

**FR** 2-5 / 30-32

**EN** 6-9 / 30-32

**DE** 10-13 / 30-32

**ES** 14-17 / 30-32

**RU** 18-21 / 30-32

**NL** 22-25 / 30-32

**IT** 26-29 / 30-32

**GYSFLASH 4.12**

## SAFETY INSTRUCTIONS



This manual contains safety and operating instructions. Read it carefully before using the device for the first time and keep it in a safe place for future reference. This machine should only be used for charging and / or power supply operations comprised within the limits indicated on the machine and in the instruction manual. The operator must respect the safety precautions. In case of inadequate or unsafe use, the manufacturer cannot be held liable.

This unit can be used by children aged of at least 8 years 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 safely was given to them and if they have been made aware of the risks. Children must not play with the product. Cleaning and maintenance should not be performed by unsupervised children.

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

Do not operate the device with a damaged power supply cord or a damaged mains plug.

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.

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



Fire and explosion risks!

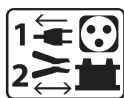
A charging battery can emit explosive gases.



- During the charge, the battery must be placed in a well ventilated area.



- Avoid flames and sparks. Do not smoke.



Connection / disconnection:

- Ensure that the charger's power supply is disconnected before plugging or unplugging the connections on the battery.

- 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/exhaust pipe. The charger must be connected to the mains.

- After charging, disconnect the charger from the mains, then disconnect the clamp from the car body and then disconnect the clamp from the battery, in the indicated order.


**Connection:**

- Class II device
- The connection to the power supply must be carried out in compliance with national standards.


**Maintenance:**

- If the power cable is damaged, it must be replaced by the manufacturer, its after sales service or an equally qualified person to prevent danger.


**Regulations:**

- Machine compliant with European directives.
- The certificate of compliance is available on our website.



- EAC 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  $C_{\infty}$  (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 domestic bin.

## GENERAL DESCRIPTION

The GYSFLASH 4.12 is ideal to charge most lead-acid batteries, often used for cars and many other vehicles. These batteries can be of many types eg: GEL (gel electrolyte), AGM (absorbed glass mat), WET, MF (Maintenance Free), CA (Calcium)... This charger has been designed to charge 12V batteries (6\*2V elements) from 1.2 Ah to 90 Ah, or for floating charge up to 130 Ah.

## START UP

1. Connect the charger to the battery using the proper accessory (clamps, lugs, etc...).
2. Plug the charger to the mains (single phase 220-240Vac 50-60Hz).
3. Select the mode by pressing the  button. After roughly 5 seconds, the charge starts automatically.
4. During the charge, the device indicates the charge's progress. When the indicator  blinks, the battery is ready to start the vehicle. Once the indicator  stays on, the battery is completely charged.
5. The charge can be interrupted at any time by unplugging the mains plug or pressing the  button.
6. After charging, disconnect the charger from the mains, then disconnect the charger's connections from the battery.

## CHARGE MODES

### • Modes and Options:



#### **CHARGE mode (14.4V/0.8A) :**

Mode designed for lead-acid batteries, 12V from 1.2 Ah to 15Ah. 7 step automatic maintenance cycle.



#### **CHARGE mode (14.4V/4A) :**

Mode designed for lead-acid batteries, 12V from 15 Ah to 90 Ah and up to 130 Ah for floating charge. 7 step automatic maintenance cycle.





AGM


#### **COLD/AGM Option (14.7V) :**

Modifies the charging voltage at 14.7V to charge the battery during cold weather (Less than 5°C) or for some AGM batteries or batteries with caps.

