UPS / BATTERY CHARGERS

USER'S MANUAL BRIEF GUIDE

GENERAL FEATURES:

Full operation without the need for a battery
Local monitoring with 8 LEDs
Remote monitoring with 4 alarm relays
Monitoring and configuration via RJ45/Ethernet
Protocols TCP/IP, DHCP, ICMP, HTTP, SNTP, LDAP
Embedded WEB server
Battery capacity test without heat dissipation
Temperature sensor

3 YEAR WARRANTY

ROHS REACH

MODEL SELECTION TABLE

	OUT-1	OUT-2	OUT-3	TOTAL POWER	PEAK POWER	BATTERY	INPUT ISOLATION
EPS-120 NP-0719	48 V / 3A 4.6Apk	-	-	120W	180W	48V	10000 Vrms
EPS-200 NP-0716	48V / 5.2A 10.3Apk	-	-	200W	400W	48V	10000 Vrms
EDT-150 NP-0715	12V / 16A 25Apk	48V / 2.2A 5.2Apk	48V / 0.83A 0.83Apk	150W	250W	12V	3000 Vrms

1. PRODUCT INSTALLATION

The charger is a wall-mounted device, cooled via natural convection. Figures 1 and 2 show the proper installation position. Do not cover the ventilation slots placed on the device's sides so the air can circulate.

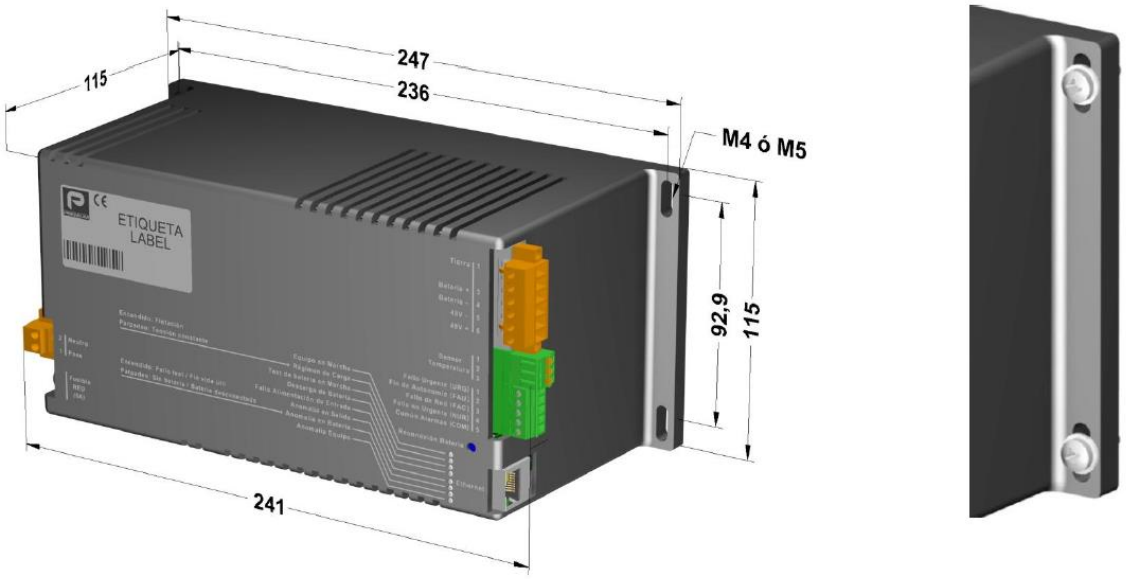

Figure 1.- Device installation position (NP-0719 and NP-0716)

