

BTAD MANUAL

Part #762021 Model: BTAD



800.356.2671

www.AccutechSecurity.com

Version 1.0

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10125 S 52nd St

Franklin, WI 53132

Phone: (800) 356-2671

Important FCC & DOC Information

Note: 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 output on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Canadian D.O.C Statement

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

Cet appareil numérique ne dépasse pas les limites de classe B pour les émissions de bruit radioélectrique provenant des appareils numériques énoncés dans la réglementation sur les interférences radio du Département Canadien des Communications.

FCC ID/DOC for the BTAD:

FCC ID: JM7-HWHY-762021

Canada IC: 2683A-762021

This device complies with Part 15 of the FCC rules and Industry Canada license exempt RSS standard(s). 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.

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) 'appareil ne doit pas produire de brouillage, et (2) 'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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The BTAD

The BTAD is the device that activates a tag before it is put on a patient or resident. It also deactivates a tag when removed from a patient or resident to conserve the battery life of the tag. The BTAD is also a testing device for the tags when they are in use or not in use. The BTAD incorporates a keypad for security purposes and an internal tag that will cause an alarm if it goes through a monitored exit. You must enter a code to activate or deactivate a tag. Do not store next to a monitored exit or a Tag Test Station as this will cause an alarm and or drain the battery in the BTAD.

The BTAD also utilizes an LCD display to provide additional information on the tags. This information includes the tag type, tag number, warranty date, and a battery test. If the battery test displays a percentage, the tag can continue to be used. Once a low battery flag is generated, the tag needs to be replaced.

Tag information can be displayed with the tag in an off/deactivated state or in an on/activated state. Tag battery life can only be displayed with the tag in an on/activated state. Tags should be tested at a minimum of once a week.

The BTAD can also be used to match a mother tag to a baby tag by following a specific procedure.

The BTAD is a rechargeable device and can be recharged via a USB port on a computer or an external wall charger (not included).

Charging the BTAD

Important: Charge the new Battery Pack/BTAD for a minimum of 2-4 hours before using! Your Battery Pack is shipped with a 30% charge for safety reasons. The battery pack should be fully charged prior to its first use. Failure to fully charge will prevent the proper calibration of the battery level display icon.

To charge the BTAD, connect the supplied USB - C Cable to the BTAD & into a 110-120VAC electrical outlet via a USB adapter (not provided).

A USB port on a computer may also be used, but be advised that some USB ports may not provide sufficient power to charge the BTAD. Additionally, the drivers on the computer may disable the USB port from providing the necessary charge when the computer sits idle. If using a computer, work with your IT department to ensure the USB port provides sufficient power, and that the port remains active if the computer sits idle.

Note: Charging time via a computer may vary depending on the computers USB port or charging source. A USB-1 port will charge slower than a USB-3 port due to more current provided.

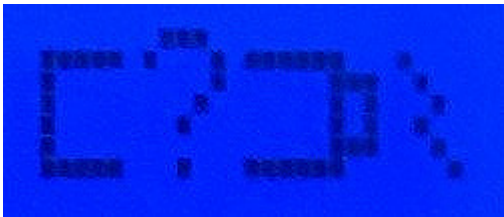


USB-C Cable

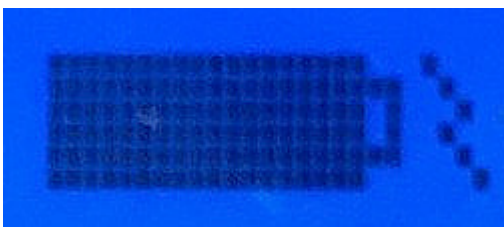


Charging Port on BTAD

Once the BTAD is initially plugged in for its first full charge, the battery indicator will display a question mark (?) inside the middle of the battery icon. Do not unplug the BTAD during this process to allow proper battery level read and or calibration. Also, during this first full charge, you will not see an incremental level increase of the charging process. As soon as the battery is fully charged, the question mark will disappear and the battery icon will then display a full charge. This will take approximately 2-4 hours. If you disconnect the battery from the BTAD at any point, the battery/BTAD will need to be re-calibrated for a proper battery level read and may need to charge for another 2-4 hours.



BTAD Charging Indicator



BTAD Fully Charged Indicator

After the first full charge, the battery level icon will display incremental battery levels as it discharges or charges back up during any successive charging sessions. The question mark (?) will no longer appear during recharge sessions unless the battery has been disconnected and reconnected even after a full charge. It will then have to remain plugged in and charging for recalibration.

