

Supra VISION 2015



Owners Manual

We continually strive to bring you the highest quality, full-featured products. As a result, you may find that your actual display screens may be slightly different than what was represented in this manual at the time of printing.

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Product Information

The Supra Vision 2015 display is designed for instrumentation and control on electronically controlled engines communicating via SAE J1939 and NMEA 2000. The display enables boat operators to view many different engine, ballast, transmission parameters and service codes and is a multi-functional tool that provides GPS tracking, a multimedia display, cruise control, and rider profiles. Included with this solution is the HV700 Touch unit.



Care and Maintenance

General maintenance is not required; however, a soft cloth can be used for cleaning the units. Window cleaner or alcohol can also be used to clean the glass portion of the display. Do not use harsh or abrasive cleaners on the unit.

Basic Navigation Features

All product features are easily accessed through Quick Access Keys, Touch Point commands and Menus.

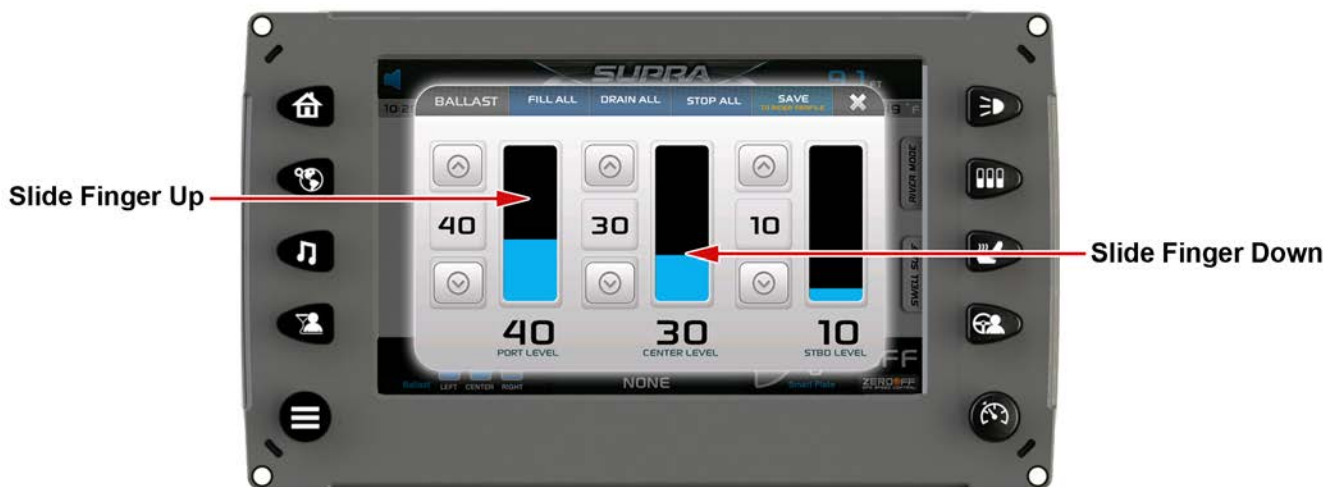
Quick Access Keys

A new screen can be accessed quickly by pressing one of the following Quick Access Keys:



Touch Point Commands

Once the desired screen is accessed, navigation within the screen is controlled with Touch Point commands. They are executed by touching the screen in areas that are outlined with a highlighted bezel. In addition, there are areas where sliding the finger up or down can adjust settings. For example on the Ballast Screen, sliding the finger on the inside of the tank area adjusts the ballast setting. There are also areas where sliding the finger along a bar will adjust settings.



Features

Home Screen

The Gauges screen can be accessed by pressing the Home/Gauges  Quick Access Key.



This screen shows the:

- Water Depth
- Water Temperature
- Engine Temperature
- Battery Voltage
- Speedometer/Setspeed
- Fuel Gauge
- Oil Gauge
- Ballast Levels
- Smart Plate Position
- Rider Name/Time
- River Mode
- Swell Surf

The cruise control can be turned ON or OFF from this screen by touching **[ZEROOFF]** located in the lower right of the screen. In addition, the rider profile can be changed.

Home Screen Touch Points



Touch Point	Description	Screen View
Stereo	Opens the Stereo screen. Other multimedia options and video viewing screens are accessed from this screen. When held down for 2-3 seconds while on the home screen, the active stereo is muted.	
Engine Temp	Displays the engine temperature when touched.	

Touch Point	Description	Screen View
Set speed+/-	Interactive speed control adjustment by touching the + and – icons (GPS Speed Control ON mode).	
Fuel Level	Displays the fuel level in percent.	
Fuel/Run Time	Displays an estimated engine run time using current fuel level.	
Ballast Settings	Displays the current ballast fill levels.	

