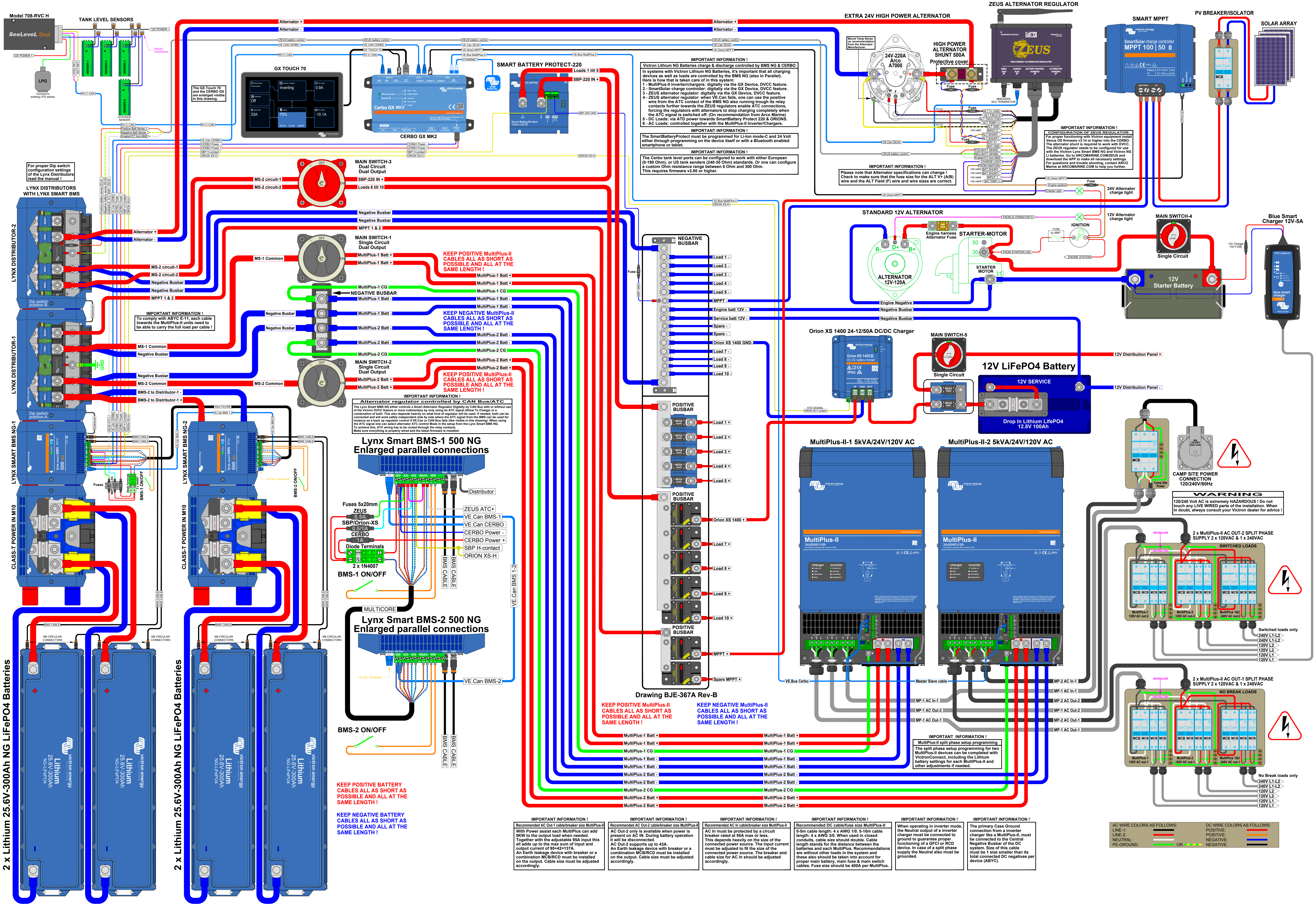
Model 708-RVC H
SeeLeveL Soul
TANK LEVEL SENSORS
SENDER-1
SENDER-2
SENDER-3
SENDER-4
STACKED SENDER
WAGO Connectors
12V POWER +
12V POWER -
CAN HIGH
CAN LOW
RV-C CAN
LPG
Connect to existing LPG sensor
Alternator +
Alternator -
ZEUS battery control
VE.Can ZEUS
VE.Direct MPPT
GX TOUCH 70
The GX Touch 70 and the CERBO GX are enlarged visible in this drawing.
CERBO GX MK2
SMART BATTERY PROTECT-220
Loads 1 till 5
SBP-220 IN +
EXTRA 24V HIGH POWER ALTERNATOR
24V-220A Arco A7000
HIGH POWER ALTERNATOR SHUNT 500A
Protective cover
ZEUS ALTERNATOR REGULATOR
SMART MPPT
SmartSolar charge controller MPPT 100 | 50
PV BREAKER/ISOLATOR
SOLAR ARRAY
MCB
24V Alternator charge light
12V Alternator charge light
Engine Ignition
Charge Light
Fuse
3A
For proper Dip switch configuration settings of the Lynx Distributors read the manual !
LYNX DISTRIBUTORS WITH LYNX SMART BMS
LYNX DISTRIBUTOR-2
LYNX DISTRIBUTOR-1
Dip switch position-B
Dip switch position-A
LYNX SMART BMS NG-1
LYNX SMART BMS NG-2
BMS-1 ON/OFF
BMS-2 ON/OFF
CLASS-T POWER IN M10
2 x Lithium 25.6V-300Ah NG LiFePO4 Batteries
Lithium 25.6V-300Ah NG-LiFePO4
MAIN SWITCH-3 Dual Circuit Dual Output
MS-2 circuit-1
MS-2 circuit-2
SBP-220 IN +
Loads 6 till 10
Negative Busbar
MPPT 1 & 2
MAIN SWITCH-1 Single Circuit Dual Output
MS-1 Common
MultiPlus-1 Batt +
MultiPlus-1 Batt -
MultiPlus-1 CG
NEGATIVE BUSBAR
MultiPlus-2 Batt +
MultiPlus-2 Batt -
MultiPlus-2 CG
MAIN SWITCH-2 Single Circuit Dual Output
KEEP POSITIVE MultiPlus-II CABLES ALL AS SHORT AS POSSIBLE AND ALL AT THE SAME LENGTH !
KEEP NEGATIVE MultiPlus-II CABLES ALL AS SHORT AS POSSIBLE AND ALL AT THE SAME LENGTH !