The BTAD can also function and be used without a battery pack if it is connected via the USB-C cable to a computer. This scenario allows it to function if the battery fails, is no longer functioning or you are waiting on a replacement battery pack. A battery icon will not be displayed.



BTAD Charging Indicator with
No Battery Pack

Powering the BTAD On/Off

The BTAD includes a built-in power saving feature that automatically powers off the BTAD after a period of inactivity.

- 1) Press the Power/Clear button (1). The LCD screen illuminates and “Cuddles Pulse” (2) is displayed.

The LCD screen will remain lit for 1 minute without button activity. While nearing the 1-minute mark, the LCD will display “20 sec to Power off” and then “7 sec to Power off”.

To extend the length of time, press the Power/Clear button again before the LCD screen powers off. Each press will extend by 1 minute (up to 5 minutes at a time).

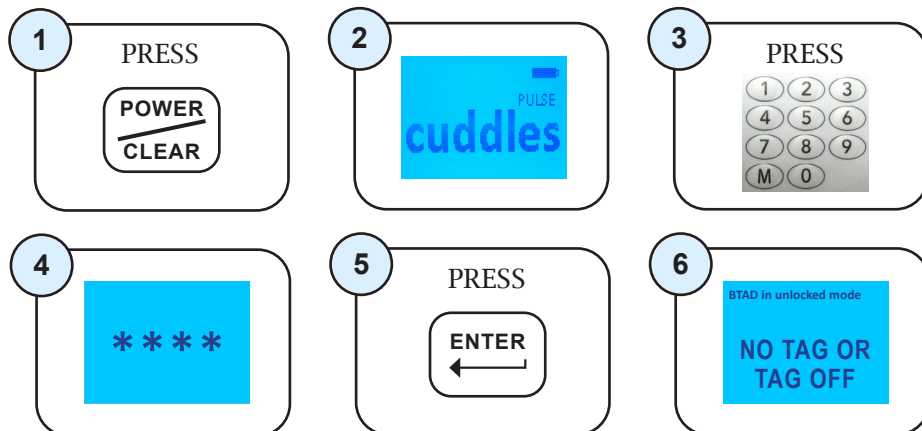
- 2) Conversely you may manually power off the BTAD by pressing and holding the Power/Clear button for 5 seconds. Once the LCD screen powers off, you may release the button.

Unlocking the BTAD

For added security, access to certain secure BTAD operations is locked via 4-digit user codes. **The default code is 7139.**

Important: You must change the default code to improve security. See page 11 for instructions.

- 1) Press the Power/Clear button (1). The LCD screen illuminates and Cuddles Pulse is displayed (2).
- 2) Using the number grid (3), enter a 4-digit user code. Entering the code will display the * for each number entered (4). See Programming Mode Instructions for more information on user codes.
- 3) Once the correct code is entered, press the Enter button (5). The screen will display “BTAD in unlocked mode /NO TAG OR TAG OFF” if there is no tag near the BTAD (6). If you entered the wrong code, “Invalid Code” will be displayed. Press Clear and start over.
- 4) You may now use the BTAD for activating/deactivating Tags, testing tags and verifying tag ID data. Each action you take will extend the Enter LED life for 1 minute (except for the Clear button). After 1 minute of inactivity the Enter LED will extinguish and you will have to enter a valid code again.



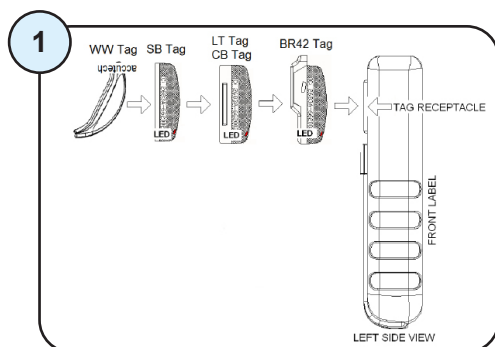
Activating/Deactivating Tags

The BTAD can activate and deactivate Tags preserving Tag battery life and preventing nuisance alarms.

