RT100V8BT

ISO FDXB tag compatible with the possibility to write additionals data (+)
Two phones numbers
Table of contents

Characteristics of the V8BT ............................................. pages 1/3
Changing the choice of language ...................................... page 4
Reading a chip « SCAN » .............................................. page 5
Enable and disable Bluetooth .......................................... pages 6/7/8
The memory of the V8BT ................................................ page 9
  - enable the memory ................................................ page 10
  - disable the memory ................................................ page 11
  - erase the memory ............................................... page 12
Datas transmissions with a PC ...................................... pages 13 à 21
RealTrace Terminal ..................................................... pages 22 à 26
Customization of the V8BT : displaying and Time out ....... page 28/29
The « Woosit » system : writing a « chip » .................... page 30
Realtrace Phone .......................................................... pages 31 à 37
Reader characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>134.2kHz Read and write ISO 14223</td>
</tr>
<tr>
<td>Protocol</td>
<td>ISO11784/5 FDX-A, FDX-B, EM4102, HDX</td>
</tr>
<tr>
<td>Reading range</td>
<td>Up to 11 cm (12mm × 2mm, glass tag)</td>
</tr>
<tr>
<td>Display</td>
<td>128 × 64, black and white, OLED</td>
</tr>
<tr>
<td>Keys</td>
<td>4 buttons</td>
</tr>
<tr>
<td>Indication</td>
<td>Battery charge control and Bluetooth, Buzzer</td>
</tr>
<tr>
<td>USB port</td>
<td>USB virtual comport, bluetooth virtual com.port</td>
</tr>
<tr>
<td>Power supply</td>
<td>Lithium battery, 1400mAh, 3.7V, 5.18 Watts/hr</td>
</tr>
<tr>
<td>Dimension</td>
<td>155mm (L) × 82(W) × 33(H)</td>
</tr>
<tr>
<td>Net weight</td>
<td>155g</td>
</tr>
<tr>
<td>Charging mode</td>
<td>Mini USB</td>
</tr>
<tr>
<td>Accessories</td>
<td>Mini USB cable, Product instructions, Battery</td>
</tr>
<tr>
<td>Compliance certifications</td>
<td>FCC, CE certification</td>
</tr>
<tr>
<td>Memory</td>
<td>Up to 800 ID numbers</td>
</tr>
</tbody>
</table>
Synoptic Menu « Scan »

Scan

Reading
20 seconds max.

No transponder
Found!

FDXB
939 2784879521125

After 25 seconds

After 60 seconds

Charging indicator light

Button In/Out
Bluetooth RT 100 V8BT reader

All readers are delivered with integrated Bluetooth technology. The Bluetooth function consumes energy. It is therefore recommended to activate this function only for the time necessary for its use.

To stop Bluetooth communication, simply select the “Bluetooth” menu and disable the function. Communication via Bluetooth is limited to around ten metres and depends on the environment of your PC. To enable Bluetooth on your PC, please consult your computer user manual. Don’t forget to disable the security of Bluetooth on your PC because the V8BTBT don’t ask a security code. If your PC need a code, enter 1234.

Data transmission by Bluetooth or via the USB cable

To be able to transmit the tag numbers read or the numbers recorded in the memory (maximum 800), via Bluetooth or using the USB cable, the user needs to have installed the appropriate driver* on his PC. This driver can be downloaded free of charge from :

http://www.swissplusid.com/downloads/RTDriver.zip

Once the driver is installed on your PC you will need to have application software to view and potentially record the data sent by the reader.

You can use Hyperterminal if your operating system is XP or Realtrace Terminal with XP or Windows 7/8.

* A driver is a program enabling an operating system, in this case Windows XP or Windows 7 on a PC, to recognise a hardware peripheral and use it.
Using the V8BT Memory

The V8BT reader has a memory enabling it to store 800 identifiers (tag numbers). This function must be activated by the user if he wishes to use it.

Storage of numbers read by the V8BT reader

The V8BT allows the user to store the numbers of the tags read in order to transfer them subsequently to a PC using the USB cable included with the reader or with Bluetooth.

To use this function, you must first activate the “Memory” function (see block diagram: “Memory 1”). When the Memory is activated each time a new tag is read, the reader displays the number but if the same tag is read twice by mistake the reader indicates this by emitting a characteristic beep and displaying “DUP” on the right of the screen.

This number will not be stored a second time.

If the reader is switched off, the memory function will still be activated when it is switched on again.

Deactivating the memory

The memory can be deactivated via the “Memory” menu.

