USER MANUAL

October, 2009
Syscan-ID

NOTICE

THE POWER SUPPLY IS TO BE USED TO RECHARGE THE BATTERY AND NOT TO RUN THE READER.

INFORMATION TO USER

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 Class A 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 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

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

SPECIFICATIONS

|	
Case:	Polycarbonate ABS
Operating Frequency:	125 kHz and 134.2 kHz
RFID Compatibility:	HDX ISO, FDX-B ISO and EM4002
Reading Distance:	25-35 cm, 10-14 Inches (HDX)
Memory:	30, 000 tags
Communication Ports:	Serial RS232 or optional Bluetooth (Class1, 100m)
Battery:	7.4V Li-ion rechargeable
Power Input:	12 VDC for charging battery
Protection Class:	IP 66
Dimensions:	65 X 10 X 3cm (26 x 4 x 1.2")
Weight:	0.7 kg (1.5 lbs)
Display:	Graphic OLED 128 x 64 pixels
Display Languages:	English, French, Spanish and German
Included in the box:	Quick Start Guide, Reader, LiveTrack® Manager Software, Manuals (on CD), Hand Strap, Serial Cable and 12v DC international power supply.

1. Nomenclature

1. **RFID reading zone**

2. **Display screen**

3. **ON/OFF button**

4. **Control buttons**

5. **Handle/Battery compartment**

6. **Battery compartment door**

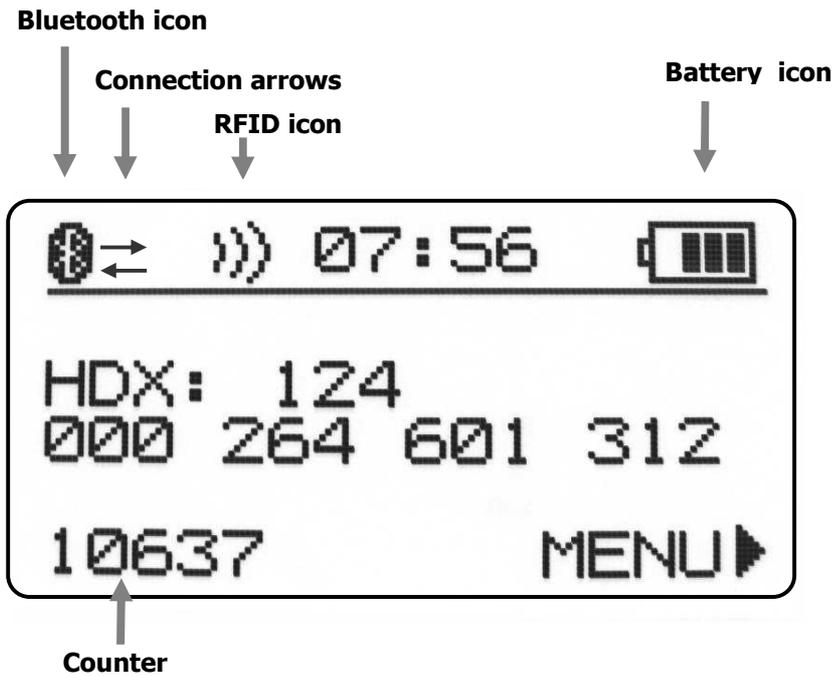7. **Charge/Serial connector**

1.2 Charger/serial connection
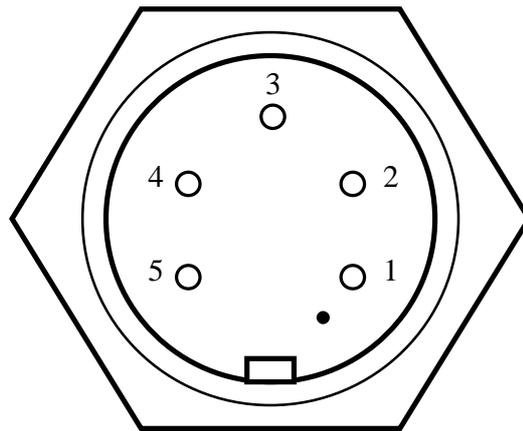
Pin 1 : 12 VDC IN
Pin 2 : RS-232 TX data to PC
Pin 3 : RS-232 Rx data from PC
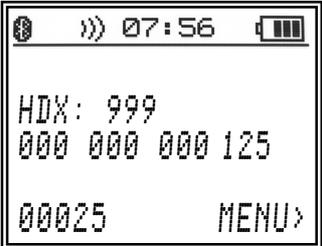**Pin 4 : N/C**
Pin 5 : GND

1.3 Indicator icons

Bluetooth icon

Connection arrows

RFID icon

Battery icon

