

CZONE[®]



**B2 Technical Training
2022**



AGENDA

- Configuration Tool
- Fault Finding & Diagnostics
- Firmware Updates
- Favourites

Configuration Tool

R20.1 6.25.16.0

The logo consists of the word "CZONE" in a bold, sans-serif font. The letter "C" is red, while the letters "ZONE" are white with a black outline. A registered trademark symbol (®) is located at the top right of the "E".

New System Configuration

Modules

- Add all modules to be installed in the system.

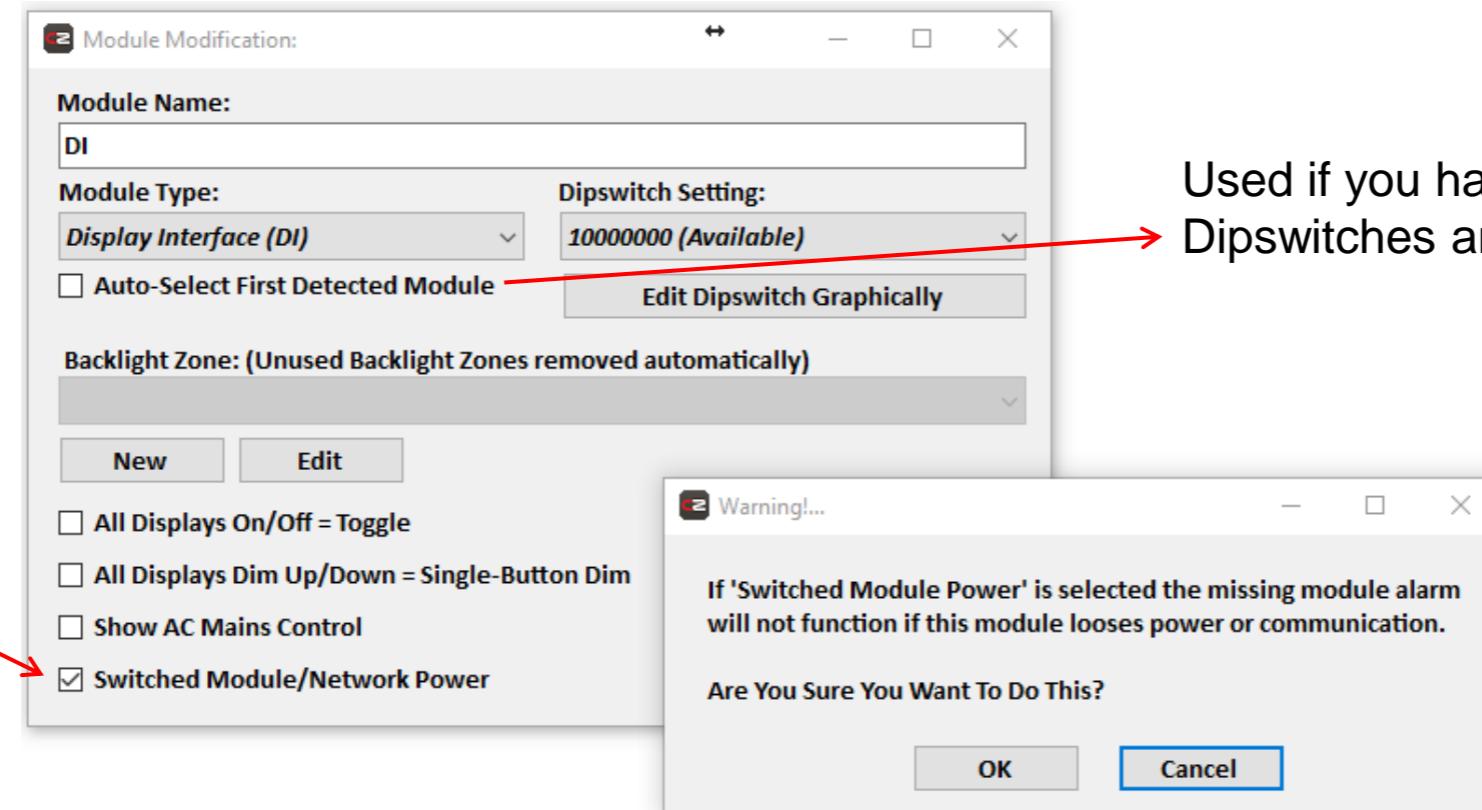
The screenshot shows a software interface for managing system configuration modules. At the top, there is a toolbar with buttons for 'Add' (highlighted in blue), 'Edit', 'Remove', and 'Identify Modules'. Below the toolbar, the 'Network Status' is displayed as '4 Modules Online'. There are also buttons for 'Read Config From Network' and 'Write Config to Network'. On the left, a 'Module Modification' dialog box is open, showing fields for 'Module Name' (set to 'OI - 01 Engine Room'), 'Module Type' (set to 'Output Interface (OI)'), 'Dipswitch Setting' (set to '00000111 (Detected on Network)'), and other options like 'Auto-Select First Detected Module' and 'DC Power Source' (set to 'Unmetered 12V'). At the bottom of the dialog are 'OK' and 'Cancel' buttons. On the right, a list titled 'Configured Modules (1):' shows a single entry: 'Output Interfaces (1): 00000111 - OI - 01 Engine Room'. A red arrow points from the 'Add' button in the toolbar to the 'Module Modification' dialog, and another red arrow points from the 'Output Interface (OI)' dropdown in the dialog to the 'Configured Modules' list.

Modules

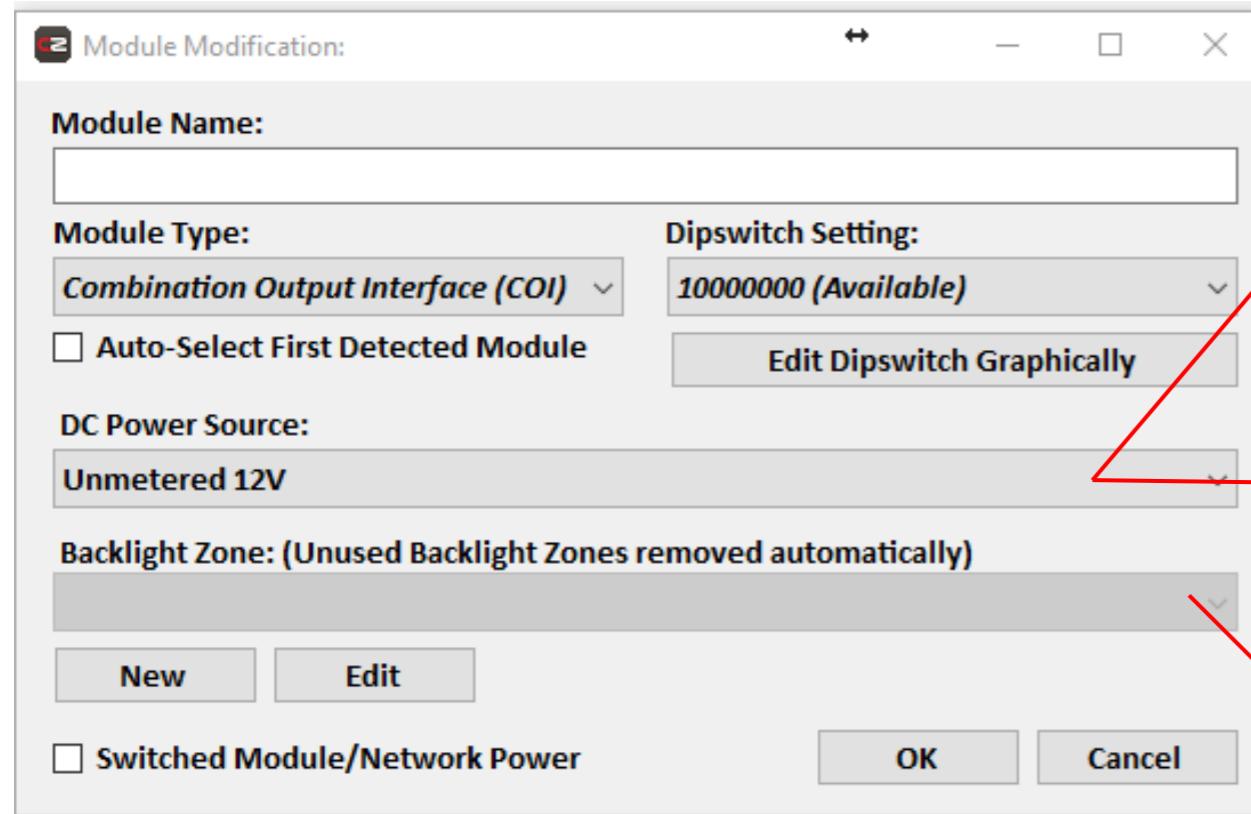
When connected live, dipswitch will be detected. If offline, assign a Dipswitch.

Each module has different settings that can be configured.

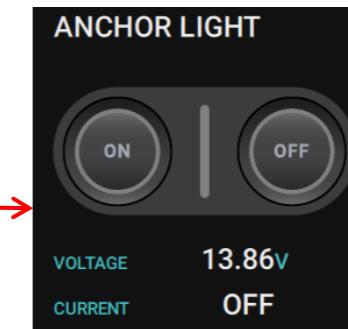
Displays should have ‘Switched module/Network Power’ selected. This will stop an alarm/loads. shutting down on the system if the display is switched off.



Modules - COI

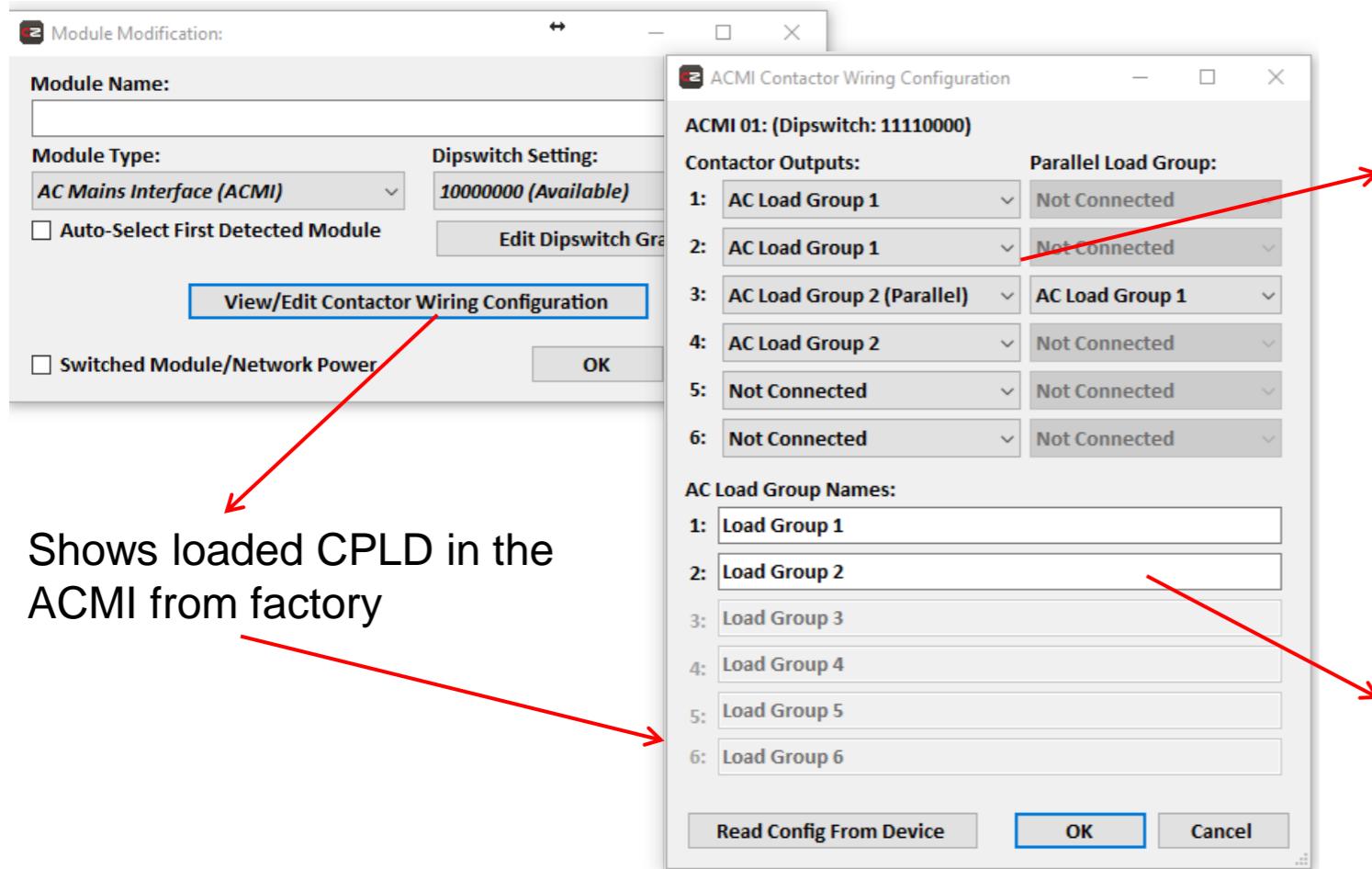


Can only be selected after
'Power Metering' has been completed



Gives control over DSB switch
Backlighting zones

Modules - ACMI

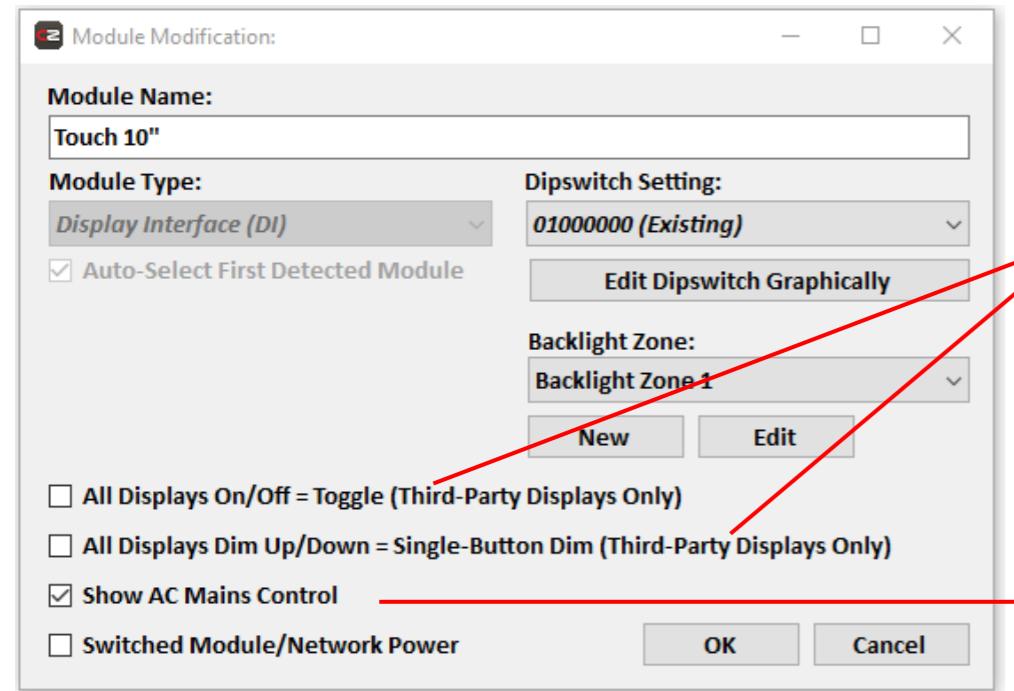


These will be pre-configured from factory and do not need to be changed.

Shows loaded CPLD in the ACMI from factory

Name Load groups to be Used later in configuration

Modules - DI



This changes buttons on displays to single control.
Mostly used for IPAD Configurations.

- Single button Dim
- Single button toggle
- Useful in 5" Touch new UI

De-select this to clean up display if not using
ACMI – This will remove the selection from screen

Modules - MasterShunt

Module Modification:

Module Name: House Battery

Module Type: Shunt (MSH)

Auto-Select First Detected Module

Shunt Type: MasterShunt 500 (77020115)

Battery Type: Flooded

Nominal Voltage: 12V

Battery Capacity (Ah): 200

Switched Module/Network Power

Dipswitch Setting: 01110000 (Available)

Edit Dipswitch Graphically

Force Dipswitch for Address

Advanced Settings

Alarm/Switch Settings

OK Cancel

Name Shunt to correct battery (visible meter name)

Dipswitch relates to physical dipswitch on shunt, after the initial CZone enabled dipswitches configured.

Configure correct battery type and nominal voltages

Set correct amp hour capacity

Modules - MasterShunt

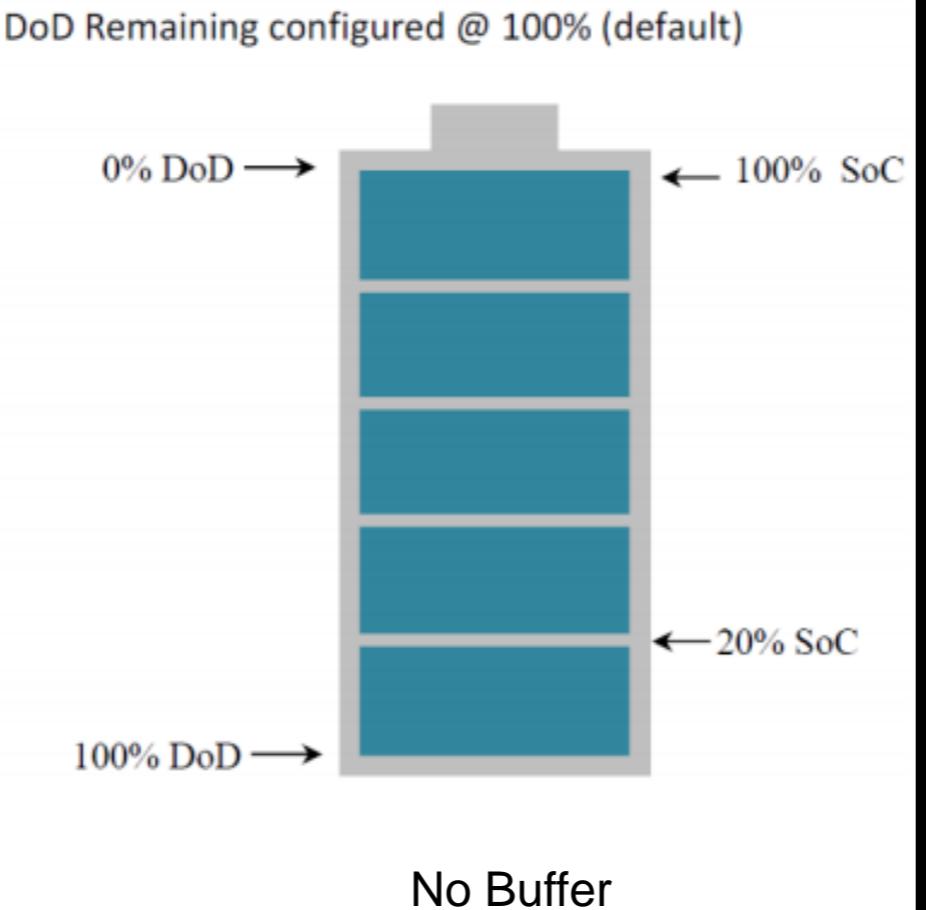
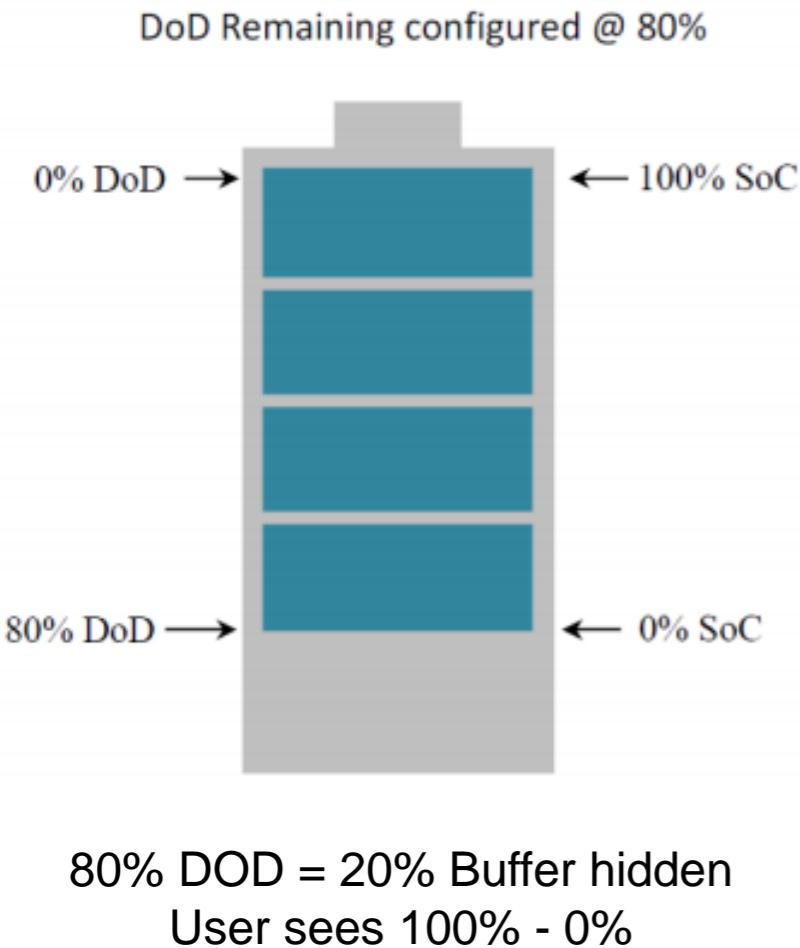
The screenshot shows the 'MasterShunt Advanced Settings' dialog box. It has two tabs at the top: 'Advanced Settings' (selected) and 'Alarm/Switch Settings'. The 'Advanced Settings' tab contains several sections:

- DC IN/OUT:** A dropdown menu showing '6'.
- NMEA2000 DC Instance:** A dropdown menu showing '6' with a checked checkbox labeled 'Show Battery Temperature'.
- Device:** A dropdown menu showing 'Single Device' with a checked checkbox labeled 'Reverse Current'.
- DC IN/OUT:** A section with two dropdown menus: 'DoD remaining (%)' set to '100' and 'Battery Full Current (A)' set to '2.0'.
- Peukert's Coefficient:** A dropdown menu set to '1.270'.
- Float Charge Voltage (V):** A dropdown menu set to '13.3'.
- Absorption Charge Voltage (V):** A dropdown menu set to '14.3'.

Red callout arrows point from the text descriptions to the corresponding settings in the dialog box:

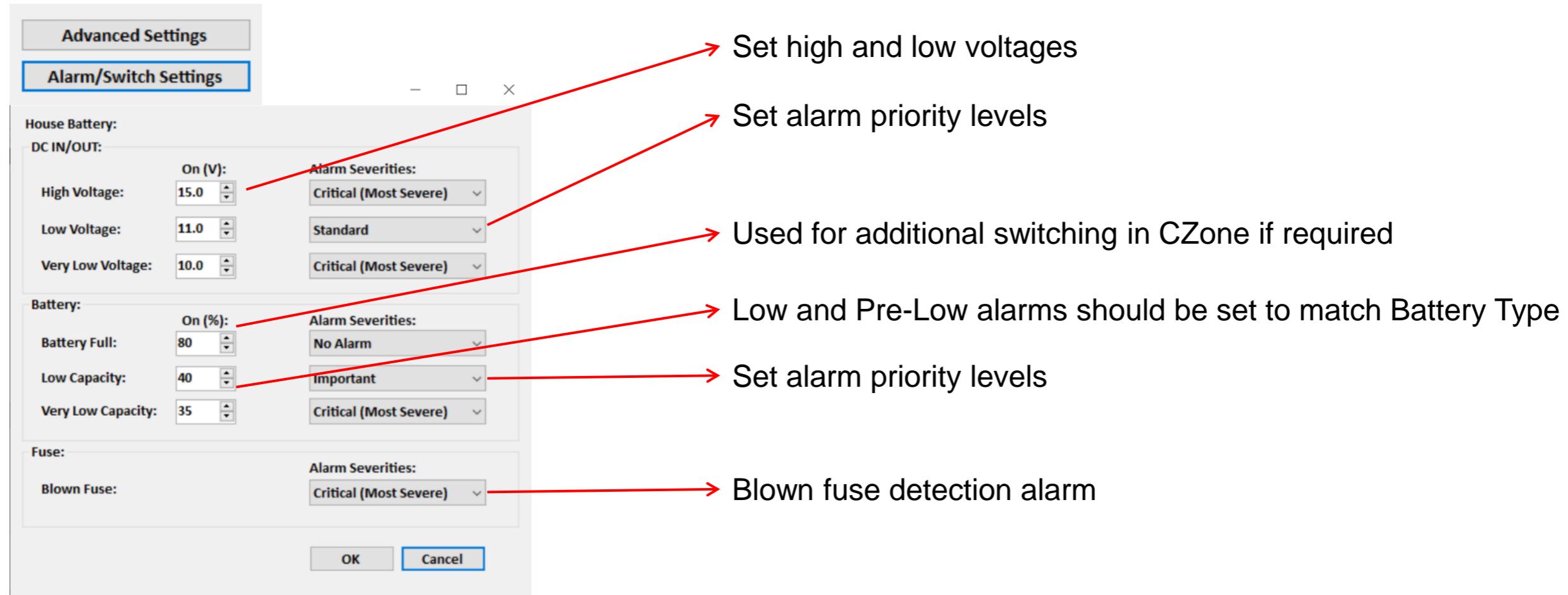
- 'Changes automatically' points to the 'Show Battery Temperature' checkbox.
- 'Show temperature' points to the 'Show Battery Temperature' checkbox.
- 'Parallel or single unit' points to the 'Single Device' dropdown.
- 'Reverse direction of shunt (without physically changing wiring)' points to the 'Reverse Current' checkbox.
- 'Metered DOD showing %' points to the 'DoD remaining (%)' dropdown.
- 'Determines reset current of Meter (2.5% - 4% of total AH)' points to the 'Battery Full Current (A)' dropdown.
- 'These determine reset of the CZone SOC meter'
 - 'Peukerts for correct long term battery information'
 - 'Float voltage should be set just LOWER than charger float voltage'
 - 'Absorption voltage should be set the SAME as charger abs voltage'

Modules – SOC%

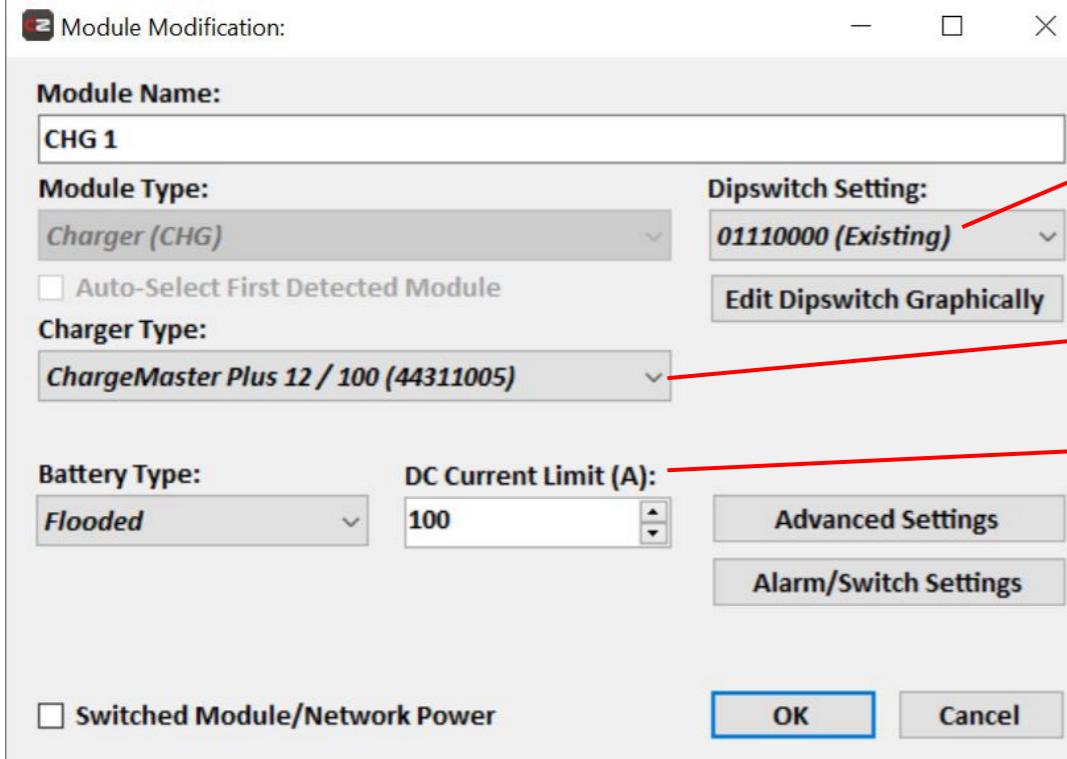


Use DOD% Masking to give the customer better vision of the state of the battery capacity

Modules – MasterShunt



Modules – Charge Master Plus

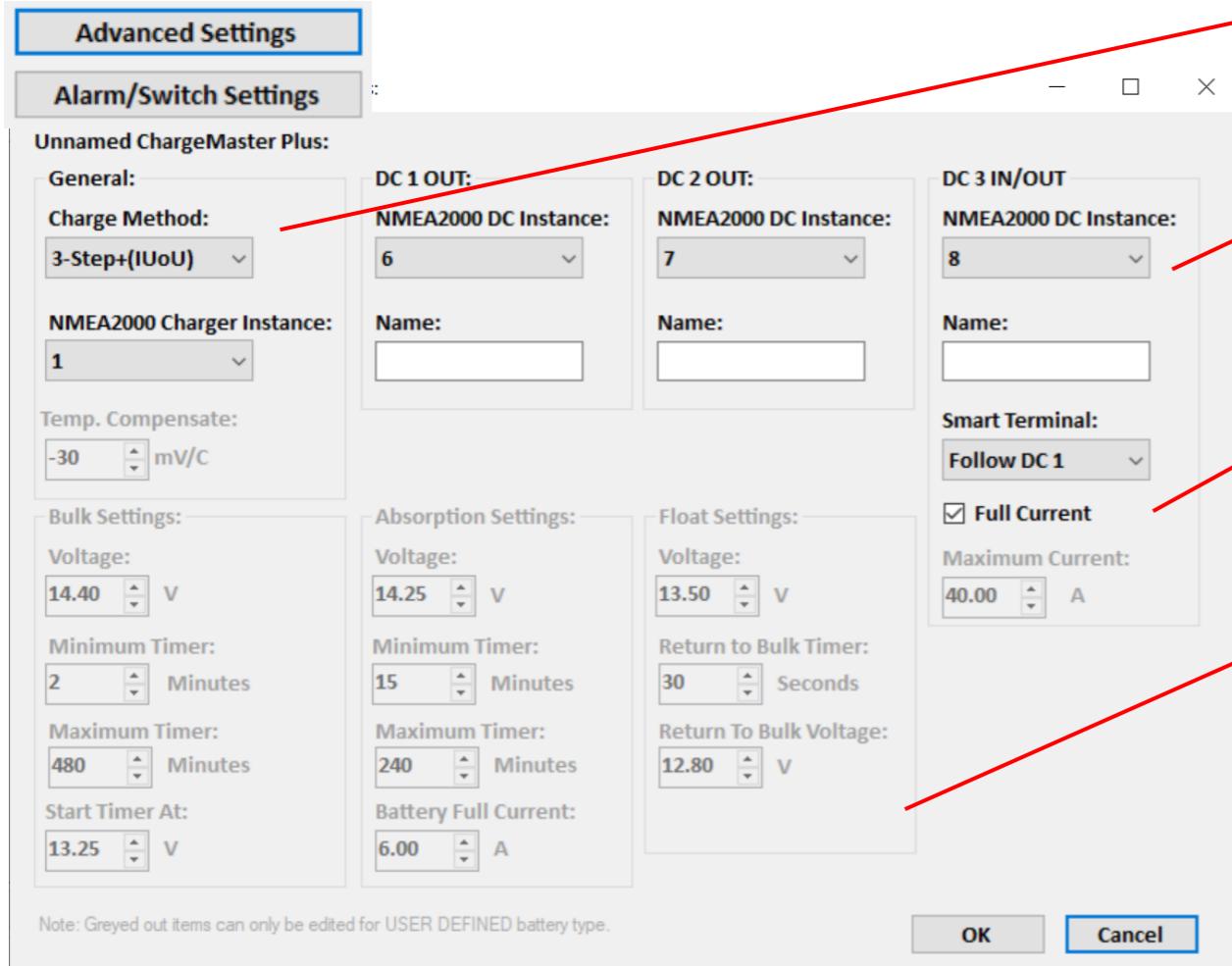


Dipswitch relates to physical dipswitch on unit, after the initial CZone enabled dipswitches configured.

