RT11BTT

Battery charge indicator

Display
128×64 pixels

In/out button (1)

Scroll right (3)

Scroll left (2)

Validation Button(4)

LED blue   Bluetooth
LED red   Battery charging
LED green   Battery charged

Mini USB
Charge battery
USB port transmission

10:30 2023/10/12

Scan

Sommaire

Features

| Working fréquency	134.2kHz Read and write ISO 14223
Protocole	ISO11784/5 FDX-A, FDX-B, HDX, Chip Temperature WDT 1 et 2
Reading range glasstag	≥FDXB 12/14 cm（12mm×2mm, glass tag）, FDXA 8/10cm
Ear tag	≥HDX 25cm FDX B 24/25cm
Display	TFT graphique, couleur, 1.54 inch, Pixel 240*240
Button	4 boutons
Indicators	Battery charging, Bluetooth . Buzzer, Temperature
USB port	USB
Power supply	Lithium battery，1500mAh，3.7V
Electricity consumption	400mA Max
Size	167 x 37 x 20 mm
Weight	105g
Mode de chargement	Mini USB
Accessories	Mini USB câble, Manuel utilisateur, Battery.
Résistance	IP54 , Anti-choc against 1 meter height free fall
Operating temperature	-20°+70°
Certification	FCC, CE, RoHS
Memory storage	30 000 lines (Time+tag ID codes). Extensible by customer's request.

"Reading"menu
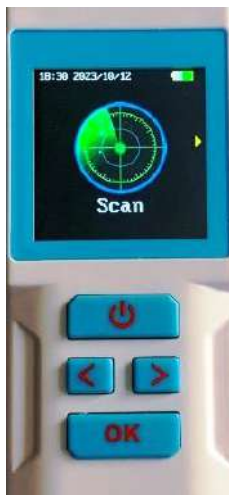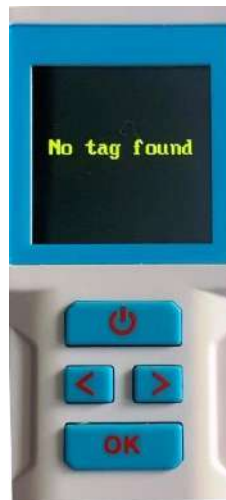
1   2   3   4

Reading an FDXB ISO chip without temperature information shows:

1/ Pressing OK triggers playback for approximately 20 seconds.

2/ During reading this message is displayed.

3/ If no chip is detected this message is displayed;

4/ If a chip has been found, the type of chip is displayed (FDXB, iFDXB, HDX) as well as its number.

Without Reference Temperature recorded   With Reference Temperature recorded

When reading a WDT1 thermal chip the display shows:

1/ The type of "Chip": FDX B in this case,

2/ The ISO number of the "chip" (15 digits):

   250 26 91 01166773. France (250,) Domestic carnivore (26), Manufacturer code Atria (91)

3/ The temperature of the animal: 36.5°C (temperatures displayed between 30°C and 52°C)

4/ The difference with the Reference Temperature of the animal is + 0.3°C if this has been recorded.

To record a reference temperature, the owner or veterinarian must go to the "Ref.Temp" menu, select "Set" then select 1 and read the chip five times. At the fifth reading the reader will automatically average the temperatures read. This average will be the Reference Temperature (RT) for subsequent temperature measurements. It is possible to record five reference temperatures from five different animals.

"Continuous reading"

1	2

1/ Pressing OK triggers continuous reading.

2/ In order not to disrupt continuous reading, the display shows >>>>>>> for the entire duration of reading, interspersing the numbers read. If Memory has been activated all numbers will be saved and viewable. You can stop reading by pressing .
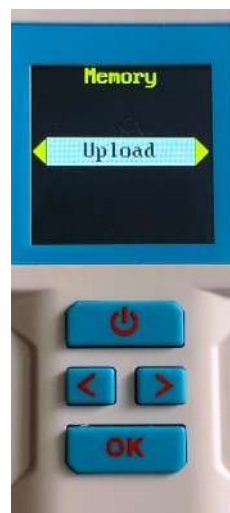
"Memory"

1	2	3	4

1/ To enter the Memory function you must confirm with OK.

2/ Pressing OK allows you to view the records of the numbers read and the date of the recording.

3/ Pressing OK allows you to transmit the list of recordings and dates to a device by cable or Bluetooth.

4/ Pressing OK clears the list of recordings made.

