# FOBO Wireless Tag


# User Manual


Version 1.0

# Contents

# 1 <u>Introduction</u>

FOBO Tag is a wireless device using Bluetooth® Smart (Bluetooth® 4) technology to monitor your loved ones or belongings that mean a lot to you. Bluetooth® Smart is a very low power wireless technology that could operate on a single coin cell battery for up to 2 years (Note**:** Battery life may vary according to usage).

Please ensure that your smart phone has Bluetooth® Smart Ready (Bluetooth® 4) capability in order to use FOBO Tag. Currently FOBO Tag works with iPhone4S and iPhone5 only.

Before starting to use FOBO Tag, please download the FOBO tag apps to your smart phone.

**Note:** You could use up to 30 tags for each smart phone.

# 2 <u>About FOBO tag</u>

As we go about our daily live, we are inundated with a lot of information as well as things to remember. With FOBO Tag, we aim to bring convenience to your daily living by providing timely reminder or alert when you forget your belongings or about to lose sight of your loved ones. FOBO Tag working with your smart phone applications could monitor your loved ones or belongings from anywhere within Bluetooth range (up to 30 meters*).

- Attach them to your personal items be it your handbag, laptop bag, luggage, car key or any important belongings, and FOBO tag will monitor them for you. When you leave any tagged belonging behind, **RemindME** function will trigger your phone to alert and remind you to take your belonging with you. We understand that at times you might not want to be disturbed by **RemindME**; example your laptop bag is safely placed at home and you are on the way leaving your home to the cinema. Our smart **SafeZone** feature working with **TimeZone** will prevent an alert. However during weekday, when you leave your home to the office and forgot your laptop, **TimeZone** will know it is time to go to office and it will prompt an alert to remind you. (**Note:** SafeZone utilizes GPS/AGPS of your smart phone to determine location. Turn on WiFi on your smart phone for better accuracy.)
- When you misplace any belonging you can use **FindME** to search for it. Example a car key misplaced under your sofa. **FindME** will be able to indicate the signal

strength for you to estimate how far you are away from your belonging. The FOBO tag can also be triggered to beep for ease of locating your belonging.

- The **FindME** feature is also able to differentiate between a belonging and vehicle. When you tag your vehicle with the **Vehicle Profile**, the **FindME** feature when activated will help you locate your parked vehicle by calling up picture of the car park bay or location; information captured earlier when you moved away from your parked vehicle.

- You can also use FOBO tag to monitor your belonging to ensure nobody moves it. For example your desk drawer with important things inside. Just place a FOBO tag in your drawer and activate **Don'tMoveME** function. Once the drawer is moved and you are within Bluetooth range, you will get an alert on your phone. If you are out of range, you will get an alert with duration since last move when your phone gets back into Bluetooth range with the FOBO tag in your drawer.

- For frequent traveler, you could imagine the boredom of waiting for your checked-in luggage at arrival hall after a long tiring flight. Activate **PromptME** feature for the tag inside your luggage and you will get an alert once the luggage get into range with your phone, typically within 10-30m (**Note:** Bluetooth range varies depending on surrounding things or building structure). You are free to move around without having to wait beside the luggage carousel.

More advanced features are being developed and will be released via free apps download. The advanced features will work with current version FOBO tag.

All the above are example use cases of how you could use FOBO tag. There are many other ways of using FOBO tag with all these smart features. All you need is to understand how the features work and with a little bit of imagination, you could make FOBO tag work better and more suited to your lifestyle needs.

We have designed FOBO tag to work with coin cell battery so that you do not need to worry about charging the device. FOBO tag is also water proof and shockproof to allow you to use outdoor without any worries.

# 3 Start to use FOBO tag

## 3.1 Installing FOBO tag apps

*Step 1:* Download FOBO tag apps to your smart phone
- For iPhone users, download from Apps Store

*Step 2:* Launch FOBO tag apps
- Accept the Terms & Conditions of use before proceeding next to register a user account.