Two cases may arise:

First case:
Numbers are recorded in the reader’s memory (Block diagram: Memory 3)
In this case you must transmit the list of recorded numbers actually or virtually (without plugging in the USB cable) and then erase them.

Second case:
The memory has been previously activated but no number has been recorded.
In this case simply “deactivate” the memory (block diagram: “Memory 2”)

Erasing the memory

To erase the contents of the memory to avoid errors, you must select the “Memory” menu and transmit the list of recorded numbers actually or virtually (without plugging in the USB cable) and then erase them (see Block Diagram: Memory 3).
Enable the memory

Press two times

Charging indicator light

Button IN/OUT
Synoptic Menu « Memory 2 »

Disable the memory

No chip registered

Press two times

Scan

Memory

Disable

M:0

Scan

Button IN/OUT

1

2

3

4
Enable the memory
15 ID numbers registered

Sending *****

Press “OK” to erase

Without pressing after 8 seconds

Press “OK” to confirm erase

Send

M:15
Memory

Scan

M:15
Scan

Press twice

M:0
Scan

M:15
Scan

Button IN/OUT

1

2

3

4

5

6

Sending

Scan

M:15
Scan

Erasing

****
Communication between V8BT and a PC

To transfer the contents of the memory you must connect the reader to a PC via the USB cable. You must then select the “Memory” menu and follow the instructions given on the display (see Block Diagram: “Memory3”).

If the reader is connected to a PC it will transfer the number of the tag read on each reading. It is not necessary for the “Memory” function to be activated to carry out this transfer.

Caution: for the reader to communicate with a PC, you must first install the reader and have software such as Hyperterminal (Windows XP), Realtrace Terminal, etc. which enables the data to be displayed on the computer screen and processed if necessary.

Serial link: use of the Windows « Hyperterminal »

The current version of the PetScan RT100 V8BT, transmits the read identifiers to the PC it is connected to, either via the USB cable or its wireless link (Bluetooth). The reader does not wait for any order or acknowledgement from the PC.

Hardware configuration

The serial port for reading the data is configured as follows:

- 9600 bauds, 8 bits, 1 start bit, 1 stop bit, non-parity, and no flow control.

You must authorize line feeds to visualize the frames using the hyperterminal: click on « properties » in the « file » menu. Go to the « parameters » and then click on « ASCII Configuration… »:

The circled box above must be ticked…
**Description of the frame transmitted each time a transponder is read**

The PetScan transmits the following frame to the PC after each valid reading:

<table>
<thead>
<tr>
<th>Octet at the start of the frame: &quot;U&quot; &quot;/x55&quot;</th>
<th>Type of 8 character (or octet) chip</th>
<th>The 16 character (or octet) chip identifier</th>
<th>Separation of octet: &quot;:&quot;</th>
<th>CRC-CCITT-control word, 16 ASCII format bits on 4 characters</th>
<th>Carriage Return octet: &quot;/x0D&quot;</th>
</tr>
</thead>
</table>

Tips: the developers of software associated with PetScan must use the head and separation characters to separate the information transmitted by PetScan, calculate a control word with the data received and compare it to the word transmitted by the PetScan to validate the information (see appendix for the CRC-CCITT-16 bit calculation algorithm)

**Description of the frames emitted when reading the databases (PetSCAN memory option)**

If a PetScan reader has a memory option, when « Press SCAN to send » is displayed, the reader is ready to transmit the identifiers stored in the memory. The PetScan displays « Sending ! » during transmission and the reader offers the user the option of deleting the content of its database at the end of the transmission.

Format of the frames transmitted to the PC: the frame which is transmitted on each reading of a transponder is preceded by a header octet "/xAA", its 4 character registration number in the memory and a separation character "#".

<table>
<thead>
<tr>
<th>Start of frame octet: &quot;/xAA&quot;</th>
<th>4 character registration number</th>
<th>Separation octet: &quot;:&quot;</th>
<th>Start of information object: &quot;U&quot; &quot;/x55&quot;</th>
<th>The type of 8 character (or octet) chip</th>
<th>The 16 character (or octet) chip identifier</th>
<th>Separation of octet: &quot;:&quot;</th>
<th>CRC-CCITT-control word, 16 ASCII format bits on 4 characters</th>
<th>Carriage return octet: &quot;/x0D&quot;</th>
</tr>
</thead>
</table>