"Setting"

Press the OK button then successive presses on the right arrow to access the submenus:
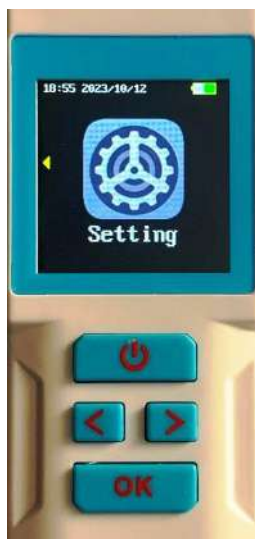
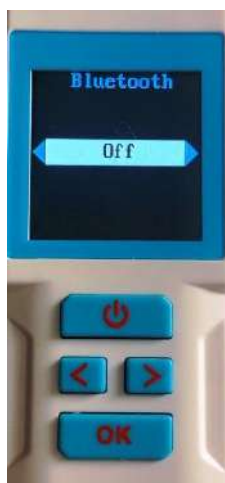| |
|---|
| Bluetooth |
| Languages |
| Beep |
| DEC/HEX |
| C°/F |
| Ref.Temp |
| Equines |
| Version |

"Bluetooth"

1	2	3	4

Validations are made by pressing OK. Returning to the previous menu is always done by pressing

The reader uses BLE (BT4) mode as well as HID "Human Interface Device" (HID) mode. It is capable of receiving data through an input device and returns the received information back through an output device.

To access the choice of languages you must confirm with OK.

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

The selection is made after displaying the desired language by pressing the OK key.

"DEC / HEX"

This function allows the chip number to be displayed in decimal or hexadecimal. FDXA chip numbers (10 characters) may contain letters. They are therefore always displayed in Hexadecimal.

"Beep"
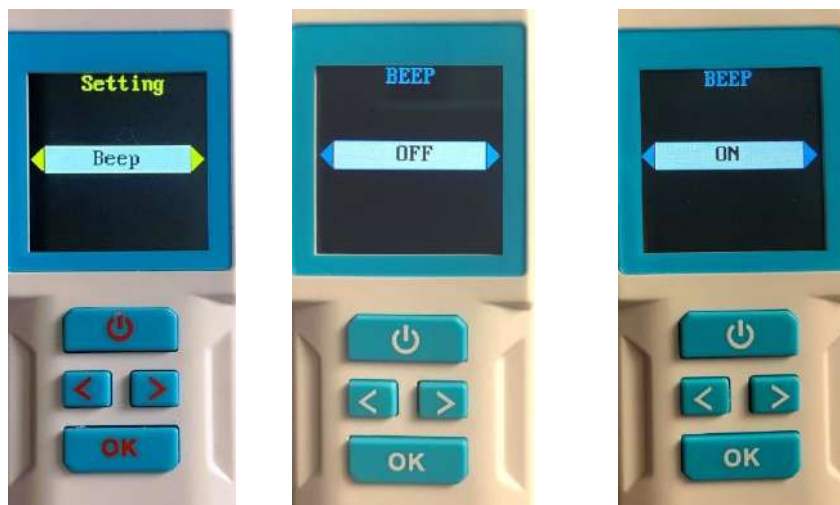
In some cases, in order not to frighten the animal, it may be necessary to suppress the "beep" emitted at each reading.

"C° / F"

This function allows you to choose the display of the temperature transmitted by the "chip" in centigrade or Fahrenheit.

"Ref.Temp."

Some chips have a biosensor intended to evaluate the temperature of the environment in which they are integrated. This is the case for Atria's WDT1 and WDT2 chips. The use of these "chips" makes it possible in the majority of cases to avoid taking a rectal temperature, which is always synonymous with stress for the animal.

These "Chip" do not give the rectal temperature of the animal except for equines. The implantation of the "chip" in equines is carried out intramuscularly and therefore deeply and therefore more accurately reflects the temperature of the animal.

As for domestic carnivores, the chip is injected subcutaneously. It is therefore very sensitive to the external environment and moreover the temperature varies depending on the breed. This is why the reader has a "Reference Temperature" function.

The use of the chip allows immediate, repeated, non-invasive measurements which allow monitoring of the animal. Any significant and continuous variation in temperature should draw the owner's attention to the state of health of their animal and encourage them to consult their veterinarian.

In order to facilitate the analysis of the temperature displayed by the Realtrace readers, they automatically determine and memorize a so-called "Reference Temperature" which will allow comparison with subsequent temperature measurements.