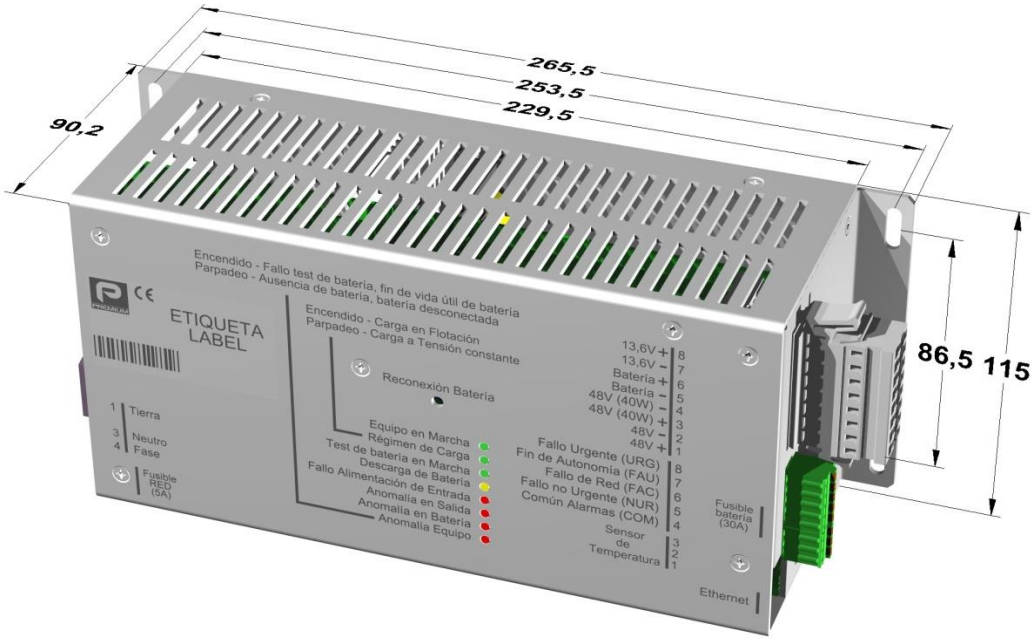

Figure 2.- Device installation position (NP-0715)

Charger weight, including connectors, is less than 1.3 kg. For attachment to the wall, use four M4 or M5 screws with standard flat washers. Maximum torque applicable is of 1 Nm.

Prevent the introduction of liquids or objects through the ventilation slots as the equipment integrity may be compromised.

1.1. START-UP

Make all the necessary connections with appropriately sized wires as shown in Tables 1 and 2.

Table 1.- External connections for NP-0716 and NP-0719 models

Function	Connection	Recommended minimum copper cross section		Maximum copper cross section allowable
Electricity Grid Input	1- Phase 2- Neutral	NP-0716 NP-0719	1.00 mm^2 0.75 mm^2	2.50 mm^2
Output Ground	1- Ground	NP-0716 NP-0719	1.00 mm^2	2.50 mm^2
Battery	3- Battery Positive Terminal (+) 4- Battery Negative Terminal (-)	NP-0716 NP-0719	1.50 mm^2 1.00 mm^2	2.50 mm^2
Output	5- 48 V Output (+) 6- 48 V Output (-)	NP-0716 NP-0719	1.50 mm^2 1.00 mm^2	2.50 mm^2
Alarms	1- Urgent Failure (URG) 2- End of Autonomy (FAU) 3- Mains Outage (FAC) 4- Non-Urgent Failure (NUR) 5- Alarms common ground (COM)	0.25 mm^2		0.50 mm^2
Temperature Sensor	Included in the package			

For Mains Input connection, use a BLZP 5.08HC/02/180F pluggable connector with 5.08 mm pitch spacing (2 positions) or equivalent.

For Battery, Output and Ground connection, use a BLZP 5.08HC/06/180F pluggable connector with 5.08 mm pitch spacing (6 positions) or equivalent.

For Alarms connection, use a PHOENIX MC 1.5/5-ST-3.8 pluggable connector with 3.81 mm pitch spacing or equivalent.

Table 2.- External connections for NP-0715 model

Function	Connection		Recommended minimum copper cross section	Maximum copper cross section allowable
Electricity Grid Input	1- Ground 3- Neutral 4- Phase		1.00 mm^2	2.50 mm^2
Battery	5- Battery Positive Terminal (-) 6- Battery Negative Terminal (+)		4.00 mm^2	4.00 mm^2
Output	1- 48 V Output (+) 2- 48 V Output (-) 3- 48 V Output (40 W) (+) 4- 48 V Output (40 W) (-)	Salida 3+ Salida 3- Salida 2+ Salida 2-	1.00 mm^2	4.00 mm^2
	7- 13.6 V Output (-) 8- 13.6 V Output (+)	Salida 1- Salida 1+	4.00 mm^2	
Alarms	1- Urgent Failure (URG) 2- Final of Autonomy (FAU) 3- Mains Outage (FAC) 4- Non-Urgent Failure (NUR) 5- Alarms common ground (COM)		0.25 mm^2	0.50 mm^2
Temperature Sensor	Included in the package			

For Mains Input and Battery, Output and Ground use the same pluggable connectors than for the models NP-0716 and NP-0719

For Output connection, use a BLZP 5.08HC/06/180F pluggable connector with 5.08 mm-pitch spacing (4 positions) or equivalent. Additionally, connect the ground terminal to a bolt situated on the lateral of the device.

