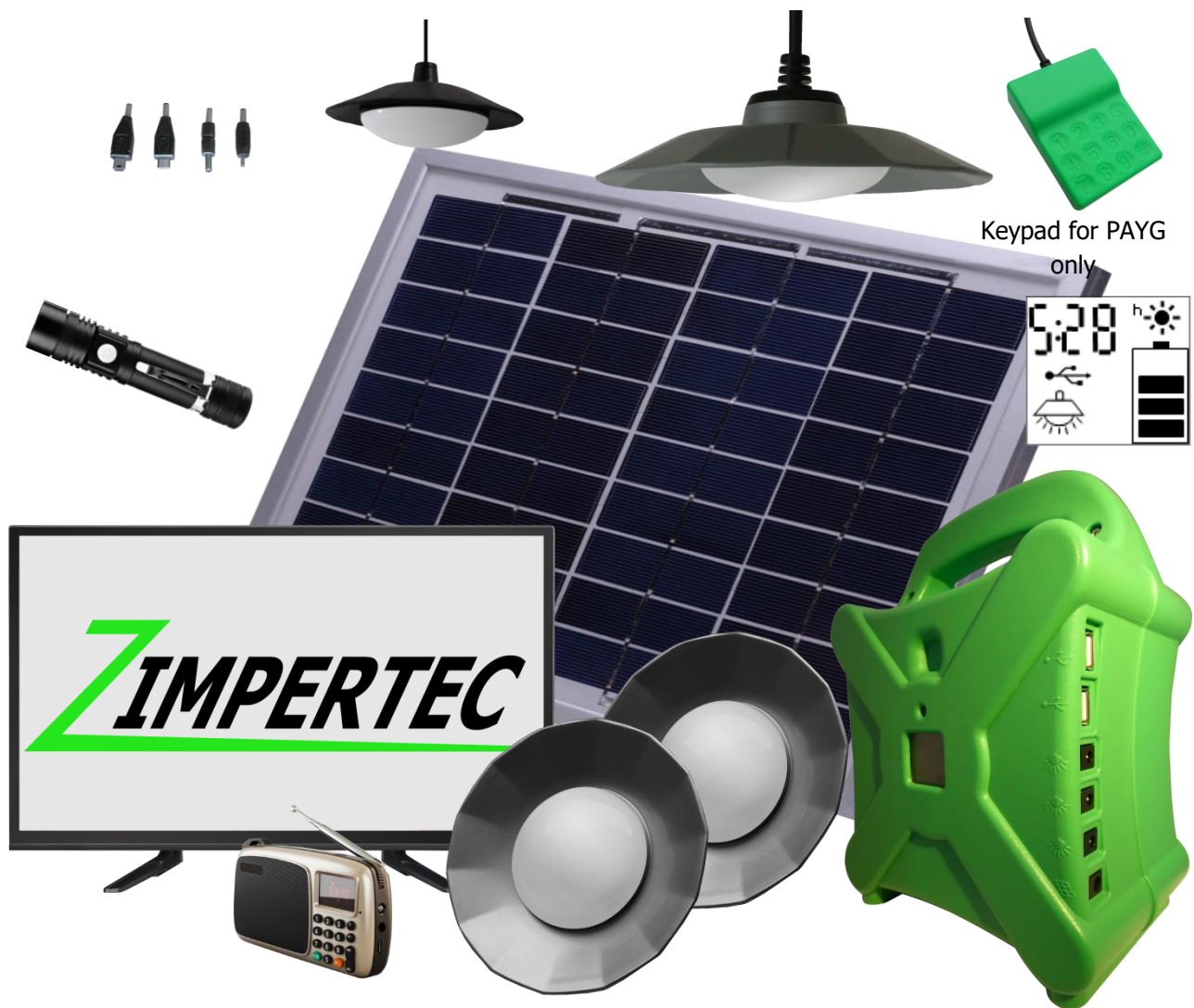


## Litio Solar: LSX Solar Home System Kit



The Litio Solar Home System Kit combines long life products with easy Plug & Play installation. The Lithium Battery System's built-in solar battery MPPT charger, battery monitoring system and load output control optimize the conditions for a long battery lifespan. The advanced LCD display provides the user with valuable and precise system information. The charge indicator shows the remaining operation time calculation/display and can help the user to manage his energy consumption. The USB outlet allows many 5V USB devices to be recharged or operated. Common 12V loads can be operated by the system.

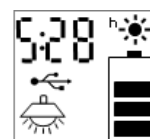
The Sunflower LED Lamp's unique heat sink design and high frequency LED driver and included excess-temperature protection (dimming) as well as the absence of electrolytic capacitors make sure the lamp can last for very long time, even in harsh environments. The built-in 5m wire with switch and plug for an easy installation makes the system setup very simple. The optional extra extension wires make the system highly adjustable to different distances between the lamps place of use and the Litio System.