Model Type

Battery type and Current limit if required

Modules – Charge Master Plus

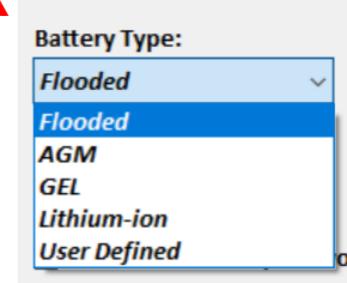


Charge characteristics

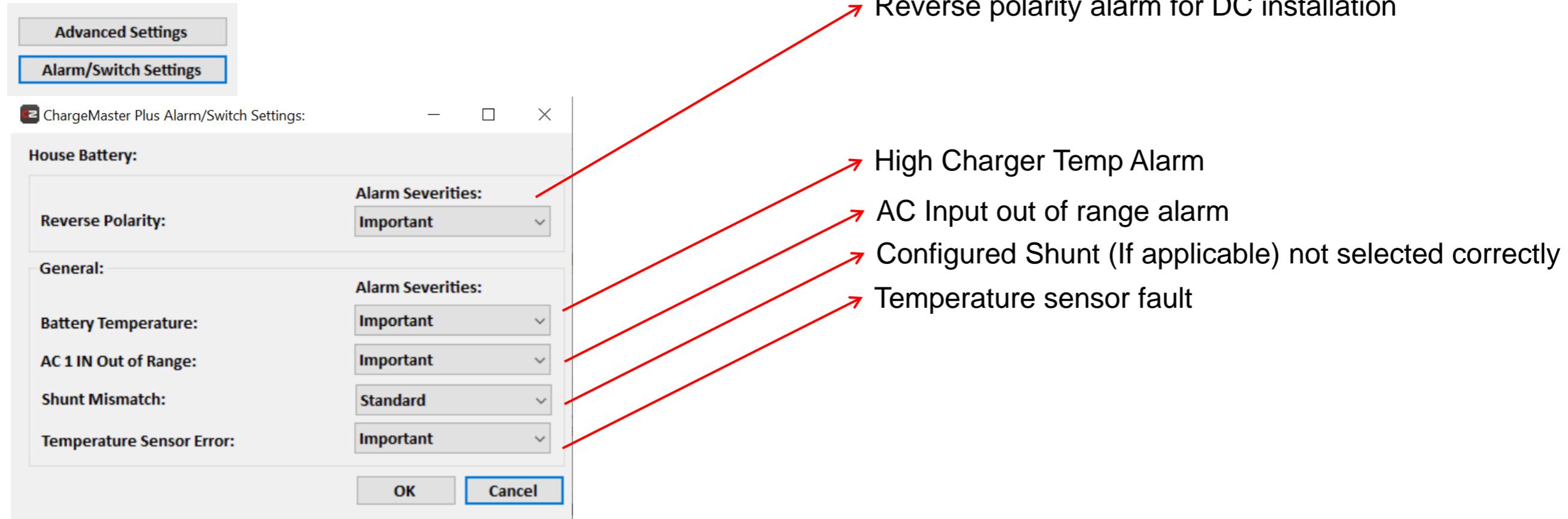
Label outputs as required
I.E House Battery, Start Battery, Radio Battery

Smart terminal output. Refer to Mastervolt user manual of model for descriptions.
Different options will add more items

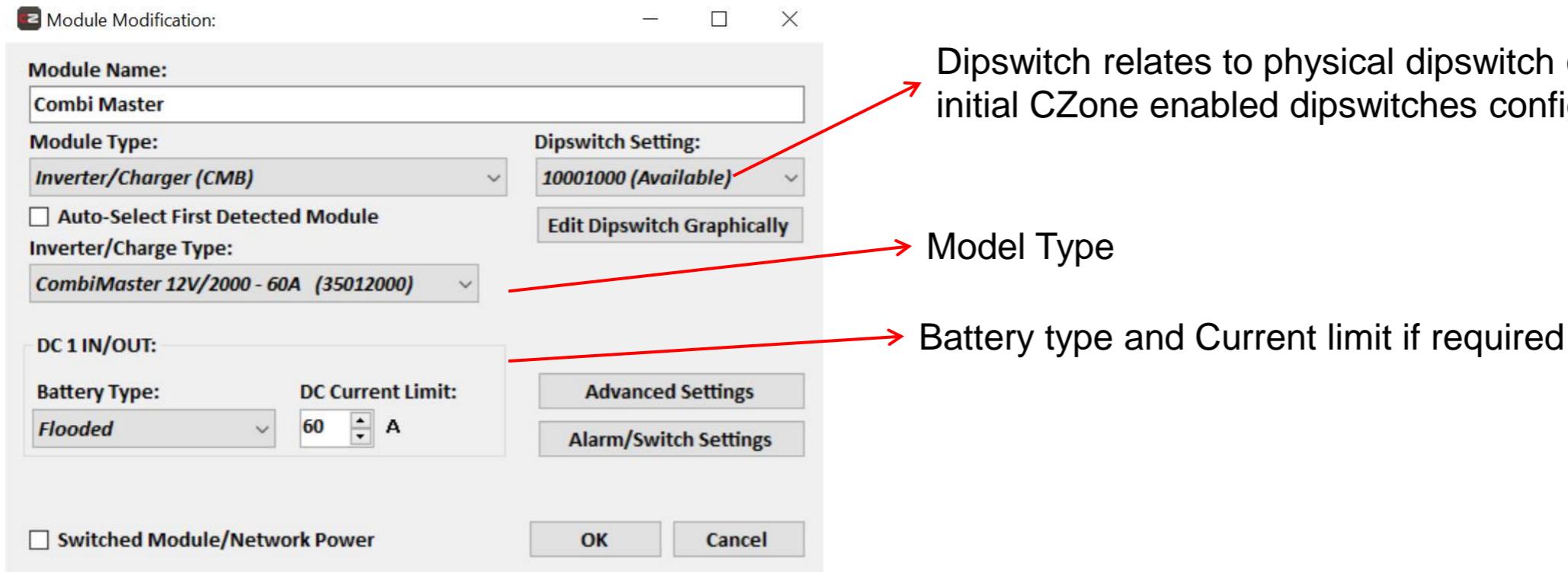
Greyed out items will only be able to be modified if 'User Defined' battery type is selected in previous window



Modules – Charge Master Plus



Modules – Combi Master

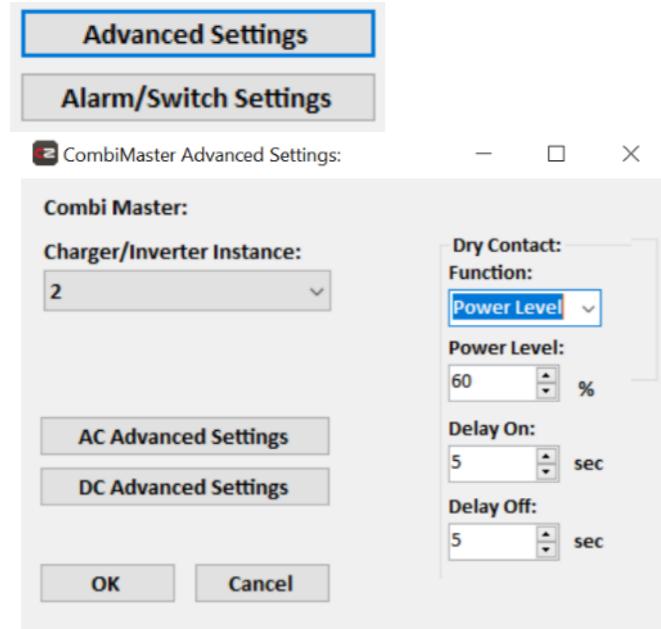


Dipswitch relates to physical dipswitch on unit, after the initial CZone enabled dipswitches configured.

Model Type

Battery type and Current limit if required

Modules – Combi Master



External contacts on unit.
Alarm: Fault detected, alarm contacts operate
Power level: <Power level N/O – Com Connected
>Power level N/C – Com Connected

Modules – Combi Master

The screenshot shows the 'CombiMaster Advanced AC Settings' dialog box. The left sidebar has tabs: Advanced Settings (selected), Alarm/Switch Settings, AC Advanced Settings (selected), and DC Advanced Settings. The main area has sections: Combi Master, Inverter, Transfer, AC 1 IN, and AC 1 OUT. Red arrows point from the following text descriptions to specific controls in the dialog:

- Set output frequency of the unit → Points to the 'Frequency' dropdown set to 50 Hz.
- AC Input window large voltage range or narrow → Points to the 'AC IN Window' dropdown set to 'Wide'.
- Low power mode (less than 20W for 20 sec) → Points to the 'Enable Energy Save Mode' checkbox.
- Uses battery to support external AC MCB tripping → Points to the 'AC IN Support' checkbox.
- Name AC IN and AC OUT loads I.E Inverter Circuits → Points to the 'Name' fields for AC 1 IN and AC 1 OUT.

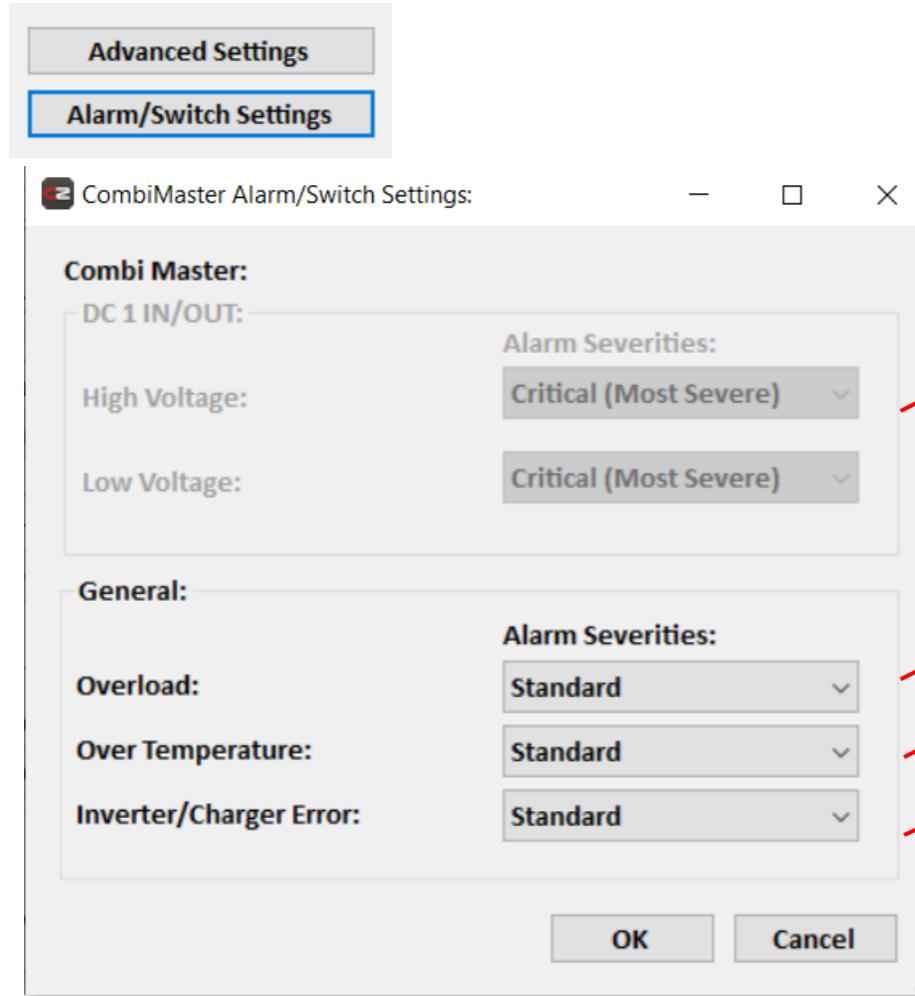
Modules – Combi Master

The screenshot shows the 'CombiMaster Advanced DC Settings' window. On the left, there's a sidebar with tabs: 'Advanced Settings' (selected), 'Alarm/Switch Settings', 'AC Advanced Settings', and 'DC Advanced Settings' (selected). The main area has sections for 'Combi Master', 'DC 1 IN/OUT', 'Name' (set to 'Combi Master - DC I'), 'NMEA2000 DC Instance' (set to '10'), and three groups of settings: 'Bulk Settings', 'Absorption Settings', and 'Float Settings'. In the 'Float Settings' group, the 'Voltage' field is set to '13.25 V'. To the right of this window is a smaller 'DC Inverter Switch Off Criteria' dialog. It has an 'Inverter' dropdown set to 'DC Inverter' and a 'DC Inverter Switch Off Criteria' dropdown set to 'Use Battery Type'. Below these is a 'Voltage' field set to '10.20 V'. A red arrow points from the text 'Defines when unit will switch off based off battery voltage (refer user manual)' to the 'Voltage' field in the dialog. Another red arrow points from the text 'Greyed out items will only be able to be modified if 'User Defined' battery type is selected in previous window' to the 'Battery Type' dropdown in the bottom right corner, which lists options like 'Flooded', 'AGM', 'GEL', 'Lithium-ion', and 'User Defined'.

Defines when unit will switch off based off battery voltage (refer user manual)

Greyed out items will only be able to be modified if 'User Defined' battery type is selected in previous window

Modules – Combi Master



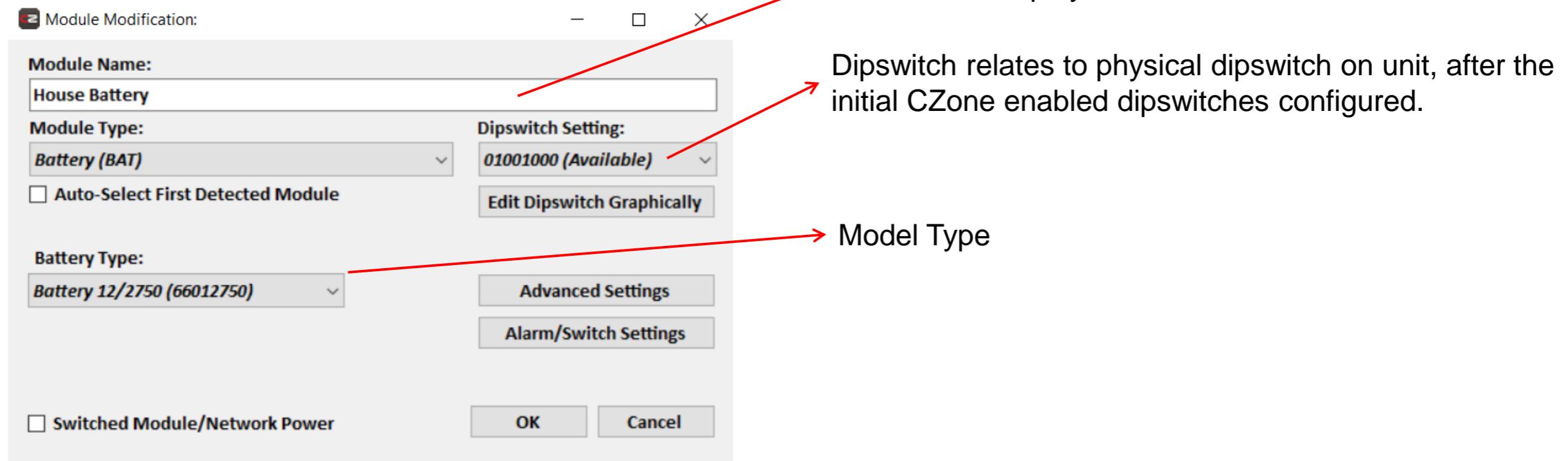
Greyed out items will only be able to be modified if 'User Defined' battery type is selected

Unit overload alarm

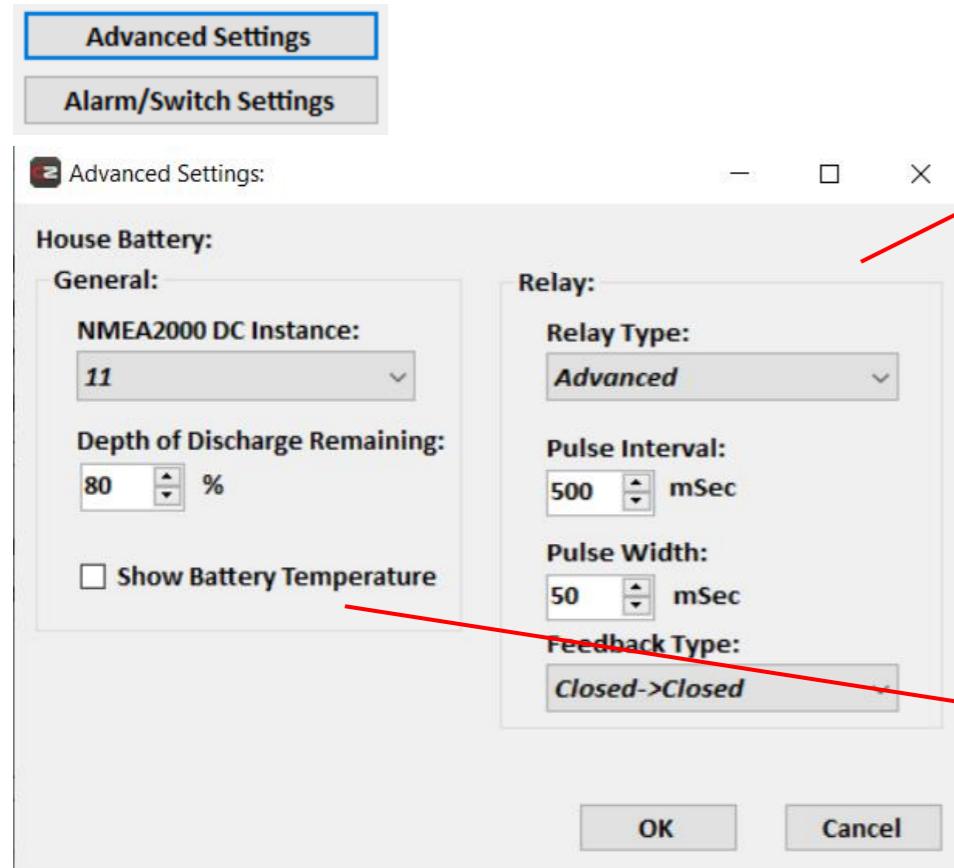
Unit over temp alarm

Unit fault other than the ones listed
I.E Fan Fault

Modules – MLI Ultra



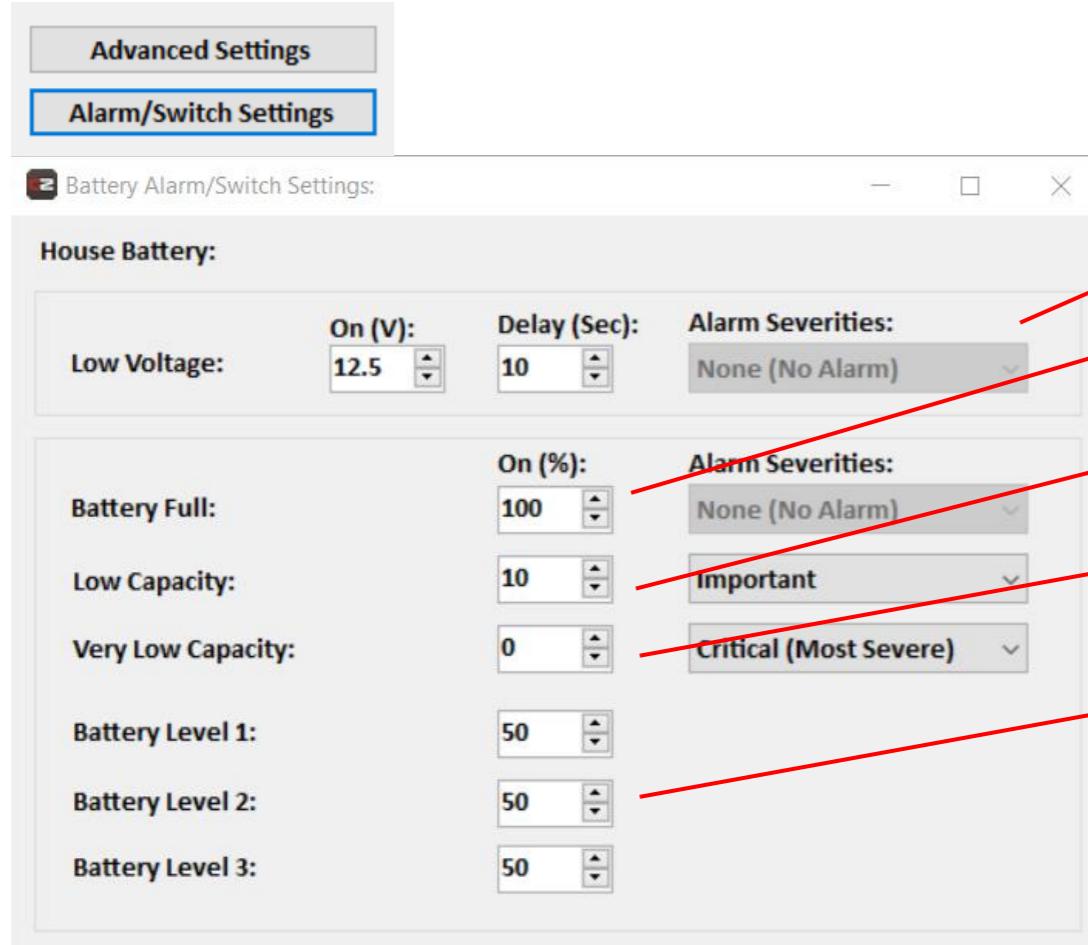
Modules – MLI Ultra



Determines what configuration is being set for the Safety switch.
ML Switch: Used for most cases
Daisy chain: Used when combining batteries for a series system
Advanced: Used for configuration without BSS Safety switch

Display Battery Temperature

Modules – MLI Ultra



Low voltage and alarm

Can be used to switch a circuit at 100% SOC

Set low-capacity alarm level.

Can also be used in circuits as a switch

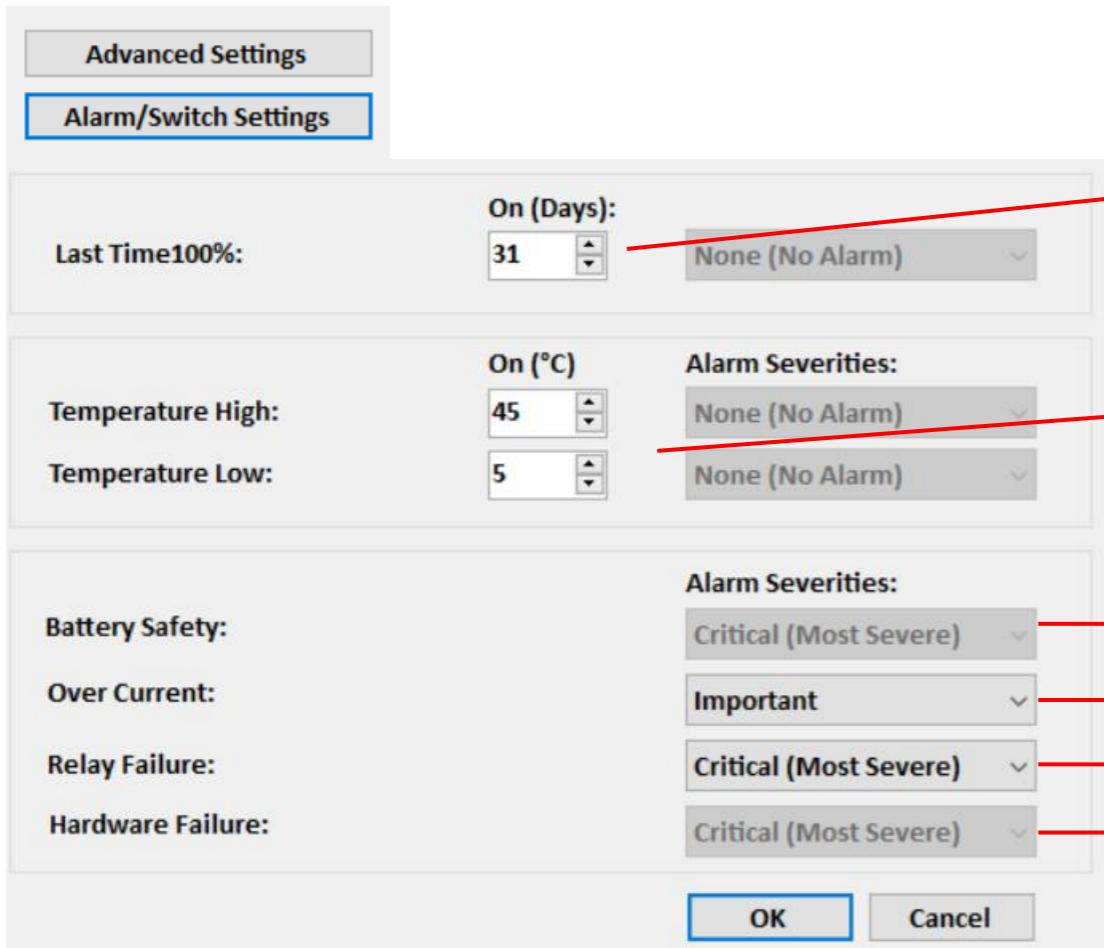
Set very low-capacity alarm level.

Can also be used in circuits as a switch

Additional SOC switches

I.E To set custom alarm indicators

Modules – MLI Ultra



SOC can drift in Liion calculation so batteries should be charged to 100% periodically.
Can be used to switch a circuit in CZone
I.E Turn on charger

Set temperature levels to use as switches in circuits if required.
I.E Turn on fans

Indicates Battery safety has occurred

Battery is being discharged with too much current >600A 30s

Battery safety relay is faulty alarm

Hardware fault with battery

Summary

New configuration; Vessel name, vessel number, revision, date.

Add all modules used in the system, including MFD's.

Modules must have a dipswitch set to be able to be seen on network.

'Switched module, network power' for all Displays, especially MFD's.

'All displays = ON/OFF Toggle or Single Button Dim' if required.

If using standalone Mastervolt/CZone compatible power electronics, ensure to set

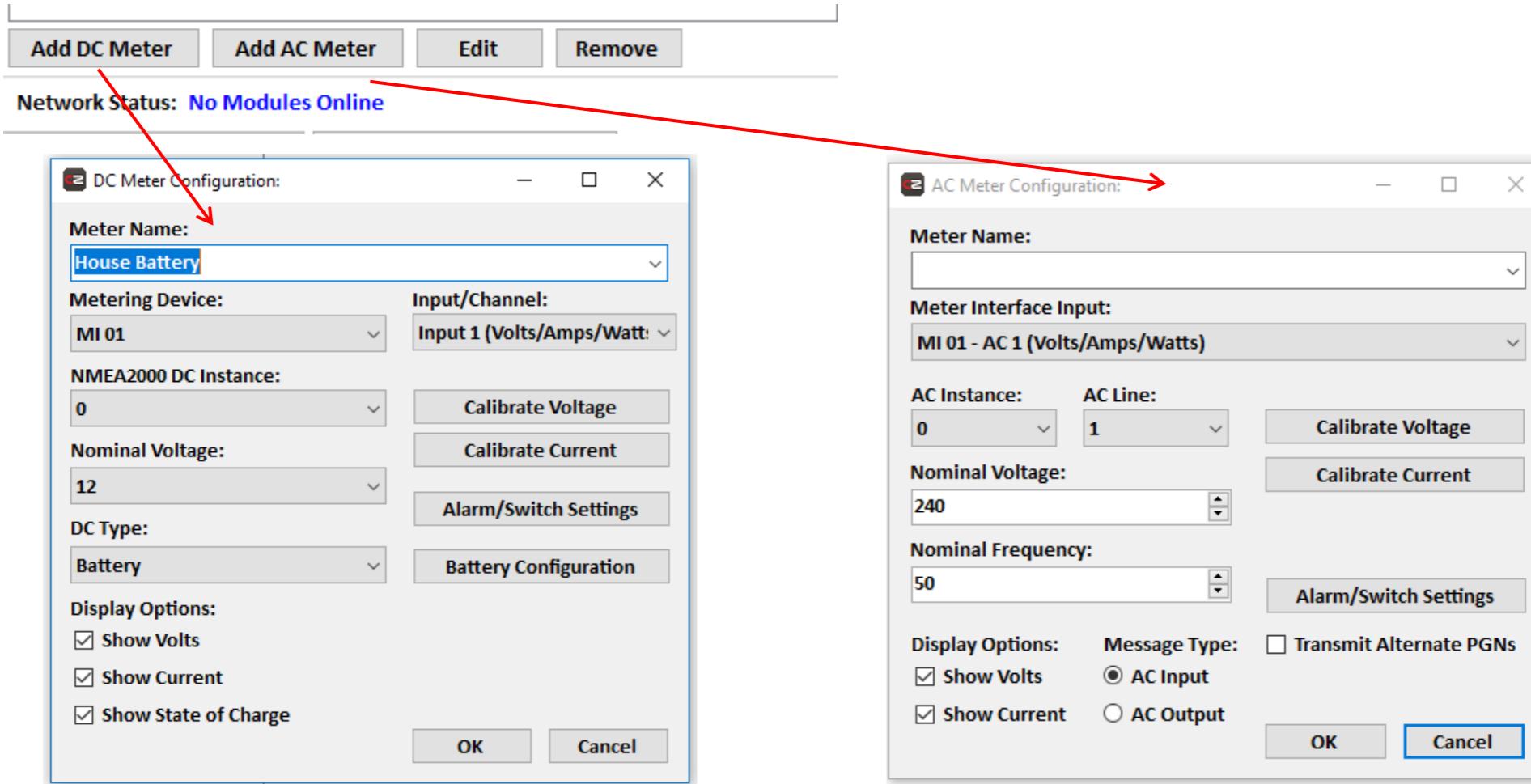
dip switches for CZone

Set all parameters required to ensure configuration processes correctly through
configuration tool I.E Metering

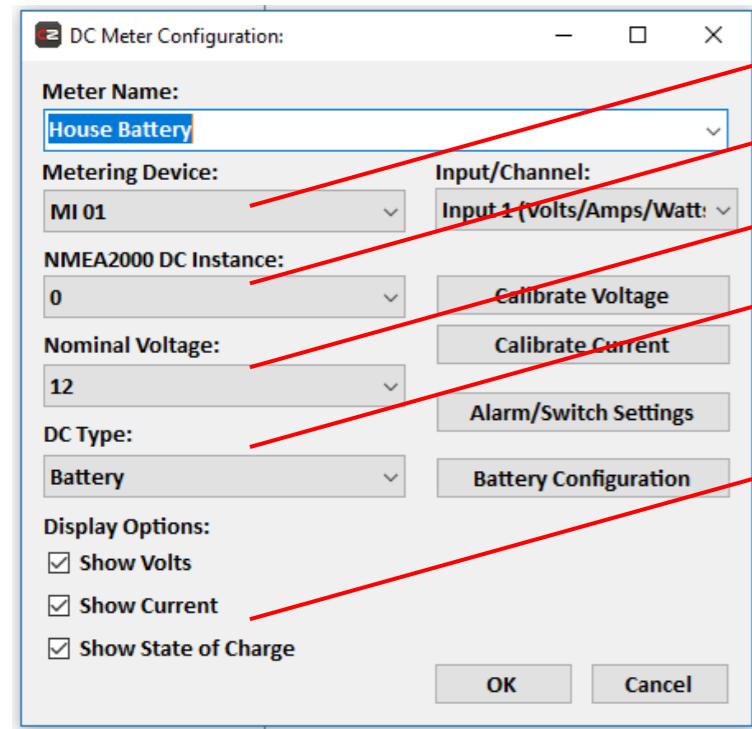


Meters

Add DC or AC Meters as required to be displayed on Monitoring page on Display/s:

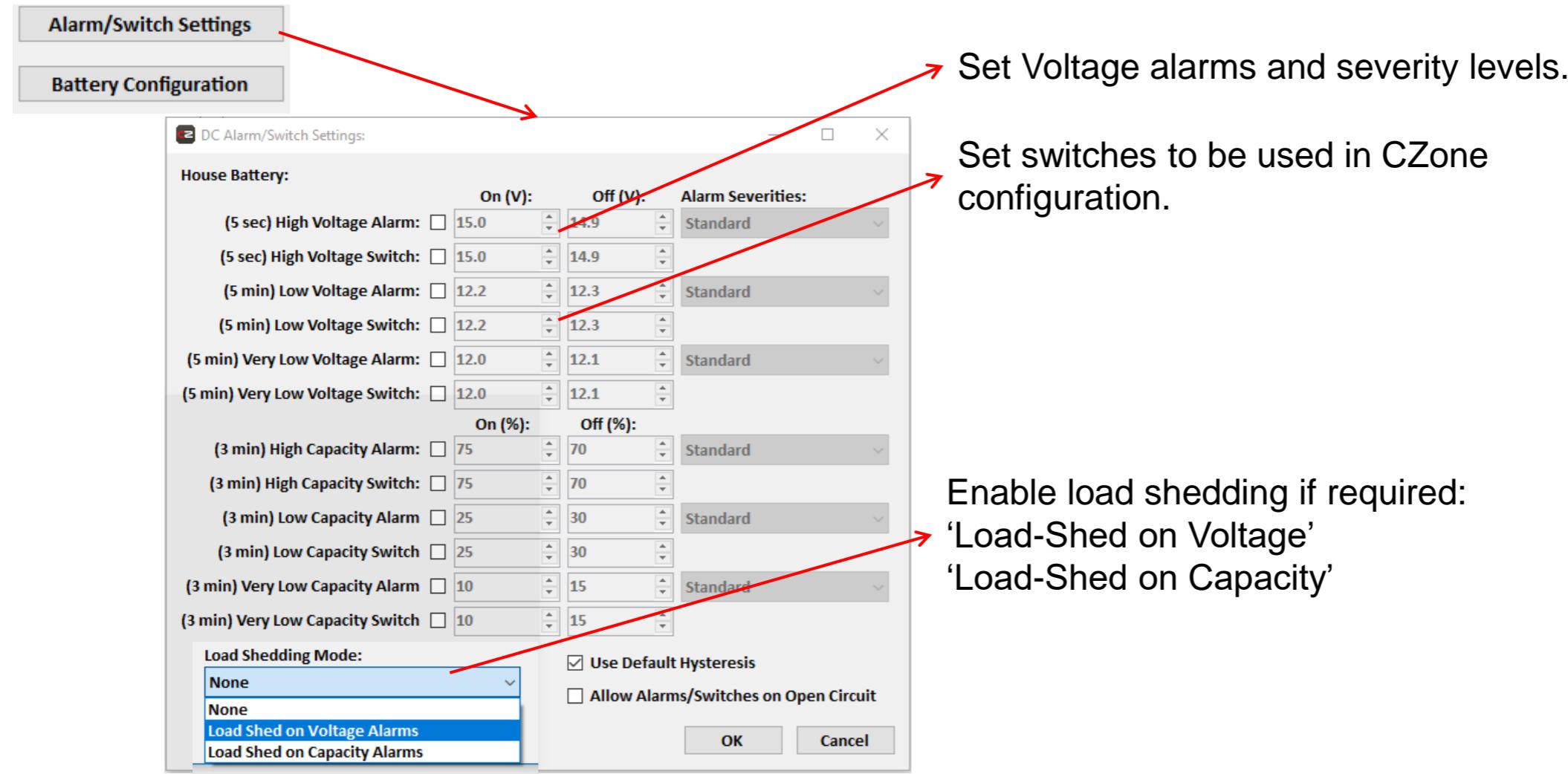


Meters - DC

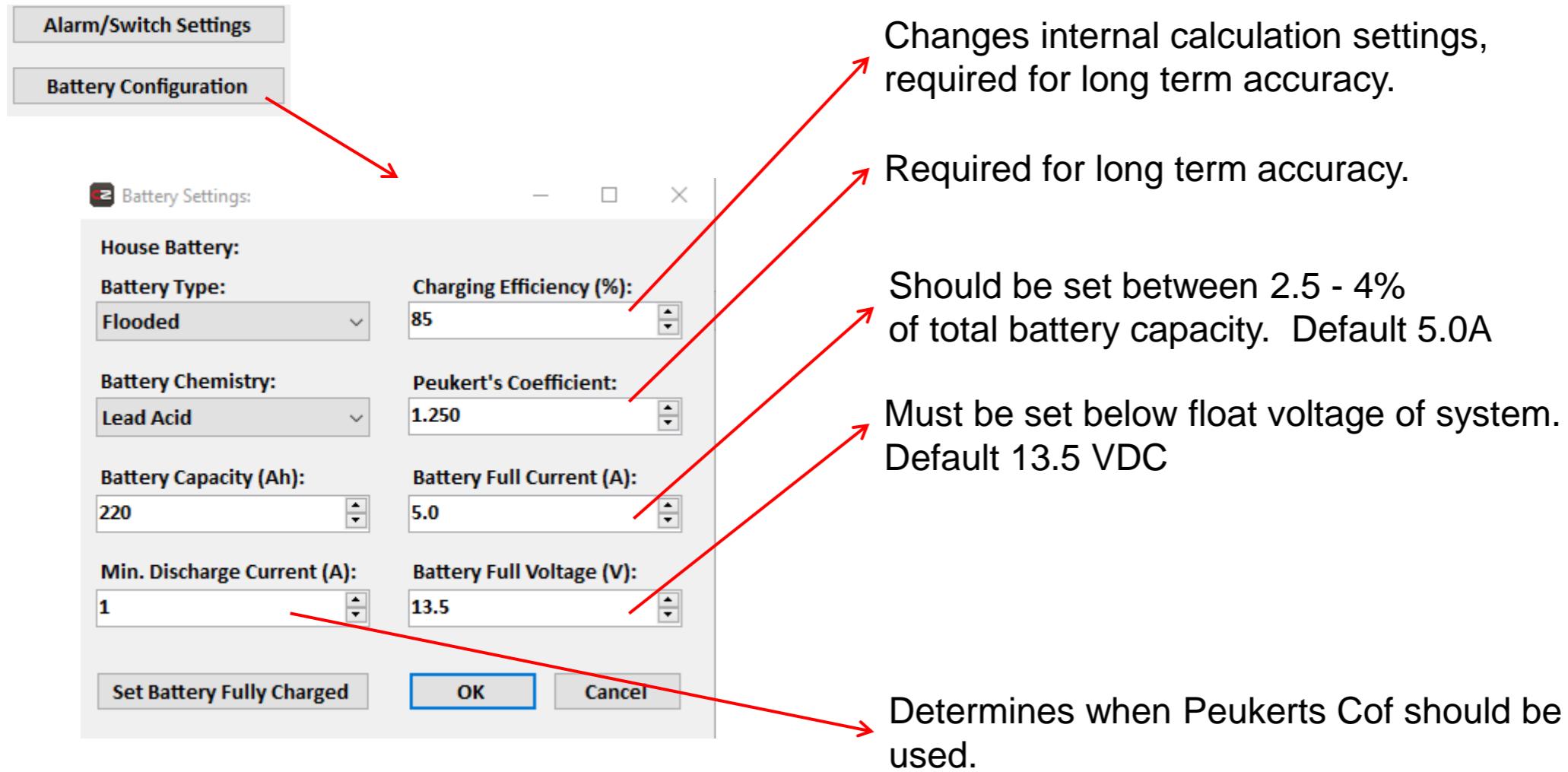


- Which Metering device is this configured to.
- Changes on its own. Useful for larger configuration files.
- Selects how meter is displayed within CZone/Third Party.
- No change to CZone configuration.
- What should be displayed on monitoring page.

