

Centurion Ri

2026 Display User Manual



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Configuration

Right Display


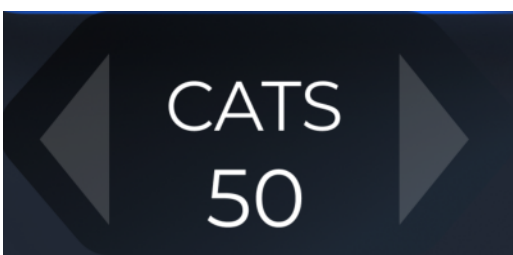

Home Screen



Note: In the bottom navigation pane, the corresponding information will display, when an icon is tapped.

Tab Controls

ICON	DESCRIPTION
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	<p>Tap the up or down arrows to adjust the Center Tab controls.</p>
	<p>Tap the left or right arrows to adjust the CATS; ranging from -50 to +50.</p>
	<p>Tap to access system settings.</p>

Gauges

ICON	DESCRIPTION
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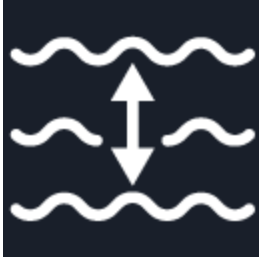


Analog + digital RPM.



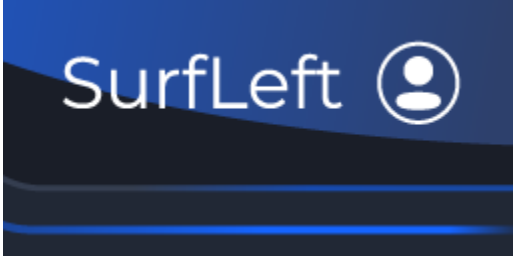
Analog + digital engine temperature





Engine Coolant Temperature

	Water depth
	Battery voltage- Touching image will cycle between house battery (H) and engine battery (E) voltage
	Compass

Top Buttons

ICON	DESCRIPTION
	The Profile feature displays all default and created profiles with the ability to add, edit, and remove.

 <p>Quick Surf</p>	<p>The Quick Surf feature automatically activates the last used profile. The button displays “Quick Wake” if a wakeboard profile was the last used profile</p>
 <p>Quick Launch</p>	<p>The Quick Launch feature disables the Quick Surf function and only engages the stinger tab</p>

Cameras



- Cameras can be cycled between front, rear, and tower (on equipped models) using the arrows at the bottom of the camera feed



- A loading symbol will appear when switching sources, and will go away once the camera feed is live



- Cameras can be expanded to a full screen view by clicking on the icon in the top left corner of the camera feed





- When in fullscreen mode, the digital tachometer migrates to the bottom right corner of the screen
- Camera source can also be cycled the same as in the minimized mode
- Clicking the icon in the top left corner of the camera feed will bring the page back to the minimized camera view

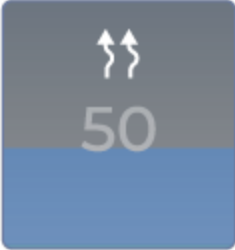




Ballasts Screen

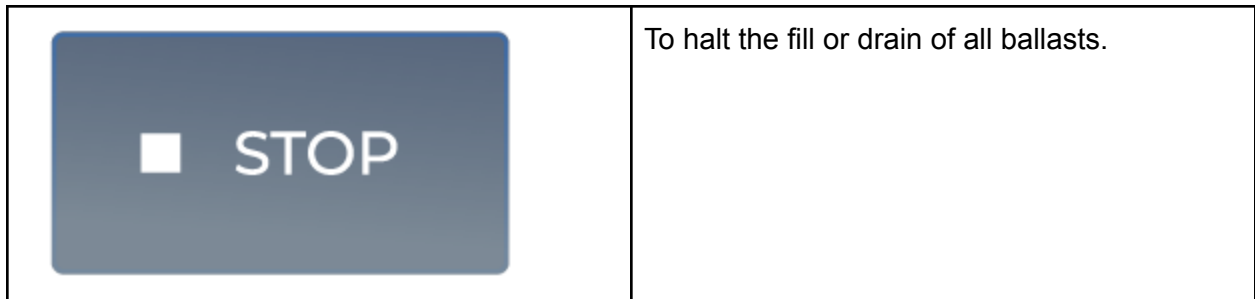
From the main right display, in the bottom navigation pane, tap the Ballast icon (6th symbol).



Ballast Controls

ICON	DESCRIPTION
	To fill the respective ballast.
	To fill all the ballasts.

	<p>A real-time display of a ballast filling.</p>
	<p>To drain the respective ballast.</p>
	<p>To drain all the ballasts.</p>
	<p>A real-time display of a ballast draining.</p>
	<p>To halt the fill or drain of the respective ballast.</p>



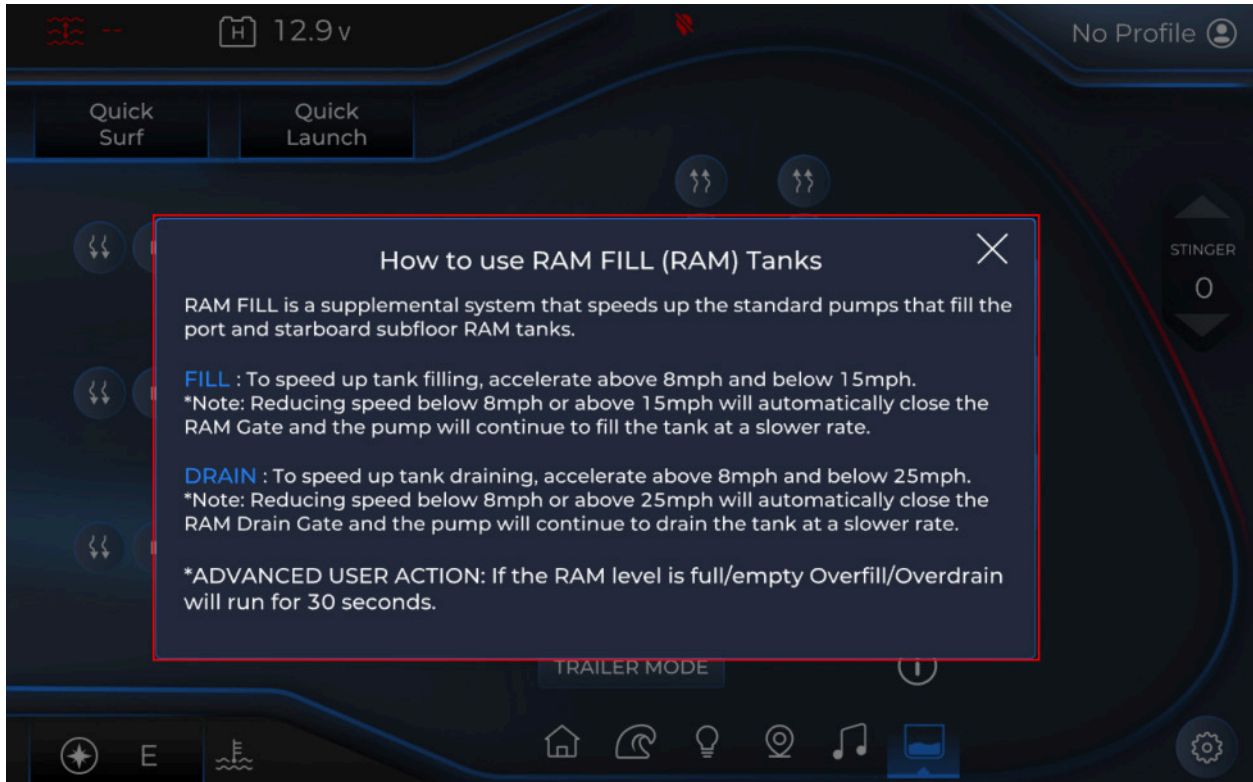
Note: if 3 or more ballast pumps are running while the engine RPM is less than 1800, a notification will suggest increasing engine RPM to ensure the batteries sustain adequate voltage for optimal pump performance

Trailer Mode



- From the Ballast page, tap Trailer Mode.
- The Trailer Mode pop-up dialog box displays open and close options to fill or drain the gates.
- Note: Under the Open and Close buttons in the Fill Gates and Drain Gates areas, a message displays if both gates are opened or closed.
- When finished, tap the Close icon.

Ramfill Ballasts



- Note: Adjacent to each ballast are 3 respective features: Drain, Stop, and Fill.
- To select a specific ballast, locate the appropriate ballast.
- Note: When either the drain or fill option is selected, a connector line will display.
- To drain the ballast, tap the Drain icon.
- Note: To halt the drain, tap the Stop icon.
- To fill the ballast, tap the Fill icon.
- Note: To halt the fill, tap the Stop icon.
- To simultaneously drain all the ballasts, locate the All area.
- Tap Fill.
- To simultaneously drain all the ballasts, tap Drain All.
- To halt all ballasts from filling or draining, tap Stop.

Switching Screen

From the main right display, in the bottom navigation pane, tap the Lighting icon (3rd symbol).



Nav/Anc Lights

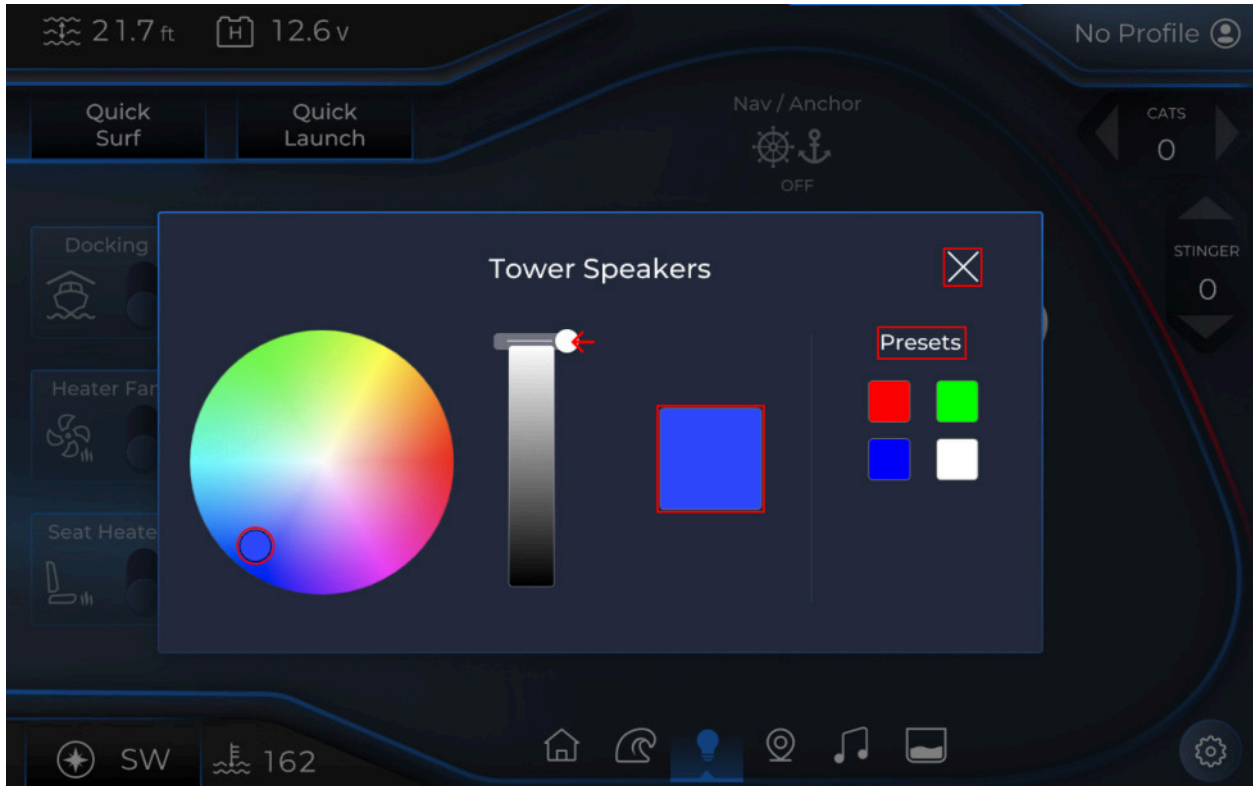


- The Nav/Anchor symbols can be touched to toggle the navigation and anchor lights on and off
 - The first touch enables both, and dims the screen
 - The second touch turns off the nav lights and brightens screen to daytime brightness
 - The third touch turns off the anchor light

RGBW Outputs



- Locate the appropriate RGBW output(s):
 - All RGBW (applying the same color for all outputs)
 - Tower Speakers
 - Interior Speakers
 - Interior
 - Underwater
- To toggle on/off the RGBW output, touch the toggle switch on the corresponding zone
- Changing RGB zone colors
 - Tap the corresponding vertical color bar.
 - The respective RGBW Output Preset pop-up window will display.
 - Locate the Presets area.
 - Tap the appropriate color.
- To customize a preset color, tap Advanced.
 - The Advanced pop-up window displays.



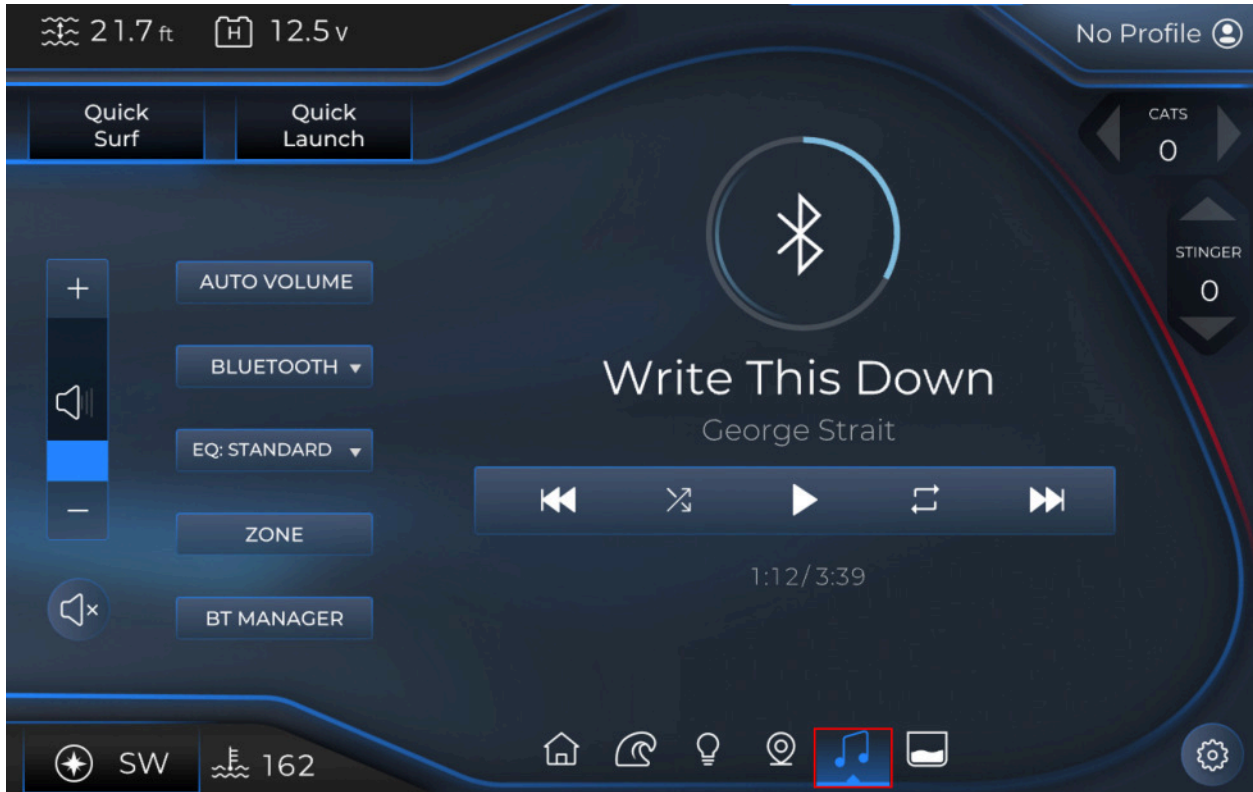
- To apply a custom color, simultaneously touch and slide the circle on the color wheel to the appropriate color.
- To adjust the brightness, simultaneously touch and slide the brightness slider to the appropriate setting.
- The color is reflected in the adjacent square.
- To save the customized color as a preset, locate the Presets area.
- Touch and hold the appropriate preset option.
- The selected preset is now updated.
- When finished, tap the Close icon.

Switching Outputs

- Locate the appropriate switching output(s):
 - Docking
 - Heater Fan
 - Seat Heater
 - Exterior
- To toggle an output on/off, touch the toggle switch on the corresponding output.

Audio Screen

From the main right display, in the bottom navigation pane, tap the Audio icon (5th symbol).



Auto Volume

- Note: The Auto Volume feature will adjust the volume based on the vehicle's RPM.
- To, tap Auto Volume.
- The Auto Volume button is now highlighted.
- To disable, re-tap Auto Volume.
- The Auto Volume button is now unhighlighted.

Source Selection

- Note: The active source displays on the Source Selection drop-down button.
- Audio controls will change based on the source.
- Tap the Source Selection drop-down.
- 5 options are displayed:
 - FM Radio, AM Radio
 - Controls:
 - Seek
 - Tune
 - Favorite
 - WX Radio
 - Controls:
 - Seek
 - Tune

- AUX
 - Control:
 - AUX Connected
 - Bluetooth
 - Controls:
 - Shuffle
 - Loop
 - Pause
 - Forward
 - Back
 - Song name
 - Song timeline
- Tap the appropriate option.
 - The selected option and its corresponding controls are now displayed.

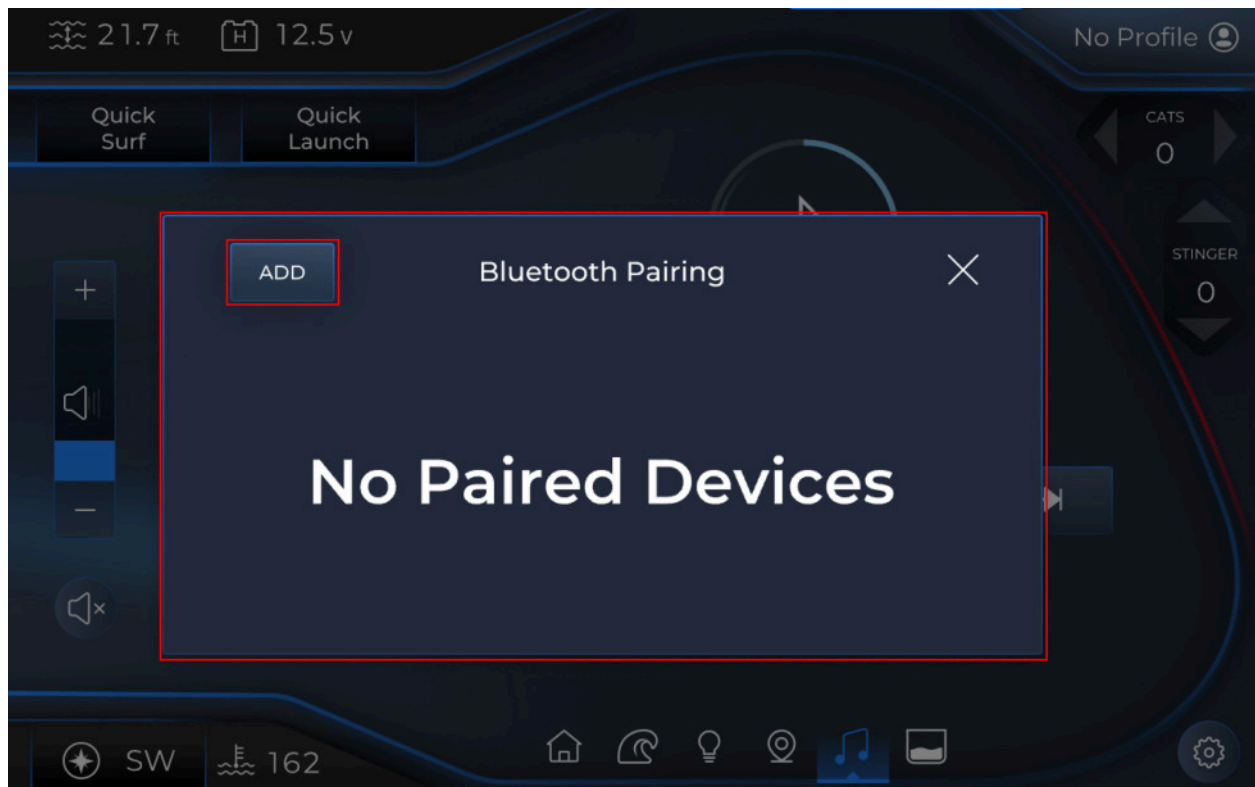
Favorites

- Note: The Favorite feature is only available for the FM and AM radio options.
- Note: A maximum of 5 favorites are provided.
- Tap the Source Selection drop-down.
- Locate and tap the desired source.
- In the right-adjacent area, locate the corresponding options.
- Navigate to the desired radio station.
- Note: If less than 5 favorites are displayed, tap the Favorite icon.
- The selected favorite is now displayed.
- Note: If 5 favorites are populated, locate the desired favorite to override.
- Touch and hold on the favorite.
- The favorite is now updated to the current radio station.

