



INT-TCP/IP-WEB

REMOTE ACCESS

TCP/IP INTERFACE

MANUAL 211022



MADE IN PORTUGAL - EU

GLOBAL FIRE EQUIPMENT S.A.

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CONFIGURATION MANUAL

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GENERAL DESCRIPTION

The INT-TCP/IP-WEB is an interface that extends new advanced features and functionalities to Chameleon Panels (GEKKO and OCTO+). Its enhanced hardware allows for an easier integration with existing LANs via Wi-Fi or optional Ethernet cable. An SD Card socket permits the interface to hold and store valuable data or simple firmware upgrades when needed. This is extremely handy on network debug and log needed situations.

Using our proprietary ODYSSEY protocol for Panel communication and a secure connection to a dedicated internet broker (external server), it is possible to receive “Live” events and monitor the connected panels 24/7, controlling and viewing in real time the panel status. The user-friendly dedicated webpage via internet browser provides a new and safe level of customer experience. The new added features, such as SMS and e-mail alerts, will push the remote monitoring capabilities even more.

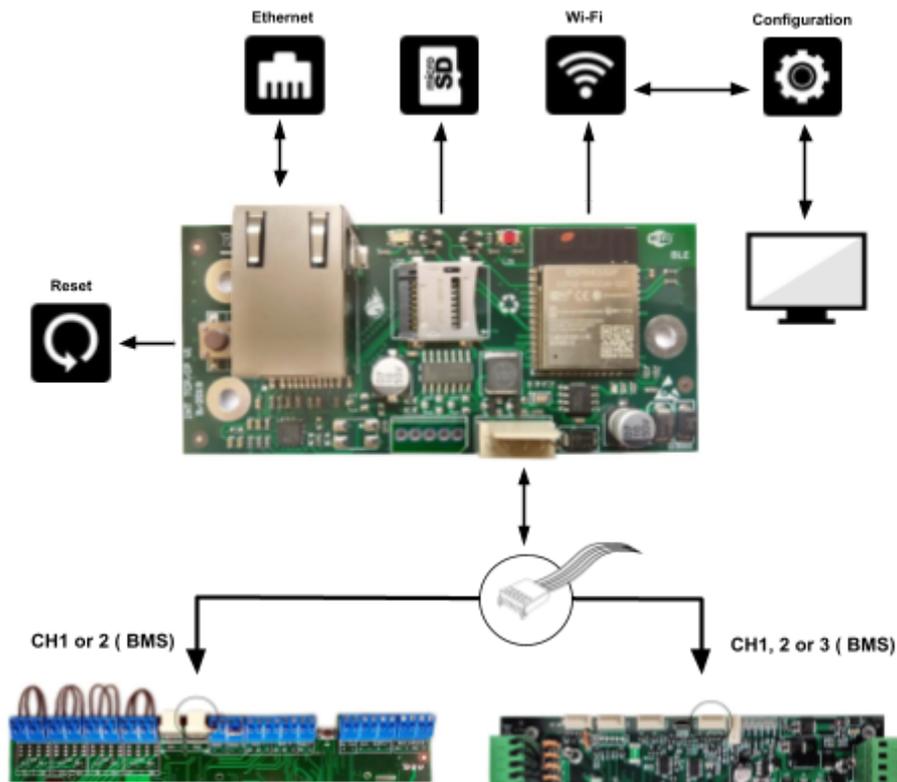
Interface configuration network, remote internet broker address, and all local parameters are all configured by means of an user friendly config web page that can be accessed directly by Wi-Fi AP mode (the interface must be in Access Point mode).

TECHNICAL SPECIFICATIONS

INT-TCP/IP-WEB	
SUPPLY VOLTAGE	20 to 30V DC
SUPPLY CURRENT	28 mA
CONFIGURATION	Remotely via WI-FI, Web page
COMMUNICATION CONNECTOR	Ethernet RJ45, Wi-Fi 2,4GHZ, BLE (Bluetooth Low Energy as future dev)
INPUT	Reset as default (advanced configurations)
OPERATING TEMPERATURE	-10°C to 50°C
DIMENSIONS	90 © x 40 (A) mm
WEIGHT	24 g
COMPATIBILITY	<i>Windows XP/7/8/10, MacOS, Linux, Android, IOS</i>
PANEL COMPATIBILITY	OCTO+, G-One, GEKKO and NODE+

CONNECTION DIAGRAM

Interface power and communication is routed via a 5 way flat cable that's connected to a 5 pin molex connector available at panels communication channels. The BMS configurable channels are: CH1 or 2 (GEKKO and CHAMELEON REP) and CH1, 2 or 3 (OCTO+).