Meters - DC



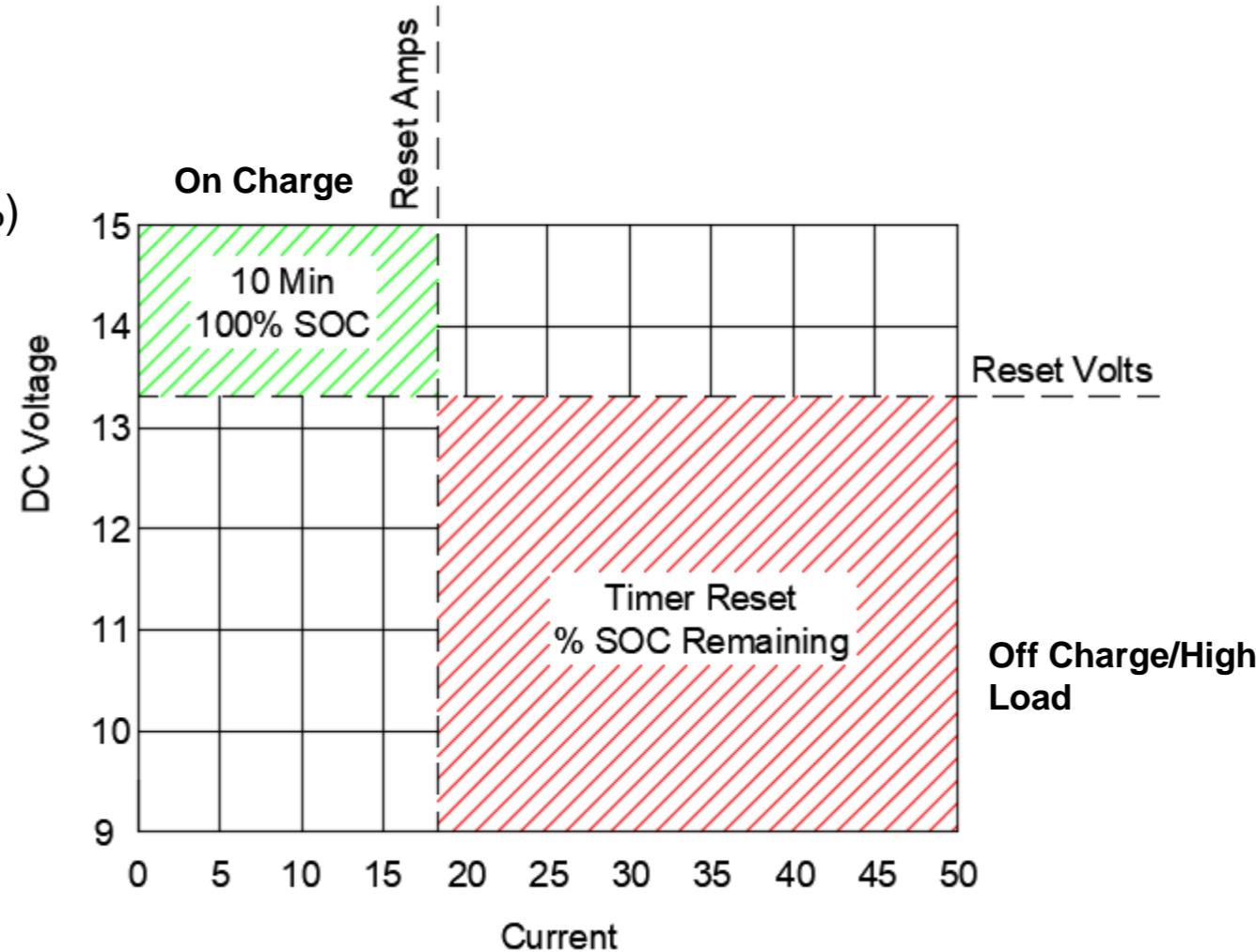
Meters - DC



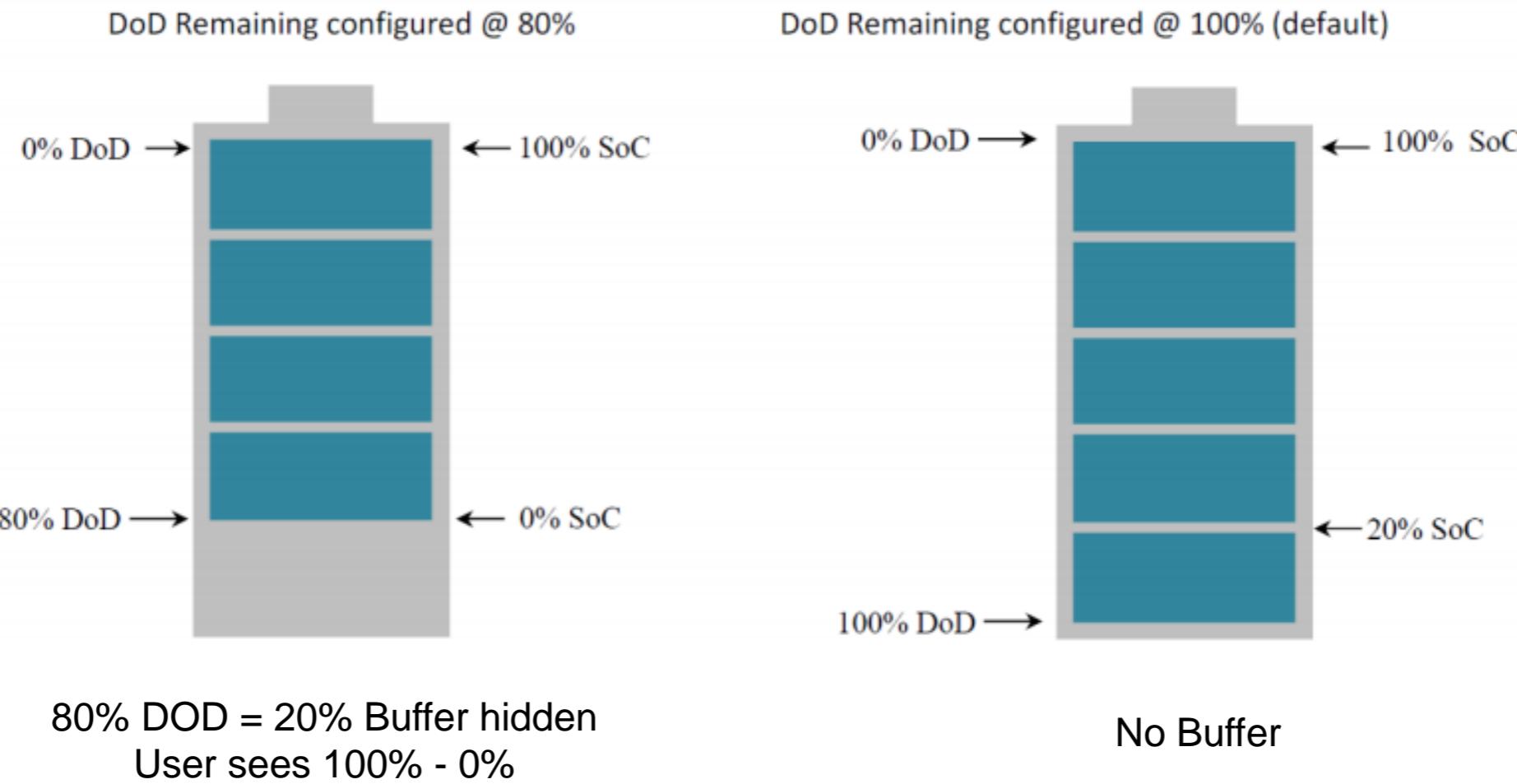
Meters - DC

Example:
440 A/H, 12VDC Bank

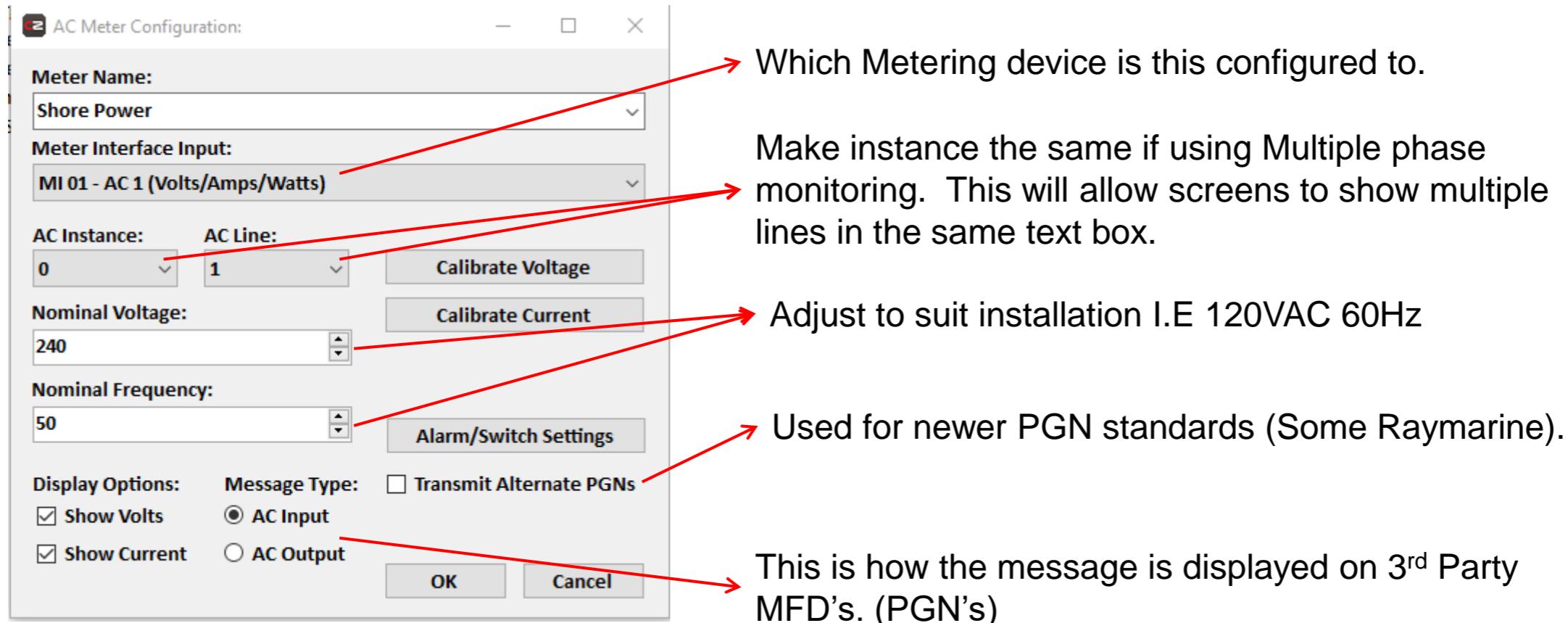
18 Amps reset current (4%)



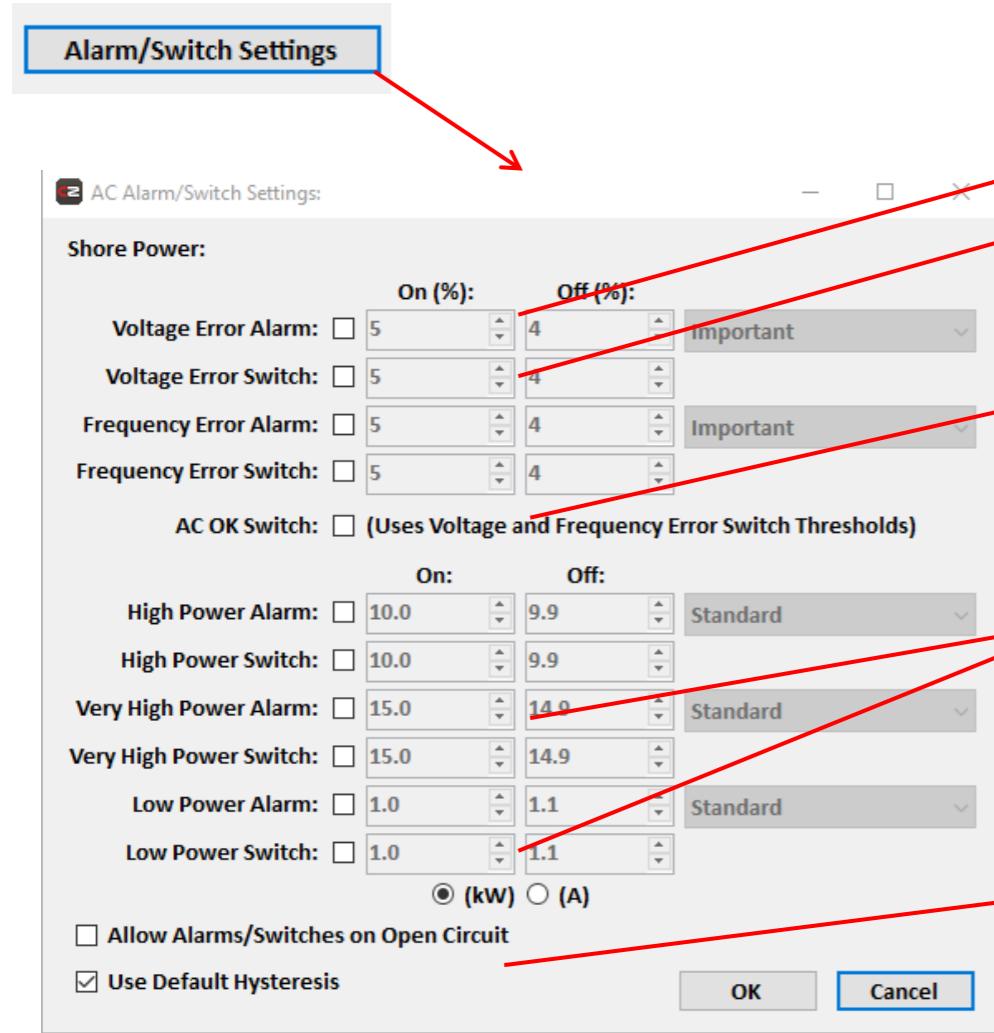
Meters – DOD%



Meters - AC



Meters - AC



Set Voltage Error alarms and severity.
Set Voltage Error switch for use in CZone.

Useful for logic or additional switch requirements.
(Uses voltage Error and Frequency error %)

High Power and low power alarms and/or
switches can also be set and configured for use in
the configuration.

De-select checkbox to create your own cut in /
cut outs.
Invert Alarms/allow on open circuit (rarely used)

Meters - AC

If Combi Master has been installed and configured through CZone and modules page:

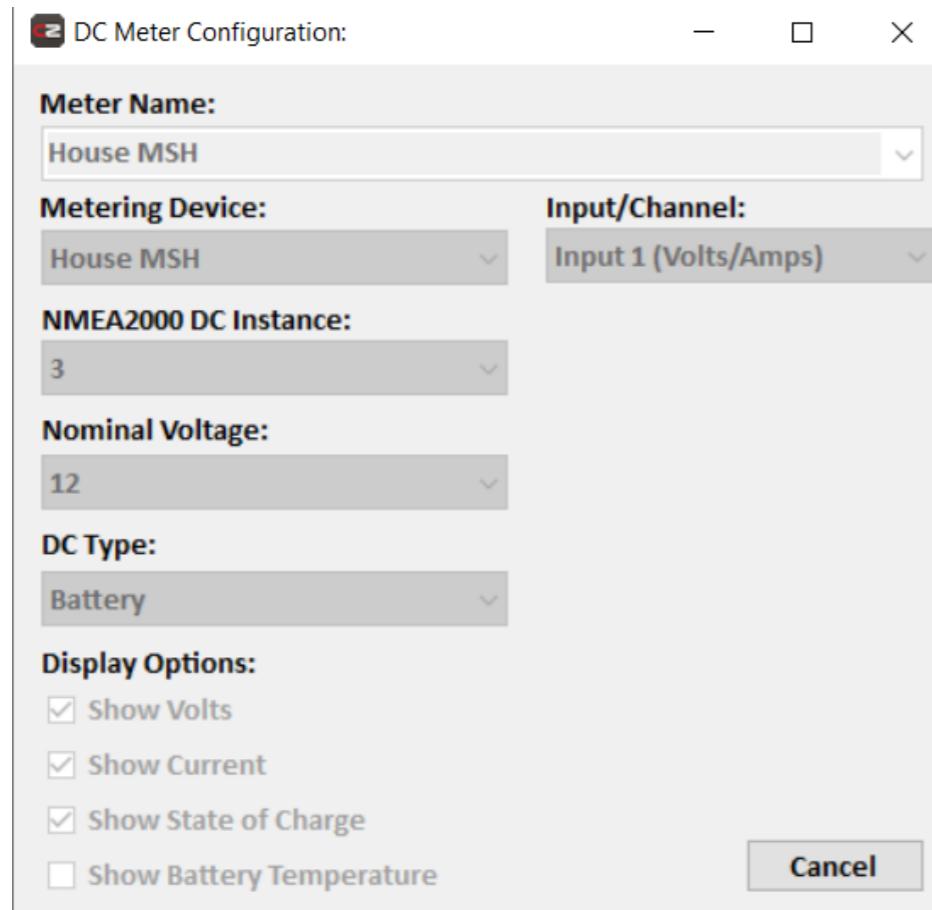
This will be automatically configured

The image displays three side-by-side configuration windows from the CZone software interface.

- Left Window (DC Meter Configuration):** Shows the configuration for "DC 1 - Combi Master - DC In/Out".
 - Meter Name:** Combi Master - DC In/Out
 - Metering Device:** Combi Master
 - Input/Channel:** Input 1 (Volts/Amps)
 - NMEA2000 DC Instance:** 4
 - Nominal Voltage:** 12
 - DC Type:** Battery
 - Display Options:** Show Volts, Show Current, Show State of Charge, Show Battery Temperature
- Middle Window (AC Meter Configuration):** Shows the configuration for "AC 2 - Combi Master - AC Out".
 - Meter Name:** Combi Master - AC Out
 - Meter Interface Input:** Combi Master - AC Metering 1
 - AC Instance:** 1
 - AC Line:** 1
 - Nominal Voltage:** 230
 - Nominal Frequency:** 50
 - Display Options:** Show Volts, Show Current
 - Message Type:** AC Input, AC Output
 - Transmit Alternate PGNS:**
- Right Window (AC Meter Configuration):** Shows the configuration for "AC 3 - Combi Master - AC In".
 - Meter Name:** Combi Master - AC In
 - Meter Interface Input:** Combi Master - AC Metering 2
 - AC Instance:** 0
 - AC Line:** 1
 - Nominal Voltage:** 230
 - Nominal Frequency:** 50
 - Display Options:** Show Volts, Show Current
 - Message Type:** AC Input, AC Output
 - Transmit Alternate PGNS:**

Meters - MasterShunt

If Mastershunt has been installed and configured through CZone and modules page:



The screenshot shows the 'DC Meter Configuration' dialog box. It contains the following fields:

- Meter Name:** House MSH
- Metering Device:** House MSH
- Input/Channel:** Input 1 (Volts/Amps)
- NMEA2000 DC Instance:** 3
- Nominal Voltage:** 12
- DC Type:** Battery
- Display Options:**
 - Show Volts
 - Show Current
 - Show State of Charge
 - Show Battery Temperature

At the bottom right of the dialog box is a **Cancel** button.

This will be automatically configured

Meters – MLI Ultra

If Mastervolt Liion Battery has been installed and configured through CZone and modules page:

The screenshot shows the 'DC Meter Configuration' dialog box. It contains the following fields:

- Meter Name:** House Battery
- Metering Device:** House Battery
- Input/Channel:** Input 1 (Volts/Amps)
- NMEA2000 DC Instance:** 5
- Nominal Voltage:** 12
- DC Type:** Battery
- Display Options:** A list of checkboxes:
 - Show Volts
 - Show Current
 - Show State of Charge
 - Show Battery Temperature

At the bottom right of the dialog is a **Cancel** button.

This will be automatically configured

Summary

Configure Power Metering to setup the 'Monitoring' page on CZone display

Setup Voltage and capacity alarms with correct severity levels.

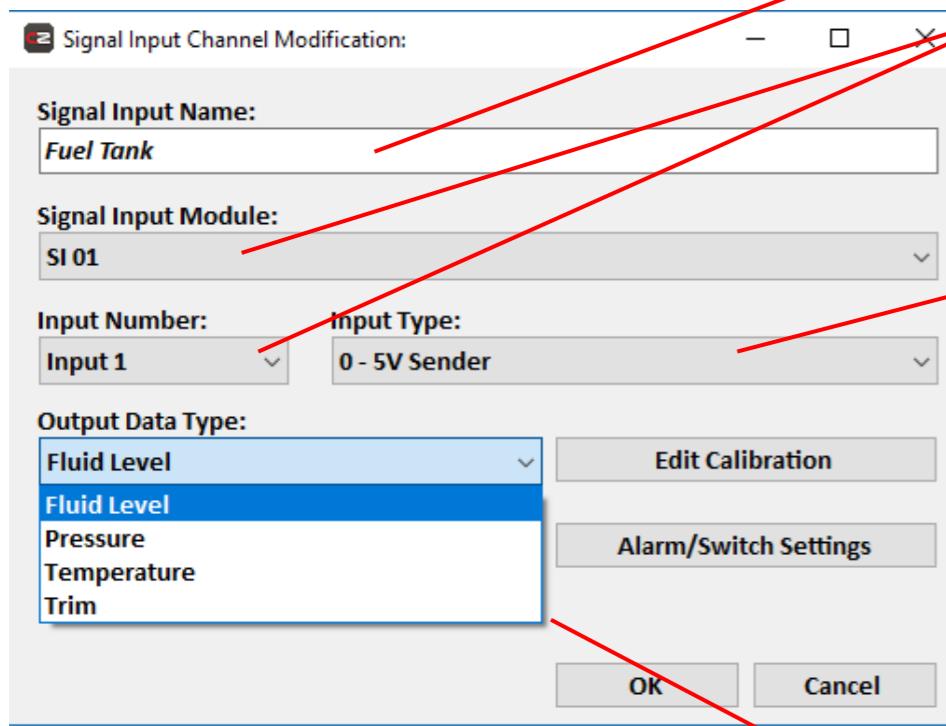
Both AC and DC if using.

Configure all battery parameters, Reset volts, Amps, Peukerts and Efficiency!

If using Mastervolt/CZone power electronics, ensure all text is correct on modules tab. This is what will be shown as a meter on the display.



Inputs



Name of Input – will be shown on CZone display

Location of Input wiring

Select input type, (0-1000Ohm, 0-32VDC):

10-180 Ohm (0-1000 Ohm)

240-33 Ohm (0-1000 Ohm)

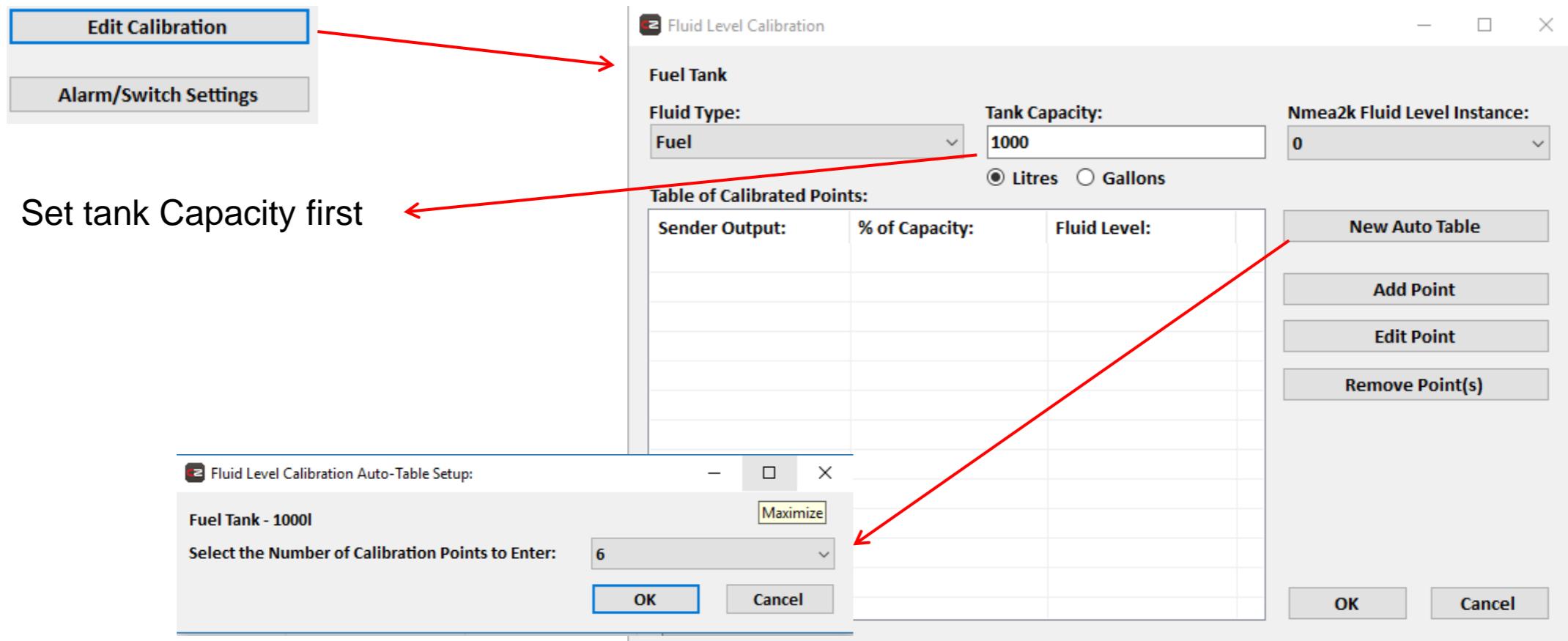
4-20mA (COI Only)

Positive (0-32VDC)

Negative

Output data type relates to PGN display on MFD

Inputs



Inputs

Fluid Level Calibration Auto-Table:

Fuel Tank - 1000l

Sender Output (V)	% of Capacity:	Fluid Level (l):
2	40.00	400

Use Live Data

Auto-Increment Level

Table of Calibrated Points: (2/6)

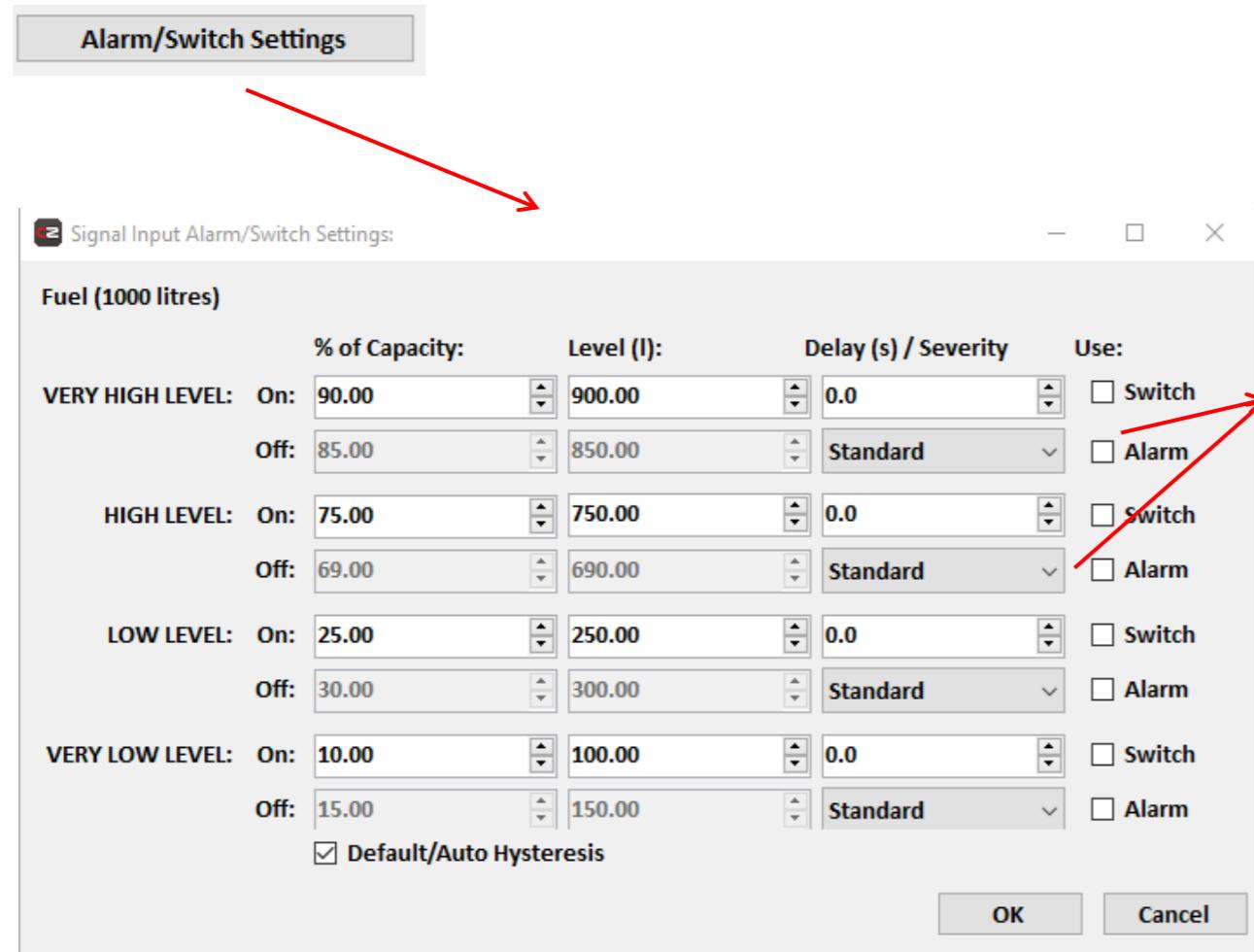
Sender Output:	% of Capacity:	Fluid Level:
0.000V	0.00%	0l
1.000V	20.00%	200l

OK **Cancel**

Use live data when connected to system for most accurate filling points.
De-selecting checkbox allows manual value input.

Set Point to move to next calibration value.

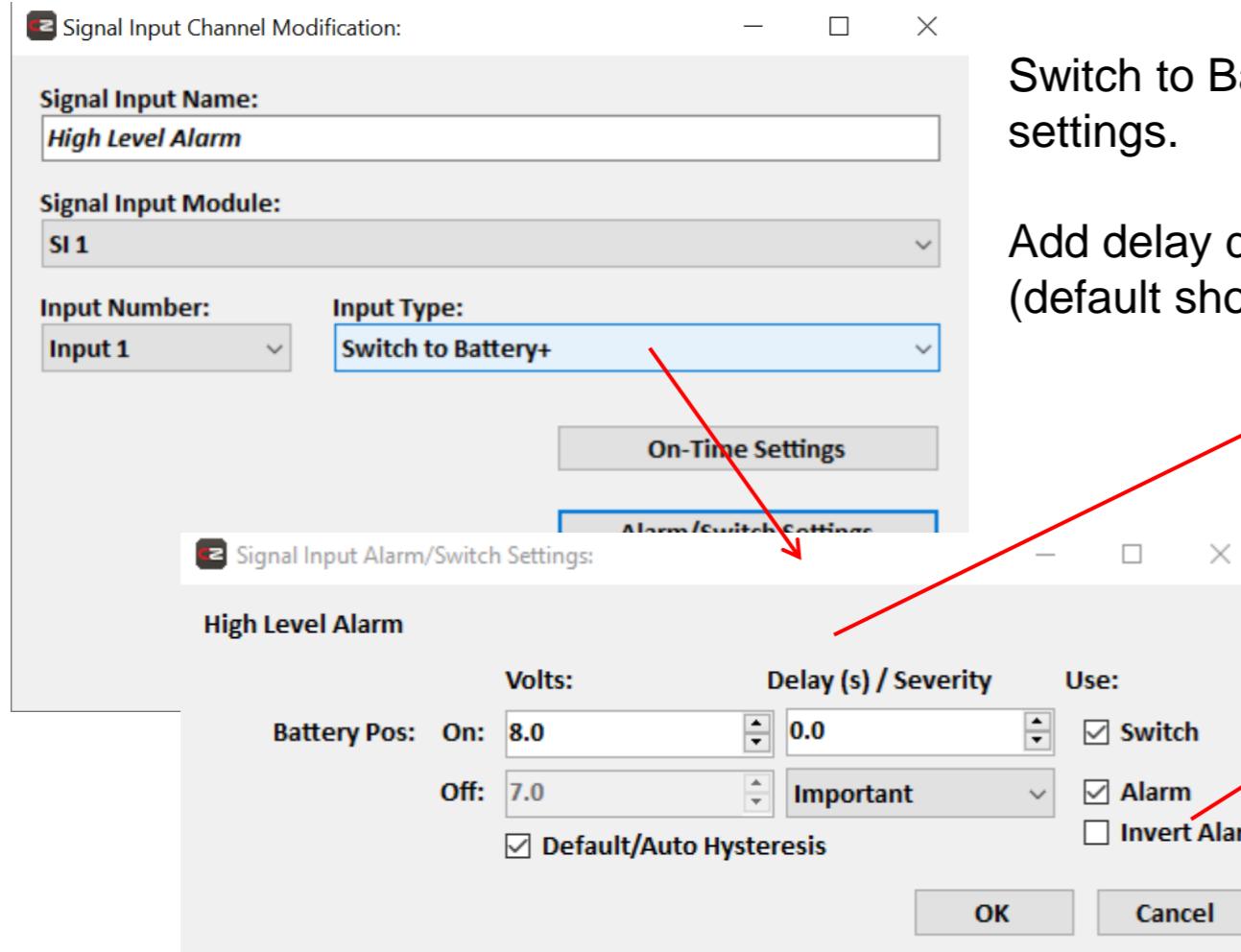
Inputs



Set alarms to be displayed and switches to use via CZone configurations.

Alarms are not active until selected!

Inputs

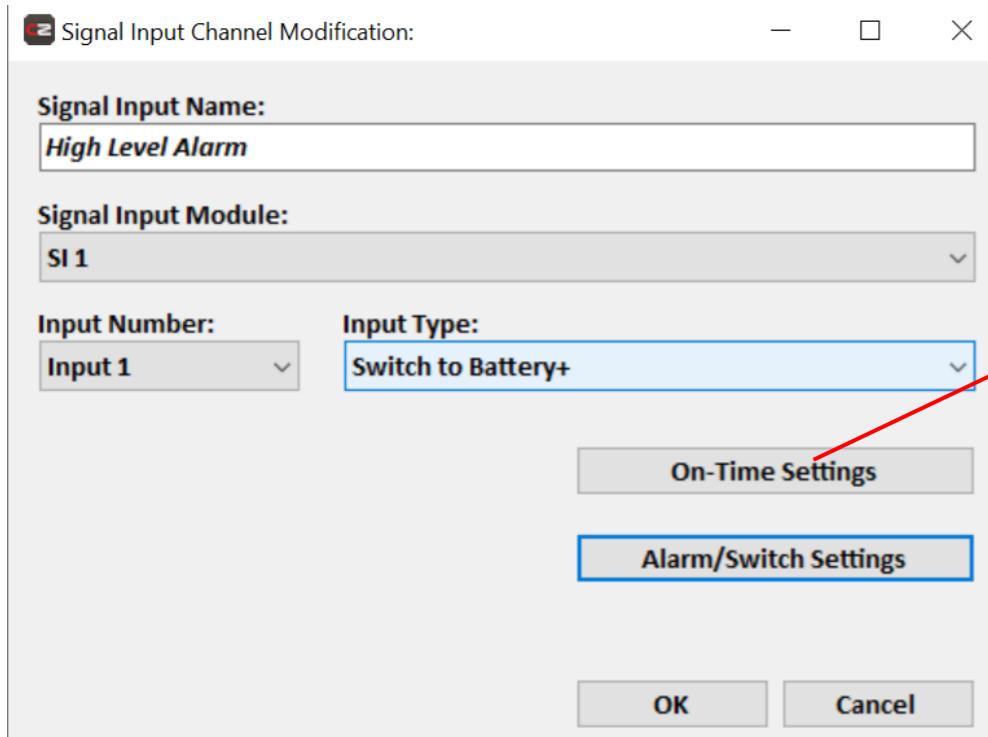


Switch to Batt + or – changes Alarm switch settings.