In Figures 3 and 4, you can find the position of the connections on the device.

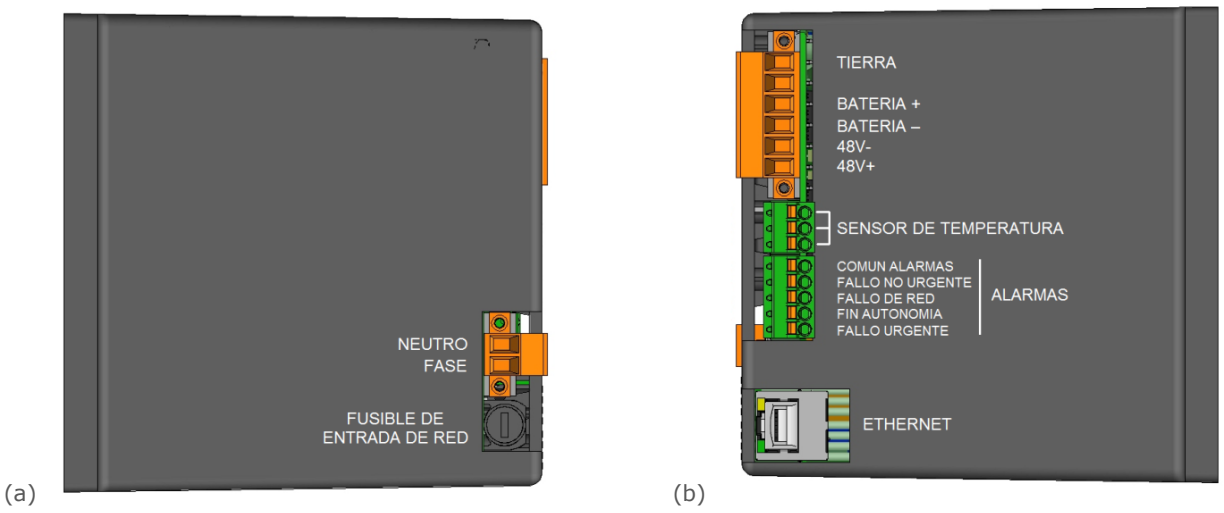

Figure 3.- Models NP-0716 and NP-0719. (a) Left side view and (b) Right side View

