



# **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.

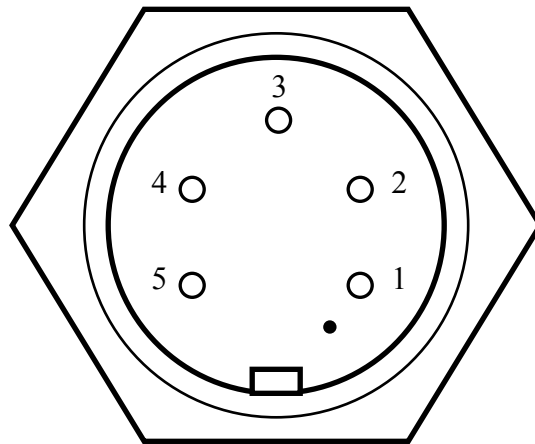
## 1. Nomenclature

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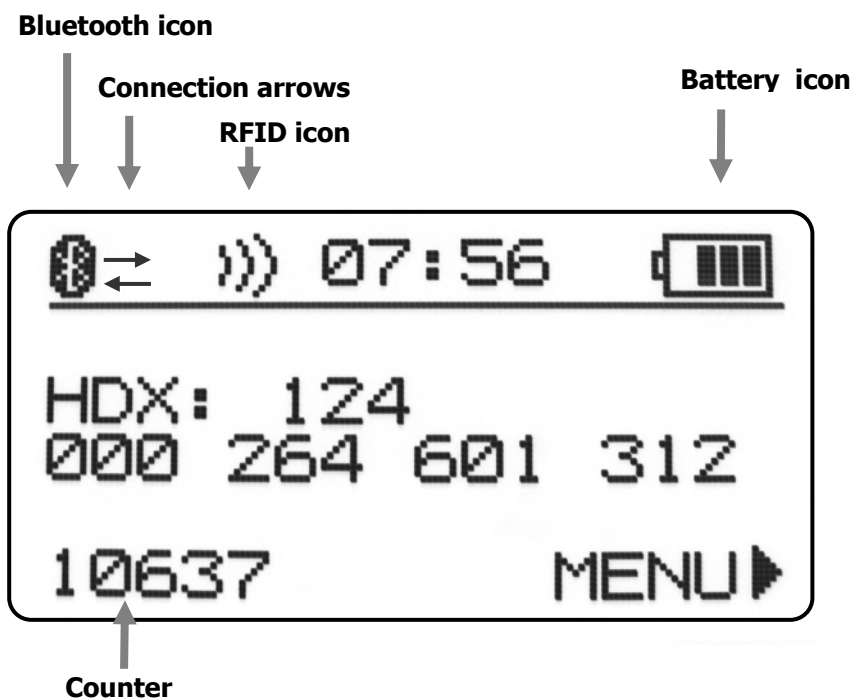
- 1. RFID reading zone
- 2. Display screen
- 3. ON/OFF button
- 4. Control buttons
- 5. Handle/Battery compartment
- 6. Battery compartment door
- 7. Charge/Serial connector

## 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



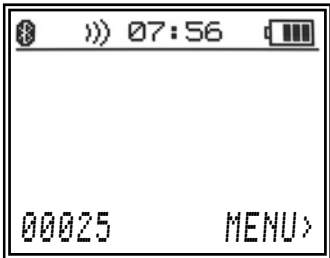

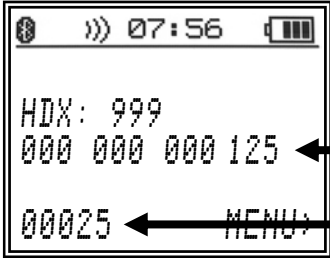
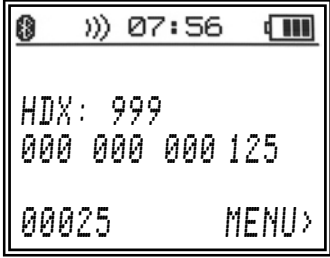

