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## Overview:

The Seattle control panel allows the user a central point to check:

- Leisure battery voltage
- Vehicle battery voltage
- Leisure battery current
- Vehicle battery current
- Load current
- Mains current
- Solar current
- Internal temperature
- External temperature
- Water level
- Waste level
- Battery source
- Pump source

The Seattle control panel also allows the user to:

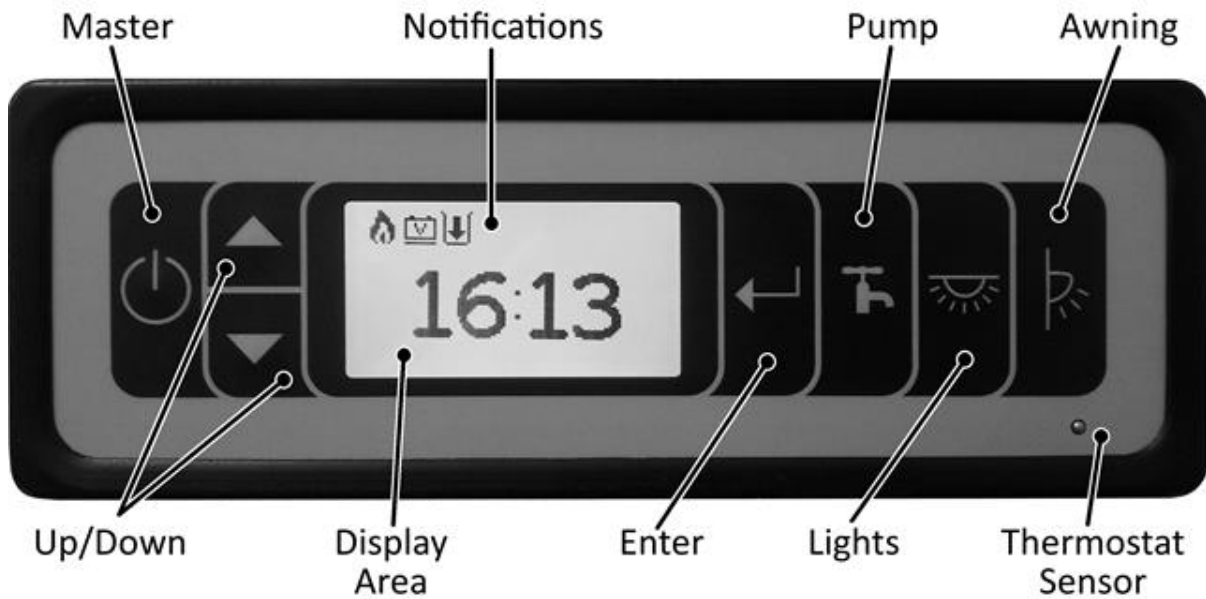
- Switch on/off all non-essential electrical appliances/accessories
- Switch on/off the lights
- Change the pump mode
- Switch on/off the pumps
- Force the internal pump to run (For purging pipes)
- Switch on/off the awning light
- Switch over the battery supply from Leisure to Vehicle
- Charge the Vehicle battery when a mains 230V connection is present
- Control Whale Space/Water heating systems
- Calibrate water/waste probes

The Seattle control panel also has optional audio and visual warnings for:

- Battery overvoltage/current alarms
- Battery under voltage alarms
- High solar current alarm
- Communication error
- Empty water tank
- Full waste tank
- Thermistor faults
- Whale space/water heater alarms
- Fuse blown alarms




*Note: Some of the options or features highlighted above are not available on selected models*

## Function Buttons:



## Navigation Buttons:



Use the  and  buttons to navigate up and down through menus. Pressing the  button will allow the user to enter menus or change settings (If further settings are available).

## Master Button:



When the Master Button is pressed the control panel will switch power to all non-essential accessories. Some features require the Master Button to be switched on to be enabled.

*Note: Essential appliances may remain powered when the master switch is off, for example the Alarm or Fridge.*

## Lights Button:



When the Lights Button is pressed the control panel will switch power to all the interior lights.

*Note: If the master switch is off this button will not function.*

## Pump Button:



When the Pump Button is pressed the control panel will enable/disable the water pumps. If the water level is 0% the pump may not run, holding down the Pump Button forces the internal pump to run regardless of tank level.