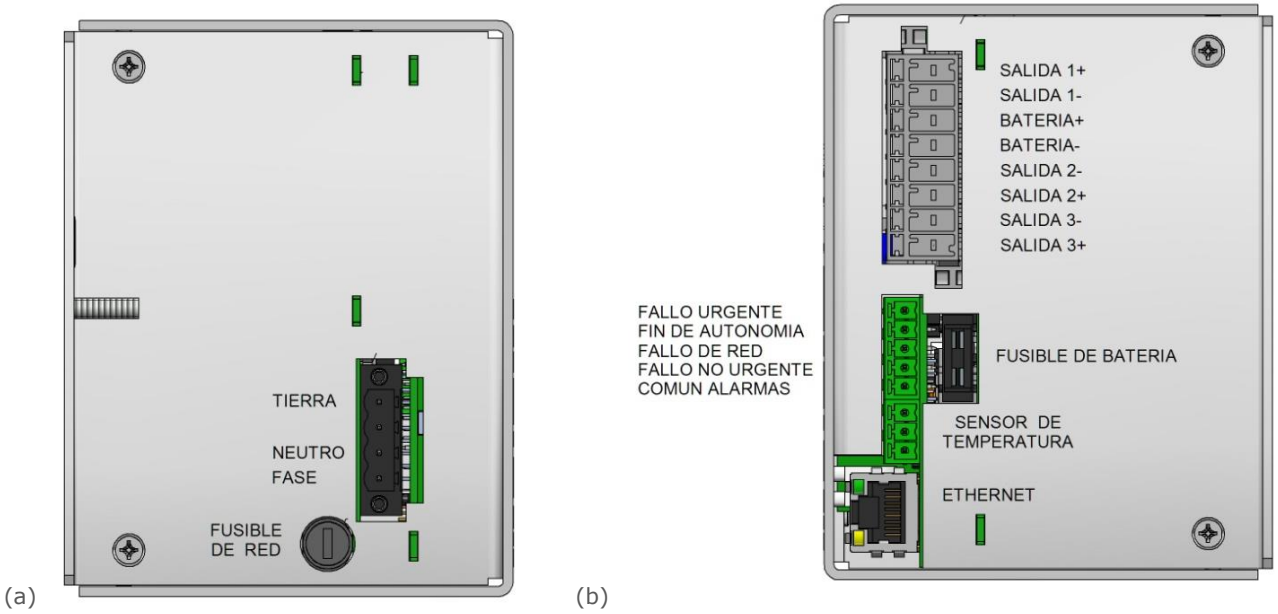

Figure 4.- Model NP-0715. (a) Left side view and (b) Right side View

1.2. LED indicators

Table 3.- LED indicators and their meaning

LED	Colour	LED status	Meaning
Equipment running	Green	Steady	Charger ON
Charging mode	Green	Steady	Battery charging in floating mode
		Blinking	Battery charging in constant voltage mode
Battery test in progress	Green	Steady	Battery test in progress
Battery discharge	Yellow	Steady	Battery discharge
Input power fault	Red	Blinking	Out-of-range input voltage
Output anomaly	Red	Blinking	Out-of-range output voltage
Battery anomaly	Red	Steady	Failed battery test, end of battery life
		Blinking	Out-of-range battery voltage
Equipment anomaly	Red	Steady	Temperature sensor error
		Blinking	Internal charger error

2. REMOTE CONNECTION

	**WARNING:** Before operating with the charger, be sure to read the User's Manual and understand its complete functionality. Do not manipulate the product or its configuration unless you understand and comprehend all the possible effects the action may cause. Be aware that any incorrect manipulation or configuration may render the product non-operative and deteriorate the batteries or the system.

First, find out whether your device (PC, laptop…) has the adequate Network requirements to establish and, if necessary, modify the connection. Otherwise, contact with authorized personnel.

To access the charger, you need to know the specific IP of the device in use. Each unit connected to the network must have its own and unique IP address. By default, the remote IP address of the product is 100.0.0.100.

Step 1: Connect the device (PC, laptop…) you will use to the charger's network. You may need to establish specific links in your device (PPP, VPN…).

Step 2: *Optional but highly recommended.*

Check the connection with the product using the *ping* command in your device to the charger's specific IP address.

