GPScan ID 150

# Portable RFID Stick Reader

# Instruction Manual & User Guide

**(Rev 3.4)**

**Please read these instructions thoroughly before use and always keep accessible**

**GPScanID Limited**

# Contents

# 1. Welcome

Thank you for purchasing the GPScanID 150 Portable RFID Stick Reader. We hope you find your reader easy to use, precisely engineered and manufactured to the highest quality.

Please take the time to become familiar with your reader and to thoroughly read the safety precautions, assembly and operating instructions before use.

Keep this manual handy for easy reference. It is your guide to safe and efficient operation. A downloadable copy of this guide is also available in the location:

https://www.GPScanID.com/Download/Manual/

and search for the filename GPScanID150_Manual_Vx.x.pdf

where x.x is the version number

People can handle the reader then Mark red part to induction the animals ear with ear tag and read the animals information about weight and Physical conditions and so on.This product is used in animal husbandry.

# 2. Safety Precautions

As much as we have designed and built the reader to the highest possible standard, it houses Lithium battery, sophisticated electronics and numerous antennae for wireless communications, such as GPS and Bluetooth. Please take the following precautions when handling the reader:

- Please handle the reader with care. Do not exert extreme mechanical stress
- Do not disassemble the reader or the battery
- Do not immerse the battery in water
- Do not open the battery, data/charging caps or the antenna locking collar with wet hands. Even the reader is rated IP67 for water and dust proof, the inside connectors, cables, battery, and electronics are prone to water damage
- Do not immerse the reader in water with a loose antenna locking collar, battery cap or data/charging cap to prevent water leakage
- Do not use any third-party batteries
- Do not overcharge the battery as it causes overheating and shorten its service life. A full charge should take less than 2 hours.
- Do not leave the reader or batteries in high heat environment such as strong direct sunlight or inside a vehicle in extreme hot weather. It will degrade battery performance and shorten its service life
- Take precaution when handling batteries. Do not let any battery connecting terminals from contacting metal objects, such as paper clips. This can cause short-circuit and lead to severe body injury
- Only charge the reader and batteries with the original battery charger from manufacturer
- If the reader or battery generates unusual high temperature during charging, unplug the charger and remove the battery immediately
- Clean the reader only with a slightly dampened cloth. Do not apply solvents to the reader
- Store the reader and its accessories in a cool dry environment away from sunlight

# 3. Package Contents


Readers purchased as a standard package include the following components:

1. GPScanID 150 Reader;
2. 25cm Detachable Antenna with locking collar;
3. Data/Charging Cable;
4. Battery Charger;
5. Carrying Case;
6. GPScanID 150 User Maunal, GPScanID Software Manual and DVD disk (containing GPScanID Software and user manual);
7. Ear Tag Samples.

Readers purchased as a Premium Pack include the following components in addition to the Standard Pack components:

8. 60cm Detachable Antenna (Premium Pack Only, packaged separately);
9. Spare Battery (Premium Pack Only);
10. Charging Dock (Premium Pack Only).

Please contact your local supplier if there are missing any component(s) in your pack.

# 4. Getting to know the Reader

The GPScanID 150 is a leading-edge portable reader specifically designed for reading livestock RFID tags. It is fully compliant with ISO standards ISO 11784/11785 for FDX-B and HDX technologies.

The GPScanID150 has a wide range of built-in functions, including

- Detachable antenna (available in two sizes) for reading different livestock;
- Built-in GPS to record the location of the tags during reading
- Large internal storage of up to 170,000 ID records in up to 1000 sessions, with each session identifiable by its own date and time stamp. Each record carries its own timestamp, optional GPS location details and 4 user input fields.
- Supports a wide range of peripherals connectivity such as Personal Computers, SmartPhones, Weigh Scales, and Bluetooth Label Printers through RS-232, USB, Bluetooth® and WiFi (for future enabling) technologies.


| | Item | Function |
|---|---|---|
| 1 | Detachable Antenna | Reads RFID transponders.<br>Available in 25cm and 60cm lengths. |
| 2 | Antenna Locking Collar | Secures the detachable antenna. |
| 3 | 2.4” Display | Displays menu items and messages. |
| 4 | Green (Right) LED Indicator | Indicates tags are read correctly. |
| 5 | Red (Left) LED Indicator | Indicates battery charging state and read errors. |
| 6 | 5-Way Menu Selector | Navigates the menu and makes the selection.<br>**Menu/OK Key**: Press to make selection or press and hold to switch between Main Menu and Read Menu.<br>▲▼◄► **Keys**: To navigate through the Menu.<br>◄►: Also act as function keys to select the action items |

| | | |
|---|---|---|
| | | highlighted in or |
| 7 | Read Button (Red) | Turns on the reader and reads tags when activated. |
| 8 | Battery Cap | Secures, shields and protects the removable battery. |
| 9 | Data/Charging Cap | Shields and protects the data/charging connector. |

# 5. Reader assembly and initial Set Up

## 5.1 Assemble and charge the Reader

### Step 1: Connect a Detachable Antenna to the Reader

Take the reader by the handle.

Twist the locking collar in a clockwise motion until it is completely unthreaded.

Remove the locking collar from the Reader

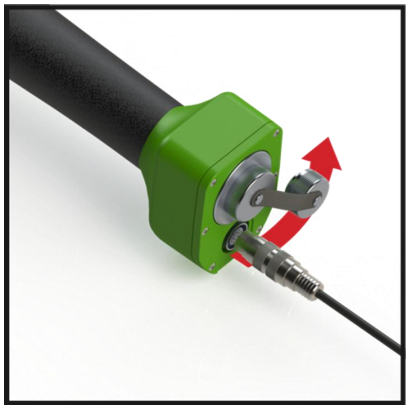
Take a Detachable Antenna and push the connector end of the antenna onto the connector end of the Reader

Slide the Locking Collar over the end of the Detachable Antenna

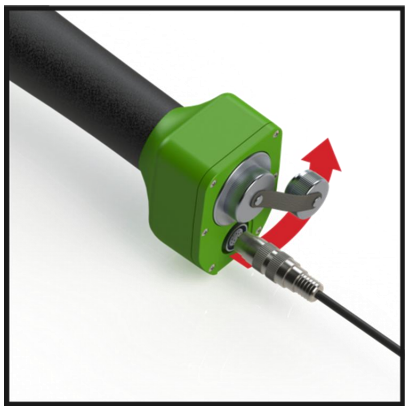
Fasten the locking collar back into place on the Reader by turning it anti-clockwise until firm (do not overtighten)

The Reader is now ready to charge before turning on

## Step 2: Charging the Reader

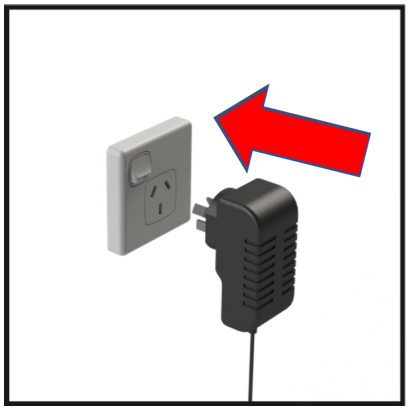


Remove the Data/Charging Cap at the end of the Reader by turning the cap in an anti-clockwise motion



Connect and fasten the Data/Charging Cable to the Data/Charging port on the Reader using a clockwise motion to secure the cable in place

Plug the connector on the cable of the Battery Charger into the socket at the back of the 9 pin serial data connector on the Data/Charging Cable



Plug the Battery Charger into mains power and turn the power on. A red light will indicate the Reader battery is charging

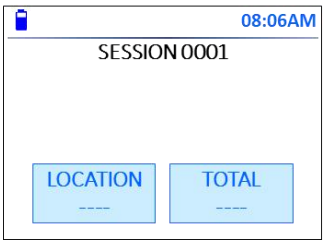
The Reader will take less than 2 hours to be fully charged

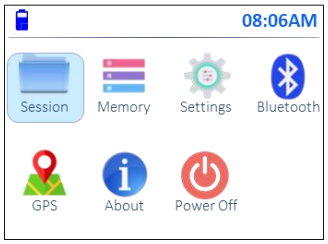
Users are recommended to charge the reader once **every 2 weeks** to keep the backup battery charged

## 5.2 Turning the Reader On/Off

### Turning the Reader On

**Press and hold** the **Red Read Button** for 2 seconds. The start-up screen will display the **GPScanID150 logo** followed by the **Session screen.** Press and hold the **Menu/OK button** to display the Main Menu screen as shown below to go to Main Menu options.

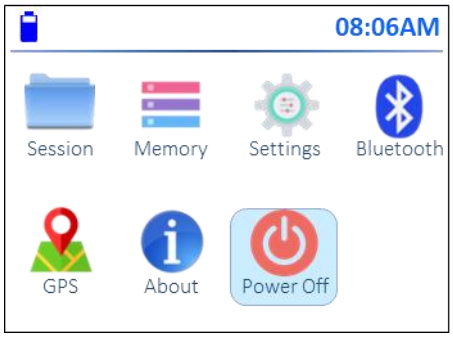




If GPS is enabled when the reader powers on, it requires up to 48 seconds to search and get a GPS signal lock in open sky. Search time will be prolonged when operating in semi-open space where the reader requires extra time to search the satellites.

During the search, the GPS icon flashes red. Users are advised to wait for the GPS signal to be locked, as indicated by the solid blue GPS icon, before start reading if location details are required. Please refer to Chapter 5 for more details about operating with GPS.

