



RT600 BT PRO User Guide

Low Frequency Microchips Stick Reader



Outline

*RT600PRO is a stick reader for low-frequency RFID tags reading. The reader supports FDX-B, HDX, Atria ISO thermic and Fever check protocols tags reading in compliance with ISO 11784/11785 international standards. The product uses a 1.54-inch color high-definition display with up to 240*240 pixels.*

In addition, the product also has a Bluetooth wireless communication function, which is convenient for real-time communication with the mobile phone, and the device can be controlled in all directions through the mobile APPs (CTemp Helper). The user can also communicate with the desktop devices through the USB data cable. The product has stable performance, simple operation, and is suitable for livestock animals and pets' traceability applications.

The battery charge level is indicated in green on the right and at the top of the display.

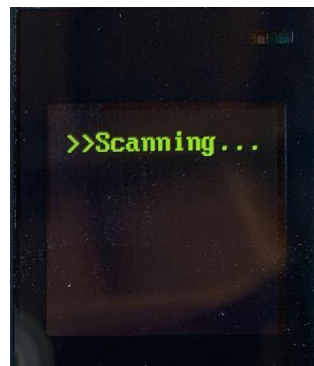
The USB connector allowing the recharging of the battery as well as the connection to a peripheral is accessible by unscrewing the large screw at the bottom of the reader

The latest version of the RT600 PRO allows easy and quick replacement of the Lithium ion battery. Simply remove the large screw at the base of the reader handle as well as the two small screws that hold the battery in its housing.

Functionality and Parameters

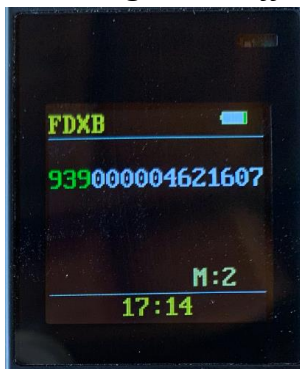
Working Frequency	ISO 11784/85 134,2Khz
Chips type	EM 4105 , FDX B, HDX, Atria ISO Thermic, MSD Thermochip, Fever check
Reading range	Glasstag 2 x12mm 18/20cm Eartag HDX 27mm 55/60cm Eartag FDX B 27mm 24/36cm
Power	Lithium battery 7,4V, 3000mA easy to remove
Memory storage	Up to 100 000 ID number, Customizable upon request
Display	Color TFT, 1,54 inch, Pixel 240 x 240
Multi languages	English, French, Polland, Spanish, Deutch, Italian, Portugues.
Battery	72h in continuous use
Weight	430g
Communication	USB Port(Win 7&10), Bluetooth 4, HID, BLE (Win10)
Indice IP	IP 67
Operating température	-5°C / +50°C

Chapter I - Turning on the reader and searching for "Chip"



Pressing the button  turns on the reader.

After 3 seconds the screen displays "Scan". Pressing the "OK" key will trigger a reading. The search for a transponder is carried out for about 20 seconds showing ">>Scanning". If no chip has been detected the screen displays "No Tag found".
Si un tag est lu l'affichage dépendra du type de tag :



ICAR Code



ISO Thermal Country code



Fever Check

Chapter II - “Continuous Scan” Function

From "SCAN" it is possible to trigger 3Continuous reading” by pressing



In this case, selecting by pressing Ok will cause continuous reading without the need to validate at each reading. If a tag is read twice the reader displays "Dup" in red and if the memory is activated the tag will only be recorded once.

