# BI LOC8<sup>TM</sup> User Guide



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## Preface

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#### **Trademarks & Patents**

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## **Technical Support**

For technical support when using BI's monitoring center, contact BI Monitoring Operations:

**BI Monitoring Operations** 800 Main Street, Suite 501 Anderson, Indiana 46016 1.800.666.3145 FAX 1.765.649.3148

For technical support when using an agency monitoring center, contact BI Technical Support:

BI Incorporated **Technical Support** 6400 Lookout Road Boulder, CO 80301 1.800.241.9924

## **Waste Electrical and Electronic Equipment (WEEE)**



All electrical products that reach the duration of their functioning capabilities must be returned to BI Incorporated for recycling.

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#### **FCC Compliance Statement**

#### **United States FCC, Part 15**

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.

Any changes or modifications by the user to the equipment that are made without written approval by BI Incorporated could void the user's authority to operate the equipment.

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 base station.
- Connect the equipment into an outlet on a circuit different from that to which the base station is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## **Industry Canada Compliance Statement**

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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## **Operation and EME Exposure**

The equipment represented herein is designed to comply with the following national and international standards and guidelines regarding exposure of human beings to radio frequency electromagnetic energy (EME):



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 United States Federal Communications Commission, Code of Federal Regulations; 47 CFR part 2 sub-part J.

- American National Standards Institute (ANSI). C95. 1-2005.
- Institute of Electrical and Electronics Engineers (IEEE). C95. 1-2005 Edition.
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998.
- Ministry of Health (Canada). Safety Code 6. Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3 kHz or 300 GHz, 1999.
- Australian Communications and Media Authority. Radiocommunications (Electromagnetic Radiation - Human Exposure) Standard 2003, Amendment Standards 2011 (No. 2).
- Anatel (Agência Nacional de Telecomunicações), Brasil Regulatory Authority, Resolution 303 (July 2, 2002) "Regulation of the limitation of exposure to electrical, magnetic, and electromagnetic fields in the radio frequency range between 9 kHz and 300 GHz." "Attachment to Resolution 303 from July 2, 2002. Updated on November 22, 2012".

#### **Requirements for Exposure to Radio Waves**

LOC8 includes a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless mobile phones employs a unit of measurement know as the Specific Absorption Rate (SAR). The SAR limit set by the FCC is 1.6 W/kg. <sup>1</sup> Tests for SAR are conducted using standard operating positions reviewed by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted

<sup>1.</sup> In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety for the public and to account for any variations in measurements.

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requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model.

While there may be differences between the SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure.

Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) website at http://www.ctia.org.

## **Electromagnetic Interference/Compatibility**

Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed or otherwise configured for electromagnetic compatibility.

#### **Facilities**

To avoid electromagnetic interference and/or compatibility conflicts, obey all facility posted notices about cellular phones. Hospitals or health care facilities may be using equipment that is sensitive to external RF energy.

#### **Aircraft**

Per FAA regulations cellular phones should be turned off when on board an aircraft. Any use of a radio product must be in accordance with applicable regulations per airline crew instructions.

#### **Medical Devices**

If a person using the LOC8 system also uses any personal medical devices (i.e. pacemaker, hearing aid, etc.), consult the manufacturer of the personal medical device to determine if it is adequately shielded from RF energy. A physician may be able to assist in obtaining this information.

## **Operational Warnings**

There are certain areas where you want to avoid operation of any radio product.

#### **Potentially Explosive Atmospheres**

Turn off any radio product prior to entering any area with a potentially explosive atmosphere unless it is a radio product type especially qualified for use as "Intrinsically Safe" (for example, Factory Mutual, CSA, or UL-approved). Do not remove, install, or charge batteries in such areas. Sparks in a potentially explosive atmosphere can cause an explosion or fire resulting in bodily injury or even death.

**NOTE:** The areas with potentially explosive atmospheres referred to above include fueling areas, such as below decks on boats, fuel or chemical transfer or storage facilities, areas where the air contains chemicals or particles, such as grain, dust or metal powders, and any other area where



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you would normally be advised to turn off your vehicle engine. Areas with potentially explosive atmospheres are often but not always posted.

#### **Blasting Caps and Areas**

To avoid possible interference with blasting operations, turn off radio products when near electrical blasting caps, in a blasting area, or in areas posted: "Turn off two-way radio." Obey all signs and instructions.

