MSM

smartcom360

USER MANUAL

PC SOFTWARE

SmartCom360

mesemar.com

USER MANUAL

REF: SmartCom360 PC-MAN-ING		
Version	**Date**	**Description**
01	05/03/2025	Initial Version

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SMARTCOM360 PC

1. Introduction

Thank you for choosing an **MSM** product!

MSM is a modern and innovative company, mainly dedicated to the design and manufacture of **maritime and inland waterway navigation aids.**

Established in 2006, **MSM** is currently the manufacturer with the widest range of maritime signalling products on the market. We manufacture all types of aids to navigation equipment, the necessary complements for their correct operation, together with their commercialisation and training and maintenance services.

In addition, all our products are designed and manufactured under the recommendations of the International Association of Maritime Signalling (AILA-AISM).

2. SmartCom360 PC software

2.1 Requirements

To use the SMARTCOM360 PC software, a computer with **Windows 7, Windows 10** or **Windows 11** is required.

2.2 Access

In order to use the software on the computer, the following steps must be taken:

1) Connect the USB provided by MSM to the PC.

2) Go to the "*This Device*" menu and open the connected "*USB Drive*".

Figure 1 – "This Device" menu

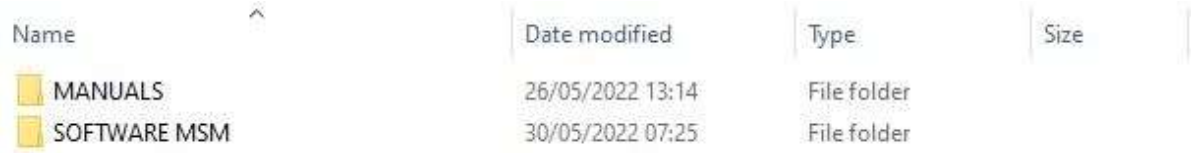


Figure 2 – "USB Drive"

3) Open the folder "*SOFTWARE PC*".

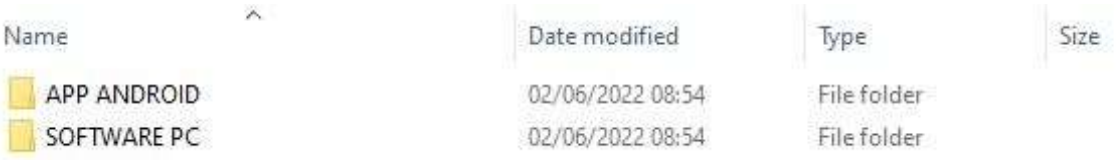


Figure 3 – "SMARTCOM360" folder

4) Open the folder "*SmartCOM 360 v0.9.X.XX*".

Figure 4 – "SOFTWARE PC" folder

IMPORTANT

The file name shown in Figure 4 as "_SmartCOM 360 v0.7.2" will vary depending on the latest PC software version included in the USB.

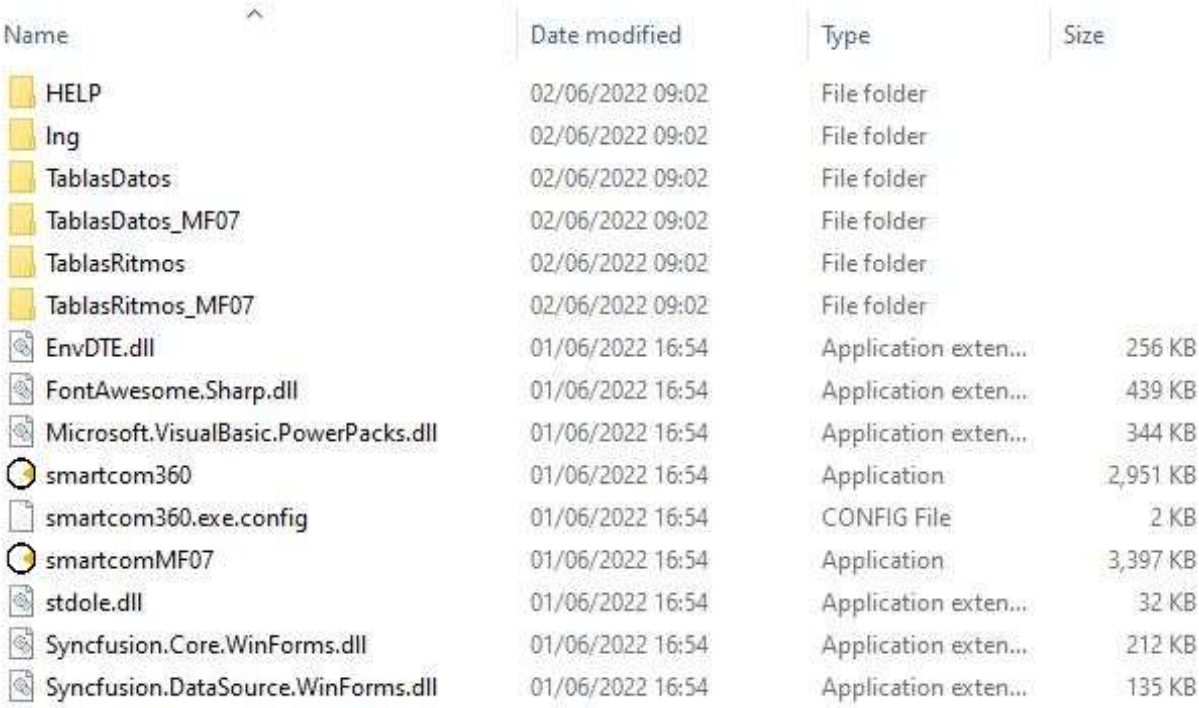


Figure 5 – SmartCOM 360 folder

5) Run the "***smartcom360***" software.
The program is prepared for the flasher MF20.