Activating

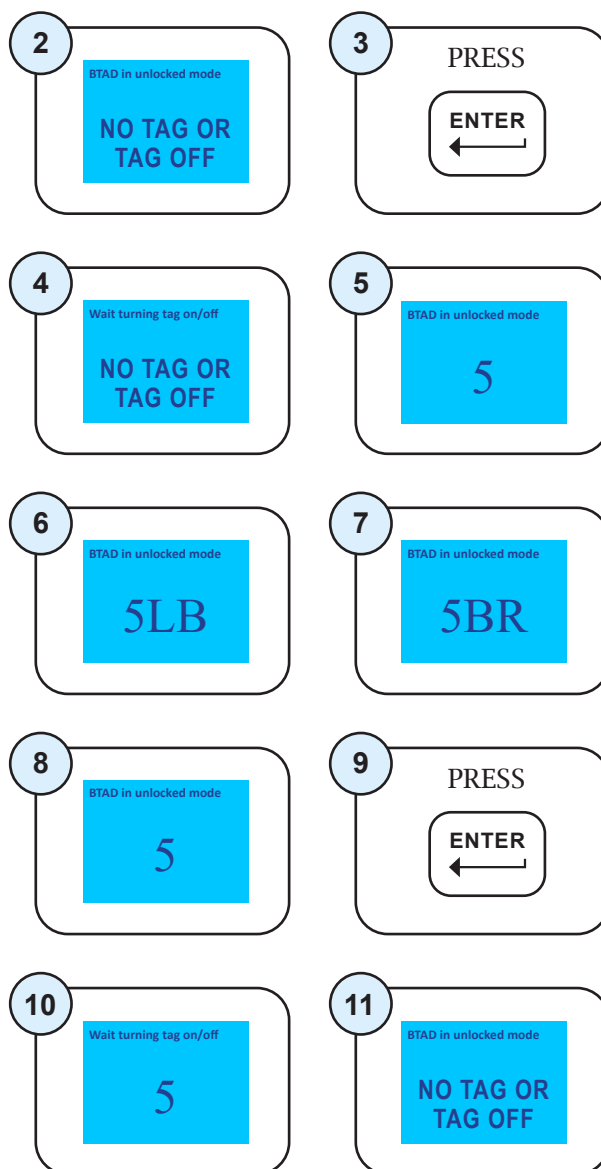
- 1) Unlock the BTAD as previously instructed.
- 2) With the LCD screen in the “BTAD in unlocked mode NO TAG OR TAG OFF” (2), place the Tag in the correct orientation within the Tag receptacle (1).
- 3) Press the Enter button (3). “Wait turning tag on/off NO TAG OR TAG OFF” will be displayed (4). The Tag number will be then displayed (5) indicating the Tag is active (also the Tag’s LED will be illuminated).
- 4) If a low battery condition is detected, then LB will be displayed next to the tag number (6). Replace tag - DO NOT KEEP ON PATIENT OR PLACE TAG ON PATIENT. Turn tag off and use another tag.
- 5) If a band removal alarm condition is detected, then BR will be displayed next to the number (7).

Note: A band alarm condition can or will take precedence over a low tag battery condition, therefore, be sure to handle the BR Tag appropriately to truly check for a low battery condition.



Deactivating

- 1) Unlock the BTAD as previously instructed.
- 2) Place the Tag in the correct orientation within the Tag receptacle (1). The tag number will be displayed on the screen (8)
- 3) Press the Enter button (9). “Wait turning tag on/off (TAG NUMBER)” will be displayed (10). The LCD screen will then display “NO TAG OR TAG OFF” (11) indicating the Tag is deactivated (also the Tag’s LED will no longer be illuminated).



Testing a Tag

With the Cuddles Pulse screen on the display (1), hold the BTAD up to and within 3 inches of the tag. The tag # will display on the screen. If the tag has a low battery, then the number and LB (3) will display on the screen. Immediately remove and replace the tag, do not continue to use a tag with low battery.

Note: Tag battery status will only be displayed if the tag is on/activated.

Testing a Tag for ID, Battery Level, and Warranty Date

The BTAD can be utilized to test tags if they are in an ON state or OFF state. You must place the tag in the proper orientation in the receptacle of the BTAD for a successful read and display of tag data. Do not remove the tag during this process.

- 1) With the BTAD unit powered on and the Cuddles Pulse screen displayed, Place the tag in the correct orientation within the tag receptacle (4).
- 2) Press ENTER once. The screen will display "Wait reading tag" (5). Do not remove the tag during this process.
- 3) Once the tag data is received the screen will first display the tag type and #, the battery level and then warranty date.
- 4) If "NO TAG ERROR" (7) is displayed, reorient or reseal the tag in the receptacle of the BTAD and press enter.

