

blueiot

Blueiot RTLS Tag

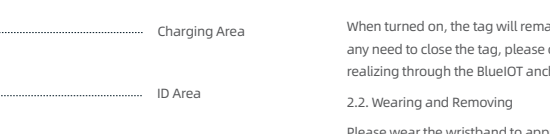
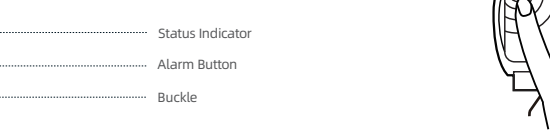
BT1000-w

USER MANUAL V1.0

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1. Tag Introduction

BT1000-w Wristband Bluetooth Location Tag (WBL Tag) is mainly used for personnel locating. Its simple structure, skin-friendly material, waterproof and dustproof features are suitable for wearing and using under harsh environment.



2. Tag Usage

2.1. Turn on

First use of the tag, double-click the front panel button to boot. When turned on, the tag will vibrate once.



When turned on, the tag will remain active, tuser can not turn it off. If any need to close the tag, please contact the system administrator, realizing through the BlueIoT anchor and related software.

2.2. Wearing and Removing

Please wear the wristband to approximately 1 finger width from the wrist bone and tighten up to a comfortable level.



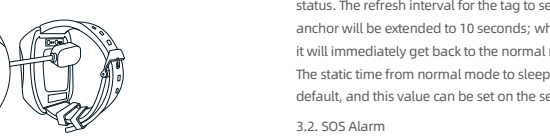
2.3. Recharge

When using the tag, note that the tag battery should have power. The LED indicator on the tag flashes every 5 seconds to indicate the current battery level.

The indicator light flashes in green, indicating that the battery level is normal; flashes in yellow, indicating the battery is medium; flashes in red, indicating that the battery needs recharging as soon as possible. If the battery is completely exhausted before charging, it will take a while to get enough power to make the indicator light work.

Please use the original power adapter and charging cable, checking if they are in good condition, clean and dry. Please make sure that the charging area on the back of the wristband are aligned and fit with the pins of the magnetic charging cable.

In charging state, the LED indicator light flashes blue and green. After fully charged, the LED indicator light is always green.



3. Basic function

3.1. Locating

After the tag is turned on, it automatically enters the normal mode of locating. In the normal mode, the tag sends a locating signal to the BlueIoT anchor at a certain refresh interval. The refresh interval defaults to 200 milliseconds. This value can be set on the service configuration software.

When the tag stays static for a long time, it will automatically switch to sleep mode. In sleep mode, the tag will enter a low power consumption status. The refresh interval for the tag to send locating signals to the anchor will be extended to 10 seconds; when the tag moves or vibrates, it will immediately get back to the normal mode from the sleep mode. The static time from normal mode to sleep mode is 15 seconds by default, and this value can be set on the server configuration software.

3.2. SOS Alarm

Press the tag's alarm button and hold it for more than 3 seconds, the tag will upload the emergency alarm message. After the alarm takes effect, the LED indicator of the tag will flash orange, indicating that it is currently in the distress alarm status.

3.3. Tag Configuration

The tag can be configured on the service configuration software, and the instructions of are issued to the tag through the BlueIoT anchor. For specific configuration functions, please refer to the "BlueIoT Server Software Instructions Manual".

3.4. Swipe Card

The tag has a built-in RFID coil, which can be used for radio frequency identification through a card reader.

3.5. Data Privacy

Tag data will only be uploaded to the server designated by the user. When using tags, please consider and abide by local regulations related to data privacy.

4. Operation Conditions

Exposure to liquid WBL Tag is water-resistant with IP65*. You may, for example, wear and use WBL Tag during exercise, in the rain, and while washing your hands. Please read carefully the instructions below in "Cleaning and care" section in case the above-mentioned situation happens.

WBL Tag have a water resistance rating of IP65 under China standard BG/T4208-2008.

