



SUPER AIR NAUTIQUE

210, 230



Nautique LINC 2.0



Product Information

The Nautique LINC 2.0 display is designed for instrumentation and control on electronically controlled engines communicating via SAE J1939 and NMEA 2000. The display is a multifunctional tool that provides GPS tracking, multimedia display, speed control, and enables equipment operators to view many different engine parameters and service codes.



Care and Maintenance

General maintenance is not required; however, a soft cloth can be used for cleaning the unit. 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, Menus, and Soft Key commands.



Quick Access Keys

The keys located to the left of the display provide one-button access to Home, Map, Media, Switching, Ballasts, User Profiles and Preferences.

MENU Key

Pressing this key displays the Preferences screen and allows access to System Settings.

*NOTE: The Preferences screen is unavailable while the ballasts are filling. If **YES** was selected to activate the ballast settings on the first screen, the ballast pumps must be turned off before accessing the Preferences screen.*

Soft Key Commands

Soft key commands provide additional features and navigation shortcuts. Depending upon the current screen being displayed, they may appear as an icon or text.

*NOTE: The sliding effect of the soft key commands can be toggled on/off. Go to the **Preferences** screen and select **Button Slide On/Off**.*

Soft Keys

The soft keys correspond to the Soft Key Commands and activate features accordingly when pressed.



Quick Access Key Features

This section describes the features accessed through the Quick Access Keys located to the left of the display.

Home Display

The Home Display screen for viewing engine statistics can be accessed by pressing the Quick Access Key .



Pressing  or any other key launches the Soft Key Commands to overlay the right side of the display.



*NOTE: The sliding effect of the soft key commands can be toggled on/off. Go to the **Preferences** screen and select **Button Slide Off**.*

Home Display – Soft Key Commands

Soft Key	Description
	VOLUME UP – press this soft key to increase the volume of the stereo.
	VOLUME DOWN – press this soft key to decrease the volume of the stereo.
	SPEED CONTROL – selecting SPEED CONTROL from the Home Display screen engages the cruise control.
	SPEED UP – increase the target speed.
	SPEED DOWN – decrease the target speed.
	CHANGE VIEW – changes the view in the middle panel of the display while staying on the home page. Press this soft key to toggle between available views. (See complete description on following page.)
	USERS – allows the selection of a user profile to display via the soft keys.



Soft Key	Description
	The Change View soft key toggles through the different views available on the home screen. They are: • Engine Statistics • Engine Hours and Air and Water Temperatures • Map view • Ballast view • Video view 

Map Display

The Map Display screen can be accessed by pressing the  key. The Map feature displays map data, latitude and longitude coordinates, depth and speed.



Soft Key	Description
	UP – facilitates navigating the map by moving the cross-hairs accordingly.
	DOWN – facilitates navigating the map by moving the cross-hairs accordingly.
	LEFT – facilitates navigating the map by moving the cross-hairs accordingly.
	RIGHT – facilitates navigating the map by moving the cross-hairs accordingly.
	ZOOM IN – this soft key zooms in for more detailed view of the area map.
	ZOOM OUT – this soft key zooms out for a larger view of the area map.





Soft Key	Description
	CENTER – returns the crosshairs to the center of the cursor.
	WAYPOINTS – displays a list of waypoints.
	CREATE WAYPOINT – displays a keyboard. Enter a name for the waypoint. The waypoint will be set where the cursor has been placed. You can edit the waypoint in Map Utilities.  LEFT – RIGHT – UP – DOWN ARROWS – navigate the keyboard. SELECT – places the selected letter in the space at the top of the keyboard or performs the function selected. SAVE – saves the waypoint and the name. CANCEL – removes the keyboard without saving the waypoint or the name.

Soft Key	Description
	CLEAR TRACK – clears the currently displayed track.
	SAVE TRACK – displays a keyboard. Enter a track name. The Track can be edited in Map Utilities.  LEFT – RIGHT – UP – DOWN ARROWS – navigate the keyboard. SELECT – places the selected letter in the space at the top of the keyboard or performs the function selected. SAVE – saves the track and the name. CANCEL – removes the keyboard without saving the track or the name.
	BUTTON SLIDE ON/OFF – allows or prevents the soft keys from sliding off the screen. The default is Button Slide On .
	ZOOM PAN – returns to the top level map and displays the ZOOM IN/ZOOM OUT and directional soft keys.