Zone

- The Zone feature provides the ability to manually change the volume of a specific area:
 - Downfire
 - Tower
 - Sub
 - Interior
- Tap Zone.
- Tap the negative icon to decrease the volume.
- Tap the positive icon to increase the volume.
- Tap the reset button to reset all zones to the same default level
- When finished, tap Done.

Bluetooth Manager



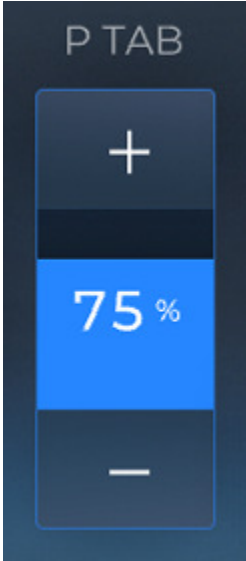
- Tap BT Manager.
- Pairing new device
 - In the Bluetooth Pairing pop-up window, tap Add.
 - Continue the pairing process from your phone or bluetooth device
 - Find “WS BB-10” on your phone/bluetooth device and connect
- Connecting existing device
 - Find “WS BB-10” on your phone/bluetooth device and connect
- To exit the Bluetooth Pairing pop-up window, tap the Close icon.

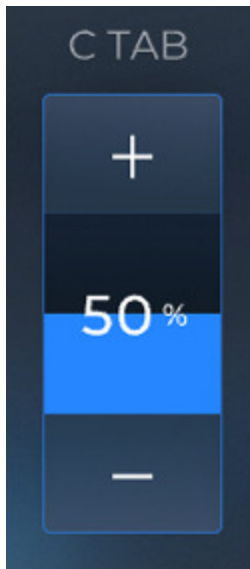
Surf Screen

From the main right display, in the bottom navigation pane, tap the Surf icon (2nd symbol).

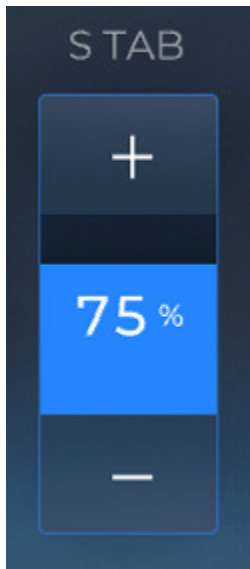


Tab Controls

ICON	DESCRIPTION
	<p>The P Tab Setpoint (Port) allows for setting the value (up and down arrows) of the left side of the vessel when facing the bow, or front, of the boat. Note: this feature is only available if a profile is active or the Surf Right button is tapped.</p>




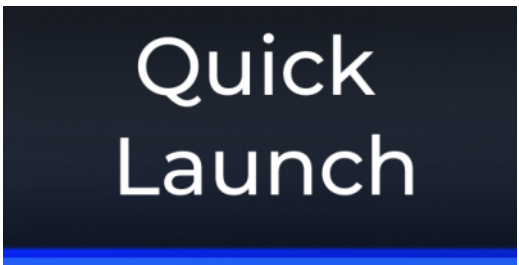


The C Tab Setpoint (Center) allows for setting the value (up and down arrows) of the center of the vessel. When speed reaches 20 MPH, C tab goes to 50%, when speed reaches 25+ mph C tab goes to 20%.





The S Tab Setpoint (starboard) allows for setting the value (up and down arrows) of the right side when facing the bow, or front, of the ship. **Note: this feature is only available if the Surf Left button is tapped.**



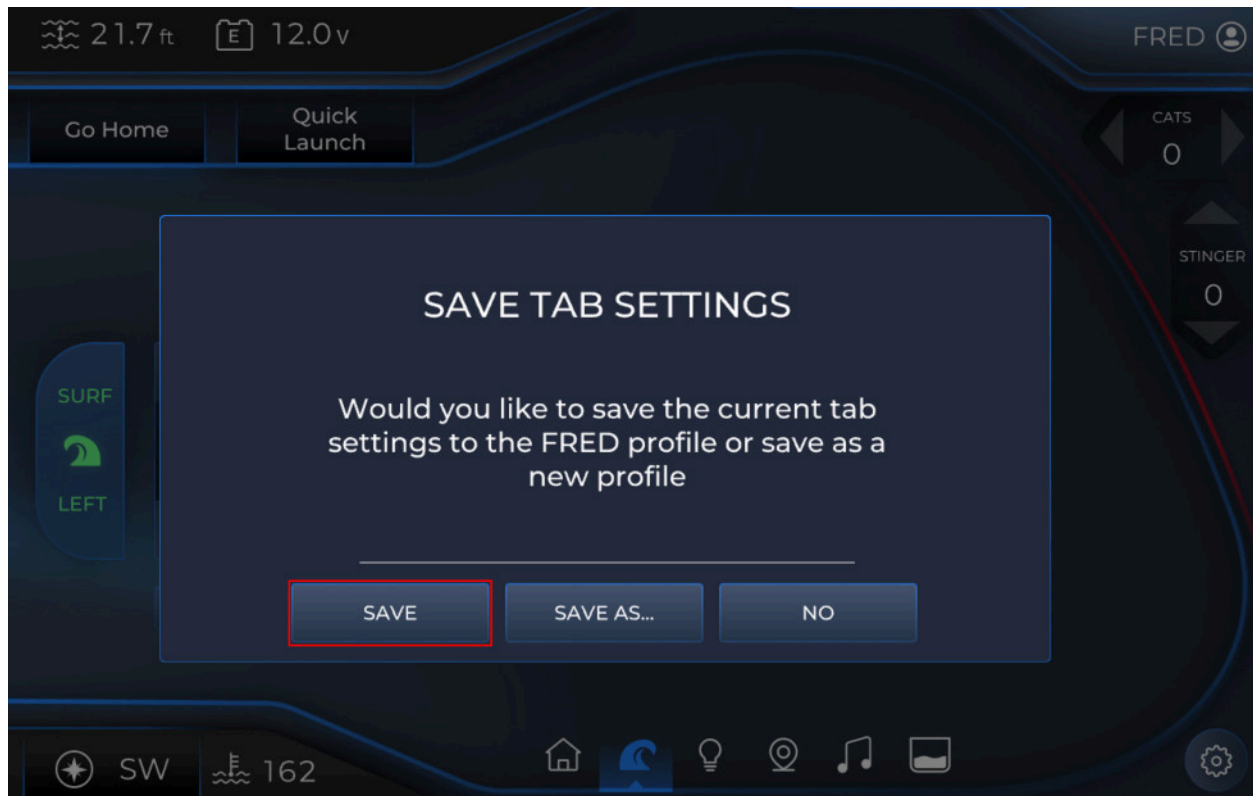
The Quick Surf feature automatically activates the last used profile. If a wakeboard profile was last used, this button will display "Quick Wake"

 <p>The image shows a dark blue rectangular button with the text "Go Home" in white, sans-serif font. A thin blue horizontal line is visible at the bottom edge of the button.</p>	<p>If a profile is active, the Quick Surf/Quick Wake button will become the "Go Home" button. This deactivates the surf profile, begins draining the ballasts, and sets cruise speed to 22mph</p>
 <p>The image shows a dark blue rectangular button with the text "Quick Launch" in white, sans-serif font. A thin blue horizontal line is visible at the bottom edge of the button.</p>	<p>The Quick Launch feature disables the Quick Surf function and only engages the stinger tab</p>
 <p>The image shows a vertical, rounded rectangular button with a dark blue background. It contains the text "SURF" at the top, a white wave icon in the center, and the text "RIGHT" at the bottom.</p>	<p>Surf Right shifts the wake to the right and engages the port and stinger tabs</p>
 <p>The image shows a vertical, rounded rectangular button with a dark blue background. It contains the text "SURF" at the top, a white wave icon in the center, and the text "LEFT" at the bottom.</p>	<p>Surf Left shifts the wake to the left and engages the starboard and stinger tabs</p>

	<p>The Save As button saves all applied settings into a profile. This profile becomes a template that can be reused.</p>
	<p>The Save button saves the applied settings into a pre-existing profile, which can be selected in the Save Settings pop-up dialog box.</p>

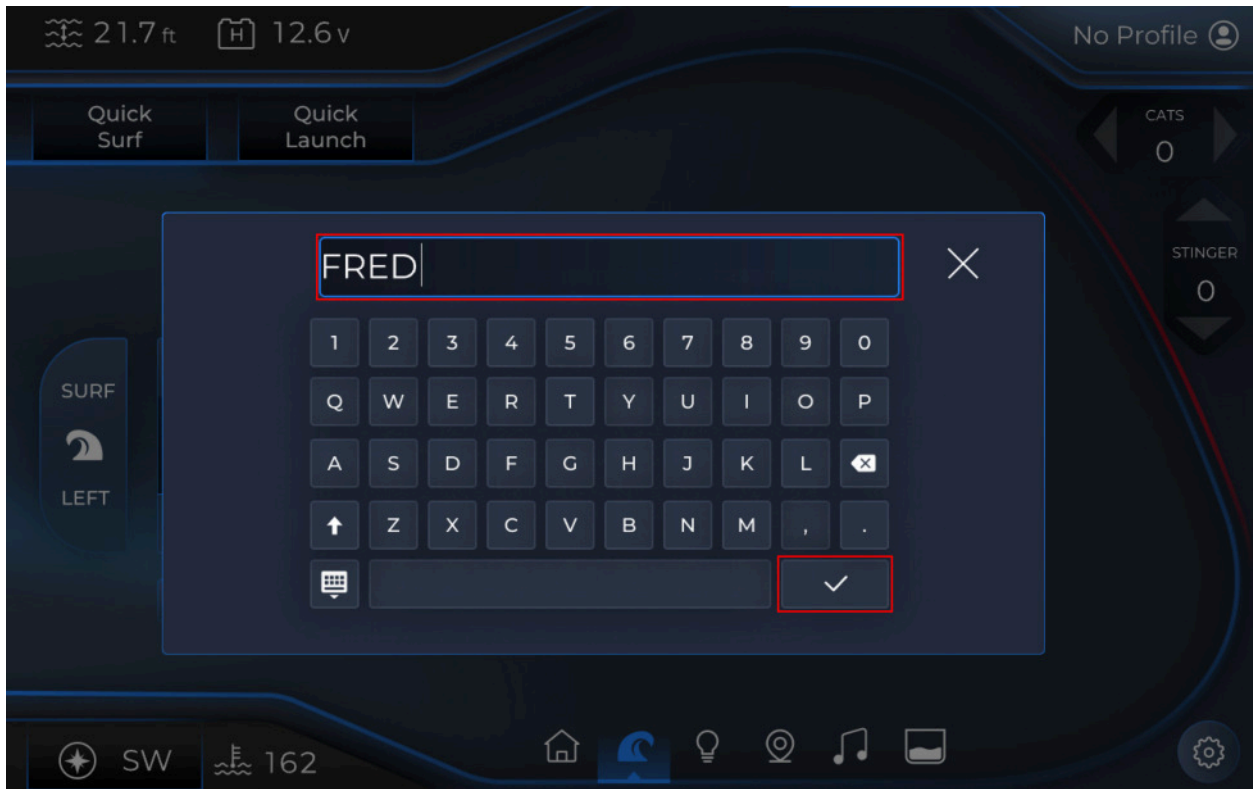
Save/Save As

- Set your desired tab positions.
- To save the applied tab settings, tap Save.



- In the Save Settings pop-up dialog box, locate and tap the “Save”.
- To apply, tap Confirm.

- Alternatively, to save the applied tab settings to a new profile, tap Save As.



- In the pop-up dialog box, enter the appropriate profile name.
- Tap the Enter (checkmark) icon.



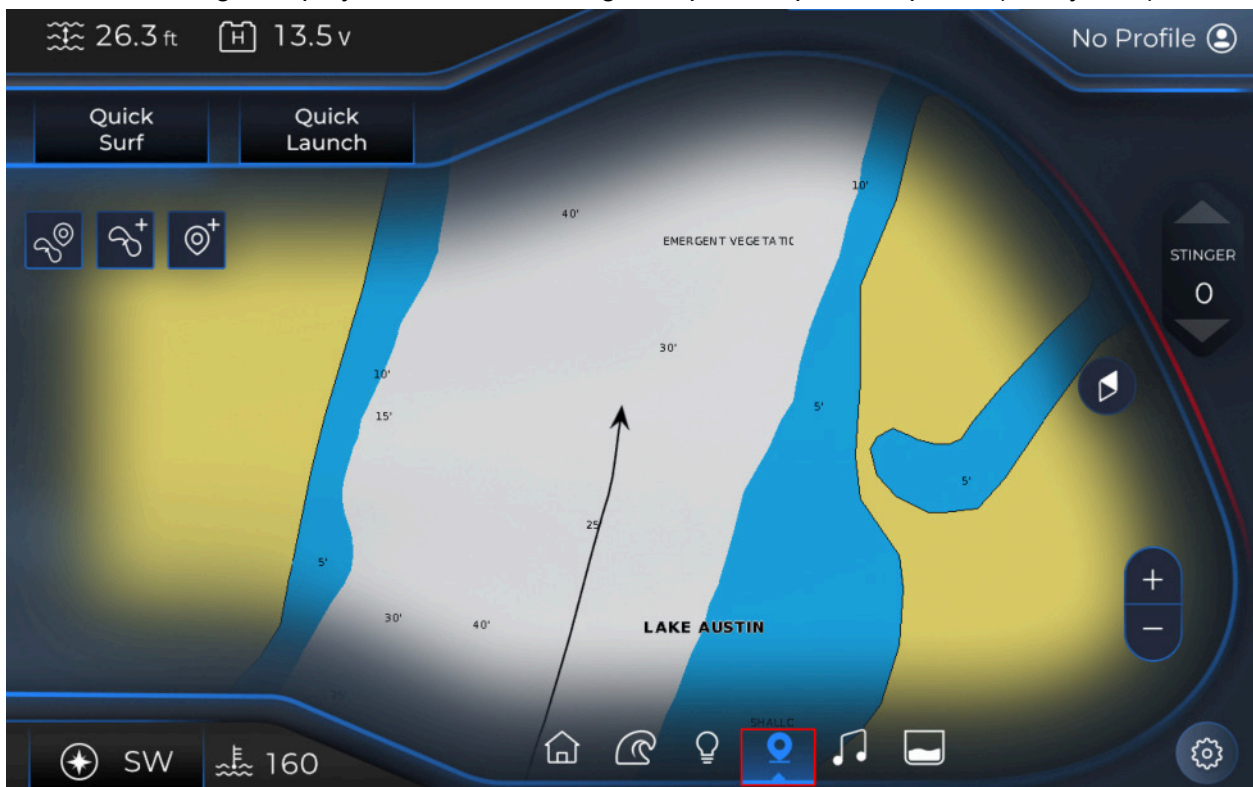
- The profile is now automatically displayed (and activated) in the top-right corner of the main right display.
- To view the profile, tap the profile.



- The Profile pop-up window is displayed and lists all the applied settings.
- Note: To gain a step-by-step understanding of how to edit the settings, please refer to the [Profile Popup](#) section.
- When finished, tap the Close icon.






Maps Screen






From the main right display, in the bottom navigation pane, tap the Map icon (4th symbol).






Map Controls

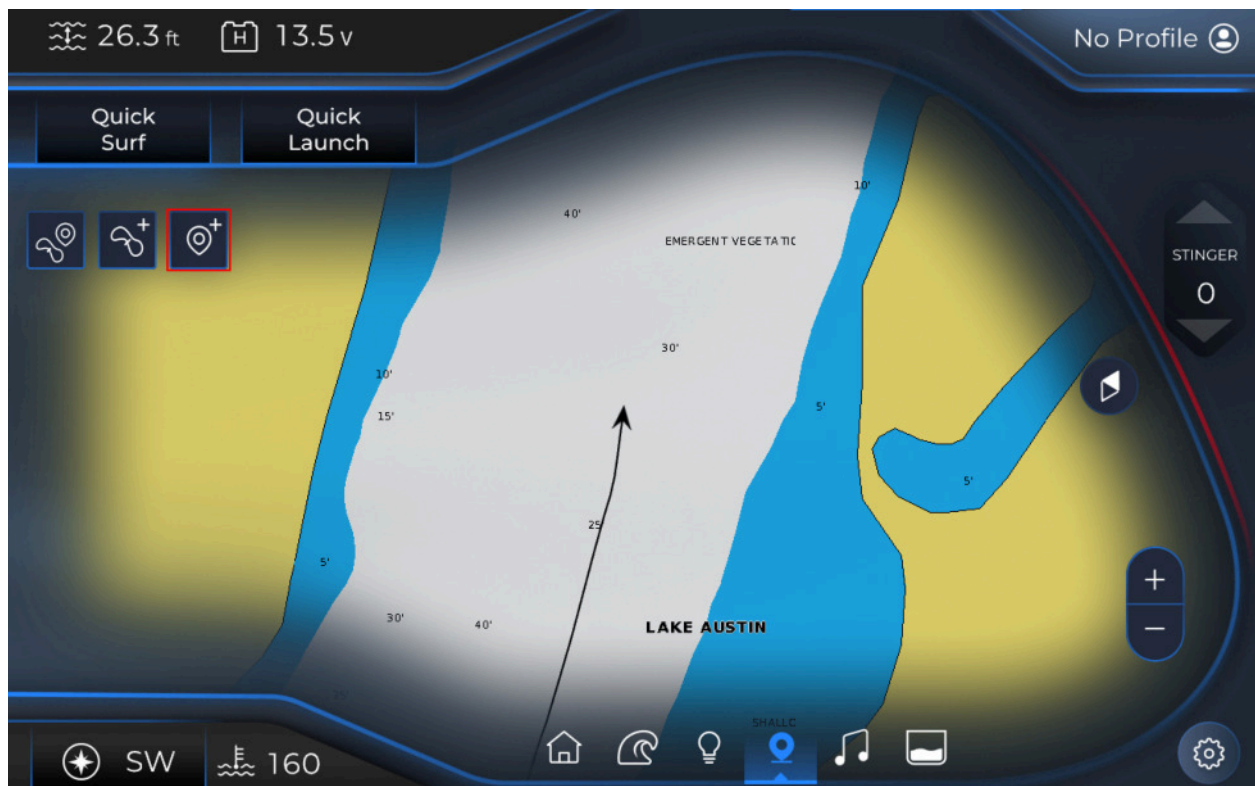
Buttons exclusively on the Map page and pop-up window are shown in the table below:

ICON	DESCRIPTION
	To zoom in the map.
	To zoom out the map.
	This icon indicates Pan mode. Tap to cycle between centering the map with a north up direction, centering the map with a forward up direction, or Pan mode.
	This icon indicates centered Map mode. Tap to cycle between centering the map with a north up direction, centering the map with a forward up direction, or Pan mode.
	To add a waypoint.