Chapter III – “Memory” Function

From "SCAN" it is possible to trigger “Memory” by pressing again

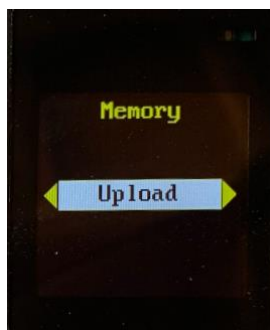


The "Memory" function has four submenus:

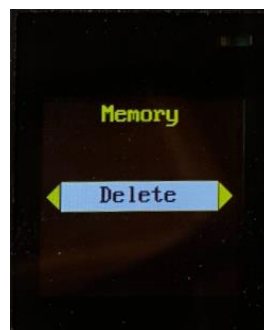
"Display", "Upload", "Delete" and "Disable"



1



2



3



4

1/ The display function allows you to display the numbers stored in memory:



2/ The « Upload » function allows to send the ID numbers memorized to an outside terminal.



3/The “Delete” function allows to delete the memory of the reader



4/Duplicate check function

When reading successive chips it is possible that the operator reads the same chip several times. As it is impossible for two chips to have the same number during the second reading, the reader will display DUP in red and the number will only be recorded once in memo



Chapter IV – “Settings” function



The "Settings" Menu allows you to customize the functions offered by the RT600 PRO.

From the "Setting" menu , pressing the key "OK" and after Pressing the key  will successively offer the various customizable functions: "Bluetooth", "Language", "DEC/HEX", "Beep", "Vibrator", "°C/°F", "Temp REF, Equines "HDX +", About.



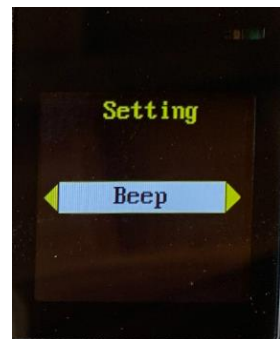
1



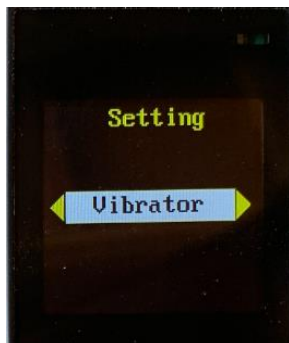
2



3



4



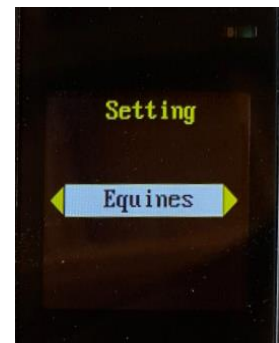
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6



7



8



9

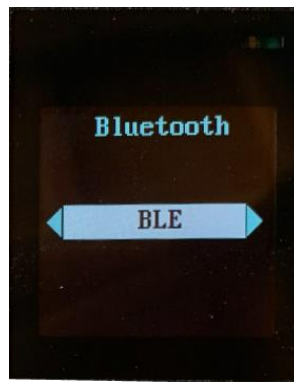


10

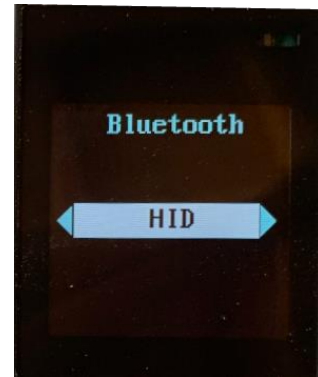
1/ Bluetooth



a



b



c

a/ To reduce the consumption of the reader it is possible to stop the operation of Bluetooth

b/ BLE significantly reduces power consumption while maintaining a communication range similar to conventional Bluetooth.

c/ In computing, the USB human interface device class (USB HID class) is part of the USB specification for computer peripherals: it specifies a device class (a type of computer hardware) for human interface devices such as keyboards, mice, touchscreens, touchpads, game controllers, and alphanumeric display devices.

2/ Languages

Seven languages are available: English, French, Spanish, Italian, Portuguese, German, Polish.

Each press of the button  changes the language. Once the language is selected, press OK.

