fosera LSHS

angaza

Engineered
in Germany

3 YEARS WARRANTY

Recycling information

Do not throw any of the components or the controller box into the regular trash when discarding. Please recycle to help minimize pollution and to protect the global environment. All Fosera components used for manufacturing the system are recyclable. For more information on the Waste from Electrical and Electronics Equipment (WEEE) regulations, please visit the following webpage:

http://ec.europa.eu/environment/waste/weee/index_en.html

Warranties

We trust in the quality of our products. All Fosera battery boxes, PV modules and lighting products come with 3 years warranty. During this period, we guarantee that our products are free from defects in material or workman-ship. The remote control within PAYG systems comes with a 1 year warranty.

Please contact your dealer or local Fosera sales agent if you experience any problems with the product. Your local dealer will then assess the defect and decide whether the product can be repaired or has to be replaced. Fosera shall not be responsible for any consequential damage or damage that exceeds the value of the product. A warranty repair does not extend the warranty period.

Appliances, like radio, TV or fans are not included in the overall Fosera warranty for electronic components and may have different warranty terms.

The warranty becomes invalid if the device is used other than intended by the manufacturer. This warranty does not cover failures caused by wrong installation or set up or unusual use. The warranty is also void in case of repairs by any unauthorized or untrained person.

Warranty card

Name of the product:

Date and place of purchase:

Name and contact of local retailer:

For support please contact your local retailer or our headquarters via service@fosera.com.

Security advice/ maintenance

✔ Do's:

- Place the solar panel in direct sunlight for maximum efficiency.

- Clean the solar panel from time to time to ensure proper power output.

- Keep all Fosera products in a safe place and make sure the panel is installed securely, so it can not fall down.

- Protect the battery box, the appliances and the PAYG remote from rain and direct sunlight. Indoor use only.

- Keep the battery box and the appliances clean.

- The ideal temperature for the functional capability of all fosera products is between 0°Celsius and 50°Celsius.

✘ Dont's:

- Do not expose the system to any liquids or rain.

- Do not open or repair any component of the solar system by yourself. This should be only done by an authorized technician. Otherwise the warranty will be void.

- If the cables are damaged, make sure that they are repaired or replaced.

- Do not use loads and appliances that are not designed or certified for the system by Fosera (except for the USB port).

- Only use the provided panels to charge the battery. Other panels or chargers will harm the system and therefore result in a loss of warranty.

- The system components, including the solar panel, are not fire resistant. Keep away from fire.

- The battery contains a high amount of electrical energy. It is important that all short circuits are prevented.

Introduction

Please read and follow the instructions carefully before using the product!
The Fosera Pay As You Go (PAYG) Li-Ion Solar Home System (LSHS) will provide you with years of reliable electrical energy. Fosera systems have been developed according to German engineering standards to meet your daily energy needs.
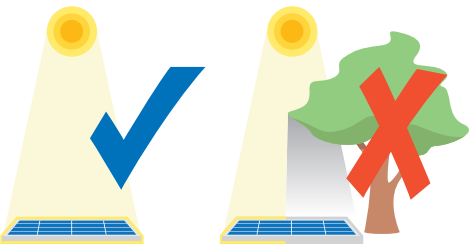
The PAYG LSHS system uses:

- High quality lithium iron phosphate batteries managed by our intelligent battery charger to ensure a long battery life.
- The solar panel is designed to withstand adverse weather conditions.
- All Fosera lamps use bright and highly-efficient LED lights for low energy consumption and have a very long life-span.
- The "Plug & Play" design allows everyone to install the system without technical skills.

Package content

IR remote

Solar panel

Fosera PAYG LSHS

Radio with cable (optional)

Lamp alternatives (optional)

User manual

Mounting set

Installation

1. Place the solar panel in direction of the sun for maximum performance.

- Avoid any shading of the panel.
- The angle should be at least 15 degrees to ensure that the rain can wash dirt from the panel.
- Make sure that the solar panel is securely mounted to withstand heavy winds and storms.
- Clean the panel regularly.

2. Mount the PAYG LSHS on the wall with the screws and wall plugs provided.
   Indoor use only!

3. Place the lamp at your desired location and use the hook screw, which is included in your PAYG LSHS package. Make sure the cable is not pulled too tightly. If you need to extend the cable please use a cable provided by Fosera.
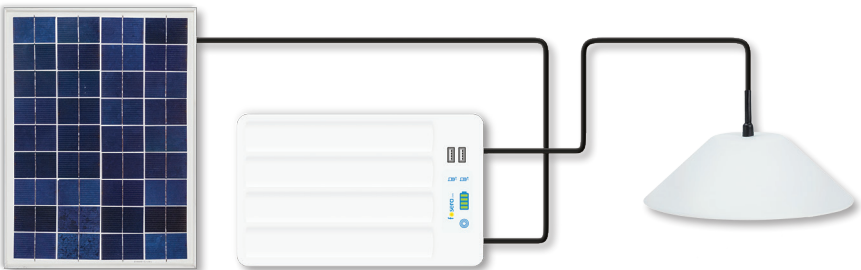
4. Connect the solar panel to the yellow socket of the PAYG LSHS. Connect the cable of the Fosera lamp to the blue socket of the LSHS.
   As soon as the PAYG LSHS is connected to the solar panel, the yellow light indicates that the systems battery is charging and is well connected to the solar module.