	To add a track.
	To display a list of the waypoints and tracks
	To orient to the assigned waypoint.
	To edit the waypoint/track name.
	To delete the selected waypoint/track.

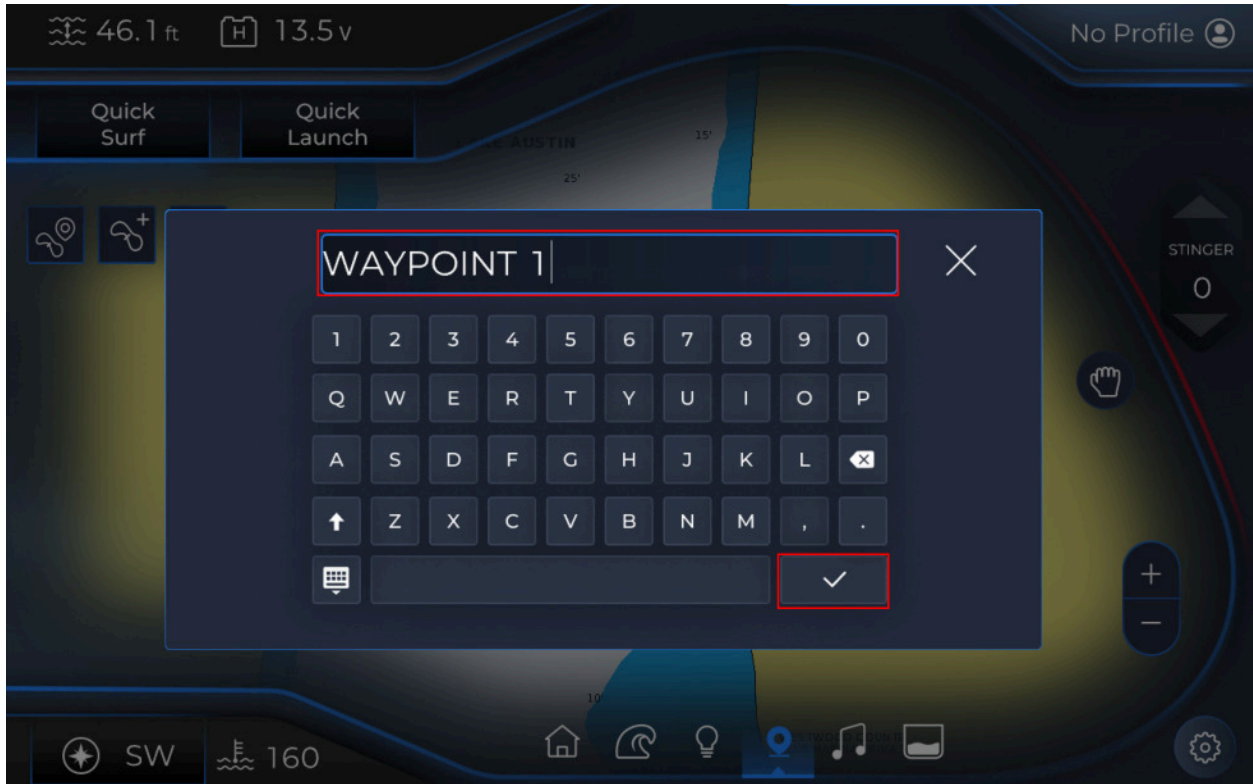
	<p>To toggle waypoint/track visibility on/off.</p>
	<p>The Waypoints tab in the pop-up window.</p>
	<p>The Tracks tab in the pop-up window.</p>

Waypoints



Add a Waypoint

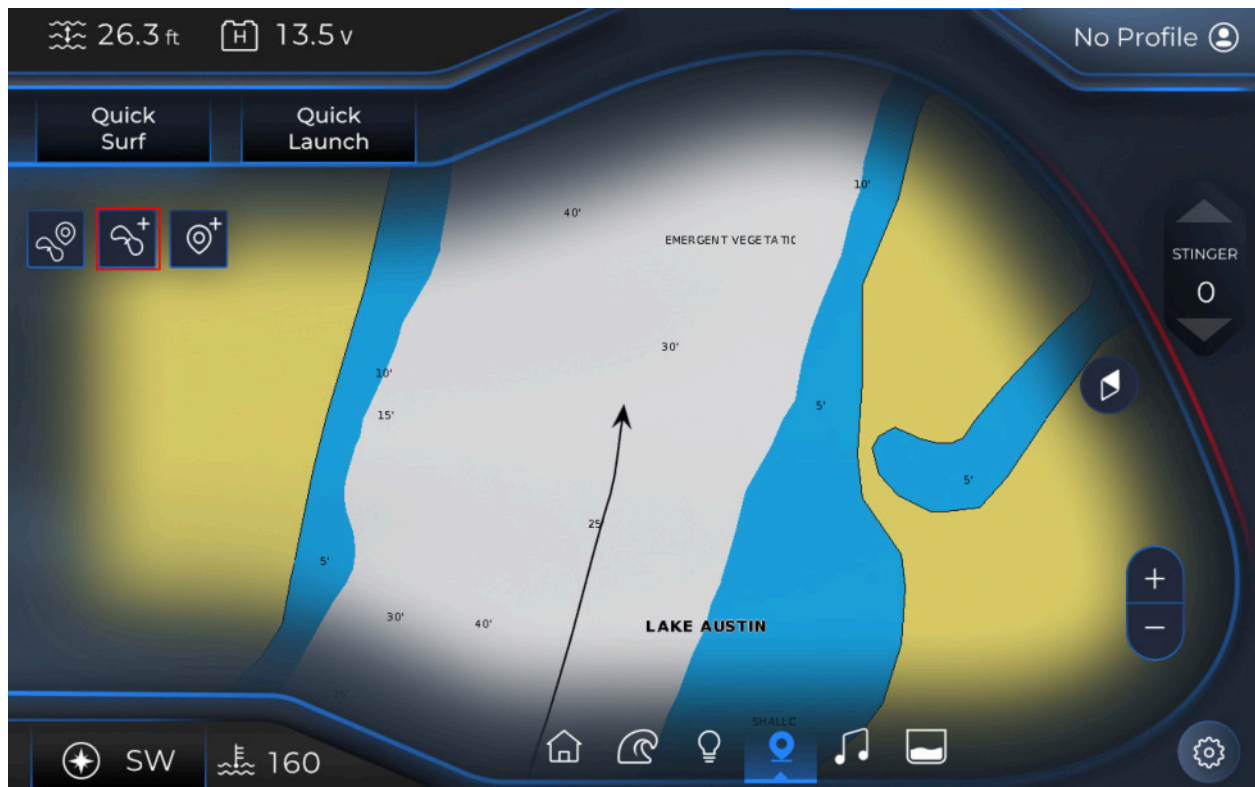
- Tap the Waypoint icon.
- In the pop-up dialog box, enter a name for the waypoint.



- When finished, tap the Enter (checkmark) icon.
- The waypoint is now displayed on the Map page.

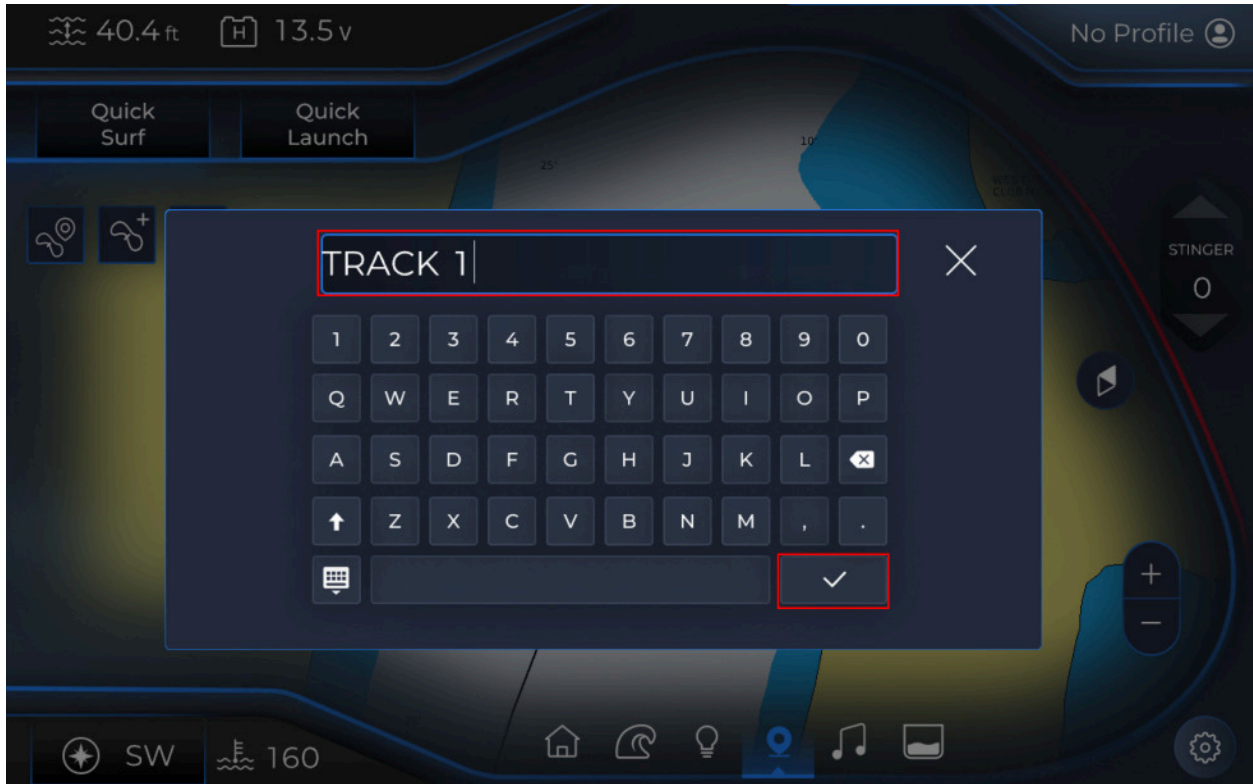


Tracks



Add a Track

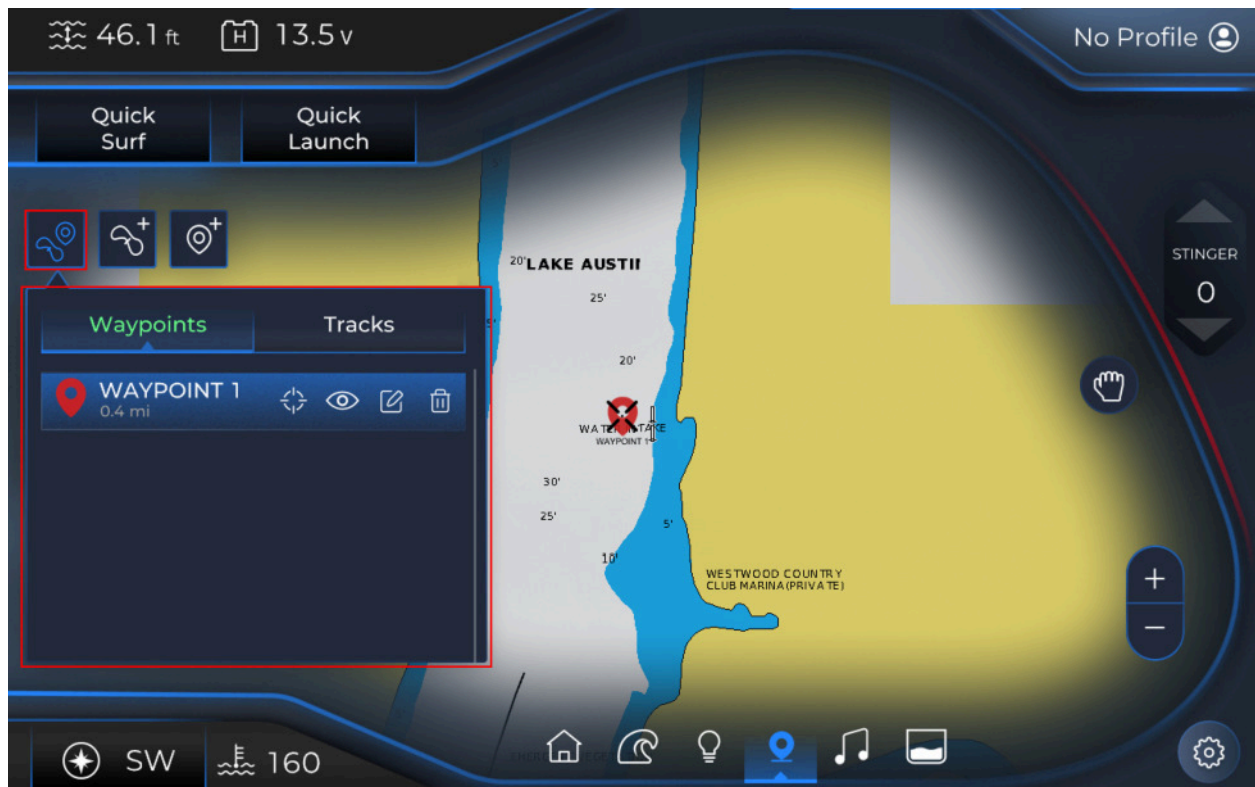
- Tap the Track icon.
- In the pop-up dialog box, enter a name for the track.



- When finished, tap the Enter (checkmark) icon.
- The track is now added.



Waypoint and Track List



Waypoints

- Tap the Waypoint and Track List icon.
- Note: In the pop-up window, there are 2 tabs: Waypoints & Tracks.
- Tap the Waypoints tab.
- The listed waypoints are displayed.
- Each waypoint has 4 corresponding options:
 - Pan to the waypoint (1st icon).
 - Show the waypoint (2nd icon).
 - Rename the waypoint (3rd icon).
 - Delete the waypoint (4th icon).



Tracks

- Tap the Waypoint and Track List icon.
- The pop-up window is displayed on the Map page.
- Tap the Tracks tab.
- The listed tracks are displayed.
- Each track has 3 corresponding options:
 - Toggle the visibility on/off (1st icon).
 - Rename the track (2nd icon).
 - Delete the track (3rd icon).
- Tapping the track icon next to each track name will cycle the color between red, blue, green, and black to help differentiate the different tracks

Profile Popup

From the main right display, in the top right-hand corner, tap the Profile icon.



Create New

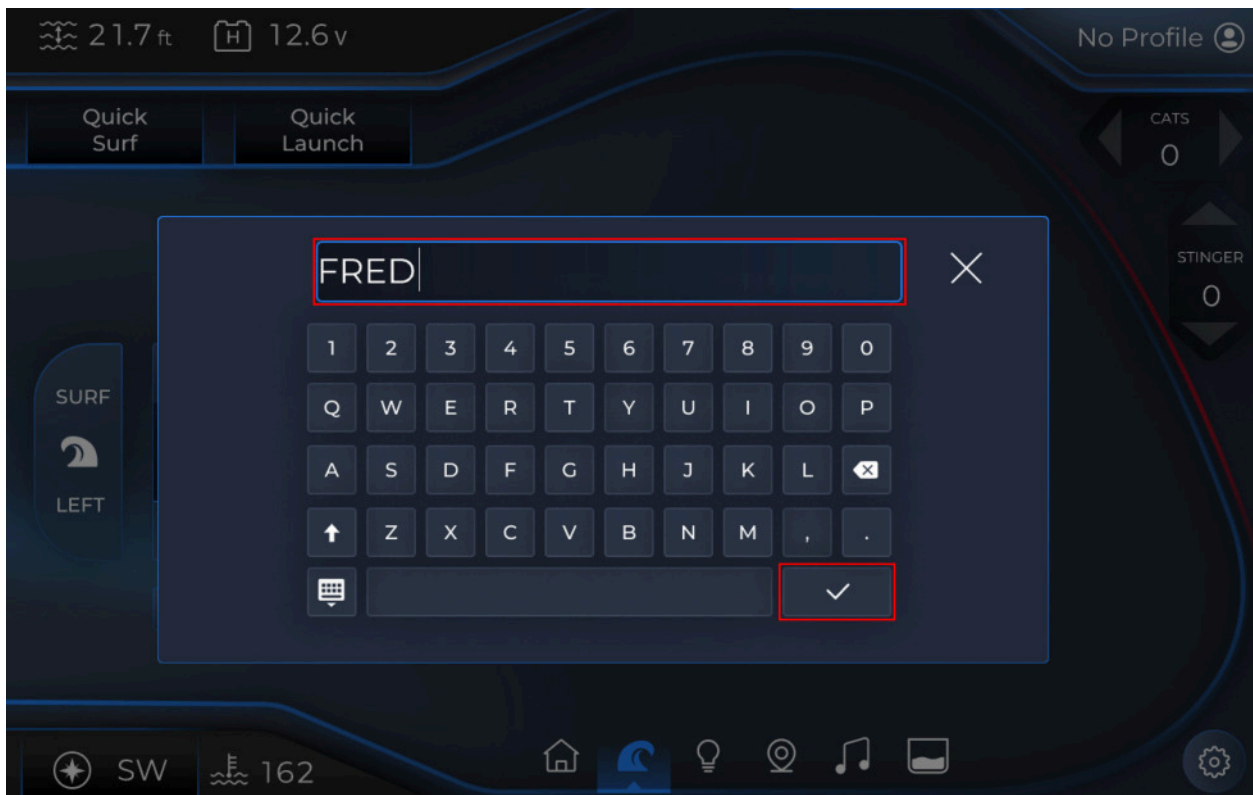
- Note: In the Profile pop-up window, there are 3 default profiles:
 - Wakeboard
 - Pro Surf Left
 - Pro Surf Right
- To create a new profile, tap Add.



- The Profile list displays 12 field options:
 - Name
 - Quick Surf
 - Surf Tab
 - Center Tab
 - Set Speed
 - Center
 - STBD RAM
 - PORT RAM
 - BOW PNP
 - TRANSOM PNP
 - STBD PNP
 - PORT PNP
- Note: The fields are automatically populated with default values.
- Tap Name.



- In the pop-up dialog box, enter the profile name.
- Tap the Enter (checkmark) icon.



- The entered name is now displayed.

- Locate Quick Surf.
- Tapping this box will cycle between surf left and surf right to determine which surf tab is being controlled



- Locate Surf Tab.
- Tap the corresponding value and locate the left-adjacent keypad.
- Enter the desired tab position and tap the Enter (checkmark) icon.



- Note: The field is now updated with the corresponding data.



