Powermanagement – Taitonga: Overview

Shore-power 220V

Max 100 A

Masterswitch (Fuse)

Solar-panels 2x60W

Kyocera KC60
Max: 7A, 120W, 45V

Aerogen 6

10 Kts: 2A
15 kts: 6A
20 kts: 10A
25 kts: 17A
Max 35kts: 40A

Motor Yanmar 55hp

Alternator 1: Standard
Alternator 2: max. 90A

Masscombi
12/2000-100
Charger/Inverter
(Mastervolt)

IUoUoU 3-Steps
Setup for sealed/unsealed
Temperatur-sensor

Maxpower- MPPT-Regulator (NAPS)

MPPT, Boost, Float-Charge
Switch for sealed/unsealed

Twin-Battery-Voltage-Regulator **6TB**
(40A Dump Current)
(LVM-ltd)

1-Step

Alpha Pro 12V Charge-Regulator (Mastervolt)

3-Steps

Batterymate 1602
(Mastervolt Art 83116020)
Divides charge on two banks

Start-

Unsealed Lead Acid
1x **Start** Delphi 90AH CCA 600
5x **Domestic** Exide á 115 AH

Domestic-Batteries

Shunt

MICC = Mass Inverter Charger Control (Mastervolt)

Main-Switches:
Domestic on/off (200A-Fuse),
Start on/off (300A-Fuse),
Domestic and Start parallel,
Windlass on/off + 80A-Fuse

Load on navigation: Navstation, Autopilot, Fridge, Nav-Laptop, Lights, VHF~(0A+0A+12hx5A+24hx3A+12hx0,5A+24hx0,5A =150)
Load on anchor: Fridge, Nav-Laptop, Lights ~ (12hx5A+6hx3A+4hx0,5A = 80A)

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Batterymate 1602
(Mastervolt Art
83116020)

Alpha Pro 12V
Charge-Regulator
(Mastervolt)

Fuse

AlphaPro 12V-Charge-Regulator (Mastervolt): (**Powerlines** left to right)
1. Black thin = Temperature-indicator to battery-bank
2. Blue thin (going in white bundle) = going to Zündspule
3. Red thin (going in black bundle) = going to second alternator
4. Brown thin (gong in white bundle) = going to first alternator
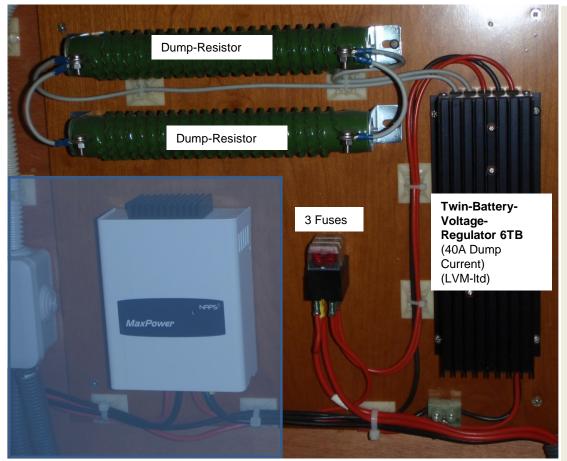5. Black thin (going in black bundle) = going to second alternator

Batterymate 1602 (Mastervolt): (**Powerlines** from down to top)
1. Red thick = plus in: to first Alternator
2. Red thin = without connection
3. Red thick = plus out B: one to second alternator, one to battery-bank
4. Red thick = plus out A: to battery-bank
5. Black thin = ground to Zündspule
(One cable black from Zündspule to second alternator)

To be found **above the motor**

Dump-Resistor

Dump-Resistor

3 Fuses

Twin-Battery-Voltage-Regulator 6TB (40A Dump Current) (LVM-ltd)

Twin-Battery-Voltage-Regulator 6TB (LVM-ltd)

To be found in the **starboardcabin**
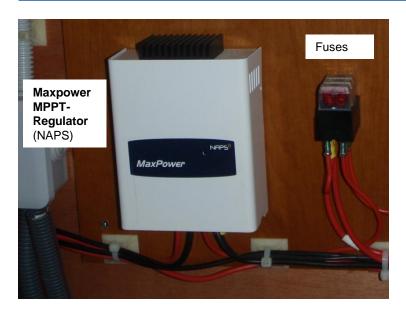
Powerlines:
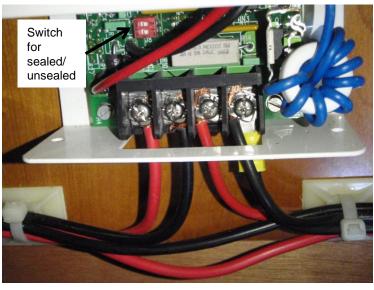**Lower Part** - from left to right
1. From Aerogen
2. From Aerogen

