

**IMPORTANT INFORMATION!**  
 The WS500/WS500-Pro needs to be configured for use with the Victron Lynx Smart BMS (NG) and Victron (NG) Li batteries. Download the Wakespeed App for iPhone or Android to configure your WS500/WS500-Pro. For more guidance on how to set this up properly, also download the Victron Lynx Configuration Guide from within the app on the Battery Tab.

**IMPORTANT INFORMATION!**  
 The SmartBatteryProtects must be programmed for Li-Ion mode-C and 24 Volt either through programming on the device itself or with a Bluetooth enabled smartphone or tablet.  
 The Cerbo tank level ports can be configured to work with either European (0-180 Ohm), or US tank senders (240-30 Ohm). Or one can configure a custom Ohm resistance range between 0 Ohm and 300 Ohm. This requires firmware v2.80 or higher.

**IMPORTANT INFORMATION!**  
 Victron Lithium NG Batteries charge & discharge controlled by BMS NG & CERBO. In systems with Victron Lithium NG Batteries, it's important that all charging devices as well as loads are controlled by the Lynx Smart BMS NG and also in parallel configuration. Here is how that is taken care of in this system:  
 1- MultiPlus inverter-charger: digitally via the GX Device, DVCC feature.  
 2- SmartSolar charge controllers: digitally via the GX Device, DVCC feature.  
 3- Wakespeed WS500 Pro alternator/regulator: digitally via CAN connect to the Lynx Smart BMS NG.  
 4- Wakespeed WS500 Pro alternator/regulator: Optionally connecting the ATC wire to the Wakespeed "Feature In" wire to enable a get home capability in case of a Can bus failure. See the Wakespeed Application selecting either: Lynx NG BMS or Lynx NG BMS (Simple) Can Bus Only.  
 5- DC Loads: via ATD power towards SmartBattery Protect 220 only & two.  
 6- AC Loads: controlled together with the MultiPlus inverter-charger.

**IMPORTANT INFORMATION!**  
 The Lynx Smart BMS NG either controls a Smart Alternator Regulator Digitally by CAN Bus with or without use of the Victron DVCC feature or more rudimentary by only using its ATC signal (Allow To Charge) or a combination of both. This also depends heavily on what kind of regulator will be used. If needed, both can be connected and will work safely independent side by side where the ATC signal from the BMS can be used for instance as a back-up regulator control if VE.Can or CAN Bus fails (like in this drawing). When using the ATC signal one can select alternator ATC control mode in the setup from the Lynx Smart BMS NG. To achieve this, ATC wiring has to be routed through the relay contacts. Make sure everything is properly wired and the latest firmware is installed.

**IMPORTANT INFORMATION!**  
 To comply with ABYC E-11, each cable towards the MultiPlus need to be able to carry the entire load per cable!

**WARNING!**  
 230 Volt AC is extremely HAZARDOUS! Do not touch any LIVE WIRED parts of the installation. When in doubt, always consult your Victron dealer for advice!

**READ ME FIRST!**  
 Wakespeed now supports 2 Victron configuration setups.  
 1 - With CAN Bus only called Simple.  
 2 - With a build in Get-home-mode capability. Setup - 2 needs CAN Bus and the extra White Wire coming from the Lynx Smart BMS NG ATC (Allow To Charge) through its relay to connect to the Feature In wire of the WS500/500-Pro. See detailed info in this drawing. Read all about this in the Victron Lynx configuration guide from within the App on the battery Tab.

**IMPORTANT INFORMATION!**  
 Recommended AC Out-1 cable/breaker size MultiPlus  
 With Power assist the MultiPlus can add 5KW to the output load when needed. Together with the adjustable 100A input this all adds up to the max sum of input and output current of 100+21=121A. An Earth leakage device with breaker or a combination MCB/RCD must be installed on the output. Cable size must be adjusted accordingly.

**IMPORTANT INFORMATION!**  
 Recommended AC In cable/breaker size MultiPlus  
 AC In must be protected by a circuit breaker rated at 100A max. or less. This depends heavily on the size of the connected power source. The input current must be adjusted to fit the size of the connected power source. The breaker and cable size for AC in should be adjusted accordingly.

**IMPORTANT INFORMATION!**  
 When operating in inverter mode, the Neutral output of an inverter charger must be connected to ground to guarantee proper functioning of a GFCI or RCD device. In case of a split phase supply the Neutral also must be grounded.

**IMPORTANT INFORMATION!**  
 The primary Case ground connection from an inverter charger like a MultiPlus, must be connected to the Central Negative Busbar of the DC system. Size of this cable must be identical to connected DC negative.

**IMPORTANT INFORMATION!**  
 Recommended AC Out-2 cable/breaker size MultiPlus  
 AC Out-2 only is available when power is present on AC IN. During battery operation it will be disconnected. AC Out-2 supports up to 60A. An Earth leakage device with breaker or a combination MCB/RCD must be installed on the output. Cable size must be adjusted accordingly.

**IMPORTANT INFORMATION!**  
 Recommended DC cable/fuse size MultiPlus  
 0-5m cable length: 4 x 50Sqm 5-10m cable length: 4 x 85Sqm. When used in closed conduit, cable size should double. Cable length stands for the distance between the battery and the MultiPlus. Recommendations are without other loads in the system and these also should be taken into account for proper main battery, main fuse & main switch cables! Fuse size should be 1 x 400A.

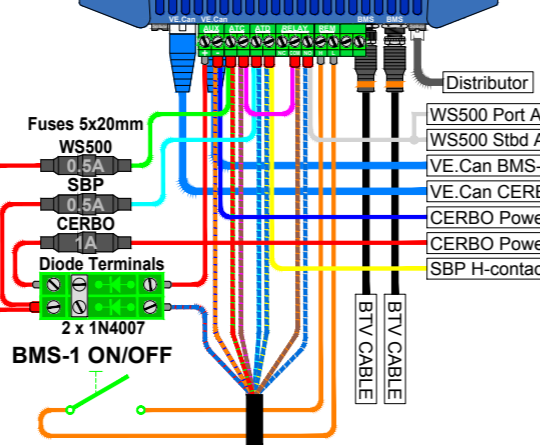
**KEEP POSITIVE BATTERY CABLES ALL AS SHORT AS POSSIBLE AND ALL AT THE SAME LENGTH!**  
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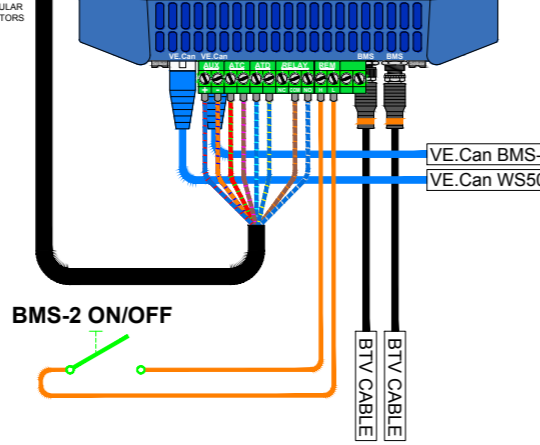
2 x Lithium 25.6V-200Ah NG LiFePO4 Batteries

2 x Lithium 25.6V-200Ah NG LiFePO4 Batteries

**Lynx Smart BMS-1 500 NG Enlarged parallel connections**



**Lynx Smart BMS-2 500 NG Enlarged parallel connections**



Drawing BJE-360A Rev-A