



**NAVILOCK®**



**Navilock BT-821G MT3333 Multi GNSS Bluetooth Receiver  
Manual (60324)**

## 1. Introduction

The BT-821g is a Bluetooth multi-GNSS receiver with internal antenna and MT3333 GNSS chipset. The Bluetooth interface enables connection to various mobile and stationary devices. Thanks to its extremely compact design and very long battery life, it is the perfect companion on any tour.

### 1.1. Package content\*

1x Navilock BT-821G  
1x 8cm CD ROM incl. manual  
1x USB power cable

\*Make sure before commissioning that all components of the delivery are included in the package. If anything is missing or damaged, please immediately contact your dealer.

### Important Health and Safety

If you use this product, you should take the following precautions to avoid possible legal liabilities and damages. Follow all product safety and operating instructions and keep them in a safe place. Observe all warnings in the manual and on the product. To avoid injury, electric shock, fire, and damage to the equipment, observe the following precautions.

#### Electrical safety

This product is intended for use with current internal batteries or via USB or via the included USB power cable. Other usage may be dangerous and will invalidate any approval given to this product.

**NOTE: RECYCLE OR DISPOSE OF USED BATTERIES OR BATTERY CELLS ACCORDING TO THE LOCAL REGULATIONS OR THE ENCLOSED INSTRUCTIONS.**



### SAFETY PRECAUTIONS FOR DIRECT SUNLIGHT

Make sure that the product away from excessive moisture and extreme temperatures. Allow the unit, the battery or the battery cells are not over a longer period of time in a vehicle or in places where can increase the temperature to 60 ° C (140 ° F) (a car dashboard, window sill, or behind a glass pane that is exposed to direct sunlight or strong ultraviolet light). The device or the vehicle may be damaged and the batteries or rechargeable batteries become overheated.

### Damage Requiring Service

Disconnect in the following cases, the product from the power supply, remove the battery, and contact an authorized service technician or the dealer:

If liquid has been spilled into the product or an object has fallen.

The product has been dropped or damaged.

There are noticeable signs of overheating.

The product does not operate normally when the operating instructions.

### Avoid using your device after a dramatic change in temperature

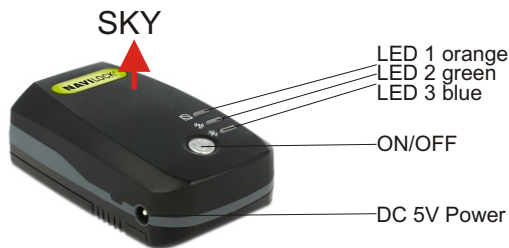
If you expose rapid changes in temperature and / or humidity ranges, condensation may occur inside the unit. To avoid damaging the device, allow sufficient time for the moisture to evaporate before using the device.

**NOTE:** If you move the unit from a cold to a warm or from a warm to a cold environment, allow the device to acclimate to room temperature before turning it on.

## 2. Starting operation

### 2.1. Bluetooth connection

Charge the GNSS receiver battery pack completely before first use, using the provided USB power cable. After charging you can use the GNSS receiver by pressing and holding the On / Off switch. The receiver indicate start up by the green LED 2 lights. Position to a location with a clear view of the sky. The green LED 2 starts to flash after a successful satfix. The receiver is ready to supply data. The Bluetooth connection to your device, you create as usual. As a new device "BT-GPS-xxxxx" is displayed. Connect with this unit. You will be prompted for the coupling enter the Bluetooth password. In this case please enter "0000". The receiver is now connected to your device and can be used as a GNSS receiver.



### 3. LED

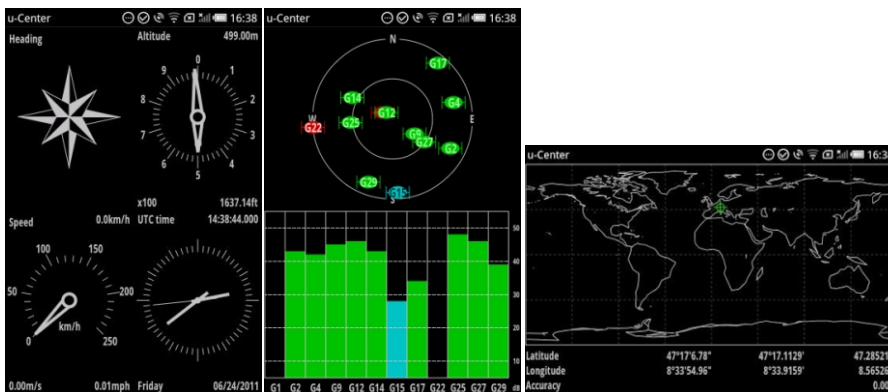
- LED 1 orange: lights up, charging  
flashes, the battery pack needs to be charged.
- LED 2 green: lights up, on without satfix  
flashes, on with satfix
- LED 3 blue: flashes 5Hz Bluetooth ready to connect  
flashes 1Hz Bluetooth connected

### 4. Application Environment

The BT-821g can be used with most Bluetooth devices, with the exception of Apple products.

### 5. Function test example using u-blox u-center under Android® Google Inc.

1. Download the u-center app from the Play Store and install it on your device. U-center is a pure test program and can not be used for navigation or orientation.



Please inform yourself directly at u-blox about the different versions and the possibilities of this extensive test software: <http://www.u-blox.com/en/evaluation-tools-a-software/u-center/u-center.html>.