Touch Point	Description	Screen View
Water Temp	Displays the current temperature of the water.	
Boat Battery	Displays the battery voltage.	
River Mode	Interactive pop-up including touch toggle from ON to OFF and River Flow settings.	
Swell Surf	Interactive pop-up including toggles for Swell On/Off, Barrel and Skim, Port and Starboard ballast settings.	

Touch Point	Description	Screen View
Engine Oil Pressure	Displays the engine oil pressure.	
Show Rider Name/Time	Interactive touch toggle from the riders name to time. When the name is touched, the Profiles page is displayed.	
GPS Speed Control	Interactive touch toggle from ON to OFF mode. (Speed adjustment with Set speed +/-.)	

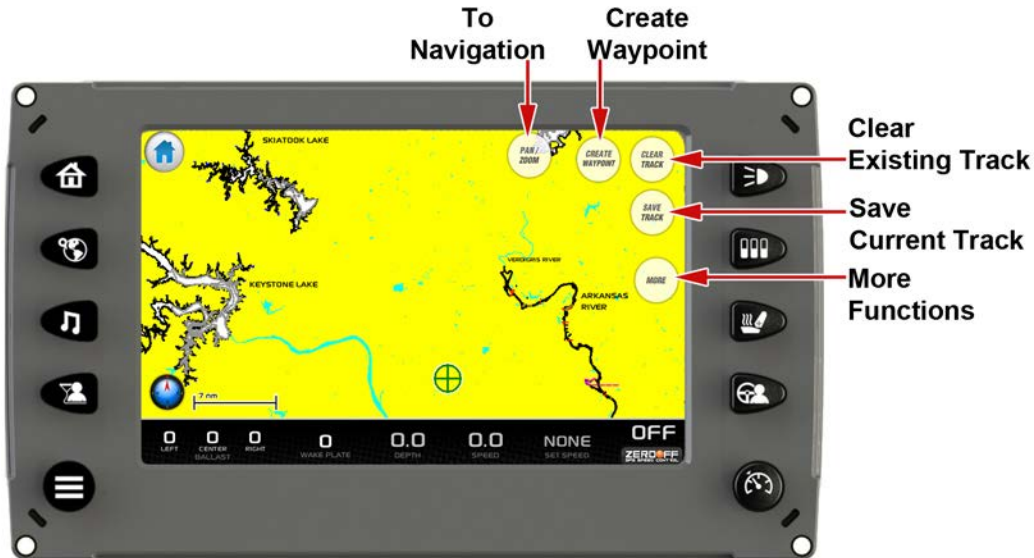
GPS

The GPS screen can be accessed by pressing the GPS  Quick Access Key.

The functions on the GPS are handled through touch points on the screen. The touch points change depending upon which view of the screen is showing.



To see more options, touch **[TRACKING]**. The Tracking Menu is displayed on the screen.



Touch **[PAN/ZOOM]** to return to the previous view.

Touch **[CREATE WAYPOINT]** to add a waypoint to the map. A keypad is displayed to type the name (10 alpha character limit). When finished typing the name touch **[DONE]**.