### Turning the Reader Off

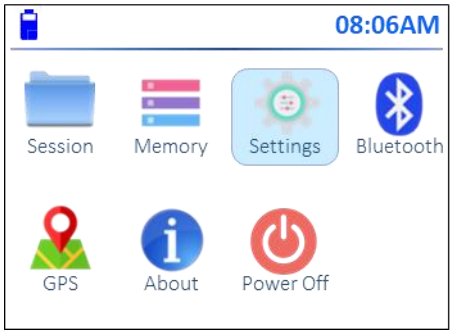
To turn off the reader, **press and hold** the **Menu/OK button** until the Main Menu screen appears. Navigate to the **Power Off** icon using the ▲▼◄► **Keys** then press the **MENU/OK button**. The display screen will ask you to confirm you want to power off the reader, select **Yes** then press the **Menu/OK button**. The reader will display a message saying Powering off and vibrate before the display screen turns off.



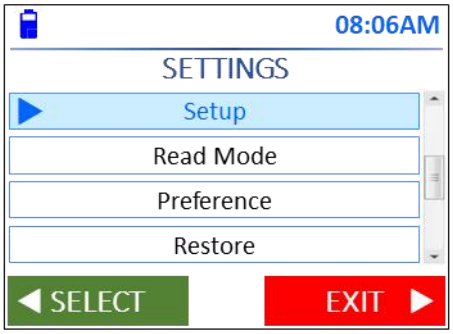

## 5.3 Initial Reader Set Up

It is recommended that the Name, Date/Time, Time Format and Auto Update options are set up before use as you will need these when connecting to other devices or retrieving tag information.

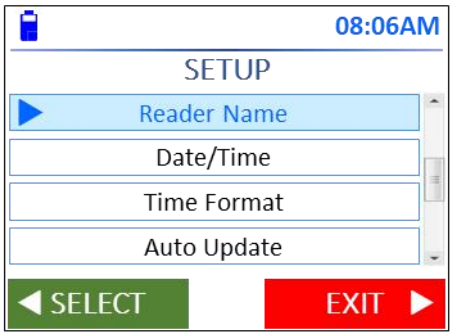
On the **Main Menu** screen, use the ▲▼◄► **Keys** to navigate to the **Settings icon** then press the **MENU/OK Button** to select.




The following **Settings menu** appears.




Use the ▲ / ▼ **keys** to navigate to **Setup** then press the ◄ **key or MENU/OK button** to select. The following Setup menu appears.



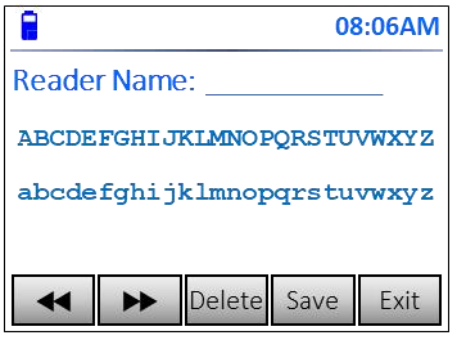

The menu will default to the **Reader Name** setting. Start by setting up the **Reader Name** then proceed through each of the other settings using the instructions on the proceeding pages.

## How to set up the Reader Name

The reader name is used to identify the reader during Bluetooth and WiFi connections (note WiFi connections are not yet enabled but this feature will be available in the future).

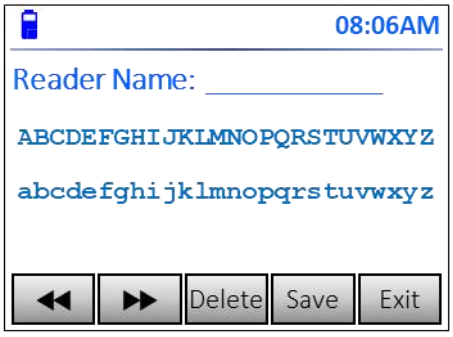
If the **Reader Name** setting is not highlighted, use the ▲ / ▼ **Keys** to navigate to the **Reader Name** setting in the Date/Time Menu then press the ◄ **key** or **MENU/OK button** to select.

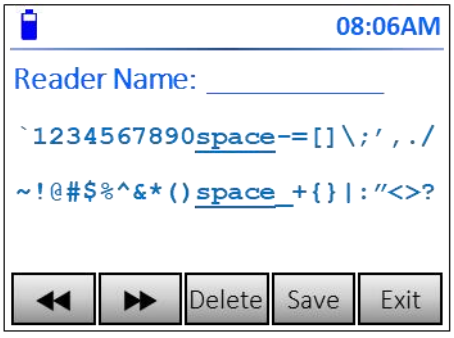
The **Reader Name** prompt screen appears:




Use the ▲▼◄► **Keys** to navigate between the rows and to the first character of the reader name then press the **MENU/OK button** to select. Repeat for each character of the name. Use the ◄◄ and ►► buttons to toggle between the alpha and numeric symbol input screens.

Note: Names can be up to a maximum of 8 alpha-numeric digits.




To delete a character, navigate to **Delete** using the ▲▼◄► **Keys** and press the **MENU/OK button** to delete a single character. Repeat to remove more characters if needed.

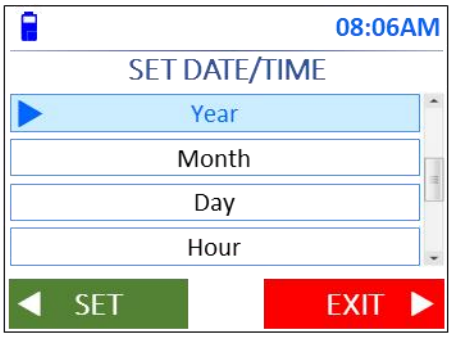
To exit at any time**,** navigate to **Exit** using the ▲▼◄► **Keys** and press **MENU/OK button** to exit and return to the previous screen.

After the reader name is entered, navigate to **Save** using the ▲▼◄► **Keys** and press the **MENU/OK button**. The following confirmation screen will display the reader name.


Press the **MENU/OK button** to select OK and exit.

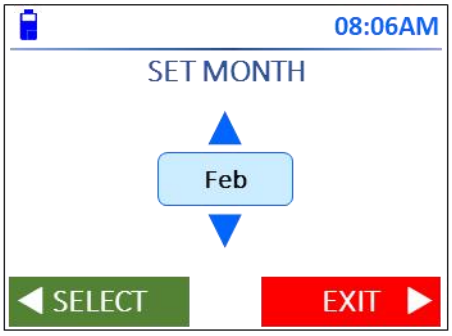
## How to set up Date and Time

Use the ▲ / ▼ **Keys** to navigate to **Date/Time** in the Date/Time Menu and press ◄ **key** or **MENU/OK button** to set up the Reader's date and time. The following screen is displayed. This is the system time that will record when tags are read, and tag data stored.




Use the ▲ / ▼ **keys** to navigate to each input field and press the ◄ **key** to select, then press **MENU/OK button** to save and exit the setting.

For example, the following is displayed if **Month** is selected. Use the ▲ / ▼ **keys** until the correct month is displayed then press the ◄ **key or MENU/OK button** to select. The press the **MENU/OK button** to save and exit back to the other date/time fields.



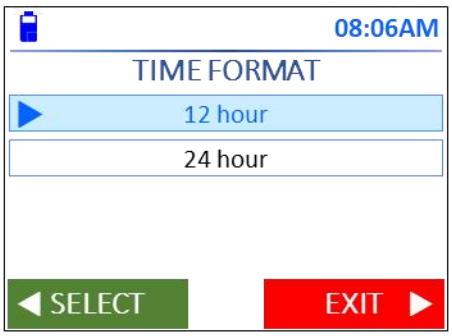

Use the ▲ / ▼ arrows keys to navigate through each field to set up each of the values until all date and time settings are accurately setup.

Press the ► **key** to exit back to the main Setup screen.

## How to set up Time Format

The reader time format is defaulted to **12-hour** format from the manufacturer.

To change or check this setting, use the ▲ / ▼ **Keys** to navigate to **Time Format** in the Date/Time Menu and press ◄ **key** or **MENU/OK button** to set up the Reader's time display format in either 12- or 24-hour time. The following screen is displayed.

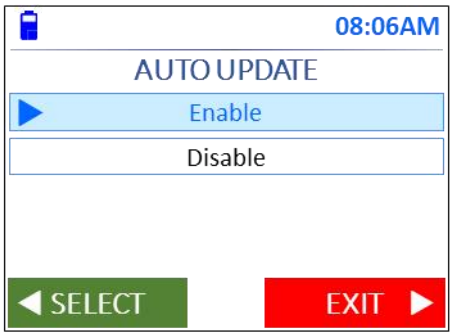



Press the ► **key** to exit back to the main Setup screen.

## Setting Up Auto Update

Auto Update, if enabled, automatically adjusts the reader's date/time to the same setting when connected to an external peripheral device such as Personal Computer or SmartPhone. The default value for Auto Update is **Enabled**.

To change or check this setting, use the ▲ / ▼ **Keys** to navigate to **Auto Update** in the Date/Time Menu and press ◄ **key** or **MENU/OK button** to select. The following screen is displayed.



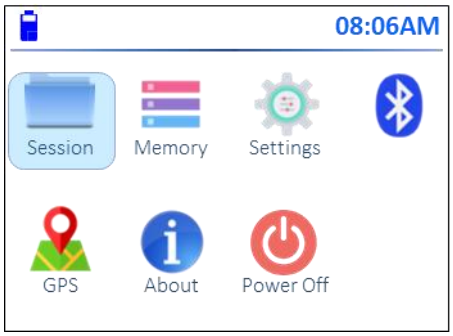

Use the ▲ / ▼ **Keys** to select Enable or Disable and press ◄ **key** or **MENU/OK button** to select.

