



LiveTrack Reader Version 2

User Manual



June, 2006
Syscan International Inc, Montreal



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.

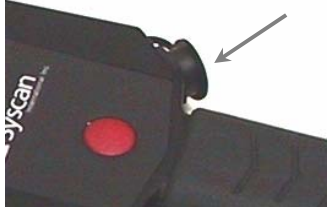
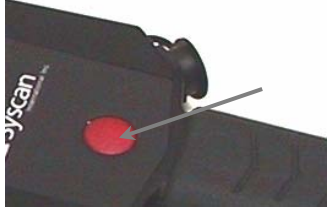

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

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



QUICK START GUIDE	4
NOMENCLATURE	5
READER	5
CHARGE/SERIAL CONNECTOR	6
LED INDICATORS	7
SCREEN MENU.....	8
INFO MENU	9
ADVANCED MENU	10
OUTPUT MENU	12
OTHER SCREENS.....	13
COMMUNICATIONS	14
BLUETOOTH CIRCUIT	14
SERIAL COMMUNICATION	14
PACKET DESCRIPTION	15
SPECIFICATIONS	16

Quick Start Guide

	<p>1- Included in box: Reader, power supply 12 VDC, serial cable and CD.</p>
	<p>3- Connect the power supply and charge until full. ***</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Batt:Chrg 7.85 Volts</p> </div> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Batt: Batt:Full</p> </div> </div>
	<p>4- Turn on the reader by pressing the on/off button.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Syscan.com x</p> </div>
	<p>5- Read tag.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>H 982 000 01923 6104</p> </div>

*** IMPORTANT

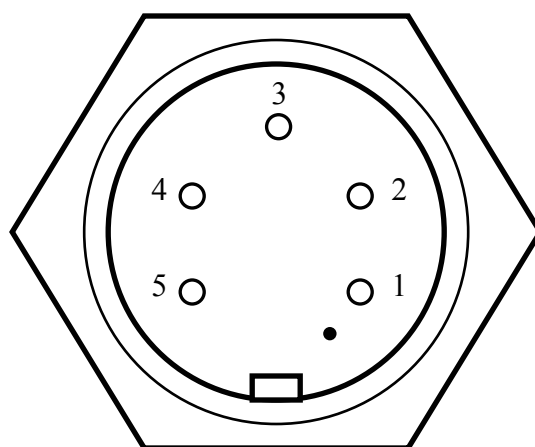
THE POWER SUPPLY IS TO BE USE TO RECHARGE THE BATTERY AND NOT TO RUN THE READER.

Nomenclature

Reader



Charge/Serial connector



Pin 1: 12 VDC in

Pin 2: RS-232 TX data to pc

Pin 3: RS-232 Rx data from pc

Pin 4: GND

Pin 5: Cable in detect. Shut down the Bluetooth circuit when serial cable is inserted.

LED Indicators



Bluetooth LED

RFID LED

Power LED

Bluetooth LED: Blinks every 3 seconds: the Bluetooth circuit is on.
On steady: the Bluetooth connection is established.
Off: the Bluetooth circuit is off.

RFID LED: On: the RFID circuit is on and ready to read.
Off: the RFID circuit is off.

Power LED: On: the reader is on.
Off: the reader is off.

Screen menu

<div>Syscan.com</div> <div>*</div>	<p>Turn on the reader by pressing the on/off button.</p>
<div>X XXX XXX</div> <div>XXXXX XXXX</div> <div>or</div> <div>H 982 000</div> <div>01923 6104</div>	<p>The "X" screen will appear or the tag number if you already read a tag. (Example for ISO HDX tag)</p>
<div>Counter</div> <div>00000</div> <div>Counter</div> <div>Reset</div>	<p>Press the on/off button one time to display the counter screen. Press and hold the on/off button for 2 sec. to reset the counter.</p>
<div>Insert</div> <div>Separator</div> <div>Separator</div> <div>Inserted</div>	<p>Press the on/off button one time to display the insert separator screen. Press and hold the on/off button for 2 sec. to record a separator. A separator is a fake tag with 0 000000000000000 ID.</p>
<div>Info</div> <div>Menu</div>	<p>Press the on/off button one time to display the info menu screen. Press and hold the on/off button for 2 sec. to enter the info menu screen. See info menu page 9.</p>
<div>Advanced</div> <div>Menu</div>	<p>Press the on/off button one time to display the advanced menu screen. Press and hold the on/off button for 2 sec. to enter the advanced menu screen. See advanced menu page 10.</p>
<div>Turn Off</div> <div>Reader</div> <div>Release</div> <div>Button...</div>	<p>Press the on/off button one time to display the turn off reader screen. Press and hold the on/off button for 2 sec. to turn off the reader.</p>

Info menu

<div>Batt: 7.85 Volts</div>	Entering the info menu will display the battery screen.
<div>F60- LTL00999</div>	Press the on/off button one time to display the serial number screen.
<div>VF04.06 2006-05-31</div>	Press the on/off button one time to display the firmware version screen.
<div>100 Tags 1 % Mem.</div>	Press the on/off button one time to display the memory screen.
<div>19/12/2005 11:41:18</div>	Press the on/off button one time to display the date and time screen.
<div>XX XX XX XX XX XX</div> <div>00 0C 76 47 06 4F</div>	Press the on/off button one time to display the default Bluetooth device address screen. The reader will connect to that device address in master mode. ***VF4.08 and more
<div>Exit Menu</div>	Press the on/off button one time to display the exit menu screen. Press and hold the on/off button for 2 sec. to exit the info menu. * Info menu will exit after 10 sec. of inactivity.