Tag Types

BR – Band Removal Tag (blue)
CB – Cut Band Tag (blue)
LT – Long-term Care Tag (blue)
MT – Mother Tag (blue)

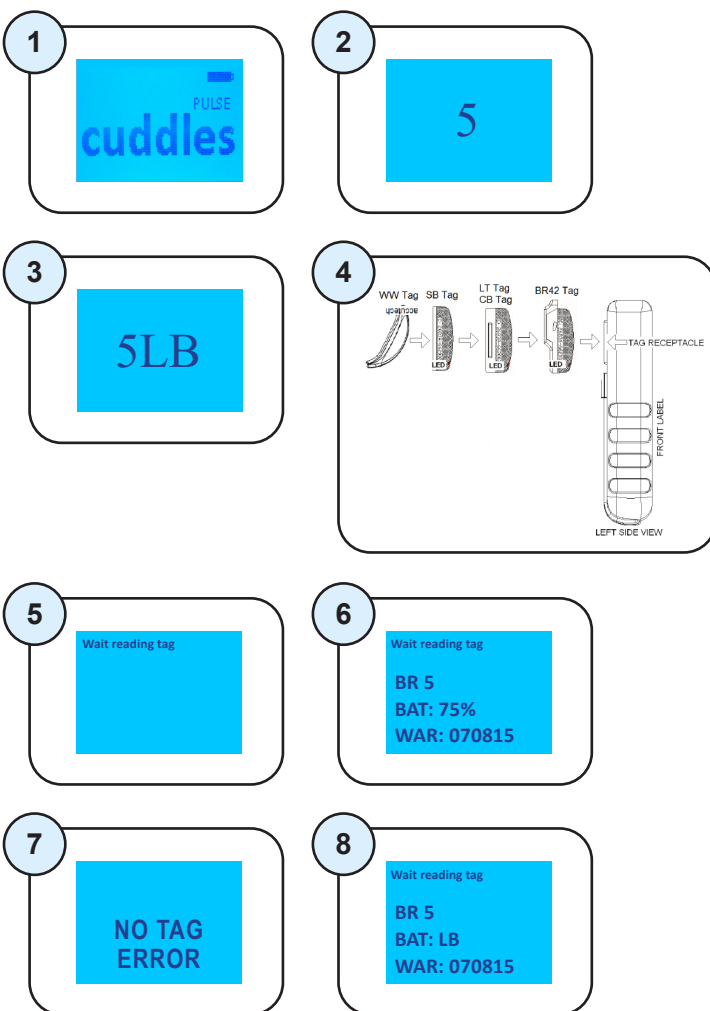
BAT - Tag Battery Level:

The tag battery level will be read as a percentage. Once a tag falls below a predetermined level, the tag will generate a low battery flag and display LB (8).

Immediately remove and replace the tag, do not continue to use a tag with low battery.

WAR - Tag Warranty Date:

The tag warranty date will be displayed with 6 numbers. The first two numbers are the month, next two numbers are the day and the final two numbers are the year, MM/DD/YY. This set of numbers will reflect the end of the tags warranty date and is one year from the start of the tags warranty.



Mother Baby Match Tags

MBM (Mother Baby Match) Tags are referenced as MT (Mother Tag) or MOM on the BTAD and used for matching purposes only and should not be used for infants or PEDS applications. MBM Tags will not be detected in a monitored exit and will not cause alarms or lock doors. MT-style MBM tags have blue-colored bases and WWT-style MBM tags have blue-colored details to differentiate them from standard Tags. The MBM Tag's visual pulse LED indicates whether the Tag is active. MBM Tags are activated/deactivated (to preserve battery life) using a BTAD.



Model Name: MB52

Activating/Deactivating MBM Tags

MBM Tag does not need to be activated or deactivated.

How are MBM Tags Matched with Infant Tags?