**Algorithm for calculating a CRC-CCITT-16 bit control word**

The C ANSI function’s source code enabling a control word to be calculated from a string of characters terminating with the character "/x00" is described below. The JAVA applet on the website enables you to also calculate the control word. Previously the fields had to be correctly completed before making the CRC calculation and a check made that the control word is equal to 0xE5CC or the "123456789" character string.
/*=======================================================================*/
/* Function that calculates CRC-CCITT 16 bits */
/* INPUT: */
/*       unsigned char *inbuffer : 8 bits input vector over which CRC checksum is calculated */
/*       must termined by 0x00 */
/* OUTPUT: */
/*       unsigned int: 16 bits return of crc_ccitt checksum */
="/*****************************************************************"/

/* OVERVIEW: */
/* Width = 16 bits */
/* Truncated polynomial = 0x1021 */
/* Initial value = 0xFFFF */
/* No XOR is performed on the output CRC */
/* DESCRIPTION: */
/* Computing a POLY number from the crc equation. */
/* Crc s are usually expressed as an polynomial expression such as: */
/* */
/* x^16 + x^12 + x^5 + 1 */
/* CHECK */
/* 0xE5CC This is the checksum for the ascii string ”123456789” */
/* EXAMPLE */
/* http://www.zorc.breitbandkatze.de/crc.html */
="/*****************************************************************"/

#define crc_poly 0x1021 // Polynome du CRC-CCITT-16Bits

unsigned int crc_ccitt16 (unsigned char *inbuffer) {
    unsigned int crc_checksum = 0xffff;
    unsigned char ch;
    char i,xor_flag;
    while ( *inbuffer!=0)
    {
        ch = *inbuffer++;
        for(i=0; i<8; i++)
        {
            xor_flag=(crc_checksum & 0x8000)? 1:0;
            crc_checksum = crc_checksum << 1;
            if (ch & 0x80) crc_checksum++;
            if (xor_flag) crc_checksum = crc_checksum ^ crc_poly;
            ch = ch << 1;
        }
    }
    for(i=0; i<16; i++)
    {
        xor_flag=(crc_checksum & 0x8000)? 1:0;
        crc_checksum = crc_checksum << 1;
    }
    return crc_checksum;
}
if (xor_flag) crc_checksum = crc_checksum ^ crc_poly;
}
return (crc_checksum);
}

http://www.zore.breitbandkatze.de/crc.html

CRC parameters

- **CRC order (1..64)**: 16
- **CRC polynom (hex)**: 1021
- **Initial value (hex)**: FFFF
- **Final XOR value (hex)**: 0

Reverse data bytes: [ ]
Reverse CRC result before Final XOR: [ ]

Data sequence

123456789

Result

E5CC (hex), 9 data bytes
How to know what USB port the V8BT is connected to.

(Windows XP)

When you connect a peripheral to a USB port on a PC, the PC automatically assigns it a port number. The peripheral is often automatically recognised by the application software, thus it is not necessary to configure it. This is the case with printers, scanners, etc.

Other types of application software need to have the communication port assigned by the PC indicated to them, in some cases with other information such as the communication speed, the form of the data transmitted, etc.

As regards the V8BT, it is possible that the right port will be automatically assigned by the PC to the application software, but it is also quite likely that you will have to choose it yourself from all the ports offered to you. You can of course try them one after the other, but in some cases the PC’s peripheral configuration system will propose dozens of them…

In this case we suggest a more rational method which will also allow you to check that your V8BT’s readerr is correctly installed.

Select as shown below.

Then select  « System »
Then select « Device »

Then Select « Device Manager »

Then select « Ports (com et LPT) »
The number of the Com port is shown.

Number of Port Com connected with the V8BTBT
How to know what USB port the V8BT is connected to.

Windows 7/8

Select as shown below.

Then select « System »
Then select « Device Manager »

Then select « Port COM et LPT »

The number of the Com port is shown.

Com3 is the number of Port connected to the

The screens may be a little bit different. It depends of the Windows version.
RealTrace Terminal

This software is a tool supplied free of charge to all users of the RFID Realtrace standard (with USB cable) or Bluetooth reader.

You can download this software following this link:

http://www.swissplusid.com/downloads/RealtraceTerminal.exe

You will find that once the communication has been established between a PC and the RealTrace reader both appliances which were previously paired up remain connected providing that they are separated by no more than 10 meters. The communication is cut if the distance is over 10 meters, and a search and pairing up must be performed to restore transmissions.

The communication is also cut when the RealTrace reader switches off after several minutes on standby to save energy in the battery. The lost communication in both these cases is connected to the way Bluetooth technology operates as well as the Windows operating system.

