

FR 2-7 / 44-48

EN 8-13 / 44-48

DE 14-19 / 44-48

ES 20-25 / 44-48

RU 26-31 / 44-48

NL 32-37 / 44-48

IT 38-43 / 44-48

GYSFLASH 32.12 PL

SAFETY INSTRUCTIONS



This manual contains safety and operating instructions, to be followed for your safety. Please read it carefully before using the device for the first time and keep it for future reference. This device may only be used for charging and/or power supply within the limits indicated on the device and manual. The operator must observe the safety precautions. In case of improper or unsafe use, the manufacturer cannot be held liable.



The device is designed for indoor use. It must not be exposed to rain.

This unit can be used by children aged 8 or over and by people with reduced physical, sensory or mental capabilities or lack of experience or knowledge, if they are properly monitored or if instructions for using the equipment have safely been read and potential risks understood. Children must not play with the product. Cleaning and maintenance should not be performed by an unsupervised child.

Do not use to charge domestic batteries or non rechargeable batteries.

Do not use the charger if the mains cable or plug is damaged.

Do not use the device if the charging cable appears to be damaged or assembled incorrectly in order to avoid any risk of short circuiting the battery.

Never charge a frozen or damaged battery.

Do not cover the device.

Do not place the unit near a heat source/direct sunlight and durably high temperatures (above 60 ° C)

The operating mode of the automatic charger and the restrictions applicable to its use are explained later in this manual.



Fire and explosion risks!

A battery can release explosive gases when on charge.

- During the charge, the battery must be placed in a well ventilated area.
- Avoid flames and sparks. Do not smoke near the device.
- Protect the electrical contact surfaces of the battery against short circuits.



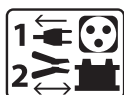
Risk of acid dispersion!



- Wear protective goggles and gloves.



- In case of contact with the eyes or the skin, rinse immediately with water and see a medical doctor as soon as possible.



Connection / disconnection :

- Ensure that the charger is not connected to the mains before connecting or disconnecting clamps to the battery terminals
- Always ensure the Red clamp is connected to the «+» battery terminal first. If it is necessary to connect the black clamp to the vehicle chassis, make sure it is a safe distance from the battery and the fuel line. The charger must then be plugged into the mains.
- After charging, disconnect the charger from the mains, then disconnect the negative clamp from the body of the car and then disconnect the positive clamp from the battery, in this order.

Connection :



- The charger must be connected to an earthed power supply.
- The connection to the power supply must be carried out in compliance with national standards.

Maintenance:



- If the power supply cable is damaged, it must be replaced by a cable or a special set, available from the manufacturer or its after sales team.



- Maintenance should only be carried out by a qualified person.
- Warning ! Always disconnect from the mains before performing maintenance on the device.
- The device does not require any specific maintenance.
- Do not use solvents or any aggressive cleaning products.
- Clean the device's surfaces with a dry cloth.

Regulations :



- The Machine is compliant with European directives.
- The declaration of conformity is available on our website.



- EAEC Conformity marking (Eurasian Economic Community).



- Equipment in compliance with British requirements. The British Declaration of Conformity is available on our website (see home page).



- Equipment in conformity with Moroccan standards.
- The declaration C_m (CMIM) of conformity is available on our website (see cover page).



Waste management:

- This product should be disposed of at an appropriate recycling facility. Do not throw away in a household bin.

GENERAL DESCRIPTION

The GYSFLASH 32.12 PL is a high power stabilized power supply based on inverter technology. Designed to support 12 V batteries (liquid/AGM/gel and lithium LiFePO₄) in vehicles in the diagnostic phase or in the showroom, it also guarantees an ideal charging quality for the maintenance of the most advanced models. It is considered a fixed device not a mobile product.

This charger is suitable for the charge of:

- 12 V lead batteries (6 cells in series) from 15 Ah to 375A h.
- LFP batteries 12V (4 elements in series) from 7 Ah to 375 Ah.

CALIBRATION CABLE

Procedure for the calibration of the charging leads in order for the charger to compensate any voltage drop due to the length or condition of the cables. It is strongly recommended to perform this procedure each time the cables are modified or changed.

1. Before undertaking the procedure, make sure that the charger is disconnected from the mains socket.
2. Short-circuit the ends of the charging leads.
3. Press buttons (#1 - page 39) and (#6 - page 39) simultaneously.
4. Plug in the mains plug while holding down the two buttons until the indicator light or lights up.