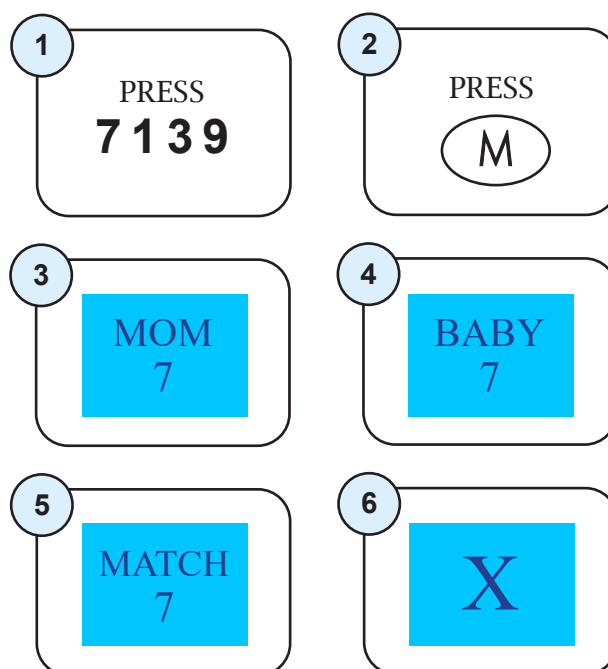
Standard Tags are worn by infants and are available in different Tag case styles such as BR or Cut Band. MBM Tags are worn by the mother/father. Both Tags contain matching programming that can be read privately by a BTAD without alerting bystanders of a valid match or mismatch.

Start with the MBM Tag and the matching sequence is as follows:

- 1) BTAD powered up – press 7139 (1) and press the M button (2). Then read the MBM Tag by placing the BTAD over the

MBM tag. The screen will display MOM and tag number (3) along with 1 short beep. The MBM Tag information is then stored for 5 minutes. During this time, travel to the Infant Tag's location.

- 2) Match the Infant Tag by placing the BTAD over the BR or CB tag. If the Tag is a match, then BABY and the tag number (4) will be displayed along with 1 short beep. If the Tag is not a match, then X (6) is displayed. A correct match can be attempted by locating the right infant within 5 minutes, to continue the process. If you exceed this time, then you will need to start the process over.
- 3) Return to the MBM tag and read to confirm. If the Tag is a match, then the screen will display MATCH and tag number (5) with a long beep. If incorrect, X (6) will be displayed and you will need to start the process over.



BTAD Programming Mode

If you want to change and or add user codes or a certain function of the BTAD you will need to enter programming mode.

Note: To prevent the screen from timing out and shutting off, press Enter when the display indicates it is counting down to Power OFF. The display will start with and indicate “20 seconds to power off”, then “7 seconds to power off” before shutting down.

To Enter Programming Mode

- 1) Press: Enter, Enter, Master Code, Enter, (198237645 is the default master code)

To Exit Programming Mode

- 1) Press: Power/Clear

Once you have entered the correct Programming Mode, the screen will display a configuration menu consisting of:

BTAD Version 0.0.1

1. Configure Buzzer
2. Set Unlock Timeout
3. Set LCD Contrast
4. Change Master Code
5. Edit Unlock Codes
6. Set Defaults
7. Select MBM Display

BTAD Version 0.0.5

1. Configure Buzzer
2. Set Unlock Timeout
3. Set LCD Contrast
4. Change Master Code
5. *See Note Below
6. Set Defaults
7. Select MBM Display

***Note:** To edit Unlock Codes (User Codes), see page 13, “BTAD Programmer User Codes for Version 0.0.5”.

1. Configure Buzzer

Press 1. This will bring you to a new screen. “Press 1 or 2 to configure buzzer” is displayed. You will have 2 options.

1. Buzzer for Tag BR
Current: Enabled or Disabled
2. Buzzer for MBM
Current: Enabled or Disabled

To change the Current status of 1. Buzzer for Tag BR, Press 1. The next screen will display the current status “BR BUZZER ENABLED” or “DISABLED” is displayed with a selection of:

3. Enable
4. Disable

Select the preference and the display will immediately change to the requested preference.

2. Set Unlock Timeout

Press 2. This will bring you to a new screen. “Press 1-5 for unlock timeout minutes” is displayed. CURRENT: 1 is the default. Press 2 for two minutes, 3 for three minutes, 4 for four minutes and 5 for five minutes.

Enter-Enter returns you to the menu screen.

3. Set LCD Contrast

Press 3. This will bring up a new screen. “Press 0-9 for LCD Contrast” is displayed. CURRENT: 4 is the default. Pressing 0 is the lowest and lightest. Pressing 9 is the highest.

Enter-Enter returns you to the menu screen.

4. Change Master Code

Press 4. “Enter current master code” is displayed. Enter the current master code. Then press Enter. “Enter new master code” is displayed. Enter the new master code (must be 9 digits). “Enter to change master” is displayed once the 9th digit is entered, then press enter. “Master code changed” will be displayed.

Enter-Enter returns you to the menu screen.