The use of a lithium/ion battery has provided a significant increase in the autonomy of the reader (several thousand uses). Therefore, you can adjust the auto-power-off period as required: 2, 5, 10, or 30 minutes or if you prefer, you can switch off the time out altogether (not recommended). This setting can be implemented the same way if Bluetooth is enabled. For your information, the reader without auto-power-off, and with Bluetooth enabled works for over 48 hours.

http://www.swissplusid.com/downloads/V8-Timeout.exe

Initial parameterization of the « RealTrace Terminal » software

Sometimes, after installing Realtrace Terminal on your PC, you will have to parameterize the communication. Sometimes it is not necessary but as safety precaution you can verify if all is correct. Click on « File » then « Properties » then enter the USB port or Bluetooth’s communication port number as well as the following data:

- bits per second : 9600
- data bits : 8
- stop bits :1
- parity : none
- flow control : none
Using the software

**Menu Options**

*Choose your language.* You can choose between French, English, Spanish, and Chinese.

*Select the data you want to appear:*

- if you select "All data" it will show the type of chip (FDXB, HDX, FDXA) followed by the ISO "smart" number and the CRC.
  
  Example: **UFDXB 939 000004095425*AC02**

- if you do not select "All Data" only the ISO number of the "chip", or 15 numeric characters (FDXB and HDX), or 10 Hexadecimal characters (FDXA) will be displayed.
  
  Example: **939 000004095425**

*Do not forget to declare the type of keyboard you use - AZERTY or QWERTY - if not you risk having inconsistent signs being displayed on the PC screen.*

**"File" menu**

The "Save", "Delete" and "Exit" functions are classic.

  The "Linking an application" function when selected allows you to link the data sent by the reader to the PC to a Windows application (Word, Excel, etc.) and simultaneously display in the "RealTrace Terminal" window.

  If you want to save an Excel file, a number or a list of numbers stored in the memory of the reader you must select "Linked to an application." You then have five seconds to open your application, Word, Excel, etc. After this period if no application is opened data will be sent to the Realtrace Terminal and appear on the initial screen.

**"Connection" Menu**

In case of breakdown in communication between the PC and the reader simply select "Connect" to automatically reconnect.

Obviously for reconnection to be possible, the reader must be turned on and be within ten meters around the PC, which must also be turned on.
Menu Realtrace Terminal

Language Selection

Keyboard Type

Communication Port Selection
Linking an application

Selecting application after the 5-second delay

Application open within 5 seconds: Excel
Connect!

Simple view: only ISO number
Showing all data.
Display message on reader startup!  Setting the reader power timeout!

Through its hardware design, the V8BT reader was intended to be easier to update, allowing distributors and users to benefit immediately from upgrades that could better respond to market demands.

Now you can customize your reader through your PC by connecting to the https:// links that are listed below, but be careful:

The V8BT customizer that provides for customising the welcome message upon starting the reader only works from version VM14_v05 V8BTTimeout, which can set the time before automatic shutdown, only works from version VM14_v6

Please note that you may find the version of the program installed in your V8BT by reading the "Master Card Version V8BT" card that came with it (only distributors).

1 / Display message on reader startup (V8BT Customizer)

This message could be your company name, customer name, date of sale or other text of your choice given that you have two 16-character lines.

Upon starting the reader, the V8BT displays the recorded message for 4 seconds.

2 / Setting the reader power timeout. (V8BT timeout)

The use of a lithium/ion battery has provided a significant increase in the autonomy of the reader (several thousand uses). Therefore, you can adjust the auto-power-off period as required: 2, 5, 10, or 30 minutes or if you prefer, you can switch off the timeout altogether (not recommended). This setting can be implemented the same way if Bluetooth is enabled. For your information, the reader without auto-power-off, and with Bluetooth enabled works for over 48 hours.

How to benefit from these options.

1/ Just load the program option you are interested in on your PC, using the following links:

   For the greeting:

   https://www.swissplusid.com/downloads/V8-Customizer.exe

   To set the power timeout

   https://www.swissplusid.com/downloads/V8-Timeout.exe

2 / Connect the reader to the PC via USB cable
3/ Start the reader and open the program on the PC.

For example, you can use this date as the validity of the start of the guarantee period.

4 / Enter the fields on the screen and confirm (Write). The communication port is configured automatically.

The new settings will be implemented upon the next launch of the V8BT reader.