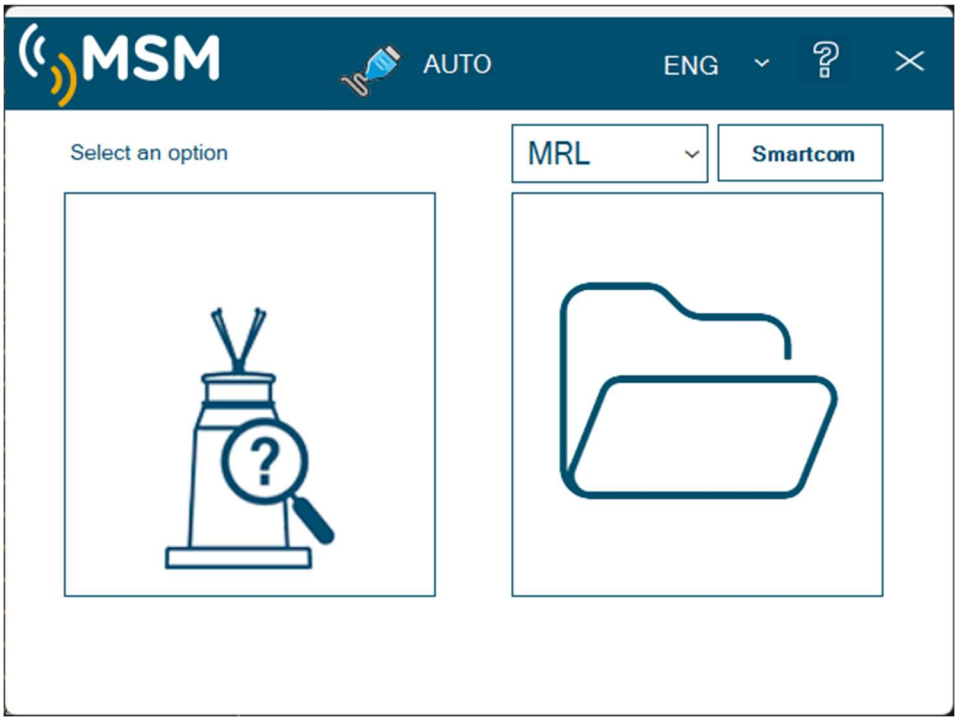


Figure 6 – SMARTCOM360 PC Start Screen

3. First Time Access to SmartCom360 PC Software

The SMARTCOM360 PC software is designed for Windows PCs and communicates via the USB - USB C programming cable with MF20 flasher.

In order to establish communication between the PC and the flashing device, it is not necessary to connect a power supply to the beacon.

Once connected, the application will start, as explained in the previous point, and the SMARTCOM360 PC start screen will appear. In this screen, select the beacon model with which you wish to communicate:

Table 1 –Model choice

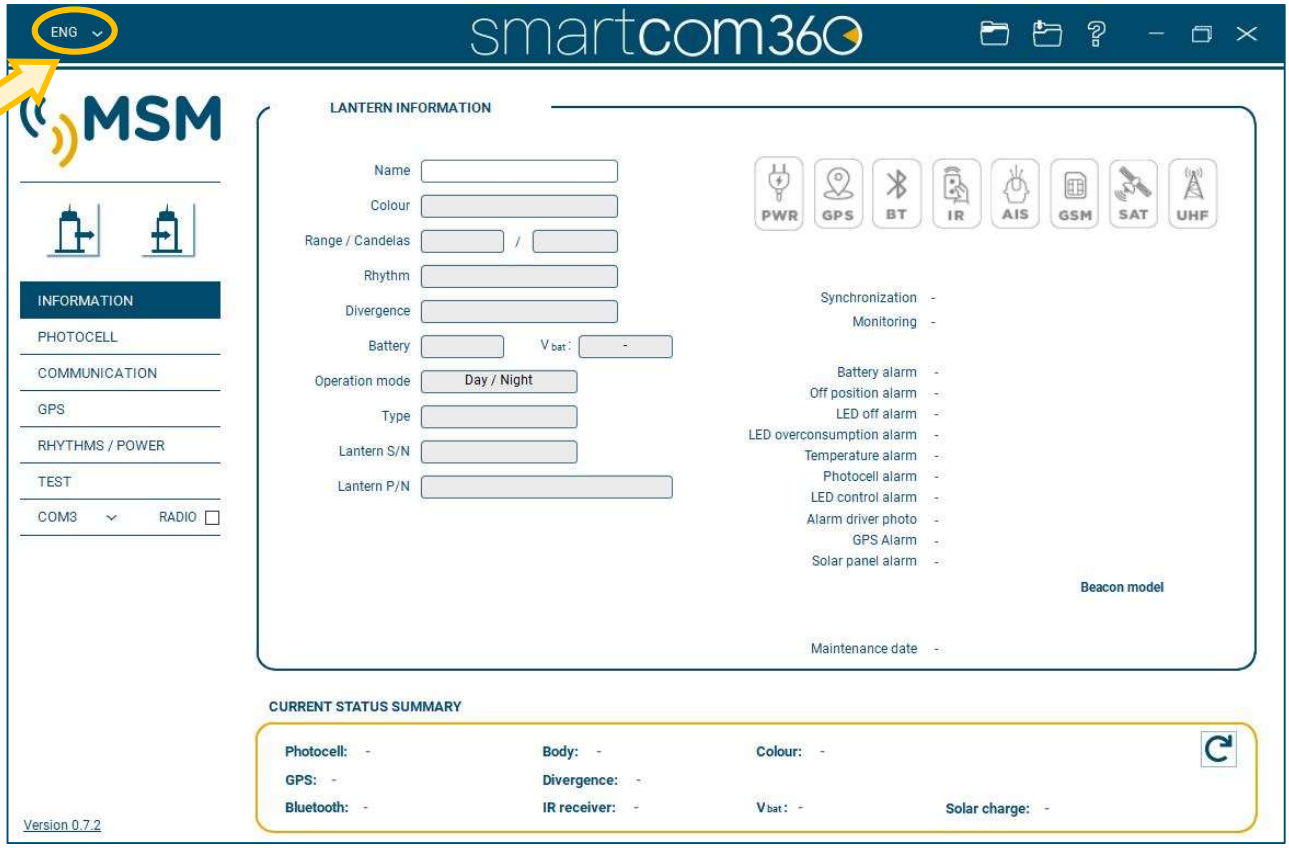
MCL360, MBL, MRL…	*Model Recognition*	*Language*
		

This will take you to the main "*INFORMATION*" screen.

To change the language of the application, click on the drop-down menu in the top left-hand corner.

IMPORTANT
*The **default language** of the application is **English**.*

This manual can be downloaded directly throught the app when the “interrogation” icon (HELP) is clicked.



As can be seen in the previous image, no information of the lantern appears. This is because it has not been read. To do so, click on the following icon:

When the reading process is finished, the lantern data will be displayed.

Figure 7 – "INFORMATION" screen with lantern data

The bottom box, which will be present on all tabs of the application, displays the most relevant information about the lantern.

3.1 Reprogramming the Beacon

If you wish to reprogram the beacon, you must modify and adjust the desired parameters in the different windows of the application. Once the new configuration has been made, it must be uploaded to the beacon, therefore, click on the icon: 

This will initiate the process of reprogramming the beacon and the new configuration will be saved.

4. Information

As mentioned above, the "*INFORMATION*" tab provides information on the beacon. To do this, you must have previously read this or opened an already saved configuration.