PANEL CONFIGURATION

Panel communication uses our ODYSSEY protocol, which is available/selectable in any of the BMS channel.

BMS port configuration - ODYSSEY Protocol

After connecting the interface to the BMS channel, the panel address and ODYSSEY protocol must be selected in order to allow the communication between panel and webpage. Panel menu 8-5-6 BMS setup.

BMS Channels:

BMS - (CH 1 or 2) - GEKKO
BMS - (CH1, 2 or 3) - OCTO+
ADD = 01

Please refer to panels Installation Manual to learn more about the BMS channels.

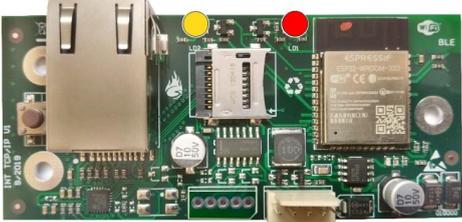
```
8-5-6 BMS Setup
Use ▲ , ▼ and ► to configure
CH2 : ODYSSEY                                ADD:01
Warning: Panel will reboot at the end.
```

Fig. 1 - BMS Menu

INTERFACE CONFIGURATION

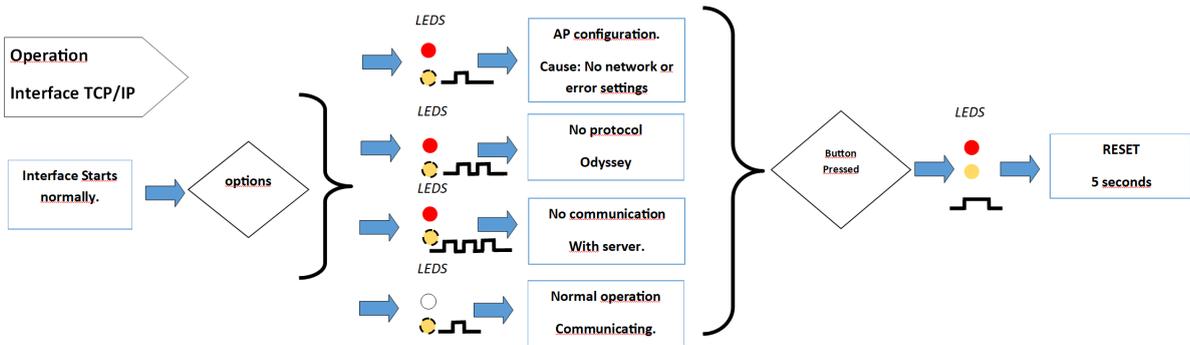
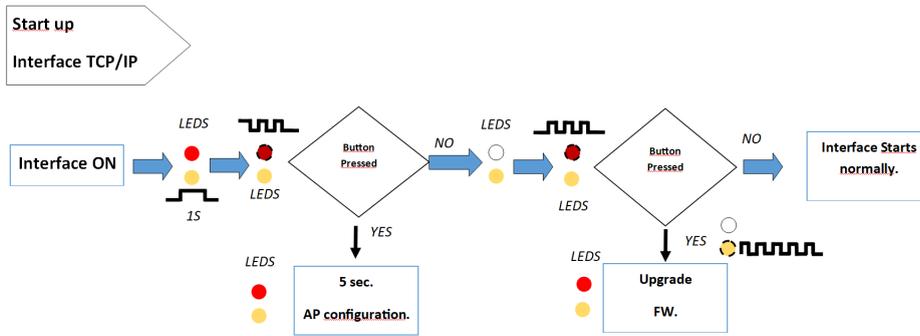
LEDs behaviour

Startup behaviour

GFE-TCP-IP-WEB	LED 2 (Yellow)	LED 1 (Red)	DESCRIPTION
 <p><i>LED 2 (Yellow)</i> <i>LED 1 (Red)</i></p>	OFF	OFF	No power.
	ON	ON	AP Configuration or Startup.
	FLASHING	OFF	AP firmware Update.
	FLASHING	FLASHING	Initializing (or wrong settings if blocked in this stage).
	ON	FLASHING	Not used.

