

## Master Shunt CZone™ Configuration Instructions

# Configuration within MasterAdjust

First, ensure both the Master Shunt and the MasterBus Interface are both powered and connected, along with a MasterBus USB interface, to the MasterBus network. If all of this has been done the Master Shunt and the MBI will be listed, with any other MasterBus Compatible devices also connected to the network, in the left column on the MasterAdjust Screen.

## DC Monitoring

To allow DC data, to be shown in CZone™, the individual MasterBus data items (voltage, current, state of charge, etc.) need to be selected in order to populate standard NMEA2000 DC Status PGN messages which are to be transmitted and monitored within the NMEA2000/CZone™ network. Each of these sets of DC Status data items are configured within the MBI Configuration tab using data item index values retrieved from the Monitoring tabs of devices presenting the information.

## DC Metering

Select the MBI (INT Bridge) from the list of MasterBus devices on the left of the screen and go to the Configuration tab.

1. In the next available Metering field (in this example 'Metering 1') click the 'Type' dropdown and select 'DC'.
2. Click the 'Device' dropdown and select the Master Shunt (e.g. MSH MasterShunt).
3. Click 'Voltage' dropdown and select 'Monitoring' to indicate that the voltage data will be retrieved from the Monitoring tab of the Master Shunt.
4. To figure out the correct 'Voltage' index value to enter, click on the 'MSH MasterShunt' in the device list on the left of the screen. Navigate to the 'Monitoring' tab and hover the mouse pointer over the 'DC' battery voltage parameter. The Index Number will appear beside the mouse pointer – note this number down.

Return to the 'Configuration' tab of the MBI and enter the index number just noted into the 'Voltage' number box of the Metering item being configured.

5. Click 'Current' dropdown and select 'Monitoring' to indicate that the current data will be retrieved from the Monitoring tab of the Master Shunt.
6. To figure out the correct 'Current' index value to enter into the number box, click on the 'MSH MasterShunt' in the device list on the left of the screen. Navigate to the 'Monitoring' tab and hover the mouse pointer over the 'DC' battery current parameter. The Index Number will appear beside the mouse pointer – note this number down.

Return to the 'Configuration' tab of the MBI and enter the index number just noted into the 'Current' number box of the Metering item being configured.

7. Click 'State of charge' dropdown and select 'Monitoring' to indicate that the state of charge data will be retrieved from the Monitoring tab of the Master Shunt.
8. To figure out the correct 'State of charge' index value to enter into the number box, click on the 'MSH MasterShunt' in the device list on the left of the screen. Navigate to the 'Monitoring' tab and hover the mouse pointer over the battery state of charge parameter. The Index Number will appear beside the mouse pointer – note this number down.

Return to the 'Configuration' tab of the MBI and enter the index number just noted into the 'State of charge' number box of the Metering item being configured.

9. Click 'Battery temp' dropdown and select 'Monitoring' to indicate that the temperature data will be retrieved from the Monitoring tab of the Master Shunt.

10. To figure out the correct 'Battery temp' index value to enter into the number box, click on the 'MSH MasterShunt' in the device list on the left of the screen. Navigate to the 'Monitoring' tab and hover the mouse pointer over the battery temp parameter. The Index Number will appear beside the mouse pointer – note this number down.

Return to the 'Configuration' tab of the MBI and enter the index number just noted into the 'Battery temp' number box of the Metering item being configured.

Leave the remaining items as 'Not Selected' and/or '0'.

The screenshot shows the 'Configuration' tab of the MBI interface. The 'Metering 1' section is expanded, showing various configuration options. Red arrows with numbers 1 through 10 point to specific fields:

- 1: Type (DC)
- 2: Device (MSH MasterShunt)
- 3: Voltage (Monitoring)
- 4: Voltage (1)
- 5: Current (Monitoring)
- 6: Current (2)
- 7: State of charge (Monitoring)
- 8: State of charge (0)
- 9: Battery temp (Monitoring)
- 10: Battery temp (5)

The remaining fields are 'Ripple volts' (Not selected), 'Ripple volts' (0), 'State of health' (Not selected), and 'State of health' (0).

# Configuration within CZone™

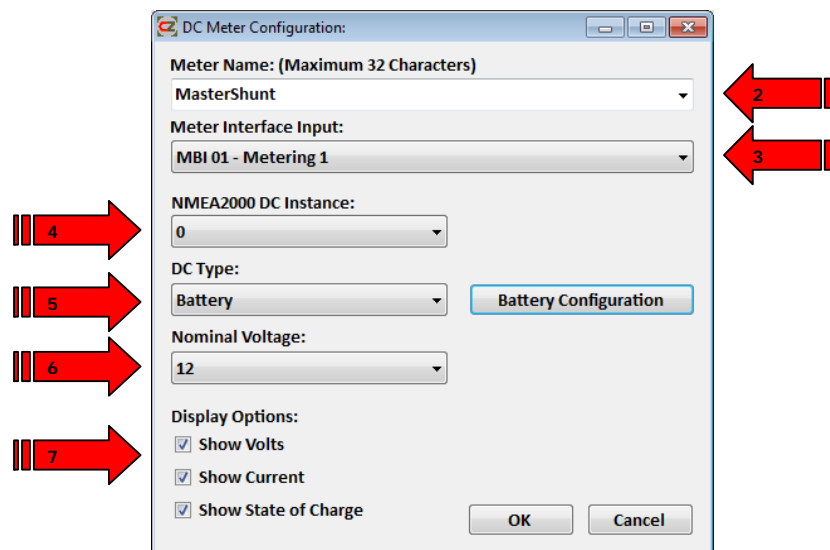
Open the CZone™ Configuration Tool.

## DC Monitoring

Here is where we specify the parameters to enable the Master Shunt data sets configured above in the MasterAdjust section to be transmitted as a NMEA2000 data and subsequently displayed within the CZone™ Monitoring menus.

### DC Configuration

1. Go to the 'Power Metering' tab and then click 'Add DC Meter'.
2. Enter a name for the meter to be shown on the CZone™ monitoring menu (i.e. MasterShunt).
3. Click the 'Metering Interface Input' dropdown and select metering item number used for the DC data configured in the MasterAdjust section above (i.e. Metering 1).
4. Click the 'NMEA2000 DC Instance' dropdown and select a unique NMEA 2000 DC Instance.
5. Click the 'DC Type' dropdown and select 'Battery'.
6. Click the 'Nominal Voltage' dropdown and select the nominal voltage of the Master Shunt output.
7. Tick both the 'Show Volts', 'Show Current', and 'Show State of Charge' checkboxes.



At this stage we are ready to save and write the CZone™ configuration to the network and see it all in action.