*Step 3:* Sign up
- Sign up a new account with an e-mail address and password
- A verification message will be sent to your e-mail address
- Please sign up again if you did not receive any message from FOBO server
- Upon successful verification, proceed to Login before using FOBO tag

## 3.2 Pairing to your smart phone

*Step 1:* Add a new FOBO tag
- Select "Add Tag"
- A QR camera will be launched

*Step 2:* Scan the QR code
- Aim the camera to the QR code sticker at the back of FOBO Tag
- The QR code contains FOBO Tag ID information which will be used by the apps for pairing purpose.

*Step 3:* Select profile for FOBO Tag
- User must select a profile for the FOBO Tag. FOBO Tag will behave differently under different profile setting. Choose one profile for each FOBO Tag.
  - Belonging Profile – to monitor belongings such as car key, laptop bag, luggage, handbag, etc.
  - Loved One Profile – to monitor loved ones such as elderly, child, pet or those who can't take care of themselves
  - Vehicle Profile – to monitor vehicles such as car, bicycle, motorbikes, etc.

*Step 4:* Configure FOBO Tag

- Take a picture of the item or loved one that you want to monitor with this FOBO Tag. This picture will appear as Picture Icon for identification.
- Add a name to identify the tag
- Save the settings

## *Step 5:* Confirming FOBO Tag paired successfully

- Shake the FOBO Tag and observe the Picture Icon wiggle in the "Settings" screen to show successful pairing and connection of FOBO Tag to the Smart Phone.

**Note:** The FOBO tag can only be paired to one Login account. This is to protect against possibility of tracking and control of the FOBO tag by unauthorized users. In order to pair to another Login account, the user will have to "Release" the tag under the "Setting" screen menu.

# 4 <u>Re-pairing FOBO tag with AirPair</u>

FOBO Tag requires only one time pairing to your smart phone. All the pairing information and settings are stored at FOBO Cloud. In case you change to another smart phone or erased all contents on your smart phone, you could retrieve the pairing information and settings by downloading the FOBO Tag apps and login using your e-mail address and password.

Upon successful login, all pairing information and settings would be restored into your smart phone and you are ready to use all the tags just as the last time you used them. This AirPair technology allows you the convenience of porting all the FOBO tags to another smart phone unit without the tedious process of having to pair and configure the tags all over again.

# 5 <u>FOBO Profile Settings</u>

Profile selection of the FOBO Tag will determine how the tag will likely be used. This will affect the characteristic of the FOBO Tag. There are four key profiles:

1) ***Belonging Profile*** – to monitor important belongings, such as lap-top bag, handbag, luggage, tablet, car keys, etc
2) ***Loved One Profile*** – to monitor a particular loved one, eg. a child, an elderly person or a pet.
3) ***Vehicle Profile*** – to monitor a vehicle, e.g. car, bicycle, motorbike

## ❶ Belonging Profile Setting

Smart phone out of range with FOBO Tag (Default setting: Near)
- Typical range (Near: ~5 to 10m; Far: ~10m to 30m); This is a low energy RF device which is susceptible to attenuation from surroundings (eg. building walls, human body). Detection range varies with different surroundings.
- Apps will check if FOBO tag location is in identified SafeZone.
- If in SafeZone, no alert, and apps will constantly check if still in SafeZone.
- If not in SafeZone, an alert will sound to remind user of the belonging that is left behind.

Smart phone already out of range with FOBO tag and leaving SafeZone
- Apps will check if current time is within pre-set TimeZone.
- If in TimeZone, no alert.
- If not in TimeZone, an alert will sound to remind user of the belonging that is left behind.

If FOBO tag moves and out of range from smart phone
- FOBO tag will beep for 5 seconds. It will stop after 5 seconds. This is a gentle alert for the user reminding of the smart phone left behind.
- This feature can be turned ON in the "Settings" screen. Default is OFF.