Operation behaviour

GFE-TCP-IP-WEB	LED 2 (Yellow)	LED 1 (Red)	DESCRIPTION
 <p><i>LED 2 (Yellow)</i> <i>LED 1 (Red)</i></p>	OFF	OFF	No power.
	ON	ON	The interface was reset by the switch. Wait 5 seconds.
	FLASHING x2	ON	Without ODYSSEY protocol.
	FLASHING x3	ON	No communication. No Internet.
	FLASHING 1HZ	OFF	Normal Mode.



Configuration using Wi-Fi with module in AP MODE

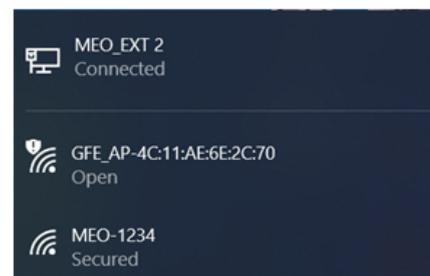
ATTENTION:

- **DURING THE CONFIGURATION PROCEDURE THE ETHERNET CABLE SHOULD NOT BE CONNECTED.**
- The interface comes by default as an Wi-Fi network access point mode. You must associate a computer with this “AP mode” wifi network to gain access to the interface configuration page.
- Every 30 minutes the interface will automatically restart (Time out) if no configuration has been programmed. A new connection will be needed.
- In case of malfunction we recommend the use of a micro SD card to easily access config.txt and debug.txt files. This is not mandatory. Please check the Advanced Debug Mode chapter of this manual.

1) Connect the interface to panel's BMS channel (ODYSSEY).

2) Both LEDs will flash once on restart. Wait until both LEDs are in the fixed position, without flashing.

3) Using your own personal device (Ex.Computer, Tablet or mobile phone) search in the Wi-Fi networks for the interfaces SSID MAC address. This can be identified as “GFE-AP-XX:....XX:XX”.



As an example in the image above there is one interface connected (MAC address), select the interface to your Wi-Fi network, it's an open Wi-Fi network without the need of a password.

4) Once a connection has been established with the interfaces "AP" MAC address, open a Web Browser and enter the configuration page IP address <http://192.168.4.1>

5) Push "Configure Interface" wait a few seconds and a new page will load. You are now ready to begin programming.

6) All the Wi-Fi networks that the interface was able to detect on site will appear, as well as the configuration parameters.

7) Select a Wi-Fi network to be used with the interface, if it's a protected network, enter a network access password. The lock symbol means that the network is protected, it is also possible to view the percentage of the signal strength.

ATTENTION:

- Always select a Wi-Fi network that has a signal strength greater than 20%.
- If you do not want to add any Wi-Fi please assign "0" to the SSID (WIFI OFF).
- Double Check if the panel is already configured as ODYSSEY (menu 8-5-6) and have a BMS ADD = 01.

8) *Optional:* it is possible to configure or add a Wi-Fi network that is not present in the search page. The interface can be programmed offline and as soon as it is connected, the interface will detect the configured SSID to the selected wifi network.

9) NETWORK: choose the connection type, value 0 for RJ45 cable connection, value 1 for Wifi connection.

10) DHCP Set a value of 0 to activate or a value of 1 to off.

11) IP Address - If you choose a connection without DHCP and cable (RJ45), configure a valid IP address.

12) Subnet Address - Configure a subnet address in case of cable connection and without DHCP enabled.

13) Gateway Address - Configure a valid Gateway address in case of connecting via RJ45 and without DHCP.

14) DNS_1- configure the primary DNS address for cable connection and DHCP disconnected.

15) DNS_2- configure a secondary DNS address for RJ45 connection and DHCP disconnected.

16) BROKER: *remote.createc.pt*

17) PORT: **8883**

18) USER: **B5D7F3**

GFE_AP-4C:11:AE:6E:2C:70

Interface GFE TCP/IP Wi-Fi Configurator

Configure Interface

Available Networks:

GFETEC AP_1	🔒 82%
GFETEC AP_GUESS_1	🔒 72%
broker AP	🔒 66%
NOS-73D6	🔒 56%
ZON-B360	🔒 42%
MEO WIFI	28%
(...)	...