5. Edit Unlock Codes

Press 5. “Enter code to add or delete” is displayed. Enter a code to be added or deleted. After you add the 4 digits (4 digits required) “Press 1 to add” and “Press 2 to delete” is displayed. If you press 1, then “User code XXXX Added” is displayed. If you press 2, then

“User code XXXX deleted” is displayed.

Press Enter to return to the previous screen to add or delete another code.

Enter-Enter returns you to the menu screen.

6. Defaults

Press 6. “ENTER to set defaults” is displayed. Once you press ENTER, then “Setting defaults...” is displayed and all the units setting are set back to factory defaults. “Defaults set” is displayed.

Enter-Enter returns you to the menu screen.

7. Select MBM Display

press 7. The following will be displayed:

“Press 1 or 2 to configure MBM display”

“1. Display BABY”

“2. Display PEDS”

“CURRENT: BABY”

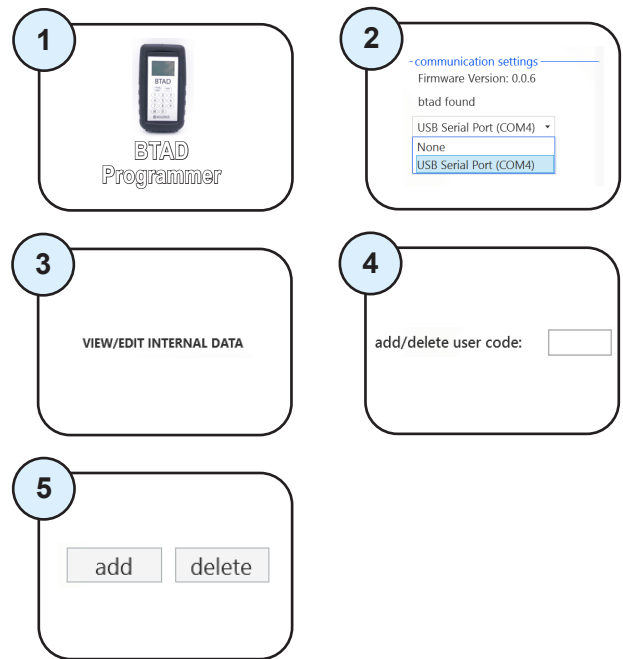
BABY is the default. Press 2, “PEDS will then be the setting displayed.

Enter-Enter returns you to the menu screen.

BTAD Programmer for User Codes for Version 0.0.5

To edit Unlock Codes (User Codes), you must use the BTAD Programmer. Connect the BTAD to the computer using a USB cable.

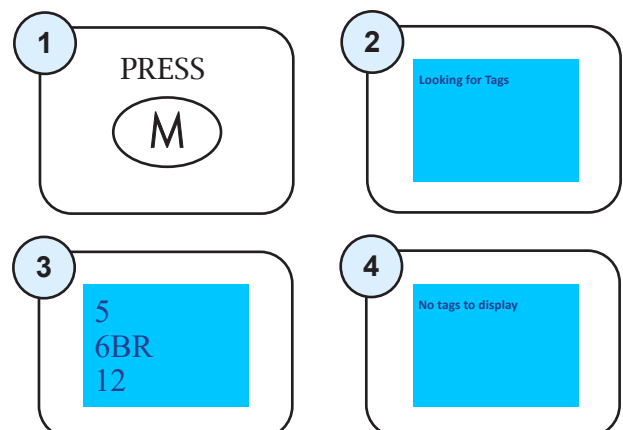
1. Open BTAD Programmer app (1).
2. Select *USB Serial Port* in Communication Settings (2). Screen will indicate “BTAD Found” and display the Firmware version.
3. Select *View/Edit Internal Data* from the top menu (3). Screen will display blocks containing up to 495 user codes.
4. Enter User Code into *Add/Delete User Code* field (4).
5. To add User Code, click on the Add button; to delete User Code, click on the Delete Button (5). The User Code will be displayed/removed from the block.



Tag Sniffer Mode

Sniffer Mode allows for up to 7 tags within approximately 10 feet to be displayed. If you are within 3-5 feet it will be very consistent in seeing tags. In this mode, if there is a BR next to the number, that means the tag is in BR alarm. If there is no BR next to the number, then the tag is not in alarm and is just beaconing.

1. BTAD powered up, Press M (1).
2. Screen will display: “Looking for Tags” (2).
3. Screen will display the number of all activated Tags within range (3).
4. If no activated Tags are within range, screen will display: “No Tags to Display” (4).