**Warning:** FOBO tag is not meant to function as an anti-theft device. It is presumed that your belonging is safe in the designated SafeZone. There is a possibility of FOBO tag being moved out of SafeZone while the smart phone is still in SafeZone. This will not activate an alert. If you are unsure of the safety of the designated SafeZone, please do not assign SafeZone to this tag. Without SafeZone, you will get an alert whenever the FOBO tag moves out of range from the smart phone.

❷ **Loved One Profile Setting**

Smart phone out of range with FOBO Tag (Default setting: Near)
- Typical range (Near: ~5 to 10m; Far: ~10m to 30m); This is a low energy RF device which is susceptible to attenuation from surroundings (eg. building walls, human body). Detection range varies with different surroundings.
- Apps will check if FOBO tag location is in identified SafeZone.
- If in SafeZone, no alert, and apps will constantly check if still in SafeZone.
- If not in SafeZone, an alert will sound to remind user of the loved one that is left behind.

If FOBO tag moves and out of range from smart phone
- FOBO tag will beep for 5 seconds. It will stop after 5 seconds. This is a gentle alert for the loved ones they're wondering too far away from the smart phone.
- This feature can be turned ON in the "Settings" screen. Default is OFF.

**Warning:** It is presumed your loved one is safe in the designated SafeZone. There is a possibility of FOBO tag moving out of SafeZone while the smart phone is still in SafeZone. This will not activate an alert. If you are unsure of the safety of the designated

SafeZone, please do not assign SafeZone to this tag. Without SafeZone, you will get an alert whenever the FOBO tag moves out of range from the smart phone.

### ❸ Vehicle Profile Setting

Smart phone out of range with FOBO Tag (Fixed range setting: ~5m)
- This is a low energy RF device which is susceptible to attenuation from surroundings (eg. building walls, human body). Detection range varies with different surroundings.
- Apps will check if FOBO tag location is in identified SafeZone.
- If in SafeZone, no alert. This is useful for your home or office whereby you do not need the alert.
- If not in SafeZone, an alert will sound to remind user to take picture of identification mark for the parking bay.

If FOBO tag moves and out of range from smart phone
- FOBO tag will beep for 5 seconds. It will stop after 5 seconds. This is a gentle alert for the user reminding of the smart phone left behind.
- This feature can be turned ON in the "Settings" screen. Default is OFF.

**Note:** A GPS pin drop will also be activated simultaneously. However GPS pin drop will have limited use for in-door car parks or big parking space without any street names. The GPS/AGPS signal will also be compromised in under-ground car parks.

# 6 <u>FOBO Functions</u>

Functions are activities for the FOBO tag to perform. Except **RemindME** all functions can be activated from main screen by selecting the particular FOBO tag.

1) *PromptME* – to notify the arrival of a belonging or vehicle; Examples below:
    a. Waiting for checked-in luggage at arrival hall. You will get an alert when the luggage is within 10-30 meters vicinity from your smart phone.
    b. Announcing the returning home of your spouse as the vehicle is being parked outside the house.

2) *FindME* – when you need to locate your misplaced belonging or your parked vehicle. For **Belonging profile**, you will be able to use sound and visual level to guide you to your misplaced belonging. For **Vehicle profile**, this function when activated will help you locate your parked vehicle by calling up picture of the car park bay or location; information captured earlier when you moved away from your parked vehicle.

3) *RemindME* – This feature will provide reminder if you forgot your belongings or lose sight of your loved ones. This is a default feature for **Belonging profile** and **Loved One profile**. Examples below:
    a. When tag to a belonging, the applications will provide an alert when the smart phone is a certain distance away from the tag. You could tag to your laptop bag in case you forget to bring to office.
    b. However at certain times, you do not want the tag to provide reminder. Example you might not want to be reminded about your laptop bag when you go to the cinema from home after work at night. With TimeZone, user can set certain timeslots within different days of the week when the FOBO tag should not provide a reminder alert.
    c. For loved ones, this function monitors your loved ones and alerts when they move too far away from you.

