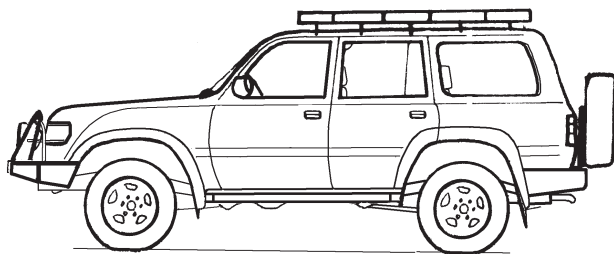


IBS Intelligent
Battery
System
the ultimate Battery System

24V/12V Dual Battery Display



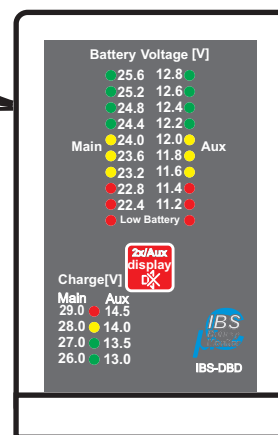
Installation

Battery Monitor

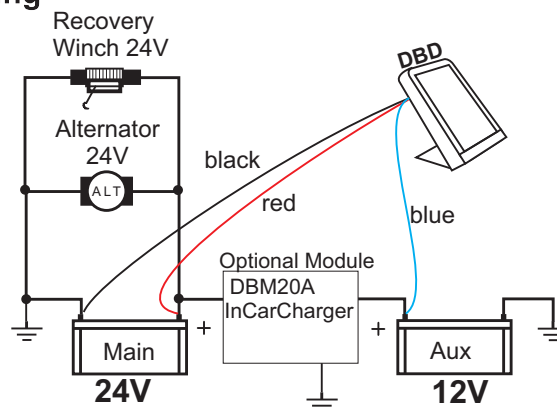
black
red
blue

Wires:

red +Battery 24V (Main)
black - Battery (GND)
blue +Battery 12V (Aux)



Wiring



The MicroController Technology offers great features:

The battery monitors are equipped with latest MicroControllers offering a wide range of monitoring and alarm functions:

- Dual stage **Low Battery Alarm Main Battery** side below 24V (stage 1) and 22V (stage 2) (Beep and flashing 22V LED), Beep Alarm can be de-activated by pressing display, Alarm completely resets with present charge.
- Dual stage **Low Battery Alarm Aux Battery** side below 12V on Aux (stage 1) and 11V on (stage 2) (Beep and flashing 11V LED), Beep Alarm can be de-activated by pressing display, Alarm completely resets with present charge.

Users Manual

•General Functions

This Battery Monitor has been designed for 24V/12V Dual Battery Systems. The Monitor displays the stored energy of both batteries and the charge voltage while charging them with an alternator, a solarpanel or any other source.

The battery voltage of each battery is visible for 30 sec after pushing the **display** button.

LED indicators:

green: Batteries are in the safe working range
yellow: Check batteries
red: Batteries should be charged

The LED's show the energy level if all loads are switched off.

25.2V (12.6V) = 100%

24.8V (12.4V) = 75%

24.4V (12.2V) = 50%

24.0V (12.0V) = 25%

Low Batt = flashing and beeping indicates low battery situation

During first start-up software version is displayed (SW Version 6,3: **Main** shows 6 and **Aux** 3 LEDs)

•Display of Charge Voltage while charging

While the engine is running the 24V Starter batteries are indicated:

Main 24V:

red: >29.0V: High charge.
yellow: >28.0V: Proper charge mode.
green: <28.0V: regular charge mode

If display (red button) is pressed twice, the charge level of Aux 12V battery will be indicated after a beep for 10 Sec. during this periode the charge display is flasching and leaves this display mode after a beep.

If display (red button) is pressed once, the charge level of Main 24V battery will be indicated until display turns of automatically.

Aux 12V, Controlled by DBM20A if installed:

red: >14.5V: High charge setting
yellow: >14.0V: Mid charge setting
green: <14.0V: Low charge setting or float charge mode

•Optional IBS-DBM20A InCarCharger

see reverse side.

•Electrical winch application

Connect an electrical recovery winch to the main 24V battery as shown in the wiring diagram.

Installation Instructions

IBS-DBD:

Connect red to Main plus, blue to Aux plus, black to GND

IBS-DBM20A:

Connect red (4mm²) to Main plus, blue (4mm²) to Aux plus, black to GND, on Aux use the supplied length of up to 1m (do not extend), on Main use the supplied length but wire can be extended up to 6m length if needed. Install the supplied 30Amp fuse on Main and Aux batterie close to battery.



Seestrasse 24
3600 Thun / Switzerland
Ph./Fax: +41 (0)33 221 06 16/17
www.ibs-tech.ch
www.ibs-dual-battery.ch
www.ibs-inverters.ch

MADE IN SWITZERLAND

Distributor:

IBS_DBM_24V_e_2 / 15.1.2018 SW V1.1

Applications

Applications:

- Commercial trucks and 4WDs
- 4WDs / Expedition Vehicles
- Yachting, Mobil homes

Warranty:

This warranty shall not apply to any product which has been subject to any misuse, negligence, 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.

DBM20A Functionality

24V vehicles can be equipped with the IBS-DBM20A "InCarCharger". While the car is running the alternator the 2x12V starter batteries (in series) and at the same time the DBM charges 12V Aux battery with the 3 or 4 stage (boost, absorption, (equalize if selected), float), battery charge mode.

- Simple installations, only 3 connections have to be made; Main, Aux and GND.
- While the DBM detects an alternator voltage above 26.2V the Aux battery is going to be charged depending on the selected charge mode: low, medium, high and equalize. This guarantees an effective and fast charge to the Aux battery.

Specifications

System Setup Architecture	MicroComputer RISK MicroPower Interrupt based
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Supply Voltage	8..32V
System Voltage	24V/12V
Measuring Range (sense wire blue)	8..32V
Display Range (Main Battery Voltage)	22.0V..25.6V
Display Range (Aux Battery Voltage)	11.0V..12.8V
Display Range (Charge; Main/Alternator)	26.0V..29V
Display Range (Charge; Aux/DBM20A)	13.0V..14.5V

Accuracy	+/-1%
Consumption stand-by	<0.5mA
Consumption max display active (30 sec)	<20mA

Main:

Low battery alarm stage1 main/aux red LED	<24V/buzzer
Low battery alarm stage2 main/aux red LED	<22V/buzzer

Aux:

Low battery alarm stage1 main/aux red LED	<12V/buzzer
Low battery alarm stage2 main/aux red LED	<11V/buzzer

Operating

Temperature	-40°..+80° C
Housing	ABS black IP40
Size	100x65x24 [mm]
Protection level	IP52
Mount	IBS RMS System

Wires:

red:	Supply/Sense (Main Battery)
black:	GND (Main Battery)
blue:	Sense (Aux Battery)

Protection:

- against wrong polarity on PC Board with SMD Electronically Security Devices, no fuses have to be replaced



RoHS OK

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