```
(B) ⇄   ))) 07:56      [|||]
─────────────────────────────
HDX:  124
000 264 601 312

10637          MENU▶
```

Counter

Bluetooth icon:	ON: The Bluetooth circuit is present and on.
	OFF: The Bluetooth circuit is off.
Connection arrows:	The arrows indicate that the Bluetooth is connected.
RFID icon:	ON: The RFID circuit is on and ready to read.
	OFF: The RFID circuit is off.
Battery icon:	Indicates the battery power left in the reader.

1.4 Main screen

⦿))) 07:56 ▯▯▯ 00025 MENU›	Turn on the reader by pressing the ON/OFF button.
⦿))) 07:56 ▯▯▯ HDX: 999 000 000 000 125 ◀———————— Tag number 00025 ◀——— MENU› ———— Counter	The main screen contains the tag number as well as the counter.
⦿))) 07:56 ▯▯▯ HDX: 999 000 000 000 125 00025 MENU›	Turn off the reader by pressing the ON/OFF button for 2 seconds.

1.5 Menu screen

ⓑ))) 07:56 ▯III HDX: 999 000 000 000 125 00025 MENU›	Select MENU by pressing the right arrow button. ➡
MENU 31/07/07 COUNTER SEPARATOR INFO MENU USER MENU ADVANCED MENU ‹BACK ENTER›	Navigate in the MENU using the up and down arrow buttons. ⬆⬇ Enter a menu item by pressing the right arrow button or go back by pressing the left arrow button. ⬅ ➡
COUNTER – 00025 ‹BACK RESET●	Select COUNTER by choosing it from the menu and pressing the right arrow button. ➡ Reset the counter by pressing the ON/OFF button. 🔴

```
SEPARATOR      _

INSERT
SEPARATOR?

<BACK      YES●
```
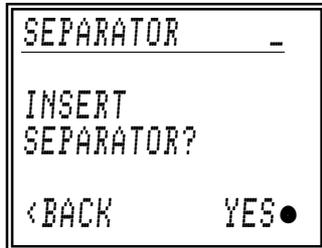
Select SEPARATOR by choosing it from the MENU and pressing the right arrow button.
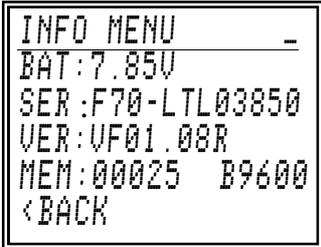
➡

Insert a separator by pressing the ON/OFF button.