BTAD Specifications

Tenergy Battery

Battery: 3.7 VDC 1600mAh (5.92Wh) Lithium Ion battery pack. (DO NOT attempt to repair or rebuild/replace the cells within).

Component Cell: UL 1642

Maximum Charging Current: .8A

Test Specification: UL2054:2004 R9.11

Nominal Charging Voltage 5.0V



TENERGY® Item No. 34193

Rechargeable Lithium Ion Battery
3.7V 1600mAh (5.92Wh) Li-ion Battery Pack
with PCM, NTC, PTC and Connector

Maximum Charging Current: 0.8A
Maximum Charging Voltage: 4.2V



WYUY
Made in China



Battery Pack Label Front View

CAUTION:

- Risk of Fire and Burns.
- Do Not Open, Crush, Heat Above 60°C or Incinerate.
- Follow Manufacturer's Instructions.

Battery Pack Label Back View

Battery Shipping Compliance: UN38.3

Charging Cable: USB Type C - charges via a computer USB port or a 120VAC to 5VDC/500 mA Adapter (not included).

Note: Using a charger that provides less than the recommended 500 mA can work but will take longer than normal to charge.

GlobTek Battery

Battery: 3.7 VDC 700mAh (2.59Wh) Lithium Ion polymer battery pack. (DO NOT attempt to repair or rebuild/replace the cells within).

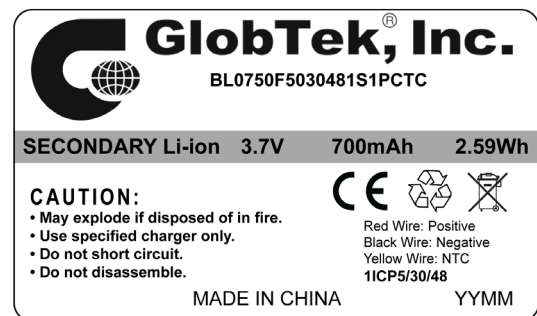
Component Cell: UL 1642; MH48131

Maximum Charging Current: 1.0C Max

Maximum Charging Voltage 4.2V

ROHS: Complies with EU2002/95/EC

CE: Complies with 2004/108 EC, EN61000-6-1: 2007, EN61000-6-3: 2007



Battery Pack Label Front View

Battery Shipping Compliance: UN38.3,
UL 2054, IEC 62133

Charging Cable: USB Type C - charges via a computer USB port or a 120VAC to 5VDC/500 mA Adapter (not included) Note: using a charger that provides less than the recommended 500 mA can work but will take

Mechanical:

Size: approximately 5.50" x 3.00" x 1.25"
(with boot)

Weight: 7 oz

Environmental:

Operating Temperature: 32° to 120° F
Intended for indoor use only.

Operating Characteristics:

Transmit Frequency: 127.0 kHz

Receive Frequency: 426 MHz, 418 MHz

FCC ID: JM7-HWHY-762021

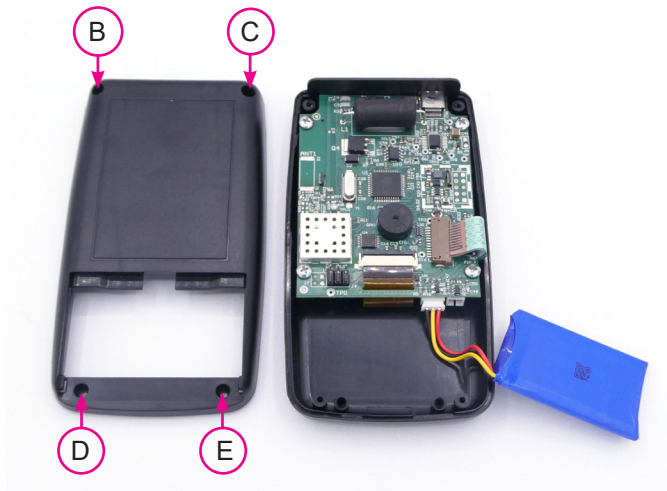
Canada IC: 2683A-762021

Removing the Battery

- 1) Always disconnect and remove the USB Cable. CAUTION: When you disconnect a cable, pull on its connector or on its pull-tab, not on the cable itself.
- 2) Remove the Battery Cover.
- 3) Remove the four Philip's Head Screws.
- 4) Separate the Rear Cover.
- 5) Carefully remove the battery pack from the compartment.
- 6) Carefully unplug the battery pack terminal from the main Board connector.
- 7) Properly dispose of the used LiON Battery Note: Consult your bio-med department, or your local municipality regarding location(s) for safe disposal and proper methods. Never ship back to the manufacturer.