## 5.4 Getting ready to read a tag

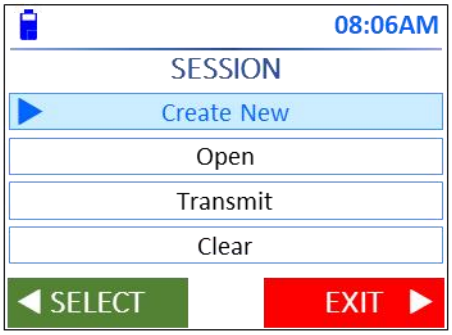
To read tags, a session must be selected. A user can either create a new session or open an existing one.

### 5.4.1 How to create a new session

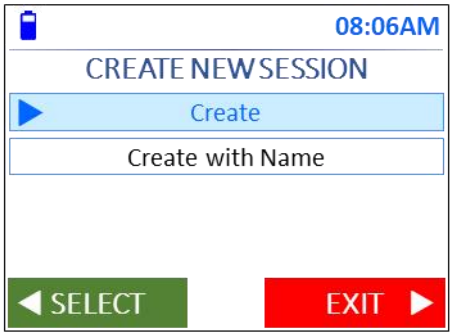
i. Go to the Main Menu, use the ▲ ▼ ◄ ► Keys and press the MENU/OK button to select **Session**.




ii. The Session screen will appear. Use the ▲ / ▼ **Keys** to navigate to **Create New** and press the **MENU/OK button** to create a new session.

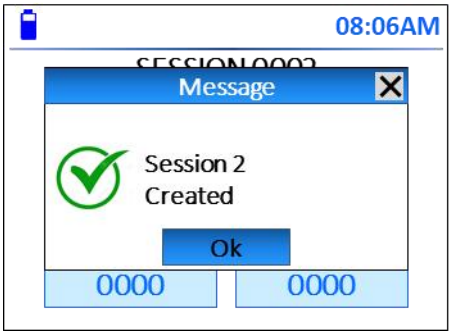



iii. The following screen will display.

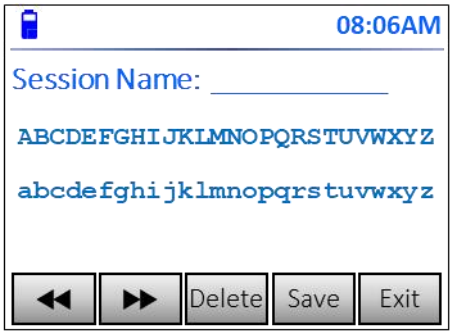


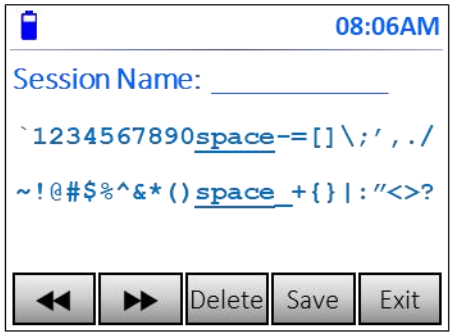
There are 2 options to create new sessions:

a) **Auto Create** (using a sequential Session Number)
Use the ▲ / ▼ **keys** to navigate to **Create** and press ◄ **Key** or **MENU/OK button** to select. The reader automatically creates a session number by incrementing the current largest saved session number. The following confirmation screen will be displayed.




b) **Create Session Name**
Use the ▲ / ▼ **keys** to navigate to **Create with Name** and press ◄ **key** or **MENU/OK button** to select. The **Session Name** screen will appear as shown below.




Use the ▲ ▼ ◄ ► **Keys** to navigate between the rows and to the first character of the session name then press the **MENU/OK button** to select. Repeat for each character of the name. Use the ◀◀ and ▶▶ buttons to toggle between the alpha and numeric symbol input screens.

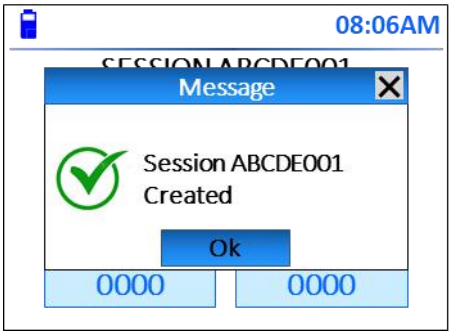
Note: Session names can be up to a maximum of 8 alpha-numeric digits.

To **delete** a character, navigate to **DEL** using the ▲ ▼ ◄ ► **Keys** and press the **MENU/OK button** to delete a single character. Repeat to remove more characters if needed.

To **exit** the session name set-up at any time**,** navigate to **EXIT** using the ▲ ▼ ◄ ► **Keys** and press **MENU/OK button** to exit to the previous screen.

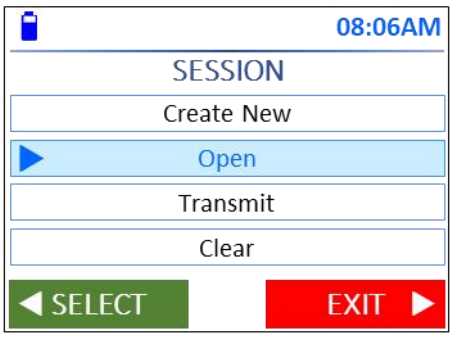
Press the **MENU/OK button** to confirm.

iv. After the session name is entered, navigate to SAVE using the ▲ ▼ ◄ ► keys and press the **MENU/OK button**. After the session name is saved, the following confirmation screen is displayed.

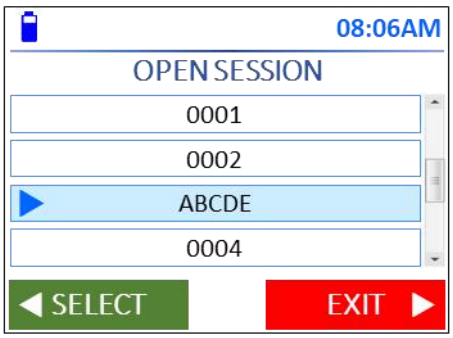


### 5.4.2 How to open a saved session

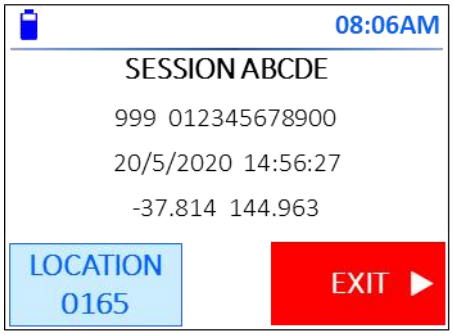
i. In the Session menu, use the ▲ / ▼ **keys** to navigate to **Open**. Press the ◄ **key** or **MENU/OK button** to select.




ii. Use the ▲ / ▼ **keys** to navigate the session list to find the Saved Session. If a session name was entered, it will be displayed instead of the session number. Press the ◄ **key** or **MENU/OK button** to select and open the saved session.




iii. The last IDs saved in a session is displayed as follows. If the READ button is pressed, newly read tags will be saved in the current open session.

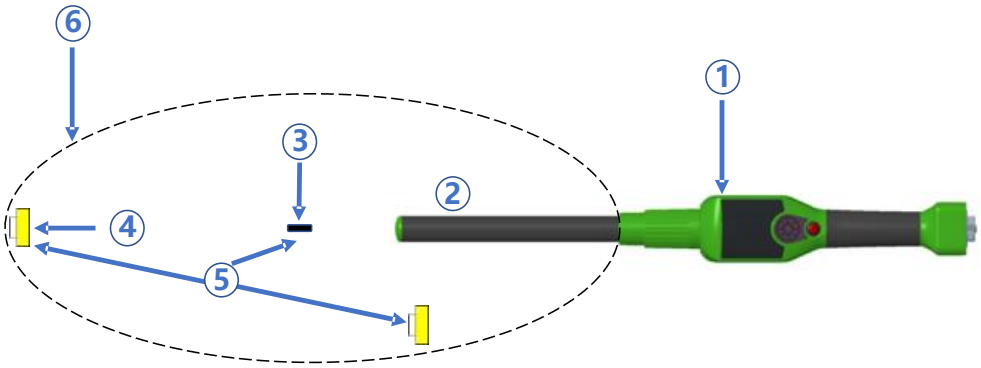



Use the ▲ / ▼**keys** to scroll through the IDs in this session.

To **exit the session**, press the ▶ key and the display will revert to the previous **OPEN SESSION** menu.