A separator is a fake tag with a 000 000 000 000 000 ID and can be used to separate batches of reads.
The separator will not affect the tag counter but will affect the memory count.
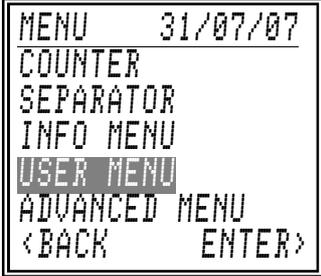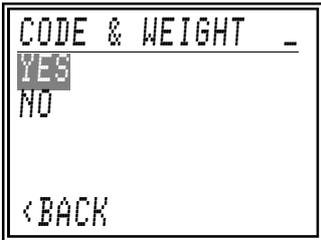
1.6 Info menu

| ```
MENU     31/07/07
COUNTER
SEPARATOR
INFO MENU
USER MENU
ADVANCED MENU
<BACK      ENTER>
``` | Select INFO MENU by choosing it from the MENU and pressing the right arrow button.<br><br>➡ |
| ```
INFO MENU        _
BAT:7.85V
SER:F70-LTL03850
VER:VF01.08R
MEM:00025   B9600
<BACK
``` | The INFO MENU contains informations about the reader including:<br><br>BAT : Actual  battery voltage.<br>SER : Serial number of the reader.<br>VER : Firmware version.<br>MEM: Number of tags in memory.<br>B9600: Signifies a Bluetooth module at baud rate 9600. |
| ```
MENU     31/07/07
COUNTER
SEPARATOR
INFO MENU
USER MENU
ADVANCED
<BACK      ENTER>
``` | Get back to MENU by pressing the left arrow button.<br><br>⬅ |

1.7 User Menu

| ```
MENU      31/07/07
COUNTER
SEPARATOR
INFO MENU
USER MENU
ADVANCED MENU
<BACK      ENTER>
``` | Select USER MENU by choosing it from the MENU and pressing the right arrow button.  ➡ |
| ```
USER MENU       _
CODE & WEIGHT



<BACK      ENTER>
``` | The USER MENU contains special features to perform specific tasks. |
| ```
CODE & WEIGHT  _
YES
NO


<BACK
``` | CODE & WEIGHT will allow saving a code and a weight for each tag read. Get back to USER MENU by pressing the left arrow button.  ⬅ |
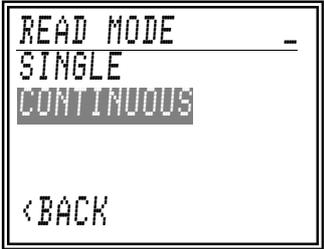
1.8 Advanced menu

| ```
MENU      31/07/07
COUNTER
SEPARATOR
INFO MENU
USER MENU
ADVANCED MENU
<BACK      ENTER>
``` | Select the ADVANCED MENU by choosing it from the MENU and pressing the right arrow button. |
| ```
ADVANCED MENU   _
ERASE MEMORY
DOWNLOAD MEMORY
READ MODE
DUPLICATES
VIBRATION
SOUND
LANGUAGE
SITE NUMBER
BLUETOOTH
LOAD DEFAULT
OUTPUT MENU
SET TIME & DATE
LINE FEED
TAG TYPE
RFID INFO.
<BACK      ENTER>
``` | The ADVANCED MENU contains all the advanced features and settings available on the reader. |
| ```
ERASE MEMORY    _

00025 TAGS
    05 %

<BACK      ERASE●
``` | Select ERASE MEMORY by choosing it from the ADVANCED MENU and pressing the right arrow button.

Erase the memory by pressing the ON/OFF button. |

| ```
DOWNLOAD MEMORY_

00025 TAGS
    05 %

<BACK DOWNLOAD●
``` | Select DOWNLOAD MEMORY by choosing it from the ADVANCED MENU and pressing the right arrow button.<br><br>➡<br><br>Download the tags in the memory by pressing the ON/OFF button.<br><br>🔴 |
| ```
READ MODE    _
SINGLE
CONTINUOUS

<BACK
``` | Select READ MODE by choosing it from the ADVANCED MENU and pressing the right arrow button.<br><br>➡<br><br>Choose SINGLE mode or CONTINUOUS mode, and then press the left arrow button.<br><br>⬅<br><br>Press the red button once to complete the change.<br><br>🔴<br><br>**SINGLE mode:** The ON/OFF button has to be press before each read.<br>**CONTINUOUS mode:** The RFID section is constantly in read mode. |