*Note: If the master switch is off this button will not function. See “notifications and Warning section for pump running notification.*

## Awning Button:



When the Awning Button is pressed the control panel will switch power to the exterior awning light.

## Fridge Button:



When the Fridge Button is pressed the control panel will switch power to the fridge.

*Note: Some options/features may be unavailable on selected models*

## Main Page Descriptions:

*Note: Some menu pages may be unavailable on selected models.*

## Main Page – Clock Display:



The Clock Display main page is displayed by default. The control panel will return to the main page when left to idle. The main page displays the time as well as any relevant notifications or warnings that are present. The time can also be set from this page, to set the time please follow the instructions below:

1. On the main page hold for 3 seconds until the hours being to flash.
2. Keep pressing or to change the hours
3. Press to set the hours, the minutes will now flash
4. Keep pressing or to change the minutes
5. Press to set the minutes and finish setting the time

## Leisure Battery Voltage Display Page:



This page displays the leisure battery voltage. If a 230V mains supply is connected then the charging voltage of the leisure battery will be displayed. If the leisure battery is being charged then a lightning icon will appear in the battery.

To increase the accuracy of the battery voltage reading, switch the “Master Switch” off, this will reduce the load and give a better indication of the battery’s voltage level.

*Note: See the “Notifications” section in the User Settings to enable/disable the high and low voltage notifications for the Leisure Battery*

## Vehicle Battery Voltage Display Page:

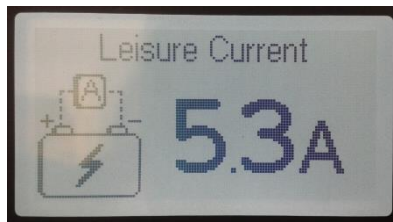


This page displays the vehicle battery voltage. If a 230V mains supply is connected then the charging voltage of the vehicle battery will be displayed. If the vehicle battery is being charged then a lightning icon will appear in the battery.

To increase the accuracy of the battery voltage reading, switch the "Master Switch" off, this will reduce the load and give a better indication of the battery's voltage level.

*Note: See the "Notifications" section in the User Settings to enable/disable the high and low voltage notifications for the Vehicle Battery*

## Leisure Battery Current Display Page:

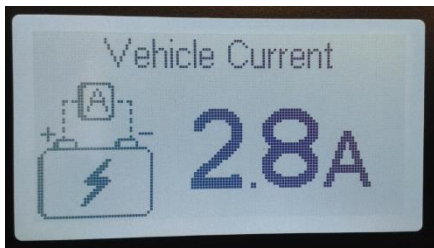


This page displays the amount of current being drawn from the Leisure Battery, when the Leisure Battery is being charged a lightning icon is displayed inside the battery symbol. A higher current draw will drain the battery faster.

*Note: See the "Notifications" section in the User Settings to enable/disable the high Leisure Battery load notification*



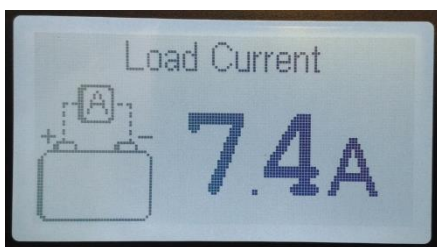
## Vehicle Battery Current Display Page:



This page displays the amount of current being drawn from the Vehicle Battery, when the Vehicle Battery is being charged a lightning icon is displayed inside the battery. A higher current will draw will drain your battery faster.

*Note: See the "Notifications" section in the User Settings to enable/disable the high Vehicle Battery load notification.*

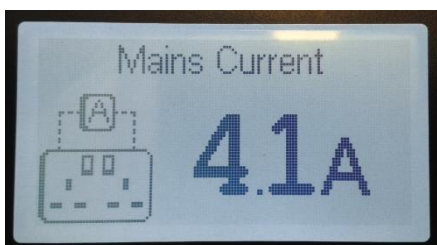
## Load Current Display Page:



This page displays the amount of current that is being used by the leisure vehicle to power its internal systems, such as lights, pumps and sockets for example.

*Note: The Load current and Battery current values may be different if the battery is also being charged by a 230V connection or a solar panel. See the "Notifications" section in the User Settings to enable/disable the High Load notification.*

## Mains Current Display Page:



This page displays the amount of current that is being drawn from the 230V mains connection.