#### **SUPPLY Mode (13.6 V/4 A):**

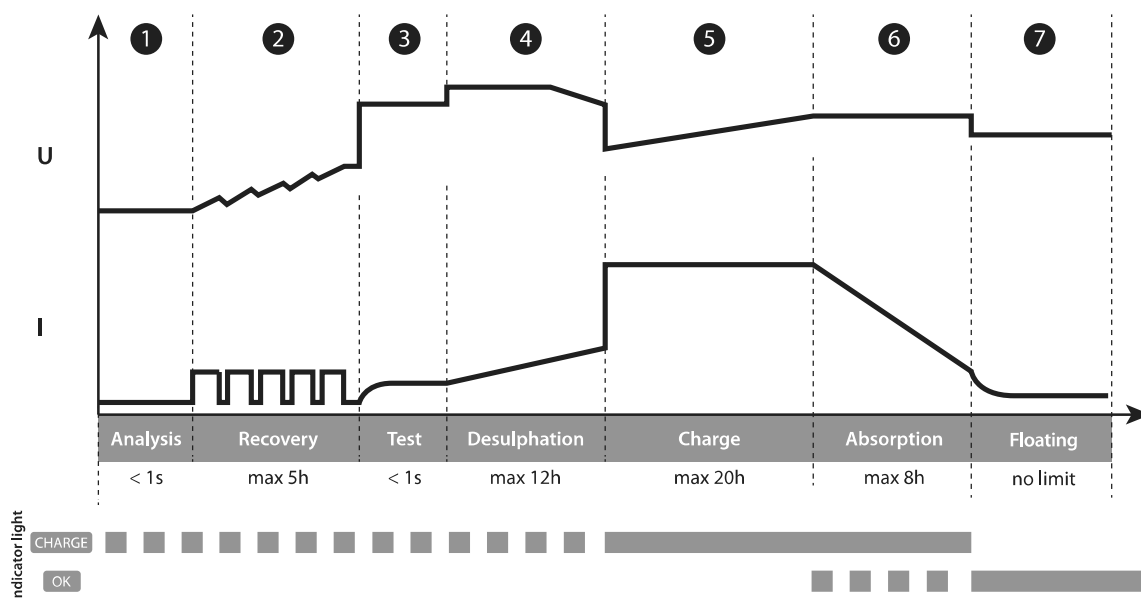
This mode enables to use the charger as a stabilised power supply, with a voltage regulated at 13.6 V. This mode is designed for providing a power supply to demonstration vehicles and can also be used to replace a vehicle's battery while maintaining the system's memory. With this mode, there is no time limit.

When the  indicator is on, the voltage is properly regulated. If the  indicator blinks, this means that the current absorbed by the battery is higher than the charger's maximum current (4 A) and that the battery might end up being discharged.

To access to this mode, press 5 seconds on the  button. When this mode is selected, the three blue indicators for mode selection light on. And after roughly 5 seconds, the charge starts automatically.

### • Charging curve :

The GYSFLASH 4.12 use an 7 step charging curve which guarantees optimal performance for your battery.



## Step 1 : Analysis

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

## Step 5 : Charge (🏍️ 0.8A 🚗 4A)

Fast charge with maximum current that can reach 80% charge level.

## Step 2 : Recovery (🏍️ 0.5A 🚗 2A)

Damaged elements recovery due to an extended deep discharge algorithm.

## Step 6 : Absorption (14.4V or 14.7V with ❄️ AGM option)

Constant voltage charge to reach a 100% charge level.

## Step 3 : Test

Sulfated battery test.

## Step 7 : Floating charge (13.6V)

Maintains battery charge level at its maximum.

## Step 4 : Desulfation (🚗 15.8V)

Battery desulfation algorithm.

### • Estimated charge time

	🏍️			🚗 🚚		
Battery capacity	2Ah	8Ah	15Ah	18Ah	50Ah	90Ah
Charging time 20% >>> 80%	2h	6h	11h	3h	8h	14h



If the motorbike is fitted with a 12V plug, the GYSFLASH 4.12 can charge the battery via this plug with the CAN-BUS system, without switching the dashboard on. In this setup, connect the cigarette lighter adapter on the charger and on the motorbike's 12V socket then follow the «start up » procedure on the previous page. In certain cases, it is possible that the charge will only start 2 minutes after performing the connections.

### • Protections :



The GYSFLASH 4.12 has several features to protect it against short-circuits or polarity inversion. It has an anti-spark feature which prevents sparks whilst connecting the device to the battery. This charger has double insulation and is compatible with vehicle's onboard electronics.

The GYSFLASH 4.12 is fitted with an integrated temperature probe that ensures that the charging current is adapted to the ambient temperature to prevent internal electronics' overheating.

## TROUBLESHOOTING

	Symptoms	Causes	Remedies
1	The indicator ⚠️ blinks.	<ul style="list-style-type: none"> <li>Polarity inversion</li> <li>Battery voltage is too high</li> <li>Clamps in short-circuit</li> </ul>	<ul style="list-style-type: none"> <li>Check that the clamps are properly connected.</li> <li>Check that it is a 12V battery.</li> </ul>
2	The indicator ⚠️ is on.	Charge failure, battery non recoverable.	Change the battery and press 🔄 to restart a charge.
3	The indicator ⚠️ stays on even after pressing the 🔄 button.	Thermal protection.	Ambient temperature is too high (>50°C), cool the room and let the charger cool down.
4	The indicator 🔌 blinks.	Charger in sleep mode.	Press the button 🔄 or connect a battery to the charger to exit sleep mode.
5	The indicator 🔌 stays on.	Charge interrupted by pressing the 🔄 button.	Press 🔄 again to restart the charge.

