



**Syscan** International Inc.



# LiveTrack V3 Reader

## User Manual



**January, 2008**  
**Syscan International Inc., Montreal**



## **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.



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## 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

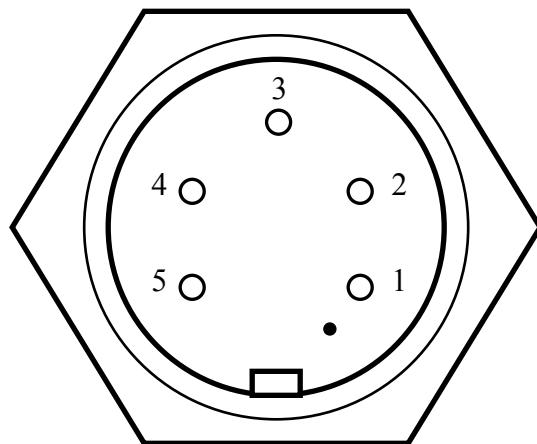
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- 1. RFID reading zone**
- 2. Display screen**
- 3. ON/OFF button**
- 4. Control buttons**
- 5. Handle/Battery compartment**
- 6. Battery compartment door**
- 7. Charge/Serial connector**



## 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**

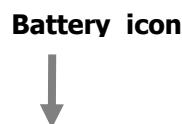
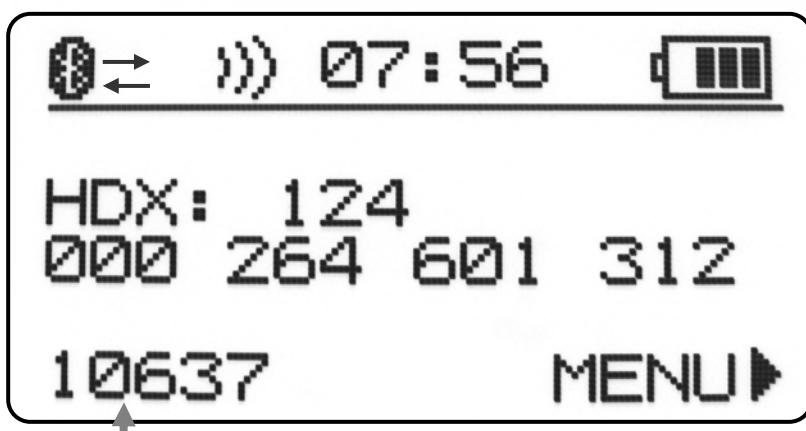
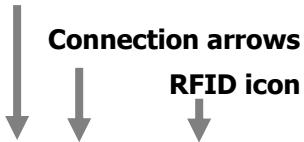
**Pin 4 : N/C**

**Pin 5 : GND**



## 1.3 Indicator icons

**Bluetooth icon**



**Bluetooth icon:** ON: The Bluetooth circuit is present and on.  
OFF: The Bluetooth circuit is off.

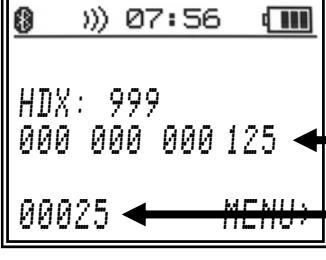
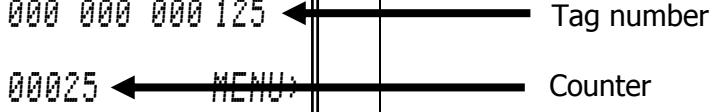
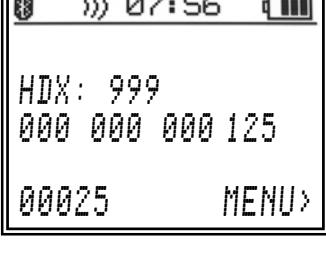
**Connection arrows:** The arrows indicate that the Bluetooth is connected.