*Note: See the "Notifications" section in the User Settings to enable/disable the High Mains load notification.*

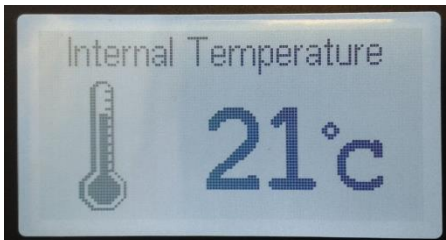
## Solar Current Display Page:



This page displays the amount of current that is being generated by the solar panel. A solar regulator is required to drop down the solar panel voltage to battery safe levels.

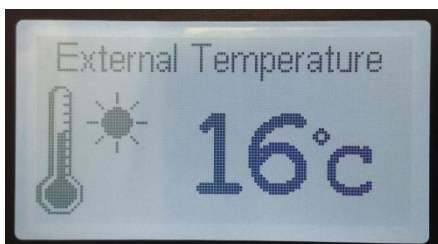
*Note: See the "Notifications" section in the User Settings to enable/disable the High Solar Load notification.*

## Internal Temperature Display Page:



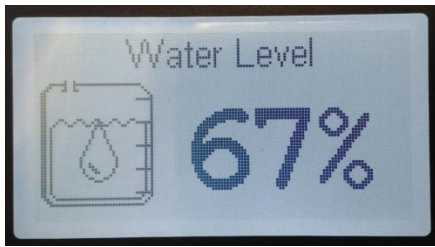
This page displays the internal temperature, it is measured by a sensor inside the control panel and displayed on the screen in degrees Celsius by default.

## External Temperature Display page:



This page displays the external temperature, it is measured by a sensor placed on the outside of the van (usually on the underside).

## Water Level Display Page:

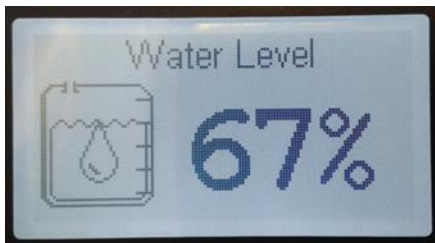


This page displays the current water level in the leisure vehicle as a percentage. If the “Low Water” notification is enabled the user will receive a notification when their water tank levels drop below 10% by default.

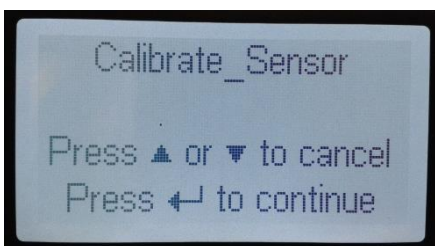
*Note: See the “Notifications” section in the User Settings to enable/disable the Low Water notification*

## Calibrating the Water/Waste Probes:

If the water/waste probes are displaying incorrect readings on the Seattle control panel the most likely cause is that the calibration values are no longer valid due to changes in environmental conditions. To re-calibrate the probes press the enter button on the relevant tank page (Water tank or Waste tank pages) to enter the calibration menu.



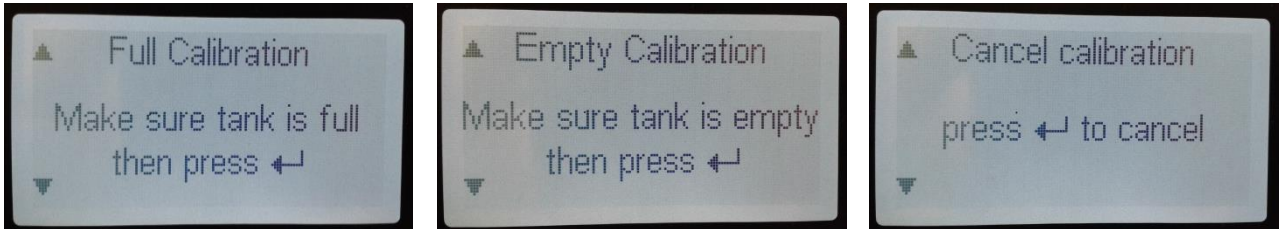
Pressing on the relevant tank page will bring up the menu below, pressing or will take you back to the tank level, pressing the button will take you into the calibration menu.



There are three submenus in the calibration menu, these are the “Full Calibration”, “Empty Calibration” and “Cancel Calibration”. Pressing the button on the Full Calibration menu will set the 100% water level as the current tank level, ensure that the tank is completely filled before pressing on the full calibration page.

