URTiME
TIMING SYSTEMS

USER MANUAL

URTIME 800

PRODUCT CODE: URT800

Contents:

1 Presentation and characteristics of URTIME 4
2 Elements of URTIME 800 5
2.1 URTIME controller 5
2.2 Auxiliary: satellite connector 6
2.3 Auxiliary: active 6
3 Use the URTIME controller 6
3.1 Time menu 7
3.1.1 Clock 7
3.1.2 Timers 7
3.2 Navigation 8
3.3 Quick settings 8
3.3.1 Reset and Mark 8
3.3.2 Filename 8
3.3.3 Shortcuts 8
3.4 Connection bar 8
3.5 More information 9
3.5.1 Battery 9
3.5.2 Filters 9
3.5.3 Reader status 9
4 Settings: Reader 10
4.1.1 Test of antennas 10
4.1.2 Reset and start a new stopwatch 11
4.2 Export output files 11
4.3 Turn off device 11
5 Look deeper in the menus 12
5.1 Running mode 12
5.2 Output file 13
5.3 Time between same chip (TBSC) 14
5.4 Buzzer 14
5.5 Filter 15
6 Networking 16
6.1 Ethernet 16

6.1.1 Connection with RJ45 cable 16
6.2 GSM 17
6.3 Iridium 18
6.4 uRLive 19
7 Computer configuration 20
7.1 Change IP address on your PC 20
7.2 VNC Viewer 22
7.2.1 Export Tags list on your computer 23
7.3 USB connector 24
8 Maintenance and update 25
8.1 Update system 25
8.2 Licence 26
8.3 Frequencies of maintenance 26

1 Presentation and characteristics of URTIME

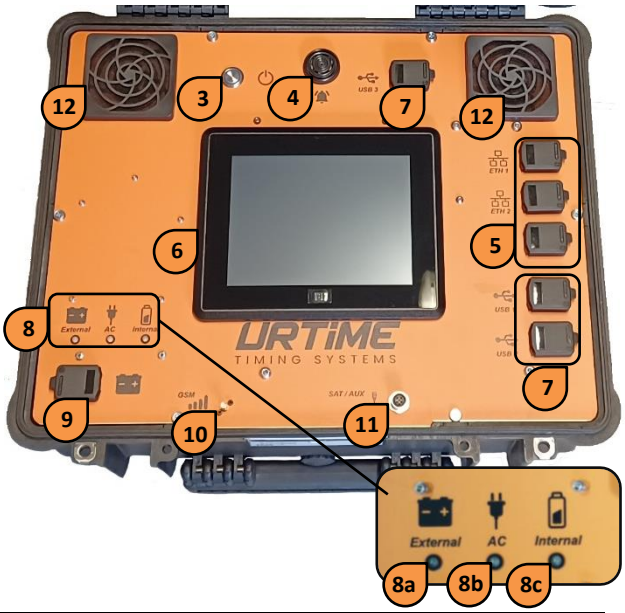
The system URTIME 800 is a portable system. It is used for outdoor races to automatically record the time of each runner. It works with passive tags. These tags are identified by radiofrequencies when the runner passes the antennas. The system keeps the time and the tag number to send it on a server or application.

This section refers to the DATASHEET.

General Information	
Decoder weight	15 kg
Decoder dimensions	53 x 46 x 23 cm
RFID	8 * RTNC to BNC ETSI: 865-868 MHz FCC: 902-928 MHz
Accessories	Power cord CEI C13 to VNEU 16S3 Ethernet cable Cat5e 10 meters External battery cable: NL2-FX to Alligator clip
Features	
Screen	8" Capacitive Touchscreen
Computer	Processor: 2 GHz – 4 cores & SSD of 64Go mSATA
Ethernet	3 Ethernet ports CAT 5e - Gigabit 1000 Base-T
USB	3 USB ports (Keyboard, Thumb drive, etc) - Can be used to power device (5V)
Buzzer	Warning/Beep when detected (~97dB)
Satellite	Satellite via 4 wires M12 connector - Iridium Satellite 9603N
LTE, 4G/3G Module	
EG25-G LTE Cat 4 module	Worldwide LTE, UMTS/HSPA (+) - GSM/GPRS/EDGE
Antenna	External SMA connector - External antenna from 2G to 4G
SIM card	Worldwide purpose
Power & Battery	
Battery Li-ion (Lithium-ion) UN3481: PI967 Section II – Dangerous Goods	14.4V – 30.6Ah protected - Weight: 2kg
AC power supply	85 - 260V 48 - 62Hz Connector CEI male
DC power supply	DC IN: 6 – 36V ~ 3A - Connector: NL2-FX
Lifetime	Passive: 8h (typ)

2 Elements of URTIME 800

2.1 URTIME controller



Schematic number	Name	Purpose/Description
1	**A1**, **A2**, **A3**, **A4** **B1**, **B2**, **B3**, **B4**	Reader's connectors. There are two readers: **reader A** (up) and **reader B** (down).
2	AC power 230V	Internal battery charging with AC source 230V.
3	ON/OFF button	Power up and down the URTIME controller.
4	Beeper	Audible signal.
5	ETH 1, ETH 2, ETH 3	Ethernet port (switch internal).
6	Touchscreen	Easily read information and navigate menus.
7	USB 1, USB 2, USB 3	Connector for external devices and USB flash drive.
8a	LED for external battery	Turns green when an external battery is connected.
8b	LED for AC power	Turns green when the URTIME is connected to an AC power source.
8c	LED for internal battery	Turns red when the internal battery level is low. Turns green when the battery is fully charged.
9	DC external battery	Input to an external battery DC.
10	GSM	Synchronize the time of URTIME.
11	Auxiliary	Use for an external device like SAT or Loopcase.
12	Fan	Avoid the overheated of the electrical components.

⚠ CAUTION: Do not close the case when the system is running and do not force the closure of the case.

⚠ CAUTION: This device can be used under the rain with the lid closed. But do not immerse it.

2.2 Auxiliary: satellite connector

With the satellite option, you don't need any **GSM** network coverage to send your data.