**Bluetooth icon:** ON: The Bluetooth circuit is present and on.  
OFF: The Bluetooth circuit is off.

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

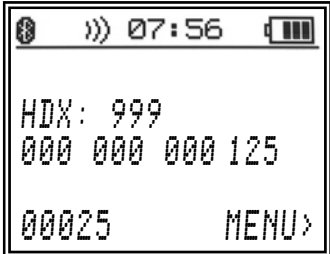

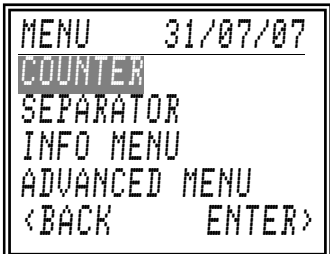


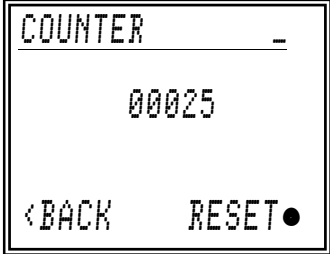


**RFID icon:** ON: The RFID circuit is on and ready to read.  
OFF: The RFID circuit is off.

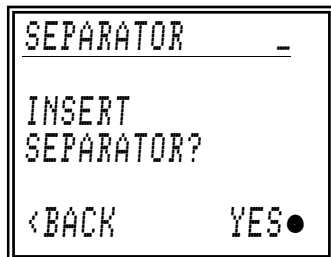
**Battery icon:** Indicates the battery power left in the reader.

## 1.4 Main screen

	<p>Turn on the reader by pressing the ON/OFF button.</p> <div style="text-align: center; margin-top: 50px;">  </div>
	<p>The main screen contains the tag number as well as the counter.</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>Tag number</p> <p>←</p> </div> <div style="text-align: center;"> <p>Counter</p> <p>←</p> </div> </div>
	<p>Turn off the reader by pressing the ON/OFF button for 2 seconds.</p> <div style="text-align: center; margin-top: 50px;">  </div>

## 1.5 Menu screen

	<p>Select MENU by pressing the right arrow button.</p> <div style="text-align: center;">  </div>
	<p>Navigate in the MENU using the up and down arrow buttons.</p> <div style="text-align: center;">  </div> <p>Enter a menu item by pressing the right arrow button or go back by pressing the left arrow button.</p> <div style="text-align: center;">  </div>
	<p>Select COUNTER by choosing it from the menu and pressing the right arrow button.</p> <div style="text-align: center;">  </div> <p>Reset the counter by pressing the ON/OFF button.</p> <div style="text-align: center;">  </div>



Select SEPARATOR by choosing it from the MENU and pressing the right arrow button.

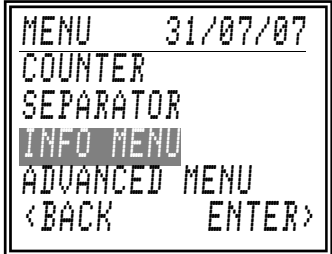

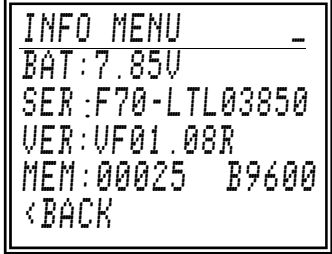
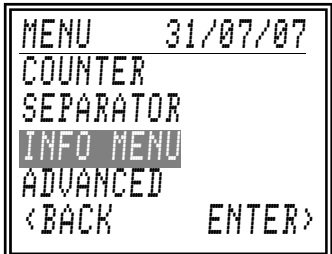



Insert a separator by pressing the ON/OFF button.

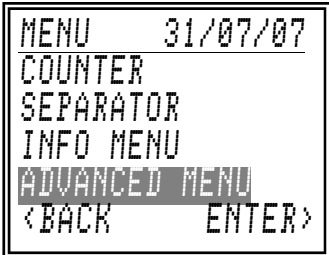

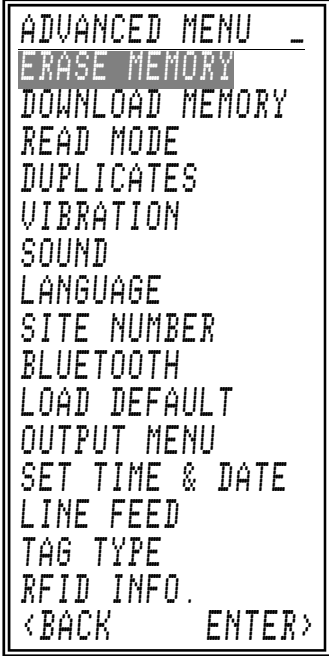


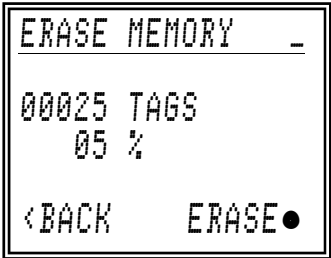



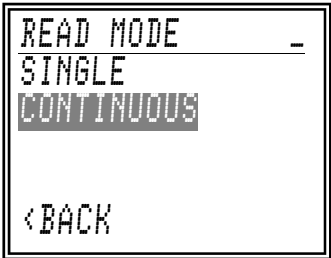

A separator is a fake tag with a 000 000 000 000 000 ID and can be used to separate batches of reads.  
The separator will not affect the tag counter but will affect the memory count.