4) *Don'tMoveME* - to monitor your belonging to ensure nobody moves it. Examples below:
    a. Just place a FOBO tag in your drawer. Once the drawer is moved and you are within Bluetooth range, you will get an alert on your phone. If you are out of range, you will get an alert with duration since last moved when your phone gets back into Bluetooth range with the FOBO tag.
    b. Monitoring can be done for your apartment door to track if anybody uninvited opening your door.

# 7 <u>FOBO Functions Setting</u>

## ① PromptME
- User can only activate this function for FOBO tags that are out of range from smart phone. You will not see this option if the FOBO tag is connected to the smart phone.
- An alert will sound when the selected FOBO tag comes within 10-30m range from the smart phone.
- **Note:** This is a low energy RF device which is susceptible to attenuation from surroundings (eg. building walls, human body). Detection range varies with different surroundings.

## ② FindME
- User can activate this function for FOBO tags both in range and out of range from smart phone.
- When selected a FindME screen will be activated.
- Signal power level and synchronized beeping will indicate the proximity of FOBO tag
- When in range, user can activate 5 second beep to assist in locating the FOBO tag.

## ③ RemindME
- This is a default function for both **Belonging profile** and **Loved One profile**.
- Refer to **Belong profile setting** and **Loved One profile setting** to understand use case.

## ⑤ Don'tMoveME

- User can only activate this function for FOBO tags that are in range with smart phone. You will not see this option if the FOBO tag is out of range.
- This feature will only work for **Belonging Profile**.
- After activation, an alert will be triggered on the smart phone when the FOBO tag detects a movement.
- If the smart phone is away and not in range with FOBO tag, and FOBO tag detects a movement, it will initiate a time counter inside the tag. When the smart phone comes back to within range with FOBO tag, an alert will be triggered on the smart phone displaying the time since FOBO tag detected the last movement.

# 8 Operating Mode

|  | PromptME | RemindME | FindME | Don'tMoveME | SafeZone | TimeZone |
|---|:---:|:---:|:---:|:---:|:---:|:---:|
| **Belonging Profile** | √ | √ | √ | √ | √ | √ |
| **Loved One Profile** | | √ | √ | | √ | |
| **Vehicle Profile** | √ | | √ | | √ | |

You will only be able to use those checked functions under each different profile setting.

# 9 Replacing Battery

The coin cell battery (CR2450) could last up to 2 years of normal operation. Frequent beeping of the FOBO tag will use battery power and reduce battery operating life.

To replace the battery, remove the four screws at the back cover. Be careful not to damage the rubber gasket as it may affect water resistance of FOBO tag.

# 10  Trouble Shooting Guide

- Unable to Login after signing up to FOBO apps
    - Make sure your e-mail address and password is typed correctly
    - A verification mail will be sent to your e-mail address
    - Follow the instruction in the mail for sign up
- Unable to pair FOBO tag
    - Launch FOBO tag apps
    - Select "Add Tag"
    - Make sure you aim the camera to back of FOBO tag with QR code. You should be able to see the QR code in the camera screen on your smart phone.
    - Make sure your smart phone has Bluetooth 4.0 (Smart Ready) capability. Bluetooth 2.0 or 3.0 will not work with this device.
- Unable to connect FOBO tag after pairing
    - Make sure there is nothing blocking the RF signal between FOBO tag and your smart phone
    - Make sure you Login with the same information (e-mail & password) that was used to pair with this FOBO tag.
    - Upon connection you should see a clear signal bar graphics to the right of the FOBO tag icon
    - You could also go to "Setting" screen and shake the FOBO tag. You should see the FOBO tag icon wiggle for a few seconds to show that it is connected to your smart phone.
- Unable to see all paired FOBO tags after sign out and login again
    - Note that FOBO tag pairing information is tied to your login account using your e-mail address.
    - Make sure you login using the correct e-mail address that was used to pair your FOBO tags
- Unable to turn off FOBO tag
    - Note that FOBO tags are designed to be operational all the time to monitor important things for you. It cannot and should not be turned off. You should not have to remember when to turn on FOBO tag.
    - Try using SafeZone and TimeZone to avoid unnecessary alerts when you do not need them.
    - You can also "Release Tag" under setting screen to disable the FOBO tag from functioning. Note that you will have to pair the tag to your phone again in order to get it working again.
    - For whatever reason you may want to turn off power of FOBO tag, you can remove the battery.