- To alter other settings in the Profile list, repeat the process.
- When done, select the check mark button below the "Add" button to save the new profile

Edit Profile

- Note: The default profiles are uneditable.
- Locate and tap the appropriate profile.
- Tap Edit.
- Follow the above process to change the desired fields of the profile
- When done, select the check mark button below the “Add” button to save the changes

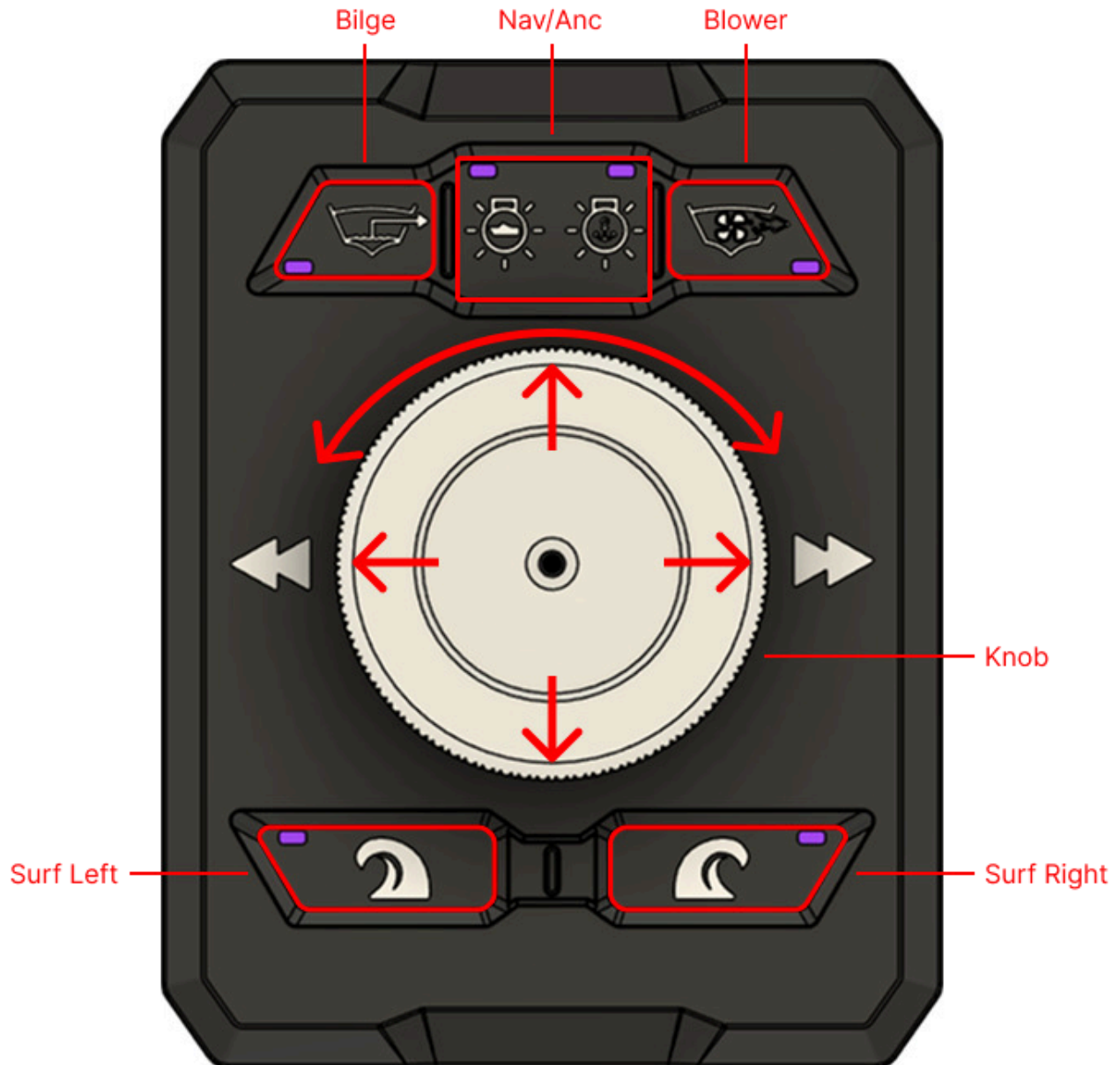
Activate/Deactivate Profile

- Locate and tap the appropriate profile.
- The Profile list displays the profile’s information.
- Tap Activate.
- The profile is now activated.
- To deactivate the profile, tap Deactivate.

Profile Pinning

- To pin a profile to the top of the list, select the white pin next to the selected profile
- The pin will turn blue, and this profile will be pinned to the top of the list starting below the default Pro Surf profiles

Knob Ops



LED Backlight

The knob backlight and LED indicators will match the brightness of the display, and in RGB equipped boats, will match the color and intensity of the Interior zone set in the switching page. The keypad LEDs will remain on regardless if the Interior RGB zone is on or off to ensure indicator LEDs are always visible

LED Indicators

The small LEDs on each button will light up in correspondence with the function they control, even if switched by the page. Note: if the bilge pump is automatically running, the bilge indicator will blink until it stops running.

Media Controls

The knob controls several features of the media playback through knob turns, presses, and joystick movements.

Knob Controls

- Turning the knob controls the audio volume, and a popup on the screen will appear to indicate the volume change
- Pressing the knob will play/pause a song if the source is bluetooth, and will mute/unmute audio if play any other source
- Pushing the knob left and right will skip back/forward if in bluetooth playback, or seek left/right if in radio source
- Pushing the knob up and down will cycle between audio sources

Switching Controls

The keypad buttons mimic some touch controls found on the screen. Both the keypad LED indicators and the screen graphics will update regardless which control is used to accurately reflect the action taking place

Keypad Buttons

- Pressing the bilge button will activate the manual override of the bilge. The indicator LED will light up anytime the bilge is running, both in manual override mode and when automatically running
- Pressing the blower button will turn on the blower. The indicator LED will light up anytime the blower is running, both in manual mode and automatically on startup
- The Nav/Anc button cycles the navigation and anchor lights, following the same cycle procedure as found on the Switching Page controls. The indicator LED will light up when either light is on
- The surf buttons activate the surf tabs. These work the same as the Surf Left and Surf Right buttons on the Surf Page, and the respective indicator LED will light up when the surf side is active

Menu



Factory Reset

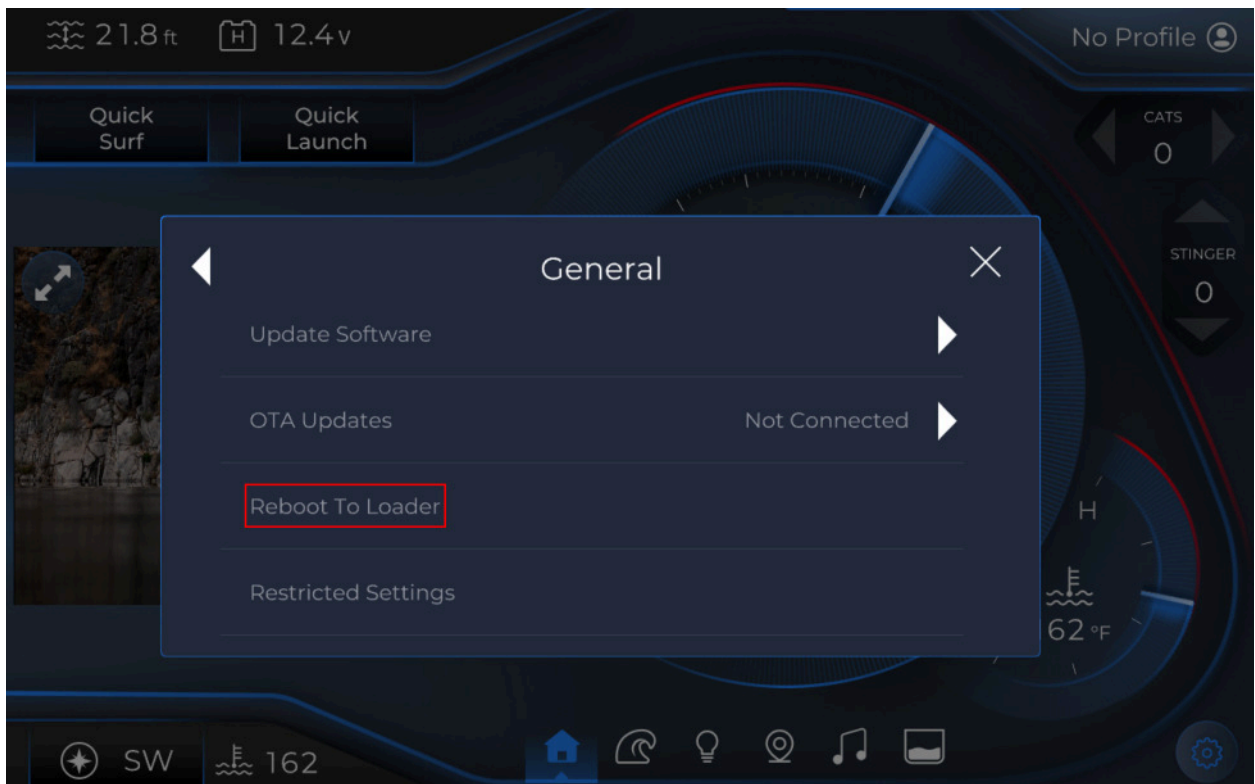
- From the main right display, in the bottom right-hand corner, tap the Settings icon.
- In the Settings pop-up window, tap General.
- Simultaneously touch and scroll up to locate the Factory Reset option.
- Tap Factory Reset.
- Both displays will be reset to their factory settings



- In the Factory Reset pop-up dialog box, tap Confirm.
- Note: A proceeding Factory Reset pop-up dialog box will appear with the message “Factory reset in progress – display will reboot”.
 - To immediately close, tap OK; If no action is performed the window will eventually disappear.

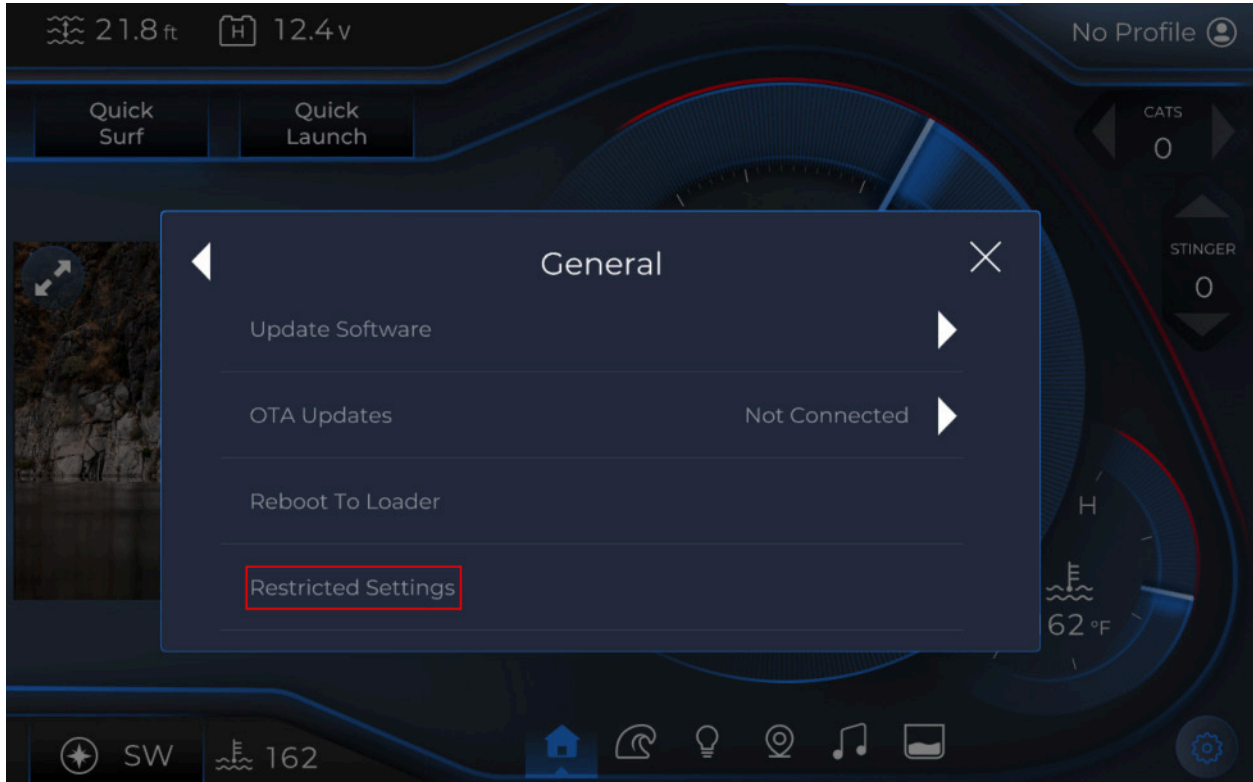


Reboot to Loader

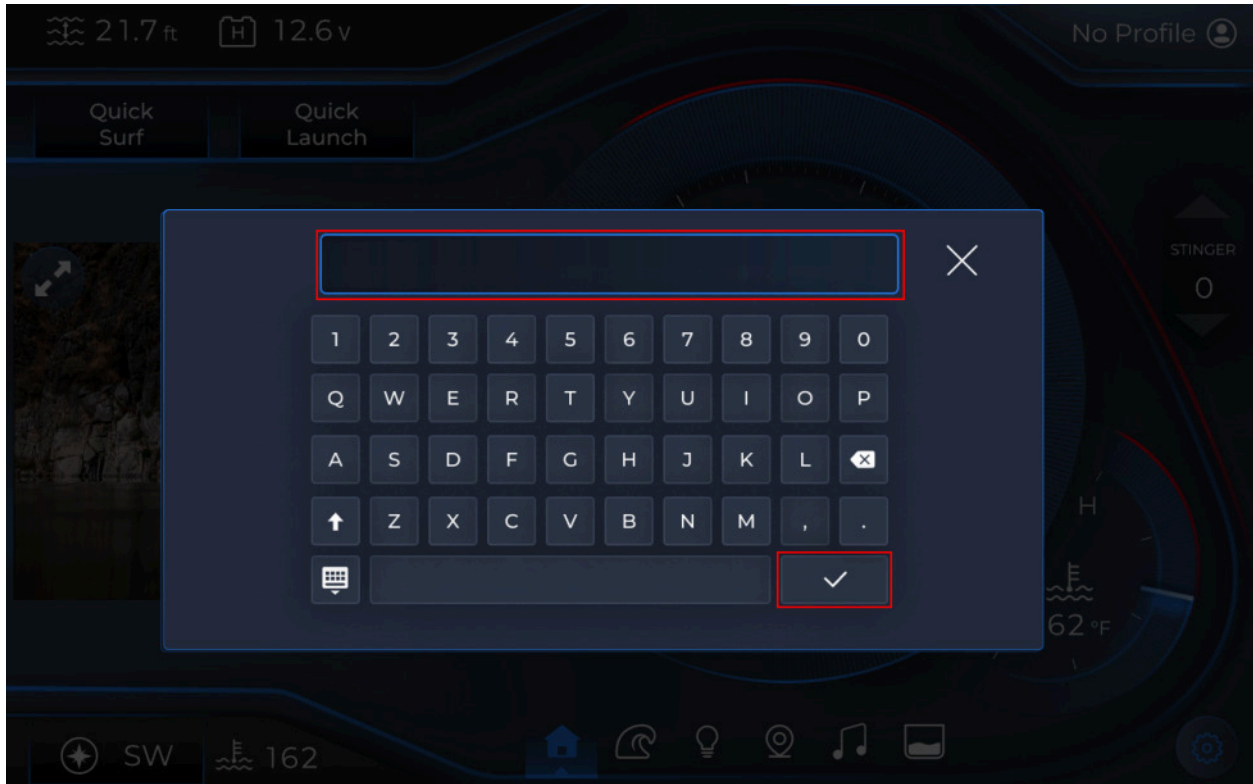


- Note: This is a rescue-mode restart feature; switches the display into reboot mode; permits loading software from the USB.
- From the main right display, in the bottom right-hand corner, tap the Settings icon.
- In the Settings pop-up window, tap General.
- Tap Reboot to Loader.
- Both the left and right display will reboot to the software loader

Dealer Settings



- From the main right display, in the bottom right-hand corner, tap the Settings icon.
- In the Settings pop-up window, tap General.
- Simultaneously touch and scroll up to locate the Restricted Settings option.



- In the pop-up dialog box, enter the appropriate passcode.
- Tap the Enter (checkmark) icon.
 - Note: Once the passcode is submitted, the Settings pop-up window automatically re-displays.
- The Dealer options are now accessible
- In the Settings pop-up window, tap General.
- Simultaneously touch and scroll up to locate the Dealer Options feature.
- Tap Dealer Options.
- 4 Dealer Options are displayed:
 - Installation Options
 - Tap Installation Options.
 - Toggle on/off the appropriate features:
 - RGBW
 - Heater
 - Seat Heater
 - Underwater Lights
 - Interior Lights
 - Exterior Lights
 - CATS (note: selecting this option will require the display to reboot)
 - Bow Ballast
 - Transform Ballast
 - Starboard Ballast
 - Port Ballast
 - Port Ramfill

- To revert to the Dealer Options page, in the left-hand corner, tap the Back (left arrow) icon.
 - Boat Model
 - Tap Boat Model.
 - 3 options are displayed:
 - Ri230
 - Ri240
 - Ri265
 - Tap the appropriate option.
 - To revert to the Dealer Options page, in the left-hand corner, tap the Back (left arrow) icon.
 - Boat Scheme
 - Tap Boat Scheme.
 - 4 options are displayed:
 - Core
 - Warrior
 - Drive
 - Slice
 - Tap the appropriate option.
 - To revert to the Dealer Options page, in the left-hand corner, tap the Back (left arrow) icon.
 - Customization
 - Tap Customization.
 - Note: This feature is for boat colorization.
 - 4 options are displayed:
 - Hull Base
 - Hull Main Front
 - Hull Accent
 - Upholstery
 - Deck
 - Tower
 - Trim
 - Tap the appropriate option.
 - Tap the appropriate color.
 - To revert to the Dealer Options page, in the left-hand corner, tap the Back (left arrow) icon.

Ballast Timers

- Note: The Wake feature is only active if the Dealer Settings are enabled.
- Refer to the [Dealer Settings](#) section, to activate the dealer features.
- From the main right display, in the bottom right-hand corner, tap the Settings icon.
- Simultaneously touch and scroll up to locate the Wake option.
- Tap Wake.
- All (5) ballasts are displayed:

- Port Ballast
- Starboard Ballast
- Center Ballast
- Bow Ballast
- Transom Ballast
- Locate and tap the appropriate ballast.
- In the respective ballast window, there are 3 options:
 - Enabled/Disabled toggle button
 - Tap the toggle button to the appropriate option.
 - Ballast Empty time
 - Tap the corresponding time.
 - Adjacent decrease and increase buttons are now displayed.
 - Note: The buttons apply 10-second increments.
 - Set the appropriate time.
 - Ballast Fill Time
 - Tap the corresponding time.
 - Adjacent decrease and increase buttons are now displayed.
 - Note: The buttons apply 10-second increments.
 - Set the appropriate time.
- Ramfill Drain/Fill Timers
 - Ramfill equipped models fill the port and starboard ballasts with both the pumps and the ramfill vents when under way. The timers are set based on fill time while stationary in the water, and sped up while under way.
 - Ramfill Fill Time
 - With the engine on and the boat stationary, tap fill for the ramfill tanks.
 - The ramfills are full when you see water coming out of the ramfill vents on each side respectively. Note: if current timer is not long enough and stops before the ramfill tanks are full, tapping the fill button again will run the pumps for an additional 30 seconds
 - Note this time and set the timers in the menu accordingly.
 - Ramfill Empty Time
 - With the engine on and the boat stationary, tap empty for the ramfill tanks.
 - You should hear a change in the sound of the pumps when the tanks are empty. Note: if current timer is not long enough and stops before the ramfill tanks are full, tapping the empty button again will run the pumps for an additional 30 seconds
 - Note this time and set the timers in the menu accordingly.
- To revert to the Wake page, in the left-hand corner, tap the Back (left arrow) icon.
- Locate and tap the appropriate ballast.
- Repeat the previous steps.
- When finished, tap the Close icon.