Add delay directly and configure switching points, (default shown).

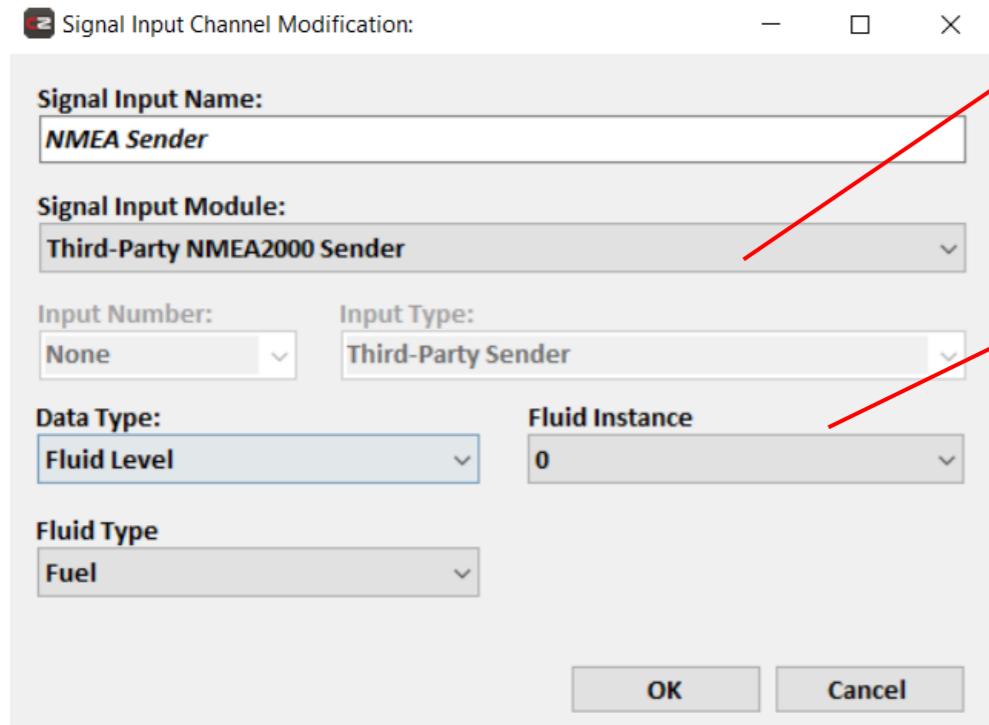
If using a N/C Switch.

Inputs



Not used for regular configurations.
This is specific to 'Airstream' configurations.

Inputs



Ability to add 'Third party NMEA' sender directly to inputs.
Sender should be calibrated already and will be displayed through CZone

Instance, Data type and Fluid type should be matched to configured sender

Summary

Label inputs.

Select Input type and data type.

Calibrate tank level if required.

Configure alarms and switches.



Loads

Add Edit Remove

Load Configuration

Name: Bilge Pump

Module: OI 1 Channel: DC Output 1

Fuse Type: Slow Blow Fuse Rating (A): 5.0

Low Voltage Load-Shedding Priority: Never Turn Off

Smooth Start (Visual Effect - use with Lights ONLY)

Soft / Motor Start

Create 'All Displays' Circuit

Advanced Settings OK Cancel

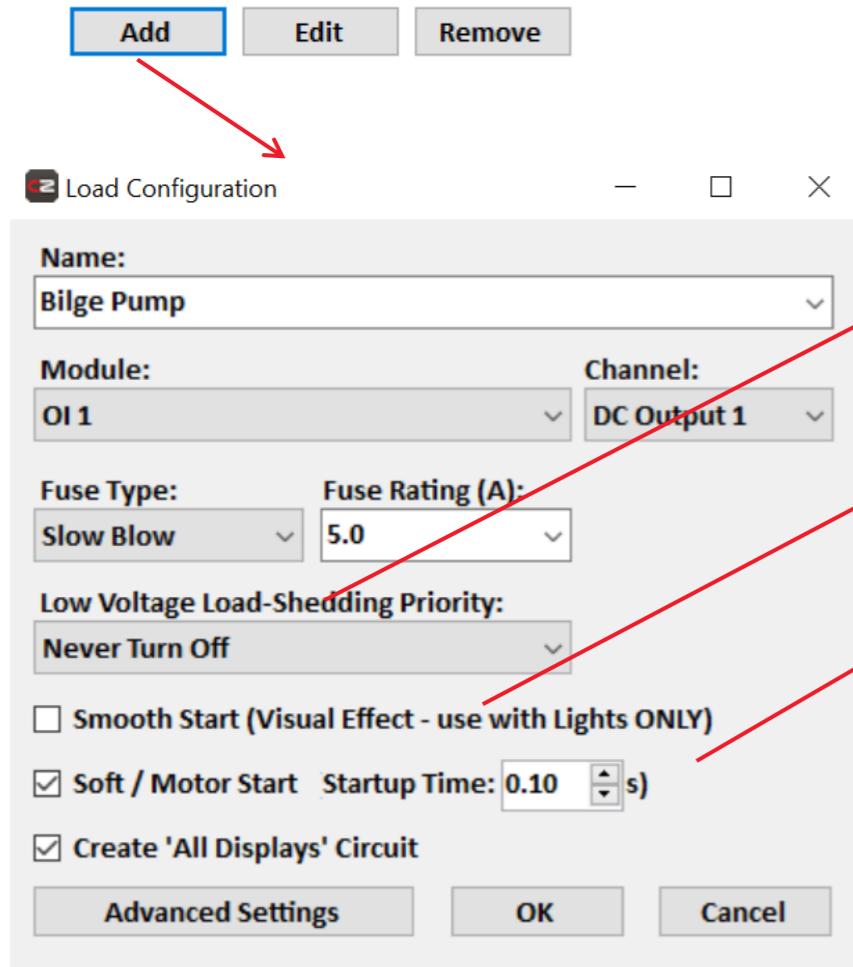
Label what is actually wired to the output.

Select Module and Output load is wired too.

Fast, Slow, Motor Start (B, C or D-Curve ratings).
Soft fuse rating should be set to nominal fuse rating
of load / wiring

Creates a circuit automatically.
(De-selecting this will disable it for future loads)

Loads



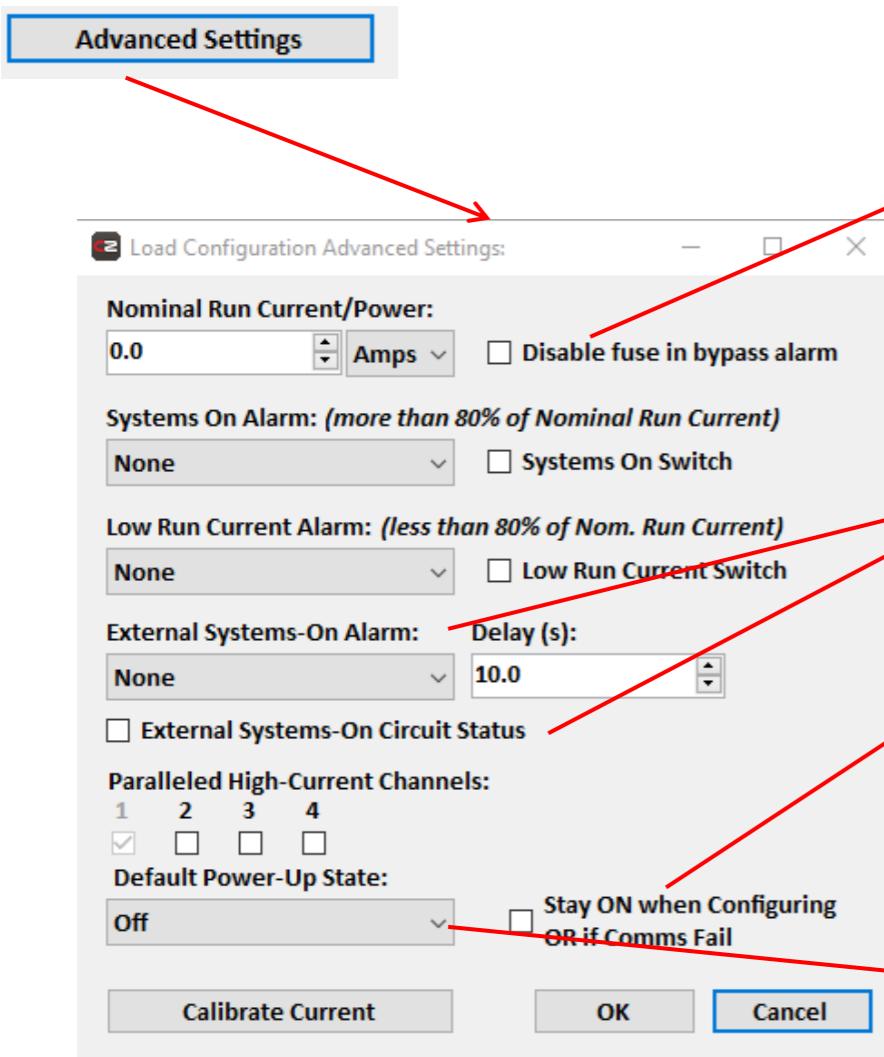
Load shedding if previously configured:
‘Turn off first LOW’ or ‘Turn off last VERY LOW’ VDC or SOC

Used for Non-Critical loads to create visual dim up and dim down effect when turned ON and OFF.

Uses PWM to soft start load.

First 4 channels of COI do not have PWM/Soft start Control

Loads



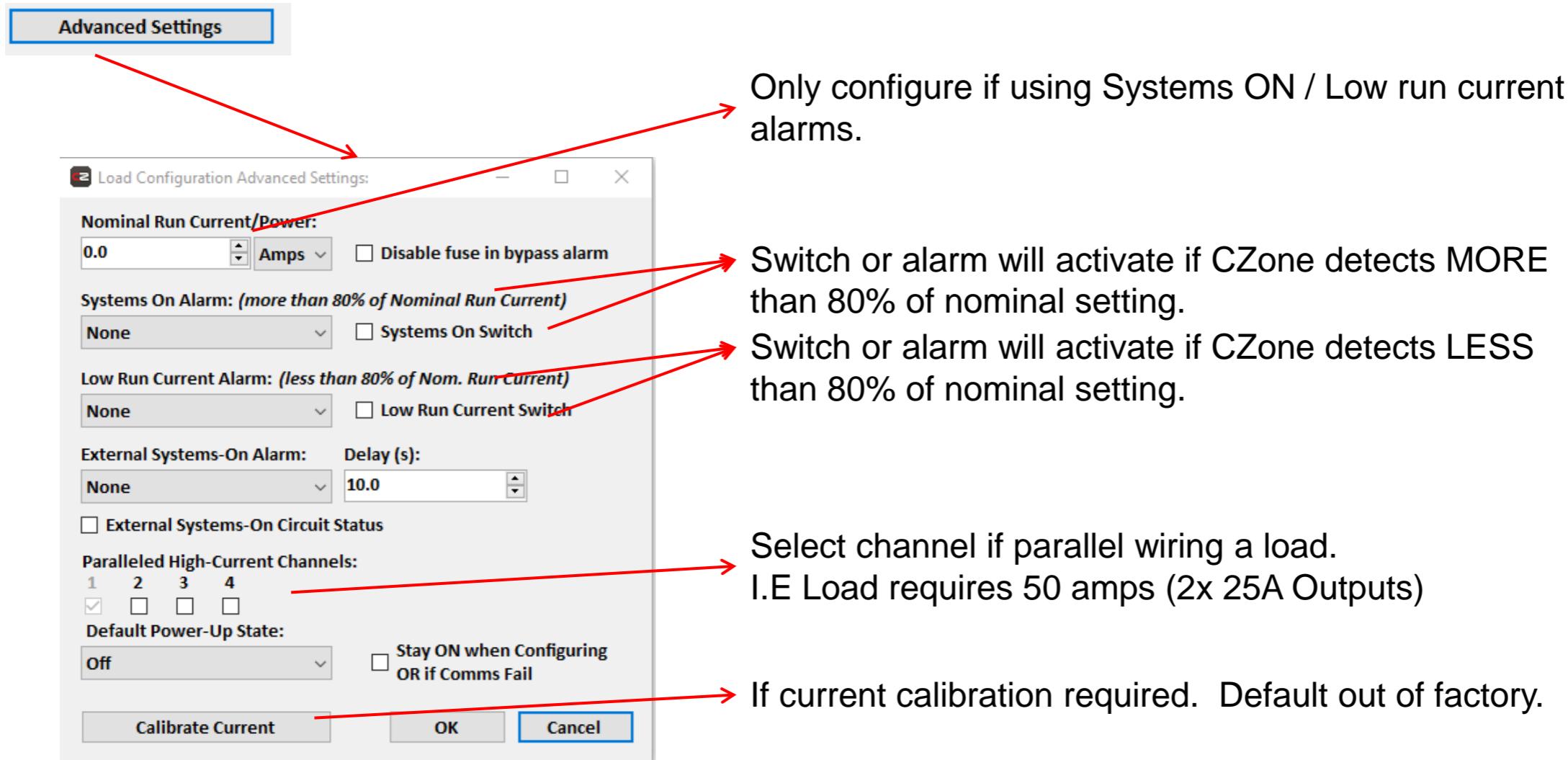
Not applicable on the OI, COI only.
Disables alarm.

Not applicable on the OI. COI first 4 channels only.
Enable to allow alarm, if feedback detected.

Select this for critical circuits.
If load was ON and data lost, load will remain ON.

What state should the load be in if CZone network is
re-powered. Default OFF.

Loads



Summary

Label loads.

Set soft Fuse rating and install physical Fuse one rating above this.

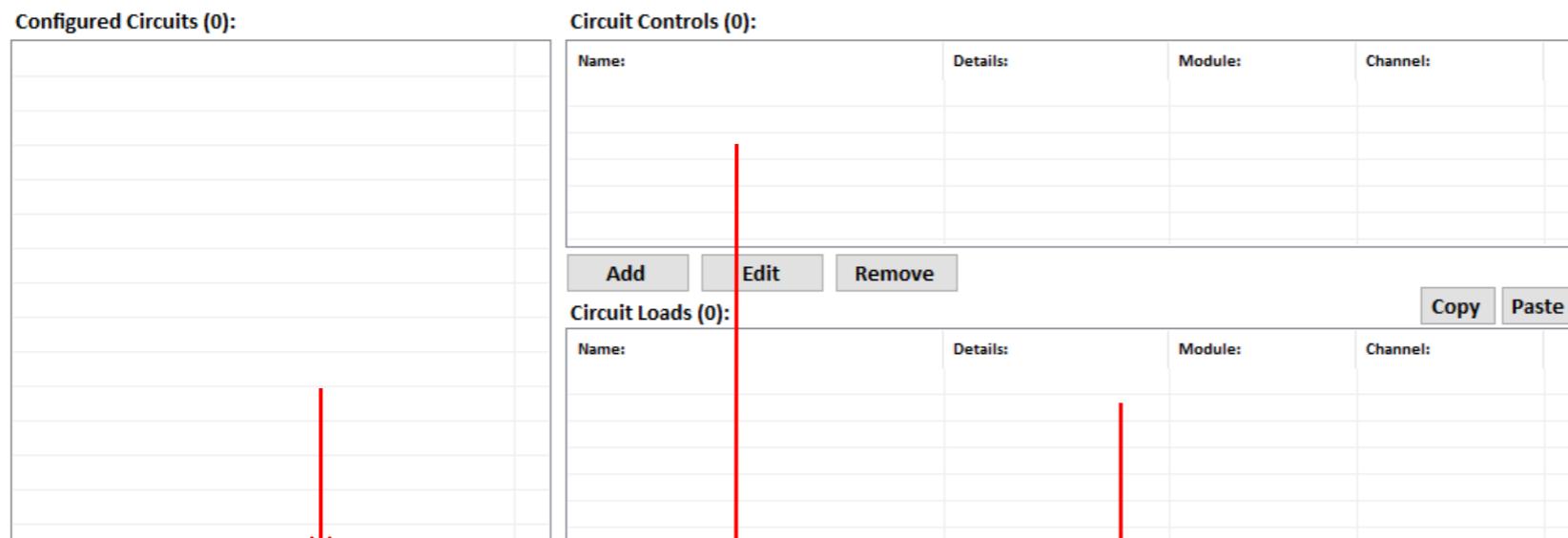
Enable 'Smooth start' to Interior and Exterior non-essential lighting for added effects.

Program advanced settings as required.



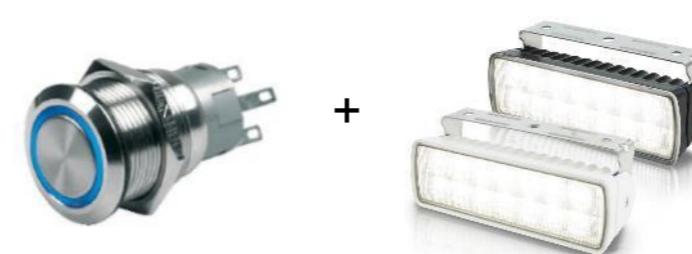
Circuits

Circuits take all configured Loads, Inputs, Logic etc and create the operation of the system.



Configured Circuits = Circuit controls + Circuit loads

Flood Lights



Circuits

These can be seen by the user – or just be a background control.

The screenshot shows the 'Circuit Configuration' window with the following details:

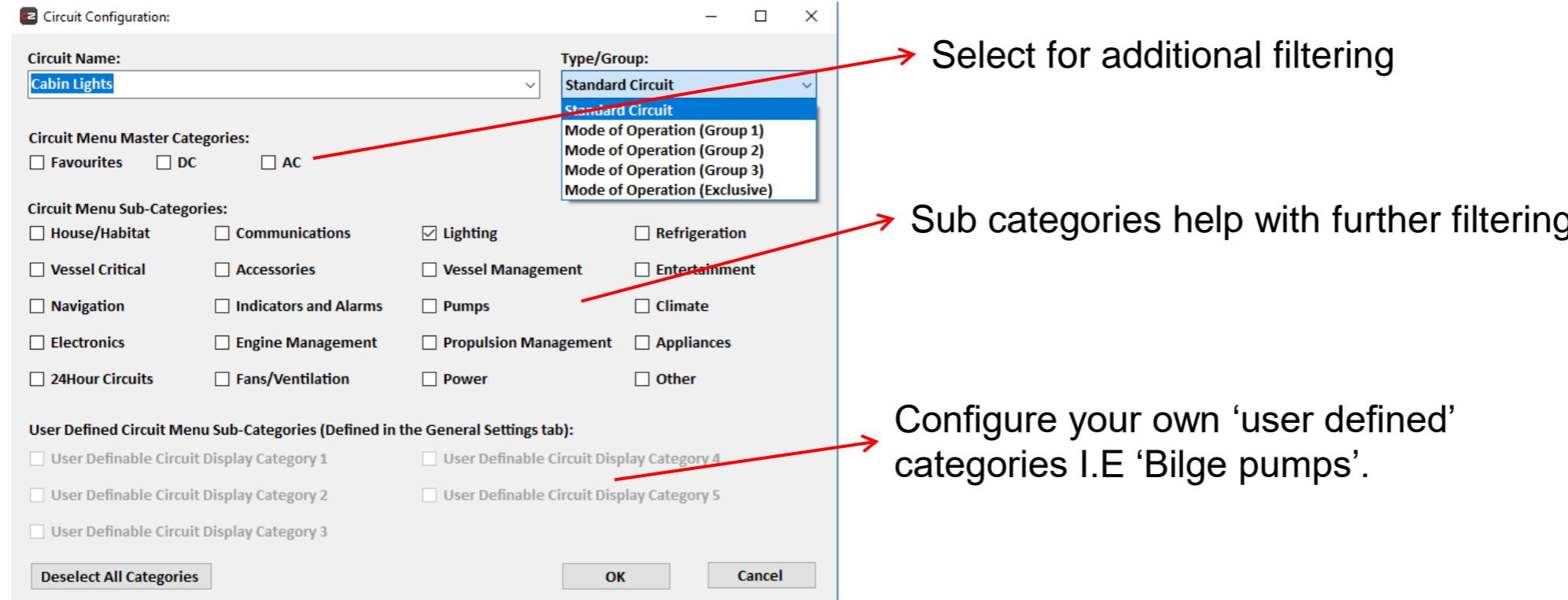
- Circuit Name:** Cabin Lights
- Type/Group:** Standard Circuit (selected)
- Circuit Menu Master Categories:**
 - Favourites
 - DC
 - AC
- Circuit Menu Sub-Categories:**

<input type="checkbox"/> House/Habitat	<input type="checkbox"/> Communications	<input checked="" type="checkbox"/> Lighting	<input type="checkbox"/> Refrigeration
<input type="checkbox"/> Vessel Critical	<input type="checkbox"/> Accessories	<input type="checkbox"/> Vessel Management	<input type="checkbox"/> Entertainment
<input type="checkbox"/> Navigation	<input type="checkbox"/> Indicators and Alarms	<input type="checkbox"/> Pumps	<input type="checkbox"/> Climate
<input type="checkbox"/> Electronics	<input type="checkbox"/> Engine Management	<input type="checkbox"/> Propulsion Management	<input type="checkbox"/> Appliances
<input type="checkbox"/> 24Hour Circuits	<input type="checkbox"/> Fans/Ventilation	<input type="checkbox"/> Power	<input type="checkbox"/> Other
- User Defined Circuit Menu Sub-Categories (Defined in the General Category):**
 - User Definable Circuit Display Category 1
 - User Definable Circuit Display Category 2
 - User Definable Circuit Display Category 3
- Configured Circuits (2):** Day Cruise, Cabin Lights
- Circuit Controls (0):** (Empty table)
- Circuit Loads (0):** (Empty table)

Annotations with red arrows point to specific elements:

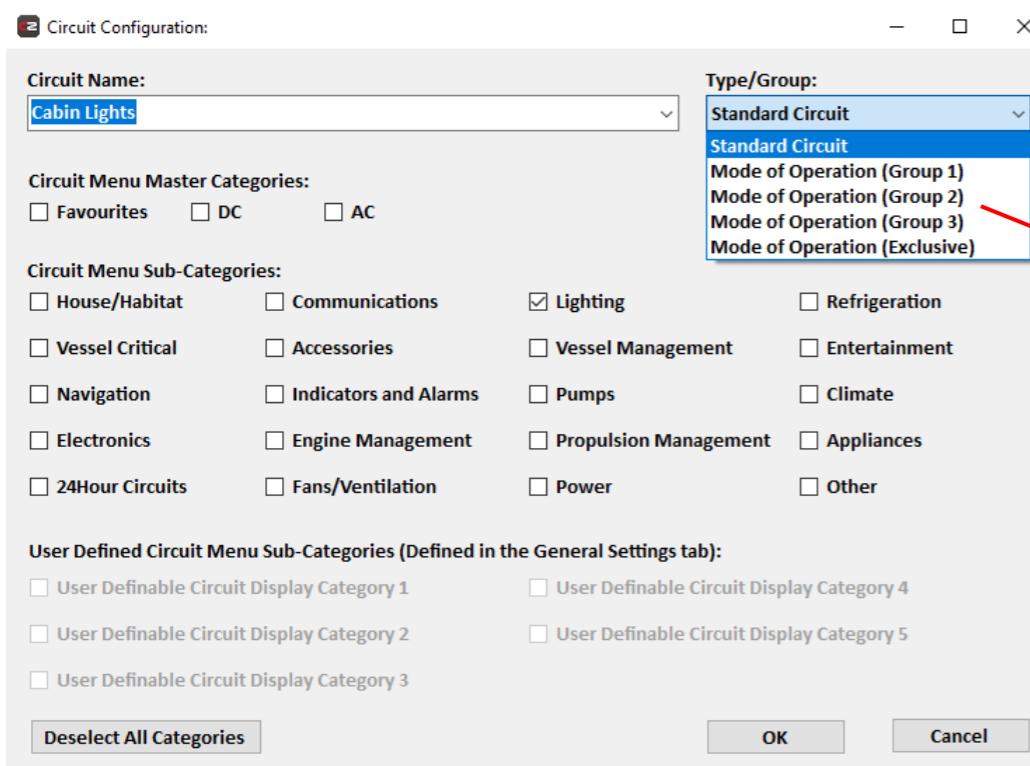
- An arrow points to the 'Standard Circuit' option in the dropdown menu with the text: "Standard Circuit or Mode."
- An arrow points to the 'Mode of Operation' category in the dropdown menu with the text: "Blue denotes 'Mode of operation'"
- An arrow points to the 'Standard Circuit' category in the dropdown menu with the text: "Black denotes 'Standard circuit'"
- An arrow points to the 'Day Cruise' circuit entry in the 'Configured Circuits' list with the text: "Blue denotes 'Mode of operation'"

Circuits



*You will have this option when you configure Loads

Circuits



Mode Groups:

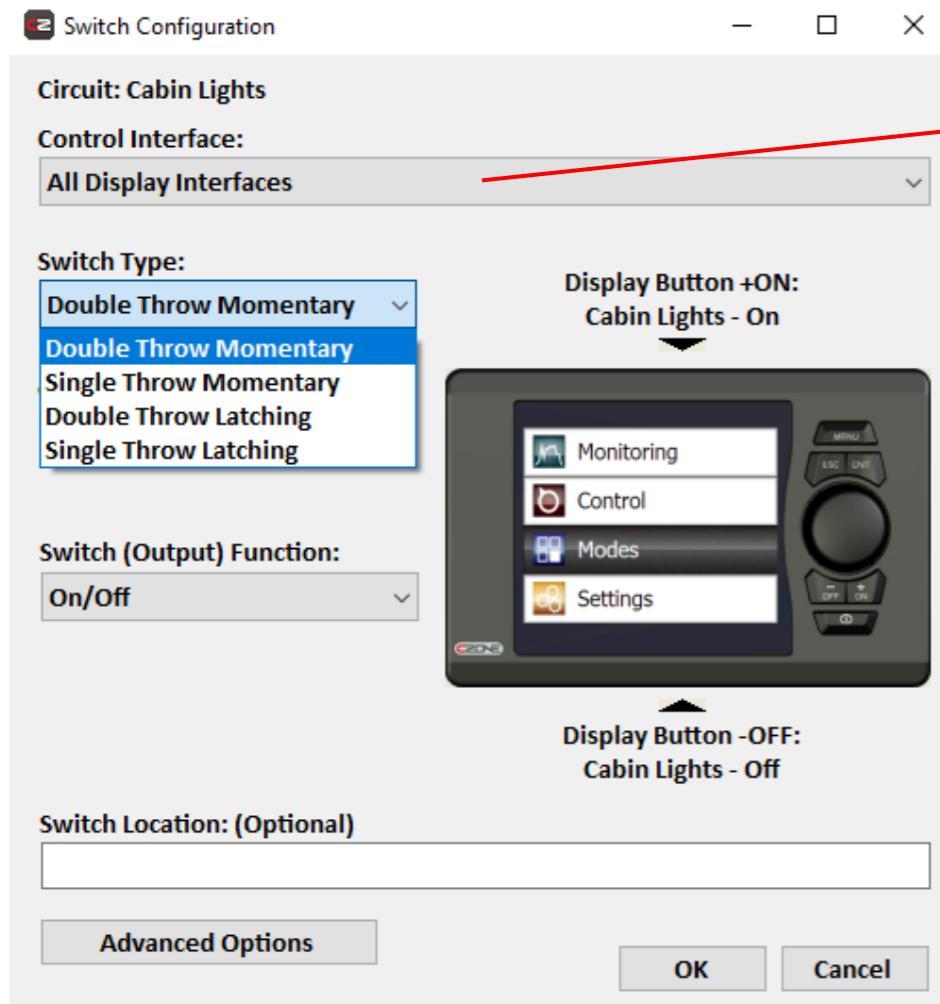
Means you can have more than one mode on at a time, up to 4.

Usually, all modes will be under one Group.

I.E

- DAY CRUISE
- NIGHT CRUISE
- DOCK UNATTENDED

Circuits

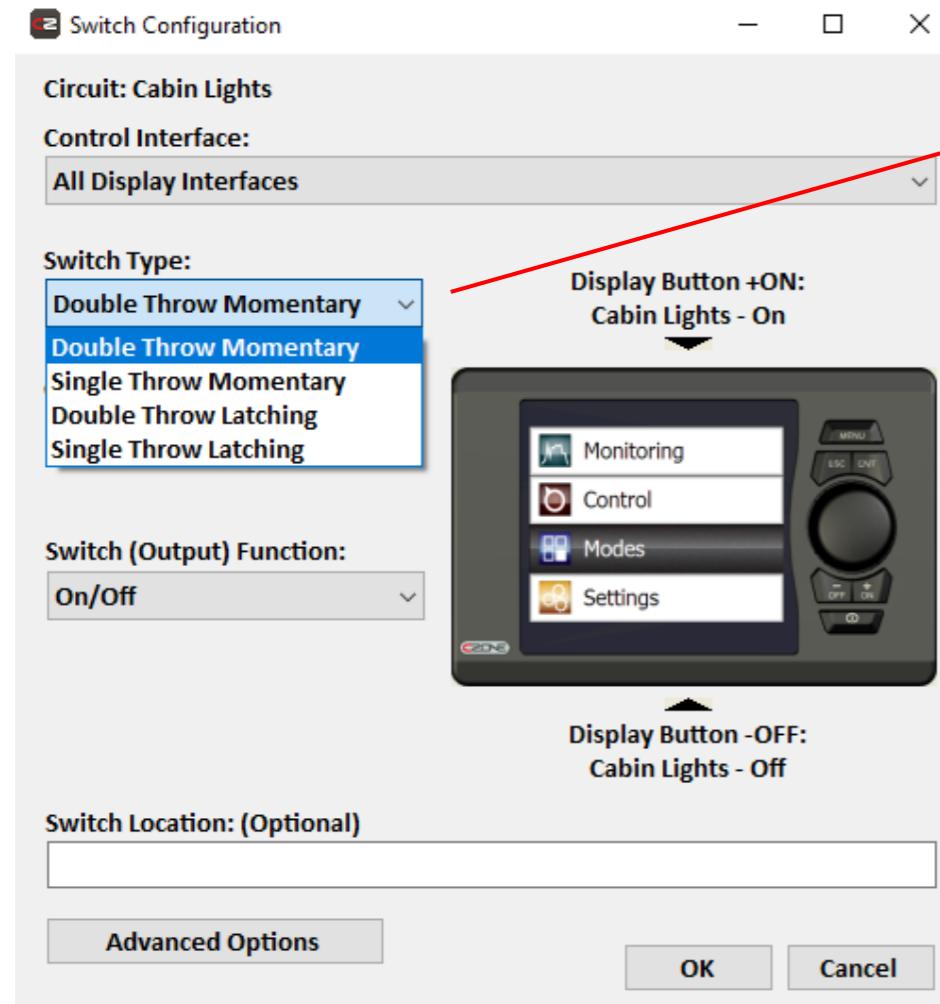


If 'All display interfaces' is selected, the 'Circuit Name' is written will show on 'All displays'

This means that the configured circuit can be operated on all configured displays

You can select dedicated displays for that circuit only to be shown on

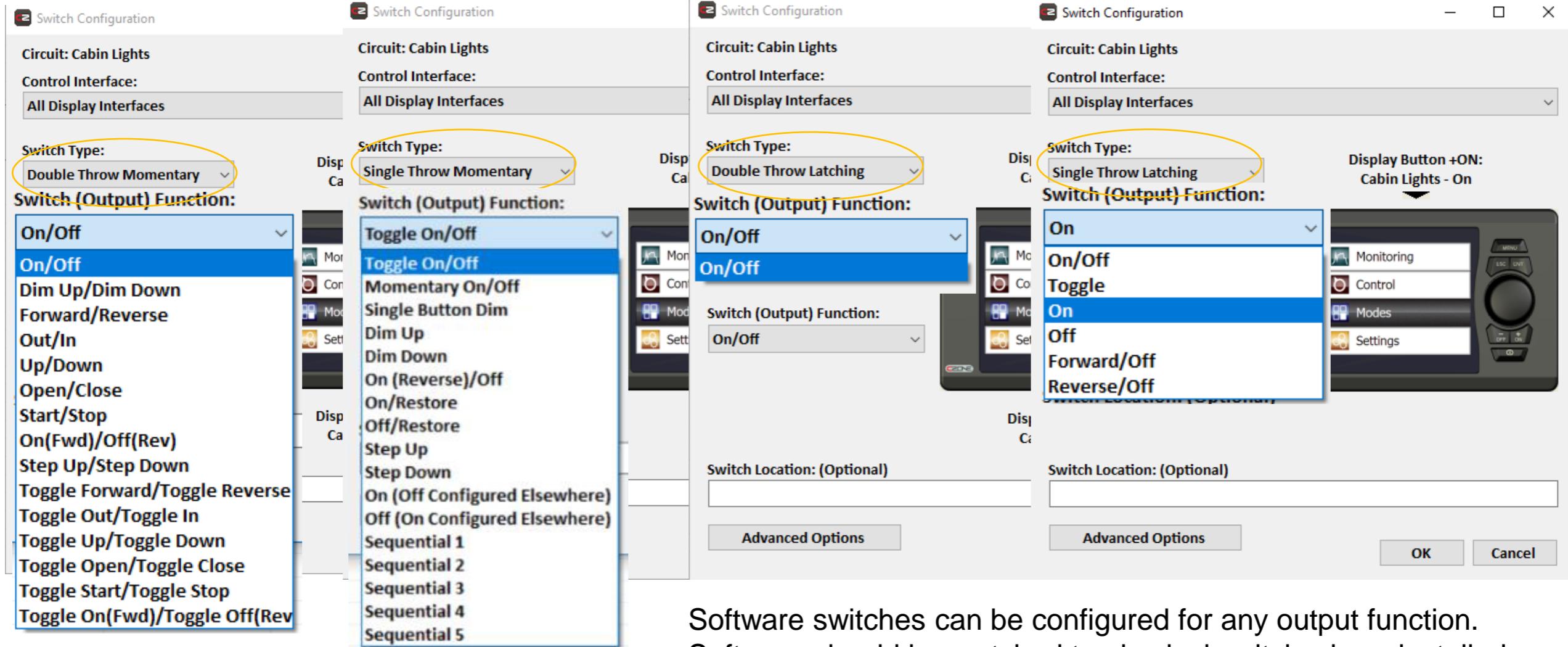
Circuits



Software switches can be configured to any type and allow many different functions within the CZone configuration tool.