The Solar Panels power is optimized for recharging the Lithium Battery. In order to recharge the battery faster or in case of higher energy demands, it is possible to add more solar power to the system; multiple Kits can be combined and recharged together. As multiple Kits can be combined and recharged together it is easy to expand existing systems on request.

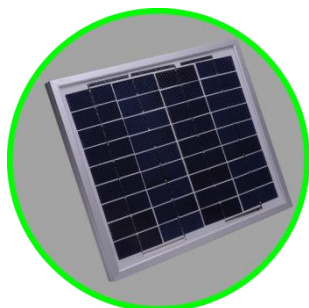
## Litio Solar's Key features/optional accessories



- **Long Life Lithium Iron Phosphate Battery System >2000 full cycles**
- 12.8V nominal voltage: can operate standard 12V loads
- Rugged PC housing
- **89Wh/134Wh/179Wh/224Wh/268Wh capacity available**
- MPPT-Charge Controller
- LCD-Display with remaining load operation time
- Battery Management System integrated
- Single battery cell monitoring
- Low-battery warning
- System paralleling (load and panel side)
- Built in 1 year Data-Logger (standard)
- **Pay As You Go Option**



- LED Lamps
- Sunflower LED **long life lamp** >60,000h (L70)
- High performance heatsink
- Excess temperature protection dimming
- Excellent performance in high altitude and hot environments
- 280lm/420lm/560lm available
- **Constant lumen output** and constant Power during battery discharge
- **Mini Sunflower 17lm (5V and 12V Versions)**

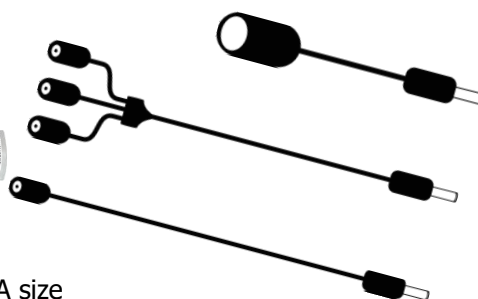
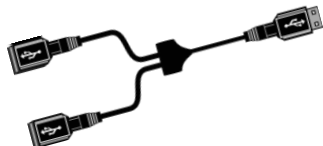


- Solar Panel, various power possible
- Standard 12V panel can be applied (any power)
- Panel mounting bracket available (option currently only for 30Wp)



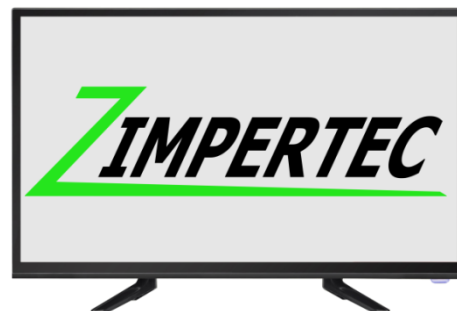
### Wiring options for flexible System setup

- Extension wires
- Distribution wires
- Cigar lighter socket adapter
- USB distributor



### Optional Accessories:

- TV, FM/AM rechargeable Radio
- NiMH battery charger for AA and AAA size batteries
- Laptop charger
- Radio battery adapter



# Solar Home System Kit

## LSX5.7-K041-Basic Electrification

3 Lamps Wiring diagram:



	Description:	charging current	load current	Rating:			Content:
Battery System LSX	Lithium Iron Phosphate battery system with solar charger and LCD display 1 Solar Input, higher power solar panels can be connected, device will limit power draw, several LSX can be connected to one panel; 3 pcs 12V Load Output, Number of outputs can be increased by load distribution wire; 2 USB charging output (max. 1.5A)	5 A	6 A	12,8 V	5,7 Ah	72 Wh	1 pc

Description of optional Light Points and other Loads:					Individual Lumen Output:		Content:	
TV/ Lighting Media	Light:	Sunflower	2,0 W		280 lm		3 pc	
		Equipped with 6m wire and switch			Individual full battery runtime:	36 hours		
	Load:	Radio AM/FM	0,50 W				1 pc	
					Individual full battery runtime:	144 hours		
	Load:	Mobile Phone charging	5,00 W				1 pc	
					Individual full battery runtime:	14,4 hours		
		total light point power						6,00 W
		total load power (incl. Light points)						13.50 W

All light points lumen output:						1040 lm
All light points run time after typical day of solar charging						12,00 hours
assume solar day: 5,0 KWh/m2/day						72,0 Wh/day
extra Energy during day time: →						(2 Wh/day)
All lighting points + loads full battery runtime:						5,3 hours
All lighting points full battery runtime:						12,0 hours