Installing the Battery

- 1) Install the new battery plug terminal to the main board (A). (Black - left, Yellow - Center, Red - Right).
- 2) Replace the cover and secure with the four Phillip's Head Screws (B-E).
- 3) Replace the Battery Cover.
- 4) Charge the New Battery/Unit for at least 4 hours before using.



LiON Warning and Disclaimer

General Safety Guidelines

- 1) NEVER use a NiCd/NiMH charger to charge LiON batteries. Only use chargers designed for Lithium Polymer (LiON) batteries.
- 2) NEVER store LiON batteries in any location that exceeds 40-80° F (e.g. in a car, garage, or in the sun).
- 3) NEVER let the battery's positive and negative leads to touch. This can cause the battery to short and lead to a FIRE. If for any reason you need to cut the terminal wires, it will be necessary to cut each wire SEPARATELY, to make sure the wires do NOT touch each other.
- 4) NEVER charge a swollen or ballooned battery (even if swollen upon purchase). Continuing to charge a battery that has begun to swell will result in a fire. Follow these steps:
 - a. STOP the charging process and disconnect battery immediately
 - b. Disconnect battery from the device immediately.
 - c. Place it in an open non-flammable area.
 - d. Watch it for approx. 30 minutes from a safe distance.
 - e. Follow proper procedure to dispose of battery.
- 5) ALWAYS inspect the battery to make sure there are no signs of damage, deformity, or swelling before charging. If there are, STOP charging the battery and follow the proper procedure to dispose of the battery.
- 6) ALWAYS store LiON batteries in cool, dry places between 40-80° F.

- 7) If the battery reaches high temperatures in the event of damage to the BTAD, follow these steps:
 - a. Disconnect battery immediately from the device.
 - b. Place it in an open non-flammable area.
 - c. Watch it for approx. 30 minutes from a safe distance.
 - d. If the battery appears to be stable (no signs of damage or swelling) proceed to put it back into your device and continue using with caution.
- 8) Keep LiON batteries out of reach of children or pets.

Avoid Over-Discharging LiON Batteries

Over-discharging—continuing to use a LiON battery even when it is almost completely drained or below its minimum voltage level—can cause permanent damage to the battery.

The damage caused by this can be INTERNAL battery damage and will not always be visible. However, internal damage can eventually lead to a FIRE when attempting to re-charge it at later times.

Charging Batteries

Caution – Before Charging:

- 1) ALWAYS visually inspect LiON battery for any damaged leads, connectors, shrink wrap, swelling of cells, or other irregularities before charging or using.
- 2) Do NOT use if you find any of the above issues with your pack.
- 3) Use the supplied USB C cable for charging.

If any damage to the pack or leads is found, or if the voltage is significantly less for your pack than specified above, do NOT attempt to charge or use the pack.

Batteries Involved in Severe Impact

Carefully inspect your battery after any damage to the BTAD. Cautiously look for any damaged leads, connectors, broken shrink-wrap, punctures, swelling of cells, or other irregularities. Not doing so can lead to battery failure at some point in the future or even possible fire.

In the event of damage or if the battery exceeds high temperatures:

- 1) Disconnect battery immediately from the device.
- 2) Place it in an open, non-flammable area.
- 3) Watch it for approx. 30 minutes from a safe distance.
- 4) If the battery appears to be stable (e.g. no signs of damage or swelling), proceed to put it back into your device and continue using with caution.

Battery Maintenance & Handling

- NEVER disassemble existing LiON packs to mix with other LiON cells/packs.
- Do NOT discharge battery to a level below 3V per cell under load. Deep discharge below 3V per cell can deteriorate battery performance.

Battery Life & Disposal of LiPo Batteries

Rechargeable LiPo batteries do NOT last forever. Batteries that have lost 20% of their initial capacity should be removed from service and disposed of properly.

If at any time, you see any physical damage in a LiON battery such as swollen cell, split, or tear in the cell's covering, STOP usage immediately and dispose of battery.

Battery Product Warranty

Product warranty is limited to original defects in material and workmanship for 6 months. Warranty does not cover collateral damage. Due to the nature and use of this product, there is no term warranty. Misuse, abuse, incorrect charging, failure to comply with the above warnings and guidelines, and other inappropriate use of this product will not be covered under warranty.