⚠ CAUTION: The device needs clear view of the sky to communicate by satellite

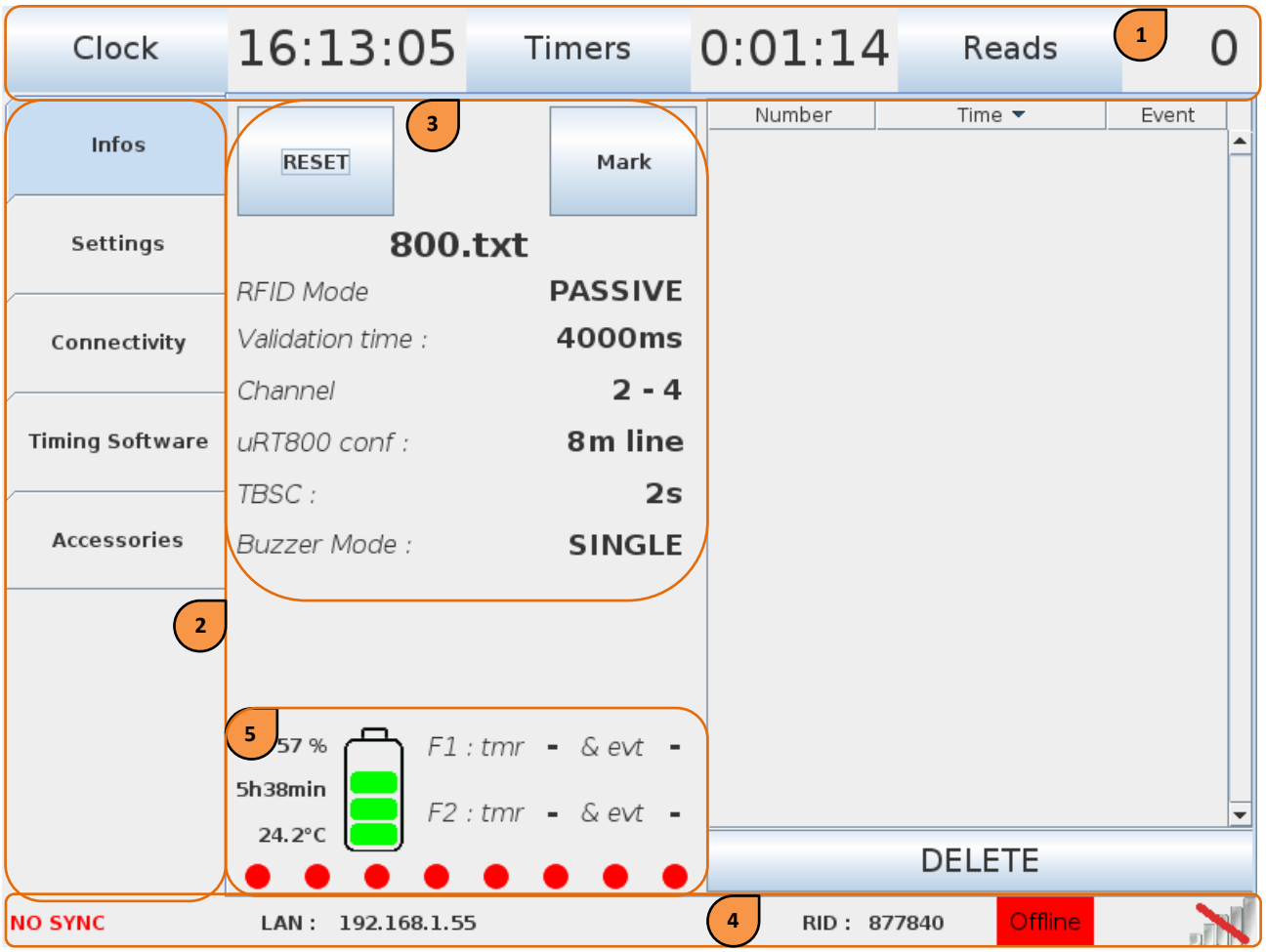
2.3 Auxiliary: active

With the Active option, you can use our active timing solution (**Loopcase**). Please read the LOOPCASE QUICK START GUIDE of the Loopcase Section.

3 Use the URTIME controller

Press ON/OFF button until the first beep. Wait until the URTIME Software is ready.

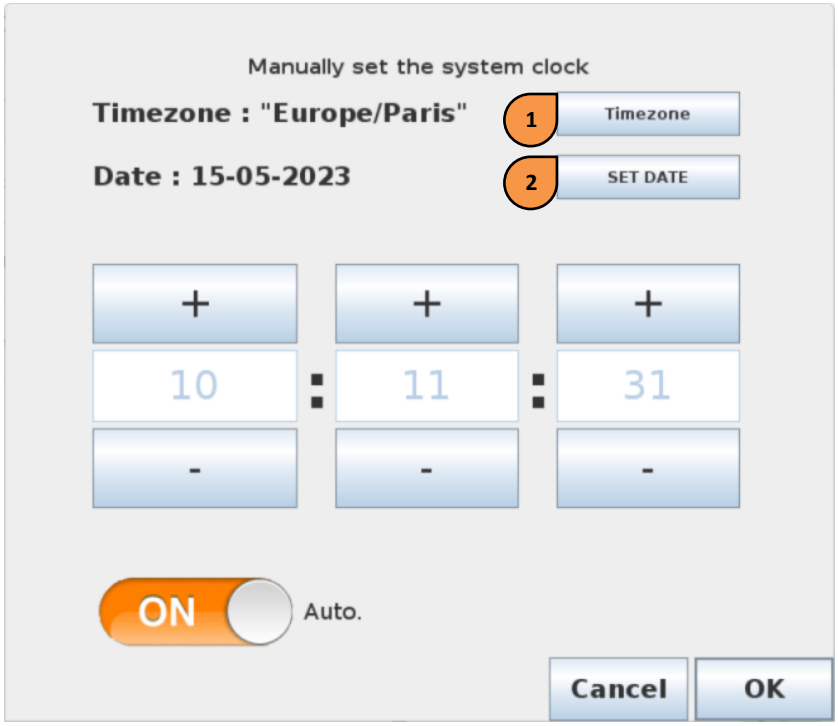
You will hear a second **beep**, it means the system is ready to use. Then Homepage appears.



3.1 Time menu

3.1.1 Clock

Click on Clock and adjust the time and the time zone.



This window appears, then you can set the Timezone using the first button.

Auto ON: the system uses 3G or Lan internet connection to synchronize using NTP protocol.

Auto OFF: You can set the time and date using the SET DATE button.

> ⚠ CAUTION: Timezone is very important, because it manages summertime changes. It is also used to synchronize the time with internet.

3.1.2 Timers

Click on Timers and adjust the gun time of the race.

Using the pencil on the bottom right corner you can change the Gun Time of your race.

3.2 Navigation

By clicking on a **tab**, you can **navigate** to another page.

3.3 Quick settings

3.3.1 Reset and Mark

By clicking **reset** you will **reset the race**, the gun time and the detection.

You can add a new detection by clicking on the **mark** button.

You can **choose**:

- **MARK NOW**: the tag will be registered like it was passed at the same time you clicked *confirm*.
- **USE MARKED TIME**: change the time at the stopwatch and click. The tag will be registered like it passed at the time you opened the *mark* /or adjusted.

3.3.2 Filename

Click on **filename** to **recreate** a **new file** for your race. It will change the file name only.

3.3.3 Shortcuts

By clicking on the information in bold, you will have the possibility to move to the configuration page.

This way, you can set up your device quickly.

3.4 Connection bar

At the bottom, you will have all the information about connectivity, such as **LAN** or **GSM**/**SAT**. You will also find the last sync of the clock and a wrench that is a simple reminder to let you know that no maintenance was done on your device for over a year.

Last synchronisation time

3.5 More information

3.5.1 Battery

You will find the information about the battery in percentage.

The internal battery of the URTIME 800 is **self-sufficient** for **9 hours** (typ). Make sure your device is charged enough before the race. Especially when working without AC power.