Memorizing a single temperature measurement is not sufficient to be certain of having the correct "Reference Temperature". This is why we recommend taking five temperatures. After having carried out these five initial readings of the "Chip" by validating the "Set" submenu, the reader will automatically calculate the average of the five temperatures read and record it in its memory as a reference temperature (TR).

Although obvious, it is necessary to remember that the animal's temperature depends on factors such as its state of health, ambient temperature and physical effort. In order to have the most accurate Reference Temperature measurement possible, it will be carried out by the veterinarian or by the owner on a healthy animal, in a neutral atmosphere, i.e. approximately 18 to 23°C and at rest.

Each new temperature measurement will be compared to the Reference Temperature stored by the reader. The result will be displayed showing the temperature difference using a colored pictogram (see "Reading" Menu).

The initial measurements of the five temperatures necessary to determine the Reference Temperature can be successive

or spread over several days (recommended for equines). Registration is automatic. In all cases it will be the average of the five temperature measurements which will serve as a reference. At any time, the reader will allow the reference temperature(s) to be reset if necessary by activating the "Clr REF-1 or 2, 3, 4, 5" function.

It is possible to memorize the reference temperature of five animals. These reference temperatures are automatically associated with animal identification numbers for the WDT1 ISO 11784 chip.

<div style="border:1px solid black; text-align:center;">

"Reference Temperature" submenus

</div>

Fig 1

Fig 2

Fig 3

Fig 4

The different submenus of the "Ref.Temp" menu allow:

1/ "Set" provides access to the function which allows one to five Reference Temperatures to be recorded (Fig 3)

3/ to selectively erase the reference temperatures one by one (Fig 2)

4/ to visualize the reference temperatures for each animal (Fig 3 and 4)

Temperatures are displayed if they are between 30°C and 52°C.

« Equines »

The Atria "chip" has a biosensor intended to evaluate the temperature of the environment in which it is integrated. If the use of this "chip" makes it possible to avoid taking rectal temperatures, which is always synonymous with stress for the animal, it is not intended to replace it except for equines.

The implantation of the chip in domestic carnivores is done subcutaneously unlike the implantation in equines which is done intramuscularly. It is therefore much more sensitive to the outside temperature. Additionally, there are disparities in average temperatures between the many breeds of domestic carnivores. There is therefore reason to differentiate two cases:

Reading the temperature of all animals except equines.

No settings to make. The reader at each reading will display the temperature of the "Chip". If a reference temperature (see "Set" submenu) has been recorded for this animal, it will be displayed and compared to the temperature read. As explained previously, this temperature does not correspond to the rectal temperature.

Equine temperature reading.

In this case the operator must select "Equines" in the "Configuration" submenu. The temperature displayed will be similar to the rectal temperature.

Reading WDT2 Thermal chips

The RT11BTT reader can also read WTD2 chips.

The WDT2 thermal chip is not an identification chip. It is therefore not compatible with the ISO 11484 standard.

Its sole function is to transmit to the reader the temperature of the environment where it is located (Fig 1).

When reading the chip, the RT11BTT reader displays the temperature as well as the Reference Temperature if this has been previously recorded as indicated in the previous chapter "Temp.Ref" (Fig 1 and 2).

Temperatures are displayed if they are between 30°C and 52°C.

Fig 1

Fig 2

"Version »

For more than twenty years, the company Atria/Realtrace has continued to adapt to the evolution of technology.

The owner of the RT11BTT reader therefore has the possibility of updating the functions of his reader using the tools available to him on our website. The version of the program integrated into its reader can be consulted by selecting the "Version" menu.

PS: remember that the RT11BTT reader is compatible with the mobile phone program "Petscan", available on Play Store and App Store with the exception of writing additional information in the chip only possible with the V8BTT reader.

Tools for updating and customizing the RT11BTT

The RT11BTT is a reader communicating either via its USB port which is also used for charging the battery, or via Bluetooth (BLE and HID).