### 5.4.3 How to read a Tag

The reader will read tags if they are scanned in the proximity of its antenna. See diagram below.




| Item | Legend | Comments |
|---|---|---|
| 1 | GPScanID 150 Reader | |
| 2 | Antenna | |
| 3 | RFID Implant | |
| 4 | RFID Ear Tag | |
| 5 | Best Orientation | Best orientation of ear tag for antenna |
| 6 | Reading Zone | Area in which ear tags and implants can be read |

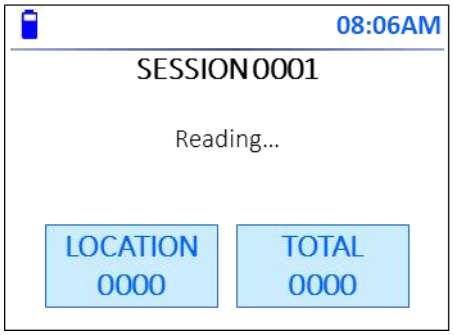
The reader supports 3 read modes:

**Single Mode** requires pressing the Read button every time you want to read a tag. The reader tries to read a tag for 10 seconds. You must press the Read button again to read another tag, regardless a tag is read or not

**Continuous Mode** allows you to read multiple tags once the Read button is pressed. Reading stops when the Read button is pressed again. The reader beeps continuously when reading starts. It beeps twice quickly when a non-duplicated tag is read

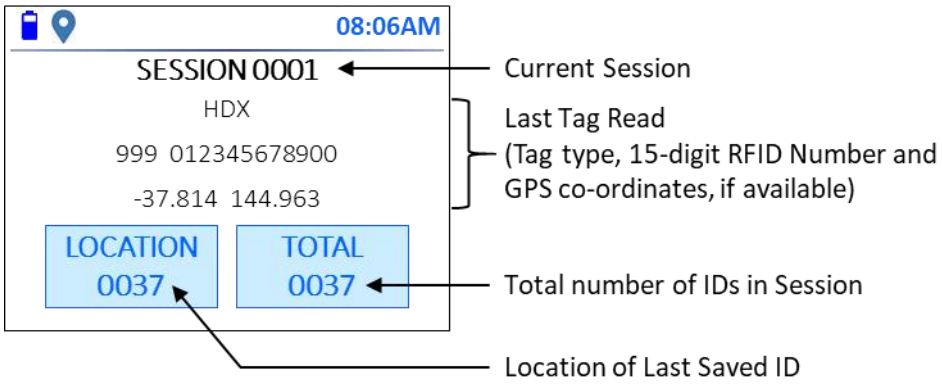
**Auto Mode** allows you to read tag one at a time by pressing the Read button quickly or continuously read tags by pressing and holding the Read button for more than 1 second. When reading tags continuously, the reader beeps continuously and will issue 2 quick beeps if a non-duplicated tag is read. Reading stops when the Read button is pressed again.

Users can choose any 1 of the above 3 read modes that best suit their needs (**Auto Mode** is the default factory setting). You must either be in a new or saved session to read tags. Press the **Red Read** button to start reading. The following screen is displayed while tags are being read:




If a valid tag is read the following occurs:

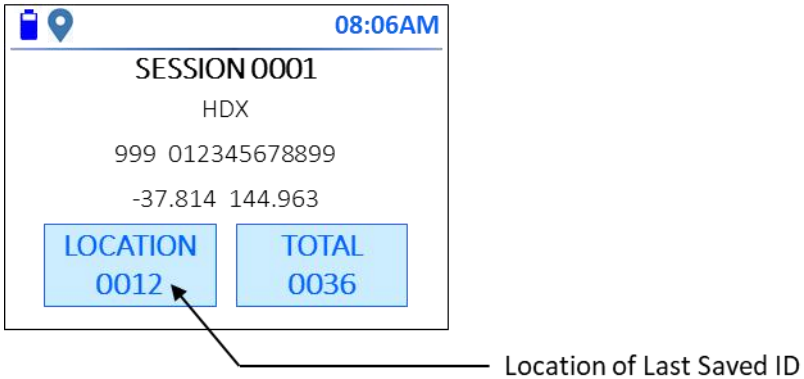
- Backlight on the display lights up
- Green LED to the bottom right of the display flashes twice
- Reader emits 2 short beeps and 1 short vibration
- ID number will display on the screen and will be saved into reader's memory with its timestamp (and GPS location detailed, if enabled)
- Both the **Location** and **Total** counters increment by 1




Invalid tags are tags that have already been scanned in the same session (i.e. duplicated tag reading) or tags the reader fails to read.

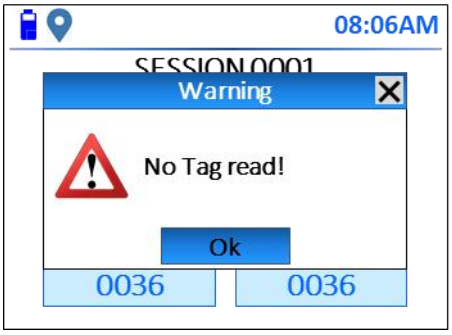
If a duplicated tag is read, the following is shown:

- Backlight on the display lights up
- Green LED to the bottom right of the display flashes once
- Reader emits 1 short beep and 1 short vibrate
- ID number will display on the screen but will not be saved into the memory
- **Location** counter shows the location where the ID was saved in the session
- **Total** counter remains unchanged




If no tag is read, the following is shown:

- Backlight is turned on
- Red LED stays on for 1 second
- Reader displays “NO TAG!” warning
- Reader emits 1 long beep and 1 short vibrate
- Both counters remain unchanged



### 5.4.4 Clearing a Session

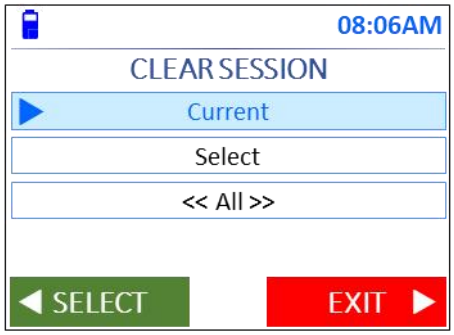
Clearing a Session puts it away from the Reader main memory and make it inaccessible to users. The cleared Session and all of its data are simply moved to another location of the reader memory. They are not deleted and can be retrieved via the GPScanID Software (supplied along your reader). Please refer to the GPScanID Software menu for details on how to retrieve cleared Sessions.

The Reader support 3 clear modes:

**Clear Current** clears the current Session. If the current session is the only session available in the reader, a new session (with Session Number one increment from the current largest Session) is created automatically to enable users to read tags continuously.

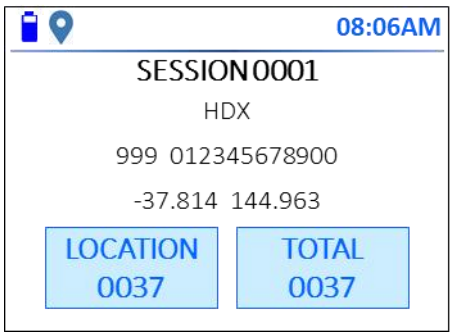
**Clear Select** allows users to select a Session and clears it one-by-one.

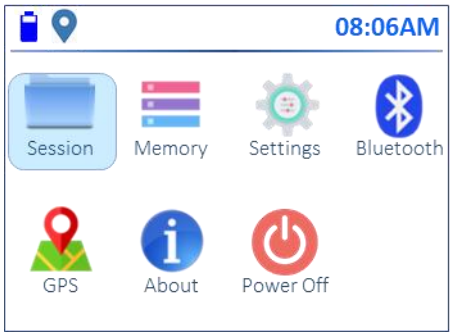
**Clear All** clears the all Sessions in the reader. A new Session 0001 will be automatically created to enable users to read tags straight away.



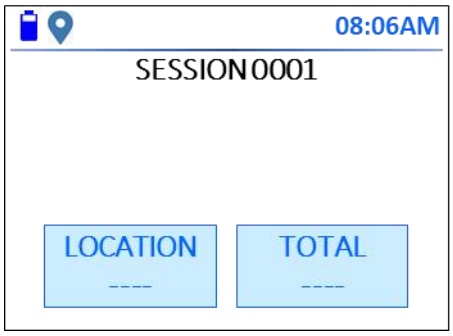
### 5.4.5 Navigating between the Main Menu and Current Read Session Screens

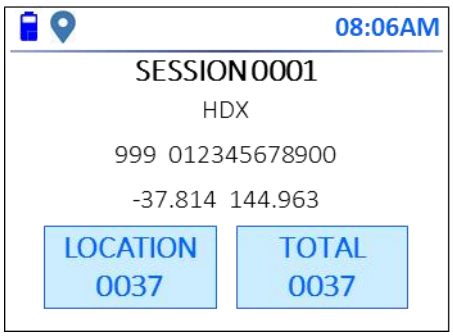
Press and hold the **Menu/Ok Button** for 1 second to navigate to the Main Menu from the current Session.




To return to the current Read Session, press the **Read** button. The following are the Current Read Session Screen for a brand-new reader and one with a prior read ID respectively.




Note: For a previously used reader, you can start reading and saving tag ID's in the last opened session once the reader is turned on.

If you want to save ID's to a new session after turning the reader on, you will need to create a new session. For instructions on how to **Create a new Session** see page 15.

### 5.4.6 Other Functions and Settings

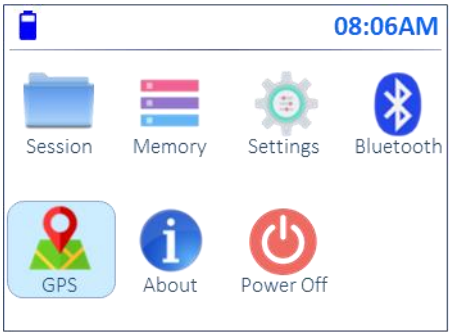
For other reader functions and settings, please refer to the Menu Tree details in page 30.

# 6. Using GPS

Your reader is equipped with GPS function to record the location co-ordinates of the tags during reading. Unlikely your smartphone which also uses the cellular and/or WiFi base station to assist in locating the position, the reader solely depends on its build-in GPS antenna to lock the GPS satellites. As a result, it is recommended to enable the GPS function in an open sky environment.