When the battery light becomes red, you must connect the box:

- on external battery. (External battery doesn't charge the internal battery.)

Example: the characteristics of an external battery are 40 Ah x 12V ➔ 480 WH and URTIME power = 60W
Therefore the external battery will be useful for 480/60=8h

- or on AC power.

To charge the internal battery, you must connect the box to the AC power. Connect the box to an external battery does not charge the internal battery. A complete **charge** lasts around **8 hours**. The charge is slower if the system is running.

> ⚠ CAUTION: Do not leave the device more than two months without charging the battery to avoid battery damage.

3.5.2 Filters

You can **change** and **see** the configured **filters** applied in the device.

3.5.3 Reader status

The red circle is the status of the connexion with the antenna for each port (**A1** to **B4**), if they turn green, the connection is good.

4 Settings: Reader

Click on **Settings**, then **Reader**. Each reader has its own frequency. To change channel, click on the pencil.

⚠ CAUTION: Each reader must be calibrated on different channels. For example, reader A (**A1**, **A2**, **A3**, **A4**) on channel 1 and reader B (**B1**, **B2**, **B3**, **B4**) on channel 3.

⚠ This is valid for all the boxes within a radius of 10m. Please read the TECHNICAL RECOMMENDATION document for further advice.

4.1.1 Test of antennas

Reader section can be used to check that all antennas are functional.

Walk past each antenna mat with a tag and check that the figures for each port are increase in a similar way. Click on the detection numbers to reset.

4.1.2 Reset and start a new stopwatch

When you are ready (URTIME checked and tested) click **Infos.**

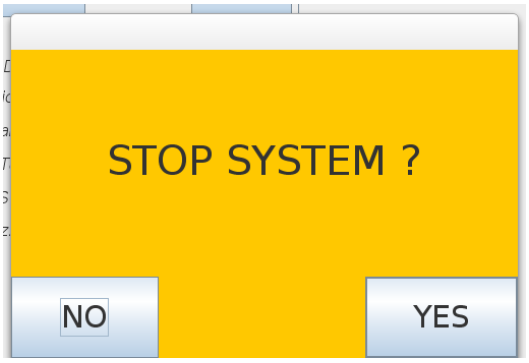
Click **RESET** to clean the output file, the timer, and the counter. Click **Yes**. You can now begin the race.

4.2 Export output files

At the end of the race, export output files on your computer. Via USB port with a USB flash drive or via ethernet port with internet connection or via satellite.

4.3 Turn off device

To turn off your decoder, press the ON/OFF button until it beeps. Click **Yes** and wait for it to shut down.



5 Look deeper in the menus

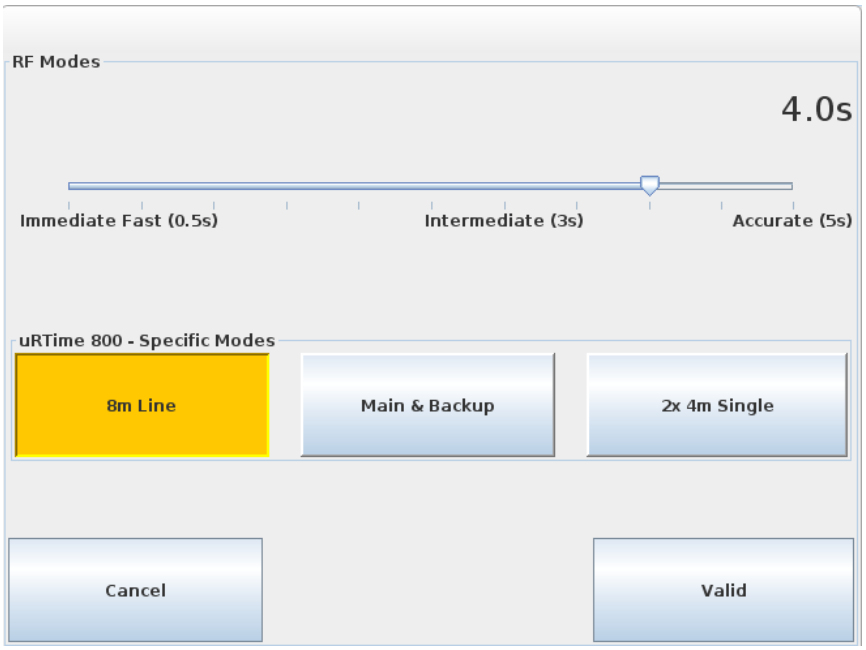
5.1 Running mode

Click on **Settings**, then **Running mode** to choose the **Specific mode** you need.

There are 3 modes available:

- 8m line for 1 line with 1 device.
- Main & Backup for 2 lines with 1 device, the detections from reader A are prioritize over the detections from reader B.
- 2x 4m Single for 2 simple lines with 1 device but not consecutive. This generates 2 separate detection files. This can be used for a double checkpoint for example.

This mode depends on how you install the antennas.



Click on **Valid** to apply the mode you chose.

5.2 Output file

Click on **Settings**, then **Output file**.

1: Click on « **Filename** » to change the name of the file with the one you want.

Set the name of the file: keep existing file and create a new with new file name

2: Recreate the file from the database.

3: File ID.

4: Keep tags in chronological order (also in case of manual entry). Forced off after 10k detections.

5: Find the format's list in the appendices, please read the Official detection file format for more information.

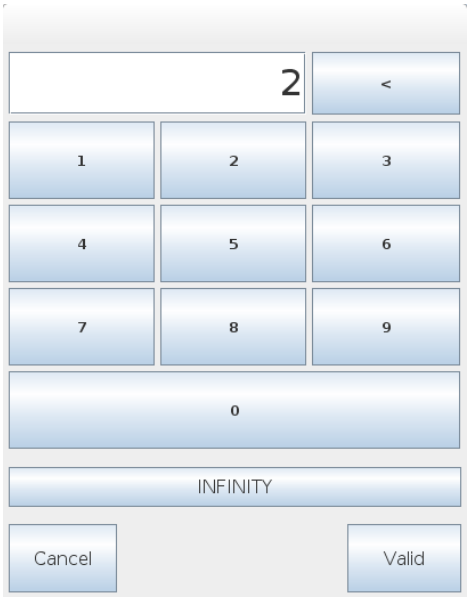
5.3 Time between same chip (TBSC)

Click on **Settings**, then **TBSC**.

This setting allows you to choose the minimal time between two recordings of a same tag in the output file.