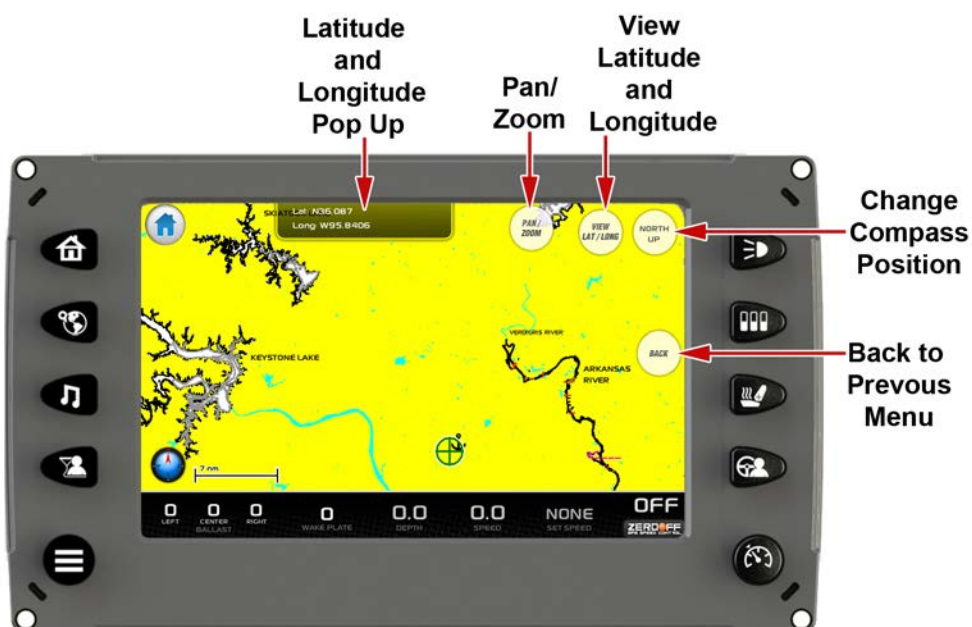


The waypoint is now displayed on the map represented by an anchor icon. This anchor icon can be changed to another icon in the Waypoint Manager (for more information on the Waypoint Manager, see GPS Settings under the Settings Menu).

Touch **[CLEAR TRACK]** to clear currently recording track. This action will restart the track recording from the current position of the boat.

Touch **[SAVE TRACK]** to save the currently recorded track. This action will save the currently recorded track from where the recording started to the current position and restart the track recording from the current position of the boat.

Touch **[MORE]** to view latitude and longitude of the current position of the boat and change the compass to desired position (choices are North up or Course up).



Media

The Stereo screen can be accessed by pressing the Stereo  Quick Access Key. The Stereo screen opens multimedia options and video viewing screens via a Polk media player.



Stereo Display - Touch Commands

Touch Point	Description
	Volume +/- – controls the volume.
	EQ / Loud – toggles between pre-set EQ modes, and toggles loudness on/off.
	Left Arrow – if using the radio, it scans backward for radio stations; if using a USB device, it goes back to the previous track.
	Right Arrow – if using the radio, scans forward for radio stations; if using the USB device, advances to the next track.
	Up Arrow – changes radio station up to a preset station.
	Down Arrow – changes radio station down to a preset station.
	Play/Pause – toggles between Play and Pause modes when a USB device is playing (located in the center).
	Mode – choose between USB, Stereo, Bluetooth and XMRadio.
	Band – touch to change to AM, FM, WB or SXM.
	Zone Menu – displays controls for up to four speaker zones, allowing you to control the volume in each zone.

Touch Point	Description
	Menu – displays audio menu (i.e., bass, treble, etc.).
	Random Repeat List – in the USB mode, this allows you to play a music list that is randomly mixed and repeated.
	Bluetooth – in the Bluetooth screen, this provides the procedure for connecting/pairing to a Bluetooth-enabled device (i.e., MP3 player or iPod).
	List – in USB mode, allows you to view a list on the thumb drive.
	Video – displays the video screen.
	Home – opens the home screen.
	Cat – in the SXM mode, choose a music category.

Media Mode	Description	Screen View
Bluetooth	Used to attach a device such as MP3 player or iPod using a wireless signal.	
USB	Used to attach a device such as MP3 player or iPod using a patch cable.	

Media Mode	Description	Screen View
Source	Touch [Source] to change to AM/FM, Weather, SiriusXM, USB1/USB2, Bluetooth or Auxiliary 1/Auxiliary 2.	

Zone Menu

On the Stereo screen, select the  button to access and control the volume within the zones. The following screen will appear:



There are four zones to control: Cockpit, Bow, Tower Side and Tower Top. Select (via Touch) one of these zones to edit.

Next select (via Touch) the Sub Volume (only available in the Cockpit zone) or Zone Volume. The selection will be indicated by the grey arrow. Utilize the up and down arrows to adjust this setting.

Use the Mute Zone button to toggle the mute status for that zone.

Presets

Use the Presets button to access the Zone Presets controls/options. The following screen will appear:



Use the Up/Down Arrow buttons to scroll through the list of presets.

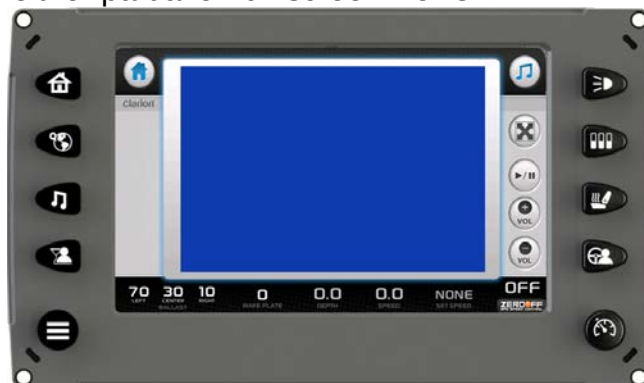
Use the “EDIT” button to edit the name of the presets.