Figure 8 – "INFORMATION" screen

The available data to be displayed are:

- Name
- Colour
- Range/Candelas
- Rhythm
- Divergence
- DC input
- Operation mode
- Type
- Lantern S/N
- Lantern P/N

The name of the lantern can be modified by clicking on the name field.

You can also see the status of the ***Alarms***, as well as the status of ***Synchronisation*** and ***Monitoring.***

IMPORTANT

Text in red marks that it has been modified with respect to the uploaded lantern values.

5. Photocell

The switching on/off of the lantern is controlled by the photocell integrated in the lantern. In order to access its menu, press the "*PHOTOCELL*" option:

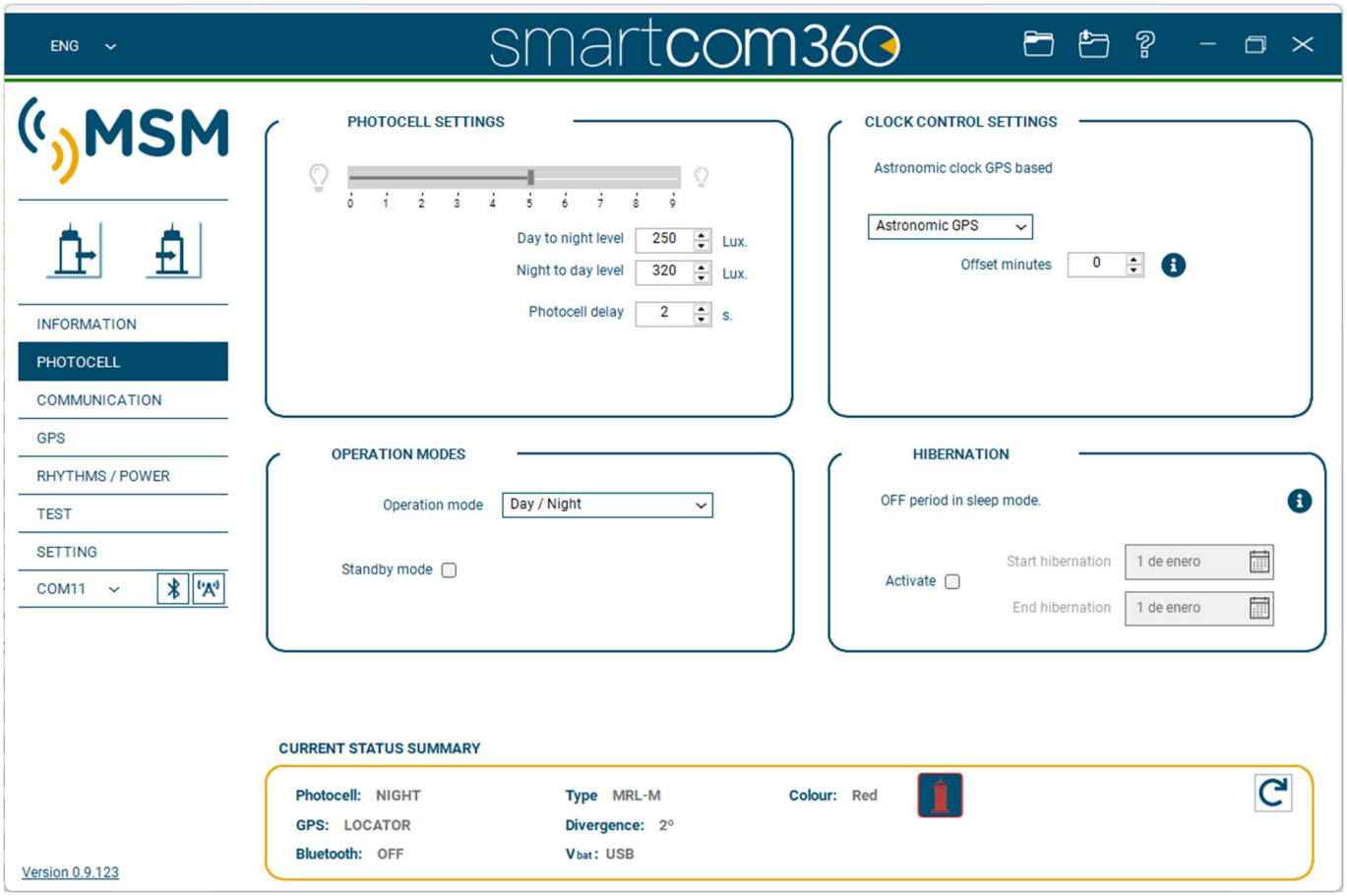


Figure 9 – "PHOTOCELL" screen

The following information of interest can be found on this screen:

- ***Operation mode***
  - Day/Night or 24h ON
  - Standby mode
- ***Recommended values for the photocell adjustment***
  - *Light Level Night-Dusk (ON) → 250 lux*
  - *Light Level Day-Dawn (OFF) → 320 lux*

The "*Photocell Delay*" box is the time, in seconds, that the lantern will wait after reading the photocell measurement before turning on or off.

- ***Hibernation***

  If you wish to program the lantern for a specific period in low power, check this box and then indicate in which month the lantern will start and end this hibernation period.

- ***Clock Control Settings***

  With this option the change of state DAY / NIGHT will be done using the hours of Ortho and Sunset. This information is obtained from the GPS.
  The offset is the time in minutes that will advance the change of state with respect to the hours of Ortho and Sunset.
  The time of change from day to night and vice versa can be set manually in the option “Manual Set”.
  It can be disabled so that the state transitions Day/Night will be done only by the photocell.

IMPORTANT

The lux value of "Light Level Night-Dusk " (ON) ***shall be lower than*** *"Light Level Day-Dawn" (OFF) in order to avoid oscillations in the switching on and off the beacon.*

6. Communications

By accessing the "*COMMUNICATION*" window, you can configure the communication options available to the beacon.