Upper Part - from left to right
1. Grey to dump-resitor
2. Grey from dump-resitor
3. Red to domestic-battery (Fuse in the middle)
4. Black to Maxpower Out (4=> to Domestic?)
5. Red to startbattery (Fuse in the back)

Do not disconnect batteries while Aerogen is in full use

14,2V@20degC, Max-Voltage-adjustable, Voltage-Monitoring / PWM-circuit, 40A Dump-Resistors, 1 Power Mosfet, 2 Schottky Blocking Diodes, battery with lowest terminal will be charged first, No-temperatur compensation, 2,5mm² Lines

Maxpower MPPT-Regulator (NAPS)

Fuses

Switch for sealed/unsealed

Maxpower MPPT-Regulator (NAPS)

To be found in the **starboardcabin**

MPPT-, Boost-, Floatcharging, 90-94% eff.
Max. 7A, 45V, 120W Input, max 10A Output,
Battery-Selection, 24mV-temperatur
compensation, Internal blocking diode, 4mm²
Lines, 6mV/h consumption,
Green continous LED = ok

Powerlines from left to right
1. Red from solarpanel
2. Black from solarpanel
3. Red to domestic-battery
4. Black to domestic-battery? (combined with the black out of the Aerogen-TB6-Charger)

(Do not disconnect batteries while MaxPower is connected to loads)

**Delphi Freedom Marine
12V, 90Ah, 600 CCA**

To be found in the **portsidecabin**

Powerlines from left to right:
1. Black thick – going to the motor?
2. Black thin – going to Aerogen 6TB
3. Red thick – through fuse 200Amp to Starter-MainSwitch

Powermanagement – Taitonga: Domestic-Batteries

Delphi Freedom Marine, Bosch and Noname
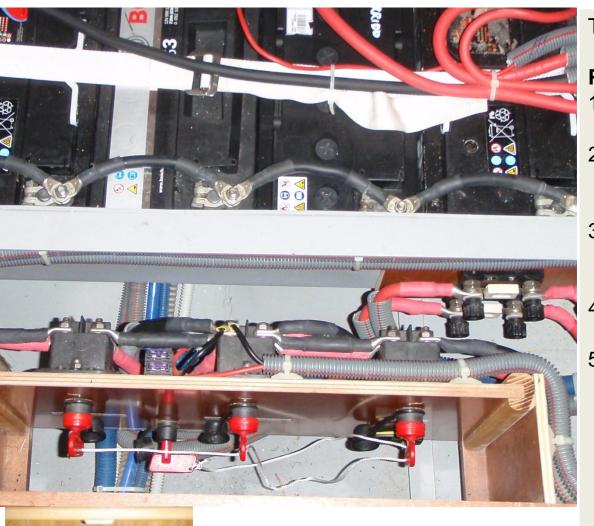**12V, 5 x 90Ah => 450Ah**

To be found in the **portsidecabin**

Powerlines from left to right
1. Red thick through fuse 300 Amp to Mainswitch (Combined Start and Domestic)
2. Red thick to plus out B on Batterymate
3. Black thin to Shunt
4. Red-Black to Inverter **?**
5. Red (Blue /// Marks on grey tube) to MaxPower(Solar) and TB6 (Aerogen)
6. Black thin temperatur-indicator
7. Black thin temperatur-indicator

Load on navigation: Navstation, Autopilot, Fridge, Nav-Laptop, Lights, VHF~(0A+0A+12hx5A+24hx3A+12hx0,5A+24hx0,5A =150)

Load on anchor: Fridge, Nav-Laptop, Lights ~ (12hx5A+6hx3A+4hx0,5A = 80A)
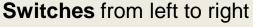
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To be found in the **portsidecabin**

Powerlines from left to right
1. Red: connection from Starter-Battery-Switch to Starter-Battery
2. Red: connection from Domestic-Start-Combination-Switch to Domestic-Battery
3. Red: connection from domestic-start-combination-switch to domestic-switch
4. Black: connection from Domestic-Battery-Switch to Windlass-Switch
5. Black: connection from Windlass to fuse 80 Amp.

Switches from left to right
Upper row: Starter-Battery-Switch / Domestic-Battery-Switch / Windlass-Switch
Lower row: Start-and-Domestic-Batteries-In-Parallel-Switch / 80A-Fuse- for-
Windlass

Mass Inverter Charger Controll

To be found in the **right of the Navigationseat**

Controlles the Inverter and the Charger
Shows Voltage and outtaken Ampere or Batterystatus

Connectet to the Shunt

Noch zu kaufen
1. xxx