

### Introduction

This application note is a guide for user to operate iBS01 beacon. The quick verification is using Nordic's Master Control Panel Android APP. Please download this APP with below link:  
<https://play.google.com/store/apps/details?id=no.nordicsemi.android.mcp>.



### Operation

There is no battery shipped with the tag. User has to put 2x CR2032 coin battery inside the tag. The figure in the right is an instruction for inserting the battery.

User can also power the tag by a micro-USB cable from a standard USB host port(like the USB port in a PC) or normal smartphone charger.

There is a power switch like below figure. Switching on/off depends on power source. After power on, it starts and continuously advertise the beacon message through BLE.

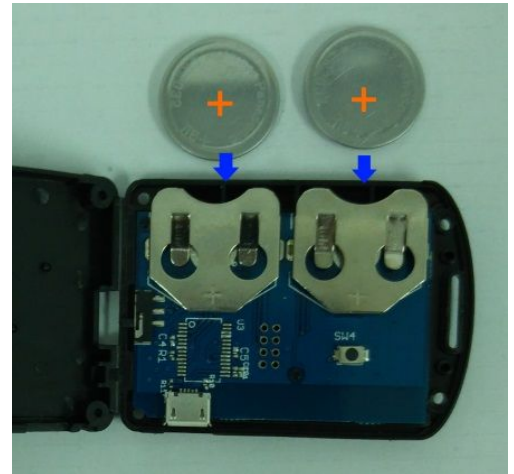
| Switch Position | USB Power | CR2032 Battery |
|-----------------|-----------|----------------|
| Right           | On        | Off            |
| Left            | Off       | On             |



Use Battery Power On



Use USB Power On



### iBS01H sensor position

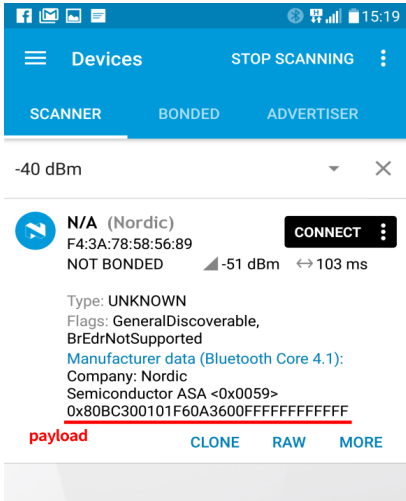
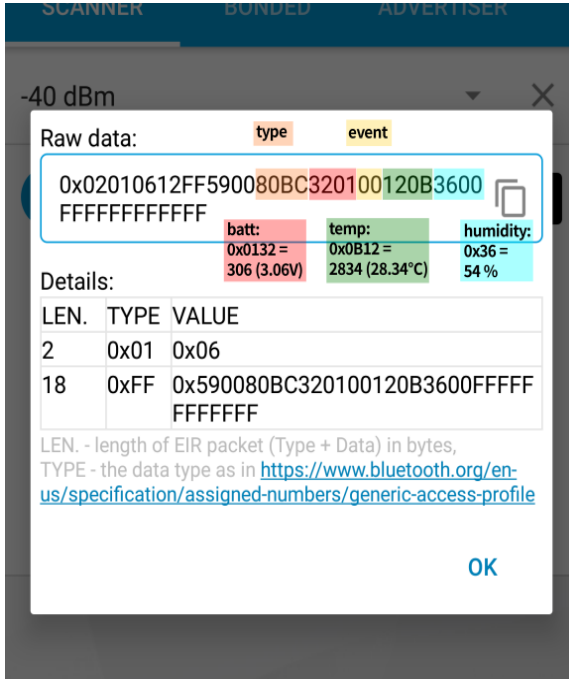
The iBS01H is using a hall sensor to detect if a magnet is in range or not. Depends on the strength of magnet, the range is around 0.5cm~1.5cm. The sensor position is marked on the enclosure.



Sensor Position

## Quick Start

When powered on iBS01 Tag start to advertise immediately. User can use BLE scan app to scan iBS01 Tag to get payload to see its working. Detail procedure as following:

| 1. Power on iBS01 with Battery or USB <b>without</b> pressing button.             | 2. Scan to find iBS01 Tag                                                         | 3. Tag Info is in payload, detail information please check format document          |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |

## Notes when using Master Control Panel APP

- At scanning the BLE device when using Master Control Panel, you can see current nearby BLE device and the cached BLE device that are not current existed. To tell the difference, check the RSSI value. If the RSSI is not in solid color then the device is not currently existed. Or you can use “refresh” in the setting menu( at the top right corner) to clear the cached information.

## Revision History

| DATE         | REVISION | CHANGES         |
|--------------|----------|-----------------|
| May 25, 2016 | 1        | Initial release |
|              |          |                 |

## Statement

### Federal Communication Commission Interference 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 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.

**FCC Caution:** To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

**FCC Radiation Exposure Statement** This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 0.5 centimeters between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. The antennas used for this transmitter must be installed to provide a separation distance of at least 0.5 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

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.

### NCC 警語

#### 第十二條

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

#### 第十四條

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信法規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