SSID (0=OFF WIFI)
Password (0=OFF WIFI)
Network 0=RJ45(cable) 1=WIFI
Networks Settings (cable):
DHCP 0=ON 1=OFF
IP Address
SUBNET Address
GATEWAY Address
DNS_1 Address
DNS_2 Address
Server Settings:
Broker
Port
User
Password
Channel
Alert Settings:
Alert Type (0=EMAIL 1=SMS 2=EMAIL+SMS)
Email Recipient
Server SMS: (www.clickatell.com)
SMS API ID
SMS User
SMS Password
SMS To

Client ID : E874CEC2DDBC

Firmware Version : 1.2.1

SAVE

Scan

19) PASSWORD: **C9E3F6**

20) CHANNEL: The name of the channel, can be a name of your choice.
Or use "Channel" as default.

**NOTE: Underscore “_” must be used between names
(Example: gfe_tech).**

21) ALERT TYPE: to assign how you prefer to receive alerts. The value **0** to receive email alerts, the value **1** to receive SMS alerts, the value **2** to receive alerts by email and also by SMS, other any value or no value to turn off the alerts feature.

22) EMAIL RECIPIENT: to enter **the email** that wants to receive the email alerts.

23) SMS API ID: enter the **API KEY** number of the SMS sending service.
Registration must be made at www.clickatell.com

24) SMS USER: enter the user name of your SMS sending server account.

25) SMS PASSWORD: enter your sms sending service account password.

26) SMS TO: enter the phone number you want to send the alert by SMS.
The number must have the country's code. For example, for Portugal it should be entered the code 351 before the number, example:
351960000000.

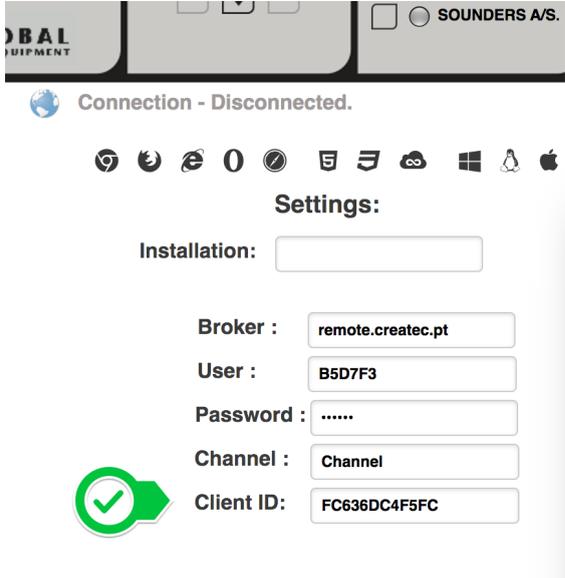
27) Press the "**Save**" button to save the settings.

The interface is now configured and associated with a Wi-Fi network, the interface will restart with the configured settings. Both LEDs will start flashing when the communication between interface and the internet broker (external server) has been established. Whenever it is not possible for the interface to connect to the configured network, it will make several attempts before going into access point mode.

You can now access remotely to <https://www.createc.pt/gk1/gfe/en/> and follow the "CONFIGURATION: WEB PAGE" section of this manual.

**Credentials and Setting saved.
Trying to connect Wired to network.
If it fails reconnect to AP to try again.
Version Firmware: 1.2.1**

ATTENTION: All settings parameters must be assigned correct values. The Client ID param, that will be requested at the website, is indicated on the configuration page when set in Configuration AP Mode.

<p>Server SMS: (www.clickatell.com)</p> <p>SMS API ID</p> <p>SMS User</p> <p>SMS Password</p> <p>SMS To</p> <p>Client ID : FC636DC4F5FC</p> <p>Firmware Version : 1.2.5</p> <p>SAVE</p> <p>Scan</p> <p>NOTE: <i>The Client ID is the MAC ADDRESS inverted.</i></p>	
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Factory reset and Wi-Fi configurations reset

At any time you can delete/correct any settings, the procedure is as follow:

- 1) Power the interface using the dedicated communication channel.
- 2) Wait for the Yellow LED to light up, after Red LED will flash 3 times, press and hold the "Restart" button for a period of 2 seconds until the Yellow LED turns OFF, stop pressing the button at this point.
- 3) The red LED will stay ON permanently for 5 seconds and the interface will now restart in access point mode with all the settings erased.

Connecting with Ethernet cable (RJ45)

- 1) The settings procedure should be always programmed via Wi-Fi, as previously described. Only connect the interface cable after power is OFF.
- 2) Turn interface power ON (using panel).
- 3) Wait for both LEDs to start blinking. When the two LEDs flash alternately the interface is communicating with the server.