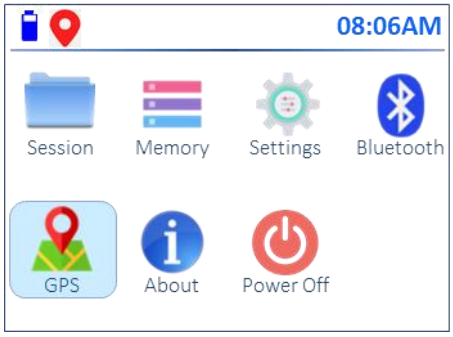
## 6.1 Enable GPS

The factory default settings for GPS is 'off'. To enable the GPS function, go to the GPS icon in the reader main menu and press MENU/OK button. Then choose **On** from the GPS Menu.





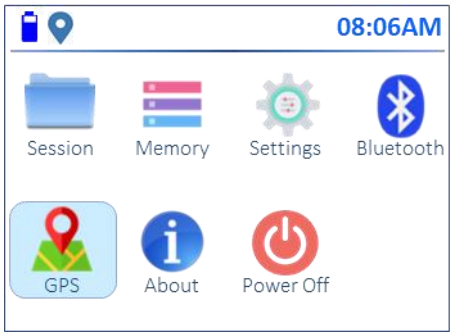
The GPS icon flashes red when trying to locate satellite signals.




If the reader is unable to get a lock on GPS satellite signals in 60 seconds, the following warning message is displayed.


User can click MENU/OK to continue operate the reader without GPS signal.

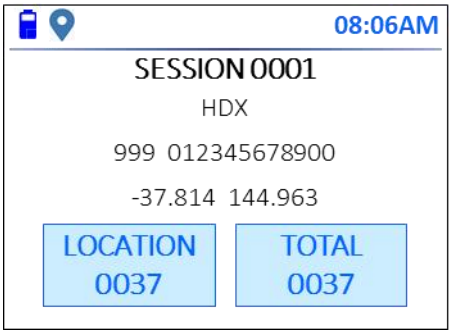
If GPS signal is locked, the GPS icon turns solid blue with GPS signal.



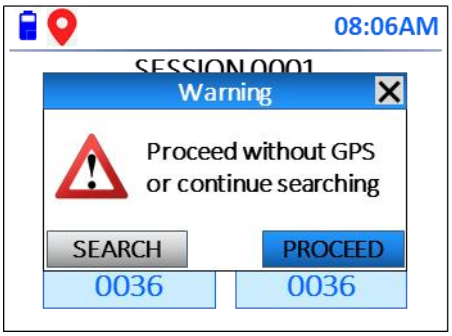

## 6.2 Reading tag with GPS

To read tags with GPS location, the GPS function must be enabled with GPS signal locked.

The following display is shown when a tag with read with GPS co-ordinates.



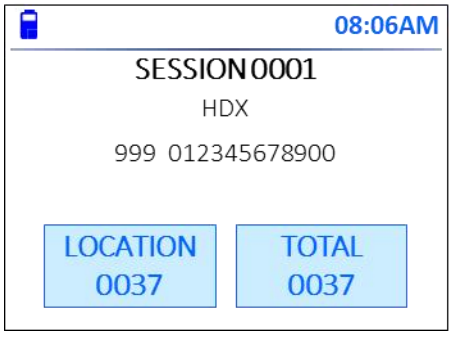

If GPS is enabled but signal is not locked, the reader will prompt the user whether to continue the GPS signal search or proceed to read tags with without GPS.




If Search is selected, the reader will continue to search for GPS signal for 60 seconds. User will have to wait in this period and ensure the reader is located in an open sky area. If the reader is still unable to get a lock on the GPS signal, the **No GPS Signal** warning appears again.

If Proceed is selected, the reader turns off the GPS and users can continue to read tags. The reader displays the following GPS status screen for 1 second and user can press the **Read** button to start reading tags anytime.


Reader display when a tag is read with no GPS recorded:



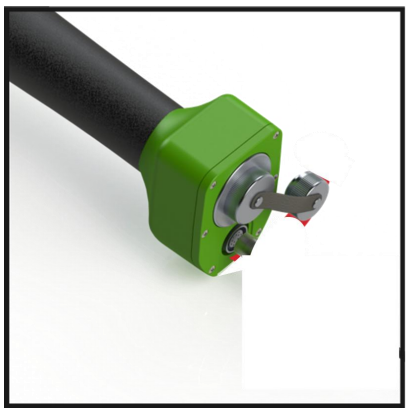
# 7. Connecting with other Devices

## 7.1 Connecting with Personal Computers

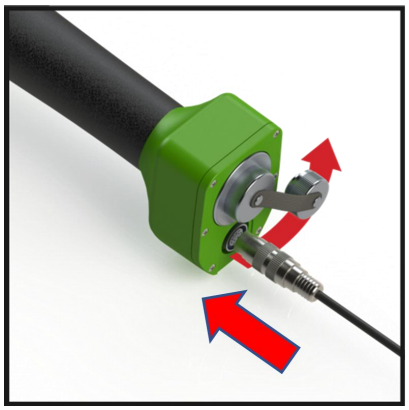
The GPScanID 150 reader supports both wired and wireless connection (such as RS-232, USB and Bluetooth) with Personal Computers (PC) running Windows 7™, Windows 8™ and Windows 10™ operating systems.

### To connect with a wired connection (RS-232 or USB)


Turn on both the reader and PC

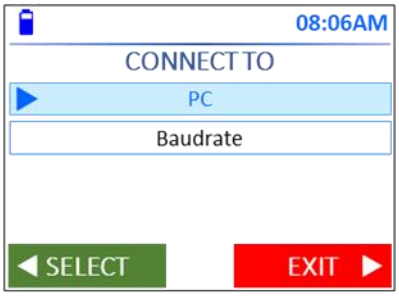


Loosen the Data/Charging Cap on the Reader

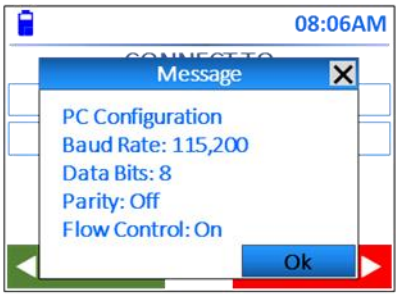


Connect the Data/Charging Cable to the Reader

Connect the other end of the Data/Charging Cable using either RS-232 or USB with the Computer




On the reader, go to **Settings > Connection > Cable > PC** to set the serial connection parameters



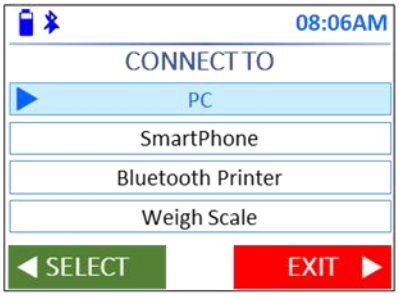

Open the GPScanID Software on your computer. The software is supplied on a USB drive with the reader or you can download the latest version of the software from:

http://www.GPScanID.com/download/software/GPScanID_Software_Vx.x.exe

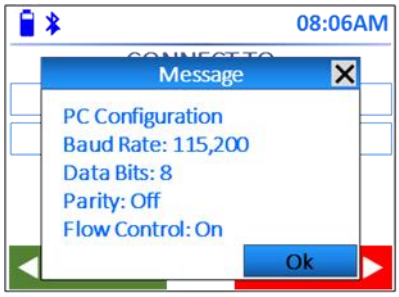
where x.x is the version number

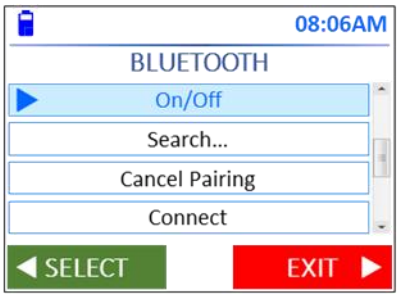
## To connect using Bluetooth connection


Turn on both the reader and bluetooth enabled PC

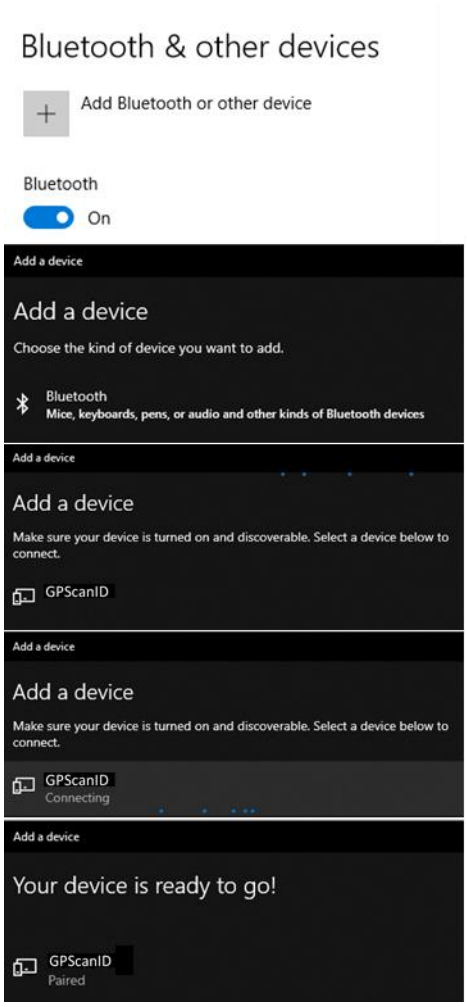



On the reader, go to **Settings > Connection > Bluetooth > PC** to set Bluetooth connection parameters




On the reader, go to **Bluetooth > On/Off** and select **On** to turn on the Bluetooth function




On the PC, go to Bluetooth settings and turn on the Bluetooth function. Then select **Add a Bluetooth device** and search for the reader. Once you have identified the Reader, **click on the reader details** to connect/pair with the reader. When connected the PC should identify the reader as being **paired.**

Once paired, open the GPScanID Software on your computer. The software is supplied on a USB drive with the reader. You can download the latest version of the software from the location:

http://www.GPScanID.com/Download/Software/

and search for the file GPScanID_Software_Manual_Vx.x.exe

where x.x is the version number

The reader can connect and communciate with various types of peripheral devices including personal computers, smartphones, weigh scales and Bluetooth label printers to expand the reader's capabilities.