*A 'momentary' will always over-ride a 'Latching'

Circuits



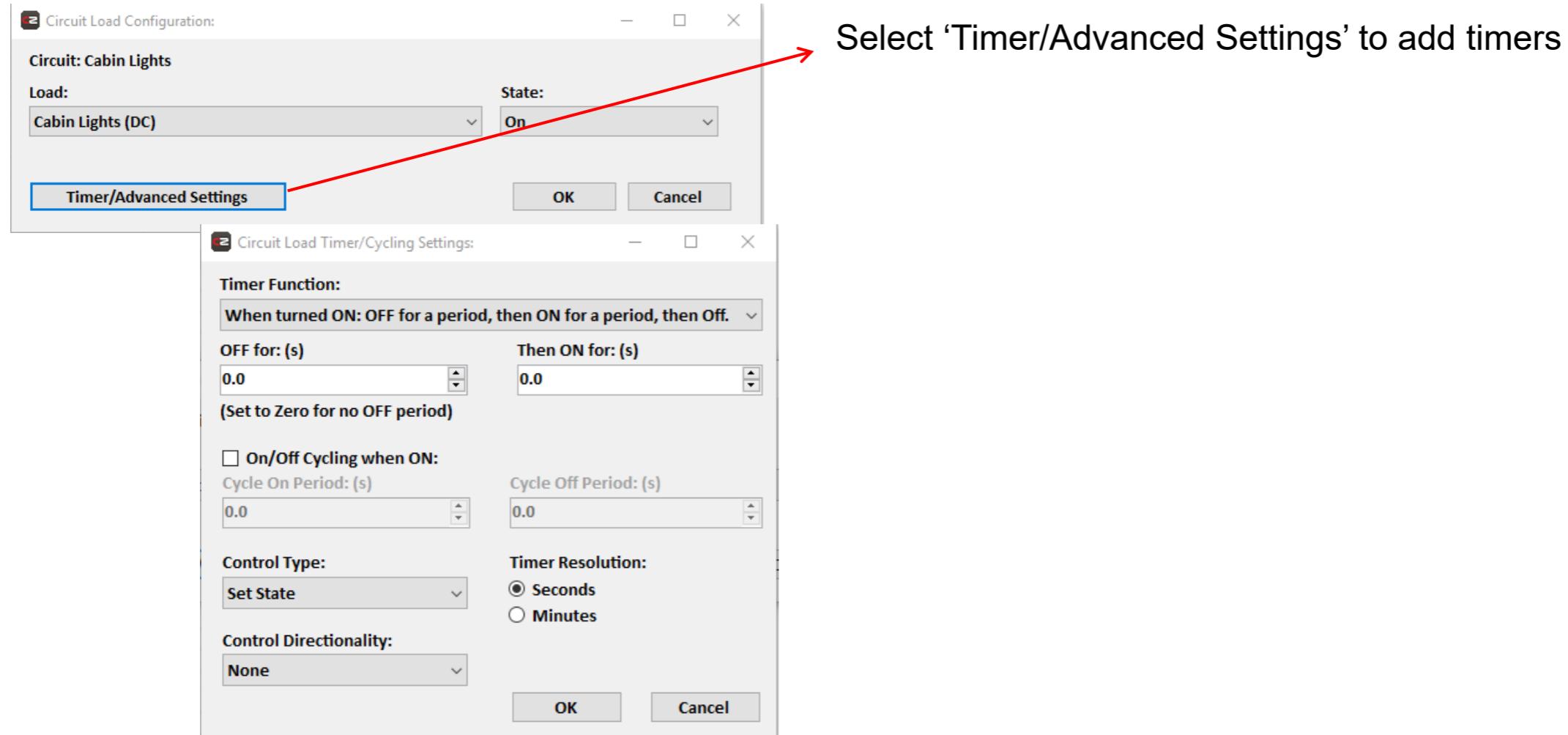
Circuits

The screenshot shows a software interface for managing circuits. At the top left, there's a table titled "Configured Circuits (1):" with one entry: "Cabin Lights". To its right is another table titled "Circuit Controls (1):" with one entry: "Name: All Display Interfaces, Details: On/Off, Module: All Display Interfaces, Channel: Control Menu". Below these are two more tables: "Circuit Loads (1):" and "Copy Paste". The "Circuit Loads (1):" table has one entry: "Name: Cabin Lights, Details: On, Module: OI 01, Channel: DC1". Below these tables are three buttons: "Add", "Edit", and "Remove". At the bottom of the main interface is a "Circuit Load Configuration" window. This window has a title bar "Circuit Load Configuration" with a close button. Inside, it says "Circuit: Cabin Lights". Under "Load:", a dropdown menu is open, showing "Cabin Lights (DC)". Below that is a button "Timer/Advanced Settings". To the right of the dropdown is a "State:" dropdown menu with four options: "On", "On" (which is highlighted in blue), "Off", and "On %". A red arrow points from the text "When the Circuit control is operated – what state should the load change to:" to the "On" option in the "State:" dropdown.

When the Circuit control is operated – what state should the load change to:

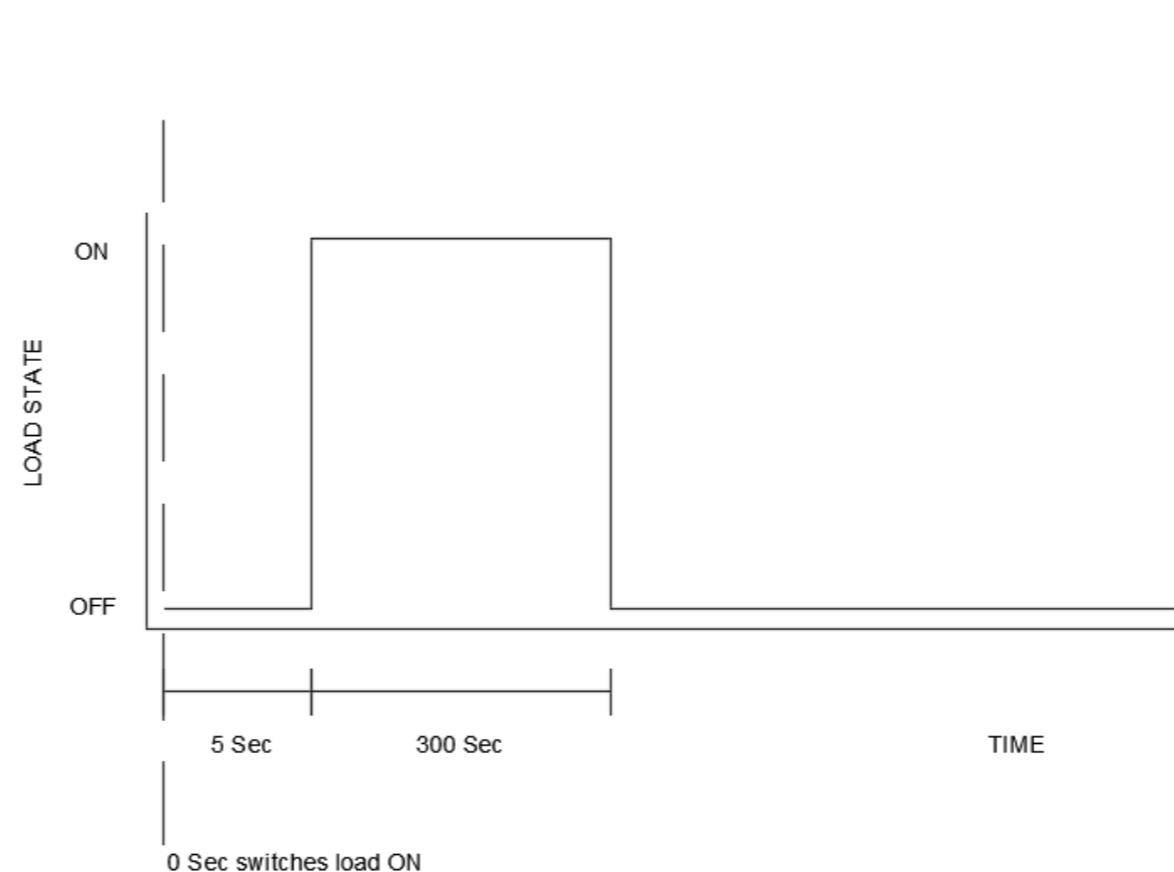
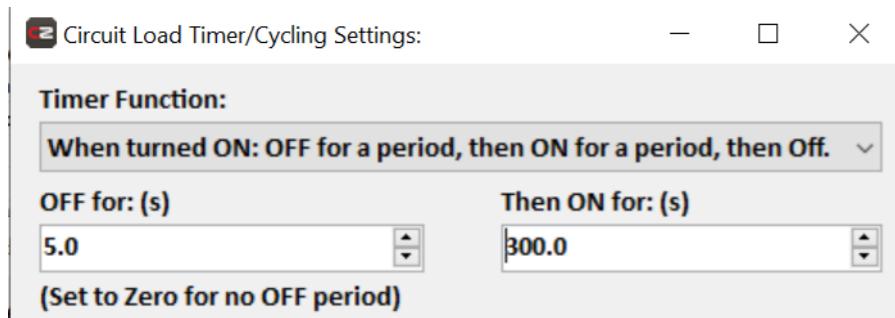
- ON
- OFF
- ON – To a % of the maximum using PWM

Circuits - Timers



Circuits - Timers

"When turned ON: OFF for a period, then ON for a period, then OFF"



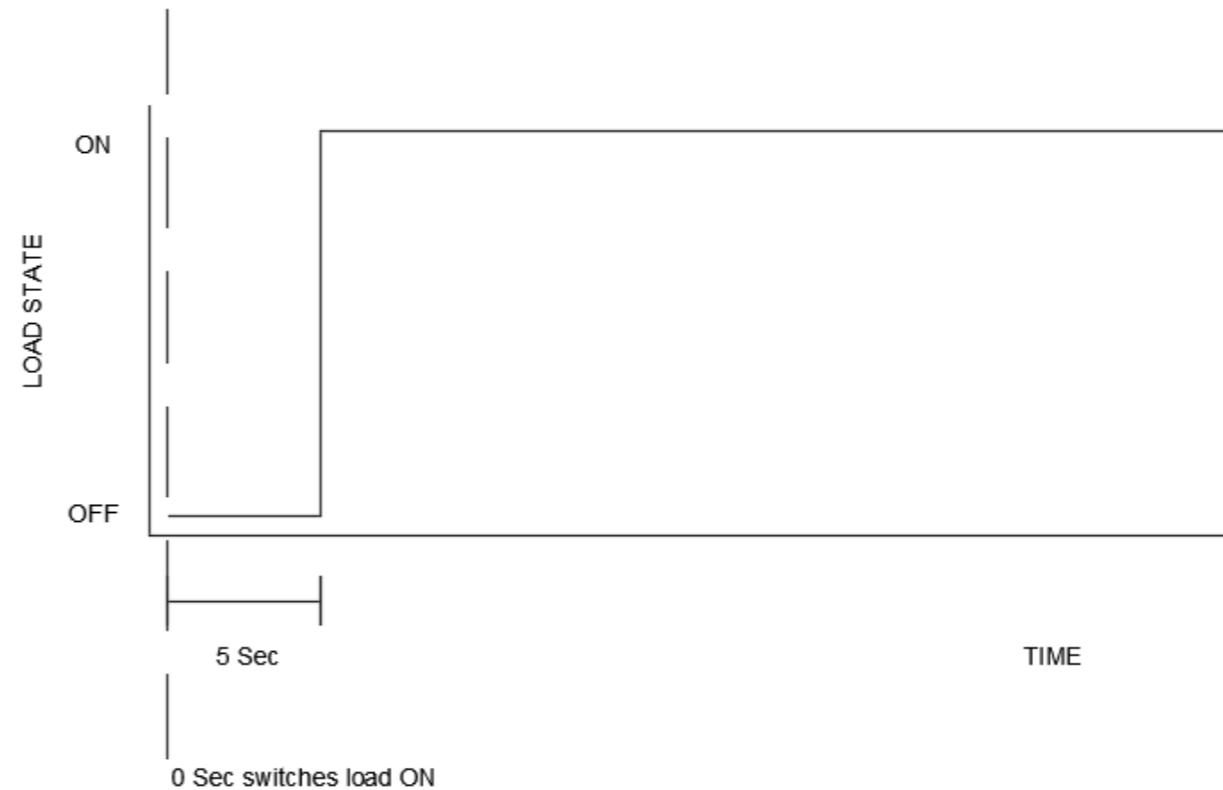
Circuits - Timers

Timers: “When turned ON: Keep OFF for a period”

Circuit Load Timer/Cycling Settings:

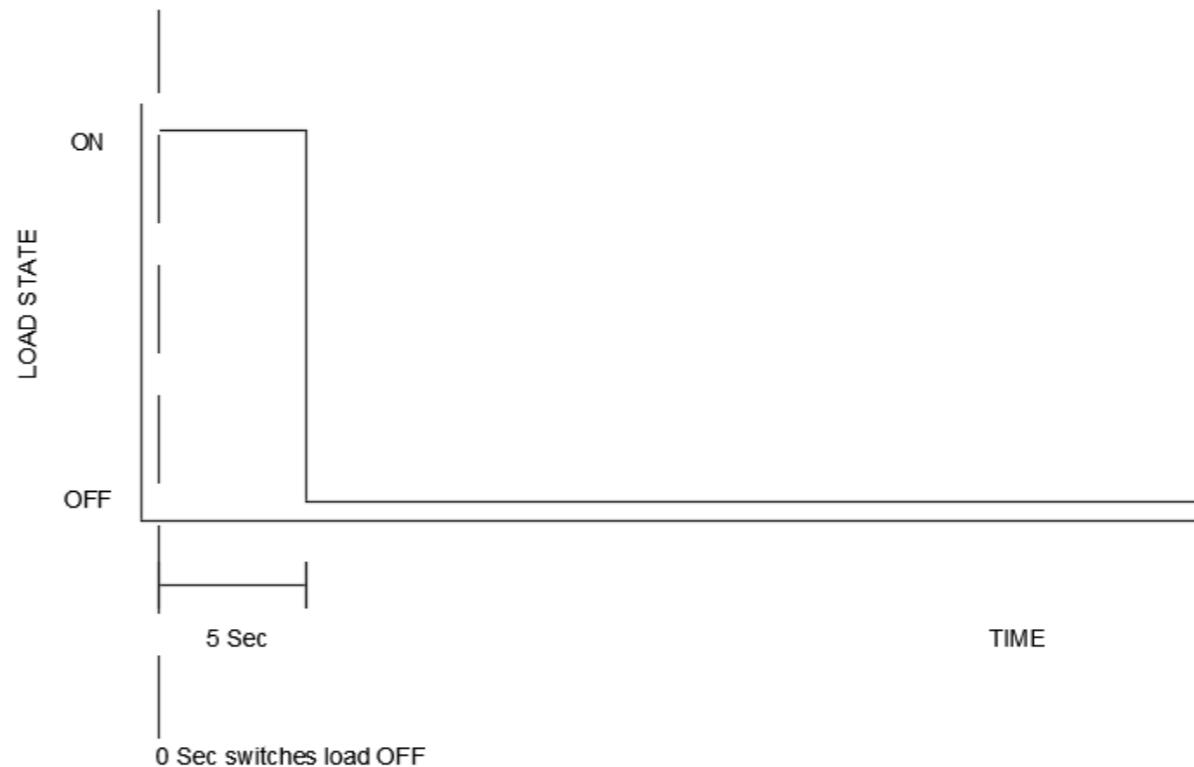
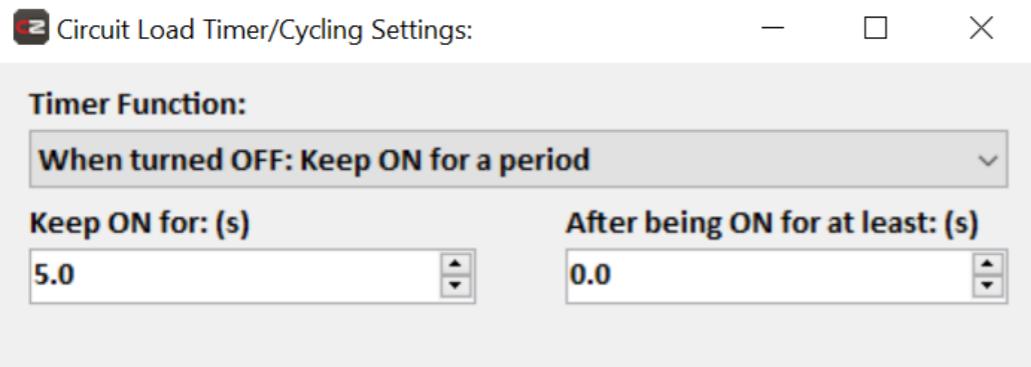
Timer Function:
When turned ON: Keep OFF for a period

Keep OFF for: (s)
5.0



Circuits - Timers

"When turned OFF: Keep ON for a period"



Additional:

After being On for at least....

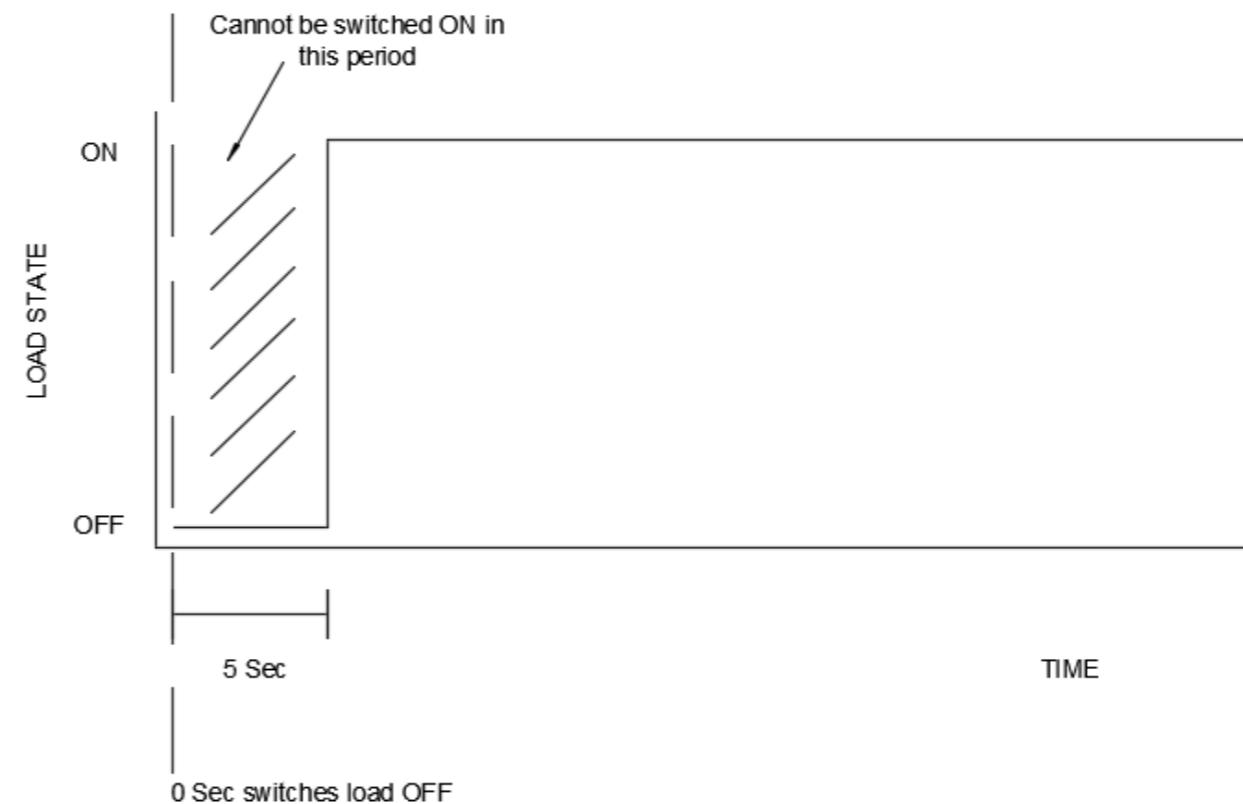
Circuits - Timers

Timers: “When turned OFF: Keep OFF for a cool down period”

Circuit Load Timer/Cycling Settings:

Timer Function:
When turned OFF: Keep OFF for a cool-down period

Keep OFF for: (s) 5.0 After being ON for at least: (s) 0.0



Additional:
After being On for at least....

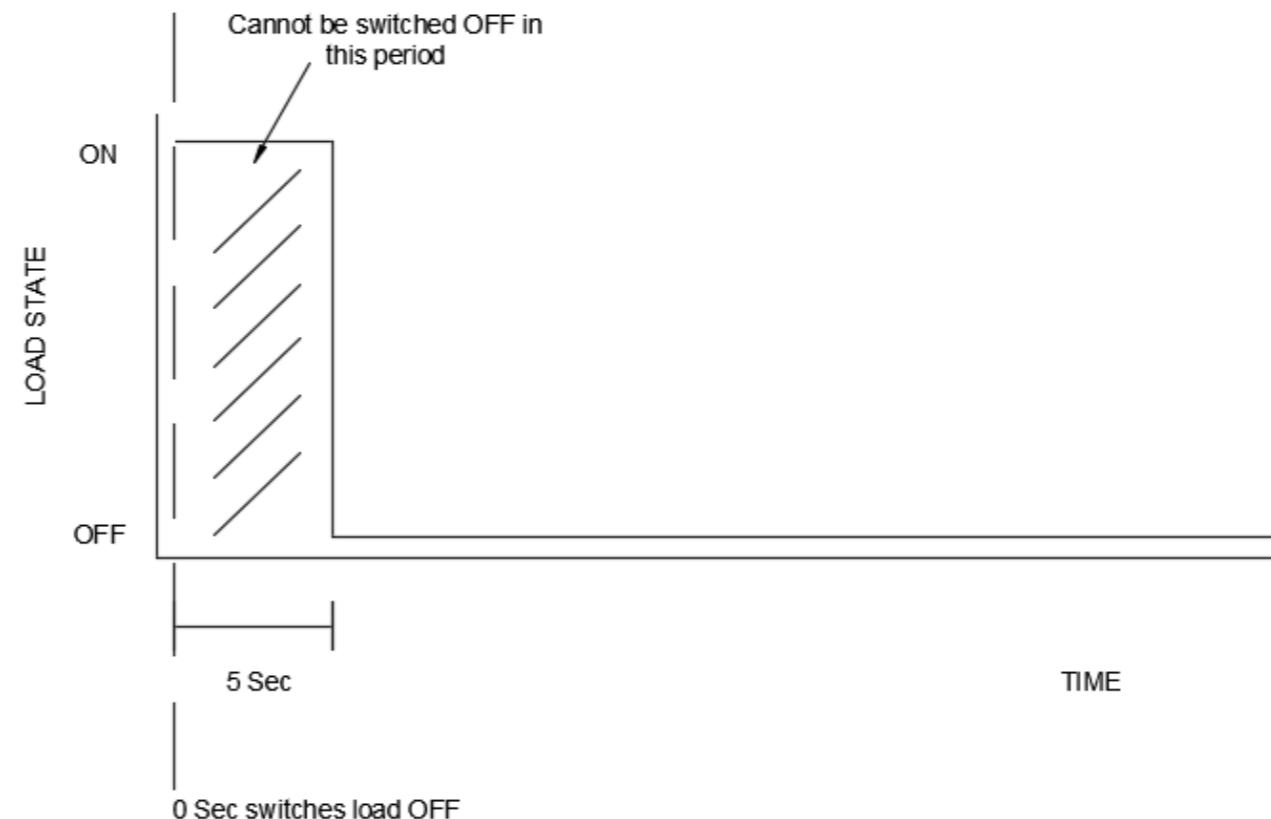
Circuits - Timers

Timers: “When turned ON: Keep ON for a minimum / ‘warm-up’ period”

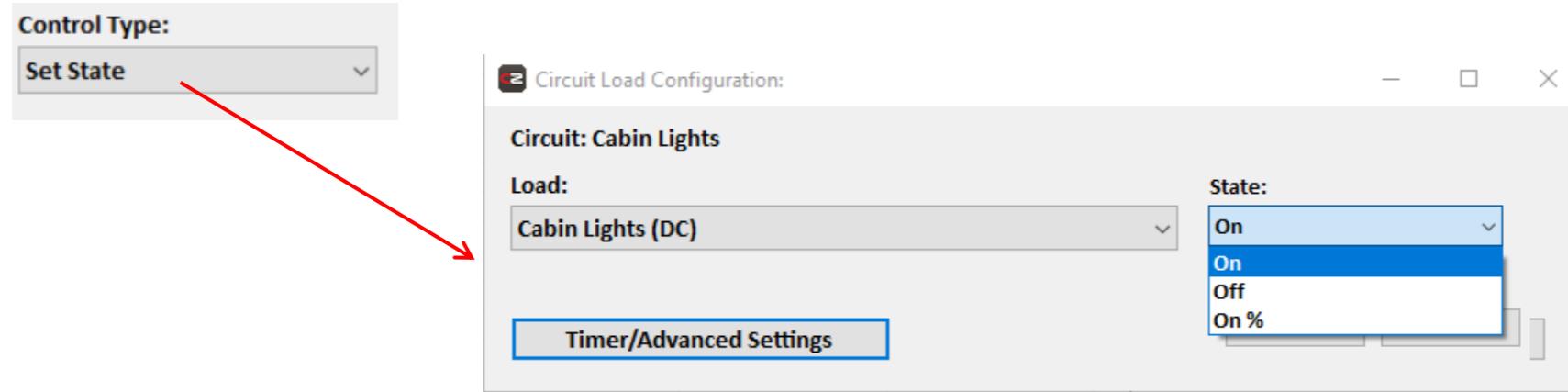
Circuit Load Timer/Cycling Settings:

Timer Function:
When turned ON: Keep ON for a minimum 'warm-up' period

Keep ON for: (s)
5.0



Circuits - Limits

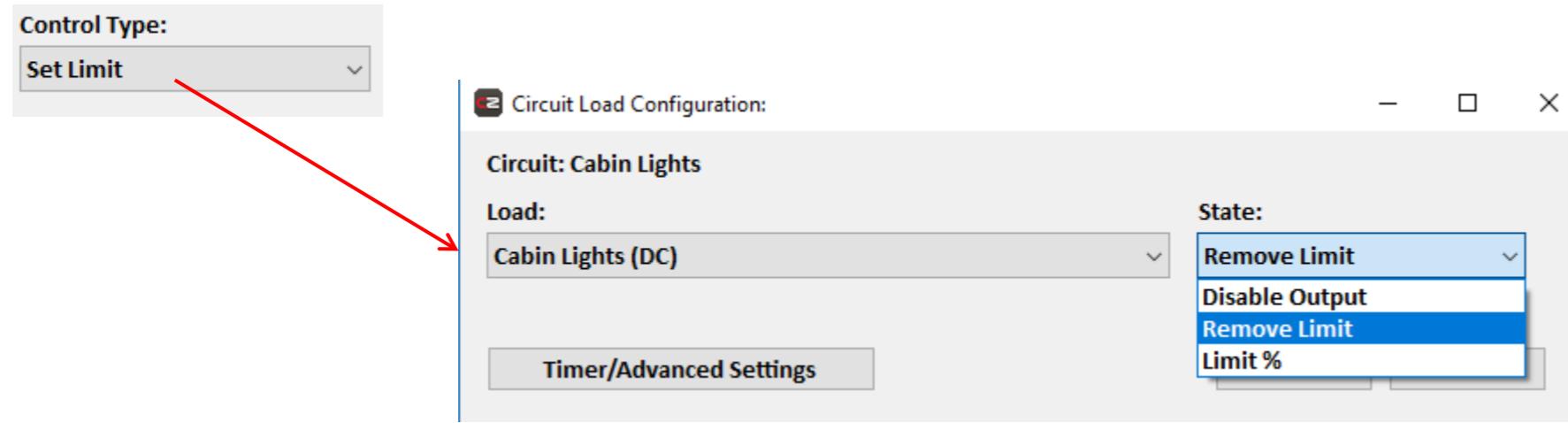


On: Load turns ON.

Off: Load turns OFF.

On %: Turns on and adjusts the load to a %

Circuits - Limits

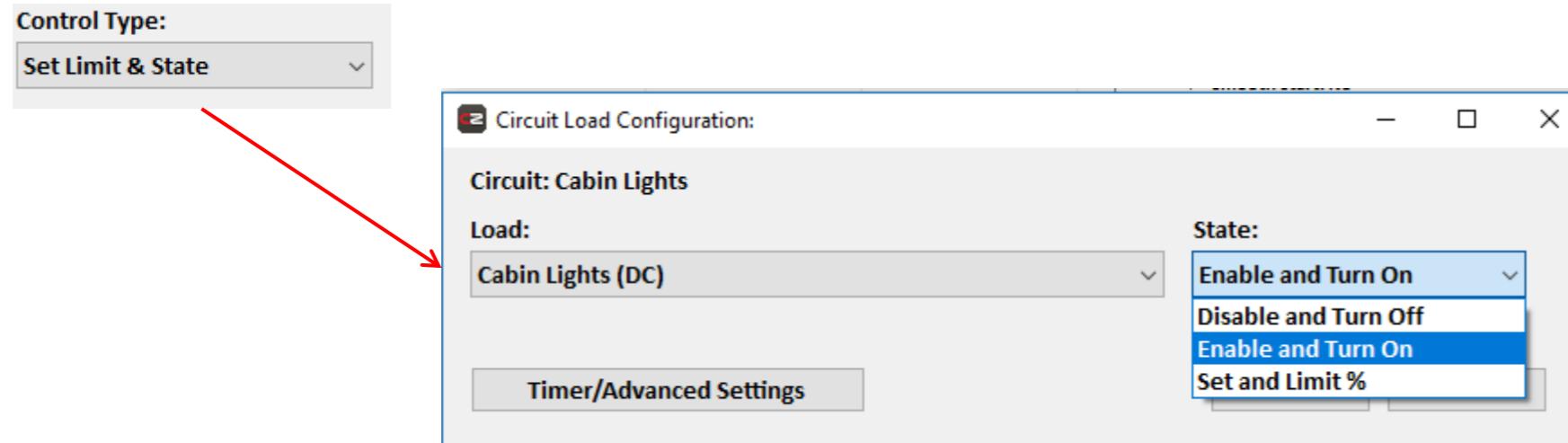


Disable Output: Load cannot be operated

Remove Limit: Removes limit that was previously activated in another circuit

Limit %: Limits the use of this load to a maximum %

Circuits - Limits



Disable and Turn Off: Turns load OFF and Load cannot be operated.

Enable and Turn On: Load can be operated and Turns load ON

Set and Limit %: Turns the load state to a maximum %

Circuits - Modes

The screenshot shows a software interface for managing shipboard electrical circuits. On the left, under 'Configured Circuits (3)', there are three entries: 'Day Cruise', 'Cabin Lights', and 'Generator'. A red arrow points from this section to the text below it. In the center, under 'Circuit Controls (1)', there is one entry: 'All Display Interfaces' with 'Details: On', 'Module: All Display Interfaces', and 'Channel: Control Menu'. Below this are buttons for 'Add', 'Edit', 'Remove', 'Copy', and 'Paste'. Under 'Circuit Loads (0)', there is a table with columns for Name, Details, Module, and Channel. On the right, under 'Circuit Loads (17)', there is a detailed table listing various shipboard components and their settings:

Name	Details	Module	Channel
Anchor Light	Off	COI 01	DC6
Backlight Zone 1	On	Backlight Zone	BLZ1
Bilge Pump Aft	Off	COI 01	DC1
Bilge Pump Fwd	Off	COI 01	DC2
Cabin Courtesy Lights	On	COI 01	DC15
Cabin Lights	Off	COI 01	DC13
Cockpit Courtesy Lights	On	COI 01	DC16
Cockpit Light	Off	COI 01	DC10
Engine Room Fan	On	COI 01	DC4
Galley Lights	Off	COI 01	DC9
Head Light	Off	COI 01	DC12
Navigation Lights	Off	COI 01	DC5
Night Lights	Off	COI 01	DC14
Saloon Lights Port	On	COI 01	DC7
Saloon Lights Stbd	On	COI 01	DC8
Step Lights	Off	COI 01	DC11
Water Pump	On	COI 01	DC3

Modes should always be controlled by an 'On' switch. An 'OFF' Mode – is turned 'On'

You never turn OFF a mode, you just switch to another one!

Add ALL of the loads required to be 'ON' or 'OFF' in this mode. You can also add timers and % on (Dimming) – One Touch

Circuits – Modes Guru

The screenshot shows the CZone Modes Guru software interface. On the left, there's a sidebar titled "Circuit Display Ordering:" with a dropdown set to "Custom" and buttons for "Move Up" and "Move Down". Below this are "Copy" and "Paste" buttons, followed by a "Modes Guru" button which is highlighted with a blue border and has a red arrow pointing to it from the text above. The main area is a table titled "CZone Modes Guru:" with columns for "Systems On", "Day Cruise", "Night Cruise", and "Systems Off". The rows list various circuits like "Alarm Test!", "Anchor Light", "Backlight Zone 1", etc., each with status indicators. A note for "Cabin Courtesy Lights" indicates it's off with a timer. At the bottom are buttons for "Modes Group 1", "Add New...", "Not Used", "On", "Off", "Advanced/Timers", "Save PDF", and "Save CSV".

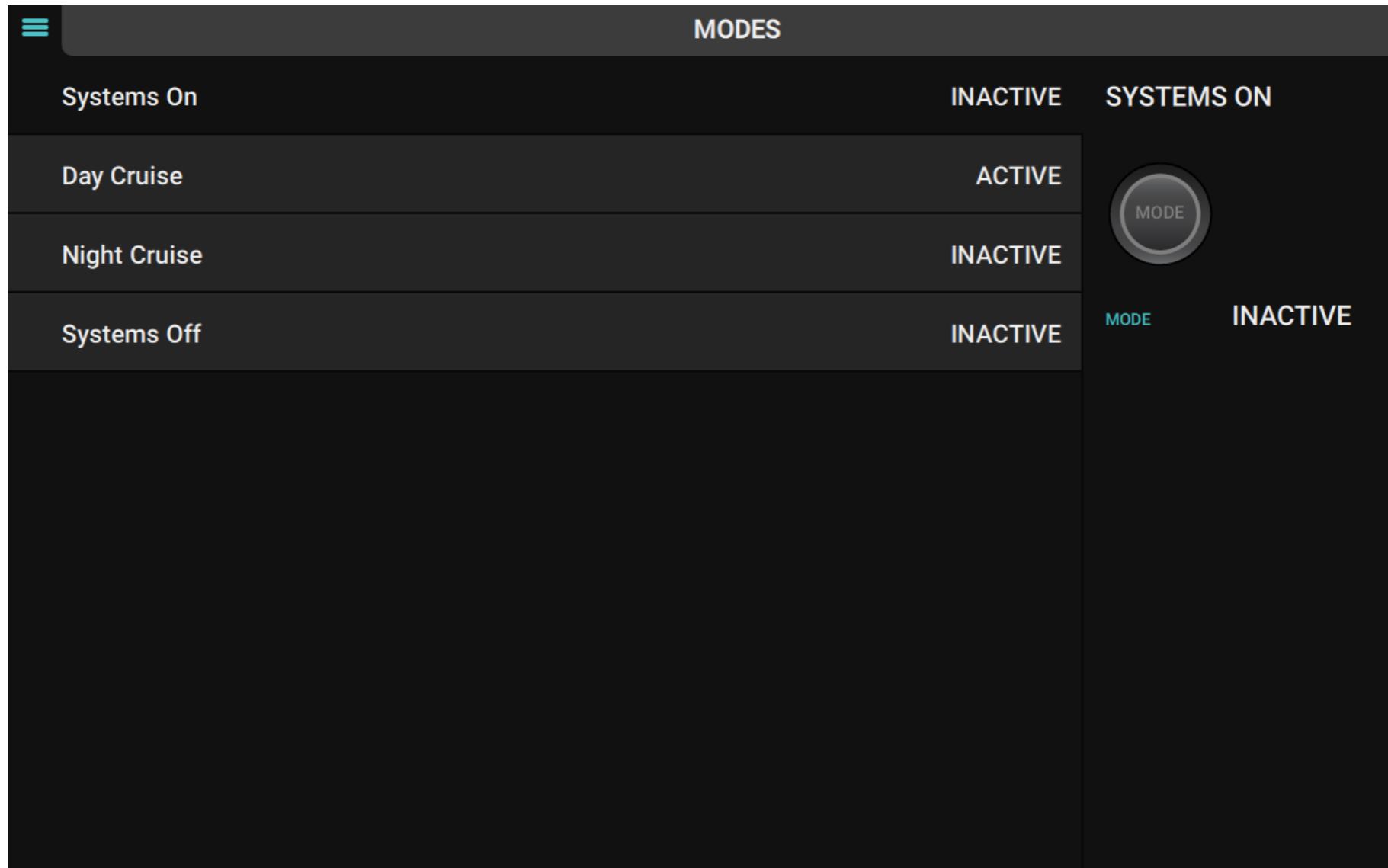
	Systems On	Day Cruise	Night Cruise	Systems Off
▶ Alarm Test!	Not Used	Not Used	Not Used	Not Used
Anchor Light	Off	Off	On	Off
Backlight Zone 1	On	On	On (50.0%)	Off
Bilge Pump Aft	On	Off	Off	Off
Bilge Pump Fwd	On	Off	Off	Off
Cabin Courtesy Lights	On	On	On (10.0%)	Off Timer: When turned Off, keep On for 3.0 seconds.
Cabin Lights	Off	Off	On (10.0%)	Off
Cockpit Courtesy Lights	On	On	On (10.0%)	Off Timer: When turned Off, keep On for 3.0 seconds.
Cockpit Light	On	Off	On (10.0%)	Off
Engine Room Fan	Off	On	Off	Off
Galley Lights	Off	Off	On (10.0%)	Off
Head Light	Off	Off	On (10.0%)	Off

Easy adding of loads / timers etc. Save as PDF and print out for customer / owner.