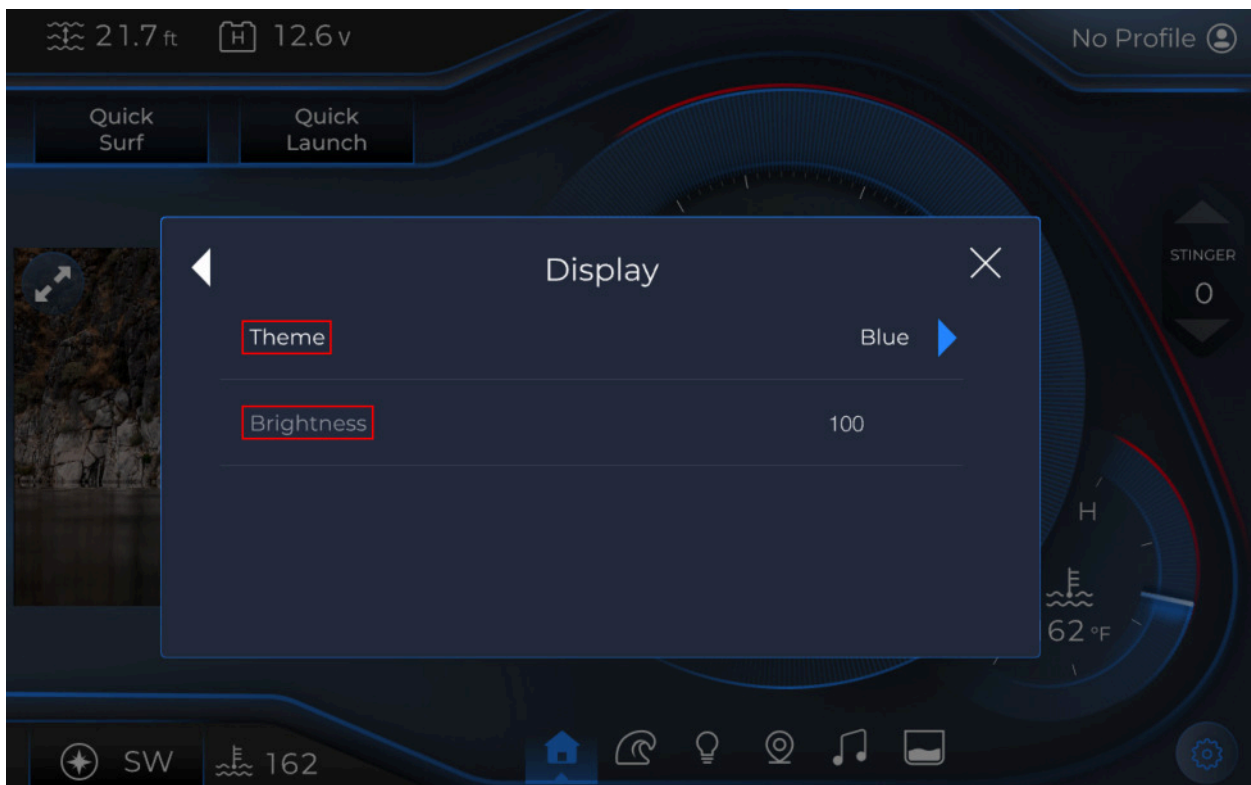
Actuator Troubleshooting

- Force Actuator Configuration- reconfigures the actuators CAN connection, only to be used if experience CAN communication errors with the actuators
- Trailer Test Mode- allows the tabs to be moved without the engine running and sitting stationary. This will automatically turn off upon display shutdown, but should be manually disabled once trailer testing is done

Wet Sounds Updater

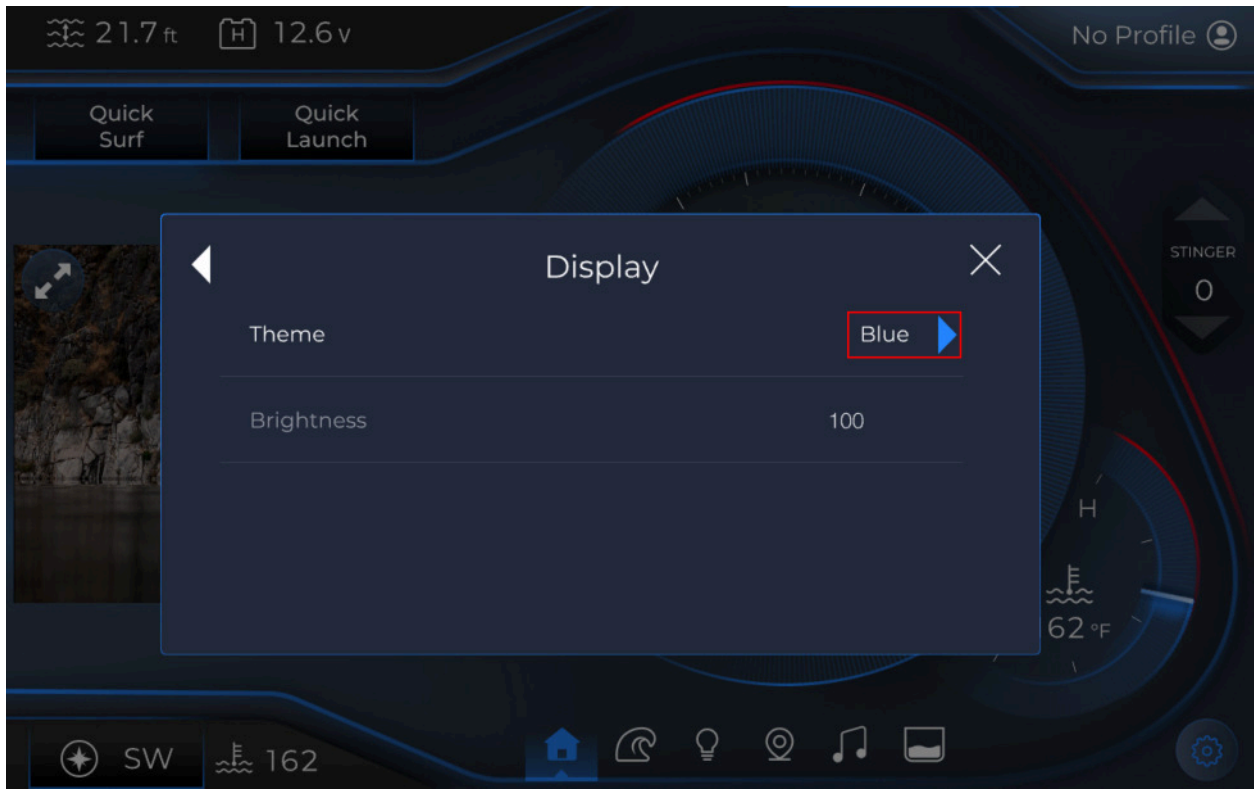
- Note: The Wet Sounds Updater is only active if the Dealer Settings are enabled.
- Refer to the [Dealer Settings](#) section, to activate the dealer features.
- Note: Ensure the appropriate USB with updates is plugged into BB-10.
- From the main right display, in the bottom right-hand corner, tap the Settings icon.
- In the Settings pop-up window, tap Audio.
- Tap Update Wet Sounds Software.
- Tap Search for Update Files.
- Note: On the right-hand side 3 horizontal dots will sequentially re-display until the files load.
- The updated files are now displayed.

Theme Color

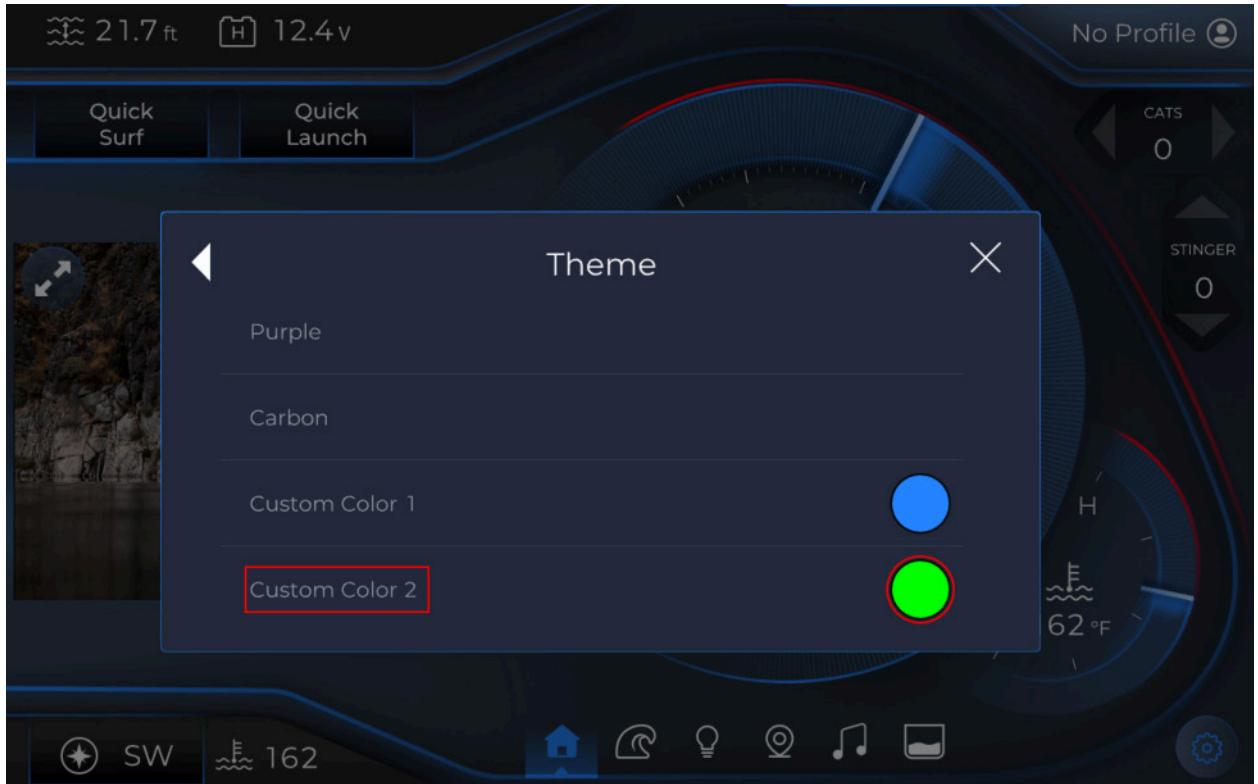


- From the main right display, in the bottom right-hand corner, tap the Settings icon.
- In the Settings pop-up window, tap Display.

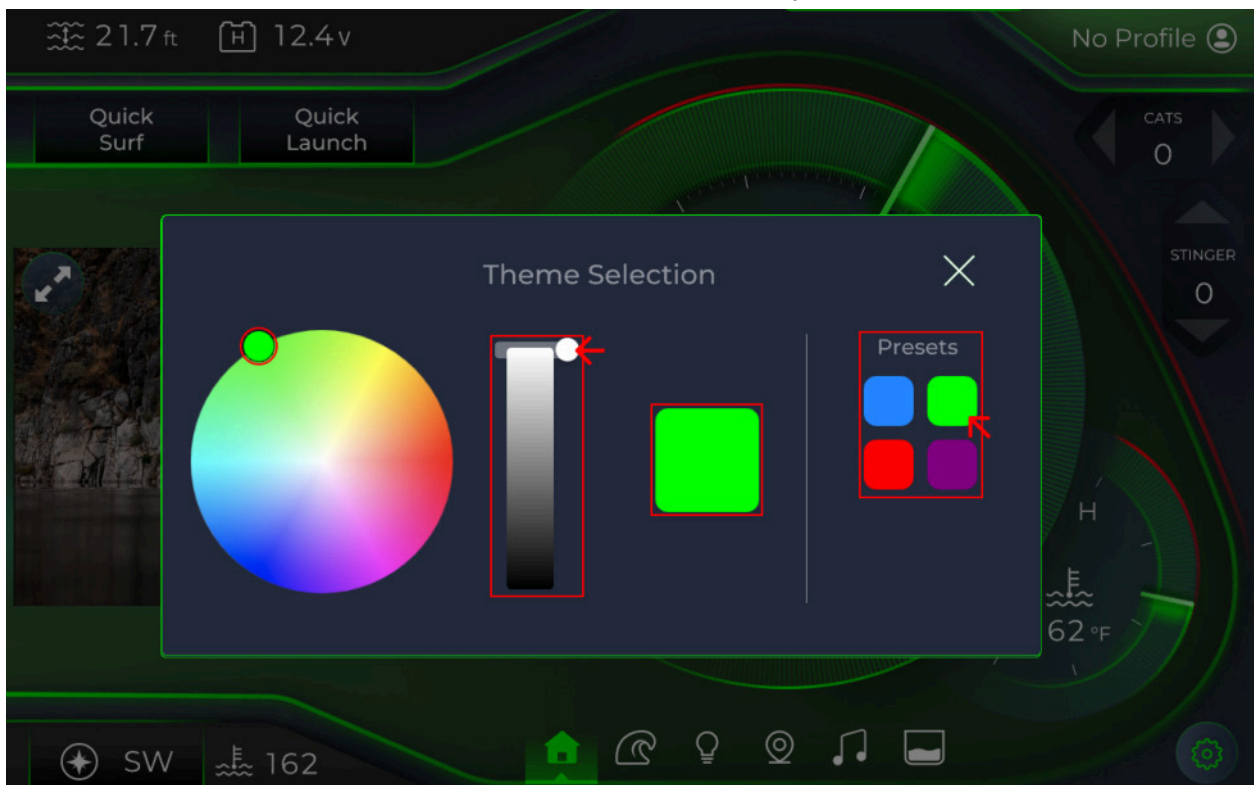
- 2 Display options are shown:
 - Theme



- Tap the respective color.
- Locate and tap the appropriate color.
- Note: Default and custom colors options are provided.
- Tap the appropriate default color.
- Alternatively, to select a custom color, locate and tap the appropriate custom color.
- Note: On boats not equipped with the RGB option, theme color also changes the keypad backlight color



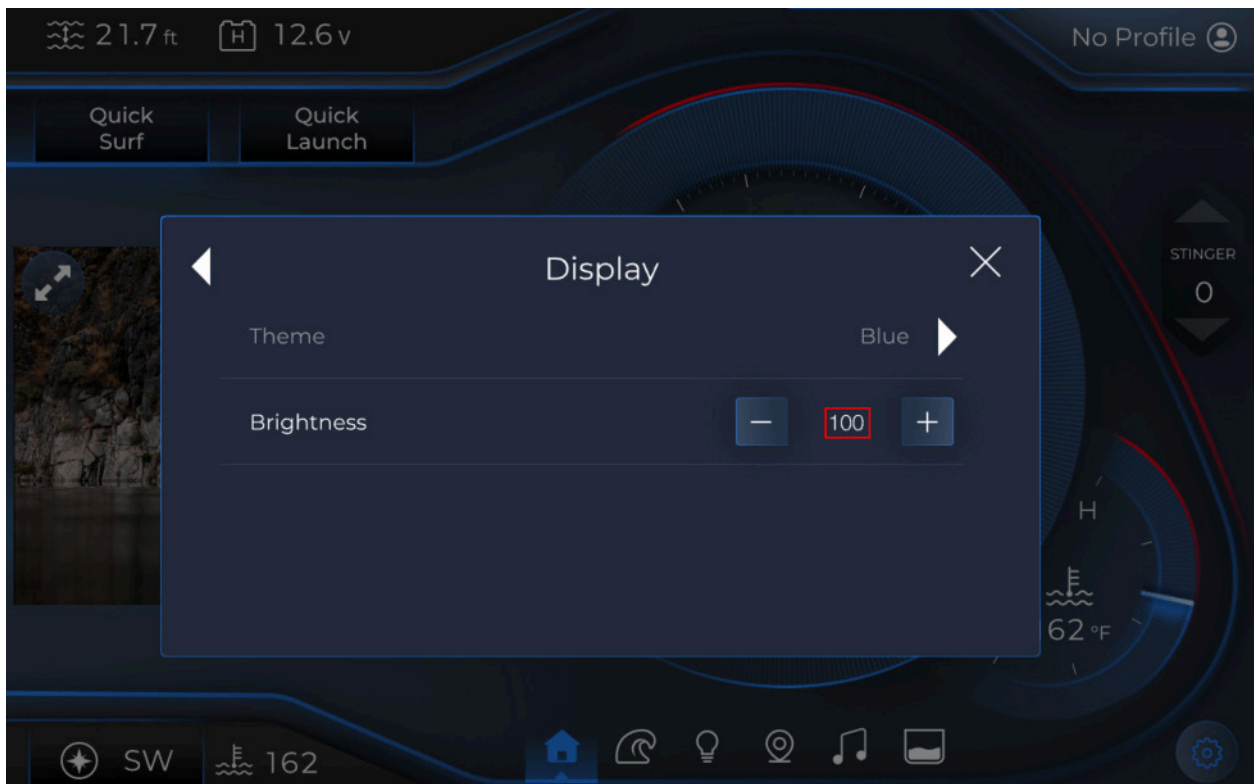
- The Theme Selection pop-up window is displayed.



- To quickly apply a color, locate the 4 preset color options.
- Tap the appropriate color.

- The color is now applied.
- Alternatively, to apply a custom color, simultaneously touch and slide the circle on the color wheel to the appropriate color.
- To adjust the brightness, simultaneously touch and slide the brightness slider to the appropriate setting.
- The color is reflected in the adjacent square.
- To save the customized color as a preset, locate the Presets area.
- Touch and hold on the appropriate preset.
- The selected preset is now updated.
- When finished, tap the Close icon.

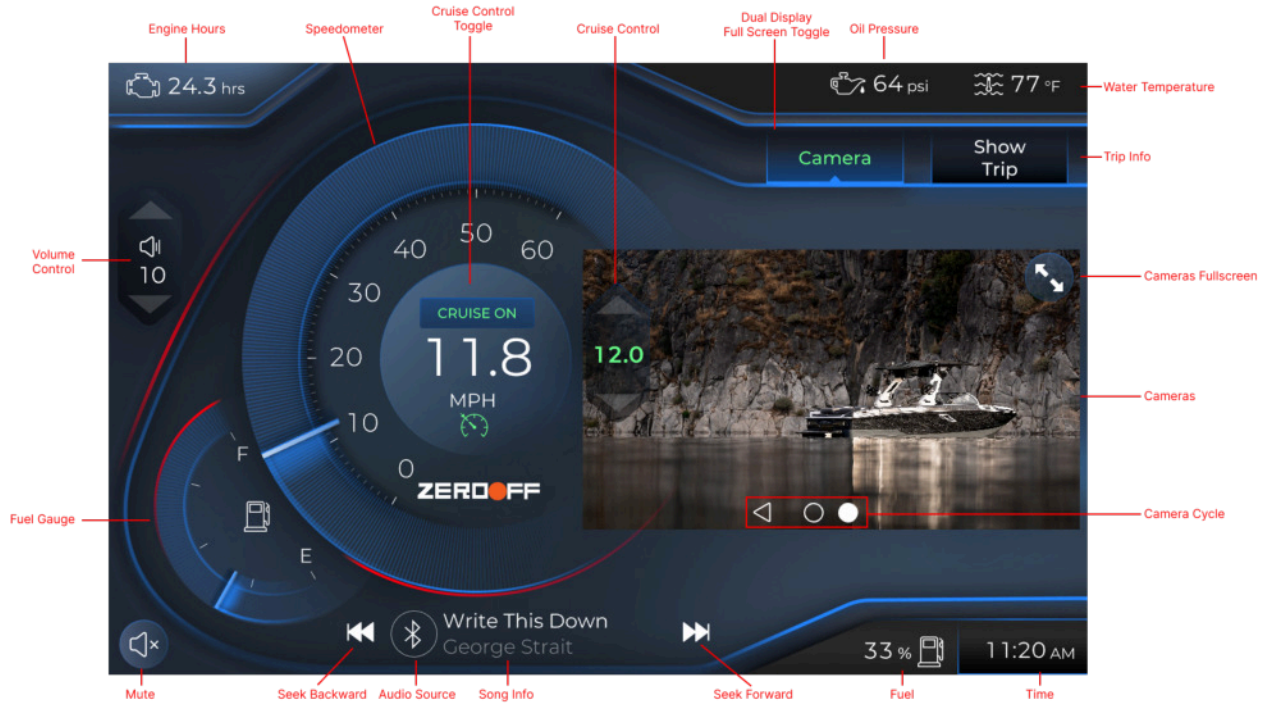
- Brightness



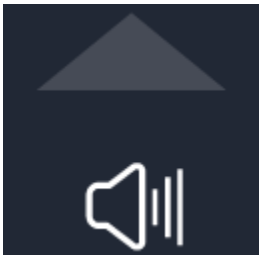
- Tap the respective number.
- Set the appropriate value.