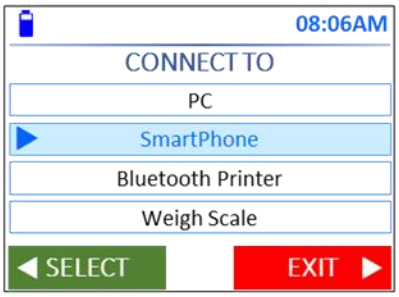
A connection must first be established between the reader and the device before use. The GPScanID150 reader supports both wired connection (such as RS-232 or USB) and wireless connection such as Bluetooth (Note: WiFi connectivity is to be enabled in due course. Software upgrades will be available when this option becomes available).

## 7.2 Connecting with Smartphones

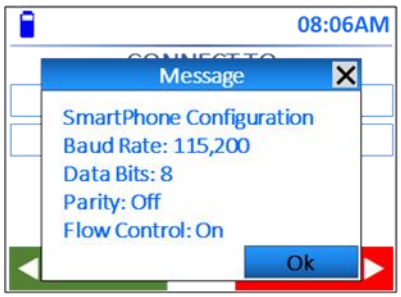
The GPScanID 150 reader can connect to iOS Smartphones via Bluetooth through the third party iLivestock APP (Android version available later).

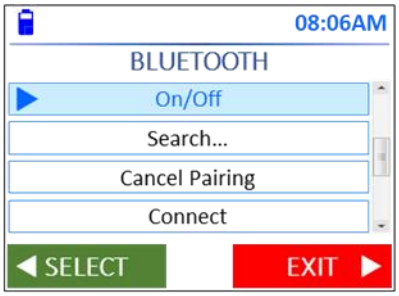
### To establish Bluetooth connection


Turn on both the reader and smartphone

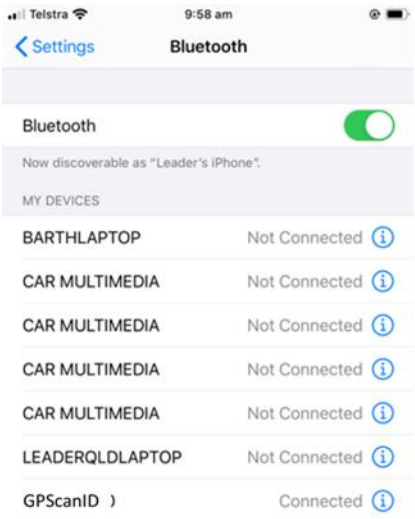



On the reader, go to **Settings > Connection > Bluetooth > SmartPhone** to set Bluetooth Connection parameters






Then go to **Bluetooth > On/Off** and select **On** to turn on the Bluetooth function


On the SmartPhone, turn on the Bluetooth® function and Search for the reader

If a PIN is required, enter 0000

On your SmartPhone, open the APP iLivestock. The APP is available in both iOS version (from the Apple APP Store) and Android version (from the Google Play store).

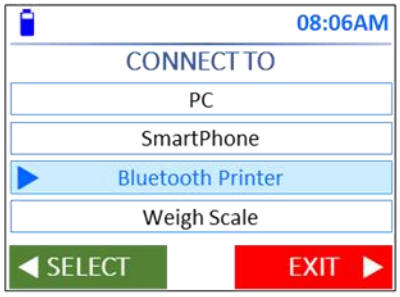
Please refer to iLivestock for further operating instructions.

## 7.3 Connecting with Bluetooth Label Printers

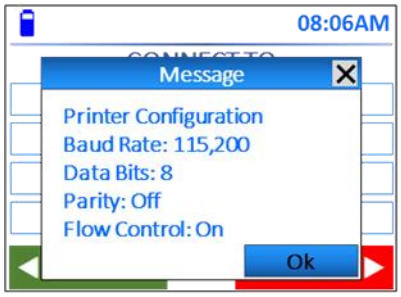
The GPScanID150 reader can connect to Bluetooth label printers.

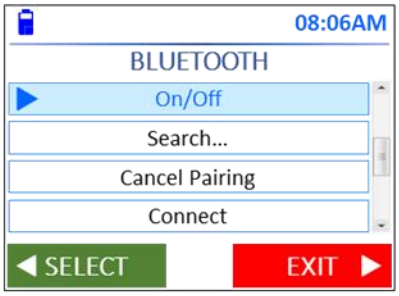
**To establish Bluetooth connection**


Turn on both the reader and label printer



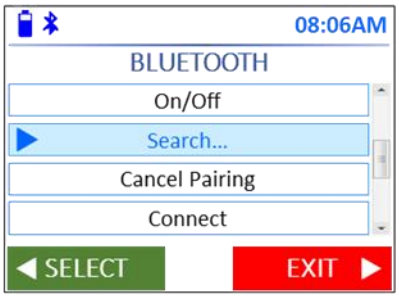

On the reader, go to **Settings > Connection > Bluetooth > Bluetooth Printer** to set Bluetooth Connection parameters




Then go to **Bluetooth > On/Off** and select **On** to turn on the Bluetooth function

On the label printer, turn on the Bluetooth function (please refer to the Label Printer user manual for further instructions).




On the reader, select **Bluetooth > Search...** to search the label printer

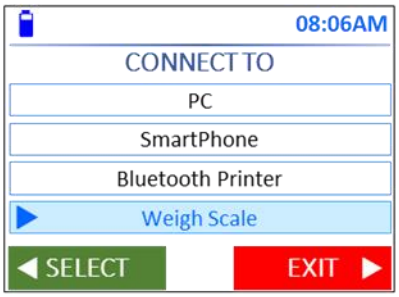
Input the PIN of the label printer, if required, to complete pairing.

## 7.4 Connecting with Weigh Scales

The GPScanID150 reader uses Bluetooth to connect with Weigh Scales.

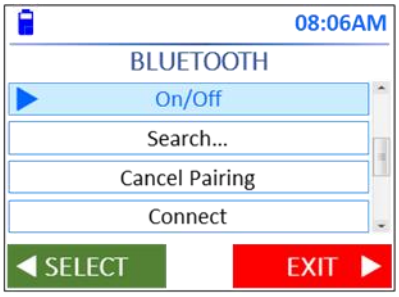
**To establish Bluetooth connection**


Turn on both the reader and weight scale



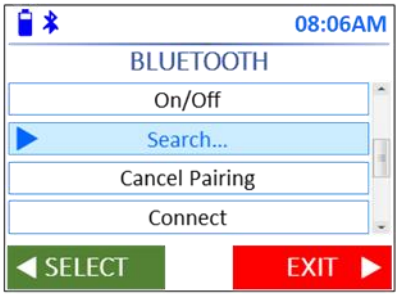


On the reader, go to **Settings > Connection > Bluetooth > Weigh Scale** to set Bluetooth Connection parameters




Then go to **Bluetooth > On/Off** and select **On** to turn on the Bluetooth function

On the Weigh Scale, turn on the Bluetooth function (please refer to the Weigh Scale menu and user guide for further instructions)




On the reader, select **Bluetooth > Search...** to search the Weigh Scale

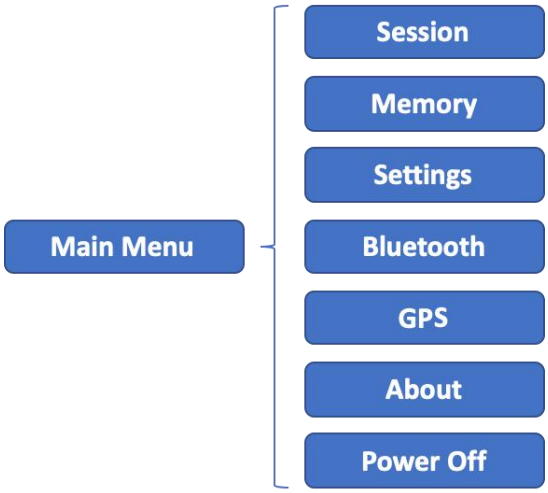
Input the PIN of the Weigh Scale, if required, to complete pairing.