Circuits - Modes

CONTROL				ANCHOR LIGHT
Anchor Light		OFF	ALL	
Bilge Pump Aft		OFF	IN OPERATION	VOLTAGE 13.77V CURRENT OFF ON COUNT 1 ON TIME 6s FAULTS NONE
Bilge Pump Fwd		OFF	PUMPS	
Cabin Courtesy Lights		2.1 A	LIGHTING	
Cabin Lights		OFF	POWER	
Cockpit Courtesy Lights		1.0 A	NAVIGATION	
Cockpit Light		OFF	FANS/VENTILATION	
Engine Room Fan		3.6 A	HOUSE/HABITAT	
Galley Lights		OFF	VESSEL MANAGEMENT	
Head Light		OFF		

Circuits - Modes



Circuits – Charge Master Plus

Circuit Controls (1):

Name:	Details:	Module:
All Display Interfaces	On/Off	All Display Inter

When configured as a module, ON/OFF circuit will automatically be configured

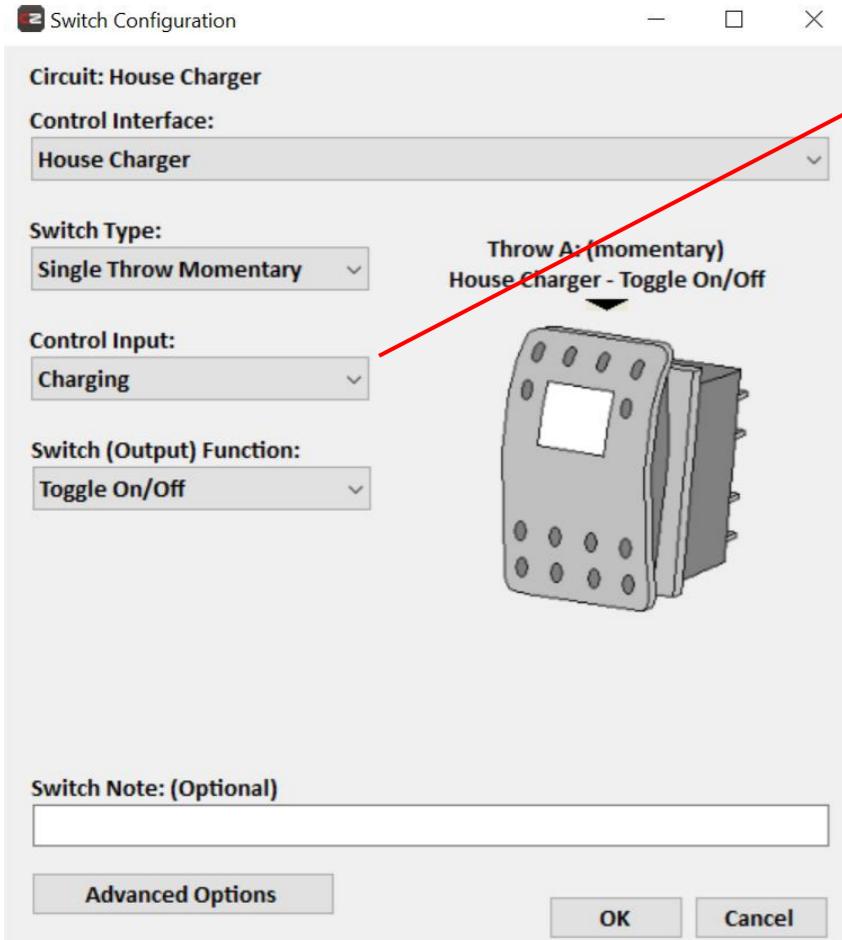
Add Edit Remove

Copy Paste

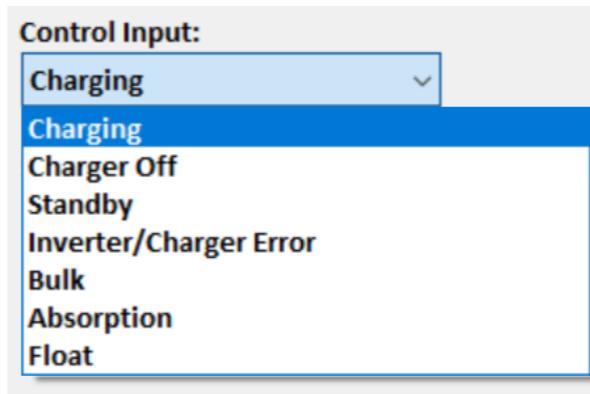
Circuit Loads (1):

Name:	Details:	Module:
House Charger	On	House Charger

Circuits – Charge Master Plus



Many other Control Input functions can be used for circuits as previously configured



Example:
When charger in BULK; Turn on Fan

Circuits – Combi Master

Circuit Controls (1):

Name: All Display Interfaces	Details: On/Off	Module: All Display Inter

Add Edit Remove Copy Paste

When configured as a module, ON/OFF circuit will automatically be configured for Charger and Inverter

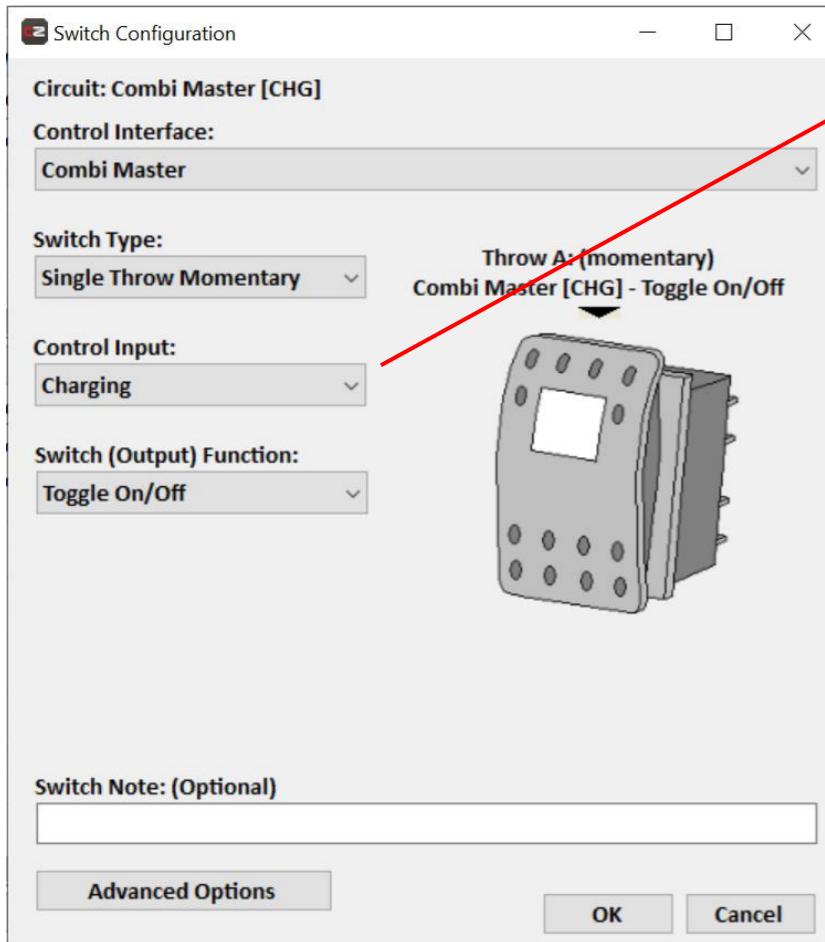
Circuit Loads (1):

Name: Combi Master [CHG]	Details: On	Module: Combi Master

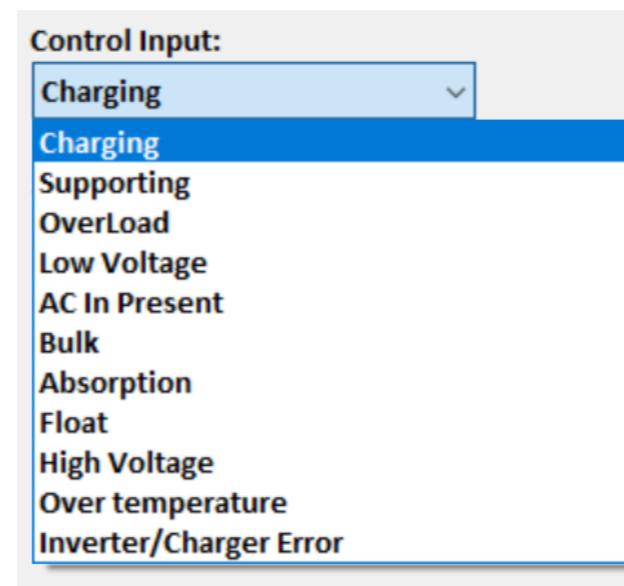
Circuit Loads (1): Copy Paste

Name: Combi Master [INV]	Details: On	Module: Combi Master

Circuits – Combi Master

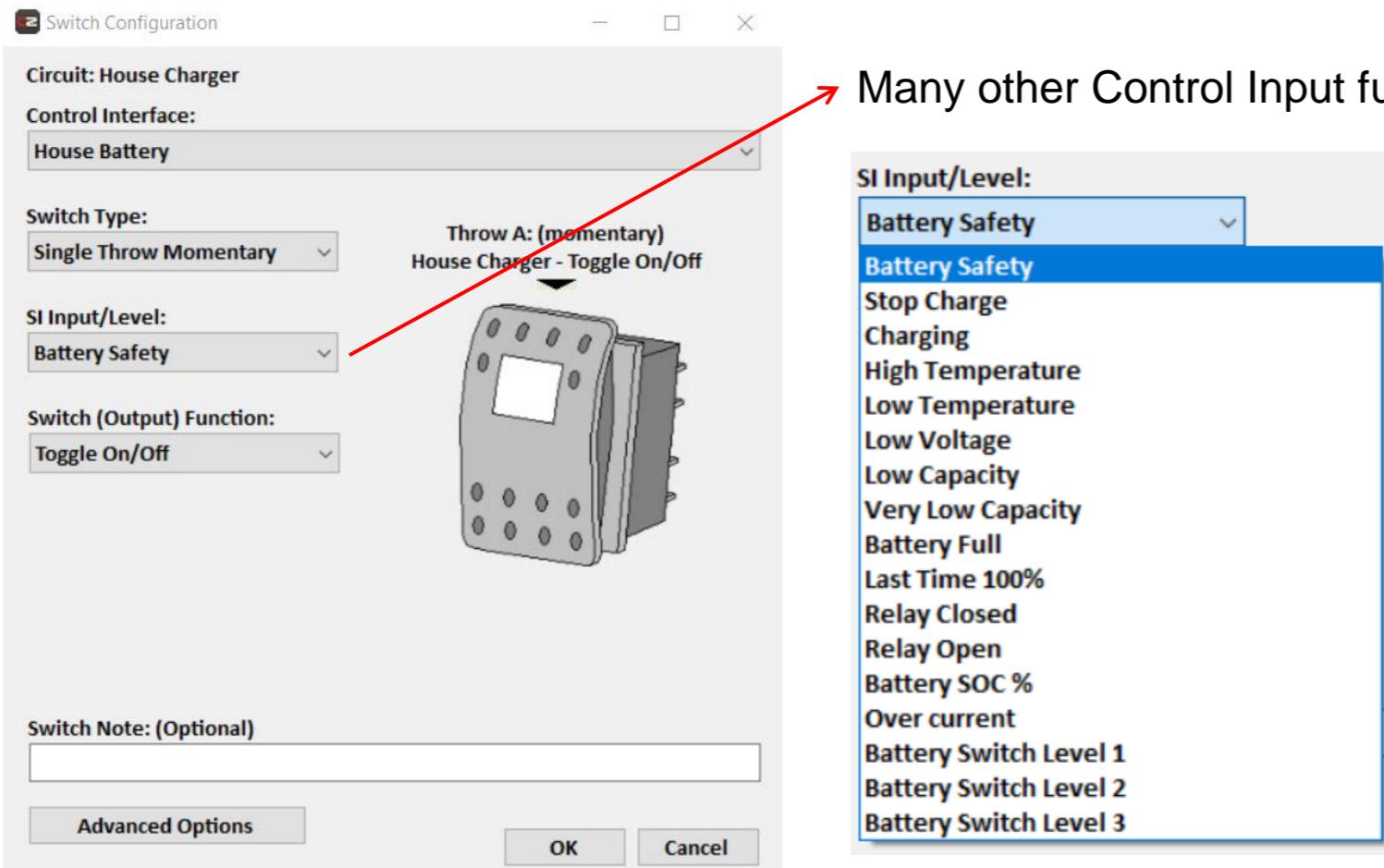


Many other Control Input functions can be used for circuits as previously configured

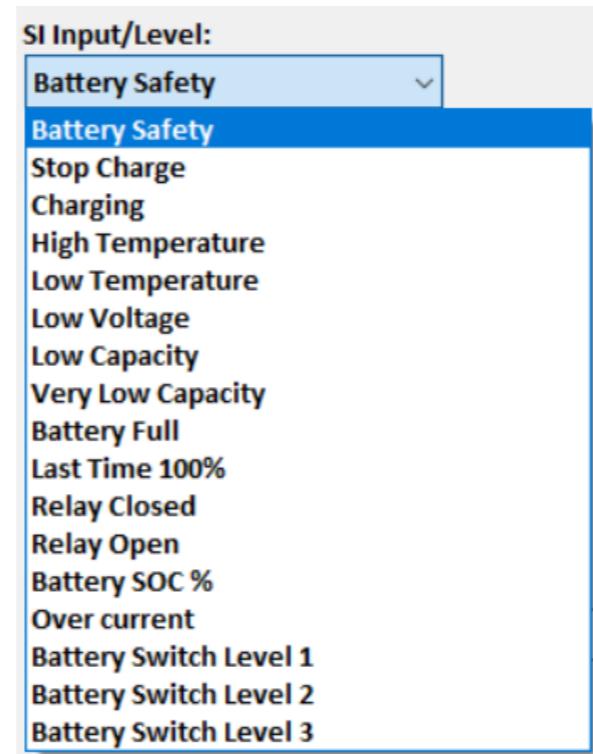


Circuits – MLI Ultra

LI-ION Battery Circuits:



Many other Control Input functions can be used for circuits as previously configured



Circuits – MLI Ultra

The screenshot shows the MLI Ultra software interface with the 'Circuits' tab selected. In the main pane, there is one configured circuit named 'Stop Charge'. A red arrow points from the text 'Create 'Stop Charge' circuit' to the circuit name. Below the main pane, a detailed configuration dialog box is open for the 'Stop Charge' circuit. This dialog includes fields for 'Control Interface' (set to 'House Battery'), 'Switch Type' (set to 'Single Throw Momentary'), 'Control Input' (set to 'Stop Charge'), and 'Switch (Output) Function' (set to 'Momentary On/Off'). An illustration of a physical switch labeled 'Throw B: (momentary) Stop Charge - Momentary On/Off' is shown. At the bottom of the dialog are 'Advanced Options', 'OK', and 'Cancel' buttons.

Create 'Stop Charge' circuit

Control is from the Battery

Switch type 'Single throw Momentary'

Control input is the Stop Charge

Switch function is 'Momentary On/Off'

Stop Charge events must be
configured for all charging sources
to Li-Ion batteries

Circuits – MLI Ultra

The screenshot shows the MLI Ultra software interface with the following components:

- Configured Circuits (1):** A table with one entry: **Stop Charge**.
- Circuit Controls (1):** A table with one entry:

Name:	Stop Charge	Details:	Toggle	Module:	House Battery	Channel:	1
-------	-------------	----------	--------	---------	---------------	----------	---

A red arrow points from the text "Add the Charger Load/s" to the **Add** button at the bottom of this section.
- Circuit Loads (2):** A table with two entries:

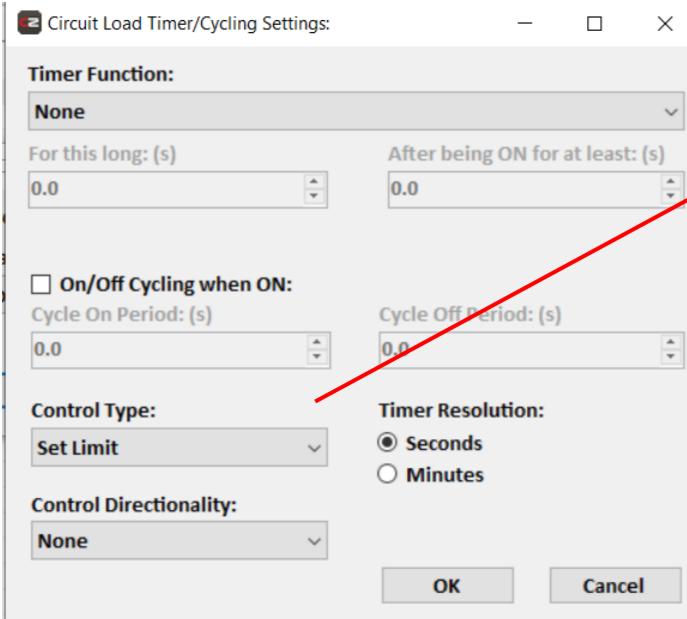
Name:	Combi Master [CHG]	Details:	On	Module:	Combi Master	Channel:	Charger Control
	House Charger		On		House Charger		Charger Control

A red arrow points from the text "Set the 'State' to OFF" to the **State:** dropdown menu in the **Circuit Load Configuration** dialog.
- Circuit Load Configuration Dialog:** A modal window for the **Stop Charge** circuit.
 - Load:** Set to **Combi Master [CHG]**.
 - State:** Set to **Off**.
 - Buttons:** **OK** and **Cancel**.
 - Link:** A red arrow points from the text "Select 'Timer/Advanced Settings'" to the **Timer/Advanced Settings** button.

*This need to be completed for all Charging sources

Circuits – MLI Ultra

LI-ION Battery Stop Charge Events:



Change control type to 'Set Limit'

Set limit is chosen because we want to temporarily hold the charging source in an OFF state. When the stop charge is released, the limit off will be released also.

Summary

Circuits = Controls + Loads.

Circuits can be made up of Multiple switch controls from SI's, SCI's, VS's or Logic.

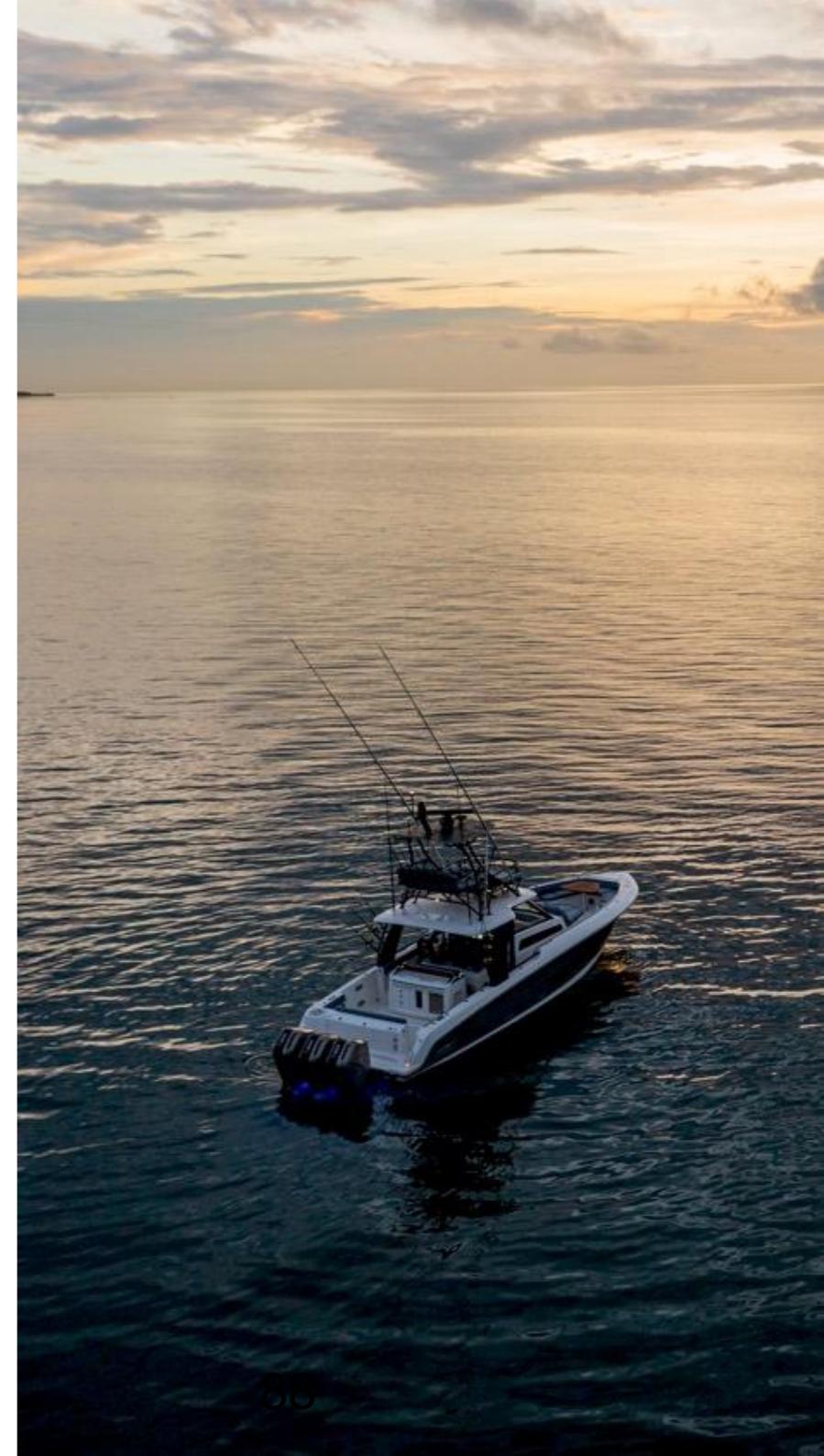
Configure Standard Circuit or Mode (Groups?)

Configure Timers / Advanced settings as required, lockouts, directionality etc.

Add modes and configure ALL loads that need to be controlled including turning loads OFF.

When using CZone enabled Mastervolt equipment, ensure all circuits are configured as required.

Stop Charge events for charging sources must be configured for Li-ion batteries.



MasterVolt Bridge

Configured MasterVolt™ Chargers and Inverters:

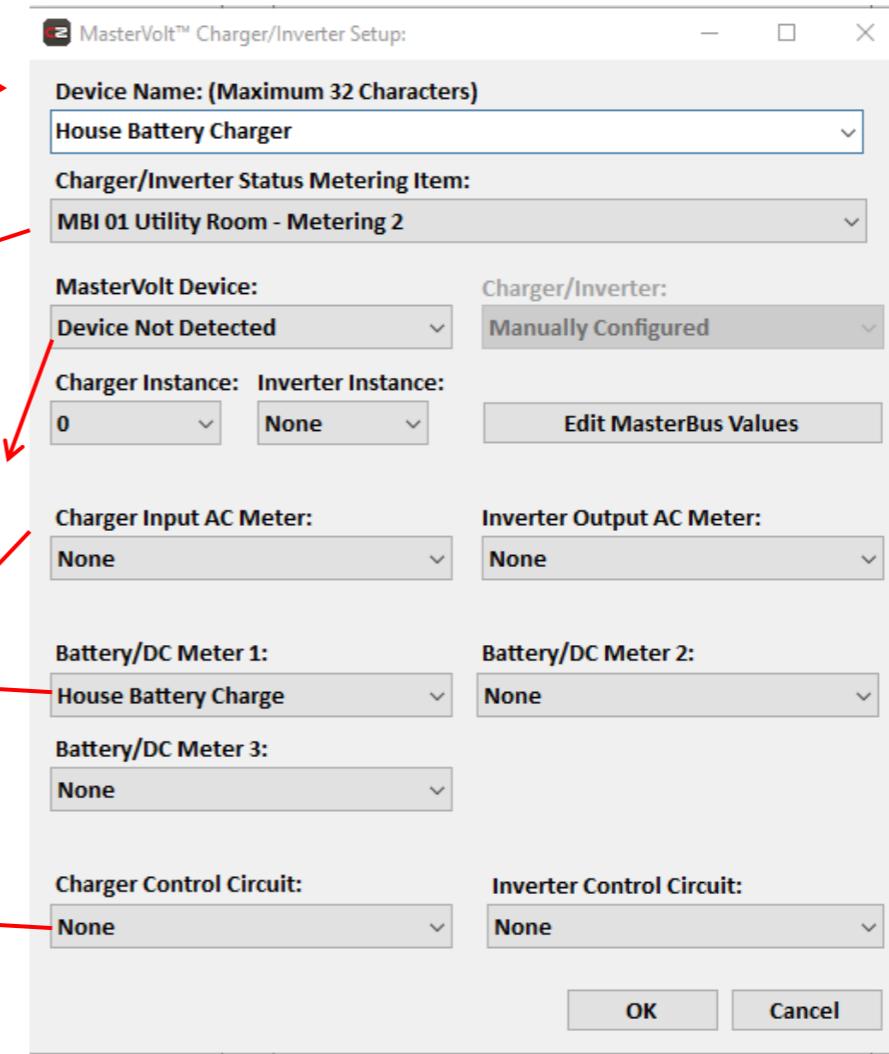
House Battery Charger
Charger/Inverter
Start Charger

Auto selects based off available locations

Mastervolt / CZone configuration must be done ONLINE
Select the device I.E Charger

Assign AC and DC power meters as previously
configured to populate the page

CZone will automatically create a control circuit
based off requirement I.E Combi, Stand-alone



MasterVolt Bridge

The screenshot shows the MasterVolt Bridge software interface. On the left, a list of 'Configured Circuits (138)' is displayed, including items like 'House Battery Charger CHG', 'House Battery Isolator', 'House Charger', 'Icemaker/Winecooler', 'Ignition Accessories', 'Instrument/Compass Lights', 'Locker Lights', 'Lower Lounge Lights', 'Master Cabin Air Conditioning', 'Master Cabin Feature Light', and 'Master Cabin Lights'. In the center, there are two tables: 'Circuit Controls (0)' and 'Circuit Loads (1)'. The 'Circuit Controls' table has columns for Name, Details, Module, and Channel, with buttons for Add, Edit, and Remove. The 'Circuit Loads' table has columns for Name, Details, Module, and Channel, showing one entry: 'House Battery Charger CHG' with details 'On', module 'MBI 01 Utility Room', and channel 'MBES3'. A red oval highlights the 'Circuit Controls (0)' table. On the right, a dropdown menu for 'Circuit Display Ordering' is set to 'Alphabetical'. Below the tables are buttons for Copy, Paste, and Modes Guru.

A Circuit will be configured which will have no 'Circuit Control'. This is normal.

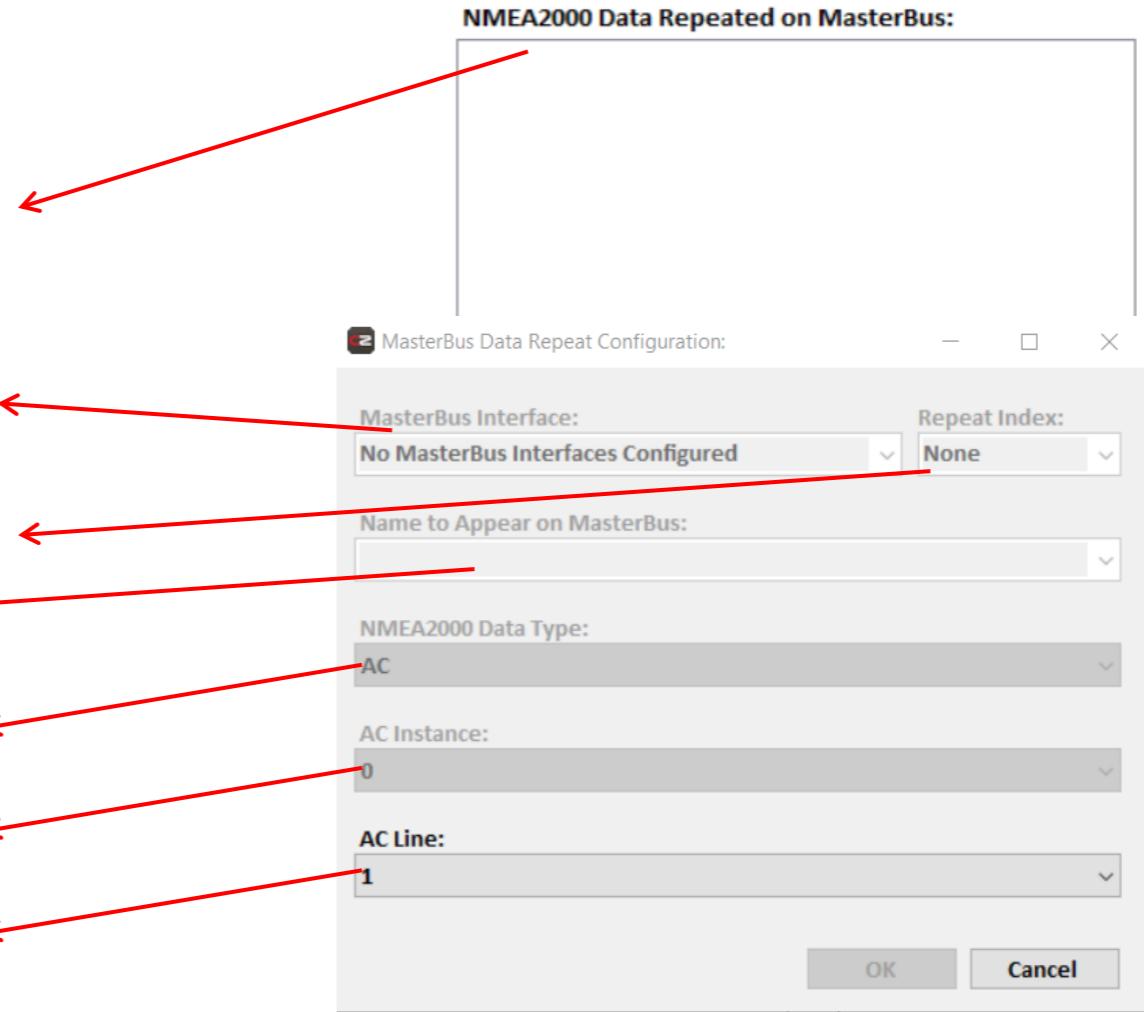
The created MV 'Load' can then be used in other Circuits or Modes as required.

I.E 'Dock Unattended' – Turn off 'Inverter' and leave 'Charger' on. This will prevent discharge of batteries if Shore Power is lost

MasterVolt Bridge

Used to select NMEA data to transmit to the Masterbus network (AC, DC or Fluid Level)

Select the bridge to transmit data
NMEA Index
Name
NMEA Data type (AC, DC or Fluid Level)
Instance number
Line Data



Summary

Configure all Mastervolt equipment first – before finalising MV in CZone

Select Mastervolt equipment to be controlled / monitored and label correctly

Set Mastervolt Metering in ‘Power Metering’ tab

Reference power meter in Mastervolt item to populate MV Page layout



Logic Blocks

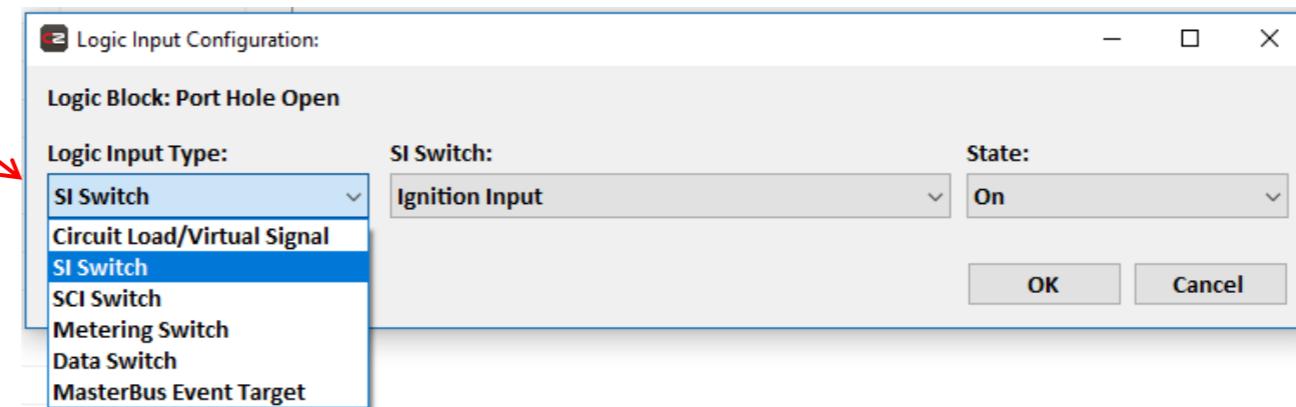
Logic is a statement (Control) that is either TRUE or FALSE.

This control, can then be used within CZone to create advanced configuration settings, switching or alarms.

There are Different levels of logic;

- 'AND': I.E (This) AND (This)
- 'OR': I.E (This) OR (This)

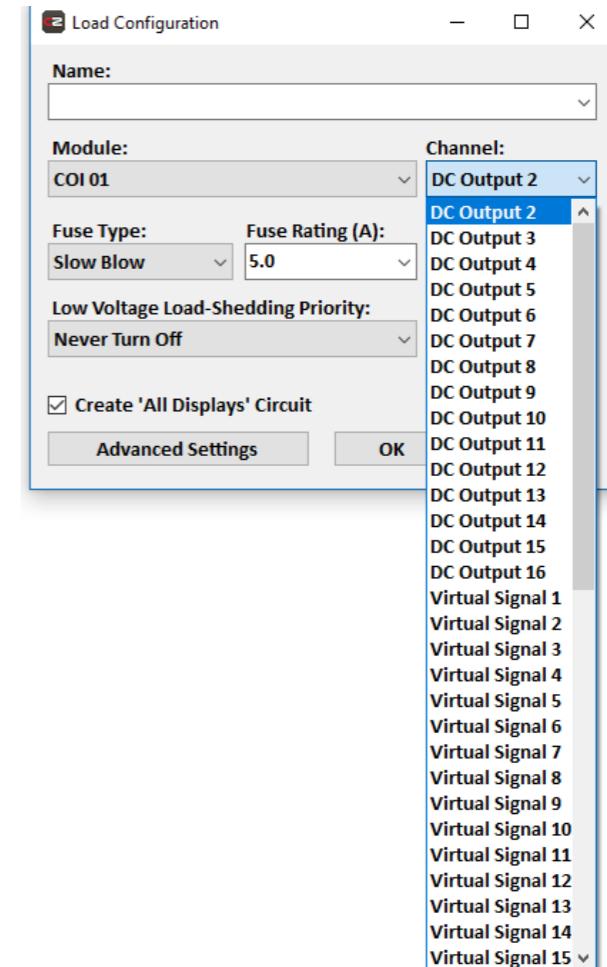
Different controls within CZone, can be used to determine if these statements are TRUE or FALSE



Logic Blocks

A ‘Virtual Signal’ is a ‘Software Load’ that is not physically connected to the Module – but it can be used in the configuration to provide ‘Feedback’ to

The display, used as a control or can be a switch used elsewhere in the configuration software, I.E Logic Blocks.