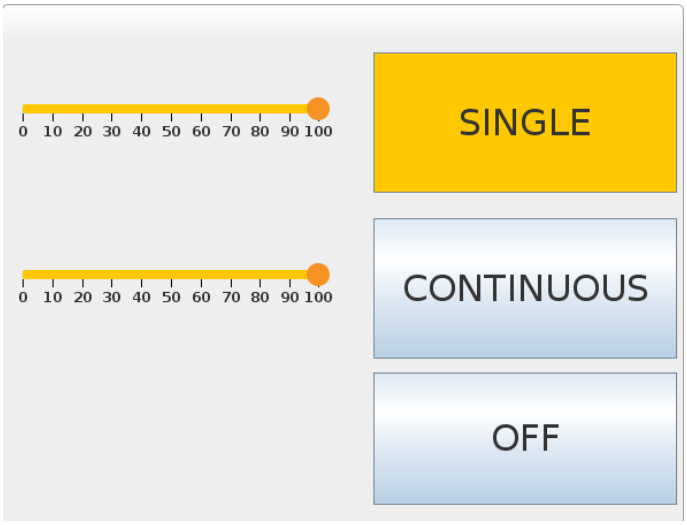
For lap races: adjust it according to minimum lap time.

INFINITY: The tag can be read just one time! When using this, make sure the tags are not read accidentally. Only the first detection is saved.



5.4 Buzzer

Click on **Settings**, then **Buzzer**. This function allows you to set the sound intensity and the mode.



The available modes are:

- SINGLE: the decoder produces a single signal per detection. For example, 4 runners → 4 beeps.

- CONTINUOUS: the decoder produces a tone as long as the tag is read.

- OFF: the decoder **does not produce** any **beep** but the **recording** is **saved**.

5.5 Filter

Click on **Settings**, then **Filter**.

There you can set filter and read only the tags you need.

You can also use 2 Event or Timer filters at the same time.

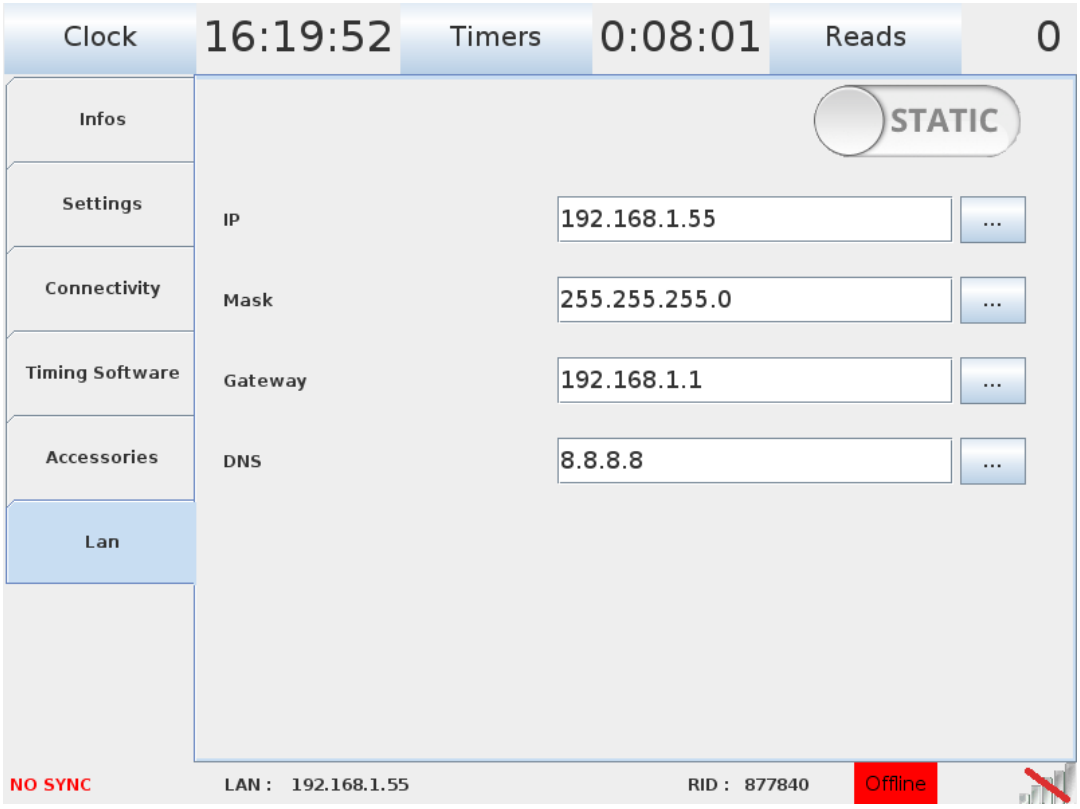
6 Networking

6.1 Ethernet

Click on **Connectivity**, then **Ethernet**.

Using the Ethernet tab, you can connect your system to your internet network.

Select Dynamic or Static IP address assignment with the toggle switch. In dynamic mode, the connection is a success when the green check mark appears at the bottom of the screen. Otherwise, you can use a static IP address to connect your computer with your device directly.



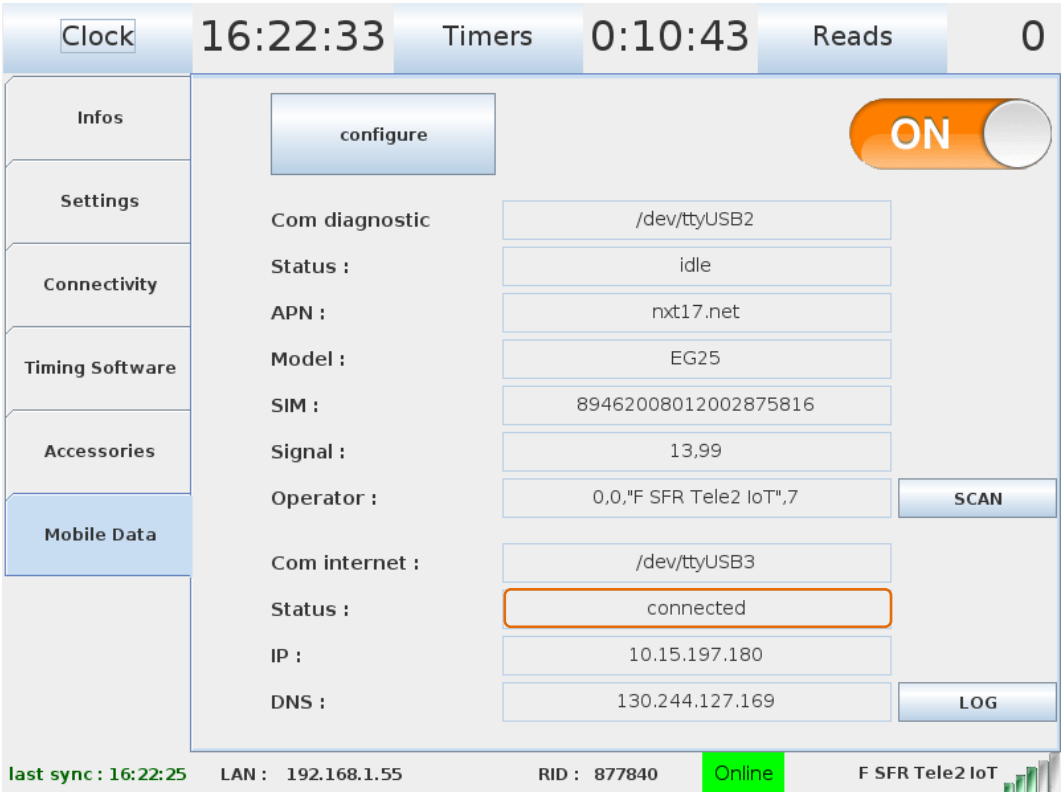
6.1.1 Connection with RJ45 cable

Connect your computer with **URTIME** via the RJ45 cable and ethernet ports.