Fosera appliances are designed to last a long time and are extremely efficient. The appliances can therefore be used for many hours every day.
Fosera appliances can operate at any voltage of the system and in a wide range of temperatures.
All appliances are designed for indoor use with the exception of the solar panel. Protect them from rain and direct sunlight.

Technical data

PAYG LSHS	1500	3000	4500	7500	10500	Unit
Nominal capacity	1.5	3.0	4.5	7.5	10.5	Ah
Nominal voltage	13					V
Battery type	LiFePO^4					
Charge controler	Deep discharge protection, over charge protection, over current protection max 5.5 A, short circuit protection					
Outlet	2 x USB + 3 outlet + 1 special outlet					
USB outlet	2 A +/- 10 % combined					
Special outlet options	Nightlight, priority, excess, normal outlet					
Storage time of empty battery*	2 years*					

*Can be shorter with temperatures above 25°C.

> ⚠️ If the system is stored longer than the rated maximum storage time, it has to be recharged regularly with the solar panel. Please note that battery failures caused by inappropriate system storage are not covered by warranty.

Contact

Headquarters
Fosera GmbH & Co. KGaA
Beim Muehlbach 3
89171 Illerkirchberg
Germany
Tel: +49 7346 92469 73
Fax: +49 7346 92469 75
E-Mail: info@fosera.com
Visit our website: www.fosera.com

Local retailer

PAYG operation

The Pay As You Go (PAYG) function in your system will switch off the power of your system once it is out of credit. With a purchased token from your distributer and your IR remote control you can add credit to your system for several days. The PAYG status is illustrated by a yellow indication on the top of the light bar (PAYG indicator).

• Indication lights

PAYG indicator is blinking: The system has low credit and will switch off soon, but can still be used.

• Indication lights when pressing the ◎ button:

PAYG indicator off: The system has plenty of credit.

PAYG indicator on: The system is out of credit and power supply is switched off. User needs to charge with credit.

• Recharging credit:

Once the credit of the system is low or empty you need to purchase new credit from your distributor (see section Purchasing Tokens).
Once you received your token (e.g. *023-563-...#) you need to enter the token into your remote to recharge your system. While entering the token in your remote you need to point it towards your system. The system gives the following feedback via a blue indication (PAYG indicator):

PAYG indicator is blinking by pressing: The entered digit, hash or star is accepted by the system.

PAYG indicator is blinking 3x fast: Something went wrong (Error). Enter the code again starting with ✱

PAYG indicator is blinking 6x slowly: The entered code is valid and changed the credit state.

PAYG indicator is blinking 12x fast: The entered code is invalid.

PAYG indicator is blinking 3x slowly: The entered code is valid but credit state is not changed.

Charge light

Button

Battery bar

Signal receiver

PAYG indicator

USB ports

Solar panel input

Special outlet (NL)
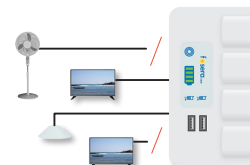
Regular outlet
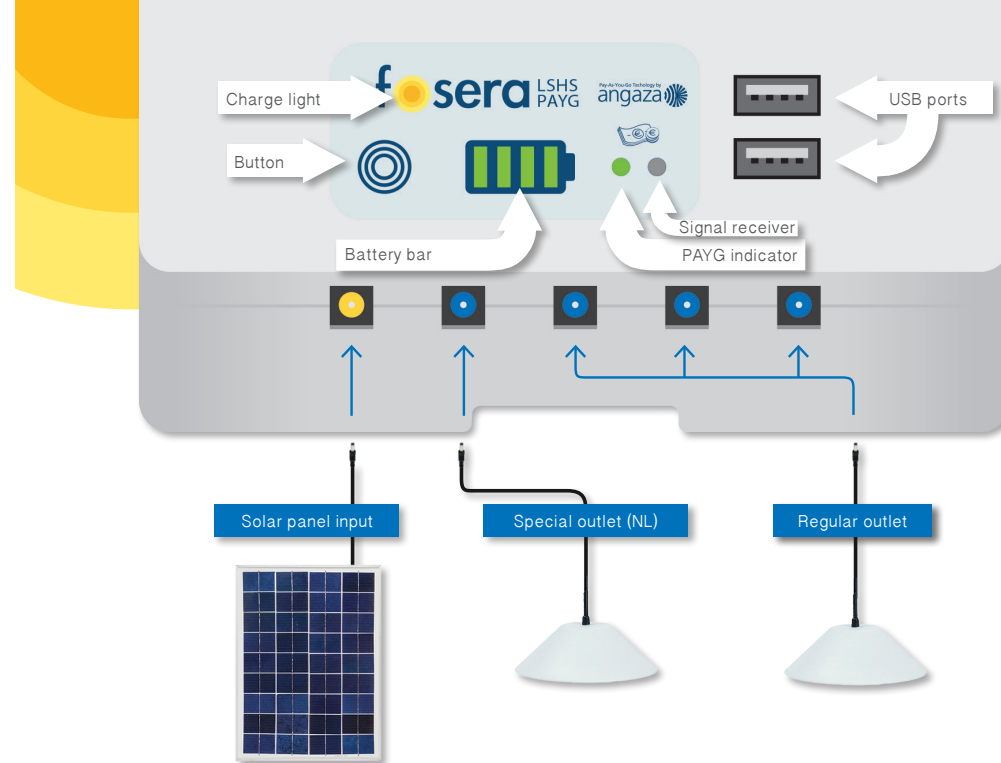
Error indication

