

Wireless Blast Gauge[®] System



What do I need to know?

The Basics

1. What are the differences between the previous Blast Gauges (H12 / S23) and the new Wireless System?

Pressure Range, Wireless Transfer, Battery Life, and Software. The new Wireless Blast Gauge System completely replaces the previous generations. It widens the peak pressure range to 0.5 – 110 psi, and uses Bluetooth[®] for quick data transfer via the Blast Gauge System Application. It also extends battery life more than 400% over previous models, and does it all with an all-new software suite.

2. 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 as a download from the B3 website: www.blastgauge.com/software. You will need to register as a user on the website and then download the newest version of the Blast Gauge PC Application. The application runs on Windows 7, 8, and 10, but does not support Mac OSX.

Mobile applications on tablets running Android™ and iOS are available as well. Contact BlackBox Biometrics for access on your specific platform.

3. What Mobile Devices support my Blast Gauges?

The military version of the gauges (large battery size) require specific tablets that run Android™. The Google Nexus 9 and Samsung Tab 2 and 3 work the best, though others will work. Contact BlackBox Biometrics to check if your device will work.

The law enforcement and research version of the gauges (small battery size) work on most modern devices, both devices that run Android™ as well as iOS, as long as they have BLE 4.0 or greater. Contact BlackBox Biometrics for specifics.

4. What else do I need in order to use my Blast Gauges?

Once the software is installed on your PC, connect the gauges via micro-USB, using a USB hub or your own micro-USB cables. USB hubs can be purchased from BlackBox Biometrics or any electronics store. They must have a “data pin,” allowing them to transfer data to a PC. USB cables designed for charging only will not work. The micro-USB connection on the Blast Gauge is located behind a flexible plastic door on the side of the gauge.

5. How do I mount my Blast Gauges?

If you are wearing the gauges, they are designed to be worn on the Head (back of the helmet), Shoulder (non-firing), and Chest. Either use the attached bungie or a Velcro patch (ordered separately) to mount the Blast Gauge 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).

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The Battery

6. Are the Blast Gauges rechargeable?

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

7. 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 application. When a gauge is low on battery, it will flash all 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 in a training environment, with intermittent use, there is a much higher life span, up to 2 years. Shelf Life is 5 years at average temperatures (≈ 22 degrees Celsius, 71 degrees Fahrenheit).

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

Yes. There are two power saving options:

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 state after a short period of inactivity. 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 turn off this feature. Gauges do not record in sleep mode.

Off: 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. Gauges will enter ultra-low power state, and will not record any blast events or turn back on upon detecting movement. The user must press and hold the recessed button on the gauge until the green LED lights up in order to turn back on.

Blast Events

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

Wireless Blast Gauges hold up to 500 full waveform events and thousands of summary data events. The Blast Gauge Mobile and PC Applications allow you to choose which storage and viewing method you prefer.

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

A full waveform provides detailed data on the blast by selecting the box once the device has been scanned and pressing 'Display Event Details.' Summary data only provides the peak pressure, peak impulse, peak acceleration, and time stamp as single values.

11. Can I disable the Wireless?

Yes. 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 absolutely no transmission.

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What do I need to know?

Blast Events *continued*

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

To avoid giving away the operator's position, the device does not display any notifications until the recessed button is pressed or an operator presses the "scan" button on the PC or mobile applications. To physically inquire the device, use a spare bullet or equivalent object to press the recessed button. The gauge will display a green, yellow, or red LED.

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

Miscellaneous

13. 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 screen, below "Attached Gauges" reset the gauges. This erases ALL data on the gauge, but only after saving it automatically to the database.

14. How do I reorder gauges?

Once battery has reached end of life, contact BlackBox Biometrics to purchase the latest version of the Blast Gauge System.

15. 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.

16. What is the proper method of disposing of the Blast Gauges with the lithium battery?

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 MSDS for more details.