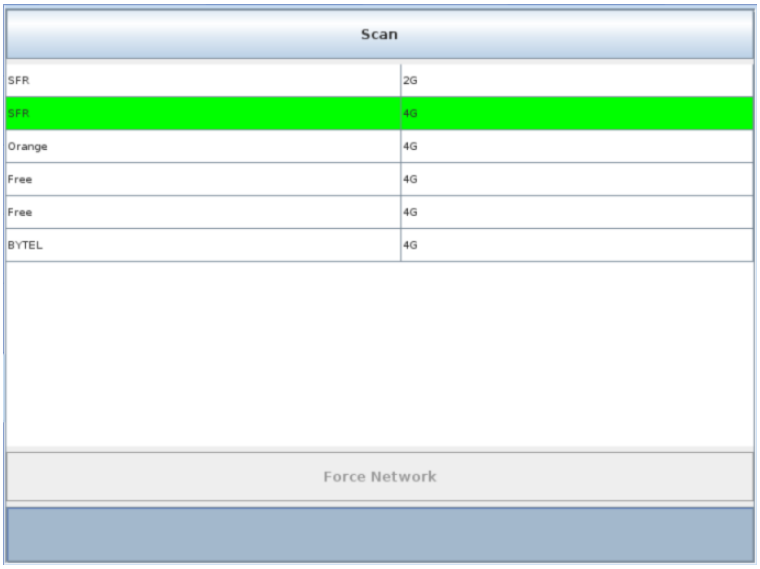
The ethernet port allows you to connect device to web platforms, to update system, or to export the tags list on text format.

6.2 GSM

Click on **Connectivity**, then **Mobile Data**. In this tab, you will be able to turn On/Off GSM. When the GSM starts, it set the communication with the module and find the best operator available. It tries to connect to internet, if the Status is **connected** and an IP Address is shown by the device, everything works fine.



⚠ CAUTION: Choose the appropriate APN in the configuration tab (nxt17.net or internetm2m.air.com) for URTIME sim cards.



Click on **SCAN** to find another network. Then **Force Network** it will check for another network and show you in this tab, you will be able to select an operator and you will also know which wireless phone network will be used.

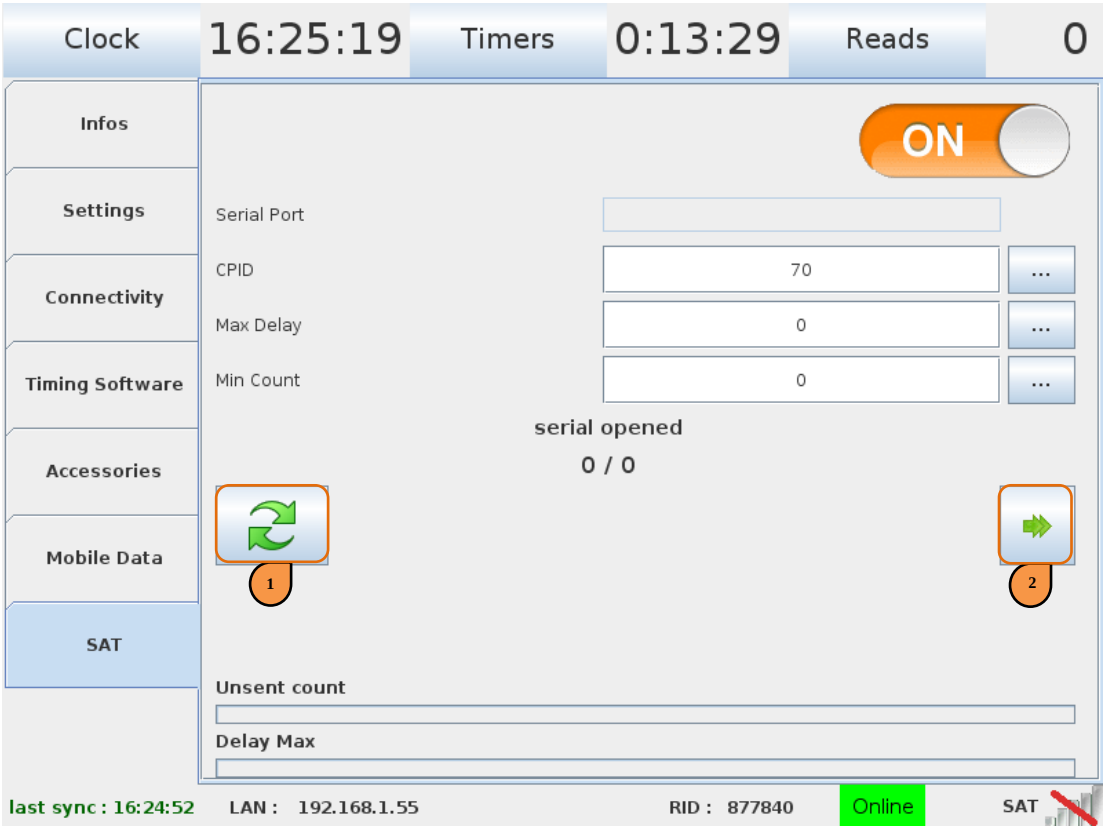
6.3 Iridium

Click on **Connectivity** , then **Satellite**. To use it, you need to plug a SAT module. When plugged, turn on the network. The CPID will be copied from the uRLive tab and after a few second, a serial port show.

The buttons are:

1: Rewind all (go to first)

2: Discard all (go to end)



⚠ CAUTION: The URTIME SAT module needs clear view on the sky to communicate by satellite

Max Delay is the time that it will wait until it tries to send data again.

Min Count is the number of detections before it sends them.

6.4 uRLive

Click on **Timing Software**, then **uRLive/Livetrail**. In this tab, you will be able to turn **On**/**Off uRLive**.