Pressing the button on the Empty Calibration menu will set the 0% water level as the current tank level, ensure that the tank is completely empty before pressing the button on the empty calibration page.

Pressing the button on the Cancel Calibration menu take the user back to the main tank display page.



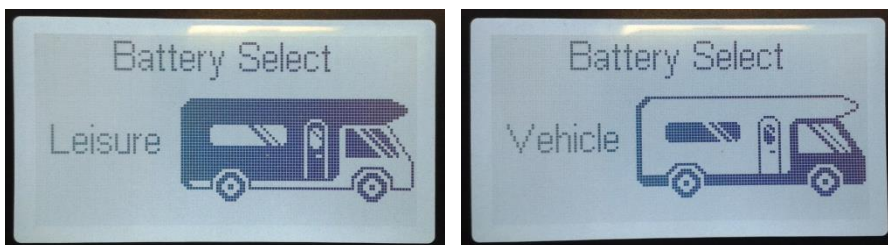
## Waste Level Display Page:



This page displays the current waste water level inside the waste tank as a percentage. If the “High Waste” notification is enabled the user will receive a notification when their waste tank fills up over 90% by default.

*Note: See the “Notifications” section in the User Settings to enable/disable the High Waste notification*

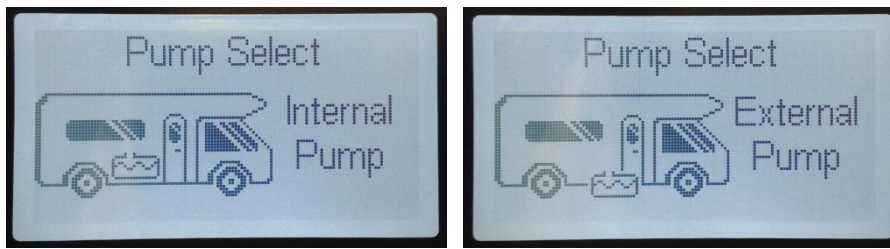
## Battery Selection Page:



This page is the battery select screen, it displays the selected battery source. Pressing the button on this page will switch battery source between Leisure Battery and Vehicle Battery.

If the “Auto-Battery” feature is enabled the system will automatically switch to the Vehicle Battery if the Leisure Battery voltage is low (Less than 11V).

## Pump Selection Page:



This page displays the pump selection screen; it displays which pump is currently selected. By pressing the button the page will switch between the Internal Pump and the External Pump.

Sometimes it may be necessary to run the pump while there is no water in the tank, this is normally prevented by the control panel to stop damage being caused to the pump if there is no water in the tank (running dry). Holding down the Pump Button forces the pump to run regardless of water level.

The Auto Pump feature uses the water level measurement to automatically switch to the external pump when the water level gets too low.

## Fill Tank Page:



This page is the fill tank screen. When the external pump is connected to the inlet and to an external water source pressing the button will begin filling the internal tank. When the internal tank is full the pump will stop automatically.



## Whale Space Heater:

This control panel has been designed to integrate Whale appliances into a single control panel. To turn the heater off/on press . The screen will display either the word "Off" or the thermostat setting. To change the heating mode press and hold and the mode icon will begin to flash. Press or to change the mode between the following options, press again to set the heater mode:

Icon	Mode	Description
	2000W	Heat boost electric setting
	1000W	Intermediate heat electric setting
	500W	Quiet / night time electric setting
	Off	Heater off position
	Fan Only	Air circulation setting, no heat output
	Gas	Gas only setting
	Heat Boost Setting	Uses gas and electric simultaneously for higher heat outputs.

On all gas settings a filled flame represents that the gas is currently burning. An empty flame shows that gas is selected but not burning. A flame icon on the homepage will also indicate that a gas appliance is currently in use.

Once the intended mode is selected press to set the mode and move on to thermostat temperature selection. Select the desired room temperature with the and buttons and press to save.

*Note: Please consult the Whale user manual for more detailed information on each mode.*

## Whale Water Heater

This control panel has been designed to integrate Whale appliances into a single control panel. To turn the boiler off/on press . The screen will display the word "Off" when the boiler is off. To change boiler mode press and hold and the mode icon will begin to flash. Press or to change the mode between the following options, press again to set the heater mode:

Icon	Mode	Description
	Electric high only	To operate the heater on electric high setting only
	Electric low only	To operate the heater on electric low setting only
	Heater off	To turn the heater off completely
	Gas function	To operate the heater on gas only
	Gas and electric low	To operate on gas and electric low
	Gas and electric high	To operate on gas and electric high

On all gas settings a filled flame represents that the gas is currently burning. An empty flame shows that gas is selected but not burning. A flame icon on the homepage will also indicate that a gas appliance is currently in use.