# 8. Menu Tree

## 8.1 Main Menu

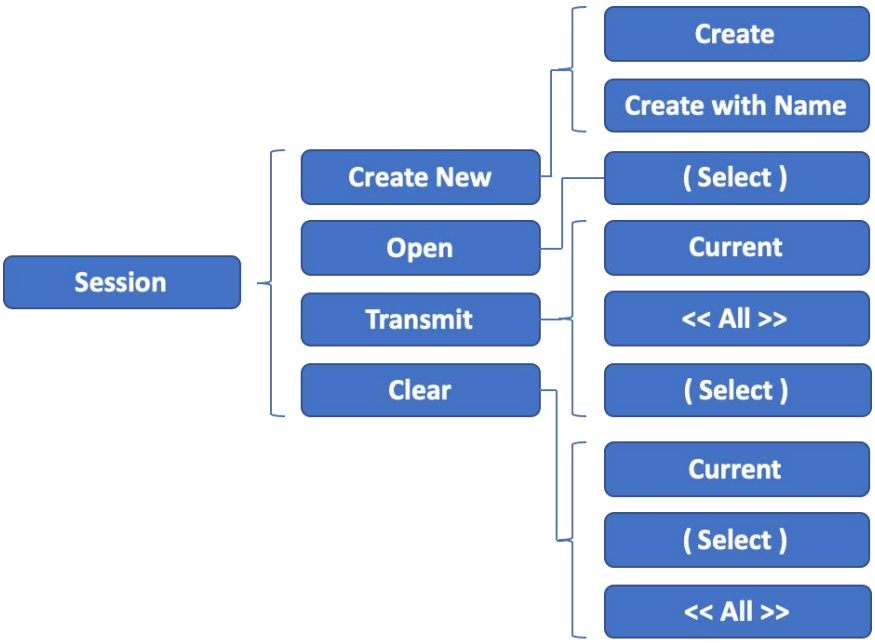
The main menu consists of 7 key functions. Each of them consists of sub-menu items to perform various operations or to adjust settings. The menu trees are listed in the subsequent sections.

To move between menu options and settings follow the screen prompts and use the ▲▼◄► **Keys** to move between settings on each screen display and press **MENU/OK button** to select. You can also use the ◄ / ► **Keys** to Select and Exit setting options.




## 8.2 Session Menu

The Session Menu allows the user to perform operations regarding creating, opening, transmitting and clearing sessions.



| | |
|---|---|
| **Create New** | Create a new session with automatically set session numbers or a specified session name. |
| **Open** | Open an existing session from all saved sessions by selecting from the list. |
| **Transmit** | Transmit a specified session or all sessions from the reader to a connected peripheral device (you will need to connect to the peripheral device prior to transmitting). |
| **Clear*** | Clear user specified session or all sessions from the reader memory |

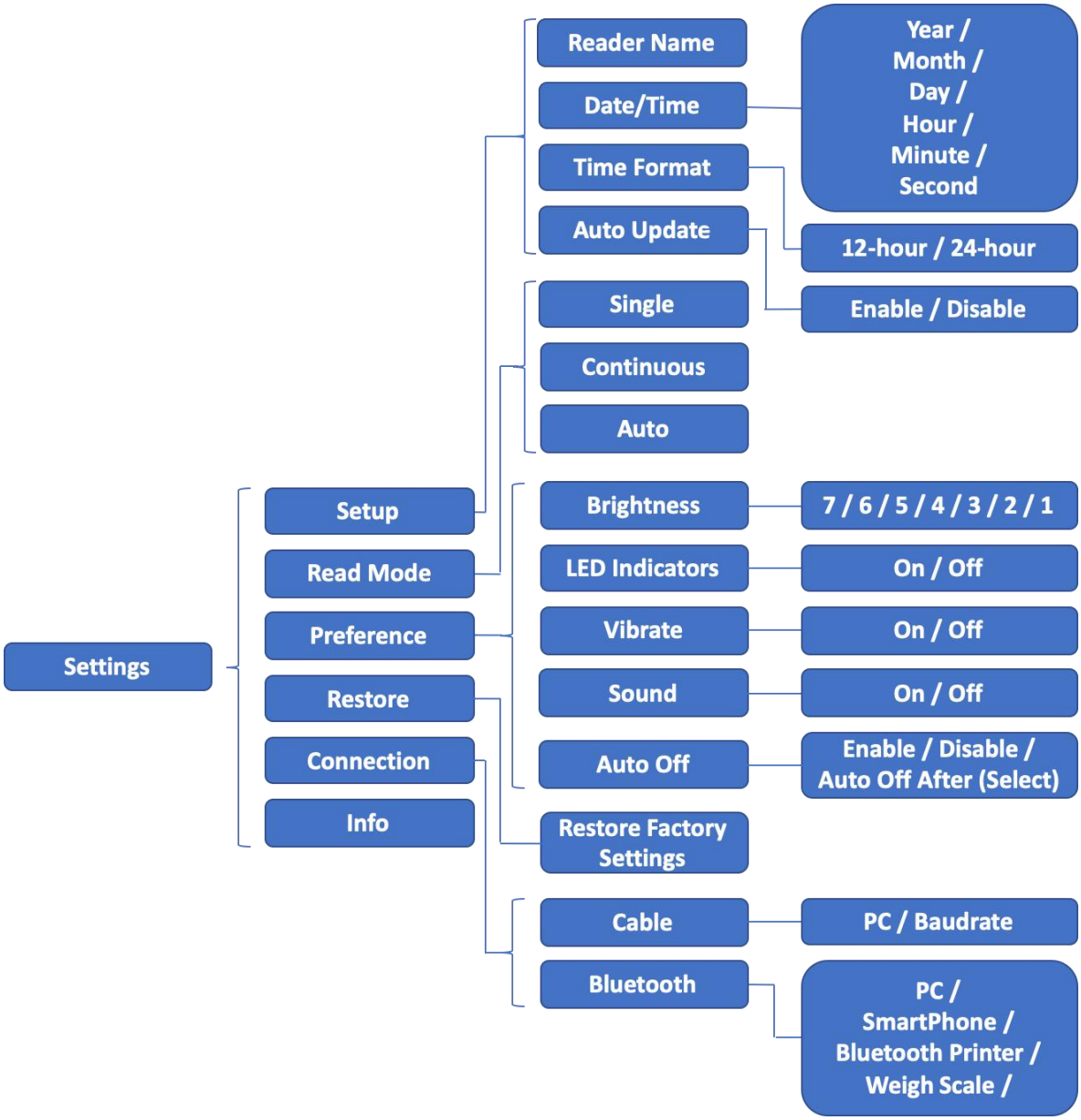
Please note the **Clear** function will not delete the actual session/s. The session/s will be put into a "Recycle Bin" temporarily where users can retrieve the deleted session/s through the GPScanID Software. (See GPScanID Software User Manual for details).

## 8.3 Memory Menu

The Memory Menu allows the user to view the status of the reader memory usage by indicating the number of ID's saved, number of sessions and overall memory used.

## 8.4 Settings Menu

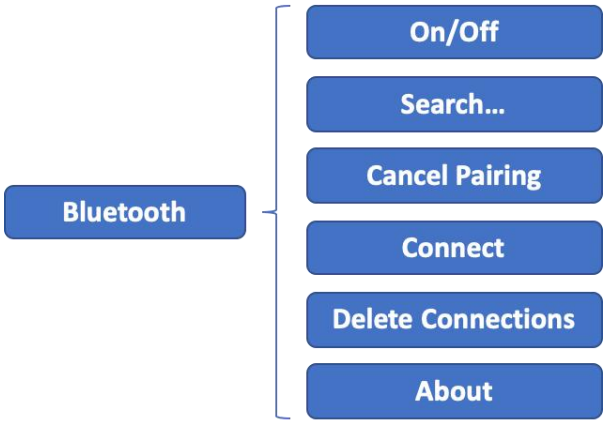
The Settings menu allows the user to customize the parameters in the reader.



| | |
|---|---|
| **Setup** | Initial setup parameters of the reader including Name, Date/Time, Date Format and Auto Update (refer to page 9 for detailed instructions) |
| **Read Mode** | Allows you to set the read mode as Single, Continuous or Auto. |
| | **Single mode** allows you to read a tag at a time. |
| | **Continuous mode** allows you to read multiple tags once the Read button is pressed. |
| | **Auto mode** will allow you to read tag one at a time or continuously. |
| **Preference** | Allows you to adjust reader settings such as display brightness, turn LED indicators on / off, turn vibrate on / off, turn sound on / off and turn Auto off on / off (Auto off allows the reader to turn off after a certain period of inactivity). |
| **Restore** | Allows you to restore the reader to the original factory settings. All recorded Sessions and IDs will not be deleted and will remain on the reader. |
| **Connection** | Use this menu to set up connection parameters with different peripheral devices, including the baud rate. Baud rate is the speed of transmission of data between connected devices. |
| **Info** | Shows the current settings of the reader. |

## 8.5 Bluetooth Menu

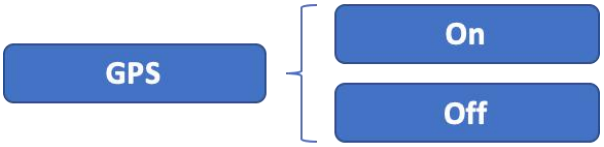
The Bluetooth menu allows the user to modify the settings and operate on the Bluetooth® function in the reader.




| | |
|---|---|
| **On/Off** | Turns the Bluetooth function on / off on the reader. |
| **Search…** | Allows you to search for Bluetooth-enabled peripheral devices in proximity to the reader. |
| **Cancel Pairing** | Allows you to disconnect the current connected Bluetooth peripheral device. |
| **Connect** | Shows a list of peripheral Bluetooth device connections previously established with the reader for you to connect to quickly. |
| **Delete Connection** | Shows a list of previously established Bluetooth device connections. You can delete previous connections individually or you can delete all previous peripheral devices at once. |
| **About** | Shows information about the current Bluetooth connection. |

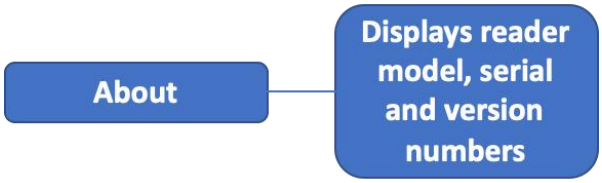
## 8.6 GPS Menu

The GPS menu allows the user to turn the GPS function on or off.