Media Display

The Media Display can be accessed by pressing the Quick Access Key .

This feature provides universal control to the Polk stereo mimicking all the controls of a standard remote control. Nautiques with the LINC displays will support the following multi-media functions:

- Audio in
- USB Input
- AM-FM Tuner
- Satellite
- Bluetooth



To access any one of these functions, press the **MODE** soft key once. Each press will scroll to the next source. If you press and hold the Mode soft key it will power on or off the stereo.

Media Display – Soft Key Commands

Soft Key	Description
	VOLUME UP – increases the volume.
	VOLUME DOWN – decreases the volume.

Soft Key	Description
	PREV TRACK – plays the previous track of the current input and other functions depending upon the input mode.
	NEXT TRACK – plays the next track of the current input and other functions depending upon the input mode.
	PAUSE/MUTE – will pause or mute the current music depending upon the input mode.
	MODE – brings up a menu to select the audio source, including AM/FM Radio, Auxiliary Input, Satellite Radio, USB, Weather Band and Bluetooth.
	Settings – brings up the Settings menu.

Media Settings Menu (210, 230)

The Media Settings menu can be accessed by pressing the  soft key from the Media Display.



Media Settings Menu – Soft Key Commands

Soft Key	Description
	AUDIO SETUP – brings up a menu to adjust the balance, fade, bass, treble, and equalizer preset. The “loudness” setting can be turned on or off here as well.
	AUTO VOLUME UP – increases the degree of change in volume based on boat speed.
	AUTO VOLUME DOWN – decreases the degree of change in volume based on boat speed.
	BT MENU OR PLAYLIST – depending upon the selected mode, this will either be the Bluetooth Menu button that brings up a menu for pairing and connecting Bluetooth devices OR it will be a Playlist button that brings up the playlist settings for USB-connected devices.
	REPEAT – repeats the current track.
	RANDOM – randomizes the selection of the next track.
	AUDIO – brings up the main audio menu.
	VIDEO – switches unit to video mode.



Bluetooth Menu

The Bluetooth menu can be accessed by pressing the  soft key from the Media Settings menu.



Bluetooth Menu – Soft Key Commands

Soft Key	Description
	PAIR – Searches for nearby Bluetooth devices to pair with. Please ensure that the Bluetooth device you are trying to connect with is in “discoverable mode” before pressing pair.
	CONNECT/DISCONNECT – Connects or disconnects the currently paired Bluetooth device. Once connected, music from the Bluetooth device can be played through LINC.
	EXIT – returns the user to the settings menu.



User Profiles

The User Profile screen can be accessed by pressing the **USER** Quick Access Key. This feature displays rider/skier profiles containing speed and ballast settings. The unit comes preloaded with default user profiles and the ability to create additional users.



User Profile Screen - Soft Key Commands

Soft Key	Description
	BACK TO DOCK – <i>NOTE: The following screen might be displayed when the unit is turned on. It provides an opportunity to begin filling or emptying the ballasts depending upon the user setting present on the device when it was shut down. Activate the Ballast Settings by selecting the YES soft key or select NO to continue without activating the Ballast Settings.</i> 
	EDIT USER – provides utilities for adding new users, editing existing users.  Soft Key Commands for Edit Profile Include: EDIT NAME – allows the user profile name to be changed. NEXT SETTING – navigates to the next field. UP – DOWN – toggles through the settings within the field. CANCEL – cancels any setting changes that have been made on the screen. SAVE – saves the changes that have been made on the screen. EDIT ICONS – brings up soft key command to change user icon type and color. 



Soft Key	Description
	 Press the LEFT, RIGHT, UP or DOWN arrow soft keys to navigate the keyboard. Select BACK at the top of the keyboard to remove unwanted letters. Select MORE CHARACTERS to toggle capital/lowercase letters and numbers. Select SPACE to add a space between characters. Press the SAVE soft key when finished entering the name.
	 Press the NEXT SETTING soft key to navigate the settings. Press the UP or DOWN arrow key to find the appropriate setting option. Press the CANCEL soft key to return to original settings. Press the SAVE soft key to save the modifications.
	Use the EDIT ICON soft key to select icon and color.