Use the “SAVE TO CURRENT” to save the Zone Menu: Zones Settings to the highlighted preset.

Use the “SELECT” button to update the Zone Menu: Zones Settings to the saved settings of the highlighted preset.

Video

On the Stereo screen, select the  touch command to access the video screen. The video feature displays video in either partial or full-screen views.



Video Display - Touch Commands

Touch Point	Description
	Screen Size – Expands/reduces screen to full or partial screen. Below is the full-screen view. 
	Play/Pause – toggles between Play and Pause modes.
	Volume + – controls the volume.
	Volume - – controls the volume.

Ballast and Trim

The Ballast screen can be accessed by pressing the Ballast  Quick Access Key. This screen displays the current state of the ballasts and is interactive for immediate settings.



To adjust the Ballast settings slide finger up the tank to the desired level or tap the **UP** or **DOWN** arrows to the left of the tank. As an example, the illustration shows the Starboard and Port tanks filling to achieve 70 percent and 50 percent while the center tank has achieved 10 percent tank capacity.

The following functions can also be accomplished from this screen:

- **FILL ALL** – touch to fill all the ballasts
- **DRAIN ALL** – touch to drain all the ballasts
- **STOP ALL** – touch to stop all filling or draining activity
- **SAVE** – touch to save the current settings to the current profile
- **X** – touch to exit the current screen

Profiles

The Profiles screen can be accessed by pressing the Profiles  Quick Access Key.

This feature displays rider/user profiles for cruise controls based on user preferences for speed, ballast and smart plate settings.

Up to 16 rider/user profiles can be created and stored.



To activate the profile, touch the profile name.

To edit any field, press and hold the field to display the pop-up.

For on-screen information about profiles, touch and hold  in the lower left corner of the screen. A pop-up is displayed giving details/actions from the screen you are viewing.



New Rider Profile and Status

To create a new profile, press the Profile  Quick Access Key.

Touch each option to view or change the setting. When available, touch the arrows to change the setting. After entering the information, touch **[Done]** to move to the next step, or touch **[Cancel]** to close without changes.

Touch **[Add New Rider]** to create a new profile.



Type a name for the new profile using the touch keypad and touch **[Done]** to save the setting.



To change the Set Speed from the default, touch and hold the **[Set Speed]** cell.

Touch  or  arrows until the desired speed is reached. Touch **[Save]** to save the setting.



To set the Ballast fill %, press and hold one of the cells under **[Ballast]**.

On the Ballast Set Points, touch a cell to activate. Touch  or  arrows until the desired fill % is reached. Repeat for each cell. Touch **[Save]** to save the settings.



To edit the Smartplate settings, press and hold the cell under [Smartplate].



Touch the cell to activate. Touch  or  arrows until the desired trim % is reached. Touch **[Save]** to save the setting.



Touch **[Stats]** to view each profile's activity.



Touch  or  arrows to scroll the profile list. On this screen, you can view the number of rides and the times of each.



To set a profile's rating, touch the cell under **[Rating]**. Touch each cell to activate with a star. Touch **[Save]** to save the setting.



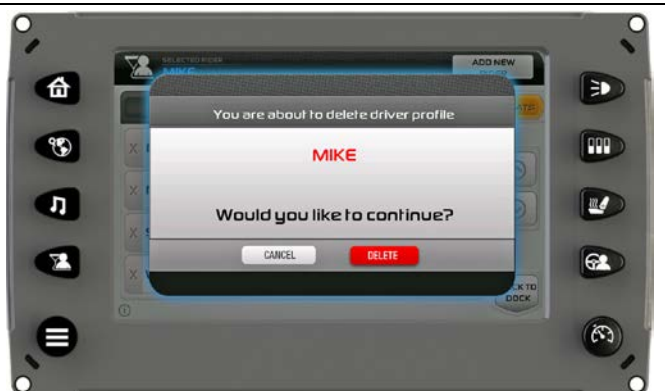
Touch **[Profiles]** to go back to the profiles screen. Touch **[Back To Dock]** to operate the boat without any profile settings active.



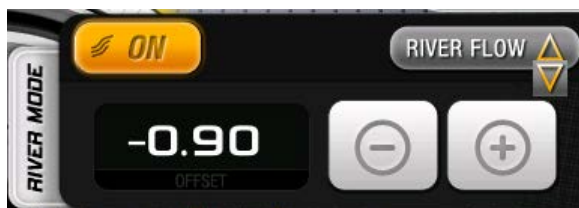
To delete a profile, touch the **[X]** next to the profile you wish to delete.



A confirmation overlay is displayed. Touch **[CANCEL]** to abort the process and **[DELETE]** to confirm delete.