Updating programs if necessary only requires connecting to a PC. The new version of the program loaded from our website or received by email (Large files) can be activated after turning on and connecting the reader to the PC.
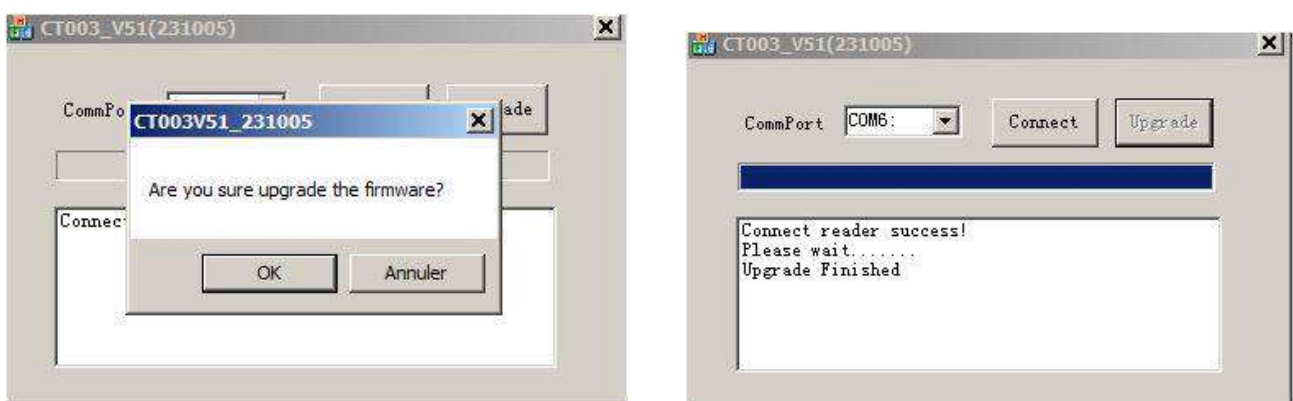
Program update

Selecting the program on the PC will bring up the following screens:
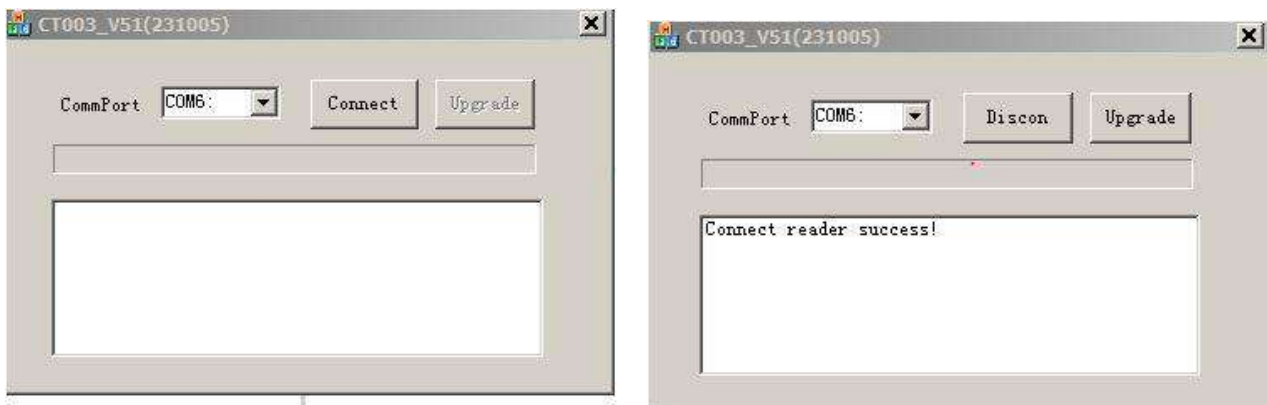
Scroll through the list of communication ports to select the one your reader is connected to.
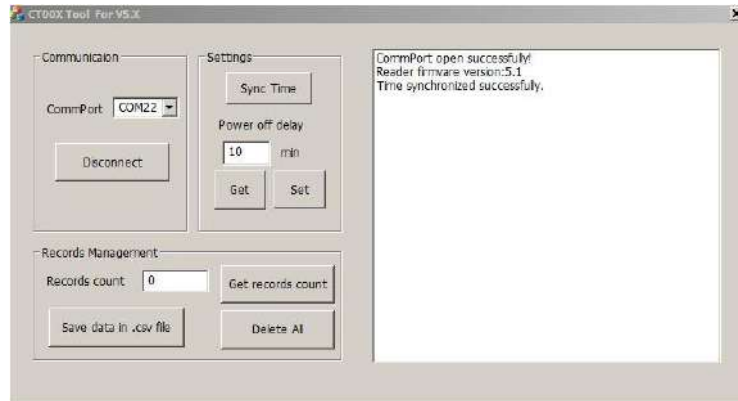
Select "Connect" then "Upgrade"

A blue bar shows the progress of recording the new program.