New User Profile

Soft Key	Description
	 Press the LEFT, RIGHT, UP or DOWN arrow soft keys to navigate the keyboard. Select BACK at the top of the keyboard to remove unwanted letters. Select MORE CHARACTERS to toggle capital/lowercase letters and numbers. Select SPACE to add a space between characters. Press the SAVE soft key when finished entering the name. To change the default settings, press the EDIT USER soft key to change the default settings (see Edit User Profile for more details on how to edit a profile). Use the BACK soft key in the lower left corner to return to the previous screen.



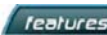
Switching

The switching button is used to control the lighting. The lights that are displayed and controlled with the device are dependent upon the boat model and dealer settings. The soft keys on the right of the display navigate the screen.

In addition to controlling the lights on the boat, the other appliances that are not directly controlled by the display are shown. For example, the blower, navigation lights and bilge levels are displayed.



Soft Key	Description
	LINC BRIGHTNESS – adjusts the brightness of the LINC display. Press to dim and brighten the display. The brightness levels are displayed in increments of 10.
	COURTESY LIGHTS – turns on or off the courtesy lights.
	OVERHEAD LIGHTS – (if equipped) turns on or off tower lights.
	DOCKING LIGHTS – turns on or off the docking lights. Only shown if boat model comes equipped with them and selected under Dealer Settings.

Soft Key	Description
	UNDERWATER LIGHTS – (if equipped) turns on or off the underwater lights.
	HEATER – turns on or off the boat heater.
	FEATURES – displays the locations of key features on the boat. Press to toggle the highlighted feature. The features shown include: • T-Handle Drain • Bilge • 12 V ports • AUX input • USB input • Battery



Ballast Settings

The ballast feature allows a user to set up ballast settings for a particular skier or profile. When the skier profile is selected, the ballasts settings will be shown and the ballasts on the boat will be filled/emptied as indicated on the screen. The illustration below shows what is displayed on the screen when the Wake Pro skier profile is selected. On the right are soft keys that aid in setting up the ballast settings. The soft keys and descriptions are shown following the illustration.



Soft Key	Description
	PORT FILL – turns on the pump to fill the port ballast tank.
	PORT DRAIN – turns on the pump to drain the port ballast tank.
	BELLY FILL – turns on the pump to fill the belly ballast tank.
	BELLY DRAIN – turns on the pump to drain the belly ballast tank.
	STBD FILL – turns on the pump to fill the starboard ballast tank.
	STBD DRAIN – turns on the pump to drain the starboard ballast tank.

Soft Key	Description
	SET LEVEL – displays the set level screen. Set the Port, Belly and Starboard ballast levels.  Select the ballast from the list of soft keys. Use the UP and DOWN arrow keys to set the desired ballast level. Press the GO TO SET LEVEL key to fill or drain that ballast. Save the set levels to the activated user by pressing the SAVE SET LEVELS soft key. Press the MANUAL soft key to return to the previous screen.

Preferences

The Preferences screen is displayed when  is pressed briefly. The following preferences can be set on this screen; use Next Setting to scroll to additional settings:

- Home Button Slide (turn on or off)
- Map Button Slide (turn on or off)
- Units (English or Metric)
- Brightness (in increments of 10)
- Auto Volume (Levels 1-5)
- Buzzer Volume
- Depth Buzzer
- Time Zone (GMT offset 1 to -12)
- Daylight Savings Time (on or off)
- Clock Mode (12hr or 24hr)



Soft Key	Description
	SYSTEM SETTINGS  (See Main Menu section for more information.)
	PREV SETTING – backs up to the previous setting.
	NEXT SETTING – advances to the next setting.
	UP – toggles through the available settings.
	DOWN – toggles through the available settings.
	SAVE – saves changes and returns to the initial page.



Soft Key	Description
	RESET ALL – displays the reset all system settings warning.  YES – resets all the preferences to the default settings (excluding any user profiles). NO – cancels the reset action and returns to the Preferences screen.