1: Choose where you want to send the detection (HTTP or LiveTrail for example)

2: Platform link

3: Port of the platform

4: Event ID

5: Checkpoint ID

6: Unused

7: Serial Number

8: Time waited to send data

9: Number of lines sent every time

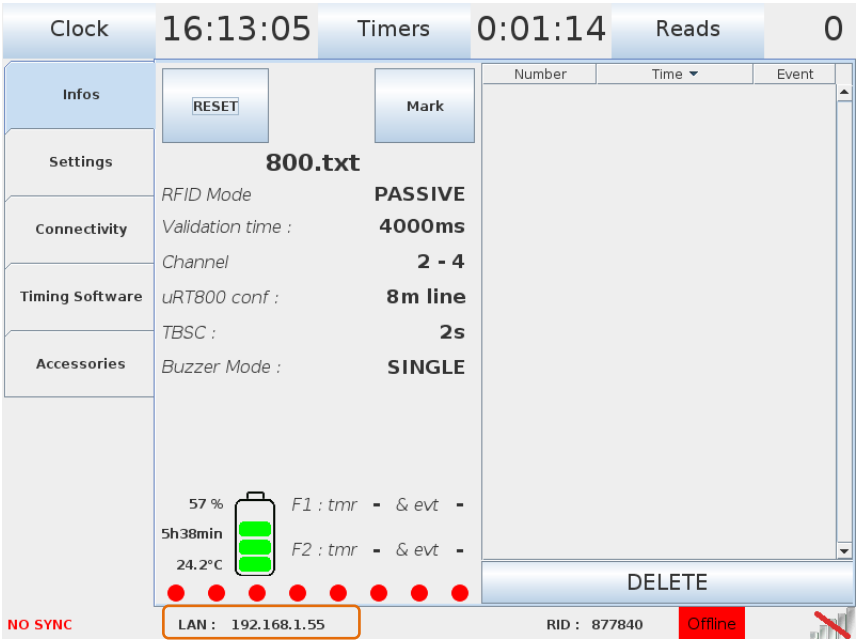
10: Rewind all (go to first)

11: Discard all (go to end)

7 Computer configuration

This section explains how you can connect your device to a computer using **Ethernet**.

Check the decoder's **IP address**.

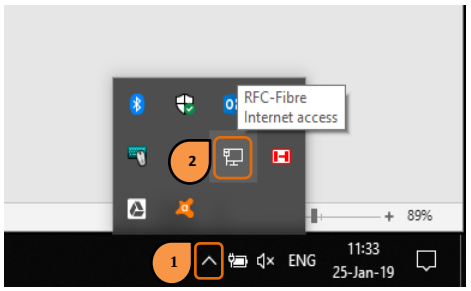


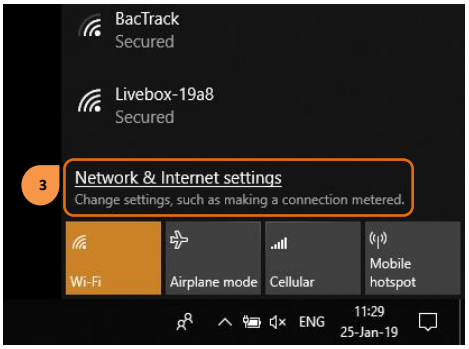
In this case the decoder's IP is 192.168.1.55.

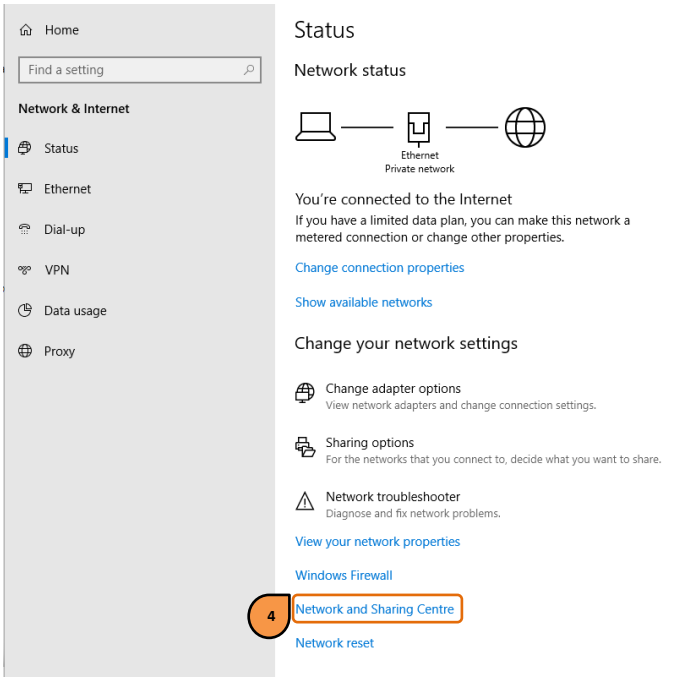
Your computer must be in the same subnet. On your computer, choose a manual IP address: the first 3 numbers of the IP must be the same: 192.168.1.XX (for example, 192.168.1.77)

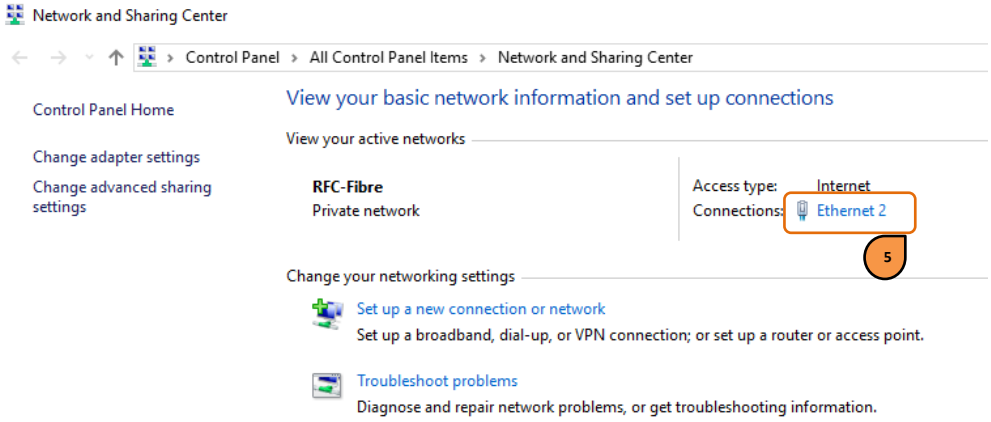
⚠ CAUTION: Don't use the same address twice on a network.