Results :

- Indicator is on: the calibration was successful.
- Indicator is on: the calibration failed, disconnect the mains plug and restart the procedure.
- 5. Unplug the mains plug until the charger switches off.

START UP

1. Connect the charger to the battery.
2. Plug the charger to the mains (single phase 220-240Vac 50-60Hz).
3. Select the mode by pressing the mode button (#1 - page 45) and the charging current by pressing the current selection button (#6 - page 45). After roughly five seconds, the charge starts automatically.
4. During the charge, the device indicates charge progress. When indicator flashes, the battery is ready to start the engine. Once indicator is steady, the battery is fully charged.
5. Charging can be interrupted at any time by unplugging the power plug or pressing the mode button .
6. After the charge, disconnect the charger from the mains, then disconnect the clamps from the battery.

CHARGE MODES

• Description of charging modes and currents :



Pb

Lead-acid CHARGE mode (14.6 V/30 A max) :

Mode designed for the recharge of 12V lead-acid batteries from 15 Ah to 375 Ah. 7 step automatic maintenance cycle.



LiFePO₄

MMode CHARGE Lithium (14.4 V/30 A max) :

Mode designed for the recharge of 12V lithium batteries between 7 Ah and 375Ah. 8 step automatic maintenance charge cycle.



UVP wake up

Some Lithium batteries incorporate a UVP protection (Under Voltage Protection) which disconnect the battery in case of deep discharge. This protection prevents the charger from detecting the battery. In order for the GYSFLASH 32.12 PL to charge the battery, the UVP protection must be disabled. To do this, place the charger in Lithium charging mode, then press and hold the mode button for 10 seconds. The charger will then deactivate the UVP protection and automatically start charging.



7 A 15 A 30 A

Charging current 7 A/ 15 A/ 30 A :

Select to optimise the charging current according to the type of battery (lead or lithium) and its capacity.

Charging current		7 A	15 A	30 A
Battery capacity	Pb	15 ▲ 60 Ah	60 ▲ 100 Ah	100 ▲ 375 Ah
	LFP	7 ▲ 15 Ah	15 ▲ 30 Ah	30 ▲ 375 Ah
		(21 ▲ 45 Ah EqPb*)	(45 ▲ 90 Ah EqPb*)	(90 ▲ 1100 Ah EqPb*)


*Lead-acid battery equivalent : A lithium battery has a better starting performance (CCA) than a lead-acid battery. This is why some lithium battery manufacturers indicate the battery lead-acid equivalent (EqPb) that indicates the capacity of a lead-acid battery with the same starting performance. For instance, a LFP battery of 10 Ah will have the same starting performance as a lead-acid battery of around 30 Ah.



**SHOWROOM
DIAG**

SHOWROOM/DIAG mode (13.7 V/30 A max):

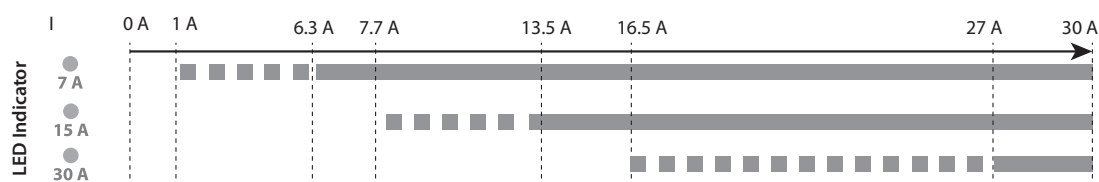
Mode designed to deliver a stabilised voltage of 13.7V and to compensate up to 30 A of the current used by the consumers on the battery during the demonstration. This mode is suitable for lead-acid and lithium batteries. This mode also charges the battery at the same time.

Power Supply mode (13.7 V / 30 A max) :

This mode is designed for experimented users. Option designed to turn the charger into a stabilised power supply where the voltage is 13.7 V and delivers up to 30 A power. This mode can be used without a battery. To select this option, place the charger in SHOWROOM/DIAG mode and press mode button  until the SHOWROOM/DIAG indicator blinks.

