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# iSH WEBSERVER

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**WEB SERVER FOR SMART PHONE**

Version 07/10

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# 1 INTRODUCTION

This manual is the complete guide for installation, configuration and usage of iSH web server; it is aimed at technical personnel with an average knowledge of Informatics and of basic principles of networking on TCP/IP.

**THIS WEB SERVER IS INCLUDED IN THE SH CONTROLLER: FOR THE INSTALLATION AND INSTRUCTION OF THE CONTROLLER PLEASE REFER TO ITS INSTRUCTION MANUAL.**

**THIS DOCUMENT REFERS ONLY TO THE WEBSERVER.**

## 1.1 WHAT IS iSH WEB SERVER

iSH web server is the complete range of services which allow the user to manage and remotely control the smart-house functions at any time with a smart-phone with Internet connection and browsing capability.

The system has been optimized for I-Phone and I-Pod touch and for the Safari browser. Please remember to activate the Cookies and the JavaScript support.

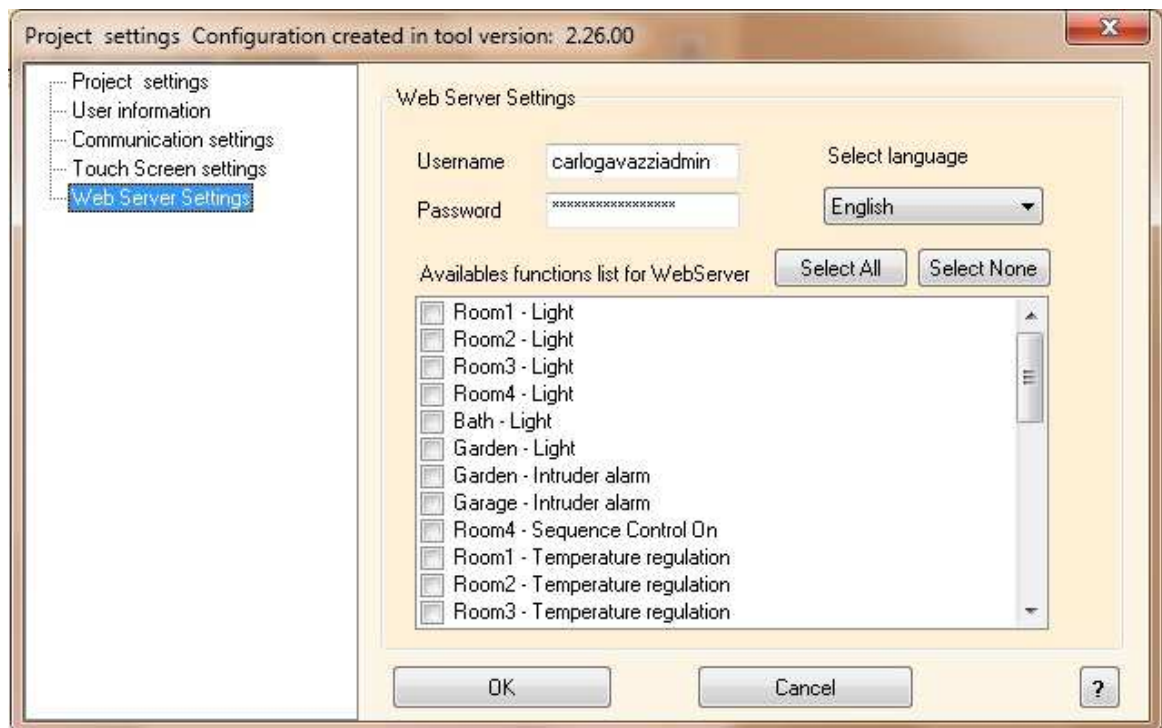
The functions that can be activated by connecting to the iSH web server are:

- **Control:** to manage the lighting, heating/cooling, light and humidity sensors, roller blinds, ON/OFF timers, and in general all the automatic devices in the home.
- **Sequences:** to simultaneously activate several predefined commands such as, for example, opening the gate and switching on the driveway lights at the same time.
- **Alarms:** connecting to the web server it is possible to arm/disarm and visualize the alarm status for intrusion, water, fire, etc.
- **Access controls:** for every user it will be possible to define the access to every room/function.

## 2 CONFIGURATION

Before connecting to the web server, some configurations have to be performed with the Configuration Tool.