River Mode



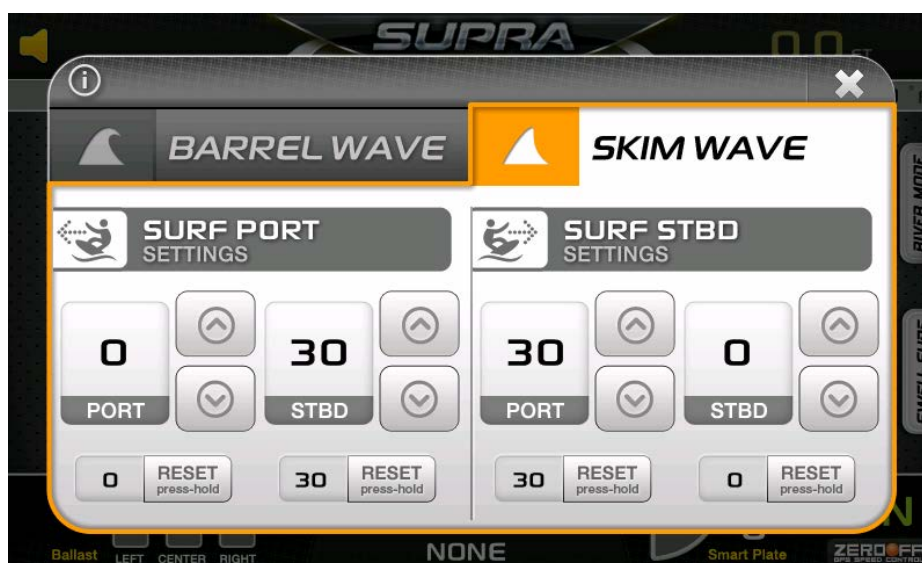
River Mode is a user interface for estimating both upstream and downstream river current without the use of a paddle wheel. The River Flow UP/DN icon switches back and forth during the turns as you turn against or with the current. The river current estimate value will be added to (downstream) or subtracted from (upstream) the base speed set point and should deliver a reasonably consistent speed

over the water. If River Mode is turned off, the set speed will track the normal set speed regardless of direction.

Swell Surf



Swell Surf will only engage when Cruise is on and your set speed is between 7 mph and 12 mph. Use the Wave icons to select the type of Surf Wave (Barrel or Skim). Use the directional Surf icons to select either Port or Starboard. Use Swell Settings (shown below) to make adjustments to the Surf wave.



Lights

The Lights screen can be accessed by pressing the Lights  Quick Access Key. On this screen the following lights can be turned on and off:

- Navigation Lights
- Anchor Lights
- Storage Lights
- Dome Lights
- Docking Lights
- Tower Lights
- Floor Lights

- Mid-Level Lights
- Speaker Lights
- Underwater Lights/Strobe
- All Off/All On



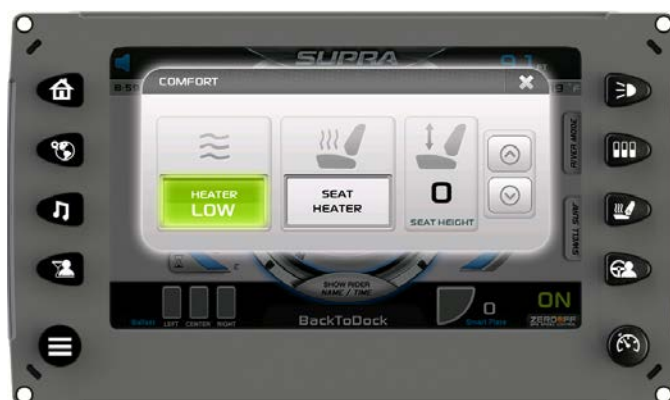
NOTE: If the cell is gray, this indicates the lights are OFF. If the cell is green, this indicates the lights are ON.

Comfort

The Comfort screen can be accessed by pressing the Comfort  Quick Access Key. On the Comfort screen, touch a cell to activate. Touch it again to change the setting or use the arrows. The following comfort settings can be made if the option is installed on your boat package:

- Heater – HIGH/LOW/OFF
- Seat Heater – ON/OFF
- Seat Height – UP/DOWN

These settings can also be set for specific boat drivers through the driver presets.



NOTE: If the cell is gray, this indicates the settings are OFF. If the cell is green, this indicates the settings are ON.

Driver Presets

The Driver Presets screen can be accessed by pressing the Driver Presets Quick Access Key. This feature displays preferences for the boat drivers and is interactive for needed changes.