ATTENTION:

- **DURING FIRMWARE UPDATE PROCEDURE THE ETHERNET CABLE SHOULD NOT BE CONNECTED.**
- **The connection to the internal network should allow the interface to be connected by DHCP with access to the exterior. If this is not possible the interface cannot communicate with the internet broker (external server).**

Email or SMS Alerts

Starting with firmware version 1.1.1, the interface can send alerts by SMS or by email, or in both modalities. For alerts to be enabled, you must make the respective settings. The alerts you receive, is a short text message describing what originated the alert, and identifies who sent by the client ID and channel configured in the interface.

The alerts you can receive are as follows:

- When the interface starts communications with the internet broker (external server).
- When the panel on fire, and also when I came out of the fire alarm.
- When the panel fails and then when I left the failed state.
- When the panel disabled and then when I left that state.
- When the panel a pre-alarm or when I'm out of that state.
- When the panel test mode or then when I left like this.
- When communication begins with the panel and the System LED is turned on.

ATTENTION: There are no guarantees of receiving alerts. If the connection to the mail or SMS server is not possible, the alert will not be sent, but the interface continues with its normal operation. For SMS server detailed function please check www.clickatell.com for further info.

Service www.clickatell.com (SMS)

- 1) Access to client area and, after register and login, go to Workspace
- 2) Verify or add in "Test Phones" all desired phone numbers to be used
- 3) Go to "Channels->SMS" and on "My SMS Setups" add the new user/interface, it will be shown the **API KEY needed to be configured on the interface.**

My Workspace / SMS Channel / SMS Setup Details

The screenshot displays the 'SMS Setup Details' page. On the left, the 'HTTP API Details' section shows 'Date Created: 2020-08-10' and an 'Update Changes' button. Below this are sections for 'Setup Details' (including Setup Name, Message Type, Setup Type, and SMS Service Class), 'API Settings' (with toggle switches for fraud protection and delivery notifications), 'SMS Channel Settings' (with toggle switches for message parts and international format), and 'Add Test Phones'. The first test phone entry, '+351911223311', is highlighted with a red box. On the right, a detailed view of the 'HTTP API Details' is shown, with the 'API Key' field containing 'H44kE2-6Qs...' and a 'Hide' button. Below the API key is a 'Generate New Key' button. The 'API ID' is 'ff808081731...a002155'. A 'Code Library' section shows a 'CURL' call: 'curl "https://platform.clickatell.com/messages/http/send?apiKey=H44kE2-6Qs...to=351934871959&content=Test+message+text"'. The 'CURL' tab is selected, and the 'Javascript' tab is also visible.

Firmware update by micro SD card (recommended method)

You can update the interfaces firmware with a micro SD card, format FAT32, the procedure is as follow:

- 1) Save the update firmware file "**upgrade.bin**" to the micro SD card.
- 2) Turn interface power OFF, and insert the micro SD card into its socket.
- 3) Turn interface power ON. If the file is valid the update starts Automatically.

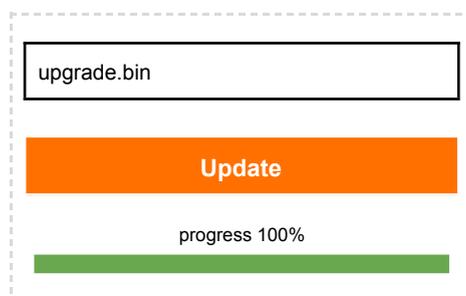
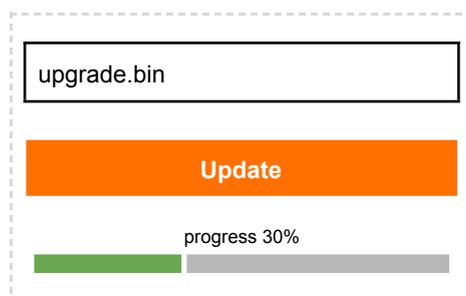
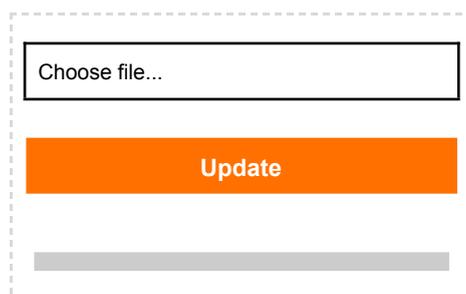
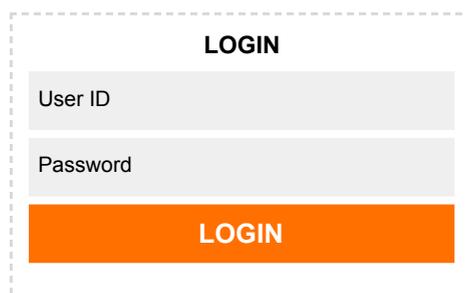
ATTENTION: NEVER RENAME OR CHANGE the file name. Do not turn power OFF while updating the firmware, it may cause the interface or micro SD card to malfunction.