Advanced menu

Start a Download	Loading Completed	Entering the advanced menu will display the start a download screen. Press and hold the on/off button for 2 sec. to start the download.
Erase Memory	Memory Erased	Press the on/off button one time to display the erase memory screen. Press and hold the on/off button for 2 sec. to erase the memory.
Read Mode Continuous	Read Mode Single	Press the on/off button one time to display the read mode screen. Press and hold the on/off button for 2 sec. to toggle from continuous and single.
Vibration Yes	Vibration No	Press the on/off button one time to display the vibration screen. Press and hold the on/off button for 2 sec. to toggle from yes and no.
Sound Yes	Sound No	Press the on/off button one time to display the sound screen. Press and hold the on/off button for 2 sec. to toggle from yes and no.
LCD: Bright 9/9	LCD: Bright 9/9 *	Press the on/off button one time to display the LCD brightness screen. Press and hold the on/off button for 2 sec. for the star to appear.
LCD: Bright 5/9 *	LCD: Bright 5/9	Press the on/off button to change the LCD brightness. Press and hold the on/off button for 2 sec. to confirm.






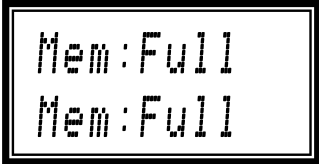


Language English	Language English *	<p>Press the on/off button one time to display the language screen. Press and hold the on/off button for 2 sec. for the star to appear.</p> <p>Press the on/off button to change the language. Press and hold the on/off button for 2 sec. to confirm.</p>
Language French *	Langage Francais	
Load Default	Default Loaded	<p>Press the on/off button one time to display the load default screen. Press and hold the on/off button for 4 sec. to load the default settings.</p>
BT Mode Slave	BT Mode Master	<p>Press the on/off button one time to display the Bluetooth mode screen. Press and hold the on/off button for 2 sec. to toggle from Slave and Master. ***VF4.08 and more</p>
Output Menu		<p>Press the on/off button one time to display the output menu screen. Press and hold the on/off button for 2 sec. to enter the output menu screen. See output menu page 12.</p>
Exit Menu		<p>Press the on/off button one time to display the exit menu screen. Press and hold the on/off button for 2 sec. to exit the advanced menu. * Advanced menu will exit after 10 sec. of inactivity.</p>

Output menu

<div>Tag Type</div> <div>Yes</div>	<div>Tag Type</div> <div>No</div>	<p>Entering the output menu will display the tag type screen. Press and hold the on/off button for 2 sec. to toggle from yes and no.</p>
<div>Tag ID</div> <div>Yes</div>	<div>Tag ID</div> <div>No</div>	<p>Press the on/off button one time to display the tag ID screen. Press and hold the on/off button for 2 sec. to toggle from yes and no.</p>
<div>Time-Date</div> <div>Yes</div>	<div>Time-Date</div> <div>No</div>	<p>Press the on/off button one time to display the time-date screen. Press and hold the on/off button for 2 sec. to toggle from yes and no.</p>
<div>Site ID</div> <div>Yes</div>	<div>Site ID</div> <div>No</div>	<p>Press the on/off button one time to display the site ID screen. Press and hold the on/off button for 2 sec. to toggle from yes and no.</p>
<div>Exit</div> <div>Menu</div>		<p>Press the on/off button one time to display the exit menu screen. Press and hold the on/off button for 2 sec. to exit the output menu. * Output menu will exit after 10 sec. of inactivity.</p>

Other screens

	<p>The power supply is connected and the battery is charging.</p>
	<p>The power supply is connected and the battery is fully charged.</p>
	<p>The battery has stopped charging because the temperature exceeds 60 degree Celsius.</p>
	<p>The battery has stopped charging because the temperature is lower than 3 degree Celsius.</p>
	<p>The battery has reached 7.00 volts and need to be charge.</p>
	<p>The internal memory is full. Use the "Erase memory" function. (See Advanced menu page 10)</p> <p>* When memory is full, the last tag read will replace the first tag. (Circular)</p>



Communications

Bluetooth circuit

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 the two devices. Use that virtual COM port to communicate with the reader.

Serial communication

Use the serial cable provided in the kit to connect the reader to a DB-9 serial port. When the cable is inserted in the reader's serial connector, the Bluetooth circuit is shutdown.

Serial cable inserted

```
Serial:On  
Blth:Off
```

Serial cable removed

```
Serial:Off  
Blth:On
```

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



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:

FCCDDDDDDDDDDDDDAASSMMHHWWDDMMYYTTTTTTT'CR'

***The packet can be modify using the Ouput Menu on the reader. (See page 12)**

Field	Description
F	Tag Type
	'F' for ISO FDX-B tags
	'H' for ISO HDX tags
	'I' for Industrial HDX tags
	'U' 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)



Specifications

Operating Frequency:	134.2 KHz
RFID Compatibility:	ISO HDX, ISO FDX-B and Industrial HDX
Reading Distance:	25-30 cm (with ISO HDX tags)
Memory:	10 000 tags
Communication Ports:	Bluetooth © Class 1 and Serial (RS-232 9600,n,8,1)
Bluetooth:	Class 1 (100 m)
Battery Power:	7.4 V Li-ion Rechargeable More than 6 hours of continual use
Power Input:	12 VDC for charging the battery
Packaging Protection Class:	IP 66
Dimensions:	Short: 45 X 10 X 3 cm Long: 65 X 10 X 3 cm
Weight:	Short: 1.65lbs Long: 2.05 lbs
Display type:	PLED
Display Languages:	English, French, German, Polish, Spanish
Included at Purchase:	Reader, Serial Cable, 12 VDC adapter, CD with demo programs