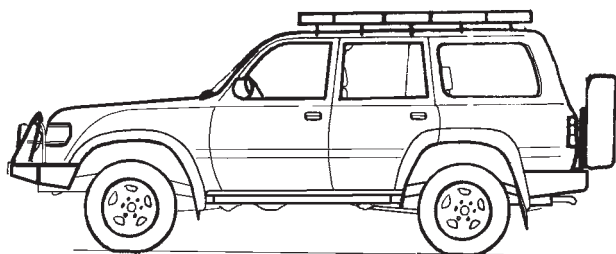


IBS Intelligent
Battery
System
the ultimate Battery System

SK4 Portable Solar Kit



Installation

Solar Kit SK4



Junction Box with Solar Regulator

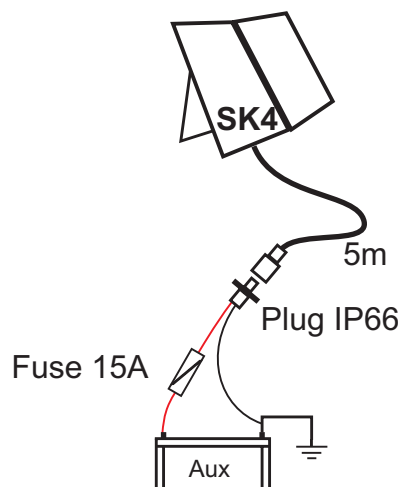


closed



open

Wiring



Users Manual

•How to use the IBS portable solar kits

This Solar Kit with up to 5A charge current is very powerful for mobile applications. The car can be placed in the shade while the solar system keeps your appliances powered up. For easy and flexible usage is the solar regulator integrated within solar kit. With the Car Connection Kit Cc4 the solar kit is transferable from vehicle to vehicle for emergency charge request.

Place solar kit in the way the sun hits the surface in a vertical angle, both cells have to line up. Best is to lean it against a bumper, camping chair, etc.

Performance is increased up to 50% if the solar panel is re-directed to the sun 1 to 2 times per day.

•Energy production and consumption

The solar kit generates 3-5A per hour depending of location of the globe, season, temperature and if it is directed correctly into the sun. On an average day (8 hours) it generates approximately $3A \times 8h = 24Ah$ (Energy per day in)

A compressor fridge has as example a consumption of 1A over 24hours: $1A \times 24h = 24Ah$ (Energy per day out)

In this calculation sample energy consumption is compensated by solar kit. This set up extends your camp time to several days without the need to start the engine.

•Consumption of appliances

Laptop: approx 60-120W, $10A \times 2h = 20Ah$
 Water pump: 20W, $2A \times 0.5h = 1Ah$
 LCD-TV with inverter: 60W, $6A \times 4h = 24Ah$
 Hammer drill with inverter: 400W, $40A \times 2h = 80Ah$
 Fluorescence Light: 20W, $2A \times 4h = 8Ah$
 Air compressor: $24A \times 0.25h = 6Ah$

•Transportation

Use carry bag with metal frame for safe transportation. Avoid hitting the glass with heavy or sharp parts. Solar kit is very rugged but good fixation for transportation is still essential.

•Accessory

Cc4: Car Connection kit with battery clamps + and -
 Ec4: 4m Cable extension

Installation Instructions

The Solar regulator is set to fixed charge voltage with blue sense wire (within junction box of solar panel). No temperature compensation required while solar regulator is within solar panel.

The lead from the solar plug (IP66) with flange to be shortened just to the length required. Install a 15A fuse close to the battery to protect wiring.

Automotive plug system is IP66 what is water proof, contacts are corrosion free material. Check always correct position to mate plug. Pin1: GND, Pin2: +Battery

For Morningstar Sunkeeper6 installation instructions use original manual.

LED information:

| | |
|------------|---|
| Green LED: | 3 times flashing for correct installation |
| Green LED: | on during full charge mode |
| Green LED: | fast flashing for absorption/float mode |
| Red LED: | flashing: failure, check Morningstar manual |
| Red LED: | on critical failure, check with manual |
| No LED: | during night |

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MADE IN SWITZERLAND

Distributor:

SK4_e_1 / 1.8.2007

Applications

General Information

In vehicle applications the installation of a IBS Dual Battery System is recommended. Start priority is maintained and if excess charge from the auxiliary battery is available also the starter battery is automatically charged.

The new IBS LBP8 or LBP16 Low Battery Protection with micro controller and solid state technology protects the batteries from deep discharge. State of the art electronic short circuit detection offers maximum protection for your installation.

For mobile AC power the IBS Ultra Sine Inverter (150/300/500/800W) offer highest reliability even if things are going very rough.

This warranty shall not apply to any product which has been subject to any misuse, negligence and accident or has been used (or opened, broken seal) for any other purpose than was designed.

2 year: Installation done by an IBS approved auto electrician.

2 year: Other installations.

Specifications

| | |
|-----------------------------|-------------------------|
| Solar cells Kyocera | 2x43Wp |
| System voltage | 12V |
| Solar charge current | 5A DC max |
| Solar regulator Sunkeeper 6 | 6A DC max |
| Charge mode solar regulator | bulk, absorption, float |
| Max charge voltage | 13,4-13,9V DC |
| Weight solar kit SK4 | 11.8kg |
| Batteries supported | Acid/Deep Cycle |
| Wiring length | 5m |
| Wiring size | 2x2.5mm ² |
| Plug system IP66 | Canon Automotive |
| Carry Bag | hi-strength marine type |

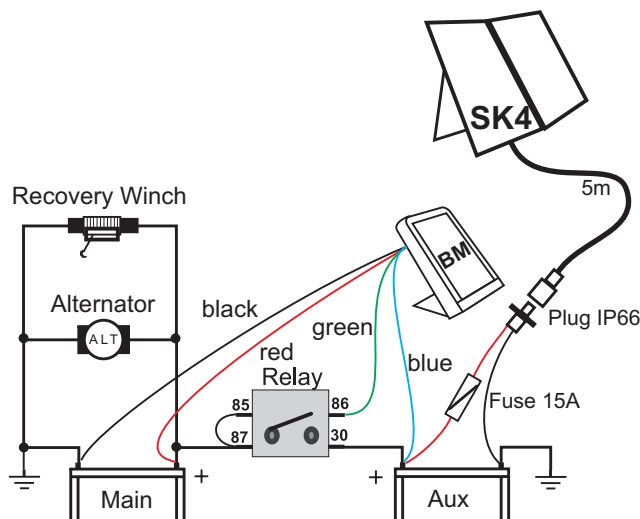
Wires:

| | |
|--------|-----------------|
| red: | Battery Plus + |
| black: | Battery Minus - |

Protection Solar Regulator:

- against wrong polarity
- against overload

Wiring IBS Dual Battery System



CE