``` DUPLICATES - ALLOW DO NOT ALLOW <BACK ```	Select DUPLICATES by choosing it from the ADVANCED MENU and pressing the right arrow button. ➡️ Choose ALLOW or DO NOT ALLOW the duplicates, and then press the left arrow button. ⬅️
``` 🔵))) 07:56 🔋 HDX: 999 000 000 000 125 * DUPLICATE * 00025 MENU> ```	**ALLOW:** The reader will allow duplicates starting from the next read. **DO NOT ALLOW:** The reader will not allow duplicates starting from the next read. The reader will beep twice and display *DUPLICATE* at the bottom of the screen.
``` VIBRATION - YES NO <BACK ```	Select VIBRATION by choosing it from the ADVANCED MENU and pressing the right arrow button. ➡️ Choose YES or NO, and then press the left arrow button. ⬅️
``` SOUND - YES NO <BACK ```	Select SOUND by choosing it from the ADVANCED MENU and pressing the right arrow button. ➡️ Choose YES or NO, and then press the left arrow button. ⬅️

LANGUAGE _ ENGLISH FRENCH SPANISH GERMAN ‹BACK	Select LANGUAGE by choosing it from the ADVANCED MENU and pressing the right arrow button. ➡ Choose a language, and then press the left arrow button. ⬅
SITE NUMBER _ ▲ 1234000 ▼ ●BACK	Select SITE NUMBER by choosing it from the ADVANCED MENU and pressing the right arrow button. ➡ Replace each number using the up or down arrow buttons. Move the cursor using the left or right arrow buttons. Once finished, press the ON/OFF button. 🔴
BLUETOOTH _ SLAVE MASTER 000C7647064F ‹BACK MODIFY› BLUETOOTH ID _ ▲ 001C00000000 ▼ ●BACK	Select BLUETOOTH by choosing it from the ADVANCED MENU and pressing the right arrow button. ➡ Choose SLAVE or MASTER, and then press the left arrow button. ⬅ In MASTER mode, the Bluetooth ID of the pairing slave has to be entered. Press the right arrow button to modify it. ➡ Replace each digit using the up or down arrow buttons. The digits go from 0-9 and A-F. Move the cursor using the left or right arrow buttons. Once finished, press the ON/OFF button. 🔴

| ```
LOAD DEFAULT    _

LOAD DEFAULT ?


<BACK      YES●
``` | Select LOAD DEFAULT by choosing it from the ADVANCED MENU and pressing the right arrow button. ➡<br><br>To reload the default settings of the reader, press the ON/OFF button. 🔴 |
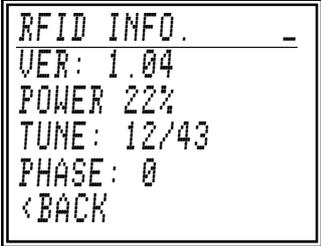| ```
OUTPUT MENU     _
>TAG TYPE
>TAG ID
 DATE / TIME
 SITE NUMBER
<BACK    YES/NO●
``` | Select OUTPUT MENU by choosing it from the ADVANCED MENU and pressing the right arrow button. ➡<br><br>The format of the transmitted packet contains four sections. Select (>) or unselect ( ) by using the up and down arrow buttons and pressing the ON/OFF button. 🔴<br><br>Once finished, press the left arrow button. ⬅ |
| ```
TIME & DATE     _
       ▲
14:09 31/07/07
       ▼
HH:MM DD/MM/YY
●BACK
``` | Select TIME & DATE by choosing it from the ADVANCED MENU and pressing the right arrow button. ➡<br><br>Replace each number using the up or down arrow buttons. Move the cursor using the left or right arrow buttons. Once finished, press the ON/OFF button. 🔴 |
| ```
LINE FEED       _
CR
CR/LF