## 1.6 Info menu

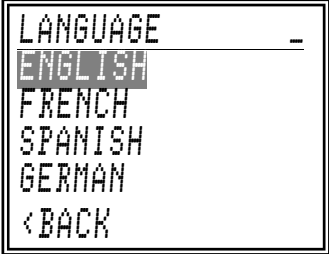
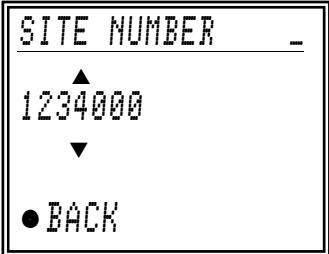
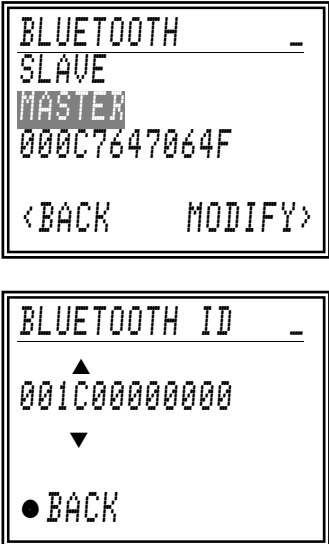
	<p>Select INFO MENU by choosing it from the MENU and pressing the right arrow button.</p> <div style="text-align: center;">  </div>
	<p>The INFO MENU contains informations about the reader including:</p> <p>BAT : Actual battery voltage.  SER : Serial number of the reader.  VER : Firmware version.  MEM: Number of tags in memory.  B9600: Signifies a Bluetooth module at baud rate 9600.</p>
	<p>Get back to MENU by pressing the left arrow button.</p> <div style="text-align: center;">  </div>

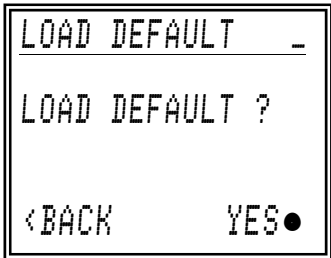

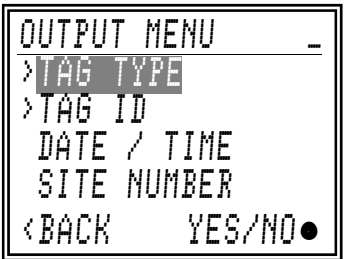

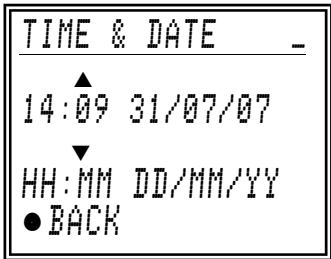

## 1.7 Advanced menu

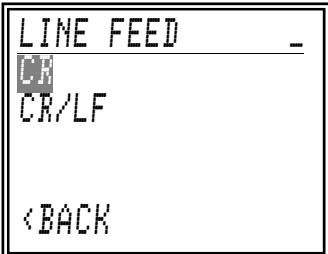
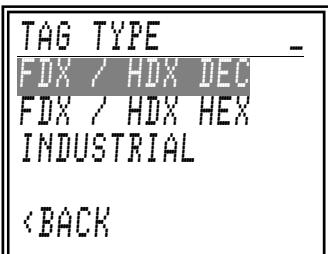
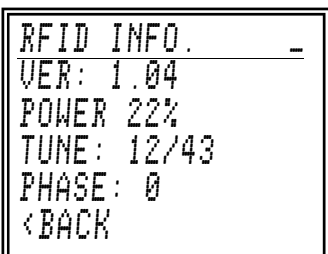
 <pre> MENU    31/07/07 COUNTER SEPARATOR INFO MENU ADVANCED MENU &lt;BACK   ENTER&gt;         </pre>	<p>Select the ADVANCED MENU by choosing it from the MENU and pressing the right arrow button.</p> <div style="text-align: center; margin-top: 20px;">  </div>
 <pre> ADVANCED MENU - ERASE MEMORY DOWNLOAD MEMORY READ MODE DUPLICATES VIBRATION SOUND LANGUAGE SITE NUMBER BLUETOOTH LOAD DEFAULT OUTPUT MENU SET TIME &amp; DATE LINE FEED TAG TYPE RFID INFO. &lt;BACK   ENTER&gt;         </pre>	<p>The ADVANCED MENU contains all the advanced features and settings available on the reader.</p>