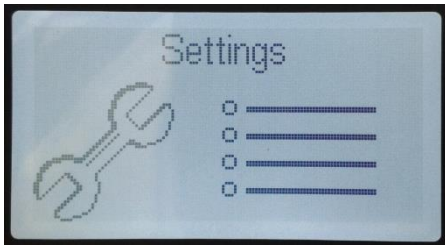
*Note: Please consult the Whale user manual for more detailed information on each mode.*

## Whale Water/Space Heater Lockouts:

In the event of a Whale heater lockout, attempt to turn the heater on using the Seattle control panel and follow the onscreen instructions, if this fails to clear the fault then please consult the Whale manual.

*Note: Please consult the Whale user manual for more detailed information about lockouts and how to clear them.*

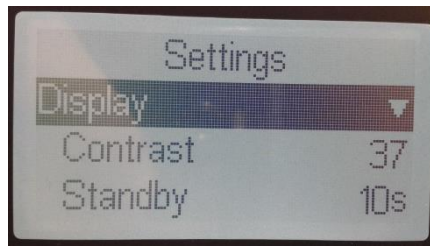
## User Settings:



This page is the user settings menu page, pressing the button will enter the user settings and allow some settings to be altered, such as display settings, sound settings and which notifications are enabled etc. There is a description for the different settings, options and how to navigate the menus below.

## Navigation:


- Scroll through the settings with the and buttons.
- The user settings menu has drop-down menus, pressing the button on a setting that has the icon (Highlighted in the image below) will open the drop-down menu and allow settings to be changed.







- To edit a setting, highlight it then press the button. Depending on the setting the user may be required to use the and buttons to scroll through the different options available to a setting.
- Once the required option has been selected, press the button to confirm the value change.
- To exit the User Settings menu, scroll to the bottom of the page and press on “Save and Exit”






## Display Menu:

Pressing  on the Display setting will open the Display drop-down menu.


## Contrast:

Pressing  on will allow the contrast value to be changed using the  and  buttons. Increasing the contrast will make the screen darker overall, decreasing the contrast will lighten the screen overall. At its minimum (0) and maximum (63) the screen will become almost unreadable. Pressing the  button will save new contrast value.


## Standby:

Changing this setting alters the amount of time the control panel will stay lit before it goes into standby mode. Press  to select the setting and then the  and  buttons to select the time in 5s increments.


## Return to home:

This setting is toggled On/Off using the  button. When this setting is enabled the control panel will return to the main clock screen when it goes into standby.


## Sound Menu:

Pressing  on the Sound setting will open the Sound drop-down menu.


## Key Tones:

Pressing the  button enables and disables the key tones on the control panel. When this setting is disabled pressing buttons will no longer make a noise.

## Alarm Tone:

Pressing the  button enables and disables the alarm tones on the control panel. When this setting is disabled alarms will no longer make a noise.


## Temperature Unit

Pressing the  button switches the default temperature setting between degrees Celsius (°C) and degrees Fahrenheit (°F).


## Notifications:

The list below contains all of the settings available in the notification's menu.


## Hide Advice:

Pressing the  button enables/disables whether advice pages are displayed after an alarm has been acknowledged. The advice pages give a slightly more detailed explanation on the cause of the alarm.


## LBat Low Volt:

Pressing the  button enables/disables the Leisure Battery Low Voltage notification. Disabling this will no longer inform the user when the Leisure Battery voltage goes below 11V.


## **LBat High Volt:**

Pressing the  button enables/disables the Leisure Battery High Voltage notification. Disabling this will no longer inform the user when the Leisure Battery voltage goes above 14.8V


## **VBat Low Volt:**

Pressing the  button enables/disables the Vehicle Battery Low Voltage notification. Disabling this will no longer inform the user when the Vehicle Battery Voltage goes below 11V.