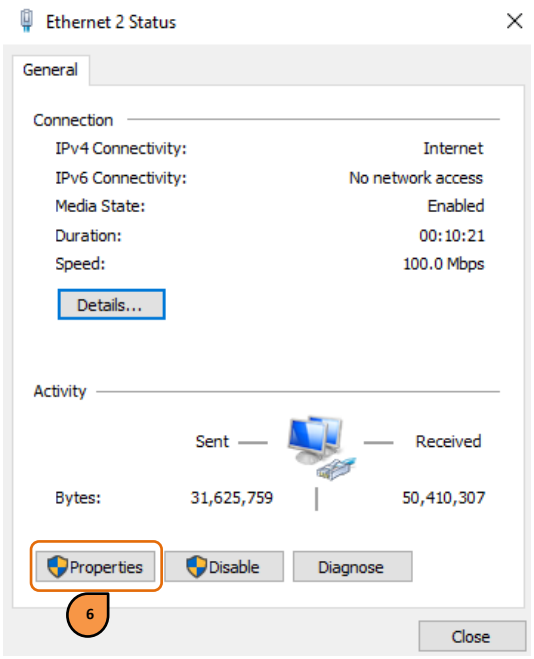
7.1 Change IP address on your PC

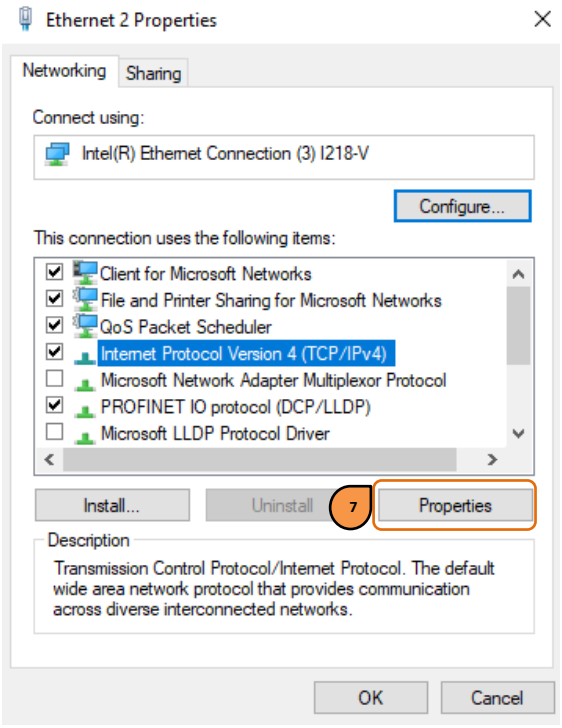


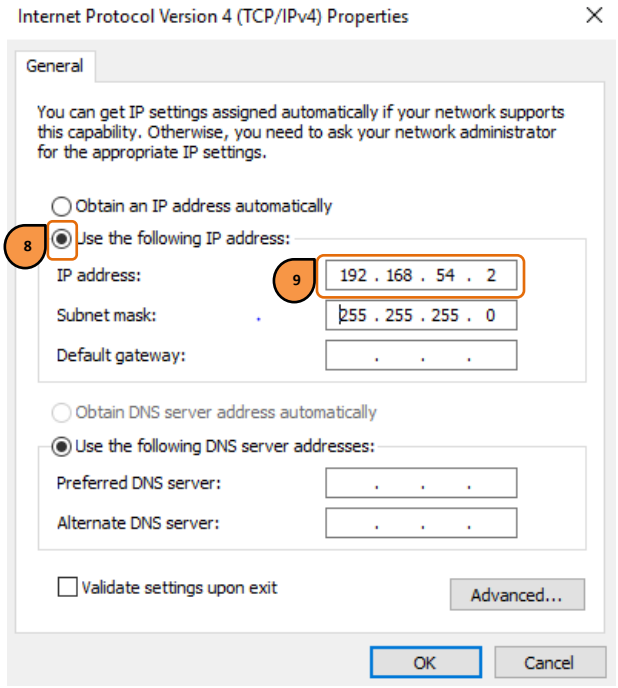



Home
Find a setting
Network & Internet
Status
Ethernet
Dial-up
VPN
Data usage
Proxy
Status
Network status
Ethernet
Private network
You're connected to the Internet
If you have a limited data plan, you can make this network a metered connection or change other properties.
Change connection properties
Show available networks
Change your network settings
Change adapter options
View network adapters and change connection settings.
Sharing options
For the networks that you connect to, decide what you want to share.
Network troubleshooter
Diagnose and fix network problems.
View your network properties
Windows Firewall
4
Network and Sharing Centre
Network reset


Network and Sharing Center
Control Panel › All Control Panel Items › Network and Sharing Center
Control Panel Home
Change adapter settings
Change advanced sharing settings
View your basic network information and set up connections
View your active networks
RFC-Fibre
Private network
Access type: Internet
Connections: Ethernet 2
5
Change your networking settings
Set up a new connection or network
Set up a broadband, dial-up, or VPN connection; or set up a router or access point.
Troubleshoot problems
Diagnose and repair network problems, or get troubleshooting information.







Choose a manual IP address with the same two number of the IP address of the decoder. (On this example that can be: 192.168.1.7)

7.2 VNC Viewer

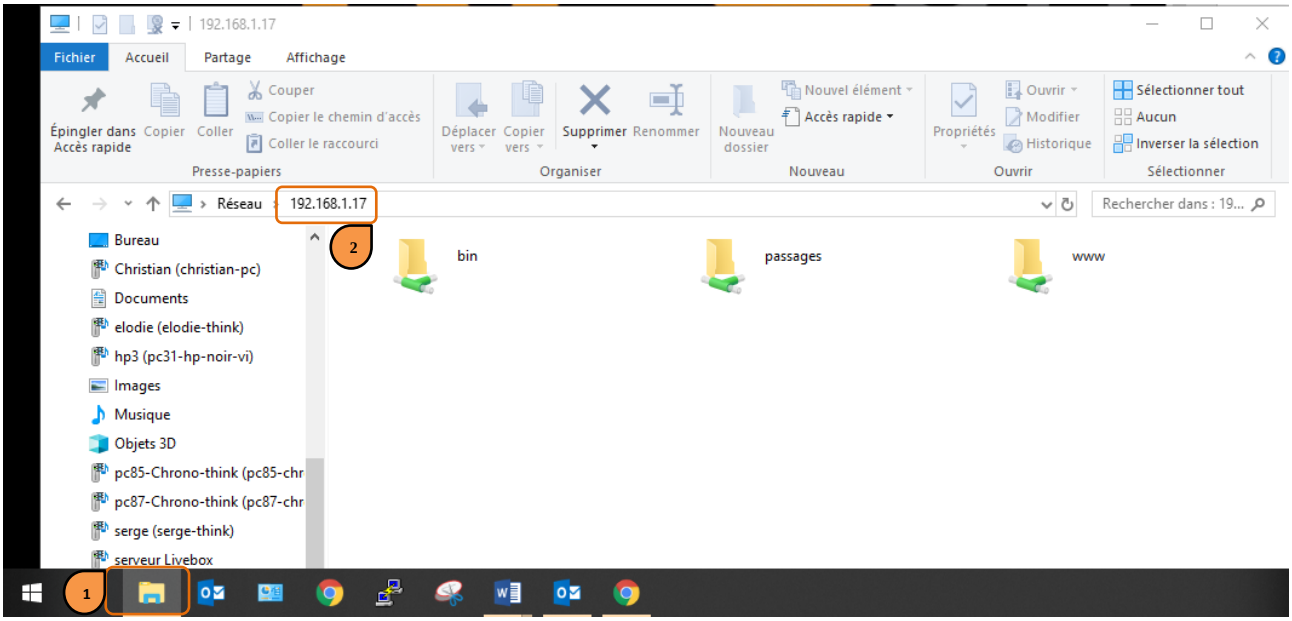
Download VNC viewer on your computer: https://www.realvnc.com/en/connect/download/viewer/

Open VNC viewer. Enter the IP address of the device. You can watch and control the decoder from your computer.

7.2.1 Export Tags list on your computer

Open Windows Explorer and write: \\192.168.X.X

Then press Enter.



If when you try to connect your computer with URTIME, it will ask for credential:

Login: URTIME

Password: rfc

Click on passages and you obtain the Tags list in text format.

7.3 USB connector

⚠ CAUTION: don’t work directly on the decoder. Copy the file to your computer.

You can connect devices like a mouse, keyboard or USB stick.