Once the project is open, click on the “*Project Setup*” menu and then select “*Web Server Settings*”, the following window will appear.



From this page you can:

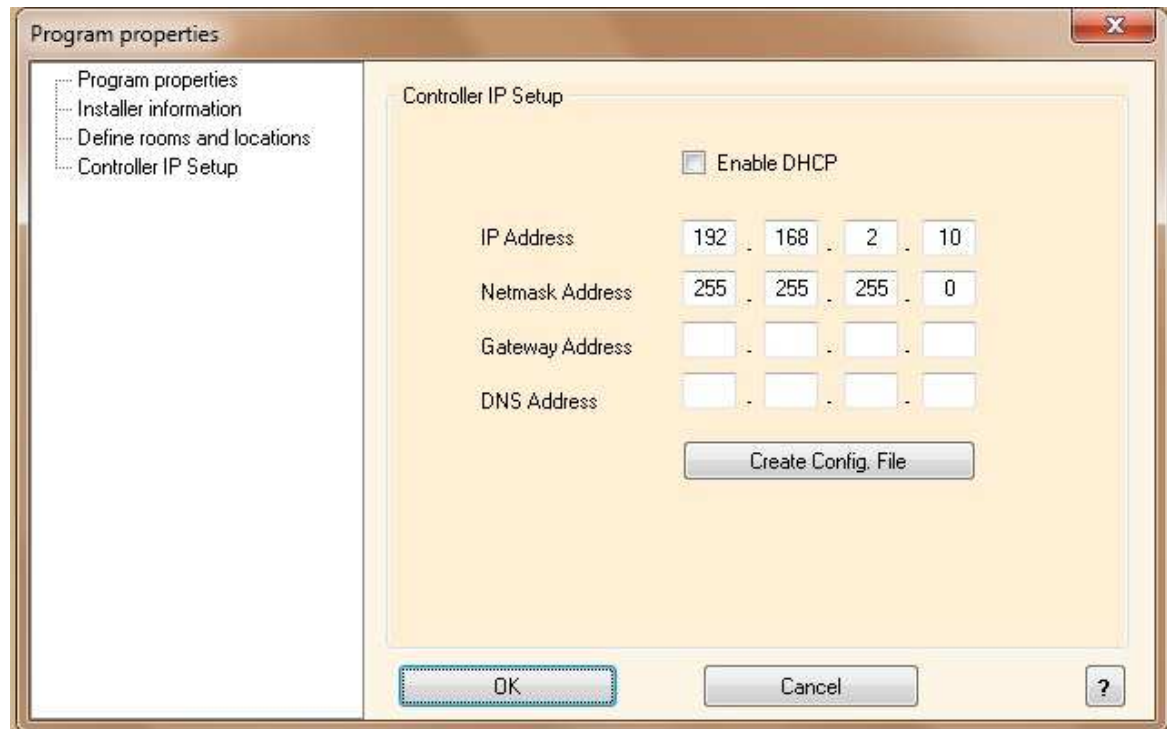
- Define the administrator password that gives the access to the User Account Page (see paragraph 3.1 *User definition and management*). The default ones are **admin, admin**.
- Select your language
- Select the functions/rooms you want to control remotely and that you want to make accessible by the users.

## 2.1 IP SETTING

To use the web server functionality, you must always configure a *private* fixed IP address into the smart-house controller.

To do this, the Configuration Tool has to be used (starting from the 2.26 release): in the “Tool” menu, select “Program Properties” and then “Controller IP setup”.

The following window will appear:



**The DHCP addressing can not be used when the web server functionality is used because the assigned IP might not be always the same: you have always to configure a fix IP to connect to iSH web server. This means that if the “Enable DHCP” box is checked, you have to deselect it.**

The Configuration Tool suggests the default IP address “192.168.2.10”: be careful to define it according to your network configuration, anyway it must be selected among the 3 private IP families: *192.168...*, *172.31...*, *10.0...*.

Indicate “255.255.255.0” as “Netmask address”.

In the “Gateway address” field, insert the IP address of the ADSL router. The “DNS address” is not necessary because it is managed by the router.

Once you have entered the required field, click on “Create Config. File”: the Configuration Tool will create the file *IPSettings.txt* that you have to copy into the SD card delivered with the controller or into any **EMPTY** SD card.

Then insert the SD card into the controller: it will automatically read the file.