	<p>Select ERASE MEMORY by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p style="text-align: center;">➡</p> <p>Erase the memory by pressing the ON/OFF button.</p> <p style="text-align: center;"></p>
	<p>Select DOWNLOAD MEMORY by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p style="text-align: center;">➡</p> <p>Download the tags in the memory by pressing the ON/OFF button.</p> <p style="text-align: center;"></p>
	<p>Select READ MODE by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p style="text-align: center;">➡</p> <p>Choose SINGLE mode or CONTINUOUS mode, and then press the left arrow button.</p> <p style="text-align: center;">⬅</p> <p>Press the red button once to complete the change.</p> <p style="text-align: center;"></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>

<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>DUPLICATES -</p> <p><b>ALLOW</b></p> <p>DO NOT ALLOW</p> <p>&lt;BACK</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>07:56</p> <p>HDX: 999</p> <p>000 000 000 125</p> <p>* DUPLICATE *</p> <p>00025 MENU&gt;</p> </div>	<p>Select DUPLICATES by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p style="text-align: center;">➡</p> <p>Choose ALLOW or DO NOT ALLOW the duplicates, and then press the left arrow button.</p> <p style="text-align: center;">⬅</p> <p><b>ALLOW:</b> The reader will allow duplicates starting from the next read.</p> <p><b>DO NOT ALLOW:</b> 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.</p>
<div style="border: 1px solid black; padding: 5px;"> <p>VIBRATION -</p> <p><b>YES</b></p> <p>NO</p> <p>&lt;BACK</p> </div>	<p>Select VIBRATION by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p style="text-align: center;">➡</p> <p>Choose YES or NO, and then press the left arrow button.</p> <p style="text-align: center;">⬅</p>
<div style="border: 1px solid black; padding: 5px;"> <p>SOUND -</p> <p><b>YES</b></p> <p>NO</p> <p>&lt;BACK</p> </div>	<p>Select SOUND by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p style="text-align: center;">➡</p> <p>Choose YES or NO, and then press the left arrow button.</p> <p style="text-align: center;">⬅</p>

	<p>Select LANGUAGE by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p style="text-align: center;">➡</p> <p>Choose a language, and then press the left arrow button.</p> <p style="text-align: center;">⬅</p>
	<p>Select SITE NUMBER by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p style="text-align: center;">➡</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 style="text-align: center;">●</p>
	<p>Select BLUETOOTH by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p style="text-align: center;">➡</p> <p>Choose SLAVE or MASTER, and then press the left arrow button.</p> <p style="text-align: center;">⬅</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 style="text-align: center;">➡</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 style="text-align: center;">●</p>

	<p>Select LOAD DEFAULT by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p style="text-align: center;">➡</p> <p>To reload the default settings of the reader, press the ON/OFF button.</p> <p style="text-align: center;"></p>
	<p>Select OUTPUT MENU by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p style="text-align: center;">➡</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> <p style="text-align: center;"></p> <p>Once finished, press the left arrow button.</p> <p style="text-align: center;">⬅</p>
	<p>Select TIME &amp; DATE by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p style="text-align: center;">➡</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 style="text-align: center;"></p>

	<p>Select LINE FEED by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p style="text-align: center;">➡</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 style="text-align: center;">⬅</p>
	<p>Select TAG TYPE by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p style="text-align: center;">➡</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 style="text-align: center;">⬅</p>
	<p>Select RFID INFO by choosing it from the ADVANCED MENU and pressing the right arrow button.</p> <p style="text-align: center;">➡</p> <p>The RFID INFO menu contains the RFID tuning information.</p> <p>Once finished, press the left arrow button.</p> <p style="text-align: center;">⬅</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:

**FCCDDDDDDDDDDDDDAASSMMHHWWDDMMYYTTTTTT'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

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:

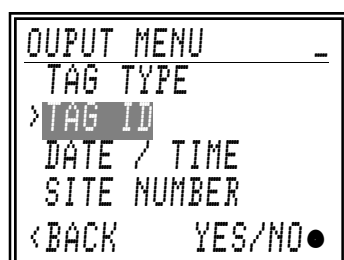
Gallagher  
 Reliable Scales  
 Avery Weigh-Tronix  
 Tru-Test  
 WW Paul Scales  
 Digi-Star  
 Tru-Test  
 Toledo  
 Vesta



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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Syscan International Inc.

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)  
1-888-479-7226