WBL Tag is water resistant, but submerging WBL Tag is not recommended. WBL Tag should not be used for scuba diving, water skiing, or other activities involving high velocity water or submersion below shallow depth. Water resistance is not a permanent condition and may diminish over time. WBL Tag cannot be rechecked or resealed for water resistance.

The following may affect the water resistance performance of WBL Tag and should be avoided:

-Dropping WBL Tag or subjecting it to other impacts.

-Exposing WBL Tag to soap or soapy water, for example while showering or bathing.

-Exposing WBL Tag to perfume, solvents, detergent, acids or acidic foods, insect repellent, lotions, sunscreen, oil, hair dye and moisture any other ingredients that may damage the device.

-Exposing WBL Tag to high velocity water, for example while water skiing.

-Wearing WBL Tag in the sauna or steam room.

Cleaning and care Clean and dry WBL Tag, and your skin after workouts or heavy sweating. Dry WBL Tag thoroughly if they are exposed to fresh water. Clean WBL Tag if it comes into contact with anything that may cause stains or other damage, such as dirt or sand, makeup, ink, soap, detergent, acids or acidic foods, or with liquids other than fresh water, including those that may lead to skin irritation such as sweat, salt water, soapy water, pool water, perfume, insect repellent, lotions, sunscreen, oil, adhesive remover, hair dye and solvents etc. The WBL Tag color may vary or fade over time.

The following should be strictly avoided:

Disinfection The following situations should be strictly avoided when disinfecting parts such as areas around the button and charging interfaces:

-Exposing WBL Tag to soap or soapy water, for example while showering or bathing.

-Exposing WBL Tag to perfume, solvents, detergent, acids or acidic foods, insect repellent, lotions, sunscreen, oil, hair dye and moisture any other ingredients that may damage the device.

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follow all the indicated instructions and tips when you are in the petrol station.

• The WBL Tag is an integrated equipment. Neither the battery nor the back cover can be removed. Removing the back cover of the WBL Tag may damage the battery and lead to material leakage that may cause allergic reactions.

• This equipment and its accessories may contain some small parts. Please keep the equipment and its accessories including the small parts out of reach of children. Children may inadvertently damage the equipment and its accessories, or swallow small parts that cause suffocation or other dangers.

• Do not store or transport equipment and its accessories in the same box with flammable gases, liquids or explosives.

When disinfecting the equipment, do not spray or wipe it directly with flammable liquid to avoid fire.

• Never disinfect the equipment during the charging process to avoid equipment damage or casualties.

• Keep the WBL Tag in a dust-free place when not using it, and do not leave it in an abandoned status. Please pay attention to the weather and environmental conditions (nature, dust, rain seeping, wet, rain, sea water etc.). The recommended operating temperature range is -10 °C

• Do not use WBL Tags when you are close to gasoline or liquid. Strictly

(14°F) to + 60 °C (140°F) and the storage humidity range is 5%-95%.

Damage might be caused when it is used in an environment exceeding + 60 °C (140°F).

- The WBL Tag and the accessories comply with applicable surface temperature standards and limits. However, even within these limits, sustained contact with warm surfaces for long periods of time may cause discomfort or injury. Continuous alert of the WBL Tag may make the equipment feel warm. Remove the WBL Tag if it becomes uncomfortably warm.

- Please use the charger in the original package when charging. Usage of non-conforming third-party chargers may cause personal safety damage and/or battery damage.

[Battery]

- Never discard, replace or open the battery at will, nor try to penetrate the equipment with sharp tools, as the electrolyte inside the battery in the equipment may damage skin and clothes.
- The equipment should be stopped from using if it is noticed to be hot, smelly, discolored, deformed or in any other abnormal status.
- If the battery leaks, do not expose the leaked liquid to your skin or eyes. If exposed to skin or eyes, rinse immediately with clear water and take medical treatment at the hospital.

- Do not expose the batteries to high temperature or place it close to any heating equipment, such as sunshine, heater, microwave oven, oven and water heater etc. Overheating batteries may cause explosion.