The time necessary for the operation is about 5 seconds: when the **red** COM LED starts blinking continuously very quickly, remove the SD card. After a few seconds the

controller will restart and the COM LED will start blinking in the usual way (a short flash every second).

**Now the new IP settings are stored into the controller.**

## 2.2 CONNECTION TO iSH WEB SERVER

The connection mode to the web server from the Internet depends on the kind of IP address that is present in the house/building. In most cases the Internet provider supplies a dynamic IP address (this means that every time there is an Internet access, the assigned IP address changes), but if required and paid, the provider can supply a public IP (in this case the address is always the same).

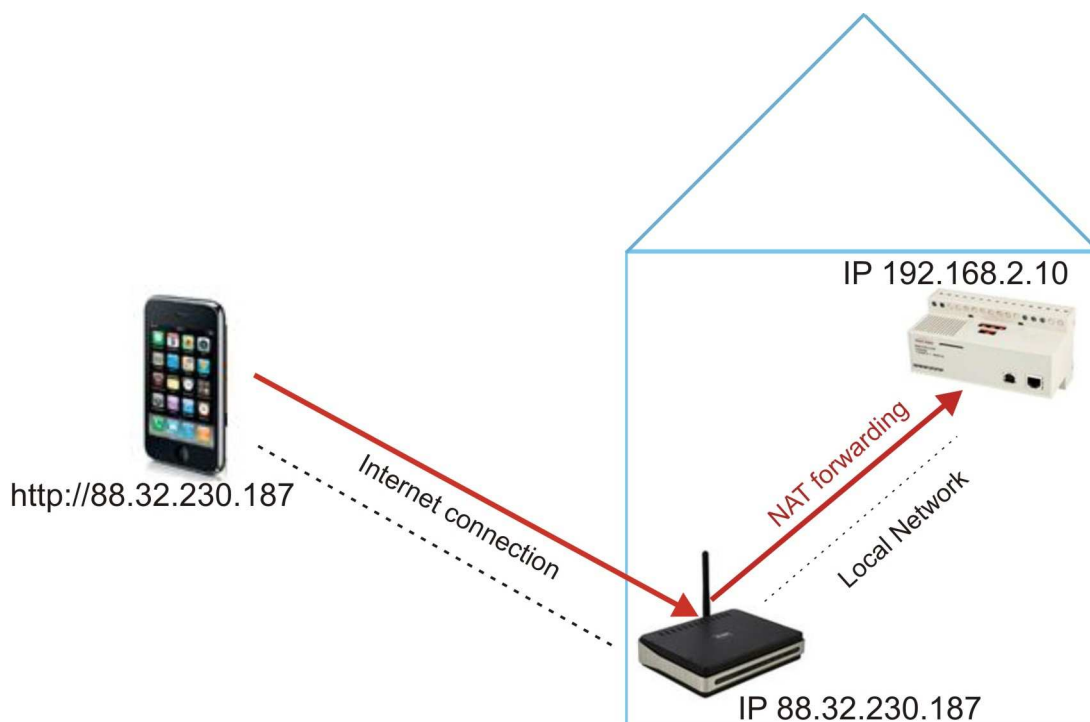
According to the different type of addressing, different instructions must be followed.

**To access to the web server from the Internet, an ADSL modem router is required with the DYNDNS and NAT functions.**

### 2.2.1 PUBLIC IP

If the ADSL modem router has a public IP, the NAT port forwarding is necessary to reach the iSH web server from outside through the LAN: please refer to the router instruction manual.

To connect from a smart phone with Internet connectivity, you have to open the browser and type the public IP, e.g. <http://88.32.230.187/>.