To retrieve data just connect your USB stick. An orange windows **USB EXPORT** appears. Wait until **EXPORT COMPLETE**, **remove media** is displayed on the screen. And remove the USB stick.

⚠ CAUTION: The device that you connect must be formatted in FAT32.

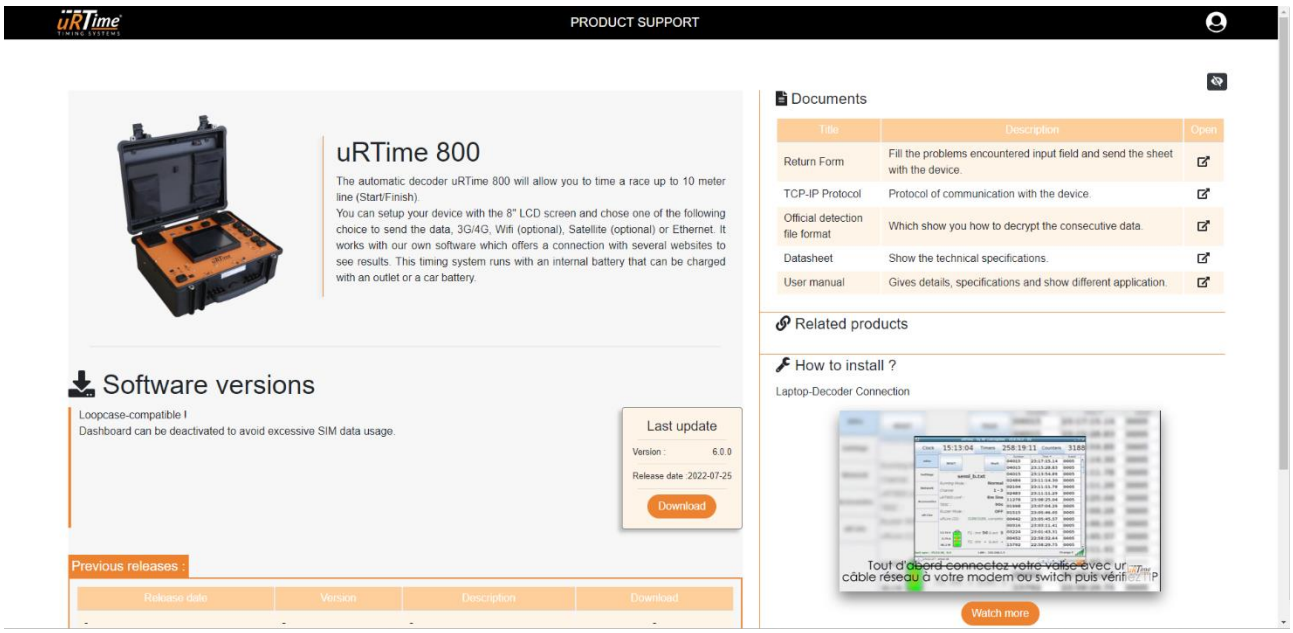
8 Maintenance and update

8.1 Update system

To receive a notification as soon as the revised software version is online, you can subscribe on http://support.URTIME.net.

To update your URTIME 800 go to Accessories/Update, click **Check for new updates**.

For more information about how to install the update click on the video.



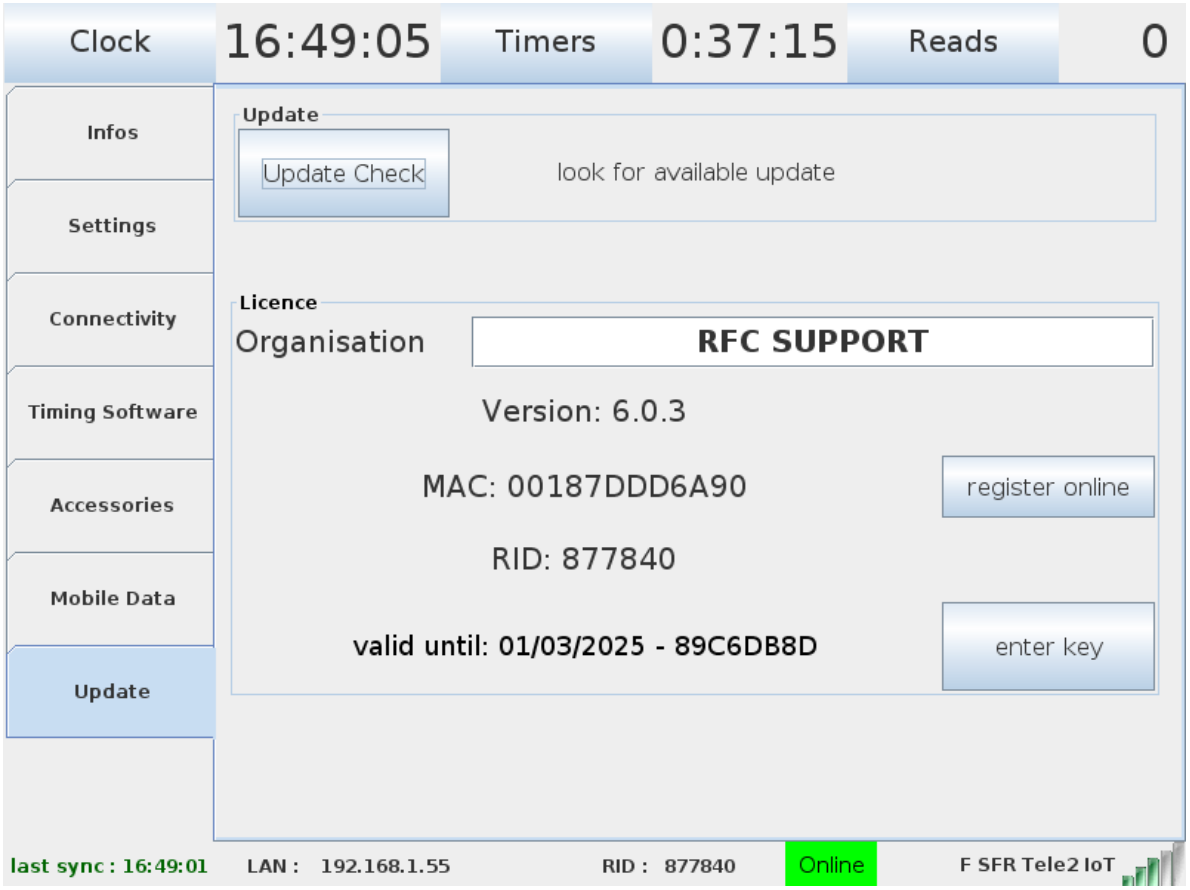
8.2 Licence

You will need a licence to use read tags.

You will find the following menu in **Accessories** then **Update**.

By **clicking** on **Register Online** you will be able to get a **new licence** applied to the device if you have an **internet connection**.

Or you can **contact us** and **ask for** a **licence** and enter the key manually using the **button enter key**.



8.3 Frequencies of maintenance

A control of the antennas, the cables, the battery, and the equipment in general are highly recommended every year.