### **Explosion on contact with fire!**

Do not permanently expose the receiver to temperatures of over 60°C (140°F).

## **6. Possible sources of error and their elimination**

6.1 You still don't get a satfix.

The BT-821G needs up to 20 minutes for its first satfix on another continent. To get a satfix the view to the sky must be unobstructed. Move the BT-821G as far as possible from the wall. A house wall reflects the signal strongly and contributes to the satfix time delay.

6.2 Without an active Bluetooth connection, the BT-821g switched off automatically after about 15 minutes. Just turn it on by pressing and holding the On / Off button again.

The Navilock repair center tries to be as obliging as possible, so please tell us the real reason for the defect. During the error analysis, we can generally detect if the cause for the defect was an external cause, water damage, fall, over-voltage or the wrong handling of the unit.



Failures are often the result of little causes. It is not always necessary to exchange the product immediately, because this will not solve the cause of the failure if it is not a GNSS hardware problem.

Before visiting your dealer, please contact the Navilock support center. They will try to help you quickly and without further ado, so that the circumstances of an exchange, which might in any case be unnecessary, are avoided.

In this case, please write down a detailed description of the error, add this information to your end device and the software used in this device, as well as the operation environment (operating system, service pack version, CPU type, storage size, hard disk drive and interface etc.), and send an e-mail to [support@navilock.de](mailto:support@navilock.de).

A support member will look into your problem and work out a solution.

We hope your Navilock product brings you fun and enjoyment!

## 7. Specifications

Chipset vendor/type:	MediaTek MT3333 GLONASS GPS
Cannels:	33 tracking, 99 acquisition
Sensitivity:	-165 dBm
Frequency:	GPS: L1, 1575.4200 MHz GLONASS: G1, 1602.5625 ~ 1615.5000 MHz
Target precisions:	
Position horizontal:	GPS/SBAS/QZSS+GLONASS: 2.5 m CEP
Time:	1 micro second synchronized with GPS time
Speed:	0.1m/s
Date:	WGS-84
Protocol:	NMEA-0183 V3.01 GGA, GSA, GSV, RMC, VTG
Detection rates:	
Cold start:	34 s average
Hot start:	1 s average
Reacquisition:	1 s average
Update rate:	1 ~ 10 Hz
Dynamic prerequisites:	
Acceleration limit:	smaller than 4 g
Heigth limit:	18000 m
Speed limit:	515 m/s
Performance:	
Power supply:	5 V
Akku:	3.7 V 1700 mA/h
Operating time:	ca. 30 h tracking
Current:	ca. 50 mA tracking
Connection:	
Operatring temperature:	-20°C ~ 60°C
Dimensions (LxBxH):	ca. 73.50 x 43.00 x 24.50 mm
Weight:	ca. 86 g

## 8. Zertifikate

CE

## 9. Warranty period

Your GNSS receiver will be repaired free of charge within the legal warranty period, unless it was damaged due to external cases, humidity dropping or other damages due to improper usage. Your dealer is always ready to help you. Please send your unit for repairs directly to:

**Navilock Repair Center  
Beeskowdamm 13/15  
D-14167 Berlin-Zehlendorf**

Postage must always be paid by the client.

Please add a proof of purchase and a detailed error description. Time based error, meaning how often an error occurs, must be expressly mentioned.

**For logistic reasons, we cannot accept returned packages without the postage being paid by the client.**

## 10. Support

For additional support questions, please contact our support center:

[support@navilock.de](mailto:support@navilock.de) / [www.navilock.com](http://www.navilock.com) or by telephone: +49 30 84716503\*.

You can also call the Service Hotline at the following hours: Mo – Fr.: 9:00 – 16:30.

\* You will be charged a connection fee for a telephone call to Germany/Berlin, in accordance with the connection fee overview of your telephone service provider. Callers from Germany, who subscribed to a national telephone flat-rate service and can call nation-wide fixed-telephone numbers free of charge, can call us without incurring additional charges.

You can also find current product information on our homepage. [www.navilock.com](http://www.navilock.com).

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## Conformity declaration

Please download the Declaration of Conformity from <http://www.navilock.de/support/> in the conformity area.



## WEEE note

The WEEE (Waste Electrical and Electronic Equipment) directive, which came into force on 13 February 2003, lead to a comprehensive change in the disposal of used electric products. It is the main purpose of this directive to avoid electric waste products (WEEE), while simultaneously promoting the re-usage, recycling and other forms of reconditioning in order to reduce the amount of waste. The WEEE logo on the product and the package shows that the product should not be disposed of with regular garbage. You are responsible for disposing all used electric and electronic devices at the corresponding collection sites. The separate collection and meaningful re-usage of electronic waste helps to deal with natural resources more economically. In addition, re-using electronic waste contributes to the preservation of the environment and human health. Additional information regarding the disposal of electric and electronic devices, their re-usage and the collection sites can be found at your local authorities, disposal companies, specialist shops and the manufacturer of the product.

## RoHS conformity

This product meets the requirements of directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003, concerning the limited usage of dangerous substances in electric and electronic devices (RoHS) and its amendments. This product complies with the directive 2011/65/EU from January 3rd 2013.

### EU Import:

Tragant Handels- und Beteiligungs GmbH Beeskowdamm 13/15, 14167 Berlin, Germany