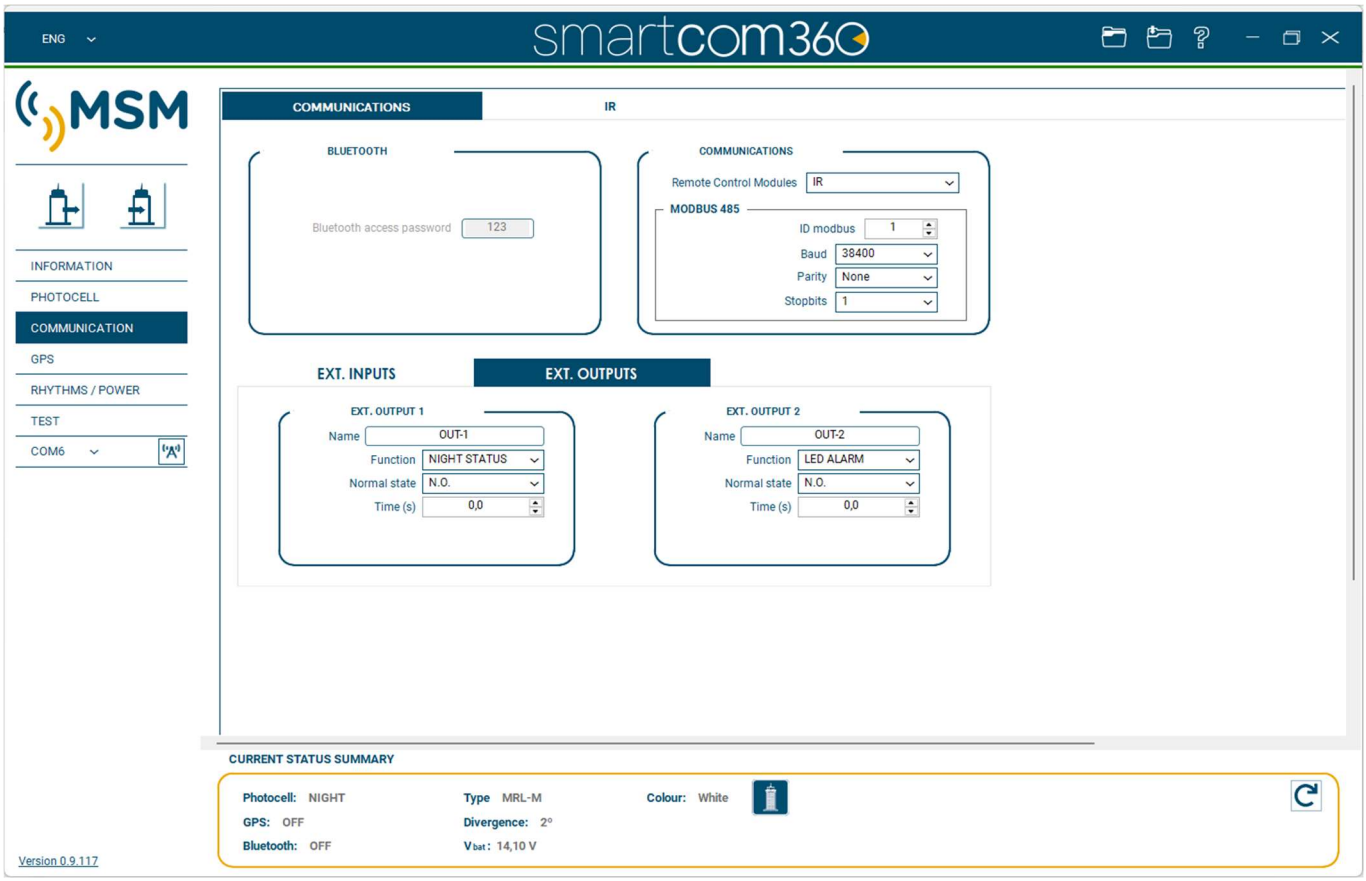


Figure 10 – "COMMUNICATIONS" screen

The following information can be found on this screen:

- ***Remote Control Modules***

  The flashing circuit has an RS-232 communications port for remote control of the lanterns. This port can be configured to work with IR programmer or none in case it is not used.

- ***Bluetooth***

  The Bluetooth is disabled.

- ***External Inputs***

  The MF20 flasher has 2 inputs whose function can be configured from a small list. By default, are enabled the On remote (change to Night mode) and the Off remote (change to Day mode).

- ***External Outputs***

  The MF20 flasher has 2 outputs whose function can be configured from a small list. By default, are enabled the Night status and the Led Alarm.

- ***IR programmer password***

  Password, modifiable by the customer, to configure the beacon with the IR infrared programmer.