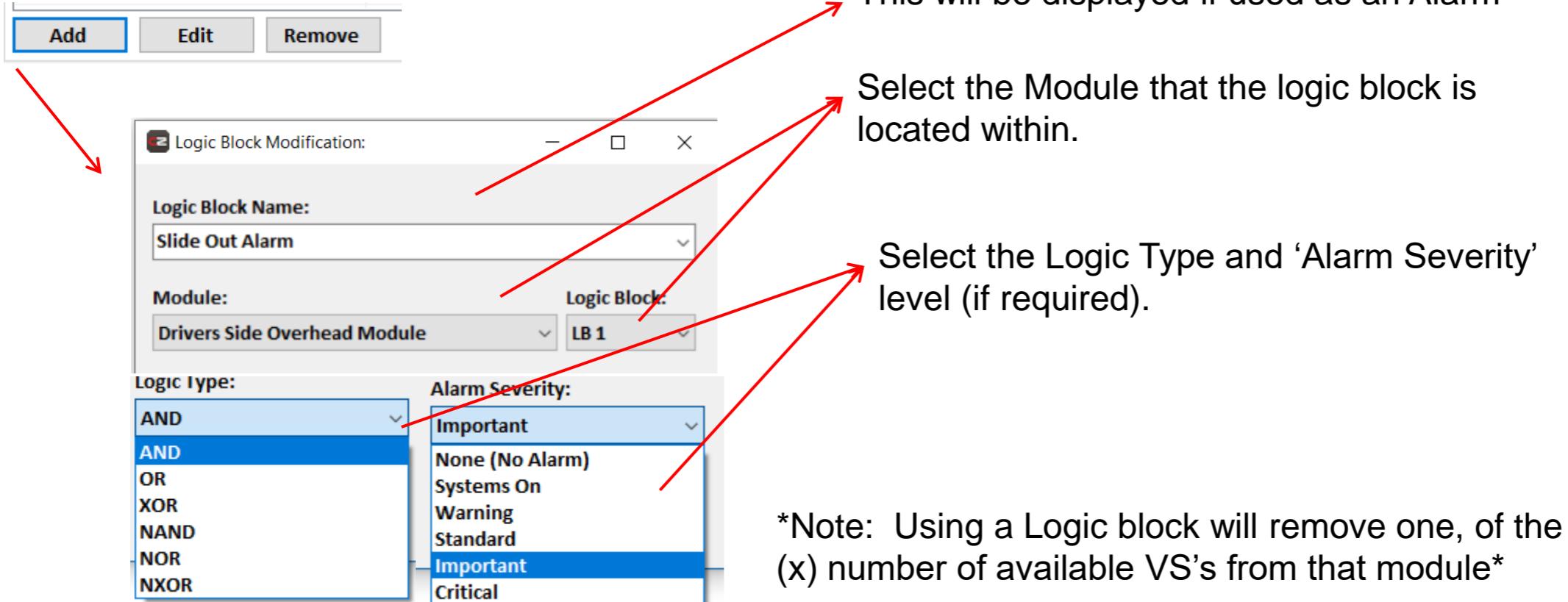
Logic Blocks

Different modules, have different numbers of available Logic Blocks / Virtual Signals

Output Interface:	6 total Virtual Signals / Logic Blocks
Switch Control Interface:	16 total Virtual Signals / Logic Blocks
Combination Output Interface:	32 total Virtual Signals / Logic Blocks
Control 1:	32 total Virtual Signals / Logic Blocks
Contact 6 Plus:	32 total Virtual Signals / Logic Blocks
Contact 6:	32 total Virtual Signals / Logic Blocks

Logic Blocks

Example: Slide out Alarm



Logic Blocks

Example: Slide Out Alarm

Logic Blocks (1):	Logic Type:
Slide Out Alarm	AND

Inputs (2):	State:
Ignition Input	On
Slide Out - Extended	On

Logic Block and Type have been created



Now select the Input/s required to make the Logic Block TRUE or FALSE.

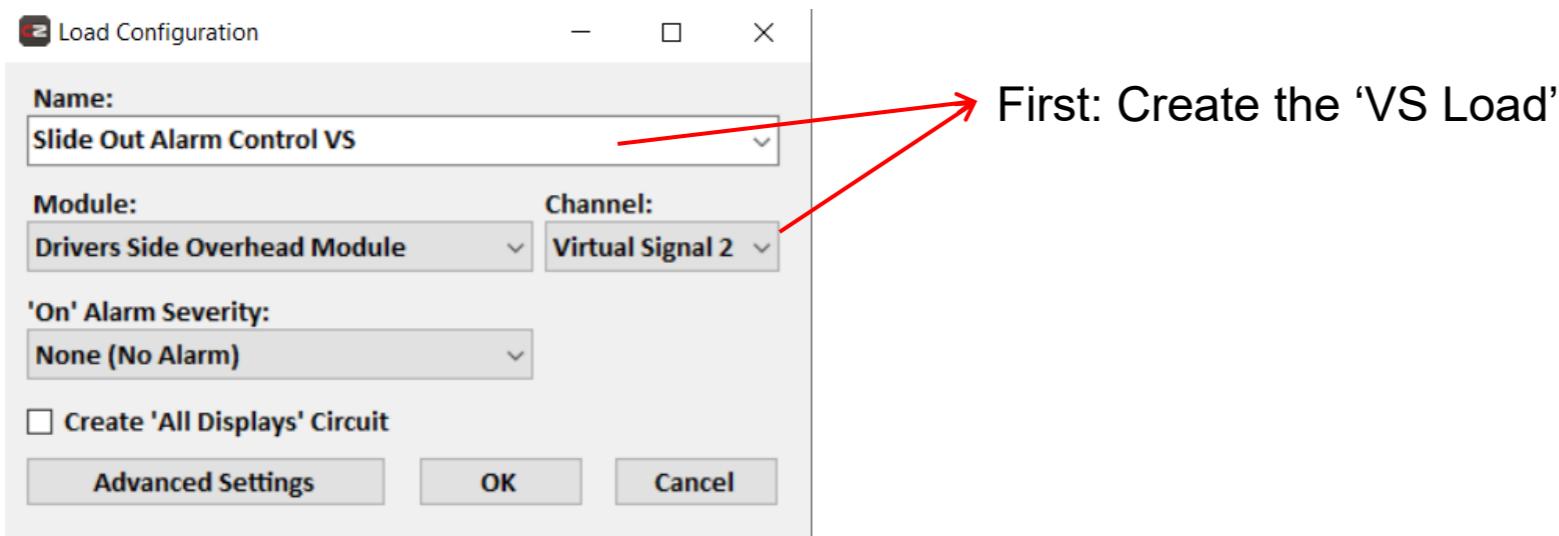
- These can be Loads turning ON/OFF
- Metering switch points, etc

In this example:

- If the Ignition switch is detected by CZone as 'ON'
- 'AND'
- The 'Slide Out Extended' Limit switch (as configured in Signal Inputs tab) is 'ON'
- Then the statement (Control) must be 'TRUE'

Logic Blocks

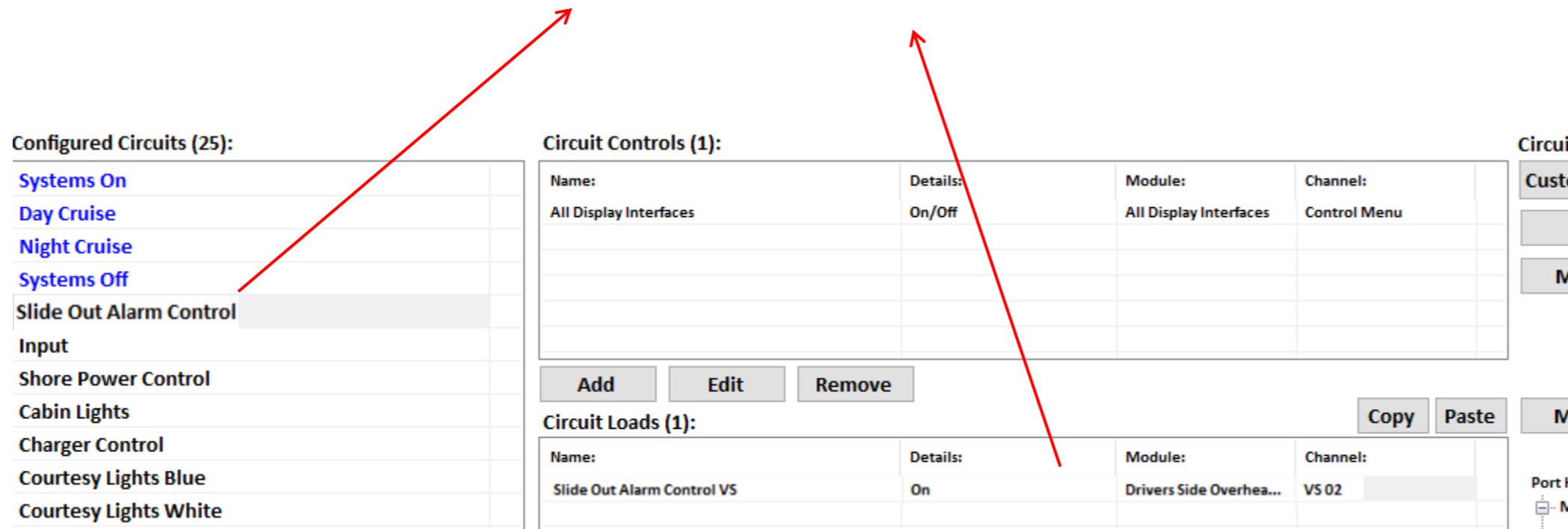
Example: Virtual Signal used to Control Logic



Logic Blocks

Example: Virtual Signal used to Control Logic

Create a circuit that makes sense to the owner / user. Add the control and the VS as the Load



Logic Blocks

Example: Virtual Signal used to Control Logic

Now add the VS to the logic block

Logic Blocks (1):	Logic Type:
Slide Out Alarm	AND

Inputs (3):	State:
Ignition Input	On
Slide Out - Extended	On
Slide Out Alarm Control VS	On

Logic Blocks

Example: Virtual Signal used to Control Logic

In this example:

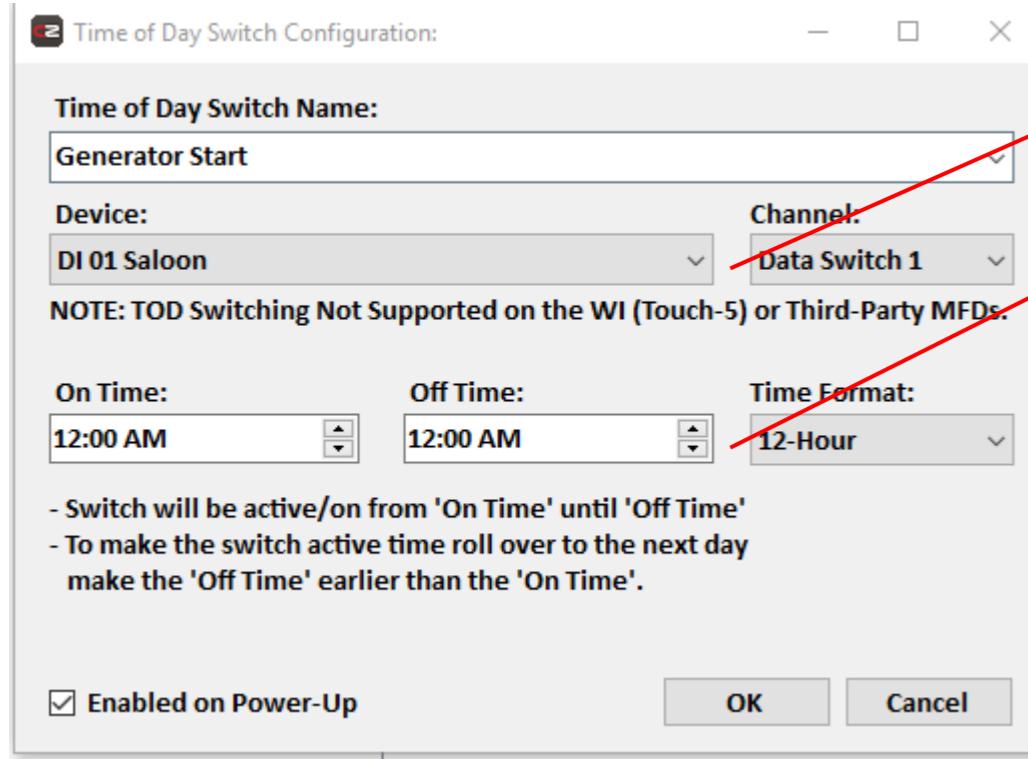
- If the Ignition switch is detected by CZone as 'ON'
- 'AND'
- The 'Slide Out Extended' Limit switch (as configured in Signal Inputs tab) is 'ON'
- 'AND'
- The 'Slide Out Alarm VS' IS 'ON'

Then the statement (Control) must be 'TRUE'

You also have the ability to control a Circuit, using the created logic block!

Data Switching

CZone can use standard ‘Time of day’ to achieve further advanced features.



Requires a CZone screen on the system or COI to store the configuration.

Select the applicable timing

Use the ‘Data switch’ or the ‘Time of day’ switch in the configured ‘Circuit’ as the ‘Circuit Control’

Data Switching

Time of Day Switch Configuration:

Time of Day Switch Name: Generator Start / Stop TOD

Device: DI 02 Helm **Channel:** Data Switch 2

NOTE: TOD Switching Not Supported on the W

On Time: 01:00 PM **Off Time:** 03:00 PM

- Switch will be active/on from 'On Time' until
- To make the switch active time roll over to th
make the 'Off Time' earlier than the 'On Time'

Enabled on Power-Up

Configured Circuits (134):

- Entertainment
- Entertainment Memory
- Fire Alarm
- Foredeck Entertainment
- Fresh Water Pump
- Fwd Bilge Pump
- Fwd Cabin Air Conditioning
- Fwd Cabin Entertainment
- Fwd Cabin Lights
- Fwd Cabin Port Reading Light
- Fwd Cabin Reading Lights
- Fwd Cabin Stbd Reading Light
- Fwd Engine Room Bilge Pump
- Fwd Toilet
- Galley Freezer
- Galley Lights
- Garage Door
- Garage Lights
- Genset
- Genset Start

Circuit Controls (1):

Name:	Details:	Module:	Channel:
Generator Start / Stop TOD	On	DI 02 Helm	Control Menu

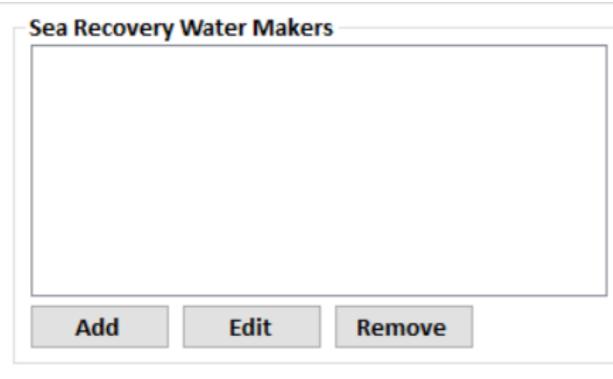
Add **Edit** **Remove**

Circuit Loads (1):

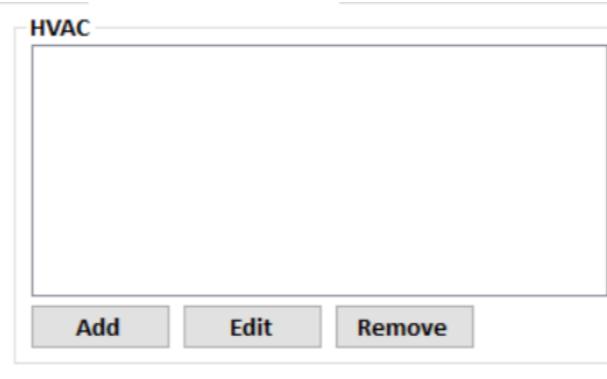
Name:	Details:	Module:	Channel:
Genset Start	On	OI 03 Utility Room	DC3

Copy **Paste**

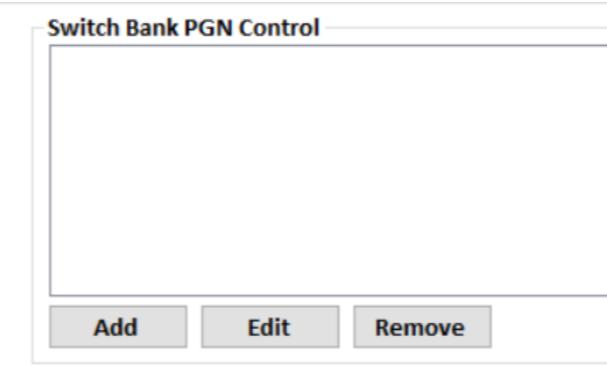
Third Party Devices



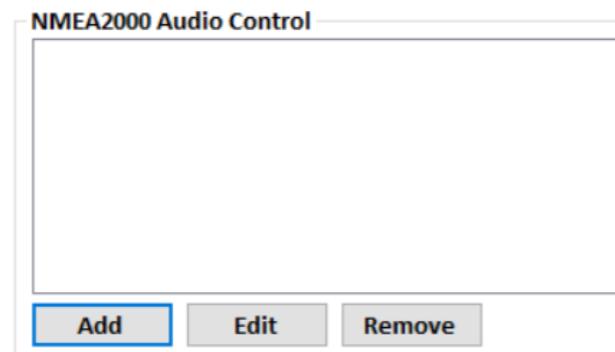
Sea Recovery



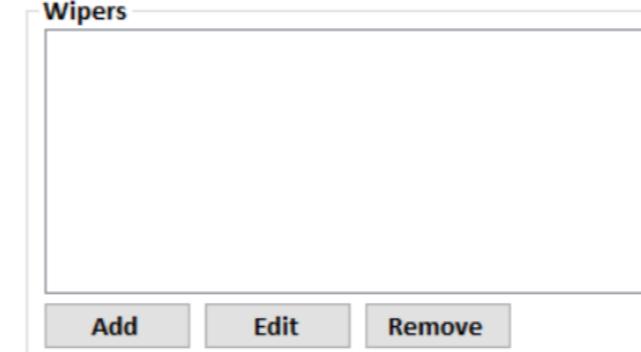
Dometic



Simrad / Lowrance Side Bar
Sentinel Switching



NMEA Audio PGN's
Excludes Fusion



Control X Wiper Configuration

General

Alarm Circuits:

'Critical' Alarm Circuit:

'Important' Alarm Circuit:

'Standard' Alarm Circuit:

'Warning' Alarm Circuit:

Notes:

Circuits Turn On when Alarm of 'Severity' becomes active.

Circuits Turn Off when Alarm is acknowledged by the user.

Force a Circuit 'On' when alarm becomes active

Global Circuit Load Settings:

Smooth Start Startup Time (s): Minimum Dim Level (%):

User Defined Circuit Display Categories:

Long Press Button Delay (s):

Legacy Navico Monitoring Support

Legacy OI Firmware Update

System Details:

Manufacturer:

Model:

Build Number:

Destination:

General

Alarm Circuits:

'Critical' Alarm Circuit:

'Important' Alarm Circuit:

'Standard' Alarm Circuit:

'Warning' Alarm Circuit:

Notes:

Circuits Turn On when Alarm of 'Severity' becomes active.

Circuits Turn Off when Alarm is acknowledged by the user.

Global Circuit Load Settings:

Smooth Start Startup Time (s): Minimum Dim Level (%):

User Defined Circuit Display Categories:

Long Press Button Delay (s):

Legacy Navico Monitoring Support

Legacy OI Firmware Update

Smooth Start up time when checked in Loads

System Details:

Manufacturer:

Model:

Build Number:

Destination:

Set minimum dim level for new Dimming functionality
(Single button Dim, Dim up/Dim Down)

General

The screenshot shows the 'General' configuration page with three main sections:

- CZone Sleep:** Includes a checked checkbox for 'Enable CZone Sleep', a dropdown for 'CZone Sleep Circuit (for compatible devices)' set to 'None', and a numeric input for 'CZone Sleep Delay (s)' set to '0.0'. A red arrow points from this section to the explanatory text: 'Relates to Keypad, C6P, Control X, SBH. Will allow 'sleep' of these products using the keypad power button'.
- Units:** Includes a numeric input for 'CZone Sleep Delay (s)' set to '0.0' and a 'Units' button. A red arrow points from this section to the explanatory text: 'Changes the units on CZone displays I.E Pressure BAR to PSI Can also be change in display settings'.
- Reset Options:** Includes three buttons: 'Login' (highlighted in blue), 'Reset Network Config', and 'Reset NMEA2000 Addresses'. Red arrows point from each of these buttons to their respective explanatory text: 'Unlocks additional configuration tools – used only for specific configs at this stage', 'Reset module configuration', and 'Reset NMEA addresses – only used on very large NMEA installations (service level)'.

General

Commissioning Report

General System Information:

System Name	T1 Speed Boat 010517 Complete
Manufacturer	
Model	
Build Number	
Destination	
Inspected By	
Inspected On	Tuesday , 2 May 2017

Requirement	YES/NO	Comments
NMEA 2000 network voltage is within acceptable limits? (Minimum 10.5V at any point on the network)	Click to Select...	
All NMEA2000 connections are tight?	Click to Select...	
All NMEA2000 tee's are screwed securely to a flat surface?	Click to Select...	
All NMEA2000 cables have adequate strain relief?	Click to Select...	
All NMEA2000 connections located in wet areas have cables facing downwards?	Click to Select...	
All unused NMEA2000 ports have blanking caps fitted?	Click to Select...	
NMEA2000 network only has T drops, no daisy chains?	Click to Select...	
Terminating resistors fitted to each end of network?	Click to Select...	

Commissioning Report

Attachments: (Photos, Drawings, etc.)

Filename	Size

Add **Remove**

Press 'Generate Report' below to create your Commissioning Report package.
This file should be kept for your own records, as well as sent to: report@czone.net

Generate Report

| Fault Finding & Diagnostics

CZONE®

Fault Finding

Treat a digital switching installation like any traditional system

Is there a signal at the input?

Is there power feed to an output device?

Is their power out of the output device?

Does the configuration match the inputs?

Incorrect wiring / Faulty connections / Poor joins, still happen with digital switching installations. As with any technology the easiest diagnosis is to blame the system.

Alarms

Warning (Blue Bell):

This is the lowest alarm severity and indicates a minor issue.

The alarm will disappear once acknowledged.



Standard (Yellow Bell):

Standard level alarms identify a potential issue for operation. Once acknowledged the alarm will dis-



Important (Orange Bell):

Something is wrong with a system again. This alarm will give you a dialogue on screen. The alarm will remain active in the alarms

gate before trying to operate it

Critical (Red Bell):

Immediate action is necessary to avoid damage and/or a failure of a system

This alarm will give you a popup dialogue and audible tone no matter the screen or action you are currently on. The alarm will return in 10 mins after acknowledgement until the fault is remedied.

NMEA Network Tests

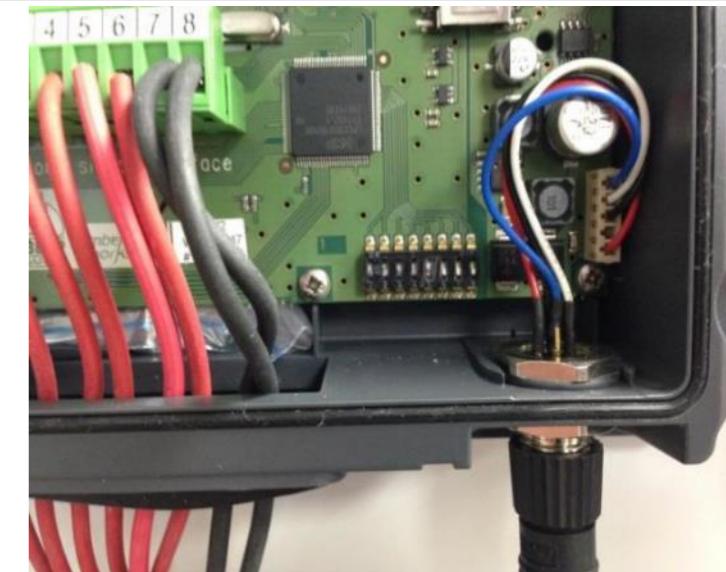
Voltage readings on network conductors:

Red to Black 12-15 VDC

Red to Shield 12-15 VDC

Blue (CAN H) to Black (Neg) around 2.2 VDC

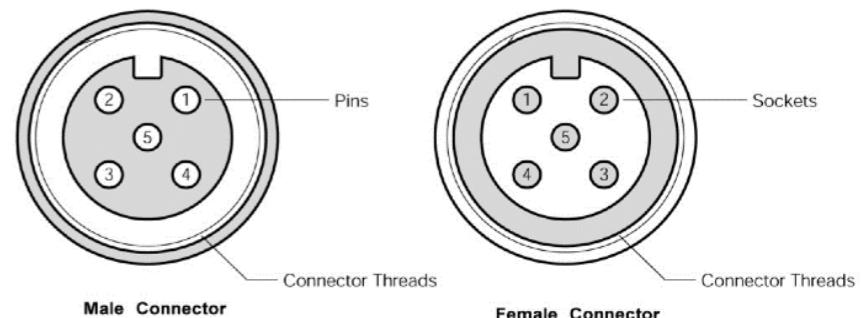
White (CAN L) to Black (Neg) around 2.2 VDC



Resistance between CAN H and CAN L, 60 ohms with no devices on network.

Recommend cutting an end off an extension cable to use as a testing tool.

CAN connections can be accessed internally on smaller boxes for voltage testing.

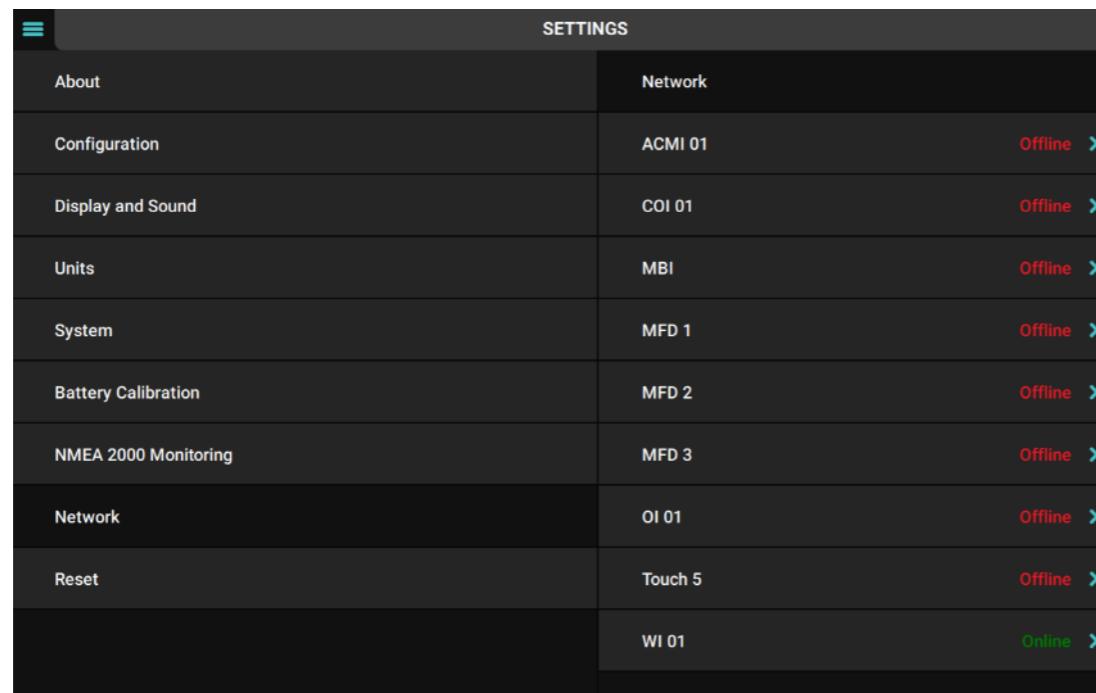


Pin 1: Shield
Pin 2: NET-S, (power supply positive, +V)
Pin 3: NET-C, (power supply common, -V)
Pin 4: NET-H, (CAN-H)
Pin 5: NET-L, (CAN-L)

Network Indicators

To check a healthy NMEA2000 Network go to the Display Interface (if available) and check the Network page. All modules should show as green - Online.

You can also check each CZone module, the Network Status LED will be green with quick red flashing to indicate normal traffic.



Network Failure

If a network failure has occurred, you will first notice this by alarms appearing on the Display Interface or MFD.

This will usually be a Blue Bell symbol and/or alarm, stating Device Missing.

These missing devices will usually show no indicator on the Network Status LED.

In some cases, the network LED will remain.



Network Failure

If only one or a few modules are offline, check the NMEA cable and T-Piece at the offline module and make sure it is connected properly. If it is, the fault may be with a Tee or cable.

If all or many modules are offline, follow these steps:

Check battery voltage (always check the obvious).

Check network circuit breaker is on.

Check voltage on the network at the point of the power connection.

Check voltage at each end of the network (there should be minimal voltage drop).

Check resistance between data cables (with network breaker off) to ensure resistors are installed.

Check all network connections have been made and are tight.

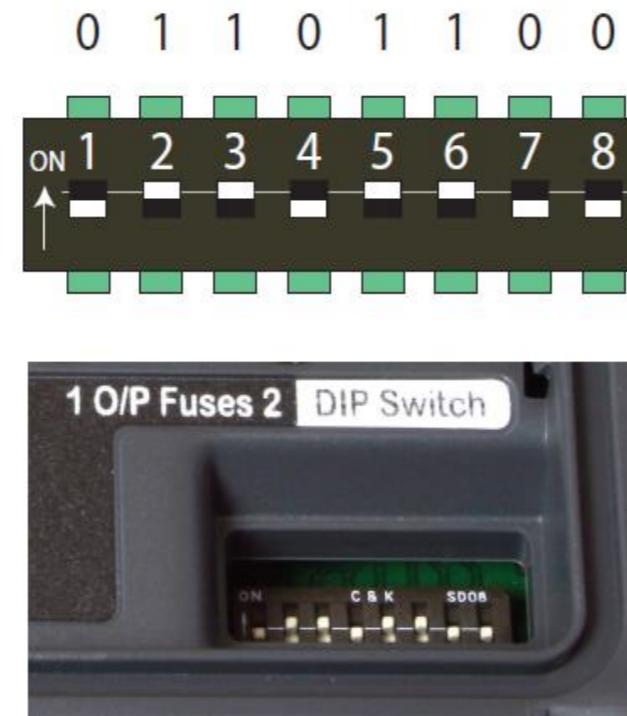
Orange indicates shorted CAN High or CAN Low cable. Solid Red indicates loss of power on the network.

Dipswitch Conflict

Check the Network page, the module stating Dipswitch Conflict has the correct setting.

The module that is offline is incorrect, take note of the dipswitch for this device.

Unplug the NMEA2000 connection, set the correct dipswitch and then reconnect the NMEA2000 cable.



Firmware

For the CZone network to function correctly, the firmware on all devices needs to be the same version.

The firmware version for all devices can be checked on the Network Page.

Ensure the latest firmware is used, check the Czone portal: <https://downloads.czone.net>

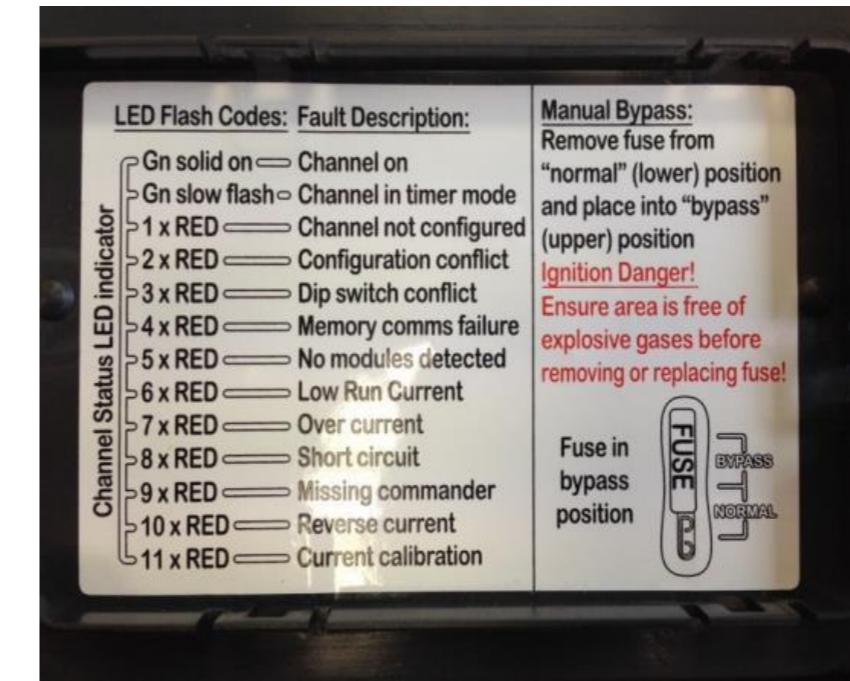
SETTINGS		
About	About	
Configuration	Device	Touch 10
Display and Sound	Software Version	6.12.0.8-g8bcd953-d
Units	CZoneLib Version	6.12.0.8-g8bcd953-d
System	Update Software	>
Battery Calibration	Dipswitch	00000000 >
NMEA 2000 Monitoring	Configuration	simulate
Network	Simulate	Disabled >
Reset	IP4 Address	10.21.0.146
	IP6 Address	fe80::dc54:d8bd:af32:f920%ethernet_32768

Fault Codes

When a fault occurs on the network the affected module or modules will flash red on the channel status indicator.

To find out the type of fault count the number of flashes.

The fault code can then be referenced on the inside of any module cover.