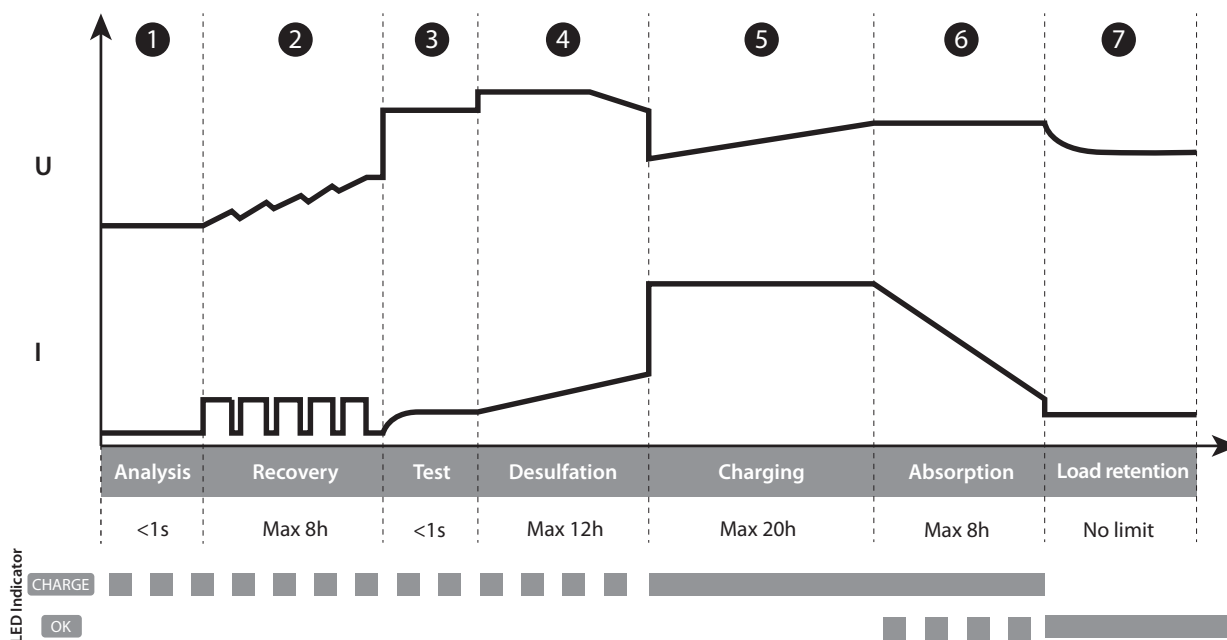
When the indicator  is on, the voltage is correctly regulated. If the indicator  flashes, it means that the current consumed on the battery is higher than the maximum current delivered by the charger (30A) and that the battery is likely to be discharged in the long term.

The current delivered by the charger is indicated by means of the LEDs    :



• Load curve Lead:

The GYSFLASH 32.12 PL uses an advanced 7-step lead charging curve that guarantees the optimal performance of your lead battery.



Step 1 : Analysis

Analyses the state of the battery (charge level, polarity inversion, wrong battery...)

Step 2 : Recovery (● 7 A-3 A / ● 15 A-5 A / ● 30 A-10 A)

Recovering damaged elements after deep and prolonged discharge.

Step 3 : Test

Sulfated battery test

Step 4 : Desulfation (15.8 V)

Battery desulfation algorithm.

Step 5 : Charging (● 7 A-7 A / ● 15 A-15 A / ● 30 A-30 A)

Fast charging at maximum current allowing to reach 80% of the charge level.

Step 6 : Absorption (14.6 V)

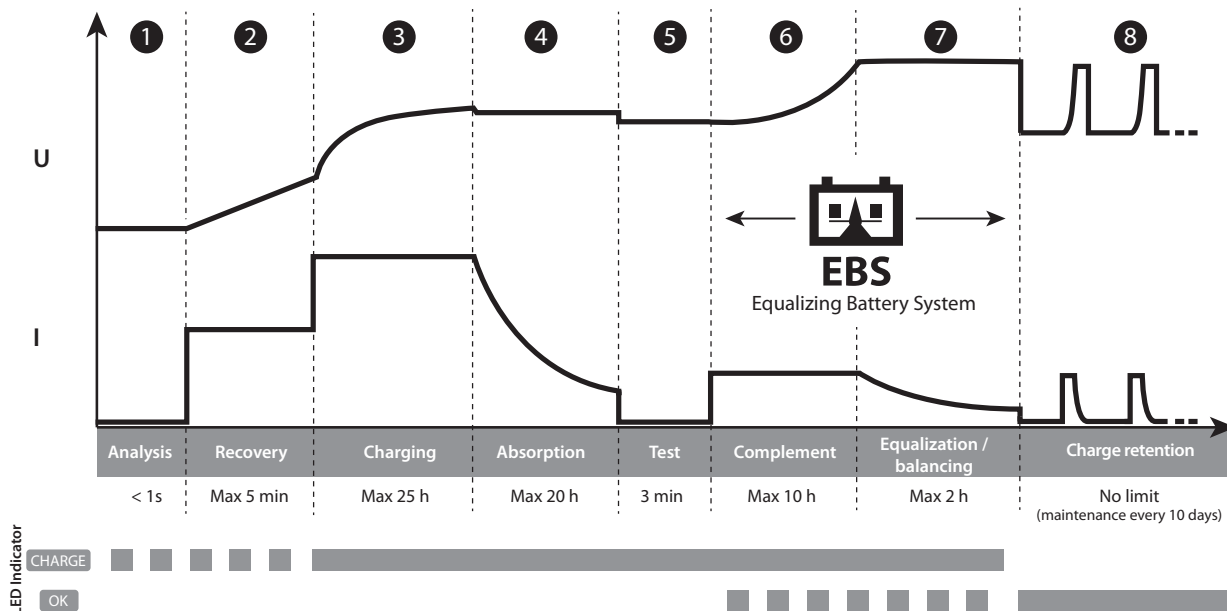
Constant voltage charge to reach 100% charge level.