# 11 FOBO Specifications

- Bluetooth: v4.0
- Operating Frequency: 2.4 GHz
- Weight: 26 grams
- Dimension H x D: 10.9mm x 44.2mm
- Stainless steel ring; REACH & ROHS compliant
- Battery Type: CR2450 replaceable coin cell battery. Operating life up to 2 years. (**Note:** The operating life varies according to usage)
- Operating Temperature: -10$^o$C to 50$^o$C
- ESD: 8kV air, 4kV direct contact
- Operating Humidity: up to 90% non condensing at 40 $^o$C
- Dust and Water Proof: IEC60529 compliant to IP67 (**Note:** Bluetooth RF signals do not work well under water. This water proof feature is to ensure FOBO tag would continue to function after being soaked in water; example accidentally dropped in water or soaked in rain when used outdoor).

# 12 Warning

- Take note that FOBO tag is not meant to function as anti-theft or anti-kidnapping device. In some use cases involving SafeZone, unauthorized person may remove the belonging or loved one without triggering an alert on your smart phone.
- Please take extra precaution to acoustics safety when operating the FOBO tags. Note that the FOBO tag beeper could be loud and may result in injury to the ear or permanent loss of hearing.
- You shall not use the FOBO tags in any unlawful way that violates any laws.
- Avoid exposing the FOBO tag to solvent, fire or extreme temperatures.
- FOBO tag may fail to function properly if the battery reaches a critical low level. Replace the battery immediately to continue enjoying full features of FOBO tag.
- CAUTION
  RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
  DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

# 13 <u>Regulatory Information</u>

**Federal Communication Commission Interference Statement**

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.

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

## Industry Canada statement:

This device complies with RSS-210 of the Industry Canada 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.

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

**Radiation Exposure Statement:**
This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

**Déclaration d'exposition aux radiations:**
Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

**European Union Regulatory Conformance**
This equipment is CE marked according to the provisions of the R&TTE Directive (99/5/EC) and is in compliance with the essential requirements and other relevant provisions of the Directive 1999/5/EC. This equipment meets the following conformance standards:

EN 300 328, EN62479, EN 301 489-1&17, EN 60950-1

**EU Declaration of Conformity**
Hereby, Balda Solutions Malaysia Sdn. Bhd. declares that this Bluetooth device is in compliance with the essential requirements and other relevant provision of Directive 1999/5/EC.
**Caution:** Changes or modifications to this **FOBO** device not expressly approved by the party responsible for compliance could void the user's authority to operate it.

**사용자 정보:**

해당 무선설비는 전파혼신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없음

**NCC statement**

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。

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。

**Bluetooth Wireless Compatibility:**

This **FOBO** device supports the following Bluetooth wireless protocols and profiles:
- Bluetooth core technology v4.0
- Battery Profile (BAS)
- Proximity (PXP)
- Device Information Service (DIS)

**Bluetooth Wireless Interoperability:**

This **FOBO** device is designed to be interoperating with all Bluetooth wireless products that support compatible profiles and roles including:
- Bluetooth core technology v4.0
- Bluetooth master and slave roles

# 14 Trademarks

- FOBO™ is a trademark of Balda Solutions Malaysia Sdn Bhd. All rights reserved.
- Bluetooth® is a registered trademark owned by Bluetooth SIG, Inc.
- iPhone® is a registered trademark of Apple, Inc.