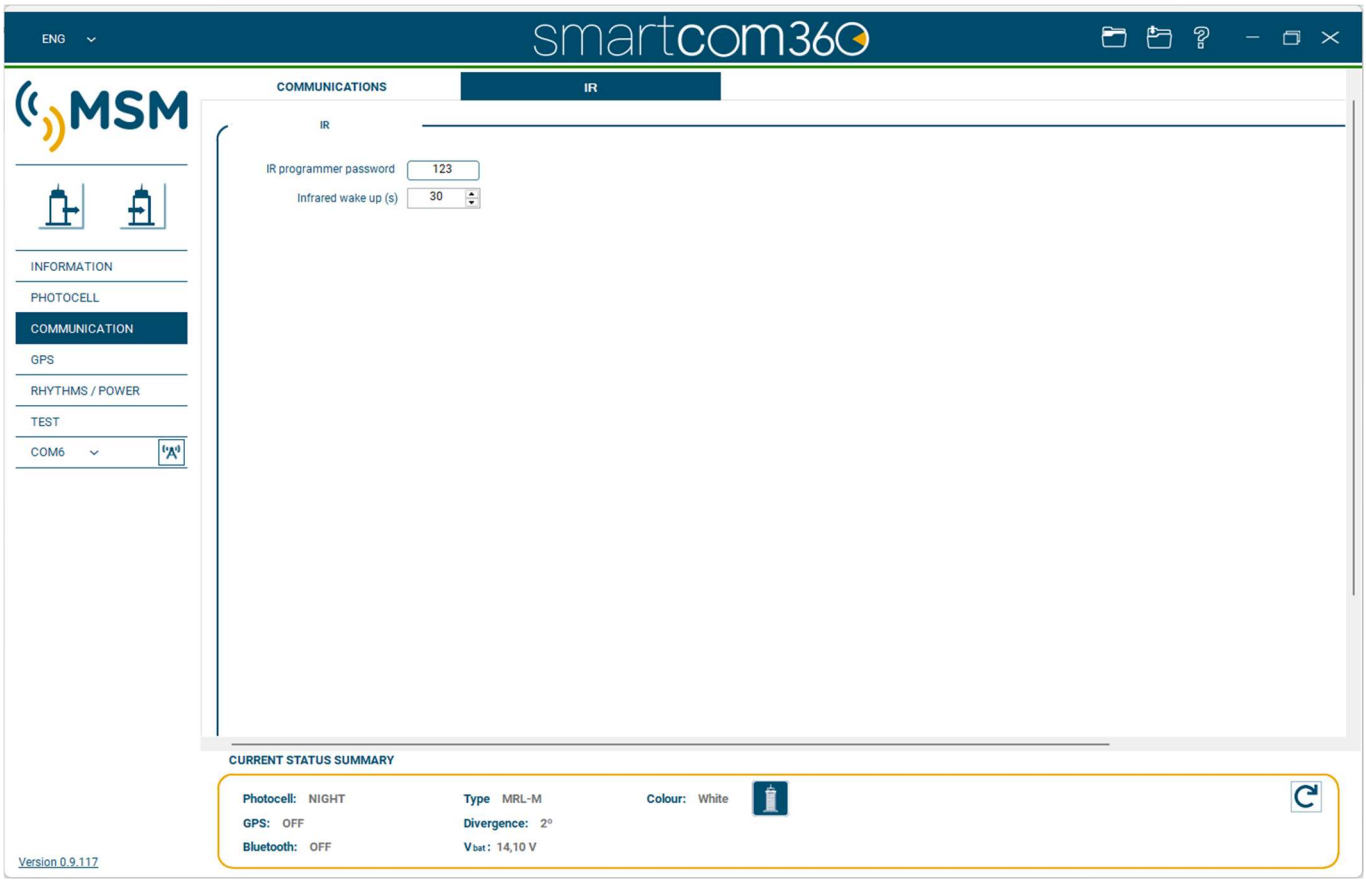


Figure 11 – "IR" screen

7. GPS

In the "*GPS*" window it is possible to configure parameters related to the synchronisation and positioning of the beacon.

The GPS system is a satellite system which is used, on the one hand, to obtain the coordinates of the beacon and, on the other hand, to have an accurate time base to allow, for example, the synchronisation of two different beacons.

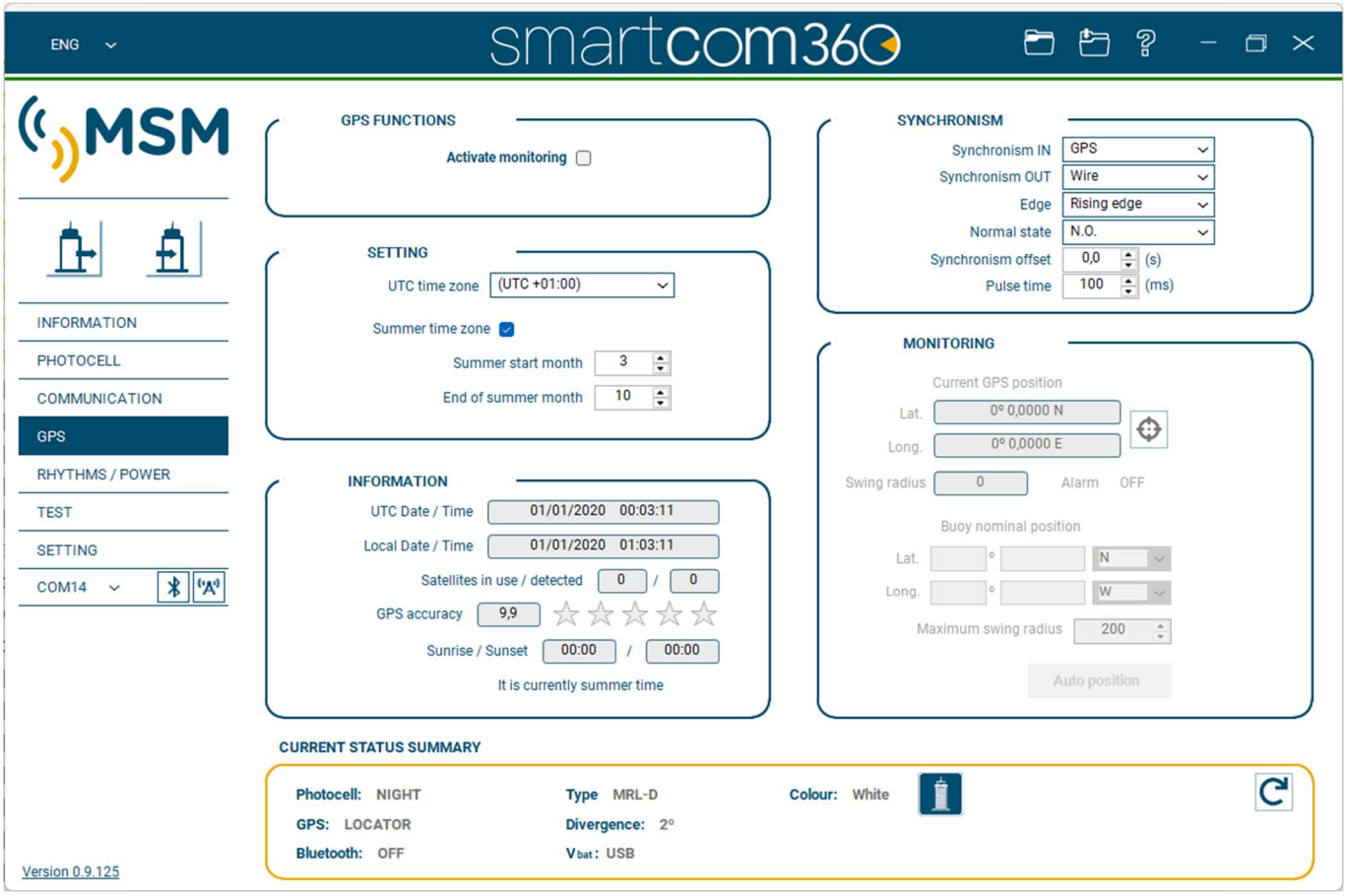


Figure 12 – "GPS" screen

The following information can be found on this screen:

7.1 GPS functions

- ***Synchronisme IN***

  If it selected GPS, the beacon clock will be synchronised with the information received via GPS, which is always the most accurate and is common to all receiving devices.

- ***Synchronism offset***

  In case you want to have a delay between several beacons, if they operate synchronously, a value between 0 and 25.5 seconds can be included in this box.

7.2 Settings

- ***UTC time zone***

This box defines the time zone in which the beacon is located (for example UTC+1 in mainland Spain).

- ***Summer time zone***

  If there is a summertime change in the area where the beacon is located, this box shall be ticked and then the month in which it starts and ends shall be indicated:

  - *Summer start month*: For example, in Spain is March (nº 3).
  - *End of summer month*: For example, in Spain is October (nº 10).

7.3 Monitoring

In case of Activate Monitoring is ticked, MONITORING window will be selectable.

IMPORTANT

Monitoring window should only be activated when the beacon is being placed in a buoy.

- ***Auto position***

Click auto position to set the origin of coordinates for the monitoring.
Then select the maximum swing radius [m] allowed.