- 4) Wait a few seconds, the red LED will always be ON and the Yellow LED will always be OFF until the update is complete. The update file at the end of the process will be automatically deleted from the card.
- 5) At the end of the update, the interface will automatically restart. The LEDs will start flashing and soon after both LEDs will be fixed in ON position.
- 6) Turn the interfaces power OFF.
- 7) Turn power ON to reconnect, the interface will start with the new firmware in "AP" mode.

Firmware update via Wi-Fi

A firmware update can be transferred to the interface via a Wi-Fi network. The procedure is as follow:

- 1) Turn interface power ON, the two LEDs Red and Yellow will light up, as soon as the yellow LED will goes OFF, press the "restart" button and hold it, until the red LED is completely OFF. Stop pressing the button then.
- 2) The Red LED will blink ON and OFF, the Yellow LED will remain ON, the interface is now ready to be updated via Wi-Fi.
- 3) Search in Wi-Fi network for the interface SSI MAC address, this can be identified as "GFE-UP-X:X:X" or "GFE-AP-X:X:X", the X:X:X its an open WI-FI network without the need of a password.
- 4) Once a connection has been established with the interfaces "AP" MAC address, open a Web Browser and enter IP address **192.168.4.1**
- 5) In the web page, use the login details for "User ID" as **gfe** and "Password" as **efg**, click on "Login" to enter the update page.
- 6) Click on "Choose file..." and search in your local folder/desktop for the firmware update file as "upgrade.bin".
- 7) Click the "Update" button, to begin the firmware update.
- 8) It's possible to view the update progress in the "green" bar, please wait until it reaches 100%.
- 9) After a few seconds the two LEDs Red and Yellow, will be permanently turned ON. The interface is now updated with firmware and prepared in AP mode for the new settings.



ATTENTION: The interface in normal operation, if you press the switch for 2 seconds, within 2 to 4 seconds the interface will reset. At the time of the reset the switch should be released.

WEBPAGE ACCESS AND CONFIGURATION

To access the website enter the link of our server: <https://www.createc.pt/chameleon/gfe/en/>

Interface: Broker status: Disconnected.

Block Buttons Activate Buttons

Settings:

Installation:

Broker :

User :

Password :

Channel :

Client ID:

ATTENTION: The link domain of the website may change, please contact the manufacturer for more information. The connection between the interface and the internet broker (external server) as well as the web page to the server is secured by SSL. Firefox browser is not supported and it will not get connection, due to the browser not accepting data in WSS secure websockets.

SETTINGS:

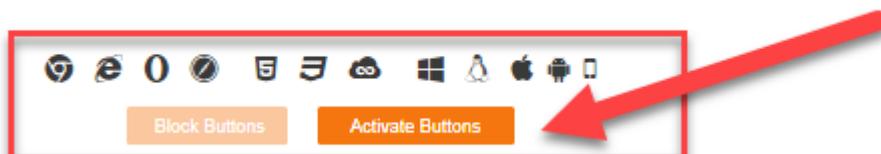
1. **Installation** - Installation ID name, this is optional.
2. **Broker** - *remote.createec.pt*
3. **User** - B5D7F3
4. **Password** - C9E3F6
5. **Channel** - Channel name previously recorded in the interface
6. **Client ID** - This number is the reversed number of the Mac address of the interface.

NOTE: For example, if the MAC address of the interface is **BC:DD:C2:CE:76:97** the Client ID is: **9776CEC2DDBC**

NOTE: Click on “Activate Buttons” to enable overlay buttons.



Example below:



In order to read saved settings, write 'Installation Name' previously set and press the 'Read' button.

