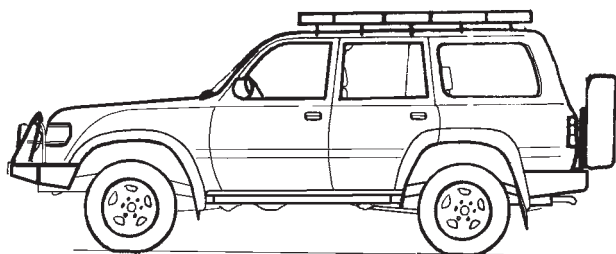


**IBS** Intelligent  
Battery  
System  
*the ultimate Battery System*

# 12V/24V Low Battery Protection



**RiCT**  
Dynamic Battery Sensing

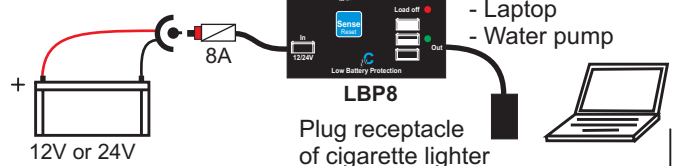


## Installation

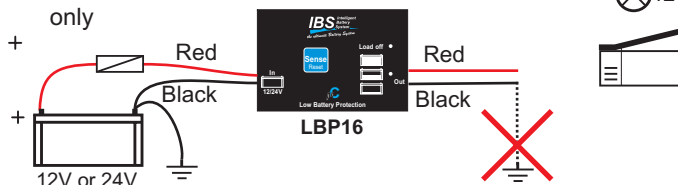


### Wiring

8A Fuse for LBP8 in  
cigarette lighter plug



30A Fuse  
for LBP16  
only



### Appliances:

- 12V energy light
- Fridge
- Radio
- Heating system
- Charger
- Laptop
- Water pump

### DIP switch settings

Open 4 screws in front panel  
Beside square Chip is the DIP Switch  
Change setting with a thin pin:  
Default setting DIP1-3: Off

- DIP1: Off=12V, On=24V
- DIP2: Off=Buzzer on, On=Buzzer off
- DIP3: Off=Single battery SBS, On=Dual battery DBS
- DIP4: never change this default setting!

## Users Manual

### Features

The new IBS 8A and 16A Low Battery Protection with latest RISK micro computer technology and solid state MOSFET switch (no contacts) offers a huge range of features:

- Battery and wire sensing with **RiCT** (RiCompensationTech.)
- Battery monitoring with Fuzzy Logic
- Battery status indication, full, medium, empty
- Low battery alarm and RunFlat function (emergencies)
- Forced and automatic battery sensing
- Auto reset with charge
- Shut down levels for Single and Dual Battery Systems
- Computer controlled short circuit protection
- Multiple load possible, dynamic load monitoring
- 8A and 16A load range with 30% overload capability
- Surge load disconnection suppression, starts big loads
- Solid state switch, no relay contacts, low consumption
- 12V/24V selectable with DIP switch on board

**The system is fully automatic and in normal application no action (Sense/Reset Button) is required.**

### Load off, red LED:

- on: on if load disconnected
- Flashing/Beep: - Overload/short circuit (Check load before pushing reset: 3x Sense button)

### Battery Status, multi-colour LED:

- Battery full: on (green); battery > 60%
- Battery medium: on (orange); 20% < battery < 60%
- Battery empty: on (red); battery < 20%, flashing LED

### Sense/Reset Button actuation:

- 3x:** complete system reset, all values lost (Beeper tones indicate software version)
- 1x:** starts battery sense routine, see RiCT
- 1x:** to stop Beep if alarm occurred
- Until Beep:** RunFlat function if  $U_b < 12.6V$ , Beep reminder every 30 Sec

### RiCT Sensing:

- Automatic with preset value, dynamic tuning over time
- Forced by pressing sense once, achieves accurate value right from start. Prior activation load has to be switched on! After Load has been switched off, load is switched on again after latest 2 Min, process finishes latest after 12 Min.

# Installation Instructions

## General note

**LBP8** is equipped with cigarette lighter plug and socket to be plug directly into existing installations. Some 12V car sockets are disconnected if ignition is off. Use constant power sockets in your car or ask auto electrician to connect 12V cigarette plug directly to battery power.

**LBP16** the unit is designed to power up existing and additional 12V sockets. LBP handles all connected appliances and protects the battery from deep discharge. LBP16 is best placed for instance in the glove box for easy access.

## Fuses:

**LBP8:** no additional fuses are required. An 8Amp fuse is integrated in the plug. The unit itself is protected against over load and short circuit.

**LBP16:** Install the included 30Amp fuse block close to the battery. The unit itself is protected against over load and short circuit. **Do not connect GND wire (black) on Load side to vehicle/chassis GND. Always wire red and black on Load side directly to power outlets.**



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**MADE IN SWITZERLAND**

Distributor:

LBP8\_16\_e\_4.5 / 1.4.2011/SW4.5

# Applications

## IBS Products

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. A manual link function allows to start with the support of Auxiliary battery in emergency situation.

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

For mobile power the IBS portable solarkit SK4 offers high solar power up to 5A. The cells can be directed into the sun while the car is placed in the shade. The regulator is integrated into the solar cell and offers highest flexibility. With the optional battery terminal clip adapter the solar kit easily can be moved from car to car or to other battery application.

## Warranty:

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

5 year: Installation done by an IBS approved auto electrician  
2 year: Other installations

## RMS (Rugged Mounting System) for LBP16

LBP16 is equipped with a slide lock mounting system (RMS). Action below shows how to mount and release the unit. LBP8 is not equipped with a mounting system.



Mount unit  
→  
Release unit  
←

# Specifications

Supply Voltage	8-16V and 16-32V
System Voltage	12V/24V
Consumption module LBP8/16	<1mA

## LBP8 12V or 24V

Load current electronically protected	8A
Overload (5min.)	11A
Load disconnection SBS	40% charge level
Load disconnection DBS	20% charge level
Connectors	plug/socket Cigar
Wiring	2x1.5mm <sup>2</sup>
RunFlat security cut-off	10V

## LBP16 12V or 24V

Load current electronically protected	16A
Overload (5mins)	21A
Load disconnection SBS	40% charge level
Load disconnection DBS	20% charge level
Wiring	2x2.5mm <sup>2</sup>
RunFlat security cut-off	10V

## Battery status

Green LED	>60% charge level
Orange LED	>20%, <60%
Red LED	<20% charge level

Recommended battery types	all 12V/24V types
Temperature range	-40°C ..+80 °C
Casing	ABS
Dimensions	70x50x28 [mm]
Sealing	IP54

## Wires:

In red:	Battery Plus
In black:	Battery Minus
Out red:	Load Plus
Out black:	Load Minus, OC, Relay-control

## Protection Circuits:

- wrong polarity
- overload, short circuit
- reverse feeding
- surge and spike pulses



**RoHS OK**

**No liability for damages as a result of misuse, negligence, accident or wrong installation will be accepted from IBS!**