8.1 Rhythms

Accessing the "*RHYTHMS/POWER*" window, 2 tabs will appear. In the "*FLASH RHYTHMS*" tab, the user can modify the nominal range (nautical miles), the effective intensity (Candelas) and the desired rhythm

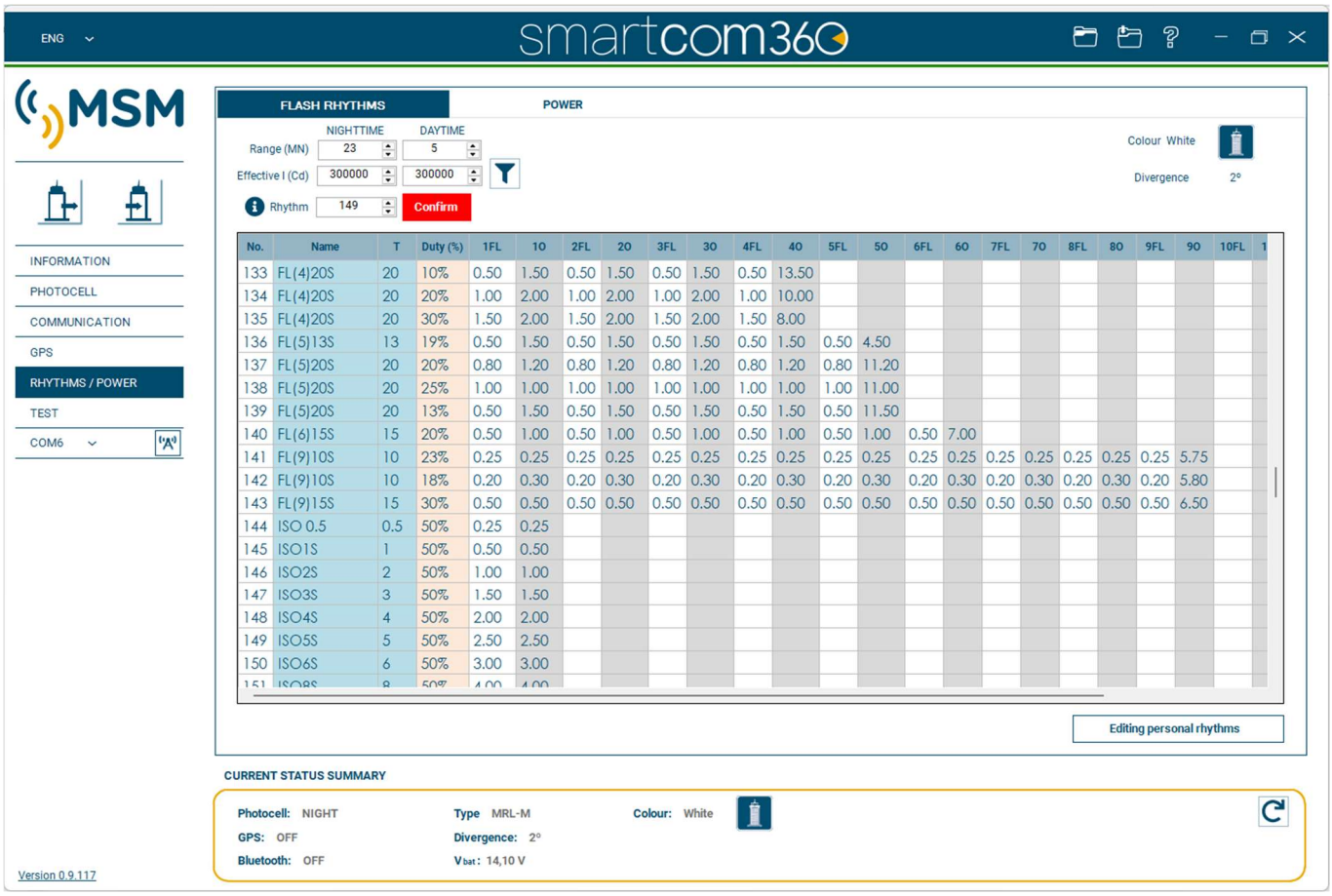


Figure 13 – "FLASH RHYTHMS" screen

For all models it is common that, after modifying the desired parameters and pressing the "*CONFIRM*" option, the application checks whether the values entered are possible, considering the new settings, and, if is not possible, displays a warning pop-up window.

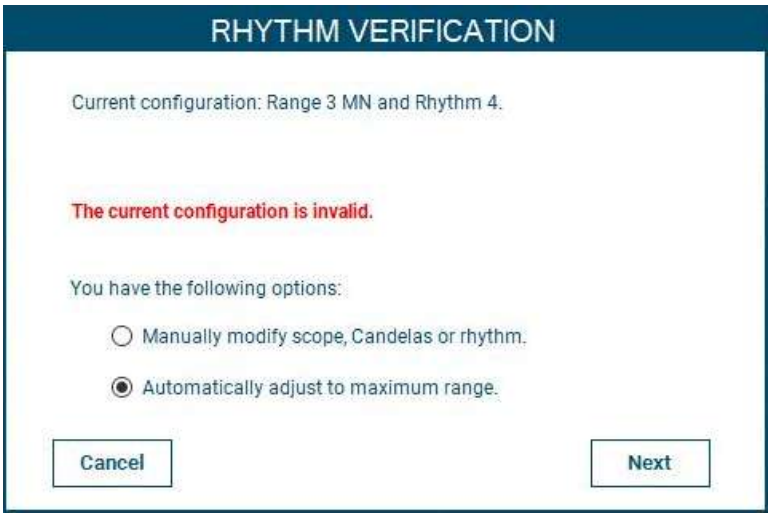


Figure 14 – "RHYTHM VERIFICATION" pop-up window

In addition, in the tab "*FLASH RHYTHMS*", there is the option "*Editing personal rhythms*" which allows you to modify the name of the rhythms, as well as "*Read beacon rhythms*", "*Record rhythms in beacon*", "*Open rhythm file*" and "*Save rhythm file*".