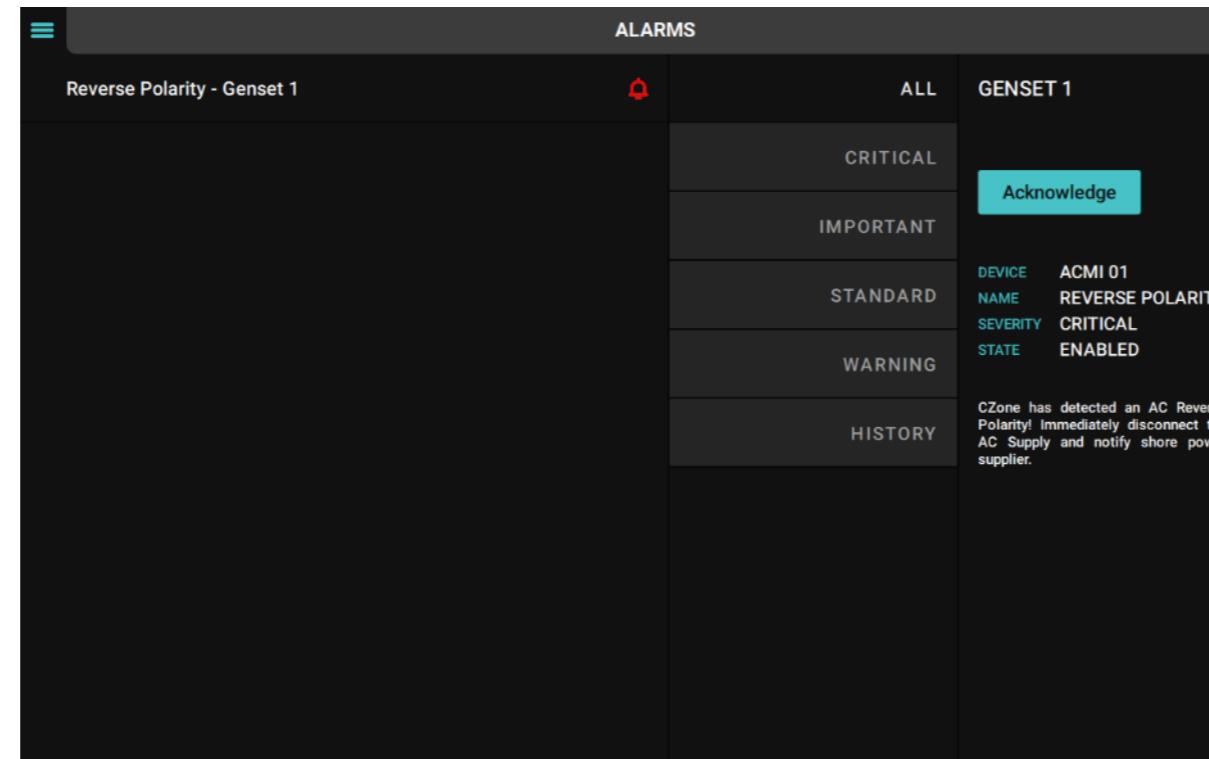


Alarms

When a fault occurs on the network you will also get an alarm on the Display Interface.

You can check active alarms by going into the Alarms page under Monitoring.

Depending on the severity of the alarm there may also be an audible and visual dialog to acknowledge.



Bypass

If a system failure has occurred or you wish to test the output channels manually the channel can be placed into the manual override position.

Remove the cover from the output module

Locate the channel you want to bypass

Remove the fuse from its Normal position

Place the fuse in the Bypass position



This has now completely bypassed all internal electronics and software control providing complete mechanical bypass.

Note: Bypassing can cause a potential ignition source.

Ensure surrounding area is free of flammable/explosive gasses and vapors

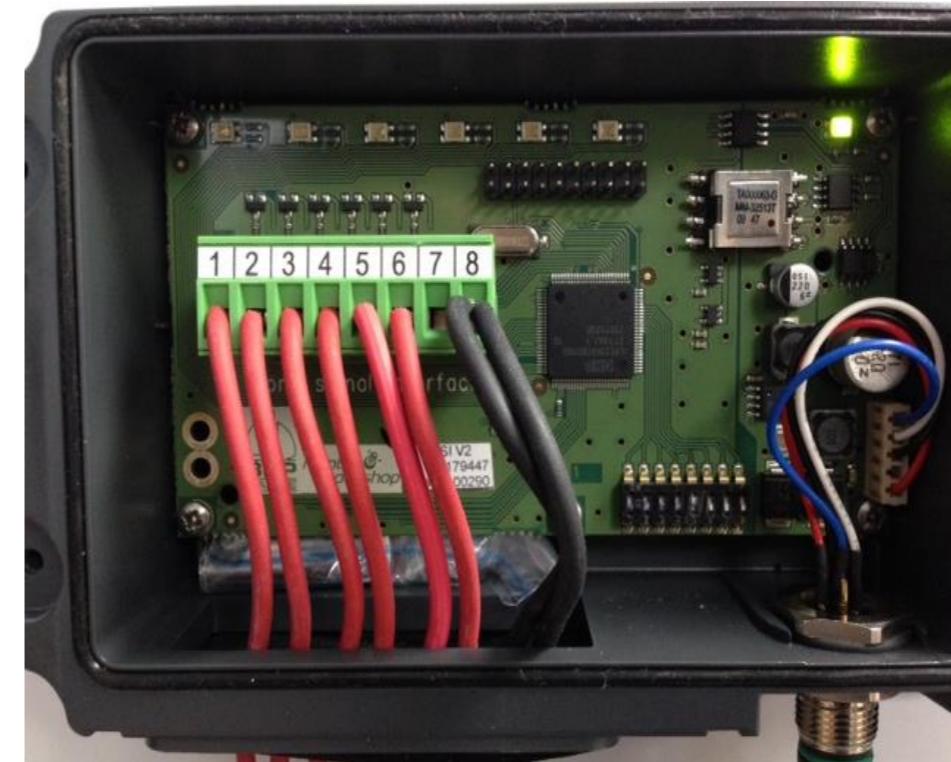
Testing the Input – SI

Check pin 8 and ensure there is continuity to ground.

Check documentation and test for voltage or ground (depending on switch type) on correct input wire with switch turned on.

Check network LED is on.

Check dipswitch is correct.



Testing the Input – COI, CX

Check for voltage at the input stud.

Negative connected for Analogue inputs?

Check documentation for correct output channel and turn the switch on, does the green status indicator light come on? If not, then the configuration could be incorrect.

Check the fuse has not blown.

Put the fuse into bypass to test if the load works, if it doesn't then check wiring to load.

Check network LED and dipswitch is correct.

Fault Finding continued

Troubleshooting a Circuit:

If all these tests are OK, then then check the circuit settings in the configuration.

Most issues are caused by a poorly written configuration – CZone only does what it is programmed to do!

Replacing a module

1. Disconnect all wiring connections then remove the faulty module.
2. Ensure the Firmware on the replacement device matches the replaced device.
3. Ensure all the dipswitches on the new module are switched to the off position.
4. If the module is an OI or a MOI remove the fuses from the failed module and fit in the same locations on the new module (to ensure bypass fuses match load).
5. Fit the new module and connect all wiring except the NMEA cable.
6. Once fitted temporarily connect the NMEA cable until all the indication lights flash once. Then remove the NMEA connection. This has now wiped any program that may have been on the module.
7. Set the dip switches to match the settings of the replaced module. Once the dipswitches are set plug in the NMEA cable. After a short period of time the new module will receive a copy of the program from the network and begin functioning normally.



FIRMWARE UPDATES



CZONE®

Firmware Updates

Detected Devices: (7)

Type:	Version:	Dipswitch:	Configured Name:	Serial Number:	Hardware:	Address:	Note:
MI	N/A	10000000	MI 01			7	
OI	6.11.63.0	01000000	OI 01	J97709.29	A	5	
SCI	6.11.63.0	11000000	SCI 01	J90750.10	A	0	
SI	6.05.05.12	00100000	SI 01	J89925.13	A	3	
WI (Touch 5)	6.11.13.0	01100000	WI 01			4	
Touch 5	6.11.25.0	11110000	DI 01			2	
MOI	6.11.63.0	10100000	MOI 01	J91185.02	A	1	

GREEN =

Up to date

AMBER =

Needs Updating

RED =

Has not received Firmware correctly

Firmware Updates

Downloads.czone.net for firmware



Firmware

CAN Firmware updates



All Modules Firmware R20.0.1 (6.24.8.0)



Smart Battery Hub R20 (6.24.7.0)



DI 3.5" & DI Touch 8" & 10" (6.11.25.00)

Direct Update (Displays & Wireless Interface)



Touch 5 R20 (6.23.3.0)



Touch 10 R20 (6.23.3.0)



Touch 10 Gen 2 R20 (6.23.3.0)



Touch 7 R20 (6.23.3.0)



Wireless Interface R20 (6.23.3.0)

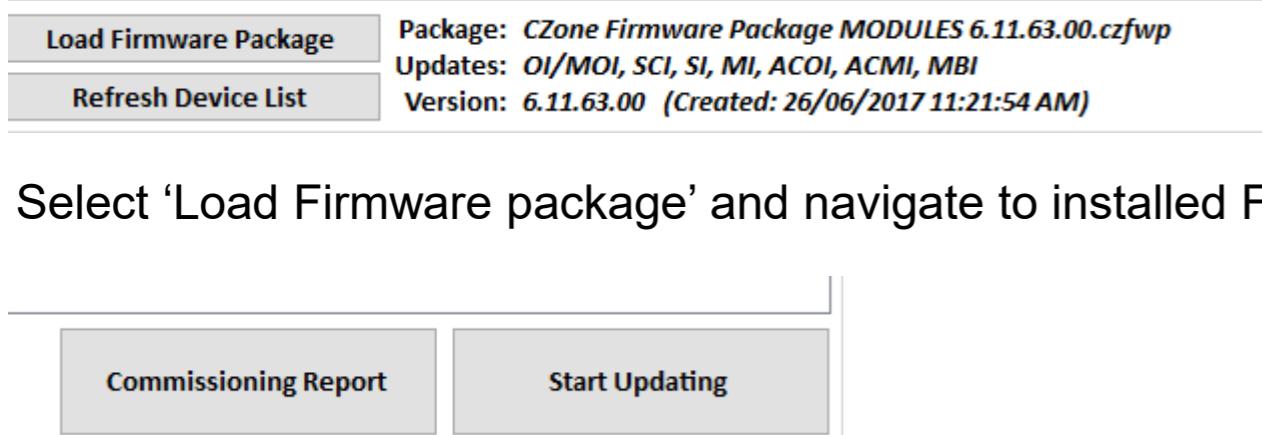


DI 3.5" (6.11.25.00)



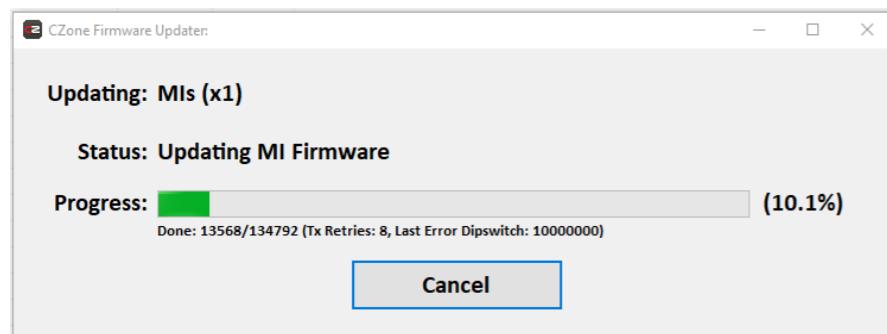
DI Touch 8" and 10" (6.11.25.00)

Firmware Updates

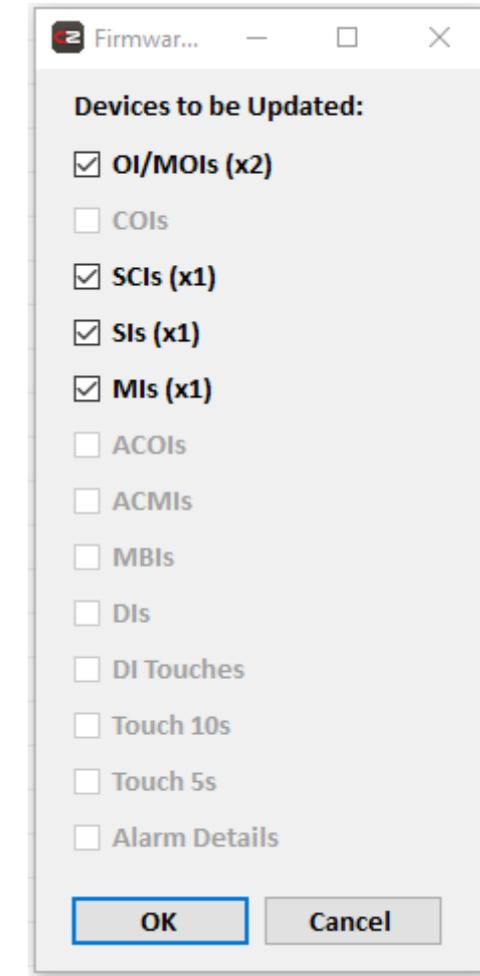


Select 'Load Firmware package' and navigate to installed Firmware

Select start updating and select modules to update



Firmware will begin to install.



Firmware Updates

Navigate to folder in your C:\ 'DI Direct Updaters'

Select the appropriate file

Direct Update (Displays & Wireless Interface)



Touch 5 R20 (6.23.3.0)

Used for Touch 5



Touch 10 R20 (6.23.3.0)

Use for Touch 10



Touch 10 Gen 2 R20 (6.23.3.0)

Use for Touch 7



Touch 7 R20 (6.23.3.0)

Use for 3.5" (Old Style)



Wireless Interface R20 (6.23.3.0)



DI 3.5" (6.11.25.00)

Used for 10" – 8" (Old Style)

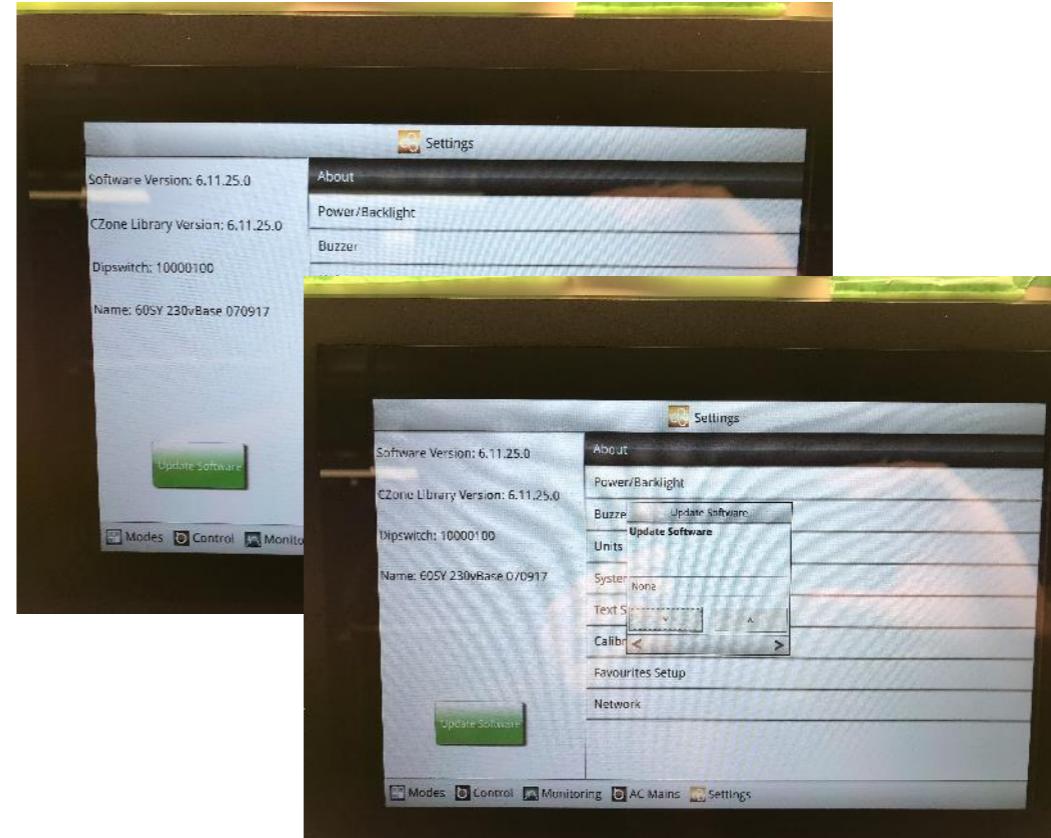


DI Touch 8" and 10" (6.11.25.00)

Firmware Updates – Touch 10"



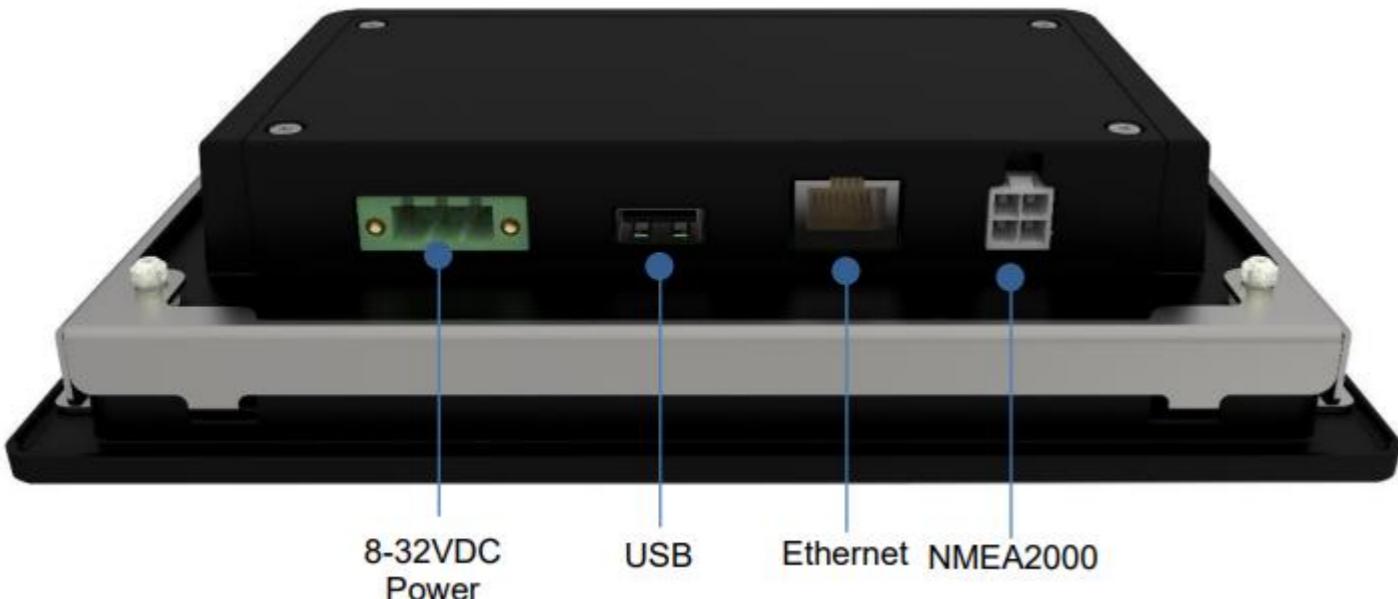
Insert USB with correct file



'Settings' – 'Update software' – Select file

Firmware Updates – Touch 7

Insert USB with correct file



'Settings' – 'Update software' – Select file
Version can also be checked

SETTINGS		
About	About	
Display and Sound	Device	Touch 7
Units	Software Version	6.19.9.3
System	CZoneLib Version	6.19.9.3
Battery Calibration	Update Software	>
NMEA 2000 Monitoring	Dipswitch	11111100
Network	Configuration	CZone Case 2019
Advanced	Fixed IP Address	192.168.0.19

Firmware Updates – Touch 5



Insert Micro SD/USB with correct file

'Settings' – 'Update software' – Select file
Version can also be checked

SETTINGS		
About	About	
Display and Sound	Device	Touch 7
Units	Software Version	6.19.9.3
System	CZoneLib Version	6.19.9.3
Battery Calibration	Update Software	>
NMEA 2000 Monitoring	Dipswitch	11111100
Network	Configuration	CZone Case 2019
Advanced	Fixed IP Address	192.168.0.19

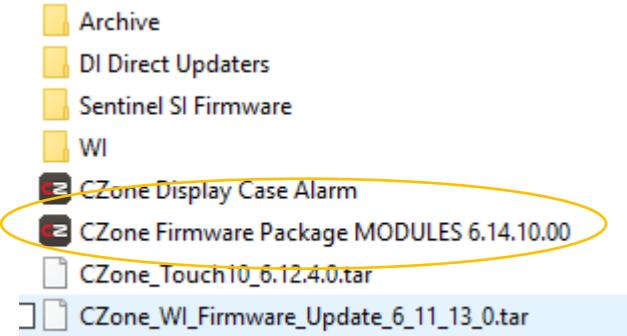
Firmware Updates – COI USB

Can also use the COI USB port for firmware



Firmware Updates – COI USB

Locate the Firmware file



Place this file onto an empty USB Drive and insert to COI

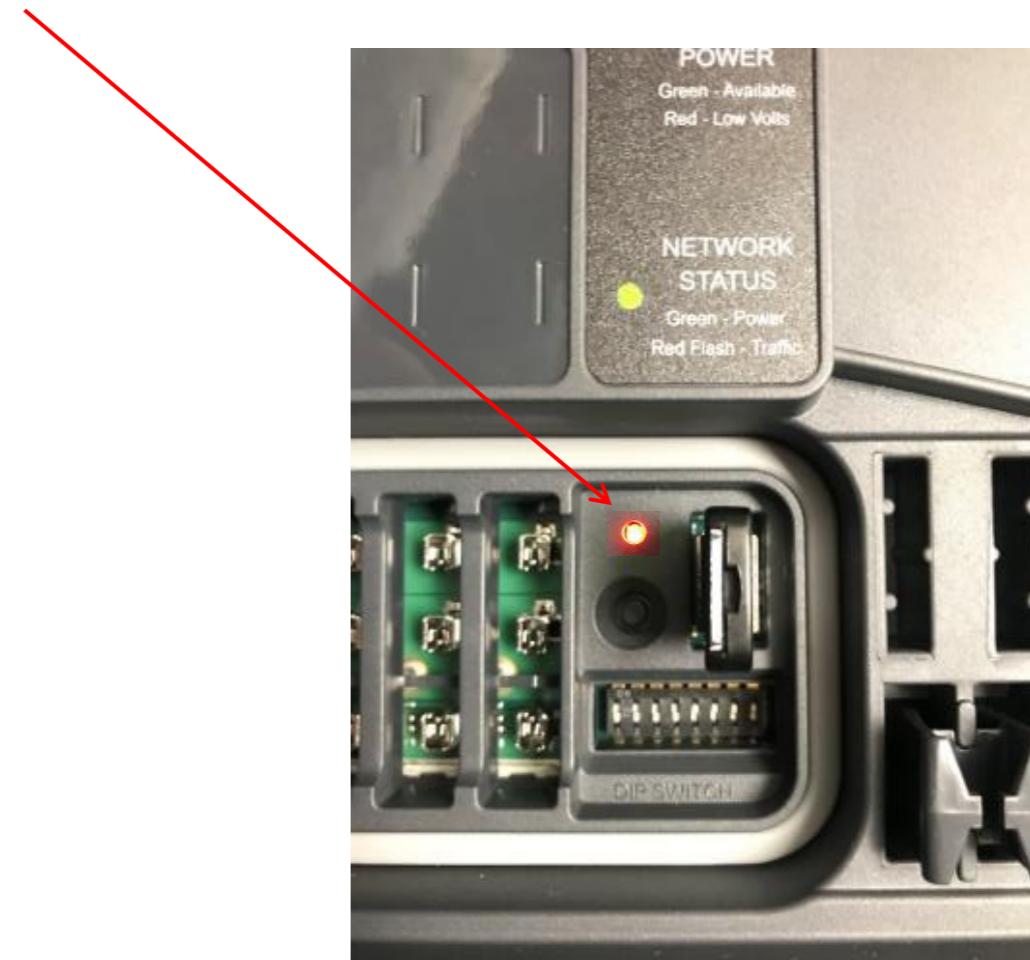
Ensure all modules are online

When the USB is inserted, the LED should turn Green



Firmware Updates – COI USB

Press and hold the button for 5 seconds or until the LED starts flashing RED



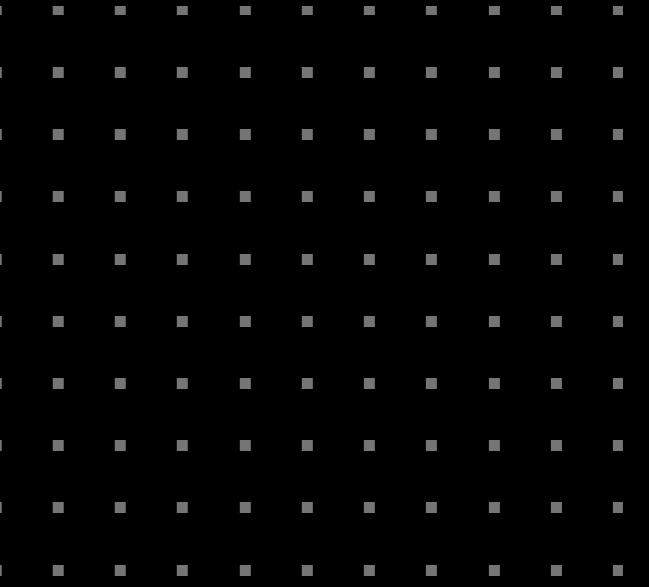
Firmware Updates – COI USB

The Output lights on the COI will begin to flash as it checks the network. These will then transform into a % status bar to indicate the different module selection.





FAVOURITES



CZONE®

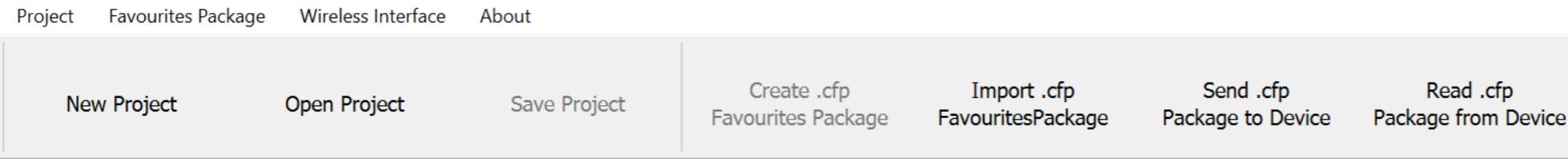
Favourites Setup

Ensure displays (Touch 10 and Touch 5 only) have the latest 2.0 firmware 6.12.14.0 or above.
This will enable the new 2.0 menu layout



Favourites Setup

Open a new project



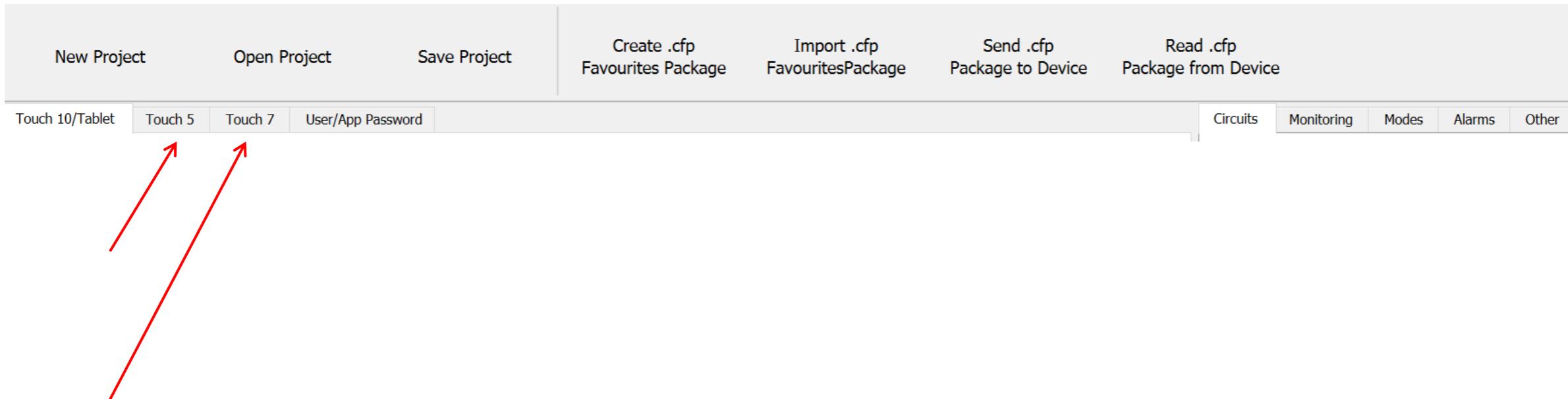
Give the project a relevant name
(Revision and vessel number)

Select the **COMPLETED** CZone configuration

Favourites are easiest to configure as a final commissioning – I.E Once CZone configuration is complete.



Determine which screen/s you are going to populate



Favourites Setup

Configuration file will populate on the right hand side of the page:

Circuits	Monitoring	Modes	Alarms	Other
Cabin Lights				
Charger Control				
Courtesy Lights Blue				
Courtesy Lights White				
Engine Room Fan				
Fresh Water Pump				
Galley Lights				
Hatch Lifter				
Navigation Lights				
Saloon Lights				

Favourites Setup

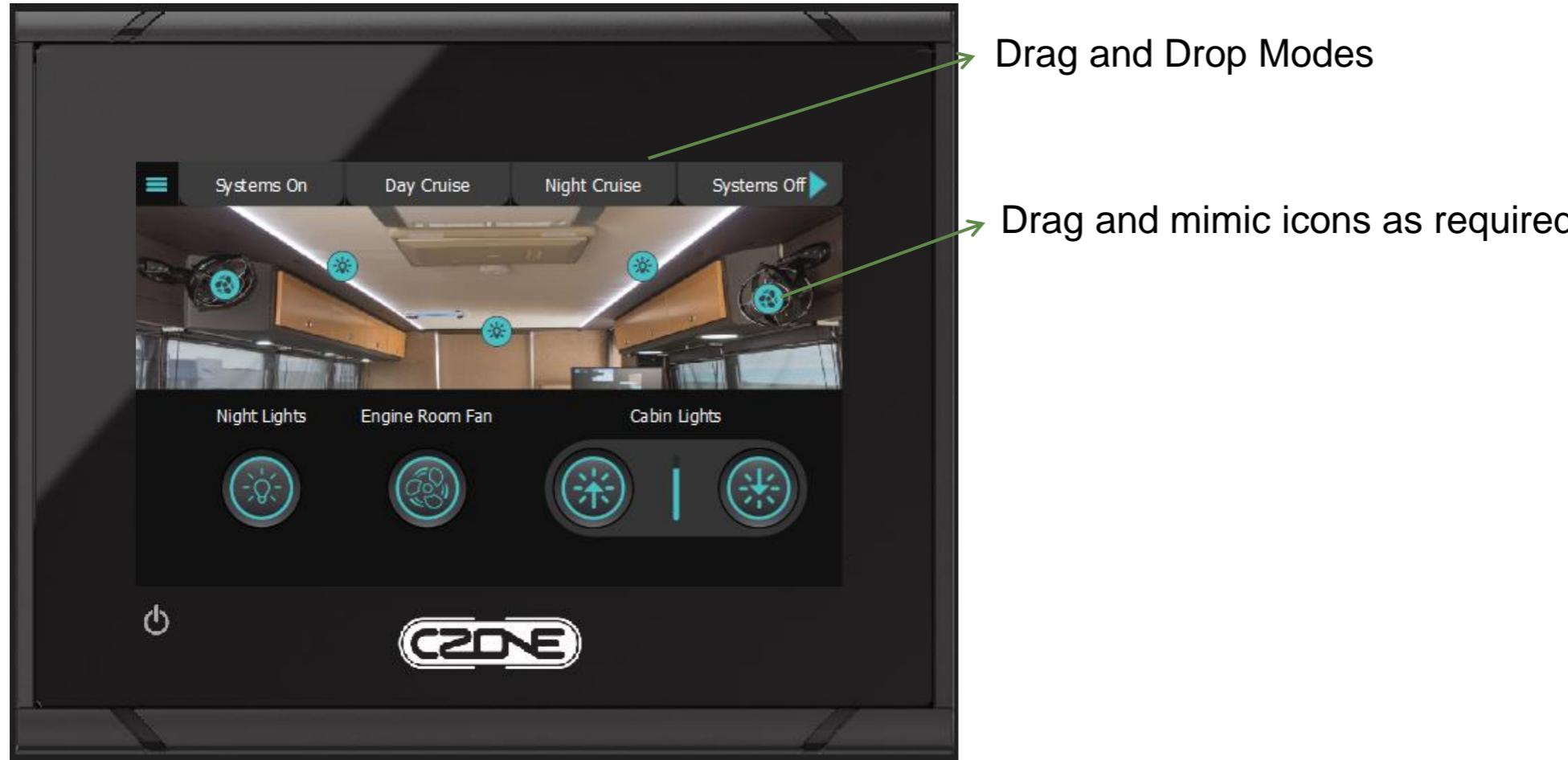
Select the screen you want to populate, 'drag and drop' the control or Monitoring circuit:



Circuits	Monitoring	Modes	Alarms	Other
Cabin Lights				
Charger Control				
Courtesy Lights Blue				
Courtesy Lights White				
Engine Room Fan				
Fresh Water Pump				
Galley Lights				
Hatch Lifter				
Navigation Lights				
Saloon Lights				

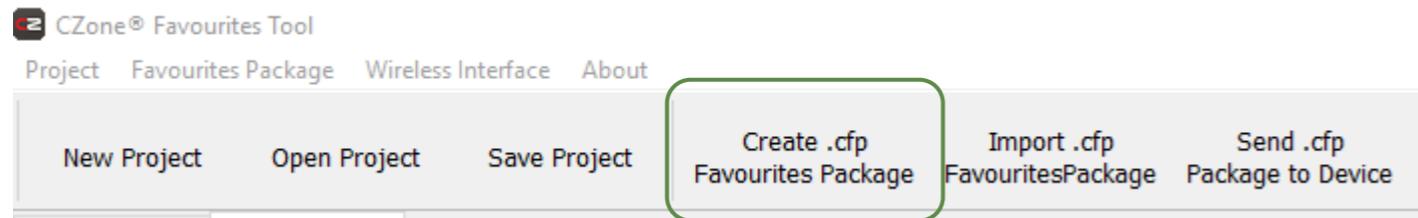
Favourites Setup

Add or remove a page by selecting the  button at the bottom of the tool
Add an image by selecting 'Add Image'



Favourites Setup

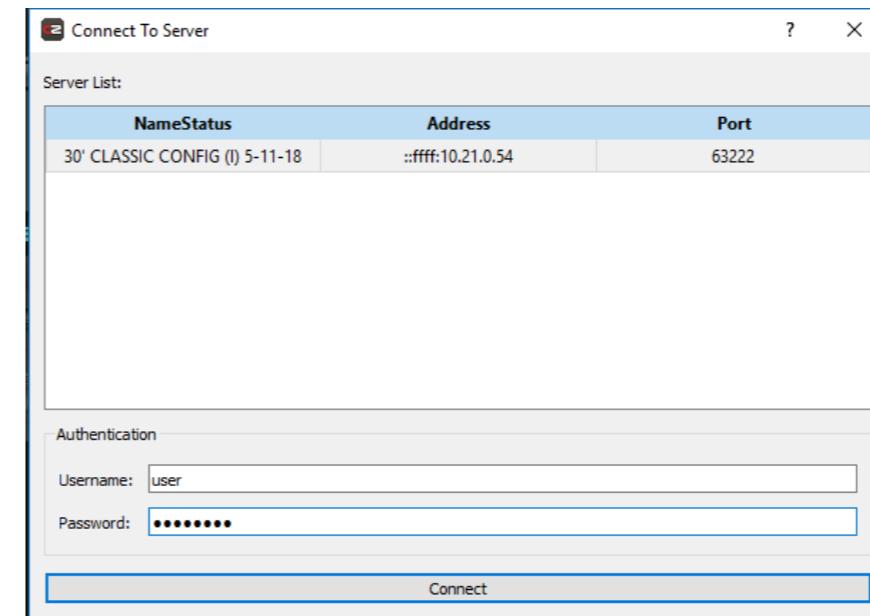
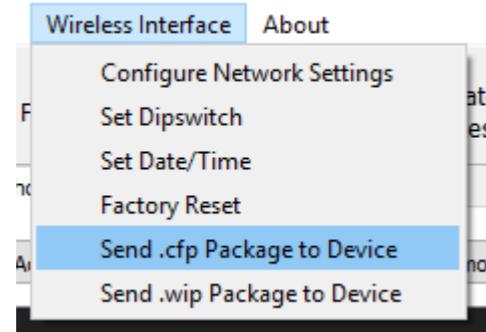
Once favourites completed ‘create .CFP Package



Put the .CFP File on a USB for updates to Touch 10 or Touch 7

Use a Micro SD for Touch 5 or transfer wirelessly:

- Connect Laptop to Touch 5 screen wireless
- Select



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