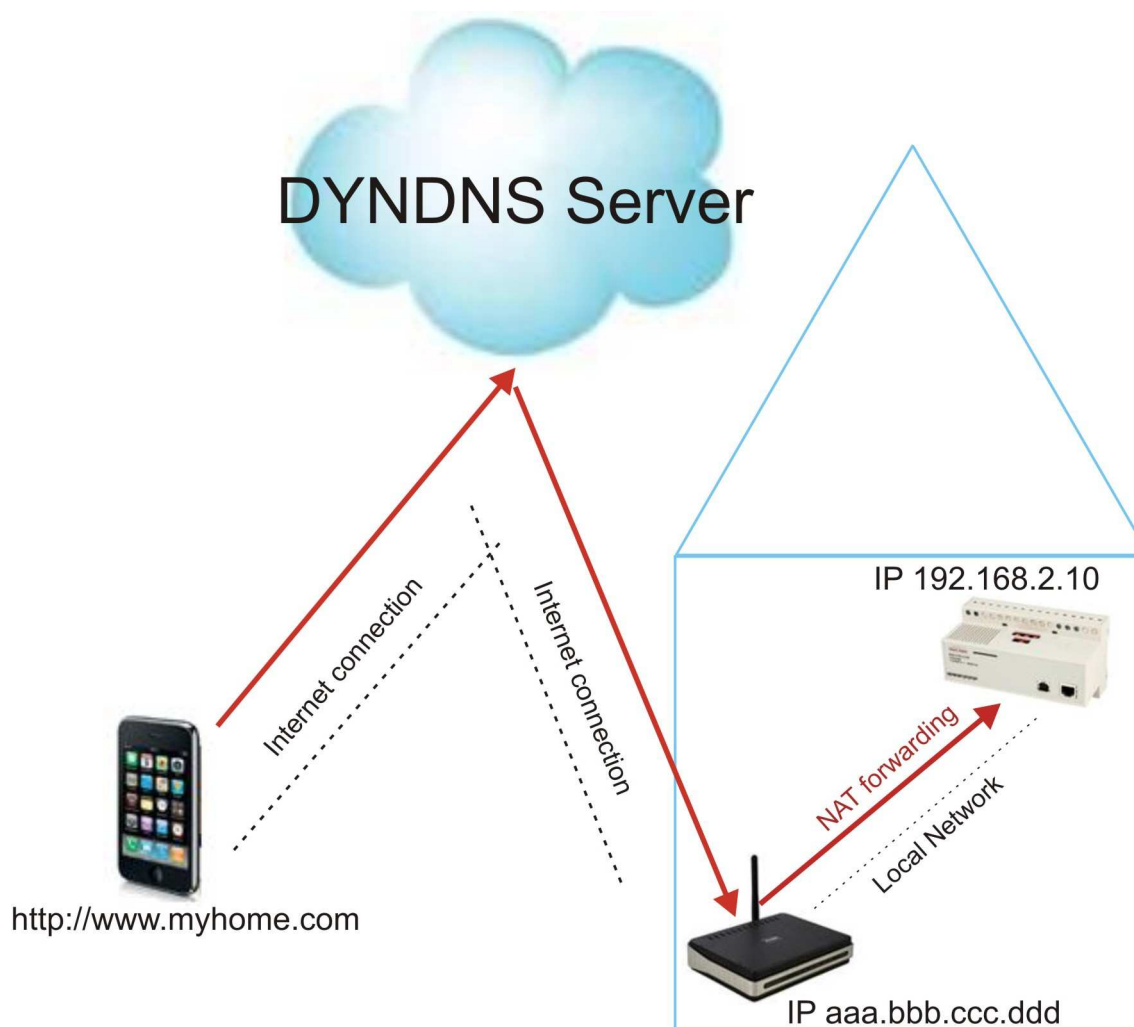
## 2.2.2 DYNAMIC IP

If you don't have a static public IP address to reach iSH web server from the Internet and you have to use public IP addresses assigned dynamically by your ISP (Internet Service Provider), you can use DNS server operators maintaining the dynamic public IP address constantly synchronized to a domain name.

To use the service you must connect to: <http://www.dyndns.com/>, subscribe, create an account and then create a new "Dynamic DNS host". Dynamic DNS host is an address domain that will be the same to type in the address bar of your browser to reach iSH web server (e.g. [www.myhome.com](http://www.myhome.com)).

Once you have created your account, you have to setup your ADSL modem router in order to have it working with the DNS server.

**Also in this case the NAT forwarding has to be configured in the router in order to reach the iSH web server.**



***NB. Only a maximum of two users should be connected at the same time, otherwise the system will be very slow. Furthermore the speed of the system depends on the speed of the Wi-Fi connection.***

# 3 ACCESS TO THE SYSTEM

## 3.1 USER DEFINITION AND MANAGEMENT

Once you are connected to iSH web server, it will propose the following [HOME](#) page.

The default Username and associated password are:

**Username:** admin

**Password:** admin

This Username and password can be changed only by the use of the Configuration Tool, as described in the *Configuration* paragraph.