If you don't have a connection, configure the device again or contact authorized personnel.

```
C:\>ping 100.0.0.1

Pinging 100.0.0.1 with 32 bytes of data:
Reply from 100.0.0.1: bytes=32 time<1ms TTl=63
Reply from 100.0.0.1: bytes=32 time<1ms TTl=63
Reply from 100.0.0.1: bytes=32 time<1ms TTl=63
Reply from 100.0.0.1: bytes=32 time<1ms TTl=63

Ping statistics for 100.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0
    (0% loss),
Aproximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

Figure 5.- Successful PING command

Step 3: Open the Internet browser and type the default local IP address.

Compatible browsers (PC):

Mozilla Firefox (26.0 or higher)
Google Chrome (29.0 or higher)
Internet Explorer (11.0 or higher)

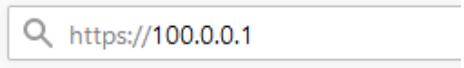

Figure 6.- IP address in the browser

Step 4: Enter the **user** and **password** to access the website and choose the operation mode: Administrator or Viewer, with restricted areas.

Note: With local connection, there is no access to the LDAP server as such, the user and password are:

User: **consulta**
Password: **consulta**

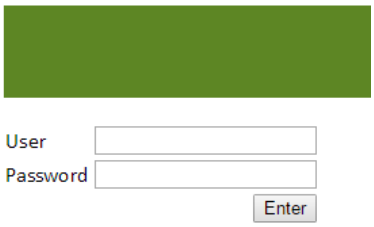

Figure 7.- Access panel

Step 5: Perform the required operations

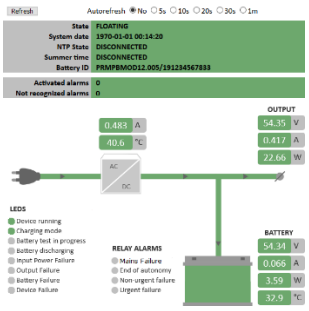

Figure 8.- Synoptic panel

3. WEB BROWSING

3.1. Webpage structure

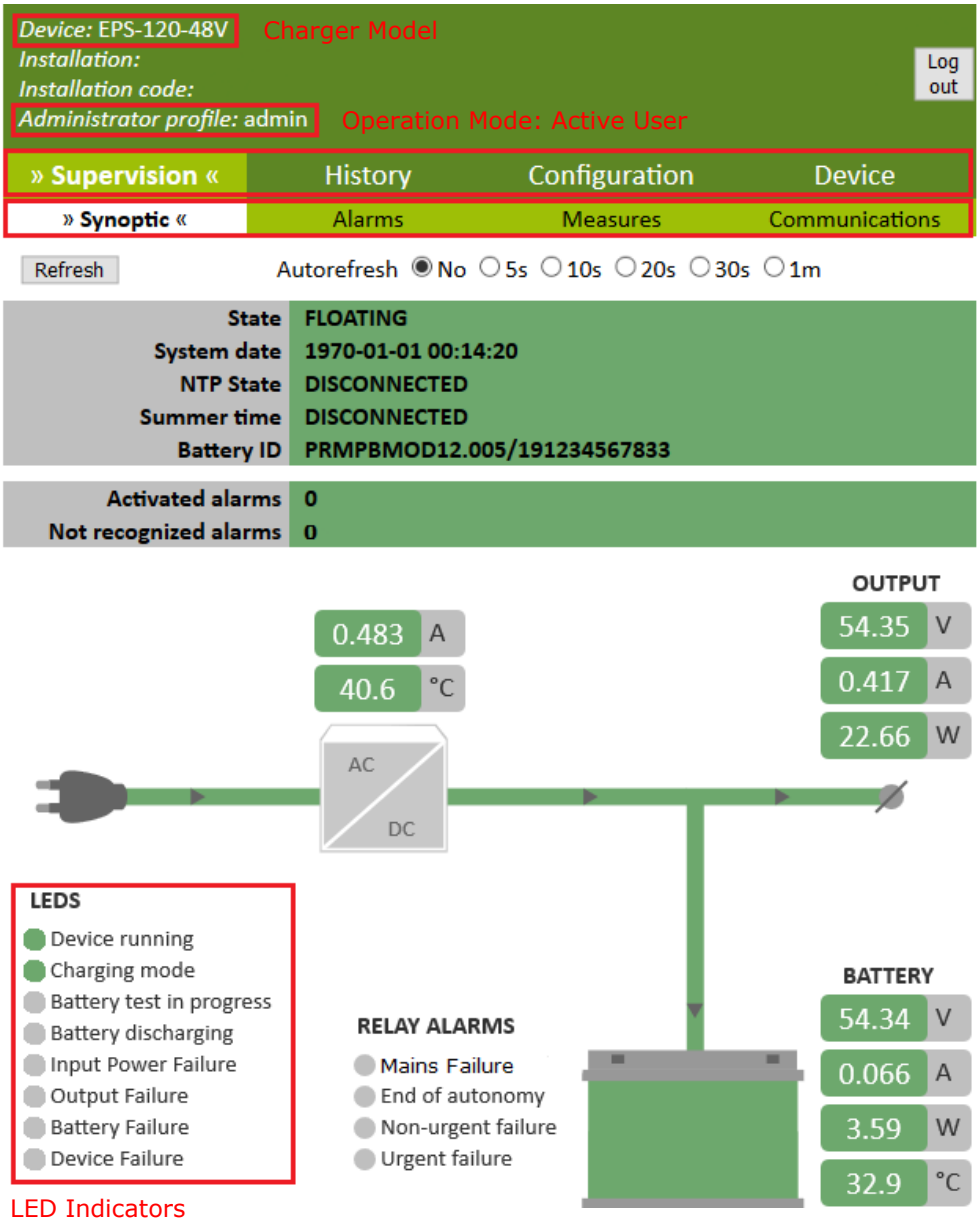

Figure 9.- Website front panel

3.2. Common Actions

Table 4.- Common actions in Viewer mode

Action	Menu	Submenu
Check general parameters and functionality	Supervision	Synoptic
Check active alarms	Supervision	Alarms
Check measures	Supervision	Measures
Check network parameters	Supervision	Communications
Check event log	History	Event Log
Configure an XML file	Configuration	XML Configuration
Configure electrical parameters	Configuration	Settings
Configure network parameters	Configuration	Network
Check charger parameters	Device	-

4. LOCAL CONNECTION

WARNING:

Before operating with the charger, be sure to read the User's Manual and understand its complete functionality.

Do not manipulate the product or its configuration unless you understand and comprehend all the possible effects the action may cause.

Be aware that any incorrect manipulation or configuration may render the product non-operative and deteriorate the batteries or the system.

