





## IBS dual battery monitoring system

For all who want to make longer tours in offroading, possibly even alone. I recommend to have at least two batteries in the car. Originally, I decided to buy the Optima battery set (http://pbcs.de). Unfortunately, this was not the best idea. Although the starter battery (red) is ok, I had a lot of trouble with the auxiliary battery (yellow). I had to exchange it twice in a relatively short period of time although the commercials promise that it should be immune against vibration. Guarantee of the producer is wishful thinking. Regardless. To have an overview over the charge condition of the batteries anytime, I bought an IBS double battery monitoring system (http://www.ibs-dual-battery.ch). My experience with the system is great. After some difficulties with installing the device (monitor on the dashboard with several wires to be connected to the batteries under the driver seat), it has rendered me good service. The capacity of the appliance battery can diminish quite quickly when fridge, auxiliary heating and/or a water boiler are operated. Although some devices have built in protection against low battery capacity, it happened already several time that my auxiliary battery was almost empty in the morning. At least it would not have been sufficient to start the engine. In such cases I was glad to have my starter battery untouched. Shortterm and in case of emergency, the two batteries can also be coupled with the stroke of a button (through a relais included in the IBS package). However, this is no recommended as common prcedure. Another plus is the charging indicator display. With that I know whether the alternator does the work and to what degree my batteries are already charged. Although the price is not cheap (around 400 CHF for my model at the time of purchase), I wouldn't miss it. Options are available to expand the system (eg solar). Recent trends go even further. Three batteries (one starter battery and two auxiliary batteries) are now en vogue. However, if you have powerful accus in your car (100A upwards each), you are well set with only two batteries, because if you exagerate too much it can become costly as you might have to mount a second alternator. In addition you carry more weight.

Since I bought my IBS, new models have been invented but so far, I am happy with my (old) device.