Clicking on “Login”, you will enter the [USER ACCOUNT CONTROL](#) page.

Here you have to enter a User with Username and Password for every person who will have the access to the web server. Minimum word length is 4 characters in both fields. Valid characters are a..z, A..Z, 0..9. Once a new User is defined, press “OK” to save it and check the box [ENABLE](#) to enable it.

The list of users is visible scrolling up and down the whole list.


To define the kind of access for every specific user, click on “Setup”, and the following page will appear.





In the “Permission list” it is possible to define the pages for every function that will be visible for a specific User.  
If the checkbox is selected, the relative function page will be accessible for this User.



Scrolling down the list of the [Function pages](#), you will find the setup access for the rooms: if only the checkbox “View” is selected, the user will only be able to see lights, temperatures, alarm status,..., but not to control them. In this case the symbol  will be shown on the red side of the function.

When the “Change” checkbox is selected, he will also be able to control every element in that room.

Once you have finished the User setup, click on “OK” in the bottom of the list.



After finishing the users’ definition, press on “OK”: you can now start surfing your home!


## 3.2 NAVIGATION MENU

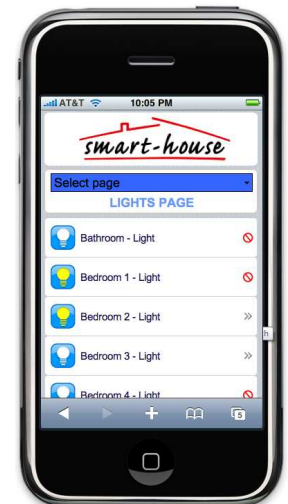
To control your home, go back to the [HOME PAGE](#) and enter Username and Password of one of the users you have just saved.

To enter click on “[Login](#)”.



The first page to be shown is the [LIGHTS PAGE](#) if enabled, otherwise a white page is shown and you have to select a new one by clicking on [SELECT PAGE](#).

If the lights of one room can not be changed by the user, the symbol  will be shown.



A drop down list will be shown, with all the functions and rooms enabled for this user.

Click on one of these to enter it.

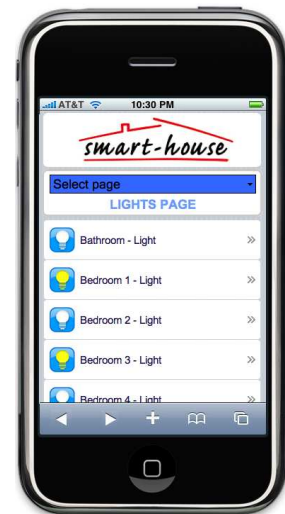


### 3.2.1 LIGHTS PAGE

Once you have selected the **LIGHTS** page, all the lights in your house will be shown.

The white icon means light OFF, while the yellow icon means light ON. To switch ON/OFF one light, just click on it: the name of the room will become **red** until the change is done.

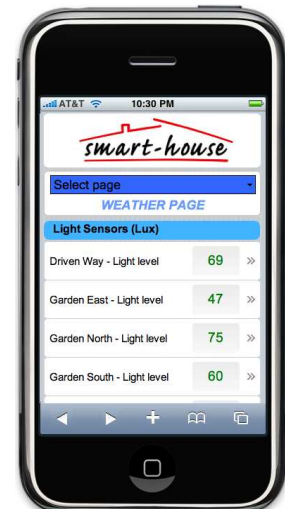
The lights shown in this page are the ones present in the rooms to which the user has been given the access.



### 3.2.2 WEATHER PAGE

The **WEATHER** page shows all the lights sensors, wind speed sensors and “extended range” temperature sensors (the ones generally used for outdoor applications). The sensors shown in this page are the ones present in the rooms to which the user has been given the access.

To change the ON/OFF setpoint related to one sensor, click on it: a **SETUP** page will appear.



In the sensors’ **PAGE SETUP** select the setpoint you want to change by clicking on it: the background will become **yellow**, and the actual setpoint **red**. Press on “+” or “-” to select the desired value. To save it click on **OK**, while to restore the previous value, click on **CANCEL**.

To go back to the main **WEATHER PAGE**, press on **BACK**.



### 3.2.3 ROLLER BLIND PAGE

The **ROLLER BLIND** page shows an icon for every roller blind that the user can control.