## 8.7 About Menu

The About menu shows the version and model information about the reader.



# 9. Alerts

The reader provides a range of visual, audio and vibration alerts when in use. The following table summarizes the events and the default alerts. You can customize certain settings by enabling or disabling them to suit your preferences.

| Events | Buzzer | Display | LED Indicators | Vibration |
|---|---|---|---|---|
| Power On | 3 short beeps | GPScanID 150 Logo with backlight switched on and stays for 3 sec | Both LEDs stay on until GPScanID logo disappears | 3 short vibrations |
| Power Off | 5 short beeps | Powering Off is displayed. Screen is dimmed then switched off | Both LEDs stay on until power off | 5 short vibrations |
| Any of the 5 buttons are pressed | 1 short beep | Turns Screen backlit on. Display changes accordingly to button hit response | | |
| Read Button is Pressed | 1 short beep | 1. Session number/Name and Reading··· is displayed<br>2. Backlight stays on for 30 seconds then dimmed | Red LED stays on for 1 second | |
| No Tag Read | 1 long beep<br>(2 seconds) | No Tag Read is displayed | Red LED stays on for 1 second | 1 short vibration |
| A Non-Duplicate Tag is Read | 3 short beeps | 1. Backlight switches on<br>2. RFID number displayed with both counters incremented | Red LED flashes once and Green LED flashes twice | 1 short vibration |
| Duplicate Tag is Read | 2 short beeps | 1. Backlight switches on<br>2. RFID number displayed. Left counter shows location of ID already saved. Right counter remains unchanged | Red LED flashes once then Green LED flashes once | 1 short vibration |
| Restore Factory Settings | 1 long beep<br>(3 seconds) | 'Resetting' is displayed for 3 seconds then screen is turned off momentarily before displaying the last session used | Both LED stays on for 3 seconds | 1 long vibration<br>(3 seconds) |
| Connection Lost<br>(Serial, Bluetooth or WiFi connection lost or fail during data transfer) | 1 long beep<br>(2 seconds) | Connect Lost is displayed | Red LED flashes twice | |
| Memory Almost Full (>90% used) | 1 short beep | Memory Almost Full is displayed | Red LED flashes twice every 15 minutes | |
| Memory Full | 1 long beep<br>(2 seconds) | Memory Full is displayed | Red LED stays on 2 seconds every 15 minutes | |
| Charging Battery | 1 short beep when charging starts | Turn backlight on for 1 minute. Battery Indicator flashes with battery level and shows adjacent lightning icon | Red LED stays on | |
| Low Battery (when battery level falls below 10%) | 1 short beep | Battery Low is displayed 1 second once every 5 minutes | Red LED flashes twice | |

| | | | | |
|---|---|---|---|---|
| Sending session(s) during data transfer | 1 short beep when completed | Sending··· | Red LED flashes once | |
| Receiving session(s) during data transfer | 1 short beep when completed | Reading··· | Red LED flashes once | |

# 10. Specifications

| **General Features** | |
|---|---|
| Norms | ISO 11784 and full ISO 11785 for FDX-B and HDX tags.<br>IP67 rated Dust and Water proof<br>Rechargeable Lithium battery and cap screwed onto connector |
| User Interface | 2.4" 320x240 Color TFT LCD Graphical display<br>5-way Key and Read Button<br>Buzzer, LED Indicators and Vibrator<br>Serial port, USB port, Bluetooth and WiFi (to be enabled) module |
| USB Interface | CDC class (Serial Emulation) and HID class |
| Bluetooth Interface | Dual mode Class 1 (up to 100m), Class 4.2 Low-Energy (10-15m), Serial Port Profile (SPP) and iPod Accessory Protocol (iAP) |
| Serial Interface | RS-232 (9600N81 by default) |
| Memory | 1Gb<br>Supporting up to 1,000 sessions with a max. 4,000 IDs per session<br>Total up to 400,000 animal IDs |
| Input Voltage | 9V to 15V |
| Battery | 7.4VDC 2900mAh rechargeable Lithium-Ion (Removable) |
| Battery Charge Duration | Less than 2 hours for full charge |

| **Mechanical Specifications** | |
|---|---|
| Dimensions | 987 x 76 x 100 mm (38.9 x 3.0 x 3.9 in) with 60cm Wand<br>637 x 76 x 100 mm (25.1 x 3.0 x 3.9 in) with 25cm Wand |
| Weight | 1,180 grams with 60cm Wand<br>1,150 grams with 25cm Wand |
| Operating Temperature | -30°C to +60°C |
| Storage Temperature | -40°C to +80°C |
| Humidity | 0% to 80% |

| **Performance** | |
|---|---|
| HDX Reading Distance | Up to 60cm |

| | |
|---|---|
| FDX-B Reading Distance | Up to 30cm |
| GPS Accuracy | < 2.5m |

# 11. Frequently Asked Questions

| Issue | Possible Cause(s) | Remedial Action(s) |
|---|---|---|
| Reader won't turn on | • Read button has not been held long enough to turn the reader on<br>• Reader has no battery, or the battery is flat | • Press Read button and hold for 2 seconds<br>• Check if battery is inserted properly<br>• Ensure battery is charged<br>• Replace new battery if necessary |
| Reader not reading tags | • Detachable wand is not inserted properly<br>• Antenna is broken<br>• Memory is full | • Check detachable is connected properly in reader<br>• Try reading different tags. If problem persists, contact your distributors for technical assistance to purchase a replacement antenna<br>• Connect your reader to PC and back up the reader's entire memory. Then erase it to free up storage space. |
| Reader is 'frozen' and not responding to input | • Possible software clashes | • Force reset the reader by removing and replacing the battery. Contact your distributor for technical assistance if problem persists. |
| Reader not charging | • Data/Charging cable and charger not connected properly<br>• Charger not connected properly to cable or power outlet<br>• Power outlet is turned off | • Check connections between data/charging cable, charger, and reader are connected properly<br>• Ensure plug connector on charger is secured in place on the charger<br>• Make sure charger is plugged into power outlet and power is turned on |
| | • | • |

# 13. Accessories

| Part Number | Description |
|---|---|
| GPScanID150-Wand-25cm | 25cm Detachable Antenna |
| GPScanID150-Wand-60cm | 60cm Detachable Antenna |
| GPScanID150-Battery | Spare Battery Pack |
| GPScanID150-Charger | Battery Charger |
| GPScanID150-ChargingDock | Charging Dock |
| GPScanID150-CigaretteCharger | Cigarette Charger |
| GPScanID150-Cable | 1.5m Data/Charging Cable |
| GPScanID150-Collar | Locking Collar for Antenna |
| GPScanID150-Cap | Battery and Data/Charging Cap with belt |
| GPScanID150-Case | Metal Carrying Case with Padded Foam Inside |

# 14. Warranty

Manufacturer guarantees this product against all defects due to faulty materials or workmanship for a period of 12 months from the date of purchase. The warranty does not apply to any damage resulting from an accident, misuse, disassembling the unit, modification and/or an application other than that described in this user manual and for which the device was designed to operate.

If the product malfunctions during the warranty period, the manufacturer will repair or replace it free of charge. The Customer is responsible for the shipment costs to return the reader for replacement or repair. The Manufacturer is responsible for the return shipment costs.

Please refer all servicing to the Manufacturers approved and qualified technical service personnel only. Servicing is required when the reader has been damaged in any way, including but not limited to the power supply, data/charging cable, data/charging plugs or connectors, liquid spills or foreign objects penetrating inside the equipment, or if the unit is exposed to extreme temperatures or excessive mechanical stress.

Operating temperature: -20-60C

Operating frequency :
BT 2.78dbm(eirp)
BLE 3.35dbm(eirp)
2.4G Wifi 15.93dbm(eirp)

Declaration of Conformity：
Hereby, [Queclink Wireless Solutions Co., Ltd.] declares that the radio equipment type [RFID Reader, GPScanID 150] is in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address: www.Queclink.com

Caution risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
RF exposure statement：
The EIRP power of WLAN at maximal case is: 15.93 dBm (39.17 mW) which is below the exempt condition, 40mW specified in EN62479: 2010. RF exposure assessment has been performed below to prove that this unit will not generate the harmful EM emission above the reference level as specified in EC Council Recommendation (1999/519/EC).
This EUT is deemed to comply with the reference level limits by Council Recommendation 1999/519/EC, therefore the basic restrictions are compliant with human exposure limits.

FCC Caution.
a、§ 15.19 Labeling requirements.
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.

b、§ 15.21 Changes or modification warning.
Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

c、§ 15.105 Information to the user.
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 outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

* RF warning for Portable device:

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) This device may not cause interference, and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

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) l'appareil ne doit pas produire de brouillage, et

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

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment.

This radio transmitter [10064A-GPSCANID150] has been approved by Innovation,
Science and
Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for

| Frequency | Manufacturer | Model | Gain | Impedance | Inductance |
|---|---|---|---|---|---|
| 2400MHZ-2500MHZ | SOUTH STAR TECHNOLOGY SHEN ZHEN COMPA | M100 | 1.51dbi | 50Ω | N/A |
| 134.2Khz | Quectel Wireless Solutions Co., Ltd. | YYW00A8BA | N/A | N/A | 300uH |
| 2400MHZ-2485MHZ | sunlord | SLDA | 0.91dbi | 50Ω | N/A |