Setting up Driver's Preferences

To enter a driver's preset, press the Driver Presets Quick Access Key.

If you need additional Driver Presets, you can add them to the list by touching **[Add New Driver]**.

Follow the directions below to set the Driver's Presets.

Touch and hold the cell under **[Driver Preset]** to name the driver.

On the keypad, touch **[Backspace]** to erase any letters. Type a name for the new profile and touch **[Done]** to save the setting.



To change the Seat Heater, touch and hold the cell under **[Seat Heater]**.



Touch  or  arrows to select OFF or ON. Touch **[Save]** to save the setting.



To change the Seat Height, press and hold the cell under **[Seat Height]**.



Touch  or  arrows until the desired Seat Height % is reached. Touch **[Save]** to save the settings.



To change the boat Heater settings, touch and hold the cell under **[Heater]**.



Touch the cell to activate. Touch  or  arrows until the desired setting is displayed. Options include Low, High and OFF. Touch **[Save]** to save the setting.



To change the boat Lights settings, touch and hold the cell under **[Lights]**.



Touch to select OFF or ON. Touch **[Save]** to save the setting.



To change the display Background settings, touch and hold the cell under **[Background]**.



Touch the cell to select it. Touch **[Save]** to save the setting. Go to any screen and view the screen color change.



Activate and Deactivate a Driver Preset

To access the Driver Preset screen, press the Driver Preset  Quick Access Key.

To activate the driver presets, touch the name. For example, under **[Driver Presets]**, touch **[Devin]**. The name **[Devin]** now displays in the top left corner of the screen showing it is activated.

To deactivate the driver preset and go back to the default touch **[PRESET OFF]**. The word **[None]** now displays in the top left corner of the screen showing nothing is activated.



Delete Driver Preset

To delete a Driver Preset, press the Driver Preset  Quick Access Key.

Touch the cell with the **[X]** next to the driver's name.

A confirmation overlay is displayed. Touch **[Cancel]** to abort the process or **[Delete]** to confirm delete.



Main Settings Menu

The Main Menu screen can be accessed by pressing the Main Menu  Quick Access Key. This screen displays engine statistics and interactive search, diagnostics and settings.



NOTE: Some settings require a dealer code for access.

Function	Description/Action
User Settings	Allows you to customize the display options for ambient light and brightness, set US or metric units and other settings.
Engine Diagnostics	Displays a list of engine fault codes and descriptions; on some engines, corrective action will be shown.
GPS Utilities	Contains options to set up track and position, chart and time and waypoint manager. Also displays satellite status.
System Information	Provides information about the software version.
Ballast/Smartplate Settings	Displays boat model, center tab, surf tabs and depth transducer.
Import/Export Rider Profiles	Allows you to save a current rider profile list to the USB drive.
PDM Diagnostics	Displays short circuits, open circuit, over current, in/out of range and faults within the system outputs, switch inputs, analog inputs and CAN communication.

User Settings

On the Main Menu screen, touch **[USER SETTINGS]** to access the User Settings screen. The User can set viewing preferences for the display.



To edit the settings, touch the field to the right of the label or touch  or  arrows to adjust the settings. Touch **[Back]** to save the settings and return to the Main Menu screen.

Function	Description/Action
Auto Backlight	The choices are: Enable or Disable. NOTE: Enabling the Auto Backlight will reduce the screen brightness when the Nav Light is ON.
Brightness	Touch and slide finger along the brightness bar to adjust the setting.
Color Scheme	Touch one of the colors to change the color scheme of the display.
Background Texture	Touch one of the background textures to change the texture of the display.
Units	Pull down the arrow and choose either US STD or Metric.
Shutdown Time	Tap  or  to adjust the setting.
Audio Intensity	Tap  or  to adjust the setting.
Minimum Depth	This allows you to choose a minimum depth (measured from bottom of keel) to give an alarm if the vessel comes into a minimum depth situation. Tap  or  to adjust the setting. Choosing zero turns this option OFF.

Engine Diagnostics

On the Main Menu screen, touch **[Engine Diagnostics]** to access the Engine Diagnostics screen. When choosing this selection, the display queries the engine's ECU and displays feedback on any diagnostic codes that have been activated and stored in the ECU for service needs.



Function	Description/Action
Get Faults	Touch [GET FAULTS] to show the number of active faults and the fault number currently being displayed.
Arrows	The Left and Right arrows at the top of the page scroll through messages.
Diagnostic Message and Description Field	Most common SPNs and FMIs have text for the description stored in the display. If there is no text, then this SPN and FMI must be defined by referring to the engine manufacturer or the SAE J1939 standard.
Source	Indicates the source of the message.
SPN	Suspect Parameter Number - fault code If not translated into text by the display, see the engine manufacturer's literature for the definition of the SPN number.
FMI	Failure Mode Indicator - fault code The FMI is defined by SAE J1939. If not translated into text, see the SAE standard or the engine manufacturer's literature.
Count	Number of messages.
ENG Hours	Number of in-use engine hours.
Corrective Action	Suggested action for correction.

