



User Guide



8-90-00160-0

Revision D

© 2015 BI Incorporated

BI Proprietary & Confidential



Contents

Preface	v
Chapter 1 Introduction	1
Product Overview	1
The Central Monitoring Computer	2
Common Terms	2
Chapter 2 Tracking Device	3
Features	4
Status Indicator	4
External & Internal Battery	4
Cell Loss Window	5
Non-Volatile Memory	5
Over the Air Updates	6
Client Notification	6
Automatic Voice Notification	7
Officer Initiated Notification	7
Location Acquisition	8
Global Positioning System	9
Wi-Fi	9
CellLocate®	10
Find Client Location	10
GPS Jamming	10
Tamper Detection	11
Case Tamper	11
Strap Tamper	11
Proximity Tamper	11
Motion Detection	11
Tamper Restore Mode	11

Installation and Removal	12
Components	12
Sizing	12
Installation	13
Battery Charging	14
Removal	14
Removing the Strap	15
Cleaning & Storage	15
Chapter 3 Beacon	17
Features	18
Status Indicator	18
Internal Battery	18
Non-Volatile Memory	18
Altimeter	19
Case Tamper	19
Motion Detection	19
Curfew Schedules	19
Variable Leave Window	19
Installation and Removal	20
Beacon Installation Guidelines	20
Components	20
Installation	20
Battery Charging	21
Removal	21
Cleaning & Storage	21
Appendix A Event Descriptions	23
Appendix B Unit Configurations	29
Appendix C Product Specifications	31

Preface

BI LOC8™ User Guide
Copyright © 2015 by BI Incorporated
All Rights Reserved
Printed in USA

BI prepared this manual for use by BI customers only. All comments concerning the contents of this manual should be directed to BI's Marketing Department, 6265 Gunbarrel Avenue, Suite B, Boulder, CO 80301, USA. No part of this work covered by copyright may be reproduced in any form whether graphically, electronically, or mechanically; including photocopying, recording, taping, or storage in an information retrieval system without prior written permission from BI.

Trademarks & Patents

- ❖ BI
- ❖ BI logo
- ❖ BI GuardServer
- ❖ BI LOC8
- ❖ BI LOC8 logo
- ❖ BI TotalAccess

CellLocate is a registered trademark of u-blox.

Technical Support

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

BI Monitoring Operations
 2801 Enterprise Drive
 Anderson, Indiana 46013
 1-800-666-3145
 1-765-778-5760 Fax

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

BI Technical Support
 6265 Gunbarrel Avenue, Suite B
 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.

Registrations

- ❖ CSQ-LC800A
- ❖ 1499A LC800A
- ❖ TSZ-CU288
- ❖ 6100A-CU288

The LOC8 FCC label containing the FCC registration number is located beneath the external battery and is visible once the battery is removed and the Beacon FCC label containing the FCC registration number is located on the bottom of the unit.

United States FCC, Part 15

These devices comply with Part 15 of the FCC Rules. If requested, this information must be provided to the telephone company. 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 (RF) energy. 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.

Innovation, Science, and Economic Development Canada

This device complies with Industry Canada's licence-exempt RSSs. 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.¹

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; 2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.²

1. <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08449.html>

2. <https://www.ic.gc.ca/eic/site/smt-gst.nsf/fra/sf08449.html>

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):

- ❖ *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.*
- ❖ *International Commission on Non-Ionizing Radiation Protection (ICNIRP) Health Physics 74 (4): 494-522; 1998.*
- ❖ *Ministry of Health (Canada). Safety Code 6. Limits of Human Exposure to Radiofrequency Electromagnetic Energy in the Frequency Range from 3 kHz or 300 GHz - Safety Code 6 (2015).*
- ❖ *Australian Communications and Media Authority. Radiocommunications (Electromagnetic Radiation - Human Exposure) Standard 2014.*
- ❖ *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 RF energy set by the Federal Communications Commission 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 known as the Specific Absorption Rate (SAR). The SAR limit set by the FCC is 1.6 W/kg.¹ 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 by the FCC to not exceed the limit established by the government-adopted requirement for safe exposure. Tests are performed for each phone model as required by the FCC in positions and locations such as on the body or at the ear.

1. 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.

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 Federal Aviation Administration (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 should 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 (Canadian Standards Association), 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 you would normally be advised to turn off your vehicle engine. Areas with potentially explosive atmospheres are often but not always posted.*