	Description:	Rating:	Content:
Solar	Polycrystalline Silicon Solar Panel Equipped with 8m wire	20 Wp	1 pc = 20 Wp
	charging current max.	1,2 A	-

	Description:	Details	Content:
Accessory	Mobile phone adapter	USB wire, 1.5m Adapters: Nokia8210, Nokia 6101, Micro USB, Mini USB	1 pc

Values are calculated and can variate according environment conditions

Product Warranty: 3 years on materials and manufacturing defects

Operation ambient temperature -20 to +50°C; All values at 25°C ambient temperature

# Solar Home System Kit

## LSX5.7-K041-Basic Electrification

3 Lamps Wiring diagram:



# Solar Home System Kit LSX11.5-K042-Bright Light

8 Lamps Wiring diagram:



Battery System LSX	Description:	charging current	load current	Rating:			Content:
	Lithium Iron Phosphate battery system with solar charger and LCD display 1 Solar Input, higher power solar panels can be connected, device will limit power draw, several LSX can be connected to one panel; 3 pcs 12V Load Output, Number of outputs can be increased by load distribution wire; 2 USB charging output (max. 1.5A)	5 A	6 A	12,8 V	11,5 Ah	147 Wh	1 pc

Description of optional Light Points and other Loads:					Individual Lumen Output:		Content:	
TV/ Light- ing Medi Fan	Light:	Sunflower	2,0 W		280 lm		8 pc	
		Equipped with 6m wire and switch			Individual full battery runtime:	74 hours		
	Load:	Radio AM/FM	0,50 W				1 pc	
					Individual full battery runtime:	294 hours		
	Load:	Desk Fan	3,00 W				1 pc	
					Individual full battery runtime:	49,0 hours		
	Load:	Mobile Phone charging	5,00 W				1 pc	
					Individual full battery runtime:	29,4 hours		
		total light point power						16,00 W
		total load power (incl. Light points)						26,50 W

<b>All light points lumen output:</b>						<b>2440 lm</b>
All light points run time after typical day of solar charging						9,19 hours
<b>assume solar day: 5,0 KWh/m2/day</b>						<b>147,0 Wh/day</b>
extra Energy during day time: →						(38 Wh/day)
All lighting points + loads full battery runtime:						5,5 hours
All lighting points full battery runtime:						9,2 hours

Solar	Description:	Rating:	Content:
	Polycrystalline Silicon Solar Panel Equipped with 8m wire charging current max.	50 Wp 3,1 A	1 pc = 50 Wp -

Accessory	Description:	Details	Content:
	Mobile phone adapter	USB wire, 1.5m Adapters: Nokia8210, Nokia 6101, Micro USB, Mini USB	1 pc
	Load distribution wire	Length: 3m, 3 outputs	3 pc
	Load extension wire	Length: 5m	1 pc

