CERBO GX

GX TOUCH 50

IMPORTANT INFORMATION !
The SmartBatteryProtect must be programmed for Li-Ion mode-C and 12 Volt either through programming on the device itself or with a Bluetooth enabled smartphone or tablet. Connect the ATC or ATD contact of the BMS to the Remote H terminal.

IMPORTANT INFORMATION !
CONFIGURATION OF WS500/WS500-Pro
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.
Be advised that the CAN Bus cable between the Lynx Smart BMS NG and WS500-Pro need to be a CAN CROSS OVER cable. Reference "Wakespeed Victron GX Setup guide at www.wakespeed.com/learn/"

EXTRA-ALTERNATOR

WAKESPEED WS500 PRO

SMART MPPT

PV BREAKER/ISOLATOR

SOLAR ARRAY

SMART BATTERY PROTECT 220 (SBP)

The GX Touch 50 and the CERBO GX are enlarged visible in this drawing.

For proper Dip switch configuration settings of the Lynx Distributor read the manual.

LYNX DISTRIBUTOR M10

LYNX SMART BMS NG

CLASS-T POWER IN M10-1

MAIN SWITCH-1
Single Circuit
Dual Output

MAIN SWITCH-2
Single Circuit

MAIN SWITCH-3
Single Circuit

MAIN SWITCH-4
Single Circuit

NEGATIVE BUSBAR

POSITIVE BUSBAR

POSITIVE BUSBAR

Drawing BJE-310B Rev-B

STANDARD ALTERNATOR

ALTERNATOR 12V-80A

INTERNAL ALTERNATOR FUSE

STARTER-MOTOR

Engine Starter Battery
12V-125Ah
Starter Battery

Dual terminal Stud M8

SolidSwitch 104

MultiPlus / 3kVA/12V/230V-50Hz AC INVERTER/CHARGER

ORION-Tr SMART BOW BATTERIES

Orion-Tr Smart
12 | 12 - 30
isolated DC/DC charger

INSTALL ORION-Tr CLOSE TO BOW BATTERIES

Blue Smart Maintenance Charger 12V-5A

Blue Smart Maintenance Charger 12V-10A

BOW Batteries
BMV-712 SMART

BOW Batteries
12V-150Ah
Starter Battery
12V-150Ah
Starter Battery

MAIN FUSES BOW BATTERIES

BMV Fuse-1A

Charger Fuse-15A

55KGF BOW THRUSTER

2 x Lithium12.8V-200Ah NG-LifePO4
victron energy
Lithium
12.8V-200Ah
NG-LiFePO4

Lynx Smart BMS NG Enlarged connections

Distributor
CERBO Power -
CERBO Power +
CERBO VE.Can
WS500 VE.Can
SBP H-contact
SolidSwitch H-contact
WS500 ATC +
BMS CABLE
BMS CABLE
BMS ON/OFF
BMS ON/OFF

FUSES
CERBO 1A
SBP & SS 0.5A
WS500 0.5A

Victron to Wakespeed Cross over cable !

BMS ON/OFF

KEEP POSITIVE BATTERY CABLES ALL AS SHORT AS POSSIBLE AND ALL AT THE SAME LENGTH !

KEEP NEGATIVE BATTERY CABLES ALL AS SHORT AS POSSIBLE AND ALL AT THE SAME LENGTH !

IMPORTANT INFORMATION !
Victron Lithium NG Batteries charge & discharge controlled by BMS & GX Device
In systems with Victron Lithium NG Batteries, it's important that all charging devices as well as loads are controlled by the BMS and GX Device. Here is how that is taken care of in this system:
1 - MultiPlus Inverter/charger: digitally via the GX Device, DVCC feature.
2 - Solar charger: digitally via the GX Device, DVCC feature.
3 - WS500/WS500 Pro alternator regulators: digitally via CAN connecting to the Lynx Smart BMS NG.
4 - WS500/WS500 Pro alternator regulators: 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.
4 - DC Loads: via SolidSwitch 104 and SmartBattery Protect 220 controlled by the BMS.
5 - AC Loads: controlled together with the MultiPlus Inverter/Charger.

IMPORTANT INFORMATION !
Recommended AC Out-1 cable/breaker size MultiPlus
With Power assist the MultiPlus can add 3KW to the output load when needed. Together with the adjustable 50A input this all adds up to the max sum of input and output current of 50+13=63A. 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 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 16A. 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
0-5 m cable length: 4 x 50SQmm, 5-10 m cable length: 4 x 70SQmm. When used in closed conduits, cable size should double Cable length stands for the distance between the battery and the MultiPlus connections !!! 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 400A.

IMPORTANT INFORMATION !
Recommended AC IN cable/breaker size MultiPlus
AC IN must be protected by a circuit breaker rated at 50A 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 !
The primary Case ground connection from a inverter charger like a Multi or a Quattro, must be connected to the central negative Busbar of the DC system. Size of this cable must be identical to the connected DC negative.

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

GALVANIC ISOLATOR 16A or 32A
Shown here is the 32A model
Galvanic Isolator VDI.32

SHORE POWER CONNECTION 230V/50Hz AC

AC DISTRIBUTION to/from MultiPlus AC-in, AC Out-1 & AC Out-2

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 !!!