To establish a local connection with your equipment, you must be physically close and have access to it. Beforehand, determine whether your device (PC, laptop, …) has the adequate network requirements to make the connection and, if necessary, modify it. Otherwise, please contact with authorized personnel. Each unit connected to the network must have its own and unique IP address.

The procedure to connect the product locally, with an established connection to the mains, is the following:

Step 1: Press the "*Reconexión Batería*" button for at least 10 seconds until all the LED blink.

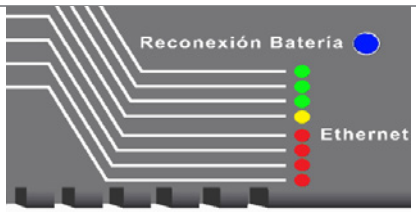

Figure 10.- Button and LED diodes

Step 2: Connect the PC to the product's Ethernet socket. If it is connected to another element (Router, Switch…) unplug and connect directly to the device in use.

Program the PC with:
IP address: 100.0.0.2
Mask: 255.255.255.0

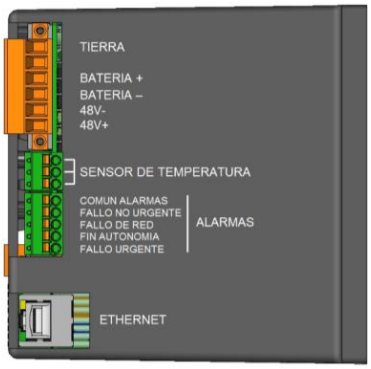

Figure 11.- Ethernet Socket

Step 3: *Optional*

Check the connection with the product using the *ping* command in your device to the default local IP (100.0.0.1).

If you don't establish a connection, retake Steps 1 to 3 again or contact authorized personnel.

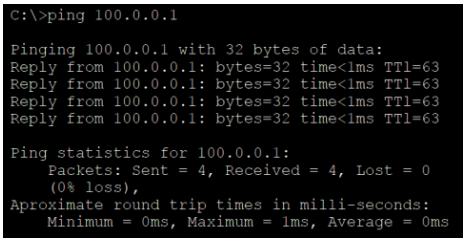

Figure 12.- Successful PING command

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Compatible browsers (PC):

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Figure 13.- IP address in the browser

Step 5: Enter the **user** and **password** to access the website and choose the operation mode: Administrator or Viewer, with restricted functions.

Note: With local connection, there is no access to the LDAP server as such, the user and password are:

User: **consulta**
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Figure 14.- Access panel

Step 6: Perform the required operations.

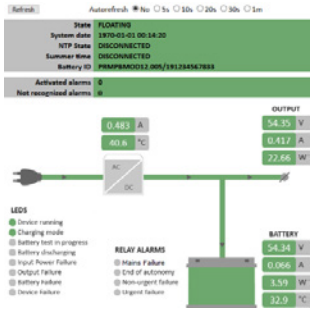

Figure 15.- Website front panel

Before leaving, return to the normal operating mode (remote). Press the "Reconexión Batería" button for at least 10 seconds until all the LED stop blinking.

The maximum time allowed for the local connection is 20 minutes. After this time has passed, the device will automatically reset itself to the remote configuration.

5. BATTERY REPLACEMENT

Due to the periodic battery checks the product performs, it can detect whether the battery in use has the voltage levels required for the correct operation of the charger. Otherwise, an alarm is activated, and you must proceed to the substitution of the battery.