- Do not drill or incinerate the equipment or battery. Please consult the local waste treatment department in accordance with the applicable local regulations including laws and policies when disposing your equipment/battery. Batteries must be recycled or disposed of separately from household waste.

[Charging]

- Please charge the battery in accordance with the requirements of the instructions. Please use the provided (in the same product package) WBL Tag charging cable and power adapter. When charging, remember to place the WBL Tag, WBL Tag charging cable and power adapter in a well-ventilated environment. Using a damaged WBL Tag charging cable or charging when humidity is high may cause fire, electric shock, injury or damage to the WBL Tag and other properties.

- Always keep the ports of WBL Tag and power adapter clean. Without adult's monitoring, do not let children charge the WBL Tag.

- As long as the applicable surface temperature standards and limits are met, WBL Tags, WBL Tag charging cables, and power adapters will function normally. However, please still try to avoid continuous contact

with hot surfaces even within the indicated limits as this may lead to discomfort or injury. After the power supply is plugged in, the WBL Tag, the WBL Tag charging cable and the power adapter will gradually heat up, but will not break the indicated limits.

- Avoid wearing a WBL Tag when charging, or allowing your skin to contact the WBL Tag, WBL Tag charging cable or power adapter during long time while charging. For example, when the WBL Tag is charging, or when the WBL Tag charging cable, or the power adapter is powered on, do not lie on it or place it under a blanket or pillow etc. Please be especially careful if your body has conditions that affect your ability to sense heat. If the temperature of the WBL Tag makes you uncomfortable, please remove it.

[Maintenance]

Do not open the WBL Tag and try to repair it yourself. Disassembling the WBL Tag may cause damage injury. If the WBL Tag is damaged or out of normal status, please contact your seller in time.

[Warning]

Radio frequency interference Observe signs and notices that prohibit or restrict the use of electronic equipment. Although WBL Tag is designed, tested, and manufactured to comply with regulations governing radio frequency emissions. Emissions from WBL Tag could potentially negatively affect the operation of other electronic equipment within

certain distance.

Medical equipment interference WBL Tag contains components and radios that emit electromagnetic fields. WBL Tag has certain coverage of radio frequency bands. These electromagnetic fields may interfere with medical equipments, such as pacemakers and defibrillators etc. Consult your physician and medical equipment distributor for specific information related to your medical equipment and confirm whether you need to maintain a safe distance between the medical equipment and the WBL Tag and the WBL Tag charging cable. Should you have any suspects or doubts, you are recommended not to use this product (including all parts and all accessories).

Explosive and other atmospheric conditions Charging or using WBL Tag in any environment with explosive risk is strictly prohibited. WBL Tag functionalities might be damaged or impaired when exposed to environment with high concentrations of industrial chemicals. Obey all relevant signs, instructions and restrictions.

Choking hazard Some WBL Tag accessories may present a choking hazard to babies or children. Keep them out of reach of babies and small children.

Skin sensitivities Some people may experience allergies or reactions when their skin is touched by certain materials used in jewelry, watches or any other wearable items. This can be caused from allergies,

environmental factors, extended exposure to irritants or other causes. If you have past experiences from skin sensitivities, please take special care when wearing WBL Tag. You might be more likely to experience irritations. Keeping WBL Tag clean and dry could reduce the possibility of skin irritations.

Equipment safety The WBL Tag contains high-sensitivity electronic components. Falling, burning, puncturing or rolling could cause equipment damage.

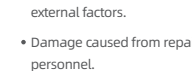
Bluetooth equipment Bluetooth equipment may be prohibited on the aircraft. The use of Bluetooth equipment has to be compliant with the relevant regulations from the national radio management authorities and relevant aviation management department.

Not a medical equipment The WBL Tag is NOT designed as a medical equipment and should not be used as a replacement for professional medical assessment or judgement. It is not intended for use in the diagnosis of disease or other medical conditions, or in the cure, mitigation, treatment, or prevention of any medical / health conditions or disease. Please consult your healthcare provider all questions related to your health before considering use the WBL Tag.