PS: Customizing each reader takes a few seconds.
System « WOOSIT »

Writing the animal owner’s telephone number(s) in the ISO tag

Our wish to constantly innovate and improve our products has led us to offer vets the option of personalizing the tag, if they wish, before implanting it in the animal.

The main technological advance offered by this V8BT reader is that it will allow reading and display of data which can be entered by the vet in the majority of the “tags” currently marketed worldwide, provided that they comply with the ISO standard.

Realtrace has developed a system called “WOOSIT®”, which is comprised of:

- A reader /programmer the PetSCAN RT150 (1) which enables the vet to write additional information to the “chip” before injecting it into the animal (2).
- The PetSCAN V8BT which now offers the possibility to read and display the ID number but also to display additional data recorded by the vet in the memory as the phone number of the owner.

Due to the low memory capacity available in ISO chips (used up until then) the “WOOSIT” system is limited to the recording of one or two telephone numbers of 16 digits each. The vet and/or the owner of the animal may choose these numbers.

This system is totally compliant with the ISO 11784/85 standard of 1996 in addition to the new 14223 standard* (May 2011) concerning the recording of data in advanced transponders.

It protects the asepsis of the chip, as the writing of the data is carried out via the cap which protects the needle.

If the owner prefers this, after the recording of one or two telephone numbers, the memory area used for this record can be blocked, making it impossible to delete or subsequently modify this information.

With the “WOOSIT” system, finding the owner of an animal will be particularly easy as reading the “chip” with the V8BT will provide the phone number(s) of the administrator of the database and/or the owner of the pet.

Naturally, any pet owner who does not wish to use this service can simply enter nothing in the memory area of the chip, as is currently the case.

ID number and phones numbers

Iso Chip 11784/85 compatible with the possibility to write additional data (FDXB+)

(1) Patented
(2) Sous réserve que les blocks 3/9/10/11/12/13 (EM4305) ou 9/10/11/12/13/14/15 (EM 4569) ne soient pas verrouillés par le fournisseur de la « puce ».
This software is intended for distributors and veterinarians. It has been developed to allow the reading and writing of data on the "chips" injected into animals, in accordance with ISO Standard 11784/85 and 14223.

The data to write, in this case one or two telephone numbers, is saved into memory blocks not used by the “chip”, the ISO identification number (15 digits) having been written and locked by the manufacturer. It is therefore imperative that some blocks are available, and therefore open, so the procedure of writing using the V8BT reader can be correctly achieved.

This additional information can be written to the 'chip' in the needle, through the cap, either before injection of the transponder into the animal or in the animal after injection.

We recommend that you write the number(s) in the needle, and then by reading, check the accuracy of what has been written and then inject the chip to the animal.

When reading from a 'chip' that contains no phone numbers the reader emits a single “beep” when it has found the chip.

If the "chip" contains or has contained telephone numbers, the reader emits two “beeps”.

In the event that the owner of the animal should change phone number, it will be possible to update the numbers by overwriting the "chip" implanted in the animal. The write and read distance for additional data on the chip by the V8BT reader is about 7 to 9 centimetres that is slightly less than the distance for reading the ISO number (10 to 12cm).

The PC program allows the entry of two 16-digit sequences, i.e. two phone numbers. We advise to register these numbers indicating the ISO code of the country.

Example: 0033134618980 (do not put spaces between numbers)

The choice of telephone numbers is left to the discretion of the user: the number of the owner of the animal, of the veterinary clinic, of an association, etc.

These numbers can be changed by the veterinarian as many times as necessary.

**What is the essential equipment?**

1/ The implanters, needles, and "chips" are the same as those currently used by veterinarians. “Chips” may be standard size: that is 2 x 12mm or the smaller 1.4 x 8.5 mm format that is currently gaining on the market.

However, whatever format is selected, the "chips" delivered by manufacturers must be programmed with the **locked ISO identification number**, with blocks 3/9/10/11/12/13 open.

These currently unused blocks will be used to save the phone numbers and signature.

2/ A conventional PC running XP, Windows 7 or Windows 8. The PC must have a USB connection and possibly Bluetooth connection.

3/ An RT100 PetScan V8BT reader with its USB cable.

4/ Realtrace-Phone software, which is provided free of charge.
Installing the Realtrace-Phone software

http://www.swissplusid.com/downloads/Realtrace-Phone.exe

The installation of the software and the reader are done automatically on the PC. Just follow the instructions given by the messages on the screen, like the installation of a printer or a scanner. After installation an icon will appear on the PC desktop.