<BACK
``` | Select LINE FEED by choosing it from the ADVANCED MENU and pressing the right arrow button. ➡<br><br>Choose CR to add a carriage return or CR/LF to add a carriage return and line feed when transmitting data. Once finished, press the left arrow button. ⬅ |

``` TAG TYPE - FDX / HDX DEC FDX / HDX HEX INDUSTRIAL P3 PTAGIS <BACK ```	Select TAG TYPE by choosing it from the ADVANCED MENU and pressing the right arrow button. Choose the tag type FDX/HDX DEC (Decimal, 134,2 kHz), FDX/HDX HEX (Hexadecimal, 134,2 kHz) or Industrial (EM4002, 125 kHz) and then press the left button.
``` RFID INFO. - VER: 1.04 POWER 22% TUNE: 12/43 PHASE: 0 <BACK ```	Select RFID INFO by choosing it from the ADVANCED MENU and pressing the right arrow button. The RFID INFO menu contains the RFID tuning information. Once finished, press the left arrow button.

2. Communications

2.1 Bluetooth Communication

The Bluetooth reader operates as a slave device. Please refer to your master device manual to establish the pairing. The reader does not need a PIN authentication. If your master device needs a PIN authentication, use **"default"**. Your master device should provide a COM port after pairing with the reader. Use that virtual COM port to communicate with the reader.

For more detail information, see the "LiveTrack Manager – Software Manual".

2.2 Serial communication

Use the serial cable provided in the kit to connect the reader to a DB-9 serial port.

Configure the serial port at **9600, n, 8, 1** and **no handshaking**.

2.3 Packet description

When an RFID Tag is read, the tag, date, time and site # will be saved in the reader's memory and will be transmitted via Bluetooth or serial communication.

When a read occurs, the format of the packet being sent by the reader is as follows:

FCCCDDDDDDDDDDDDDDAASSMMHHWWDDMMYYTTTTTTT'CR'

 *The packet can be modify using the OUTPUT MENU. (See page 16)

Field	Description
F	Tag Type
	'F' for ISO FDX-B tags
	'H' for ISO HDX tags
	'I' for EM4002 tags
CCC	The tag's country code
D…D	The tag's unique Identification number
AA…YY	The time and date of the reading
	Field description

	AA	2 numbers for the milliseconds
	SS	2 numbers for the seconds
	MM	2 numbers for the minutes
	HH	2 numbers for the hours
	WW	2 numbers for the day of the week ex: Monday = 01 and Sunday = 07
	DD	2 numbers for the day
	MM	2 numbers for the month
	YY	2 numbers for the year

TTTTTTT	The site number
CR	Carriage return - ASCII code 13 (0x0D)

2.4 Scale connection

The LiveTrack reader is compatible with most scale heads on the market today. Including:

Gallagher
Reliable Scales
Avery Weigh-Tronix
Tru-Test
WW Paul Scales
Digi-Star
Tru-Test
Toledo
Vesta

1. Make sure you have an EID compatible scale (see Manufacturer)
2. Simply configure the scale to receive the EID from the reader (see your Manufacturer's documentation).
3. If you are using a Bluetooth connection, make sure you have a Bluetooth compatible scale and LiveTrack reader.

Serial connection:
Select only the TAG ID from the OUTPUT MENU (see page 16). The menu should look like this when done with the configuration.

```
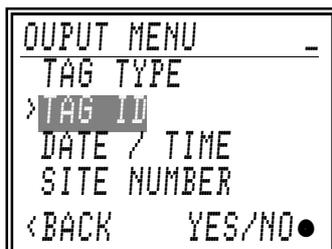OUPUT MENU        _
 TAG TYPE
>TAG ID
 DATE / TIME
 SITE NUMBER
<BACK     YES/NO●
```

Simply plug the communications cable that came with your LiveTrack reader into the input port on your scale.
When reading a tag the EID tag number should appear on your scale, some scales only display a part of the number.