By clicking on **UP** or **DOWN** you can roll up or down the selected one.

While the roller blind is moving, a **red** arrow will appear on the icon.

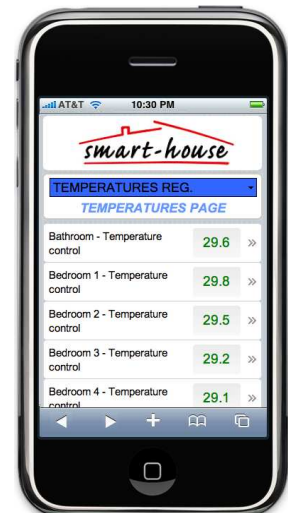
You can also move together all of them with the command **ALL UP** or **ALL DOWN**.



### 3.2.4 TEMPERATURES PAGE

The **TEMPERATURE** page shows every probe that the user can control.

By clicking on the selected one, you can modify the ON/OFF setpoint, like already described in the weather page paragraph.



### 3.2.5 TEMPERATURE REGULATORS PAGE

The **TEMPERATURE REGULATORS** page shows every temperature regulator (like TEMDIS) that the user can control.

By clicking on the selected one, you can modify the ON/OFF setpoint, like already described in the weather page paragraph.

*N.B. Due to the low speed of the Dupline bus, you have to wait for a few minutes before seeing the new setpoints on the regulators displays.*



### 3.2.6 HUMIDITY SENSORS PAGE

The **HUMIDITY SENSORS** page shows every humidity sensor that the user can control.

By clicking on the selected one, you can modify the ON/OFF setpoint, like already described in the weather page paragraph.



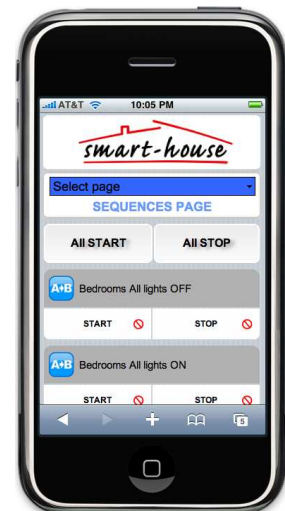
### 3.2.7 SEQUENCE PAGE

The **SEQUENCE** page shows an icon for every light sequence which is programmed in the house that the user can control.

By clicking on **START** or **STOP** the selected sequence will be activated or stopped.

While the sequence is ON, a **red** symbol will appear on the icon.

You can also activate/deactivate all the sequences together with the command **ALL START** or **ALL STOP**.



### 3.2.8 TIMERS PAGE

The **TIMERS** page shows an icon for every timer which is programmed in the house that the user can control.

By clicking on **START** or **STOP** the selected timer will be activated or stopped.

By clicking on the room name, you will enter the following page where the ON and OFF delay can be programmed.



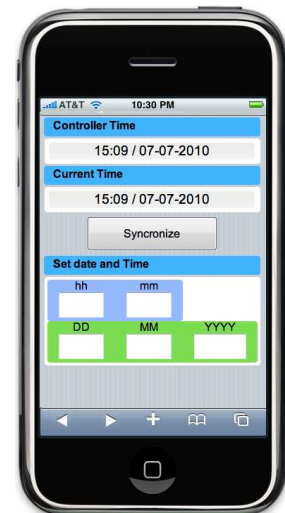
The hours, minutes and seconds can be changed touching the relative box: its background will become yellow, and with + and – the desired numbers can be selected.

The timer starts counting the ON and OFF delay when the light switch is pressed to switch the light ON and OFF, respectively.



### 3.2.9 SYSTEM TIME

From the [SYSTEM TIME](#) page the user can set the controller time by synchronizing it with the telephone (click on [SYNCRONIZE](#)) or filling in the desired date and time (click on [OK](#)).



### 3.2.10 ALARMS

In the [ALARMS](#) pages you can arm, disarm and see the alarm status. The icon is white if the alarm is not on, yellow if it is armed and red if it is activated (for example if the intrusion alarm has detected a presence).



### 3.2.1 ROOM PAGES

Below the **FUNCTIONS** pages, the user will find the list of rooms to which he has the access. Once he has selected the desired one by clicking on the icon, the relative page will open with the functions that can be controlled in this room.

All the functions can be managed as described in the previous paragraphs.