7. Disposal and Recycling Information

WBL Tag disposal and recycling

Your WBL Tag should not be disposed of with household waste. Dispose of your WBL Tag in accordance with local environmental laws and guidelines.



European Union—Disposal Information

The symbol above means that according to local laws and regulations your product and/or its battery shall be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. The separate collection and recycling of your product and/or its battery at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

8. Limited Warranty

[Warranty information]

Warranty does not apply to:

- Surface damage, such as scratches, dents and depressions.
- Consumables such as batteries, except if the product is damaged due to defects materials or manufacturing processes.
- Damage caused by accident, abuse, misuse, inflow, flooding, fire or external factors.
- Damage caused from repairing by non-BlueIoT authorized warranty personnel.
- Damage caused by modification or alteration of the product without the seller 's written consent.
- In addition, the seller reserves the right to refuse the warranty application for products or services obtained and/or used in violation of the laws of any country. This warranty provides you with specific legal rights, but this right may vary from region to region. The seller will not be responsible for any accidental, special, indirect or derivative damage (which may result from use, misuse, don't know how to use or product defects). The seller reserves the right to overhaul or replace (new products or newly overhauled replacement products) equipment or software. This is the sole and exclusive remedy for any breach of the warranty terms. Please consult your local seller 's authorized seller when applying for warranty service.

9. Statement on Intellectual Property Rights

Copyright Statement

Copyright ©2020 BlueIoT (Beijing) Technology Co., Ltd. All rights reserved.

Any part of this manual, including text, pictures, graphics, etc., belongs to BlueIoT (Beijing) Technology Co., Ltd. Without written permission, any unit or individual may not extract, copy, translate, or modify this manual in whole or in part by any means. Unless otherwise agreed, the Company makes no representations or warranties of any kind, express or implied, with respect to this manual.

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Liability statement

To the maximum extent allowed by law, the products (including hardware, software, etc.) described in this manual are provided "as is", there may be defects, errors or malfunctions, the company does not provide any form of express or implied warranty, The "BlueIoT" series of products (hereinafter referred to as "equipment") provided by our company are management aids, which cannot replace the safety management system, measures and rescue programs of dangerous operations, nor can they replace the supervision system in operation

- damages caused by using the Manual or products of the Company.

The Company does not undertake any responsibility for any damage to personal or property interests of one's own or third party caused by failing to use the product according to the Manual and warning statement.

The Company does not undertake any responsibility for any product operation abnormality, information disclosure or other problems caused by network attack, hacker virus infection or other unknown risks due to Internet access during product use.

The product promoting pictures and advertisements are used only for instruction and promotion. Physical products prevail in all cases.

The data in the Manual are all theoretical values obtained by the internal lab of BlueIoT in specific testing environments. However, there may exist differences due to individual product differences, software version, using conditions and different environmental factors, and actual using conditions shall prevail in all cases.

The Company will not send special notice in the case of being necessary to modify and adjust the above.

For more information , please contact info@blue-iot.com.

11. Product Parameters

BT1000-w Blueiot RTLS Tag	
Frequency Range	2.4GHz ~ 2.485GHz
Positioning Precision	Average LOS precision up to 10cm
Refresh Rate	5Hz by default
Status Indication	LED / vibration / buzzer
Size	55mm×40mm×17mm
Weight	40g excluding accessories
Power Endurance	3 months on average (@5Hz)
Battery Capacity	600mAh/Rechargeable lithium battery
Charging Interface	Magnetic Type
Charging Voltage	5±0.1V, 1000mA
Charging Time	4 ~ 6 Hours
IP Class	IP65 (CN standard)
Operating Temperature	-10 ~ 60°C
Storage Temperature	-20 ~ 70°C
Operating Humidity	10% ~ 90% Non-condensing
Storage Humidity	5% ~ 95% Non-condensing

FCC Warning statement

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 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 help.

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

Information to user.
Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement:
1.This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.