3/ Dec / HEX

Allows you to choose the display of the ID number in DECimal or HEXadecimal

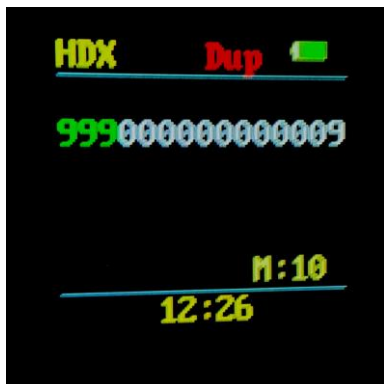


OF YOUR CHOICE

There are two possibilities for converting the decimal number into Hexadecimal:

Mode 1 the 15-digit decimal number is converted to Hexadecimal

Mode 2 the Decimal number is split into two parts, the country code or ICAR (3 digits) and the rest of the number is 12 digits.



Decimal



Hexadecimal : Mode 1

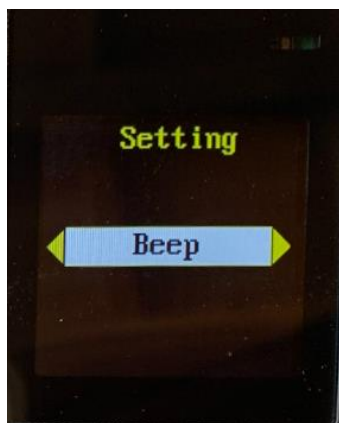


Hexadecimal : Mode 2

The same chip! Read twice (Dup) 10 chips registered in the memory of the reader.

4/ Beep

Allows you to activate or suppress the sound signal each time you read a tag.



ON /OFF

5 /Vibrator

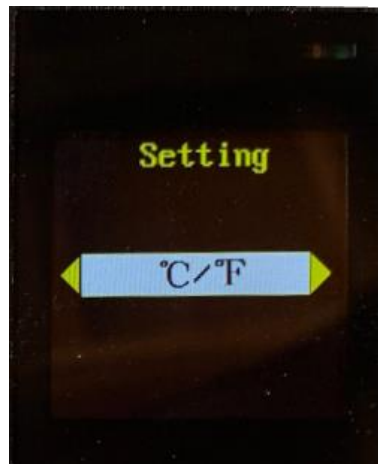
Allows you to activate or remove the vibration of the reader each time a tag is read



ON /OFF

6/°C/°F

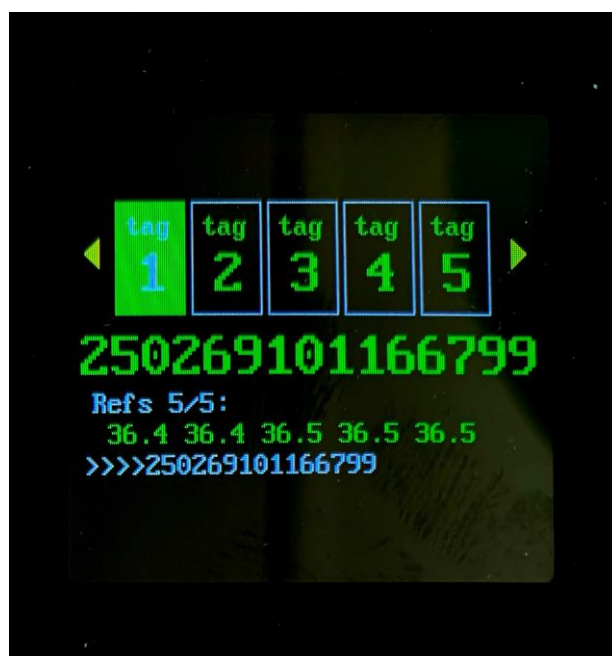
Permet d'afficher la température en °Centigrade ou °Fahrenheit



OF YOUR CHOICE

7/ Temp REF

This function, if activated by pressing SET, allows you to record the Reference Temperature.



We can see that for chip 250269101166799 five temperatures were recorded by the reader which will take the average and display it as a reference temperature the next time this chip is read.