● **Over current / short circuit:**

If all LED lights start blinking, too many "high consumption appliances" are connected to the system. The total consumption should not exceed 5 A.
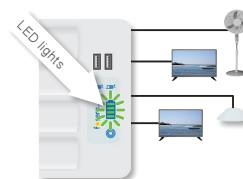
LED lights

⟶ **Solution:**
Disconnect one or more appliances from the system and press the ◎ button to reset the system.

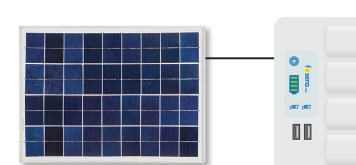● **Deep Discharge:**

If the red LED light is glowing, the battery is deep discharged.

⟶ **Solution:**
Connect the PAYG LSHS to the panel for charging.

Operation

• Box mode

During and after delivery or storage the system is in box mode where all functions and outlets are switched off. The box mode will be also engaged if the system is not used for 5 days, this means there is no charging, discharging or buttons pressed. The USB port is switched off after 24h of not being used. To activate the system to normal operation simply charge the system with the solar module or by pressing the ◎ button.

Check the status of the system by pressing the ◎ button.
During the daytime the yellow charging light should be always on. It indicates that the system is being charged and is well connected to the module.

• USB ports:

The USB automatically turns on if the system is operating (panel connected, loads connected, the ◎ button pushed).
If the system is not in use, it automatically turns off after 24 hours. To restart the system, press the ◎ button or charge the system.
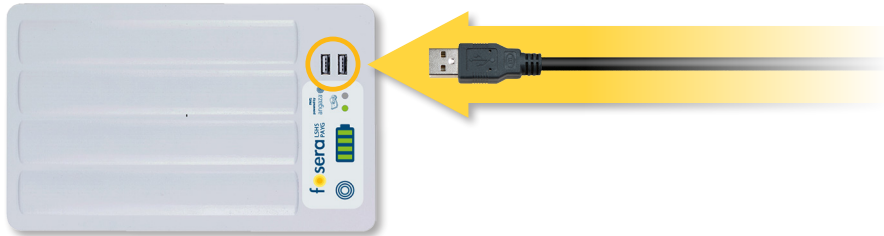
• System status

🟡	→	Indicates that the system is charging.
🔋	→	Indicates full battery charge. **(100% − 81%)**
🔋	→	Indicates medium battery charge. **(80% − 51%)**
🔋	→	Indicates partial battery charge. **(50% − 26%)**
🔋	→	Indicates low battery charge. **(25%-0%)**
🔋	→	Indicates the battery is completely **empty.** - All appliances will switch off automatically. Connect to the solar panel to recharge the LSHS system.

• Special outlet:

The port next to the yellow solar inlet can be used as a special outlet with four different functions. The function of the Special Outlet (next to the solar plug) can be changed by pressing the ◎ button for at least 10 sec.

Mode 1: Normal outlet
The outlet acts like a normal outlet and provides power as long as there is energy in the battery. Press the ◎ button until one battery bar is shown.


Mode 2: Night light
The outlet switches on as soon as it gets dark outside. During daytime the outlet is switched off. This outlet can be used to power a security light during the night. Press the ◎ button until two battery bars are shown.

Mode 3: Priority outlet
When the battery is nearly empty the outlet switches off automatically. This outlet can be used to power low priority loads like a TV and in case of a low power battery, there is still energy left for light.
Press the ◎ button until three battery bars are shown.
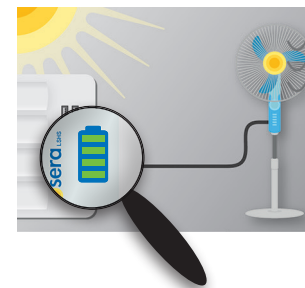
Mode 4: Excess outlet
This outlet is always on when the battery is full, meaning it will turn on when all battery bars are on.
Press the ◎ button until four battery bars are shown.