GPS Utilities

On the Main Menu screen, touch **[GPS Utilities]** to access the GPS Utilities screen. The GPS Utilities includes the following:

- Depth and Position
- Waypoint Manager
- Chart and Time
- Track Manager
- Satellite Status



Depth and Position Settings

On the GPS Utilities screen, touch **[Depth and Position]** to access the Depth and Position screen. This feature allows you to define the amount of detail to display for longitude and latitude information on the GPS map and depth display.



Waypoint Manager

On the GPS Utilities screen, touch **[Waypoint Manager]** to access the Waypoint Manager screen.

Waypoints allow you to mark specific locations by latitude and longitude. Once the waypoints are established, the Waypoint Manager allows you to associate an icon with them for identification. You can delete a single waypoint by using the **[Delete]** key or all of them at once with **[Delete All]**. Pressing the **[Go To WPT]** key displays the GPS screen containing the currently highlighted waypoint.



Function	Description/Action
Waypoints	Displays a list of existing waypoints that have been set. Use the [Up] and [Down] keys to highlight the desired waypoint.
Waypoint Title	Edit the waypoint title.
Waypoint Icon	Assign one of four different icons to any of the waypoints listed.
Go To...	Displays latitude and longitude values for the currently highlighted waypoint on the list. When touched, it will jump to the maps application and the location of the selected waypoint.
Delete	Delete a single waypoint.
Delete All	Delete all waypoints at once.

Chart and Time Setup

On the GPS Utilities screen, touch **[Chart and Time Setup]** to access the Chart and Time Setup screen. This menu option allows you to setup viewing options for the GPS Display.

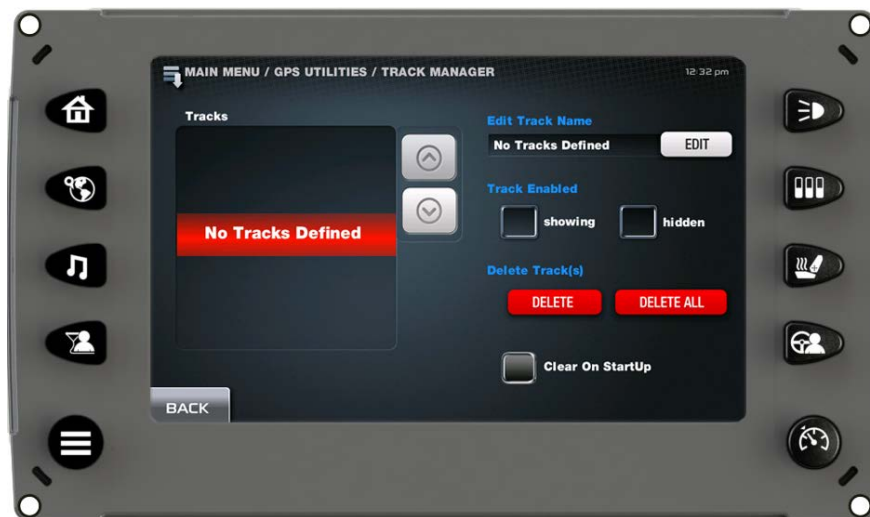


Function	Description/Action
Chart Setup Parameters	Use the [Plus/Minus] soft keys to select the information you want displayed on the GPS screen.
Time Setup Parameters	Select correct time zone and clock mode for either 12-hour or 24-hour time formats. You can also enable DST (Daylight Saving Time) by using the [Plus/Minus] soft keys to select the box.