Program customization

The RT11BTT reader has a calendar clock. It is updated using the information provided by the PC to which it will be connected after selecting "Sync Time".


To save battery power it may be necessary to adjust the auto power off time setting.
In the same way as for updating the time, you must first select the port to which the reader is connected, then enter the desired duration before auto-off and select "Set".
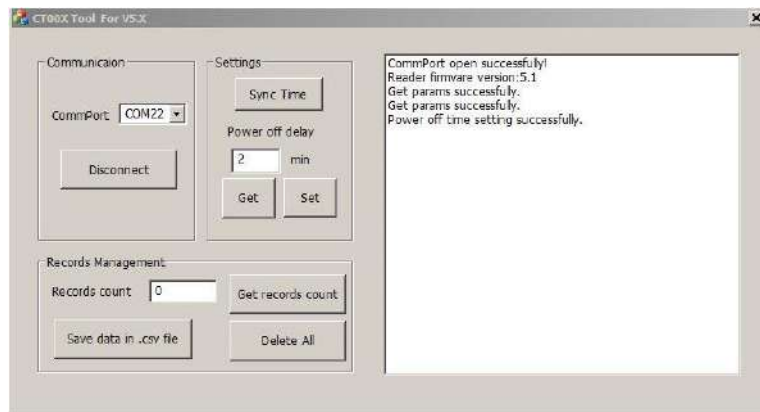
The RT11BTT offers the possibility, by activating the "Memory" function, to record several thousand identifier numbers associated with the date and time. These recordings can be transferred to a PC in .csv format or to a phone or deleted.
To consult the number of records stored by the reader, select "Get records count". To transmit them to a PC select "Save data in .CSV file" and to delete them "Delete All".
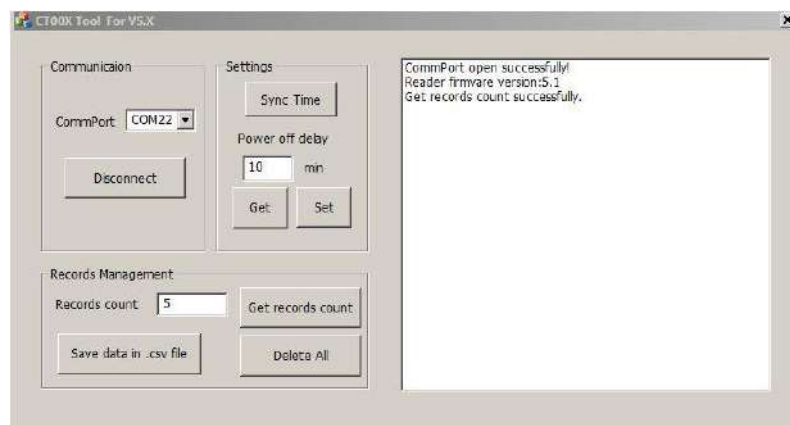
« PetScan »: Android and iOS mobile Application.

The "PetScan" application AppStore and Playstore can be used with the RT11BTT after activating the reader's Bluetooth function. The RT11BTT is delivered with a "Time out" function (2 mins) activated for power-saving reasons. It is advisable to modify the time out setting and increase it to 30 minutes or more. If you do not do this, you risk having the reader turn off before a connecting has been made to the phone.

To change the duration of the "Time out", it is necessary to connect the reader to your PC after having loaded the utility program as explained in the previous chapter.

The RT11BTT allows you to transmit to a telephone via Bluetooth the identification number of the chip read by the reader as well as the additional data written in the chip if it has been personalized.

A version of "PetScan" allowing temperature transmission is being studied.

Which phones are supported?

Normally, all iOS phones (Apple) and "Android". If you wish to buy a phone intended for your needs, we recommend choosing a phone with a minimum of 12 GB of built-in memory. If you wish to incorporate your database into your phone, we advise you to choose a model that supports additional memory (SD card).

To benefit from all the services offered by these readers, it is necessary for the phone to have Bluetooth, WiFi and integrated GPS localisation.

You have to log into "Play Store" or "Apple Store" and download the "PetScan" program onto your phone before installation. A "PetScan" icon will appear on your phone's screen after installation is complete.

How do I get the free PetScan's software?

You have to log into "Play Store" or "Apple Store" and download the "PetScan" program onto your phone before installation. A "PetScan" icon will appear on your phone's screen after installation is complete.

How much does it cost?

Using the program is free since you only use Bluetooth communication between the reader and your phone, and possibly WiFi between your phone and your Box.

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