Additional buttons available have the following function:

Connect - Connecting web page to internet broker (external server)

Settings - Hide/unhide communication parameters

Read - Read parameters of previously saved installation. Place 'Installation' name and click on 'Read'

Save - Save parameters after defining 'installation name'

Clear Item - Delete loaded installation parameters

Clear All - Delete all saved installation parameters

Restart - Reload webpage

Exit - Exit webpage

FREQUENTLY ASKED QUESTIONS - DIAGNOSTIC

Advanced Debug Mode

If the interface is communicating via Wi-Fi, it's possible to read/save errors events and read the interface settings using a micro SD card.

Simply insert a micro SD card formatted in FAT32 into the interface slot, the interface will automatically create 2 files.

- A file called **config.txt**, which is the written settings that were made in the interface configuration page..
- A **debug.txt** file, in which writes the errors and events that happen with the interface. In the **config.txt file**, the last settings made are always written.
- In the **debug.txt** file, the error messages are cumulative, that is, the previous ones are not deleted. To read it, remove the memory card from the interface and read the text files with a PC.

If at any time, the communication between the interface and webpage is not achieved, please check the following:

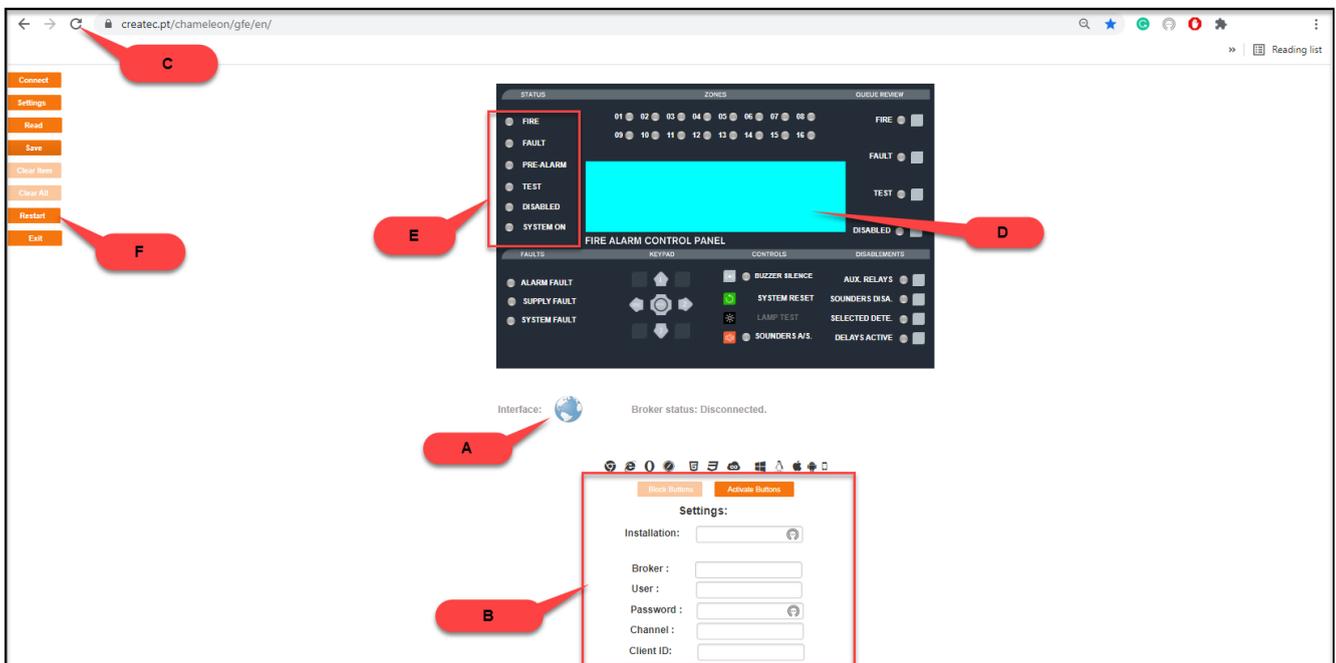
Unlocking ports

For closed networks, the ports that need to be unlocked are:

8083 - web page

8883 - interface

Troubleshooting guide lines



I = INTERFACE

G = GENERAL

EXHIBIT	PROBLEM	CAUSE	SOLUTION
A	After connecting, the globe does not flash.	Interface is not communicating with broker.	Update and verify the settings. See the interface link with the broker.
A	The globe flashes, but no information is displayed in web page.	Interface is connected, but there is no connection with panel.	Check the flat cable connection between interface and BMS port channel. Check is BMS settings are correctly configured (ODYSSEY)
B	Connection error. Error message.	Cannot connect to the broker. Wait a few minutes the broker may be down.	settings are correct, and that the credentials are correct with access to the broker.
C	Menu disappeared.	It is normal operation after an attempted connection.	Refresh web page.
D	Display without characters.	The panel has been initialized, the logo appears on the panel.	Wait for the panel to start, and for the characters to appear on the panel display.
D	Web-page message shows "NUB".	Connection error with panel.	Check if the BMS channel protocol is configured to ODYSSEY. check 5 way flat cable for improper connection or damage.
E	The LEDs do not flash in panel web.	It is the expected operation. It depends on the firmware version.	the LEDs may not flash, they turn on when they want to signal a status on the remote panel.
D	web-page shows "NaN"	panel ID number, does not match BMS ID channel	Check if panel number in menu 8-5-1, matches the same BMS ADD in menu 8-5-6.
A	The panel information appears to have frozen.	The panel can be in its normal state without changes.	Check if the globe flashes, if not, the interface has stopped communicating.
B	I don't see any information on the panel.	Wrong settings, without interface communication.	Check that the interface is communicating on the same channel as the settings.
F	Even without turning on the interface, data appears on the panel image	The data that appeared was the last moment the panel was connected.	The last information received is always recorded. When the interface is reconnected, the data is updated.
I	Upon programming interface settings, no connection is established.	Interface settings could have missing characters or incorrect characters.	Start programming from the beginning and check settings from missing characters., it's important that "SSID" and "PASSWORD" are used as described in manual.
A	Only "Connection..." message is displayed.	There is no connection between web page and broker. Closed network or denied access to internet broker.	If using Firefox as a web browser, try using a different browser such as Chrome or Edge. Check your network for open or blocked usage. Internet Broker may not be available.
A	Error message UTF-8	Language format error	Language characters not supported by UTF-8. Please contact the manufacturer.
I	Cannot login to AP Mode	Interface cannot be found in local network.	Remove interfaces power, wait a few seconds and try again.
I	Lost interface connection after 30 minutes..	Waited for more than 30 minutes for configurations to be sent to interface.	- Time has expired. - 30 minutes is the maximum allowed time for programming. - Interface will initialised automatically.
I	All LEDs are OFF.	Hardware fault	Check interfaces power supply. Replaced interface.

I	Interface does not detect any Wi-Fi networks during programming.	it's not possible to connect to a Wi-Fi network. Network strength signal is too weak, nor is visible.	Change interface location and check for Wi-Fi network strength.
I	Programmed the connection to cable, but red LED is constantly flashing.	No access to network via RJ45 cable, problem related to closed network or cable itself.	Check if ethernet cable connection. Check for closed network settings. Check if server as DHCP active.
I	1 or 2 LEDs stopped flashing.	Interface has lost connection with Internet Broker (external Server). Main Broker could be down or OFF or loss of connection.	Wait a few moments. Check if the network allows connection to the exterior. Interface will automatically connect, when network is available.
I	Fail to update interfaces firmware.	Wrong firmware file.	Check if you have the correct firmware file. Do not change file name.
I	No Debug data is written in SD card.	SD card format is different form of FAT32 or card could be damaged. Ethernet cable is connected to interface.	Replace SD card. Ethernet cable must be removed to allow Debug feature to work well.
I	Lost connection after RESET to switch.	During normal operation, if switch is reseted, the interface will also RESET.	Press the interface RESET button during 2 seconds.Wait for interface to re-start.
I	Constant loss of connection with Internet Broker (external Server).	Connection to the network(internet) could be faulty.	Check clients network connections. Reset interface and switch. Check if network is close/blocked.
G	Interface does not send alerts.	Wrong alerts messages selection. Alert server services unavailable (SMS, e-mail)	Check if configuration are properly made. Wait a few minutes and try again.
G	Wrong programming file, Config.txt.	The programming was not correctly made. Exceeded the 30 min allowed time.	Re-load AP MODE and program interface.
G	Emails alerts are not received.	Wrong email message selection. Alert server services unavailable.	Check alerts selections. Check for internet access. Wait a few minutes and try again.
G	SMS alerts are not received.	No SMS account has been created. Server could be unavailable (SMS, e-mail).	Check if SMS account is active. Check if service is available.
G	Alerts are activate, but in a event situation the connection is lost.	Normal operation with alerts active. While the alert event is being sent, the server will temporarily turn off.	Wait for 4 seconds, interface will once again establish communication. Check in web page if globe is flashing.



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