Values are calculated and can variate according environment conditions

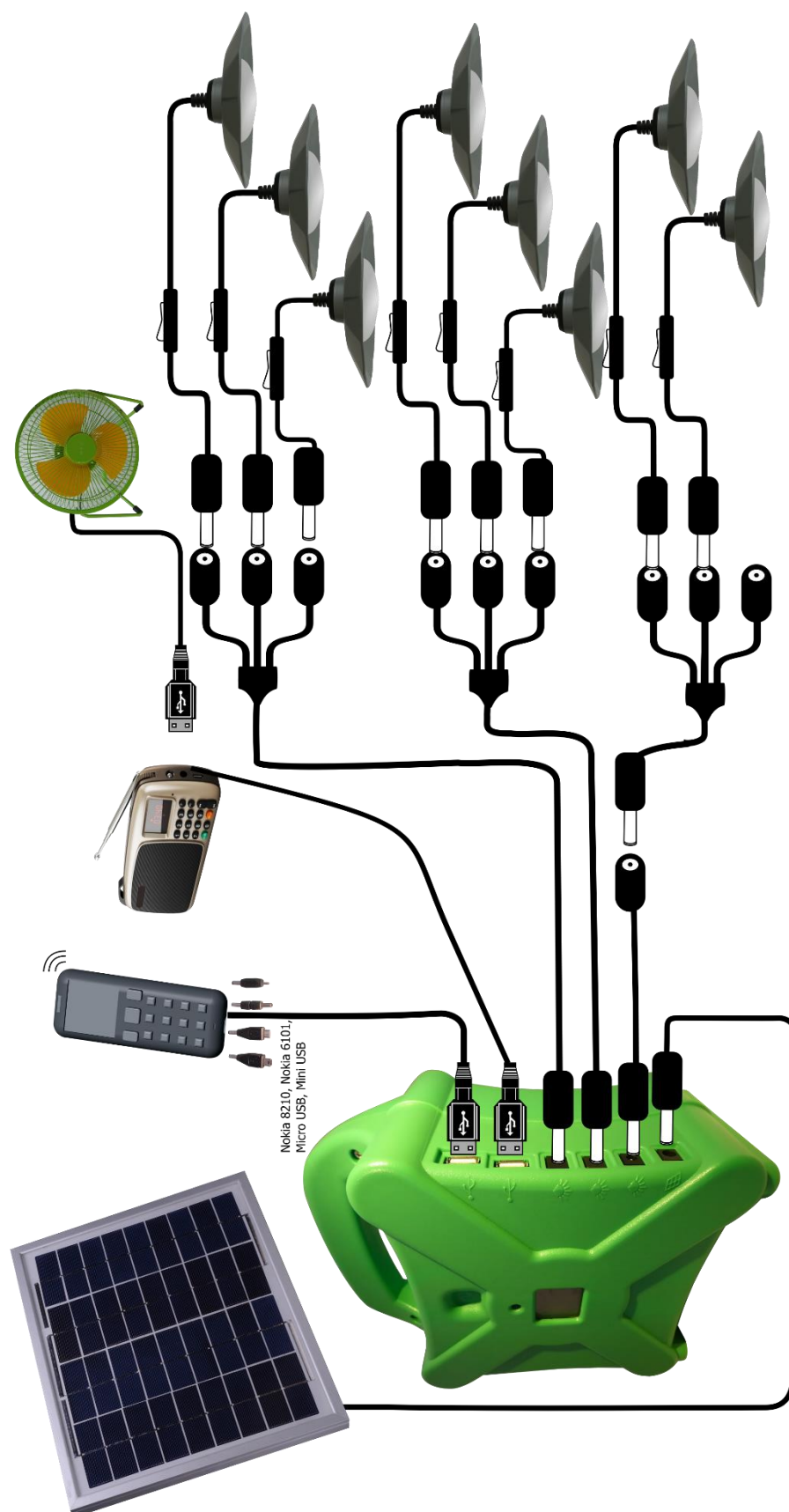
Product Warranty: 3 years on materials and manufacturing defects

Operation ambient temperature -20 to +50°C; All values at 25°C ambient temperature



# Solar Home System Kit LSX11.5-K042-Bright Light

8 Lamps Wiring diagram:



# Solar Home System Kit LSX17.2-K042-Home TV

4 Lamps Wiring diagram:



Battery System LSX	Description:	charging current	load current	Rating:			Content:
	Lithium Iron Phosphate battery system with solar charger and LCD display 1 Solar Input, higher power solar panels can be connected, device will limit power draw, several LSX can be connected to one panel; 3 pcs 12V Load Output, Number of outputs can be increased by load distribution wire; 2 USB charging output (max. 1.5A)	5 A	6 A	12,8 V	17,2 Ah	220 Wh	1 pc

Description of optional Light Points and other Loads:					Individual Lumen Output:		Content:	
TV/ Lighting Media	Light:	Sunflower	2,0 W		280 lm		3 pc	
		Equipped with 6m wire and switch			Individual full battery runtime:	110 hours		
	Light:	Sunflower	3,0 W		420 lm		1 pc	
		Equipped with 9m wire and switch			Individual full battery runtime:	73 hours		
	Load:	Radio AM/FM	1,00 W				1 pc	
					Individual full battery runtime:	220 hours		
	Load:	TV-24"	14,00 W				1 pc	
					Individual full battery runtime:	16 hours		
	Load:	Mobile Phone charging	5,00 W				1 pc	
					Individual full battery runtime:	44,0 hours		
		total light point power						9,00 W
		total load power (incl. Light points)						31,00 W
	All light points lumen output:						1460 lm	
All light points run time after typical day of solar charging						24,44 hours		
assume solar day: 5,0 KWh/m2/day						220,0 Wh/day		
extra Energy during day time: →						(60 Wh/day)		
All lighting points + loads full battery runtime:						7,1 hours		
All lighting points full battery runtime:						24,4 hours		

Solar	Description:	Rating:	Content:
	Polycrystalline Silicon Solar Panel Equipped with 8m wire	80 Wp	1 pc = 80 Wp
	charging current max.	4,9 A	-

Accessory	Description:	Details	Content:
	Mobile phone adapter	USB wire, 1.5m Adapters: Nokia8210, Nokia 6101, Micro USB, Mini USB	1 pc
	Load distribution wire	Length: 3m, 3 outputs	2 pc
	Load extension wire	Length: 5m	1 pc

Values are calculated and can variate according environment conditions

Product Warranty: 3 years on materials and manufacturing defects

Operation ambient temperature -20 to +50°C; All values at 25°C ambient temperature

# Solar Home System Kit LSX17.2-K042-Home TV

4 Lamps Wiring diagram:

**ZIMPERTEC**