## WARRANTY

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

The warranty does not cover:

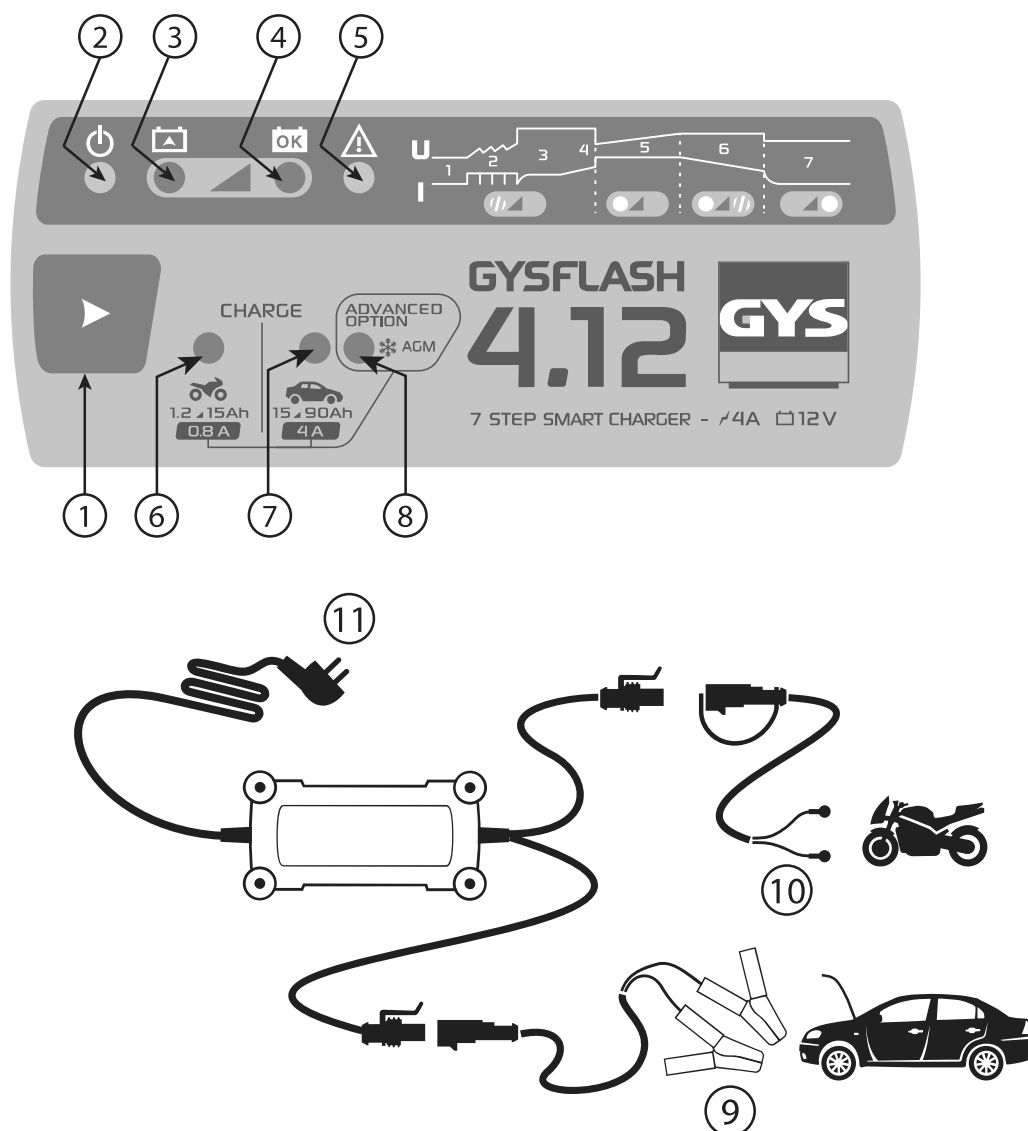
- Transit damage.
- Normal wear of parts (eg. : cables, clamps, etc..).
- Damages due to misuse (power supply error, dropping of equipment, disassembling).
- Environment related failures (pollution, rust, dust).

