabled by clicking on the Wireless Symbol under each gauge listed in the Attached Devices column on the Blast Gauge System Manager. Note this does not guarantee complete electromagnetic silence.

4. How do I know if my Blast Gauge has recorded a blast event?

To avoid giving away the operator’s position, the gauge does not display any light notifications until the recessed button is pressed or an operator presses the “Scan” button on the mobile application. To physically inquire the device, use a spare bullet to press the recessed button. Using a ball point pen or other objects may damage the recessed button. The gauge will display a green, yellow, or red LED based on the thresholds selected at gauge activation.

Wireless Blast Gauge[®] System



What do I need to know?

Blast Events *continued*

- Green: No significant event detected.
- Green flashing: Summary event detected. Summary data recorded.
- Yellow flashing: A Moderate Event was detected. Full waveform data recorded.
- Red flashing: A Severe Event was detected. Full waveform data recorded.
- All three LEDs indicate a low battery or gauge error.

Miscellaneous

1. How do I reprogram or restore default settings to the Blast Gauges?

To reprogram the gauges with the latest firmware or restore the gauges to factory setting, press the “Factory Restore” button on the right-hand side of the Blast Gauge System Manager, below “Attached Gauges” reset the gauges. **This erases ALL data on the gauge, but only after saving it automatically to the database.**

2. How do I reorder gauges?

Contact BlackBox Biometrics to purchase the latest version of the Blast Gauge System at blastgauge.com/get-quote.

3. Is the Blast Gauge System an approved Medical Device?

No. The Blast Gauge System is not intended to diagnose or treat the blast victim's injuries. The first responder may use the Blast Gauge System data to characterize the blast overpressure and acceleration the subject sustained during an explosion but will rely on standard diagnostic protocols to drive treatment of the subject's injuries. A 513g request for information submitted to the U.S. Food & Drug Agency (FDA) resulted in the determination that the Blast Gauge System is not a device as defined per section 201(h) of the Federal Food Drug & Cosmetic (FD&C) Act.

Additionally, a request for determination by Health Canada also resulted in determination that the Blast Gauge System would not be considered a medical device.

4. What is the proper method of disposing of the Blast Gauges?

Blast Gauge's contain lithium batteries. There are no federal regulations for disposal of lithium batteries. Individual states or localities establish their own guidelines for battery disposal and should be contacted for any disposal guidelines that they may have for a lithium battery housed in the Blast Gauge. Please see our Material Safety Data Sheet (MSDS) for more details.

For more detailed information, contact BlackBox Biometrics.