BMS-2 to Distributor-1 +
BMS-2 to Distributor-1 -
Lynx Smart BMS-1 500 NG Enlarged parallel connections
Lynx Smart BMS-2 500 NG Enlarged parallel connections
VE.Can
AUX
ATC
ATD
RELAY
REM
BMS
Distributor
Fuses 5x20mm
ZEUS 0.5A
SBP/Orion-XS 0.5/1A
CERBO 1A
Diode Terminals
2 x 1N4007
ZEUS ATC+
VE.Can BMS-1
VE.Can CERBO
CERBO Power -
CERBO Power +
SBP H-contact
ORION XS-H
MULTICORE
BMS CABLE
VE.Can BMS-2
VE.Can BMS 1-2
NEGATIVE BUSBAR
POSITIVE BUSBAR
Load 1 - … Load 10 -
MPPT -
Engine batt 12V -
Service batt 12V -
Spare -
Orion XS 1400 GND-
Load 1 + … Load 10 +
Orion XS 1400 +
MPPT +
Spare MPPT +
Drawing BJE-367A Rev-B
STANDARD 12V ALTERNATOR
ALTERNATOR 12V-120A
Engine harness Alternator Fuse
AMI 150A
STARTER-MOTOR
STARTER MOTOR
IGNITION
MAIN SWITCH-4
Single Circuit
12V Starter Battery
Blue Smart Charger 12V-5A
Engine Negative
Negative Busbar
Orion XS 1400 24-12/50A DC/DC Charger
MAIN SWITCH-5
12V LiFePO4 Battery
12V SERVICE
Drop In Lithium LiFePO4 12.8V 100Ah
12V Distribution Panel +
12V Distribution Panel -
MultiPlus-II-1 5kVA/24V/120V AC
MultiPlus-II-2 5kVA/24V/120V AC
MultiPlus-II 24|5000|120
VE.Bus Cerbo
Master Slave cable
MP-1 AC In-1
MP-1 AC Out-2
MP-1 AC Out-1
MP-2 AC In-1
MP-2 AC Out-2
MP-2 AC Out-1
CAMP SITE POWER CONNECTION 120/240V/60Hz
50A 125/250V Easy Lock
Camp Site Power
2 x MultiPlus-II AC OUT-2 SPLIT PHASE SUPPLY 2 x 120VAC & 1 x 240VAC
SWITCHED LOADS
NEUTRAL LINK
Switched loads only
2 x MultiPlus-II AC OUT-1 SPLIT PHASE SUPPLY 2 x 120VAC & 1 x 240VAC
NO BREAK LOADS
No Break loads only
240V L1-L2
120V L2
120V L1
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 NG & CERBO