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

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

## TABLEAU TECHNIQUE / TECHNICAL TABLE / TECHNISCHE DATEN / TABLA TÉCNICA / ТАБЛИЦА С ТЕХНИЧЕСКИМИ ХАРАКТЕРИСТИКАМИ / TABELLA TECNICA / TECHNISCHE TABEL

		GYSFLASH 4.12
Référence modèle Reference Art.-Nr. des Modells Referencia del modelo	Артикул модели Referentie model Riferimento modello	029422 029521 (UK)
Tension d'alimentation assignée Rated power supply voltage Netzspannung Tensión de red asignada	Номинальное напряжение питания Nominale voedingsspanning Tensione di alimentazione nominale	~ 220-240 VAC 50 / 60 Hz
Puissance assignée Rated power Netzleistung Potencia asignada	Номинальная мощность Nominale vermogen Potenza nominale	70 W
Tensions de sortie assignées Rated output voltage Ausgangsspannung Tensiones de salida asignadas	Номинальные выходные напряжения Uitgaande nominale spanning Tensione di uscita nominale	12 VDC
Courant de sortie assignée Rated output current Ausgangsstrom Corriente de salida asignada	Номинальный выходной ток Uitgaande nominale spanning Corrente di uscita nominale	0.8 A / 4 A
Capacité assignée de batterie Rated battery capacity Batterie-Kapazität Capacidad asignada de batería	Номинальная емкость батареи Nominale accu capaciteit Capacità nominale della batteria	1.2 – 90 Ah (max. 130 Ah)
Consommation batteries au repos Battery consumption when idle Verbrauch im Ruhezustand Consumo de baterías en reposo	Потребление АКБ в нерабочем состоянии Accu verbruik in ruststand Consumo batterie in riposo	< 0.5 mA
Ondulation Ripple Welligkeit Ondulación	Колебание Golwing Ondulazione	< 150 mV rms
Courbe de charge Charging curve Ladekennlinie Curva de carga	Кривая зарядки Laadcurve Curva di carica	I <sub>U</sub> U
Température de fonctionnement Operating temperature Betriebstemperatur Temperatura de funcionamiento	Рабочая температура Werktemperatuur Temperatura di funzionamento	0°C – +50°C
Température de stockage Storage temperature Lagertemperatur Temperatura de almacenado	Температура хранения Opslagtemperatuur Temperatura di stoccaggio	-20°C – +80°C
Indice de protection Protection rating Schutzart Índice de protección	Степень защиты Bescherminingsklasse Grado di protezione	IP65
Classe de protection Protection class Schutzklasse Clase de protección	Класс защиты Bescherminingsklasse Classe di protezione	Class II
Niveau de bruit Noise level Störpegel Nivel de ruido	Уровень шума Geluidsniveau Livello di rumore	< 50dB
Poids Weight Gewicht Peso	Вес Gewicht Peso	0.7 Kg
Dimensions (L x H x P) Dimensions (L x H x D) Abmessungen (L x H x T) Dimensiones (L x A x A)	Размеры (Д x В x Ш) Afmetingen (L x H x B) Dimensioni (L x H x D)	170 x 90 x 51 mm
Normes Standards Normen Normas	Нормы Normen Norme	EN 60335-1 EN 60335-2-29 EN 62233 CEI EN 60529 EN 50581 EN 55014-1 EN 55014-2 CEI 61000-3-2 CEI 61000-3-3

**PLASTRON / CONTROL PANEL STICKER / FRONTSEITE / TECLADO / ПАНЕЛЬ УПРАВЛЕНИЯ / TASTIERA DI COMMANDO / VOORSTUK**


	FR	EN	DE	ES	RU	IT	NL
①	Bouton de sélection	Selection button	Auswahl-Taste	Botón de selección	Кнопка выбора	Bottone di selezione	Selectie knop
②	Veille	Sleep mode	STAND BY	En espera	Режим ожидания	Modalità sleep	Stand by
③	Charge en cours	Charging	Ladefortschritt	En proceso de carga	Идет зарядка	Caricamento	Opladen is bezig
④	Charge terminée	Charge finished	Aufladen beendet	Carga terminada	Зарядка закончена	Carica completa	Opladen klaar
⑤	Défaut	Fault	Fehler	Fallo	Ошибка	Difettosa	Fout
⑥	Mode Charge	Charge mode	Charge-Modus	Modo Carga	Режим Зарядки	Modo ricarica	Laad Modus
⑦	Mode Charge	Charge mode	Charge-Modus	Modo Carga	Режим Зарядки	Modo ricarica	Laad Modus
⑧	Option Froid/AGM	Cold/AGM option	Kühl/AGM-Option	Opción Frío/AGM	Опция Холод/AGM	Opzione Freddo/AGM	Optie Koud/AGM
⑨	Pinces de charge	Charge clamps	Ladeklemme	Pinzas de carga	Зажимы зарядки	Carica sui morsetti	Laad klemmen
⑩	Oeillets de charge	Charge terminals	Ladeöse	Terminal de carga	Ушки зарядки	Carica ai poli	Contact ringetjes
⑪	Prise secteur	Mains plug	Netzstecker	Clavija de corriente	Сетевая вилка	Presa d'alimentazione	Stopcontact



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