WARNING: Before operating with the charger, be sure to read the User's Manual and understand its complete functionality.

Do not manipulate the product or its configuration unless you understand and comprehend all the possible effects the action may cause.

Be aware that any incorrect manipulation or configuration may render the product non-operative and deteriorate the batteries or the system.

The battery terminals pose a potential hazard even when the product is not in use. Access to the batteries is limited to qualified personnel. To prevent accidents and injuries, follow the safety instructions exposed in this section.

Step 1: The *"Battery Failure"* alarm generates, the red Battery LED starts to blink and the "Urgent Failure" relay activates.

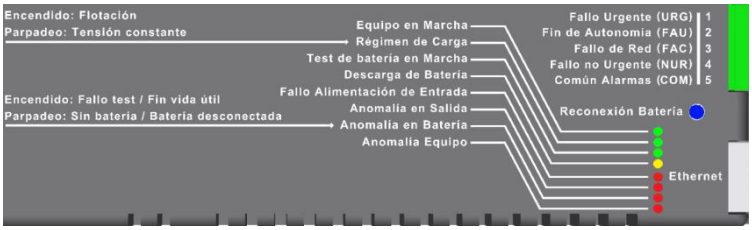

Figure 16.- LED and relay position

Step 2: Batteries, even the degraded ones, may contain enough energy to pose a potential hazard towards people and equipment.
Do not touch any kind of electrically conductive elements with the battery terminals.

Step 3: To ensure the operator and the equipment protection, PREMIUM recommends changing the battery with the device completely turned off. If not possible, refer to Step 4. If not, refer to Steps 5 and 6 or contact qualified personnel. Continue in Step 7.

Step 4: Proceed to turn off ALL the elements and services connected to the charger, disconnect the battery and the mains connection. The charger will shut down completely. Substitute the battery.

Step 5: Disconnect the battery following the safety rules. Make sure the battery terminals or the charger output do not connect with anything in the device.

Step 6: Force a Missing Battery Test.
Press the *"Reconexión Batería"* button between 6 and 10 seconds until all the LED are ON to do so.
Once the test finishes, the charger will indicate that there is no Battery connected and reset the alarms related to "Battery Failure".

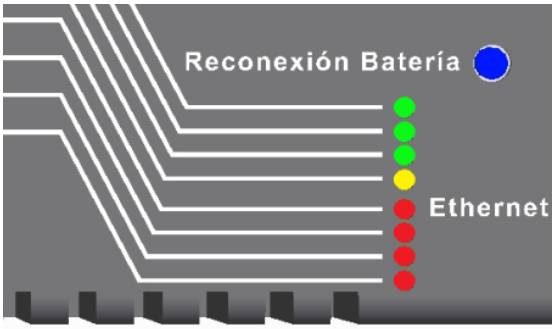

Figure 17.- LED Indicators

Step 7: **Make sure to connect the battery with the correct polarization.**
Use external measuring equipment if needed.

Figure 18.- Example of measuring equipment

Step 8: Turn on the installation. Once finished, all the alarms should have disappeared, and the LED will indicate that the device is charging the battery.

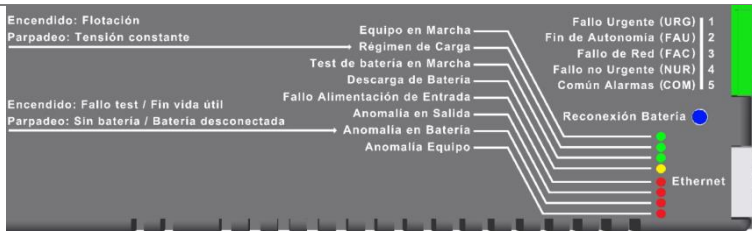

Figure 19.- LED and relay position