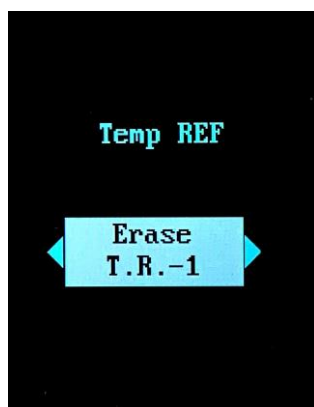
The reference temperature of five chips can be recorded by the reader.

All Thermal chips on the market never give exactly the rectal temperature because in most cases they are placed subcutaneously.

It is therefore very important to have a reference temperature which that taken from healthy animals, at rest and in a neutral atmosphere (16 to 20°C). To optimize this temperature measurement we recommend, after selecting one of the 5 reference temperatures proposed by the reader, to take the temperature five times in a row. The reader will take an average of these five temperatures, and each time the animal's chip is read it will display the current temperature as well as the reference temperature.

It is possible to record the Reference Temperature of five different animals.

It is also possible to delete reference temperatures that have been recorded by activating the function offered by the function Erase T.R 1, Erase TR2, ...



8/ Equine

The chips used to identify horses are placed in the muscle mass to better reflect the temperature of the animal. The reader has a function which, if activated, corrects the temperature read and gives a temperature very close to the rectal temperature.



ON /OFF

9/ HDX +

The RT600PRO reader is capable of reading several multi-chip standards.

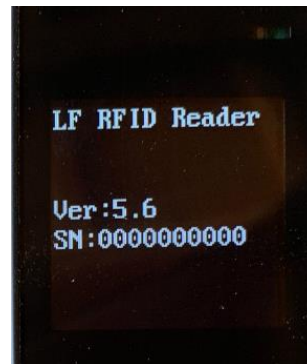
The HDX + option only allows reading of HDX chips, which increases the reading distance of HDX chips by approximately 30%. It is incompatible with reading FDXB chips.



ON /OFF

10/ About

Shows the program version.