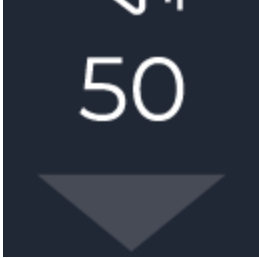
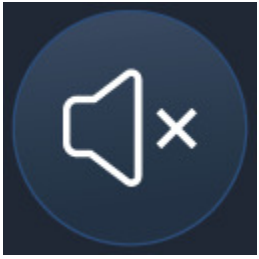

Left Display

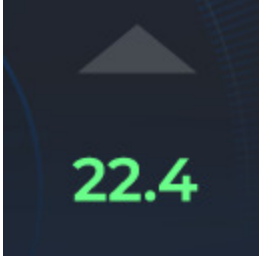
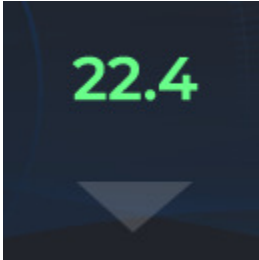
Home Screen




Controls

ICON	DESCRIPTION
	Tap to increase the volume

	Tap to decrease the volume
	Toggle to (un)mute the volume.
	Tap to Seek forward.
	Tap to Seek backward.
	Toggle to (de)active cruise control.

 <p>A dark blue square icon with a light blue upward-pointing arrow at the top and the number '22.4' in green in the center.</p>	<p>Tap to increase the cruise control speed.</p>
 <p>A dark blue square icon with a light blue downward-pointing arrow at the bottom and the number '22.4' in green in the center.</p>	<p>Tap to decrease the cruise control speed.</p>

Gauges

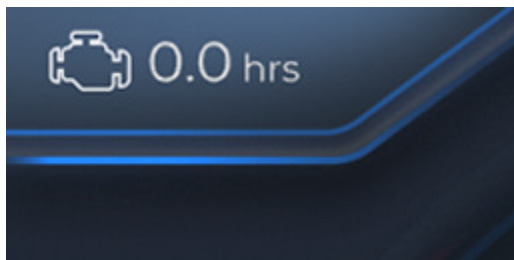
ICON	DESCRIPTION
 <p>A speed gauge with a blue needle and a digital display showing '11.9 MPH'. The gauge has a scale from 0 to 60. A 'CRUISE OFF' button is visible above the digital display. The 'ZERO OFF' logo is at the bottom. A fuel gauge icon is on the left side.</p>	<p>Analog + digital speed (MPH).</p>



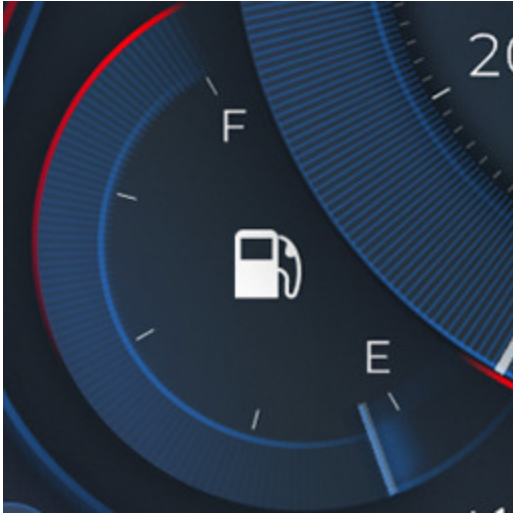
Cruise control status OFF.



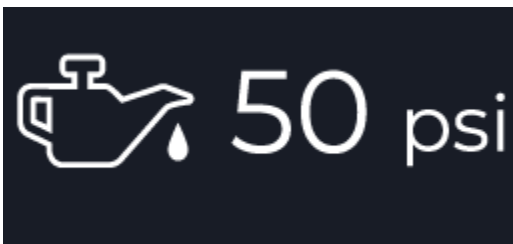
Cruise control status ON.



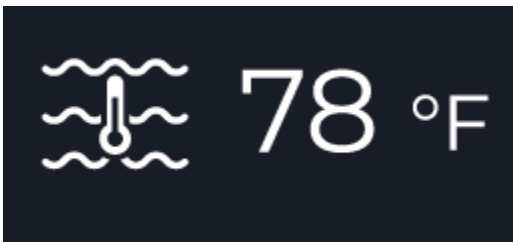
Engine hours



Fuel



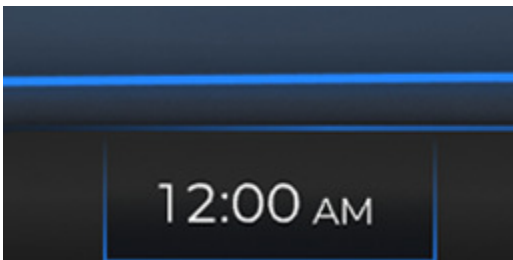
Oil pressure



Water temperature

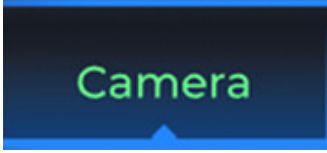
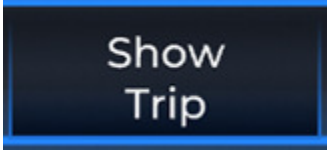


Audio source and controls.



Clock

Top Buttons

ICON	DESCRIPTION
	Camera button that toggles between full screen and minimized picture on both displays
	The Show Trip option displays the trip information.

Cruise



- To (de)activate the cruise control feature (un)tap the Cruise Control icon.

- Note: The Cruise Off/On text will reflect according to the applied setting.
- Note: Activating Cruise Control will populate the Cruise Control speed options.
- In the right-adjacent area, locate the corresponding Cruise Control speed options.
- Tap the Up arrow to increase the speed.
- Tap the Down arrow to decrease the speed.
- The applied speed setting is reflected in the digital value.

Show Trip Information



- From the Cruise Control display, tap the Show Trip tab.
- Note: Once this feature is active, it will replace the Camera display.
- The trip information is displayed:
 - Trip Time
 - Fuel Average
 - Fuel Used
 - Trip Distance
 - Fuel Rate
- To reset the trip information, tap Reset.
- To close the Trip Information window, retap the Show Trip tab.
- The Camera display is reactivated.

Audio Controls



- On the bottom of the screen, the selected source is displayed along with its corresponding features.
- Muting and decreasing/increasing the volume is displayed on the left side of the display.
- Tapping the audio source (Bluetooth displayed above) cycles between audio sources

Cameras



- Cameras can be cycled between front, rear, and tower (on equipped models) using the arrows at the bottom of the camera feed



- A loading symbol will appear when switching sources, and will go away once the camera feed is live



- Cameras can be expanded to a full screen view by clicking on the icon in the top right corner of the camera feed

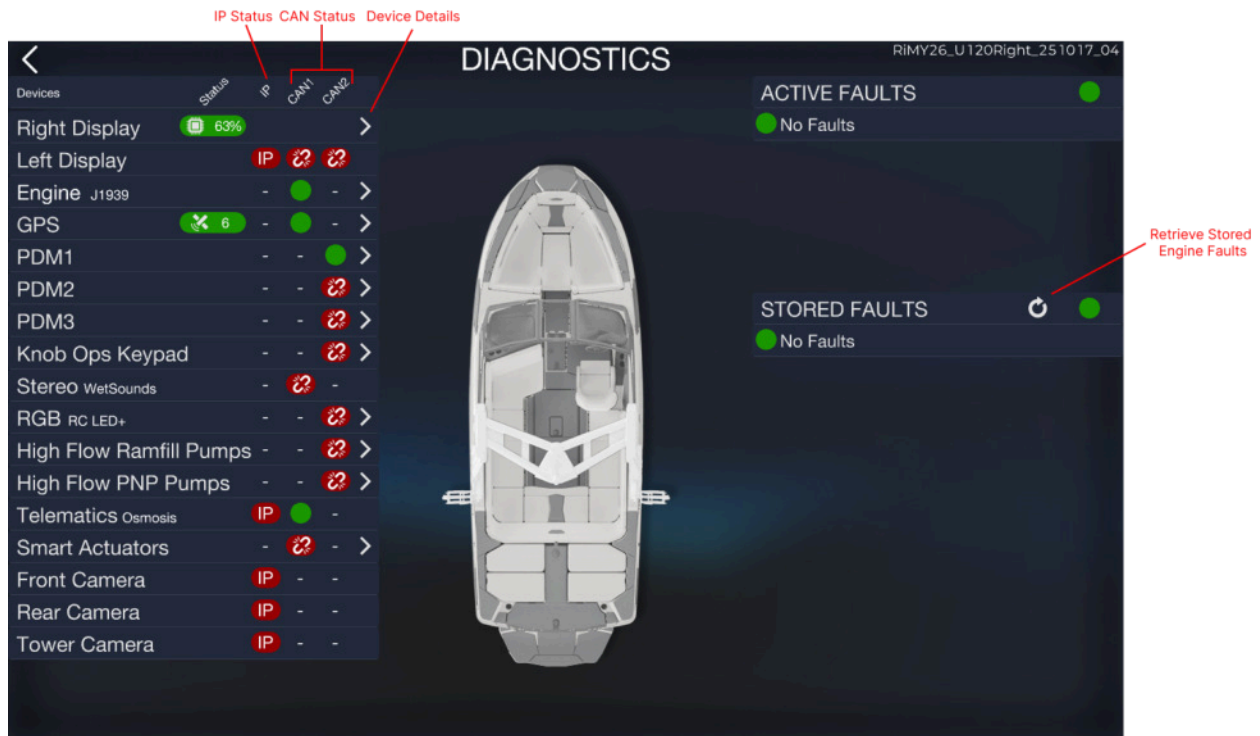


- When in fullscreen mode, the cruise controls and digital speedometer migrate to the bottom left corner of the screen
- Camera source can also be cycled the same as in the minimized mode
- Clicking the icon in the top right corner of the camera feed will bring the page back to the minimized camera view





Diagnostics

The right side display contains a diagnostics page to help monitor and troubleshoot the different controllers, CAN, and ethernet devices communicating with the display. Diagnostics can be accessed at the bottom of the first menu in the settings.

Overview



Device Statuses

ICON	DESCRIPTION
	Device connected and communicating
	Device CAN error- no communication with display
	Device IP error- no communication with display
	Display CPU Usage



GPS number of satellites in view

Faults

Faults are displayed on the right side of the diagnostics page. Any active DTC faults from the engine, display, or switching devices are displayed under the “Active Faults” section. Engine DM2s stored on the engine ECU can be retrieved by tapping the “Retrieve Stored Engine Faults” arrow, and any stored faults will be displayed below.

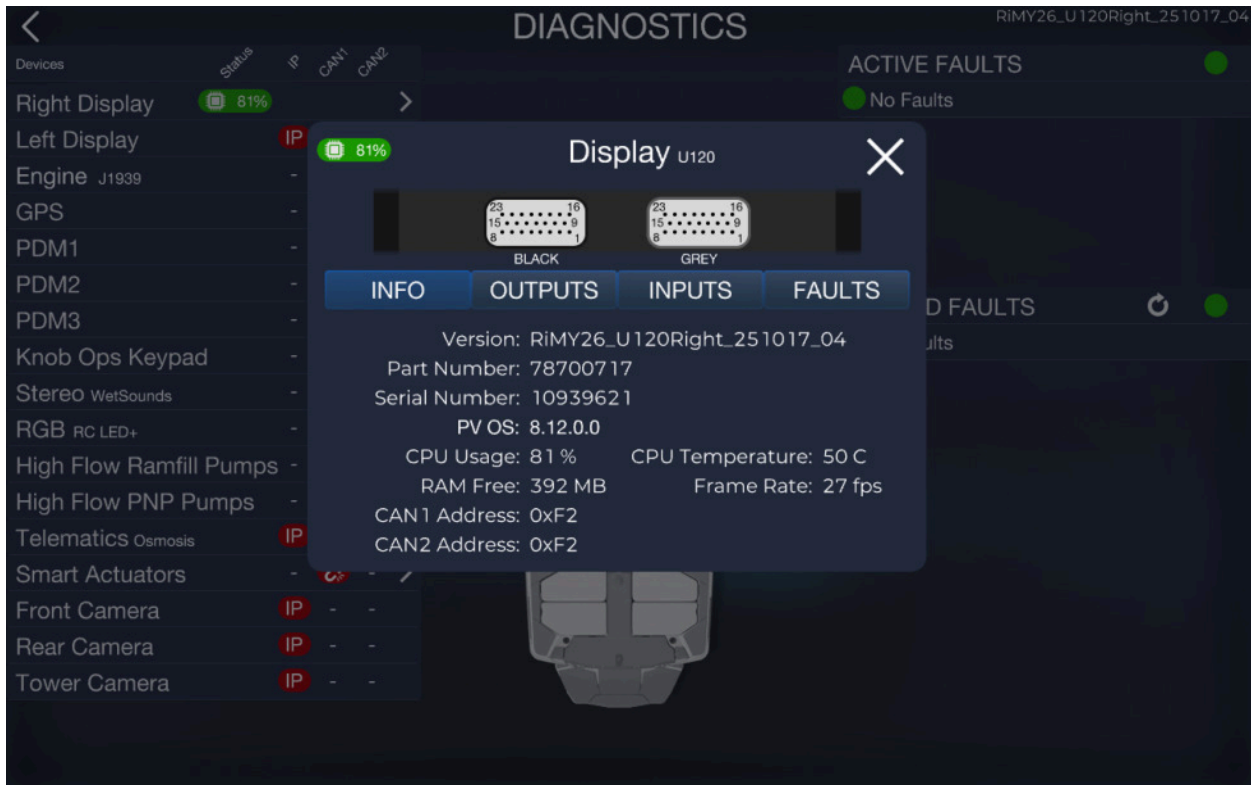
Devices

The devices tab gives a quick overview of all CAN, ethernet, and display devices connected to the display. IP and ethernet devices will either display a green dot when connected and communicating, or a red dot when not detected by the display. A dash means the device does not have any communications on the network.

- Status- this displays device specific statuses. In this case, CPU usage and the number of satellites in view of the GPS puck
- IP- status of IP connected devices
- CAN 1 and 2- status of CAN connected devices

Selecting the “Device Details” arrow will open a menu providing detailed information for each device.

Display



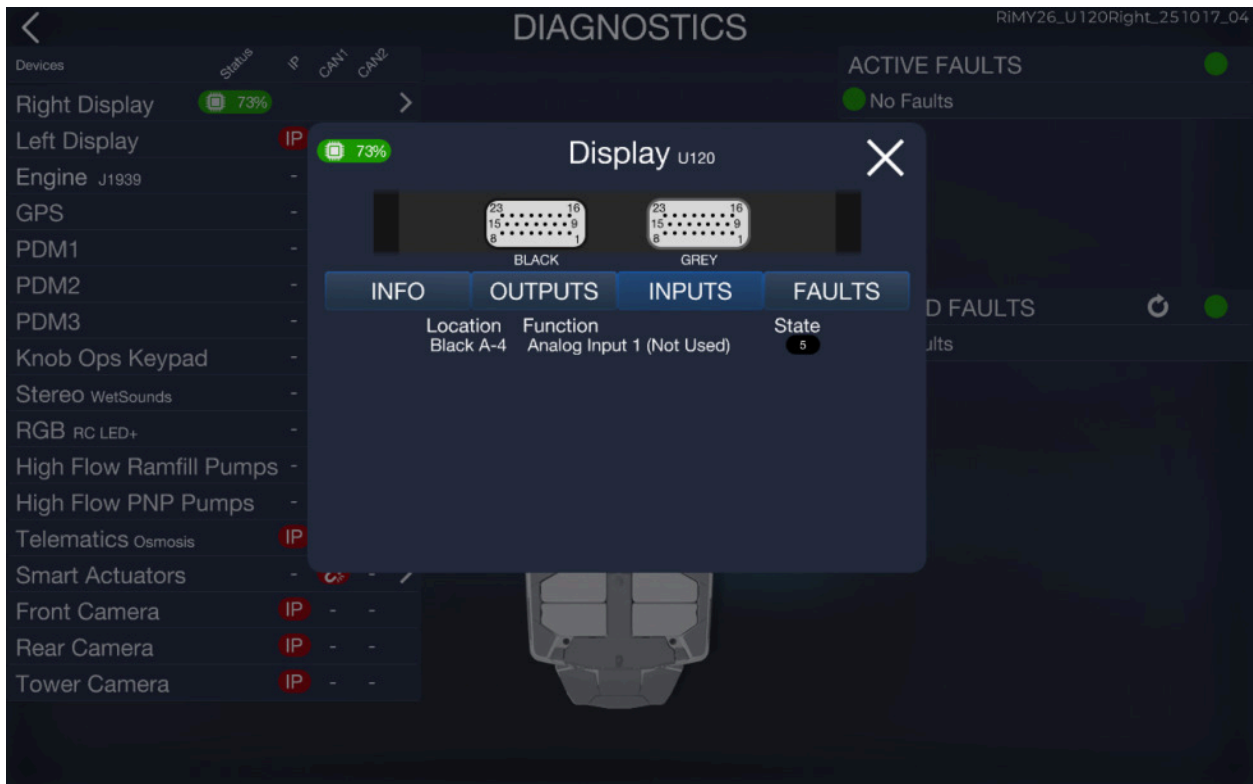
Display Info

- Version- software version currently running on the display. Important to note this version when reporting issues
- Part Number
- Serial Number
- PV OS- internal firmware version the software is made with
- CPU Usage- total load on the display's CPU. High CPU usage may cause poor touch response, slow software performance, or system reboots
- RAM Free- available memory on the display. Low available memory may cause poor touch response, slow software performance, or system reboots
- CAN Address- source address claimed by the display on the CAN network. Other devices trying to communicate from the same source address may cause unexpected CAN functionality
- CPU Temperature- high CPU temperature may reduce the display's performance. Excessively high temperature will result in a DTC popup and reduction in the screens brightness until normal operating temperature is achieved
- Frame rate- smoothness of displays animations measured in frames per second. Reports of "slow" software/touch response can be confirmed by this number, usually a symptom of high CPU or memory usage.
- Note: selecting the "Left Display" device in the device overview will open this same diagnostic info on the left display.