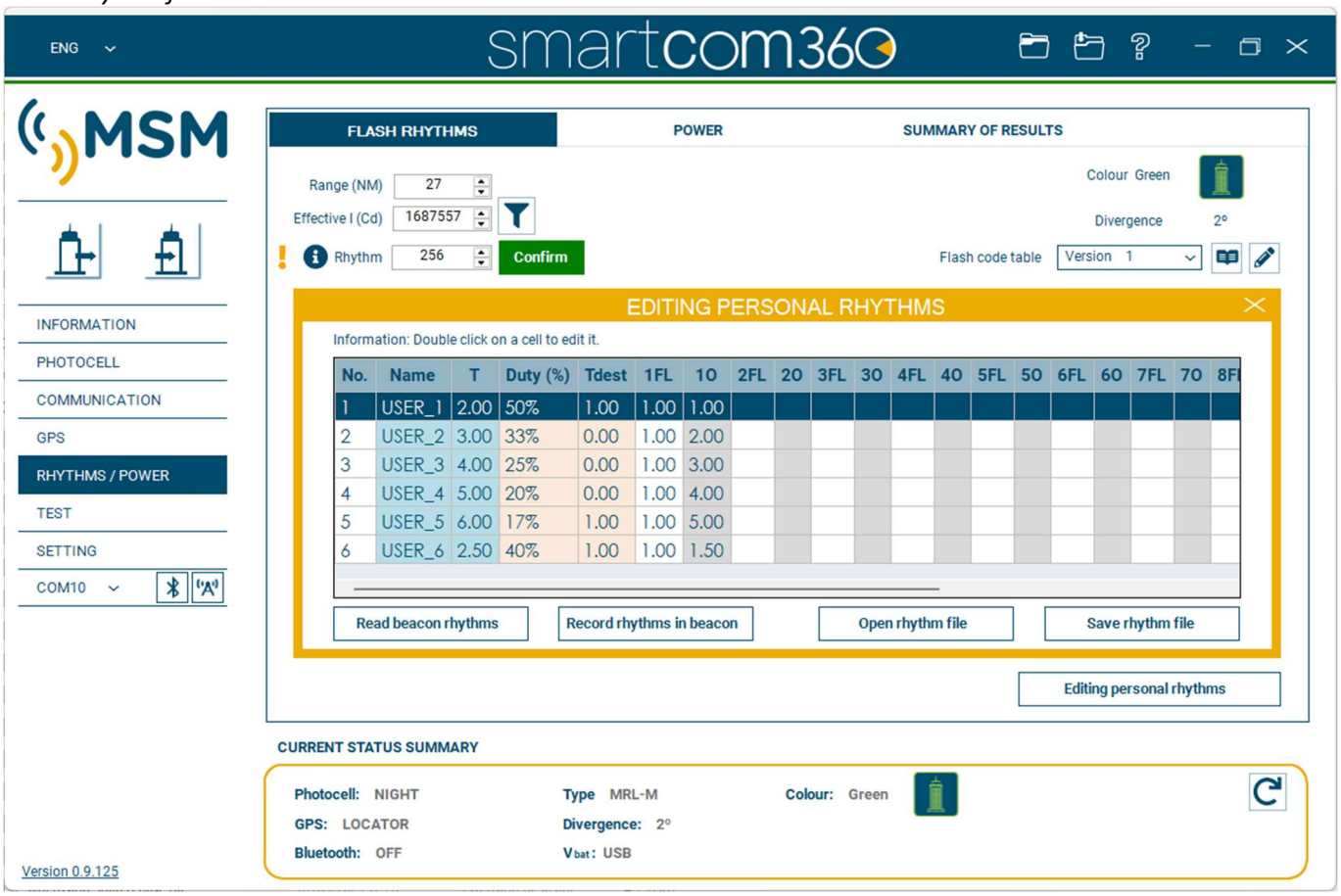


Figure 15 – Screen "FLASH RHYTHMS" with the option "EDITING PERSONAL RHYTHMS"

8.2 Power

In the "*POWER*" tab, it is possible to set the detection limits of the current and battery alarms used by the beacon to generate malfunction alarms. It also allows certain actions to be taken when these alarms occur.

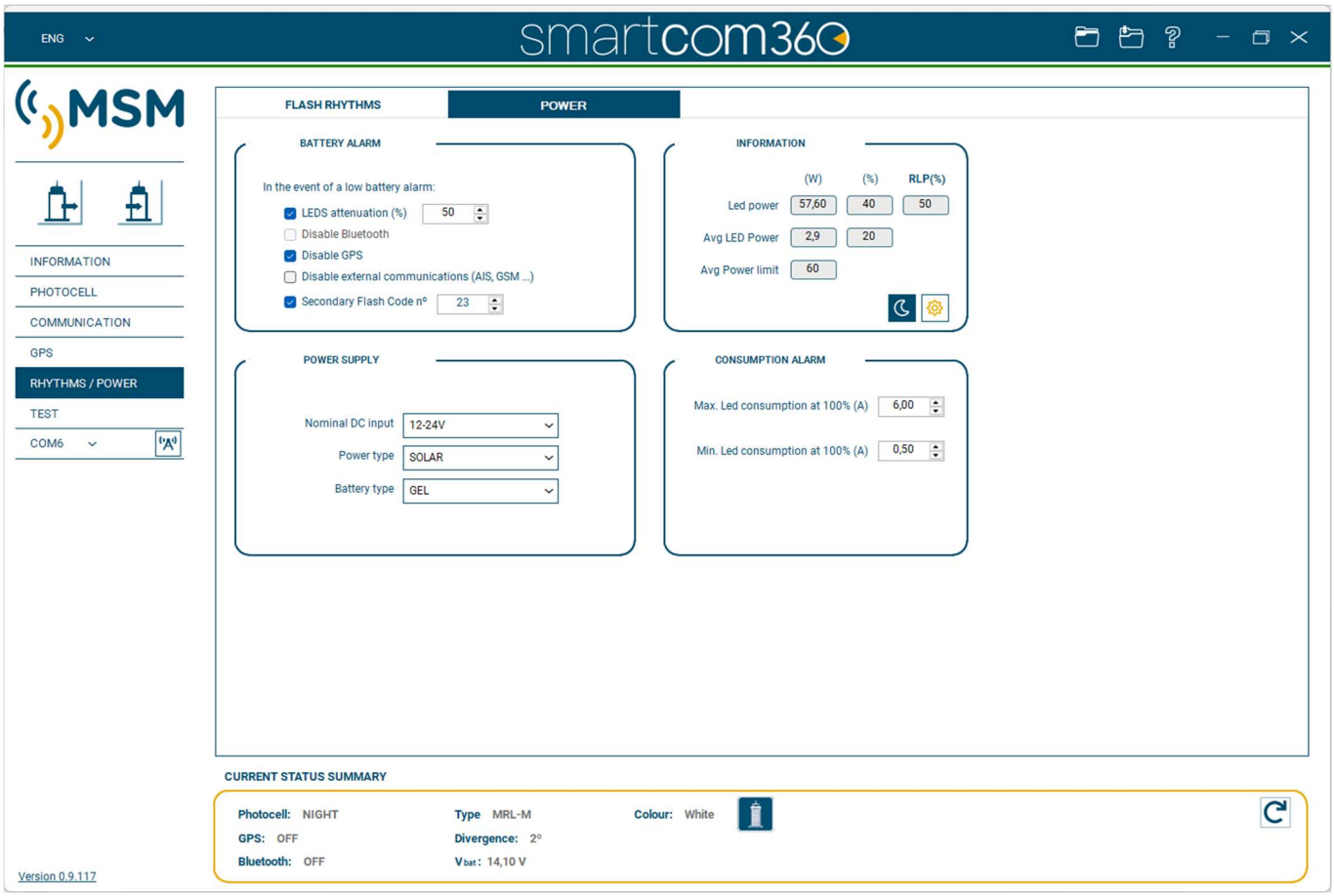


Figure 16 – "POWER" screen

In the "*POWER*" screen, the following parameters can be modified and adjusted:

- ***Battery alarm***
  - *LEDS attenuation:* Percentage of attenuation of the LEDs in the event of a battery alarm.
  - *Disable Bluetooth*: Not configurable in this case, Bluetooth is always disabled.
  - *Disable GPS*: Choose whether to disable GPS in case of a battery alarm.
  - *Disable External Communications (AIS, GSM…)*: Choose whether to disable external communications in case of a battery alarm.
  - *Secondary Flash Code:* It can be chosen a different rhythm to reduce the consumption. The normall criteria is usually a rhythm with the same period and same number of flashes but these ones with a shorter duration than the original.
- ***Power Supply***
  - *Nominal DC Input*: 12Vdc, 24Vdc or both (12-24V). In this last case, the beacon can be supplied either way so that the beacon will measure the voltage and will adapt the set values of the current consumption (which should be set considering a 12V supply).
  - *Power type:* solar system, AC grid…
  - *Battery Type:* Gel, AGM…

- ***Consumption alarm***
    - *Max. Led consumption at 100%:* current above which to notify an over-consumption alarm
    - *Min. Led consumption at 100%:* current below which to notify low power alarm

  Both values must be set for 12V in case the nominal input has been chosen 12V or 12-24V.
  In case of 24V, the values must be configured respect to that voltage.

9. Test

In the "*TEST*" window, information of interest of the beacon can be observed.

The screen will display the following test options:

- ***OFF:*** To Turn Off the beacon (Day Mode).
- ***ON:*** To Turn On the beacon (Night Mode).
- ***Auto Mode:*** For the beacon to be switched on/off automatically by the photocell.
- ***Reset:*** To restart the beacon.
- ***Auto position:*** To detect GPS position.
- ***Retrieve conf. of fabric.:*** To reset the beacon to the factory default settings.

In addition, after pressing the "*Read*" button, you can see the different alarms available, and whether they are active or not, as well as more extra information about the beacon.

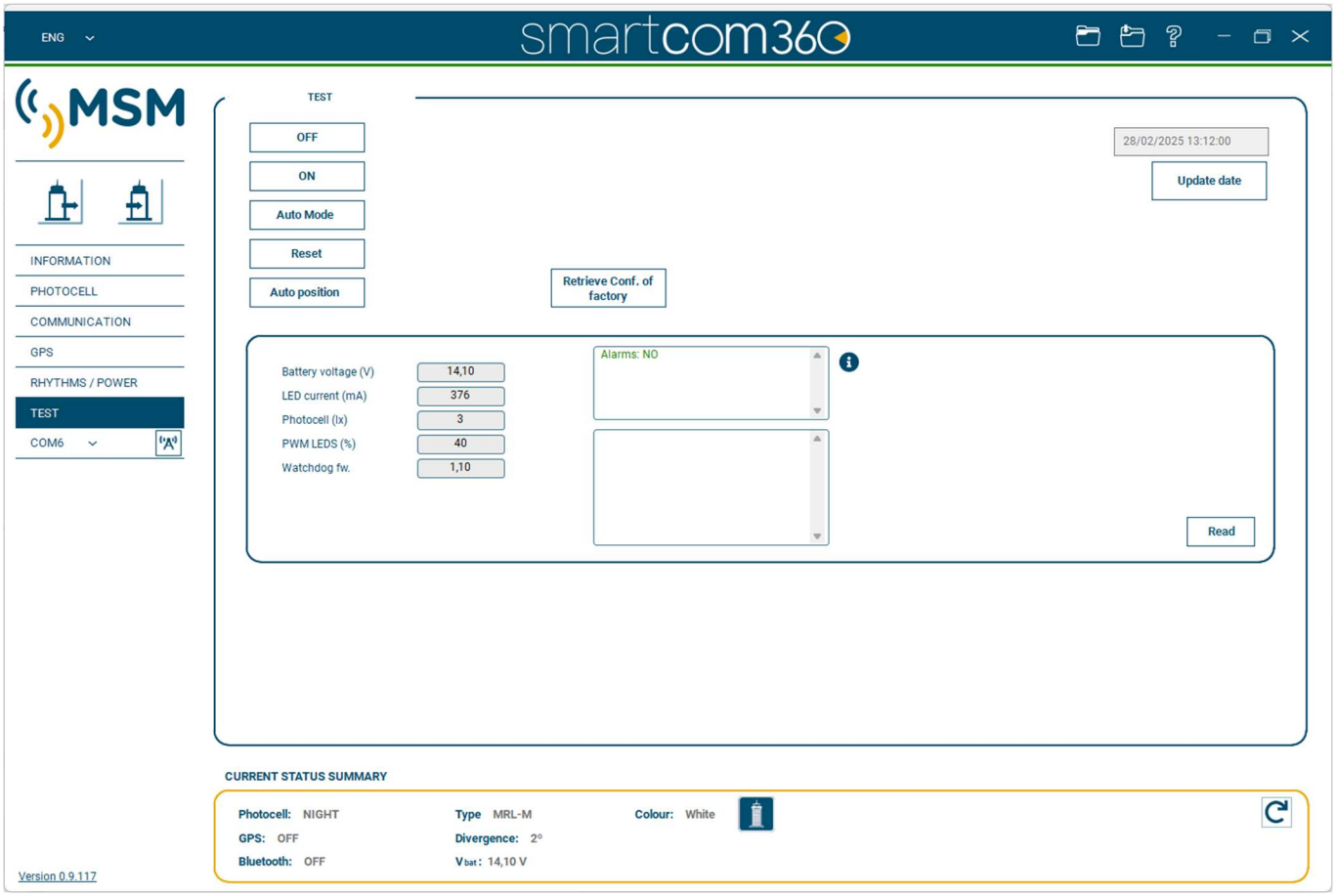


Figure 17 – "TEST" screen

IMPORTANT

*Once the check has been completed, **do not forget to press the "Auto Mode"** button as, if it is not pressed, the beacon will remain on (night mode) or off (day mode) and will not switch between these modes automatically. After a Reset, the beacon starts in Auto mode.*

10. Technical support

How can we help you?

Our platform ensures effective communication between MSM technicians and our customers to successfully resolve the issues raised. In case of any other doubts or issues, repairs and queries, please contact MSM through:

- **Web:** https://mesemar.com/en/contact/
- **E-mail:** MSM@MESEMAR.COM || after-sales@mesemar.com
- **Phone:** +34 96 276 10 22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