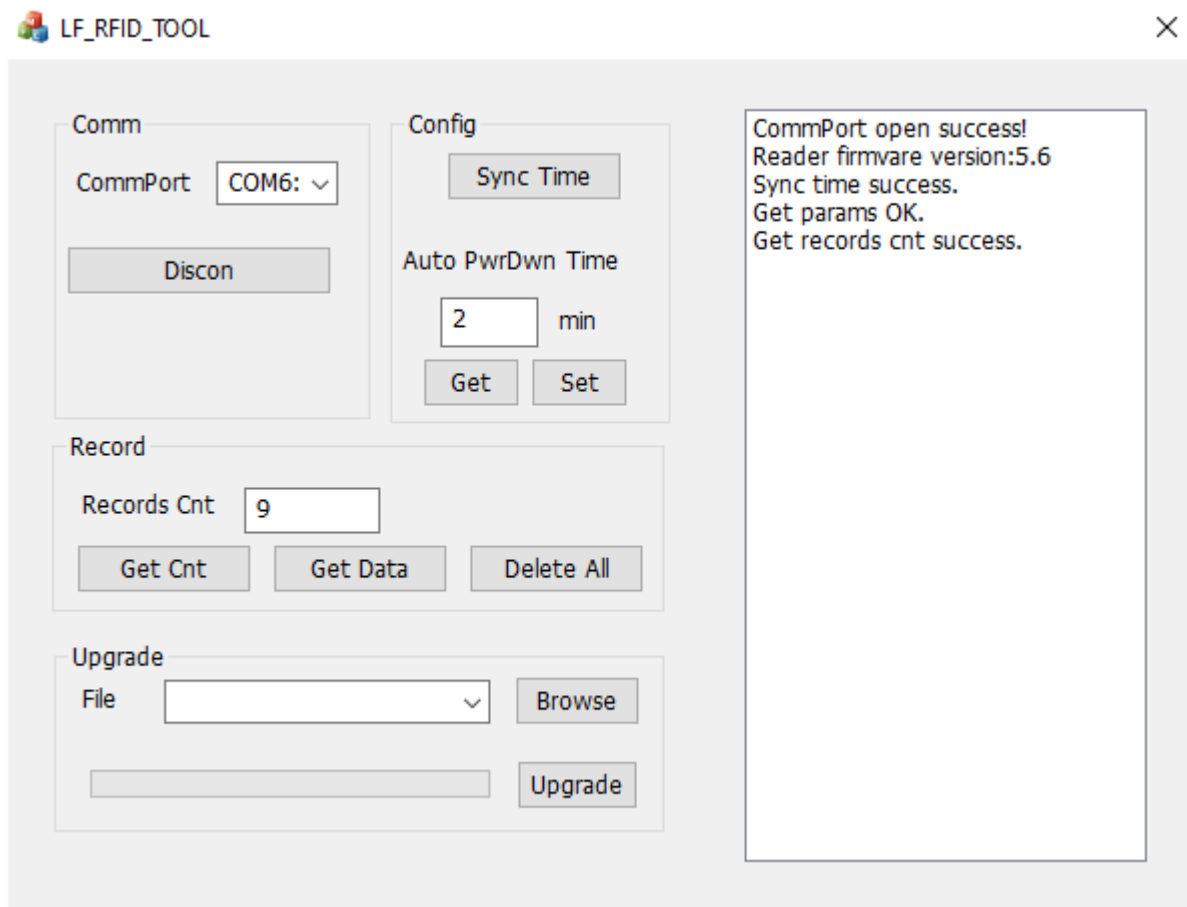
Chapter IV – RT600PRO Tools

The RT600PRO reader benefits from the latest technologies. The RT600PRO can be reprogrammed by the user by connecting it to a PC via the USB port.

To do this, the user can obtain the LF_RFID_Tool RT600PRO software tool from Atria as well as the latest version of the program.

This tool also allows you to set the reader's time, the duration before auto shutdown and recover the lists of chips read and recorded in the reader.

How to use the LF_RFID_TOOL



The LF RFID TOOL allows:

First, connect the reader to your PC with the USB cable, switch on the reader and choose the USB port.

- update the date and time (that of the PC). “Sync time”***
- modify the duration before the reader automatically turns off. “Auto PwrDwn Time”***
- to know the quantity and recover the Data recorded in the reader's memory “Record Cnt” .csv***

```
INDEX,TYPE,COUNTRY ID,TID,TIME
1,FDXB,419,116762740295,2025-06-04 10:36:25
2,FDXB,250,269101166799,2025-06-04 10:36:29
3,FDXB,528,150004407802,2025-06-04 10:36:34
4,FDXB,871,094740964602,2025-06-04 10:36:38
5,FDXB,999,020180201003,2025-06-12 16:45:39
6,FDXB,939,000001375552,2025-06-12 16:45:51
7,FDXB,250,269101166799,2025-06-12 16:45:58
8,FDXB,528,150004407802,2025-06-12 16:46:04
9,HDX,999,00000000009,2025-06-12 16:46:09
```

- to erase the memory of the reader.***
- to update the reader program.***

The LF RFID TOOL is available on the <https://www.realtrace.com>

Chapter IV – Battery replacement.

It is advisable to entrust this work to the distributor.

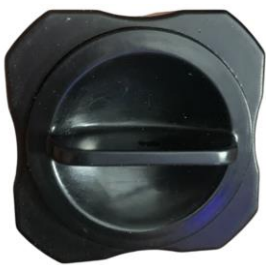
1/ Open the lower part of the reader by unscrewing the large screw.

2/ Using a small screwdriver, remove the two small screws that secure the battery module to the reader.

3/ Gently pull the battery module to disconnect it, carefully observing its position.

4 /Introduce the new battery module in the same position as the one that was removed, then push lightly. If the module has taken its place and is properly connected, the reader can be turned on.

5/ Replace the two small screws.



1



2



3