B.L.O.  
Battery Lifetime Optimizer

In a typical solar home system, there is no remote battery monitoring nor back-up generator to protect the battery from deep discharge.

Cycling a battery deeply and keeping it in very low SOC (state of charge) operation mode causes early aging of batteries. This will quickly damage the battery, leading to premature system failure.

In order to enhance the battery lifetime, the AJ & Xtender inverters are equipped with this unique B.L.O. function which will adjust the low voltage disconnection (LVD), increasing the LVD until get a full recharge of the batteries, according to the behaviour of the user.

This strategy will temporarily restrict the use of the battery, to allow its complete recharge increasing significantly the battery lifetime.

The B.L.O. function is enabled by default in the AJ. The activation / deactivation of the function in the AJ and Xtender can be changed by the user at any time.

KEY FEATURES
A well-maintained battery has in many ways a positive effect on your system.

**Capacity recovery**
- Rising the LVD

**Longer lifetime**
- Lower DOD (Depth of Discharge), higher cycle rate

**Improved protection**
- Avoid hard sulfation & corrosion
- Avoid loss of active material of plates
- Avoid short circuit
- Avoid energy loss

**Cost saving**
- Save up to 25% of the battery costs
LONGER LIFE, MORE AUTONOMY

The variable low voltage disconnect level (LVD) optimizes the battery charge and thus the battery life. In addition, the autonomy during periods of bad weather is noticeably longer.

EXAMPLES

The B.L.O. function + minimum consumption in stand-by mode + customized charging profile, will ensure that the battery never works under extreme deep discharge conditions, saving more than 25%* battery life.

Solar Altoaragon, Spain
Replacing the battery bank once, the customer will save 5'000 Euro.

Battery cost: 10’000 Euro
Cost saving*: 2’500 Euro

3 x XTH 6000-48, 24 Enersys batteries OPzS 1200 Ah

Hydroturf, Dubai
Replacing the battery twice, the cost of the inverter is zero.

Battery cost: 400 Euro
Cost saving*: 100 Euro

AJ 275-12, 1 Trojan battery 12 AGM model

* As a result, compared to a cheap inverter, the battery is less deeply discharged by the electronics and thus the SOC is much higher. With a DOD discharge of 50% instead of 70% through the advantages of the Studer products you save 25% of the battery costs. Confirmed by independent tests values from battery manufacturers.

The most cost killer inverters on the market!

10 YEAR WARRANTY
We grant a warranty period of up to 10 years for the products of the AJ and Xtender series.