In systems with Victron Lithium NG Batteries, it's important that all charging devices as well as loads are controlled by the BMS NG (also in Parallel).
Here is how that is taken care of in this system:

1 - MultiPlus-II Inverter/chargers: digitally via the GX Device, DVCC feature.
2 - SmartSolar charge controller: digitally via the GX Device, DVCC feature.
3 - ZEUS alternator regulator: digitally via the GX Device, DVCC feature.
4 - ZEUS alternator regulator: when VE.Can fails, one can use the positive wire from the ATC contact of the BMS NG also running trough its relay contacts further towards the ZEUS regulators enable ATC connections, forcing the regulators with alternators to stop charging completely when the ATC signal is switched off. (On recommendation from Arco Marine)
5 - DC Loads: via ATD power towards SmartBattery Protect 220 & ORIONS.
6 - AC Loads: controlled together with the MultiPlus-II Inverter/Chargers.

IMPORTANT INFORMATION !

The SmartBatteryProtect 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.

IMPORTANT INFORMATION !

The Cerbo tank level ports can be configured to work with either European (0-180 Ohm), or US tank senders (240-30 Ohm) standards. Or one can configure a custom Ohm resistance range between 0 Ohm and 300 Ohm.
This requires firmware v2.80 or higher.

IMPORTANT INFORMATION !

Please note that Alternator specifications can change !
Check to make sure that the fuse size for the ALT V+ (A/B) wire and the ALT Field (F) wire and wire sizes are correct.

IMPORTANT INFORMATION !

CONFIGURATION OF ZEUS REGULATOR:

For proper functioning with Victron equipment install Venus OS firmware v3.14 or higher into the CERBO. The alternator shunt is required to work with DVCC. The ZEUS regulator needs to be configured for use with the Victron Lynx Smart BMS NG and Victron NG Li batteries. Go to ARCOMARINE.COM/ZEUS and download the APP to make all necessary settings. For questions and trouble shooting, contact ARCO Marine at ARCOMARINE.COM to help you further.

IMPORTANT INFORMATION !

To comply with ABYC E-11, each cable towards the MultiPlus-II units need to be able to carry the full load per cable !

IMPORTANT INFORMATION !

Alternator regulator controlled by CAN Bus/ATC

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 visible 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.

WARNING

120/240 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 !

IMPORTANT INFORMATION !

MultiPlus-II split phase setup programming

The split phase setup programming for two MultiPlus-II devices can be completed with VictronConnect, including the Lithium battery settings for each MultiPlus-II and other adjustments if needed.

IMPORTANT INFORMATION !

Recommended AC Out-1 cable/breaker size MultiPlus-II

With Power assist each MultiPlus can add 5KW to the output load when needed. Together with the adjustable 95A input this all adds up to the max sum of input and output current of 95+42=137A.
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-II

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 43A.
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-II

AC In must be protected by a circuit breaker rated at 95A 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 !

Recommended DC cable/fuse size MultiPlus-II

0-5m cable length: 4 x AWG 1/0. 5-10m cable length: 4 x AWG 3/0. When used in closed conduits, cable size should double. Cable length stands for the distance between the batteries and each 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 400A per MultiPlus.

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 or RCD device. In case of a split phase supply the Neutral also must be grounded.

IMPORTANT INFORMATION !

The primary Case Ground connection from a inverter charger like a MultiPlus-II, must be connected to the Central Negative Busbar of the DC system. Size of this cable must be 1 size smaller than its total connected DC negatives per device (ABYC).

AC WIRE COLORS AS FOLLOWS:		DC WIRE COLORS AS FOLLOWS:	
LINE-1:	▬	POSITIVE:	🟥
LINE-2:	🟥	POSITIVE:	🟧
NEUTRAL:	⬜	NEGATIVE:	🟦
PE-GROUND:	🟩 OR 🟩🟨	NEGATIVE:	▬