Step 7 : Load retention (13.6 V)

Maintain the battery charge level at its maximum.

• Lithium charging curve :

The GYSFLASH 32.12 PL uses an advanced 8-step Lithium charging curve that guarantees the optimal performance of your LFP battery.



Step 1 : Analysis

Analyses the state of the battery (charge level, polarity inversion, wrong battery...)

Step 5 : Test

Charge hold test.

Step 2 : Recovery (● 7 A-0.5 A / ● 15 A-1 A / ● 30 A-2 A)

Recovery algorithm following a deep discharge.

Step 6 : Complement

Reduce current charge to reach 100% charge level.

Step 3 : Charging (● 7 A-7 A / ● 15 A-15 A / ● 30 A-30 A)

Fast charging at maximum current allowing to reach 90% of the charge level.

Step 7 : Equalization / balancing (14.4 V)

Balancing the battery cells

Step 4 : Absorption (13.8 V)

Constant voltage charging to bring the charge level to 98%.

Step 8 : Charge retention (13.8 V)

Maintain the battery charge level at its maximum with a maintenance charge every 10 days.

• Estimated charge time :

Charging current	Lead-acid							Lithium						
	● 7 A		● 15 A		● 30 A			● 7 A		● 15 A		● 30 A		
Battery capacity	15 Ah	60 Ah	60 Ah	100 Ah	100 Ah	220 Ah	375 Ah	7 Ah	15 Ah	15 Ah	30 Ah	30 Ah	220 Ah	375 Ah
Charge timing 0% >>> 90%	2 h	8 h	4 h	6 h	3 h	7 h	12 h	1 h	2 h	1 h	2 h	1h	7 h	12 h











• Protections :



The GYSFLASH 32.12 PL is equipped with features to protect it against short circuits and polarity reversal. It has an anti-spark feature which prevents sparks whilst connecting the device to the battery. This charger has double insulation and is safe to use with the battery in situ as it will protect the vehicle's on-board electronics.

The GYSFLASH 32.12 PL is equipped with an integrated temperature sensor that enables it to adapt the charging current according to the ambient temperature in order to prevent the internal electronics from overheating.

TROUBLESHOOTING, CAUSES, SOLUTIONS

	Troubleshooting	Causes	Solutions
1	Indicator  flashes.	<ul style="list-style-type: none"> • Polarity reversal • Battery voltage is too high • Clamps in short-circuit 	<ul style="list-style-type: none"> • Check that the clamps are correctly connected • Verify that it is a 12 V battery.
2	The indicator  is on.	Failure during charging, battery not recoverable	Change the battery and press the mode button  to restart a charge
3	The indicator light  remains on even after pressing mode button  .	Thermal protection	Ambient temperature is too high (>60°C), cool the room and let the charger cool down.
4	Indicator  flashes.	Charger in sleep mode	Press mode button  or connect a battery to the charger to wake up from standby
5	Indicator  stays on.	Charging interrupted by pressing the mode button  .	Press the mode button  again to restart the load.

WARRANTY

The warranty covers faulty workmanship for 2 years from the date of purchase (parts and labour).

The warranty does not cover:

- Transit damage.
- Normal wear of parts (eg. : cables, clamps, etc..).
- Damages due to misuse (power supply error, dropping of equipment, disassembling).
- Environment related failures (pollution, rust, dust).

In case of failure, return the unit to your distributor together with:

- The proof of purchase (receipt etc ...)
- A description of the fault reported