**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.

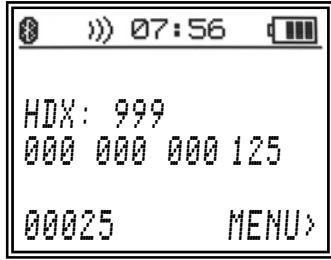
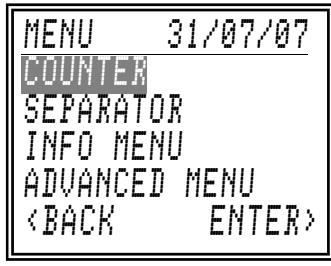
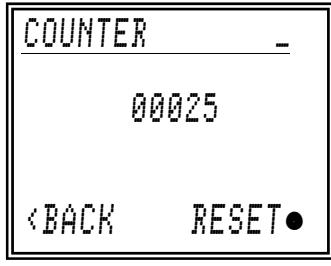


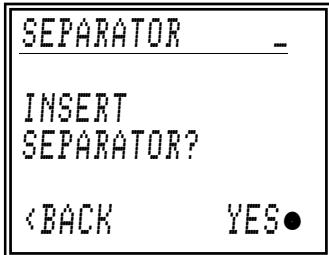
## 1.4 Main screen

 <p>A screenshot of the device's main screen. At the top, it shows a battery icon, the time '07:56', and a signal strength icon. Below this, the tag number '00025' is displayed, followed by a 'MENU' button on the right.</p>	<p>Turn on the reader by pressing the ON/OFF button.</p> <p></p>
 <p>A screenshot of the device's main screen. At the top, it shows a battery icon, the time '07:56', and a signal strength icon. Below this, the tag number 'HDX: 999' is displayed, followed by the counter '000 000 000 125'. At the bottom, the tag number '00025' is displayed, followed by a 'MENU' button on the right.</p>	<p>The main screen contains the tag number as well as the counter.</p> <p> Tag number Counter</p>
 <p>A screenshot of the device's main screen. At the top, it shows a battery icon, the time '07:56', and a signal strength icon. Below this, the tag number 'HDX: 999' is displayed, followed by the counter '000 000 000 125'. At the bottom, the tag number '00025' is displayed, followed by a 'MENU' button on the right.</p>	<p>Turn off the reader by pressing the ON/OFF button for 2 seconds.</p> <p></p>



## 1.5 Menu screen

 <p>07:56</p> <p>HDX: 999 000 000 000 125</p> <p>00025 MENU&gt;</p>	<p>Select MENU by pressing the right arrow button.</p> <p>→</p>
 <p>MENU 31/07/07</p> <p><u>COUNTER</u></p> <p>SEPARATOR</p> <p>INFO MENU</p> <p>ADVANCED MENU</p> <p>&lt;BACK ENTER&gt;</p>	<p>Navigate in the MENU using the up and down arrow buttons.</p> <p>↑ ↓</p> <p>Enter a menu item by pressing the right arrow button or go back by pressing the left arrow button.</p> <p>← →</p>
 <p>COUNTER</p> <p>00025</p> <p>&lt;BACK RESET•</p>	<p>Select COUNTER by choosing it from the menu and pressing the right arrow button.</p> <p>→</p> <p>Reset the counter by pressing the ON/OFF button.</p> <p>●</p>



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

<pre>MENU 31/07/07 COUNTER SEPARATOR INFO MENU ADVANCED MENU &lt;BACK ENTER&gt;</pre>	<p>Select INFO MENU by choosing it from the MENU and pressing the right arrow button.</p> <p>→</p>
<pre>INFO MENU - BAT:7.85V SER:F70-LTL03850 VER:UF01.08R MEM:00025 B9600 &lt;BACK</pre>	<p>The INFO MENU contains informations about the reader including:</p> <p>BAT : Actual battery voltage.</p> <p>SER : Serial number of the reader.</p> <p>VER : Firmware version.</p> <p>MEM: Number of tags in memory.</p> <p>B9600: Signifies a Bluetooth module at baud rate 9600.</p>
<pre>MENU 31/07/07 COUNTER SEPARATOR INFO MENU ADVANCED &lt;BACK ENTER&gt;</pre>	<p>Get back to MENU by pressing the left arrow button.</p> <p>←</p>