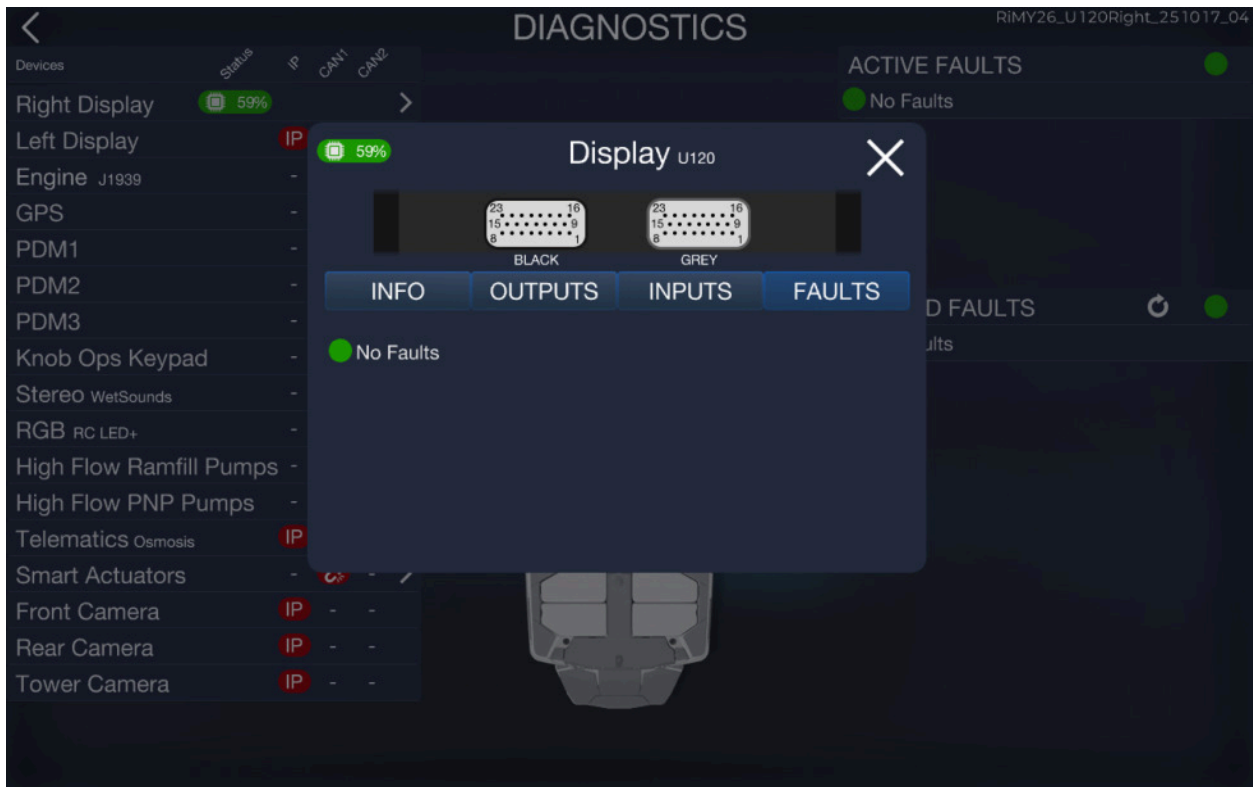
Display Outputs

- Open Drain- On/off designated by green/black dot, respectively. Not currently used in this software



Inputs

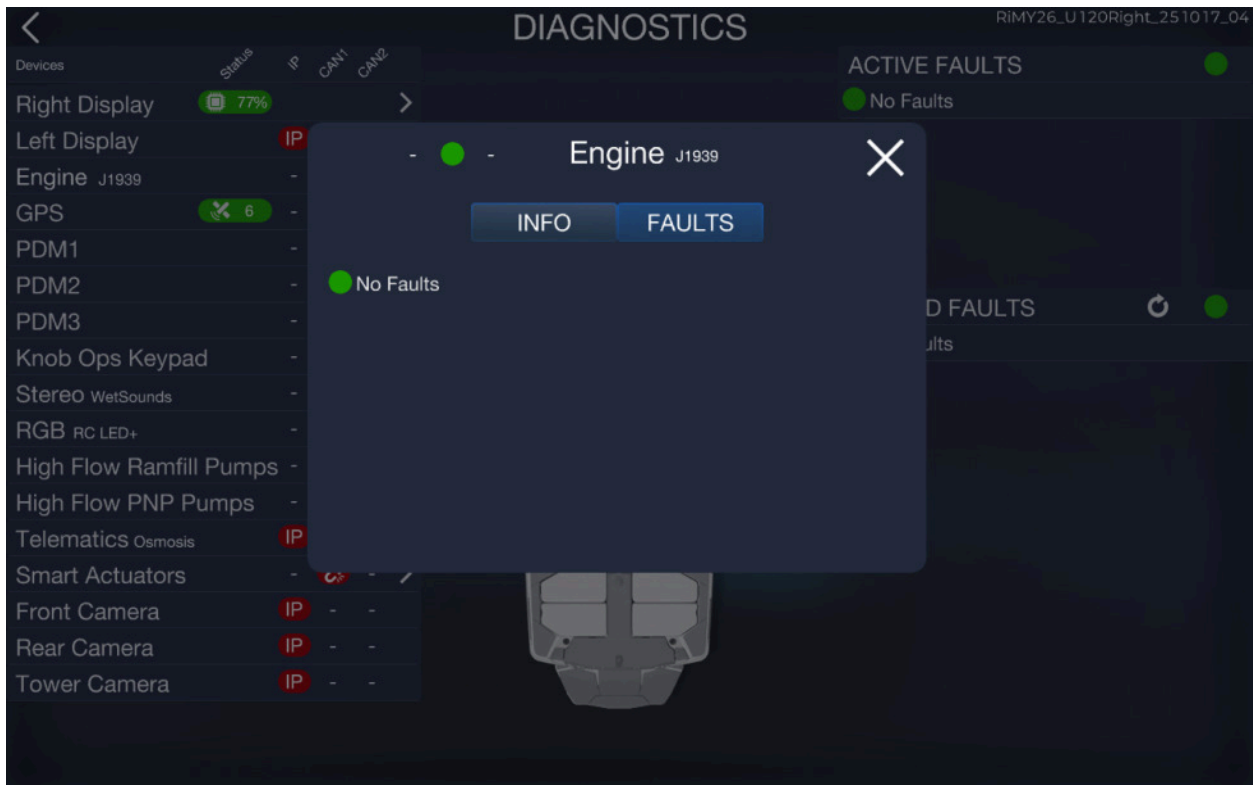
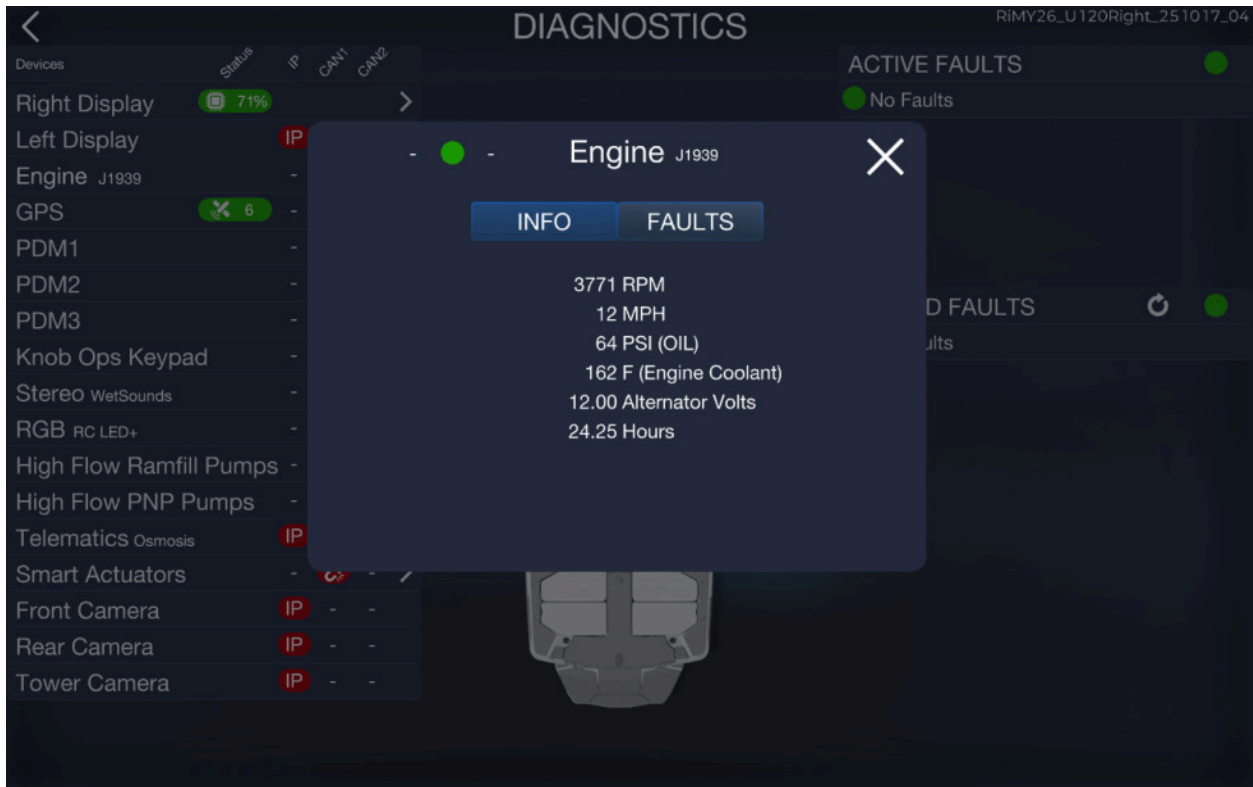
- Analog Input- displays a value of 0-5V or resistive reading depending on configuration.
Not currently used in this software



Faults

- Active faults from the display

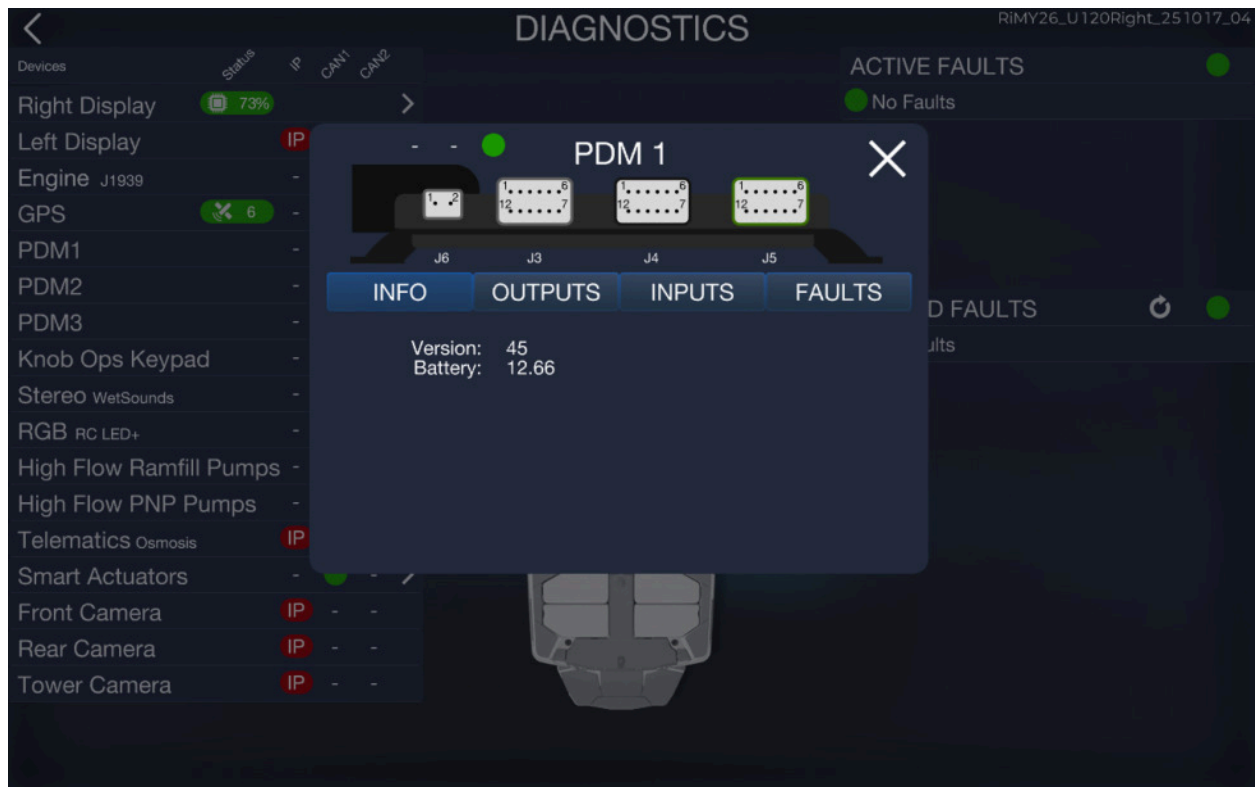
Engine



Faults

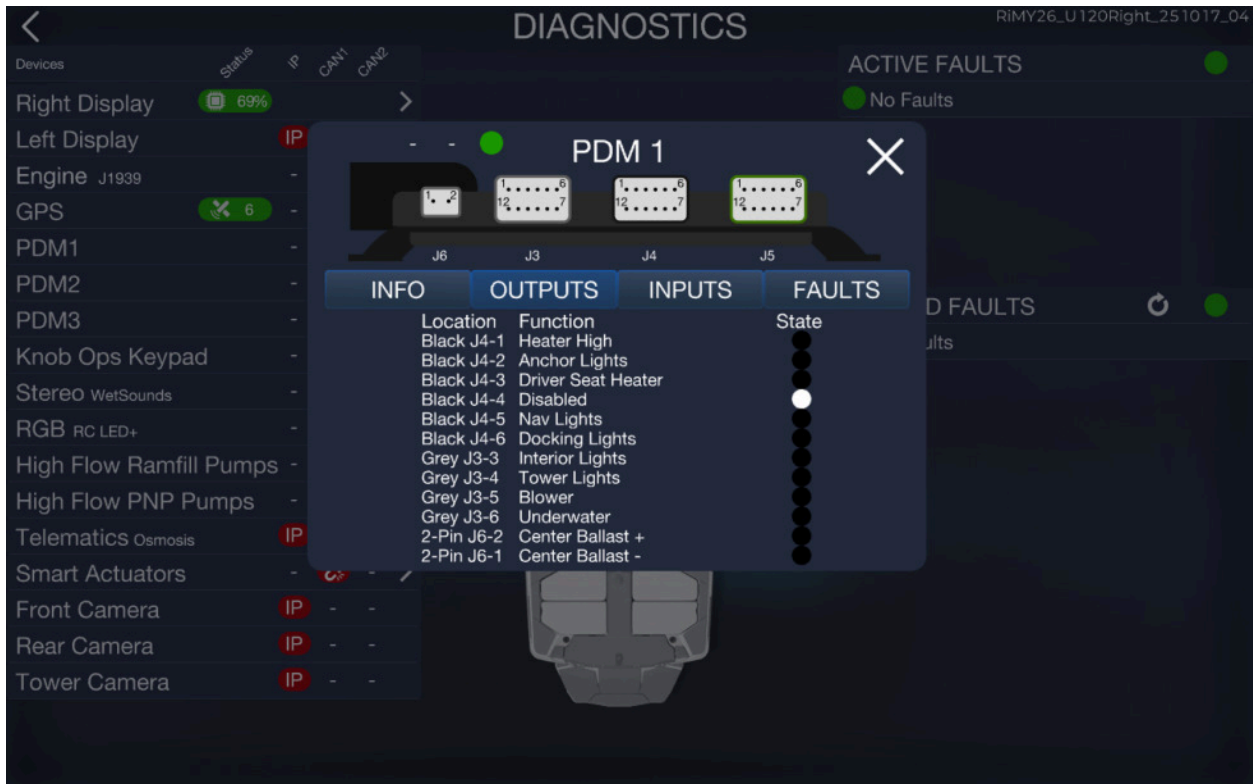
- Active and stored faults by a J1939 engine device

PDMs



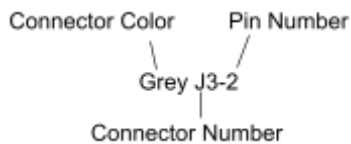
Info

- Version- software version internal to the PDM
- Battery- This is the voltage seen by the PDM, and the voltage that any devices powered by the PDM will be sourced from

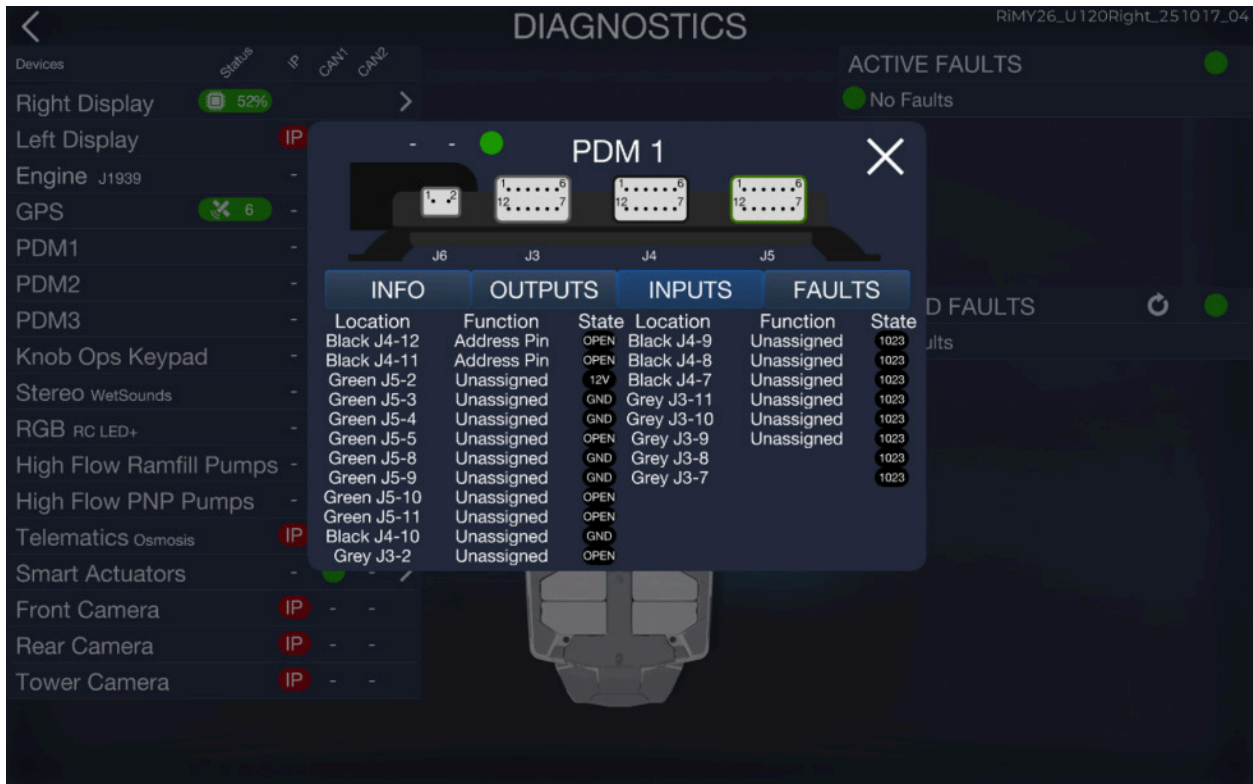


Outputs

- Location- connector and pin number of output.