Using the Realtrace-Phone software

Phase 1 Connecting the V8BT and opening the RealTrace-Phone program.
Connect the V8BT to the PC using the USB cable, turn on the reader (display shows "Read") and then the computer monitor, click on the icon and the following window will open on the screen:

It is possible that when connecting the V8BT to the PC that an update the software resident in the V8BT is carried out automatically. Wait until the loading has ended before continuing.

Phase 2 language selection
Click on the "Language" tab and select the language of your choice: English, Spanish or French.
Phase 3 Find communication port.

At the bottom of the screen to the right is a "Configuration" window, it may say "Automatic" or on opening the window "USB COM 5". This port number 5 is the one used on our PC. It could well be different on your PC.

A search of all available COM ports on the PC takes place automatically. You can stay in automatic search, but if you have a lot of COM ports open on your PC, you can select it in the window to expedite the allocation process.

Step 4 Reading a "chip"

Make sure the V8BT connected to the PC is still on. In order to preserve the energy of the battery to a maximum, the reader is programmed to turn off after two minutes if no key has been activated during this time.

So if it is off, turn it on and read a chip, either through the needle or on the animal. During this reading it is not necessary for the V8BT to be connected to the PC.

The number of the "chip" appears on the screen on first line of the reader, possibly followed by one or two lines of numbers corresponding to the phone number(s) (if reading a chip where number(s) have been programmed).

Please remember that the first three digits of the "chip" indicate either the ISO country code (250 for France) or the manufacturer's ICAR code.

You will need to send this data to the PC.

Reconnect the V8BT to the PC if it was disconnected and then click the window at the bottom left of the screen that says: Reading
After two or three seconds the following screen appears:

Or this one, if the "chip" already had phone numbers:

Confirm by clicking OK

**Phase 5 - Enter one or two phone numbers using the PC**

Depending on what you want to do you will either need to enter the phone numbers you want to write into the chip or modify those already saved to it.
If you make a mistake click delete and start typing again.

We recommend that you enter the full number with the prefix 00, then the country code. **Make sure the phone numbers entered are correct** then click on the windows as required:

- Write phone 1
- Write phone 2
- Write phone 1 + 2

After two or three seconds the following screen appears:

![Image of the screen with phone numbers and options]

The PC has transmitted the data to be saved to the "chip" to the V8BT using the USB cable or Bluetooth.
A message informs you that you can disconnect the reader from the PC to write to the "chip". This disconnection is not essential if you want to write to the "chip" in the needle but is advisable if you want write to a "chip" already injected into an animal.

**Phase 6 - Data entry by V8BT**

At the same time as the message appears on the PC, the V8BT display indicates:

- **PRESS SCAN TO WRITE**
- Approach the reader to the chip and validate by pressing the centre button to write

The reader seeks the chip in which it should write ...
Very important: the PC can communicate with the reader only when the display of the reader is showing “SCAN”.

Three possibilities:

1/ If the reader does not find the "chip" after 20 seconds of searching ...

Search other time

2/ If the reader has found the "chip" it must write:

Back to Main Menu

We recommend that you re-read the injected chip to verify that the data has been recorded, given that if the entry has been done correctly in the "chip" V8BT displays the following message:

Very often this happens when one or more memory blocks needed to record phone numbers are closed in the "chip" so it is impossible to write.

Or:

You tried to write into another "chip" than that previously read,
Note: be careful not to discharge the battery by leaving the V8BT showing the message:

This is the only case where the V8BT does not turn off automatically! To return to the menu, press the In / Out button.

**Operating problems:**

1/ When switching on the V8BT displays the **Low battery** message and turns off immediately.
   - the battery is almost discharged. You need to charge it.

2/ When switching on the reader the screen stays black:
   - either the battery is totally discharged: leave it to charge.
   - or the V8BT is no longer working. In this case an extended press on the In/Out button will shutdown the reader with two "beeps". Send the reader back to After Sales.

3/ A message, whether or not intelligible remains displayed. Pressing buttons has no effect. The program has "frozen"…
   In this case you need to disconnect the battery **very carefully, without pulling on the wires**, and wait a few seconds before re-connecting it.

4/ The V8BT will not switch on, even after charging: return to our After Sales service.

**Very important:** this reader has the latest technology in terms of power supply. The Lithium/ion batteries should only be recharged using an USB power supply. **Be careful to never short circuit the battery.**

Questions? Contact your nearest SwissPlus ID distributor or visit;

[www.swissplusid.com](http://www.swissplusid.com)