## 1.7 Advanced menu

```
MENU 31/07/07
COUNTER
SEPARATOR
INFO 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.



<p><u>ERASE MEMORY</u> -</p> <p>00025 TAGS 05 %</p> <p>&lt;BACK    ERASE●</p>	<p>Select ERASE MEMORY by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p>→</p> <p>Erase the memory by pressing the ON/OFF button.</p> <p>●</p>
<p><u>DOWNLOAD MEMORY</u> -</p> <p>00025 TAGS 05 %</p> <p>&lt;BACK DOWNLOAD●</p>	<p>Select DOWNLOAD MEMORY by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p>→</p> <p>Download the tags in the memory by pressing the ON/OFF button.</p> <p>●</p>
<p><u>READ MODE</u> -</p> <p>SINGLE CONTINUOUS</p> <p>&lt;BACK</p>	<p>Select READ MODE by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p>→</p> <p>Choose SINGLE mode or CONTINUOUS mode, and then press the left arrow button.</p> <p>←</p> <p>Press the red button once to complete the change.</p> <p>●</p> <p><b>SINGLE mode:</b> The ON/OFF button has to be press before each read. <b>CONTINUOUS mode:</b> The RFID section is constantly in read mode.</p>



DUPLICATES  
ALLOW  
DO NOT ALLOW

<BACK

07:56  
HDX: 999  
000 000 000 125  
\* DUPLICATE \*  
00025 MENU>

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.



**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.





<p>LANGUAGE -</p> <p>ENGLISH</p> <p>FRENCH</p> <p>SPANISH</p> <p>GERMAN</p> <p>• BACK</p>	<p>Select LANGUAGE by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p>→</p> <p>Choose a language, and then press the left arrow button.</p> <p>←</p>
<p>SITE NUMBER -</p> <p>1234000</p> <p>▲</p> <p>▼</p> <p>• BACK</p>	<p>Select SITE NUMBER by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p>→</p> <p>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.</p> <p>●</p>
<p>BLUETOOTH -</p> <p>SLAVE</p> <p>MASTER</p> <p>000C7647064F</p> <p>• BACK      MODIFY &gt;</p> <p>BLUETOOTH ID -</p> <p>001C00000000</p> <p>▲</p> <p>▼</p> <p>• BACK</p>	<p>Select BLUETOOTH by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p>→</p> <p>Choose SLAVE or MASTER, and then press the left arrow button.</p> <p>←</p> <p>In MASTER mode, the Bluetooth ID of the pairing slave has to be entered. Press the right arrow button to modify it.</p> <p>→</p> <p>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.</p> <p>●</p>



<pre>LOAD DEFAULT - LOAD DEFAULT ? &lt;BACK YES●</pre>	<p>Select LOAD DEFAULT by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p>To reload the default settings of the reader, press the ON/OFF button.</p> 
<pre>OUTPUT MENU - &gt;TAG TYPE &gt;TAG ID DATE / TIME SITE NUMBER &lt;BACK YES/NO●</pre>	<p>Select OUTPUT MENU by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p>The format of the transmitted packet contains four sections. Select (&gt;) or unselect ( ) by using the up and down arrow buttons and pressing the ON/OFF button.</p> 
<pre>TIME &amp; DATE - 14:09 31/07/07 HH:MM DD/MM/YY ●BACK</pre>	<p>Select TIME &amp; DATE by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p>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.</p> 



<p>LINE FEED -</p> <p>CR</p> <p>CR/LF</p> <p>&lt; BACK</p>	<p>Select LINE FEED by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p>→</p> <p>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.</p> <p>←</p>
<p>TAG TYPE -</p> <p>FDX / HDX DEC</p> <p>FDX / HDX HEX</p> <p>INDUSTRIAL</p> <p>&lt; BACK</p>	<p>Select TAG TYPE by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p>→</p> <p>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.</p> <p>←</p>
<p>RFID INFO. -</p> <p>VER: 1.04</p> <p>POWER 22%</p> <p>TUNE: 12/43</p> <p>PHASE: 0</p> <p>&lt; BACK</p>	<p>Select RFID INFO by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p>→</p> <p>The RFID INFO menu contains the RFID tuning information.</p> <p>Once finished, press the left arrow button.</p> <p>←</p>



## 2. Communications

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### 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:

**FCCCDDDDDDDDDDDDAASSMMHHWWDDMMYYTTTTTT'CR'**

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

<b>Field</b>	<b>Description</b>
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
TTTTTT	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:

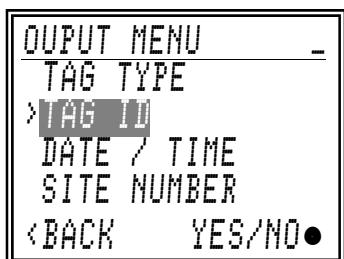
Gallagher  
Reliable Scales  
Avery Weigh-Tronix  
Tru-Test  
WW Paul Scales  
Digi-Star  
Tru-Test  
Toledo  
Vesta



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.



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.



### **3. Troubleshooting**

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## **4. Contact**

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For technical department, please contact  
[support@syscan.com](mailto:support@syscan.com)  
1-888-479-7226

For sales department, please contact  
[sales@syscan.com](mailto:sales@syscan.com)  
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