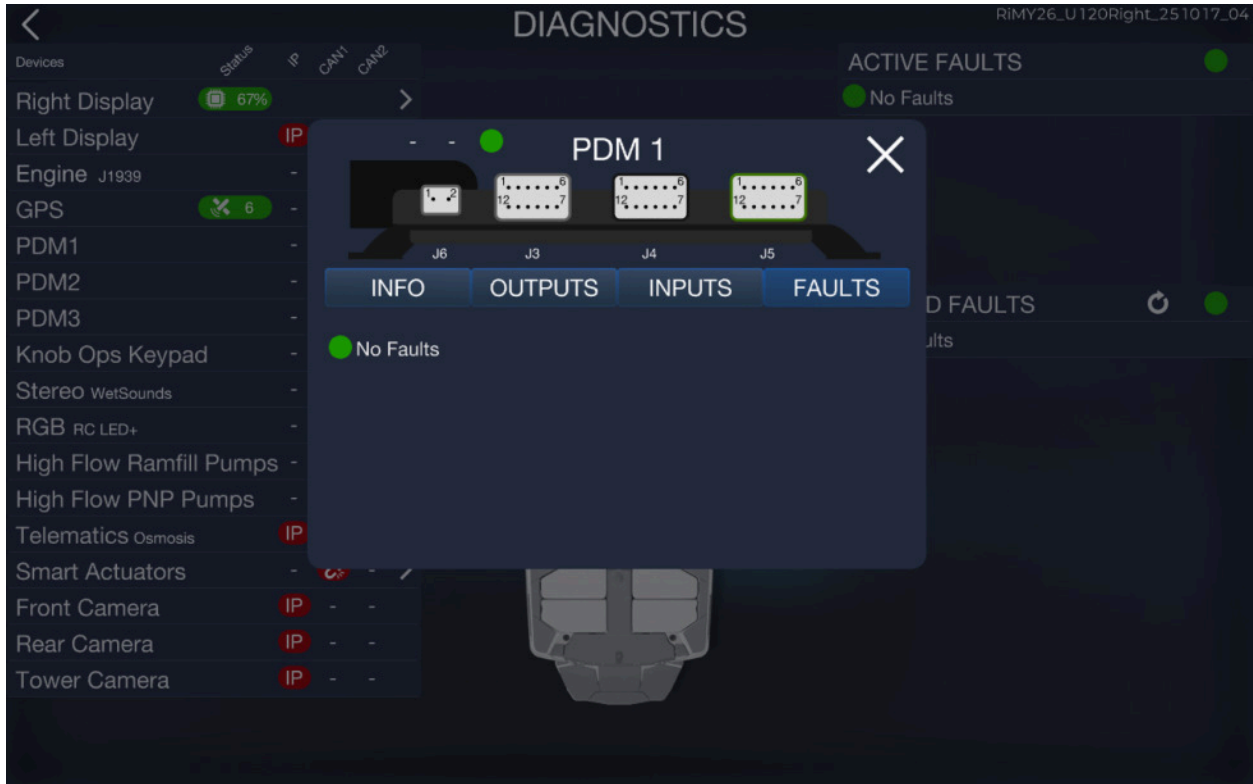


- Function- device powered by output
- State- White: not used. Black: Off Green: on. Red: fault. If the output is faulted, it is denoted with either "Short" for a short circuit fault, or "Over" for an overcurrent fault meaning the output exceeds the digital fuse setting.



Inputs

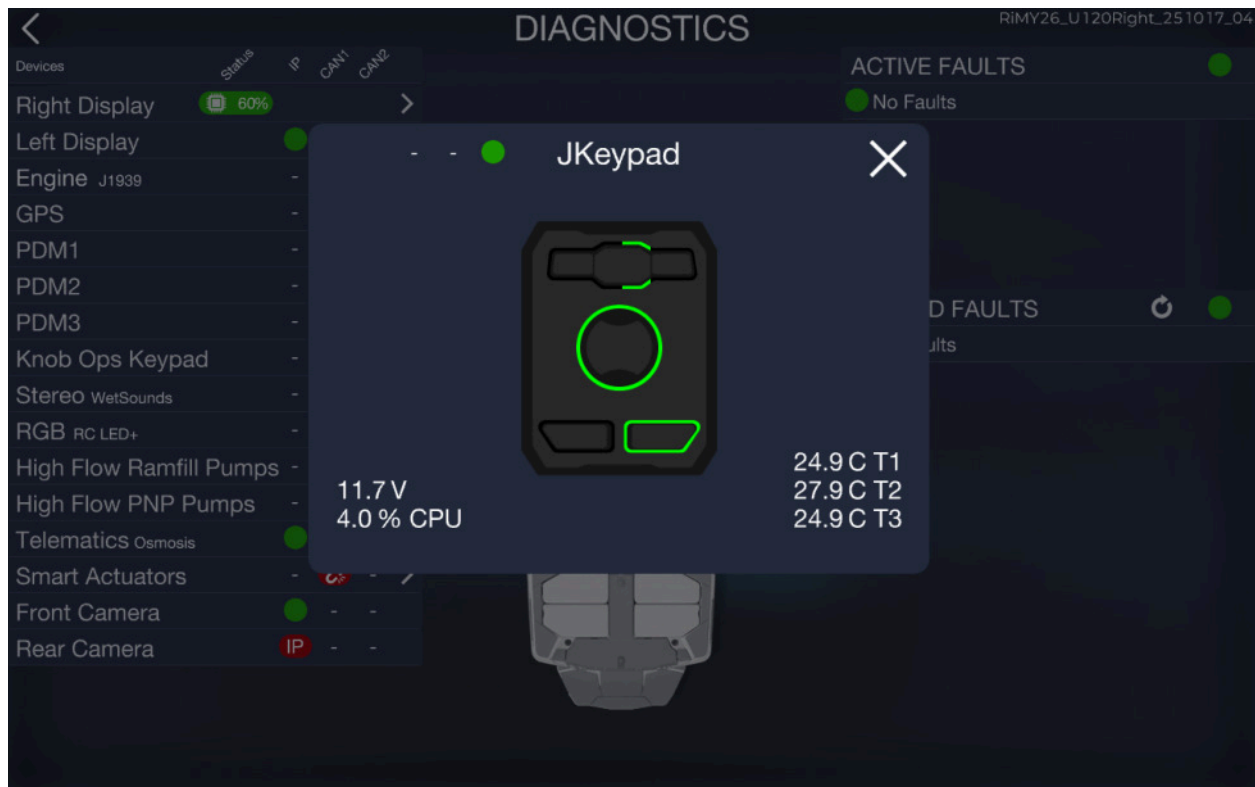
- Digital inputs- the left column displays the digital inputs which read “Open” “GND” or “12V”
- Analog inputs- the right column displays analog inputs that can read a 0-5V analog signal. These values range from 0-1023, corresponding to a 0-5V input



Faults

- Any active PDM faults such as overcurrent or short circuit will appear here

Keypad



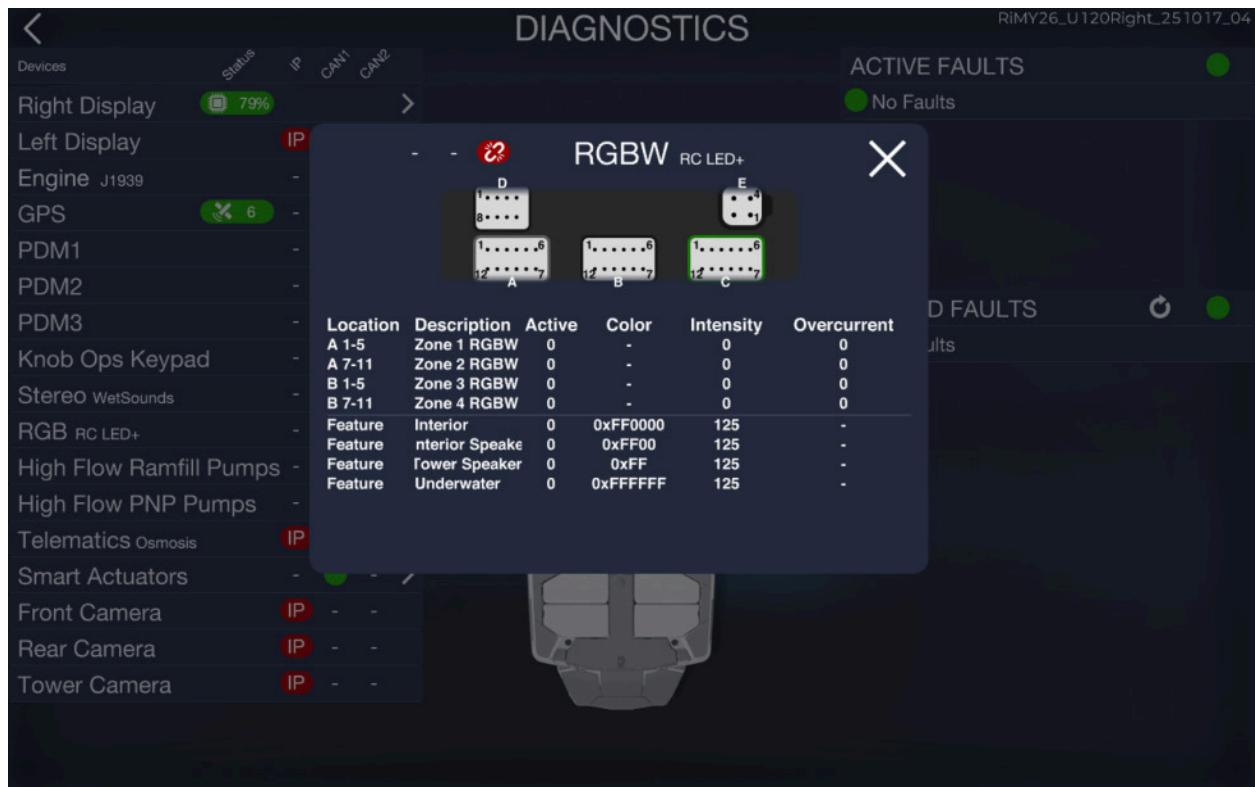
The keypad image is an interactive component that mimics the actions and state of the keypad. The center backlight and button backlights will reflect the color that the keypad is set too. Other actions the diagram mimics

- Button presses
- Button backlights- button icons be highlighted when the corresponding icon is lit up on the keypad
- Knob movements- arrows will show a rotation or directional movement of the knob

Feedback

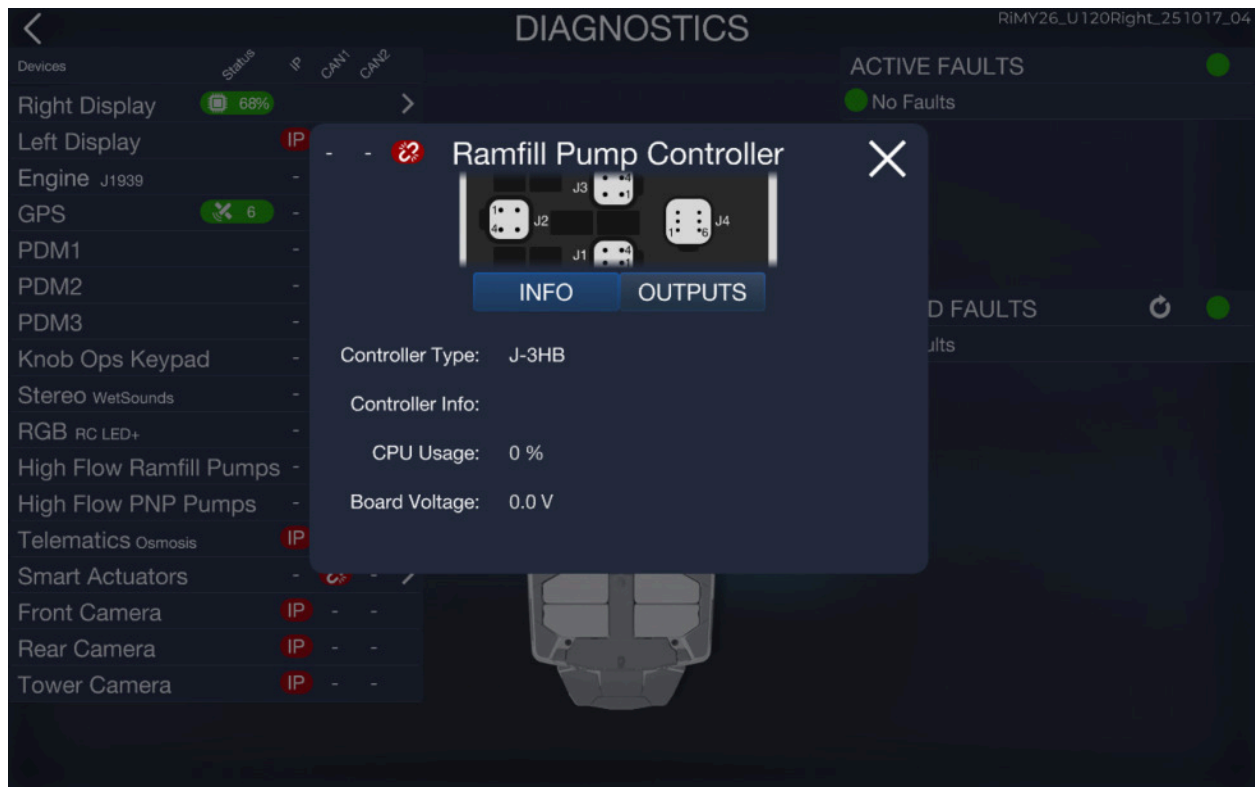
- Keypad voltage
- CPU- CPU usage of the on board processor
- T1-T3- keypad internal operating temperature

RGB

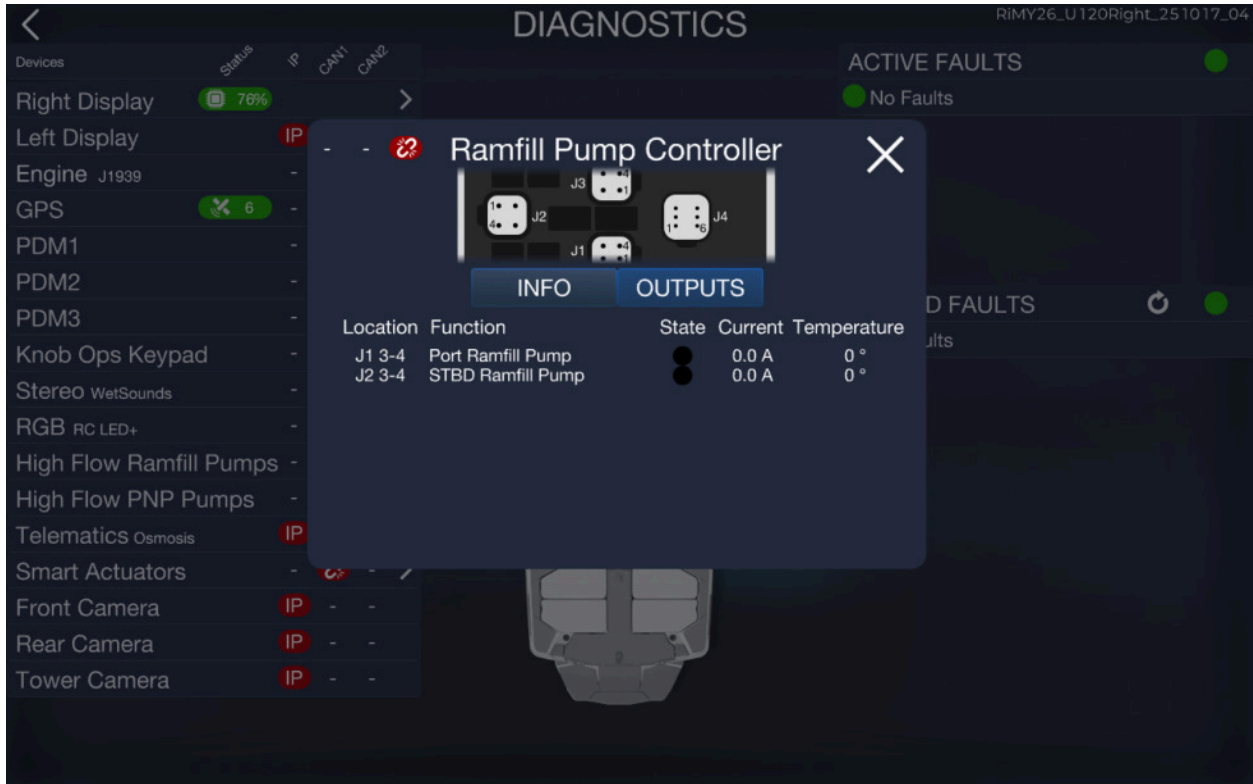


- Location- Connector and pin number of RGB output
- Description- Zone number/name. The top 4 rows show the feedback state of what the RGB controller is actually outputting. The bottom 4 rows show the software defined zone names, and the values that the display is commanding to the RGB controller
- Active- Current state of output. 0: off 1: on
- Color- Hex value of the color being set by the display software
- Intensity- brightness of the RGB. 0-125
- Overcurrent- 0: No Fault 1: Fault

High Flow Pump Controllers



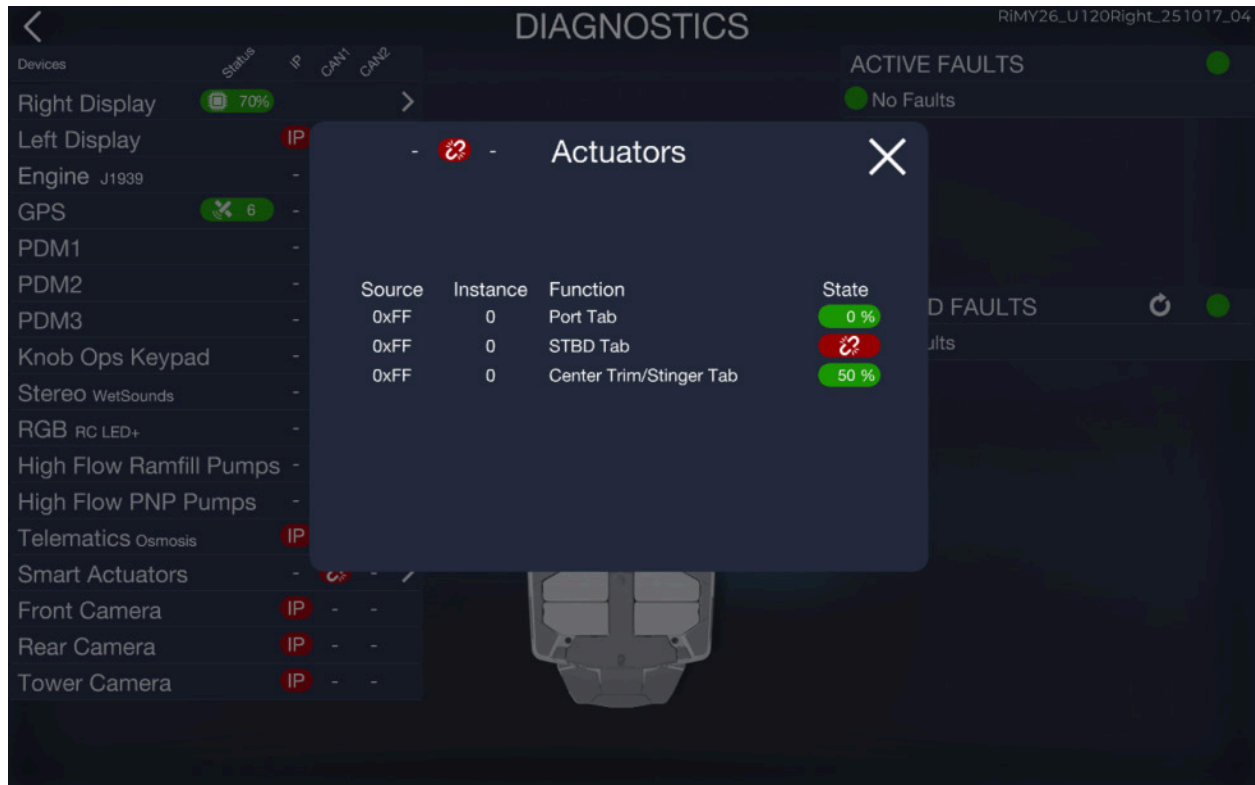
- Type- Controller Name
- Controller Info
- CPU Usage
- Board Voltage- voltage being fed into pump controller and being passed to the pumps



Outputs

- Location- connector and pin of pump. Pin 3 is usually the forward output, pin 4 the reverse output
- Function- pump being controlled
- State- White: unused Black: Off Green: On Red: Fault
 - When on, an arrow will indicate which direction the pump is being driven. ↑forward ↓reverse. It will also display the PWM duty cycle (100 = fully on)
 - If in a fault state, a number will be shown to determine the fault type. Take note of this when reporting issues and faults
- Current- Current draw of the output
- Temperature- temperature of the output. High output temperatures may indicate a faulty pump, or continuous running of a pump. Normal operating temperature should not be > 85°C

Actuators



The actuators are smart actuators controlled via CAN

- Source- Source address of the actuator. 0xFF indicates the actuator is not configured
- Instance- Actuator instance
- Function- tab being controlled
- State- current tab position being recorded by the smart actuator. 0% = fully retracted
100% = fully extended
- When logged into restricted settings, forced actuator reconfiguration and trailer test mode is available on this page