Track Manager

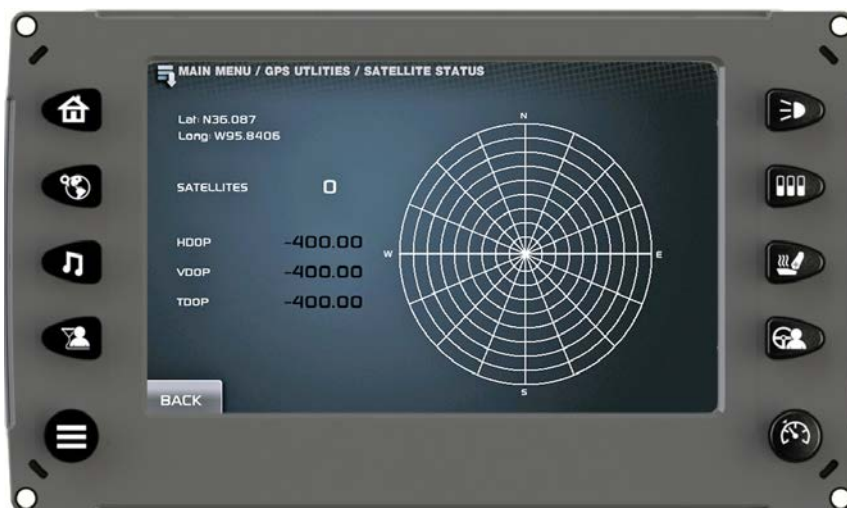
On the GPS Utilities screen, touch **[Track Manager]** to access the Track Manager screen. Multiple tracks for displaying on the GPS map can be set up. The Track Manager allows you to select tracks to show on the map or hide a map you are not currently using. You may **[Delete]** one track or **[Delete All]** tracks at once.

Select **[Clear on Startup]** to erase any non-saved tracks.



Satellite Status

On the GPS Utilities screen, touch **[Satellite Status]** to access the Satellite Status screen. This screen is an information-only screen that displays the location of detectable satellites.



System Information

On the Main Menu screen, touch **[System Information]** to access the System Information screen. This information-only screen provides the following:

- Application version and part number
- Operating system version and part number
- Bootloader version and part number
- Software version
- PDM Software Version Address(es)

Ballast/Smartplate Settings

On the Main Menu screen, touch **[Ballast/Smartplate Settings]** to access the Ballast/Smartplate Settings screen. This screen provides default fill times for ballasts and default settings for the Smartplate.

To edit, touch **[Previous Setting]** or **[Next Setting]** to access the edit points of the Ballast and Smartplate settings. With the cell highlighted, touch the **[Up]** or **[Down]** arrows to change the setting.

NOTE: The **[Crossover Point]** defaults to 50 percent of your set speed. This is the point at which the Smartplate will be automatically driven to the active profile set point. If no set point is active, the Smartplate will be driven to the **[Smartplate Up]** setting (default 50 percent).

The **[Smartplate Down]** setting (default 100 percent) is the position that the Smartplate is driven to below the crossover setting.

Having the Smartplate deployed to 100 percent when the boat is at rest and then automatically retracting to the Smartplate set point at the crossover is what helps the boat keep the bow down and on plane during acceleration.



If additional time is required to empty the Ballast tanks, add percentage to the **[Ballast Drain Time Adder]** to increase the drain time. Or set the **[Ballast Drain Time Adder]** to 0 percent for no additional time.

The **[Ballast Calibration]** normally is not changed.

The **[Ballast Calibration]** function recalibrates the ballast level displayed to read Full (100 percent) or Empty (0 percent). The Ballast display levels are based on time to level calculations.

For example: The driver has filled the ballasts to Full and then installed a new version of software. This new version of software would default the Ballast Levels back to Empty (0 percent). Since the driver knows that the boat has Full ballasts, the driver can use this calibration feature to set the display level to Full (100 percent).



Import / Export Rider Profiles

On the main Menu screen, touch **[Import/Export Rider Profiles]** to access the Import/Export Rider Profiles screen. This screen allows you to export and save a current rider profile list to a USB drive. In addition, you may import Rider Profiles using a USB Drive.



Insert the USB drive and touch **[Export]** to save the current rider profile list to the USB drive.

In order to import in Rider Profiles, the file must be saved on the USB drive with the file name **[profilelist.cvs]**.



PDM Diagnostics

On the main Menu screen, touch **[PDM Diagnostic]** to access the PDM Diagnostics screen. The screen displays short circuits, open circuit, over current, in/out of range and faults within the system outputs, switch inputs, analog inputs and CAN communication.



Touch the **[PDM2]** or **[PDM3]** touch command to view alternate screens. Touch the **[Back]** Touch Command to return to the main menu.



General Troubleshooting Guide

Display appears not to work or doesn't come ON.

1. Display could be in *sleep* mode. Touch a key on the keypad to activate the display.
2. Check for loose connections at battery and display unit.
3. Check for reversed polarity on the power connections.
4. Verify battery has a minimum voltage of 6 Volts.

Display resets or goes OFF when starting engine.

1. Check display supply wires are connected properly to battery.
2. Verify battery is charged properly.
3. Check battery for efficient starter current.

Display has no backlight.

Contact your Supra service center.

Display has no keypad backlight.

Contact your Supra service center.