## **VBat High Volt:**

Pressing the  button enables/disables the Vehicle Battery High Voltage notification. Disabling this will no longer inform the user when the Vehicle Battery Voltage goes above 14.5V


## **High Load:**

Pressing the  button enables/disables the High Load notification. Disabling this will no longer inform the user when the leisure vehicle is drawing over 18A.


## **Low Water:**

Pressing the  button enables/disables the Low Water notification. Disabling this will no longer inform the user when the water levels in the water tank get to 10% or below.

## **High Waste:**

Pressing the  button enables/disables the High Waste notification. Disabling this will no longer inform the user when the waste levels in the waste tank get to 90% or above.


## **High Mains:**

Pressing the  button enables/disables the High Mains notification. Disabling this will no longer inform the user when more than 16A is being drawn from the mains supply.


## **Pump Running:**

Pressing the  button enables/disables the Pump Running notification. Disabling this will no longer inform the user when the pump is running.


## **High LBat Load:**

Pressing the  button enables/disables the High Leisure Battery Load notification. Disabling this will no longer inform the user when the Leisure Batteries load is over 20A.


## **High Vbat Load:**

Pressing the  button enables/disables the High Vehicle Battery Load notification. Disabling this will no longer inform the user when the Vehicle Battery load is over 20A.


## **High Solar Load:**

Pressing the  button enables/disables the High Solar Load notification. Disabling this will no longer inform the user when the solar panel is providing over 15A.


## **Fuse Alarm:**

Pressing the  button enables/disables the Fuse Alarm notification. Disabling this will no longer inform the user when a fuse has blown.


## Overload Fault:

Pressing the  button enables/disables the Overload Fault notification. Disabling this will no longer inform the user when a FET Overcurrent has occurred.


## Mains Removed:

Pressing the  button enables/disables the Mains Removed notification. Disabling this will no longer inform the user when the mains have been removed.

## Engine Running:

Pressing the  button enables/disables the Engine Running notification. Disabling this will no longer inform the user when ignition signal is present (Engine Running).

## Comms Fault:

Pressing the  button enables/disables the Comms Fault notification. Disabling this will no longer inform the user when there are communication faults between the control panel and other products communicating over the LIN network.

*Note: Some settings/options may be unavailable on selected models.*

## Firmware:

The Firmware option does not have any settings as it just displays the current version of Firmware that is installed onto the control panel.

## Save and Exit:

Selecting this option will save any changed settings and then go back to the user settings page in the main menu.



	Ignition Notification	Displays if the engine is running
	Draining Leisure Battery Notification	Displays if the leisure vehicle is being powered from the Leisure Battery
	Draining Vehicle Battery Notification	Displays if the leisure vehicle is being powered from the Vehicle Battery
	Mains Connected Notification	Displays if the leisure vehicle is connected to a mains supply
	FET Overcurrent Warning	Displays if there is an overcurrent fault from the control panel
	Pump Running Notification	Displays if the pump is running
	Thermistor Icon	Displays if there are faults with the temperature sensors
	Waste Level High Warning	Displays if the waste level is at 90% or over (Default value)
	Water Level High Warning	Displays if the water level is at 10% or under (Default value)
	Space Heater General Fault	Displays if there is a Whale Space Heater General Fault
	Space Heater Ignition Fault	Displays if there is a Whale Space Heater Ignition Fault
	Space Heater Over-heat Fault	Displays if there is a Whale Space Heater Over-Heat Fault
	Space Heater Voltage Fault	Displays if there is a Whale Space Heater Voltage Fault
	Space Heater Air-pressure Fault	Displays if there is a Whale Space Heater Air-pressure Fault
	Space Heater Misc. Fault	Displays if there is a Whale Space Heater Misc. Fault
	Water Heater General Fault	Displays if there is a Whale Water Heater General Fault
	Water Heater Ignition Fault	Displays if there is a Whale Water Heater Ignition Fault
	Water Heater Over-heat Fault	Displays if there is a Whale Water Heater Over-Heat Fault
	Water Heater Voltage Fault	Displays if there is a Whale Water Heater Voltage Fault
	Water Heater Air-pressure Fault	Displays if there is a Whale Water Heater Air-pressure Fault
	Water heater Misc. Fault	Displays if there is a Whale Water heater Misc. Fault

*Note: Not all warning/notifications may appear due to differences in leisure vehicle specifications, the default values may be altered depending on the vehicle specification.*

## Warranty:

If you believe that there is problem with your control panel please contact your dealership who will be able to help.