Menu Options



The menu options are accessible by pressing the **SYSTEM SETTINGS** button on the **PREFERENCES** screen. The following features are available:

- **GPS Utilities** – contains options to set up track and position, chart and time, and waypoint manager. Also displays satellite status.
- **Engine Diagnostics** – displays a list of engine fault codes and descriptions; on some engines, corrective action will be shown.
- **System Information** – allows you to customize the display options for ambient light and brightness, set US or metric units, specify the Home screen and screen setup status.
- **Dealer Settings** – allows the dealer to select specific settings for a boat model. This area is protected and a dealer must enter a dealer code to proceed.





Waypoint Manager

Soft Key	Description
	LEFT – RIGHT – UP – DOWN soft keys are used to navigate the different areas in the Waypoint Manager. WAYPOINTS – provides a list of waypoints that have been set using the tracking soft keys on the GPS Navigator screens. Use the up and down arrows to select a waypoint to edit the name, select an icon, Delete or Go To on the GPS Map. EDIT WAYPOINT NAME – provides a keyboard to use to edit the waypoint name. WAYPOINT ICON – provides a list of icons available to use to indicate waypoints on maps. The choices are: • Flag • Fish • Anchor • Marina DELETE/DELETE ALL – deletes either the current waypoint or will delete all in the list.

Soft Key	Description
	GO TO... – takes you to the selected waypoint on the GPS map. Waypoint Manager – Go to Waypoint  YES – Go to waypoint on the GPS Navigator Maps. NO – Do not go to the waypoint on the GPS Navigator Maps.

Track Manager

Soft Key	Description
	Track Manager  LEFT – RIGHT – UP – DOWN ARROW soft keys are used to navigate the different areas in the Track Manager. TRACKS – List of current tracks available to edit. EDIT TRACK NAME – select to edit the track name using a keyboard. TRACK ENABLED – select to show or hide the track. DELETE/DELETE ALL – Allows the user to delete selected track or all tracks in the list. BACK TO GPS UTILITIES – select to go back to the GPS Utilities screen.



Chart and Time Setup

Soft Key	Description
	 LEFT – RIGHT – UP – DOWN ARROW soft keys are used to navigate the different areas in the Chart and Time Setup. CHART SETUP PARAMETERS – turn on or off available settings: • Show Grids • Show Text • Show Waypoints • Show Tracks • Show Navigation Aids • Show Waypoint Names TIME SETUP PERAMETERS – turn on or off the available settings: • GMT Offset • DST Enabled • 12 Hr Format • 24 Hr Format BACK TO GPS UTILITIES – select to return to the GPS Utilities screen.

Depth and Position Settings

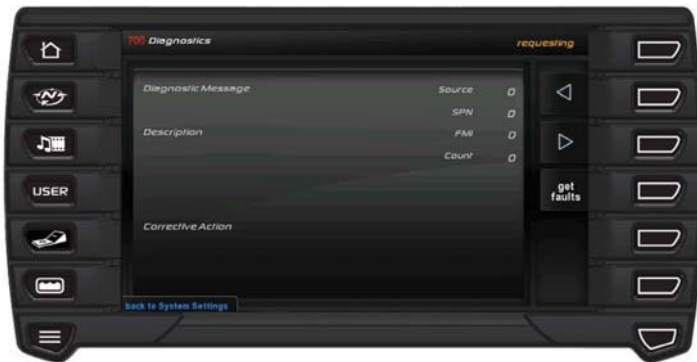
Soft Key	Description
	 LEFT – RIGHT – UP – DOWN ARROW soft keys are used to navigate the different areas in the Depth and Position Settings. POSITION FORMAT SELECTION – select the position from available settings: • Degrees and Decimal Degrees • Degrees, Minutes and Decimal Minutes • Degrees, Minutes, Seconds and Decimal Seconds DEPTH CONTOUR – select depth contour from available settings: • All • 66ft • 33ft • 16ft • 6ft • Off SAFELY CONTOUR – select contour from available settings: • 66ft • 33ft • 16ft • 6ft • Off BACK TO GPS UTILITIES – select to return to the GPS Utilities screen.



Satellite Status

Soft Key	Description
 back to GPS utilities	This view only screen gathers data on prevailing satellites and shows the proximity of each. It also displays the following information: • Longitude • Latitude • Number of Satellites • Strength BACK TO GPS UTILITIES – select to go back to the GPS Utilities screen.

Engine Diagnostics



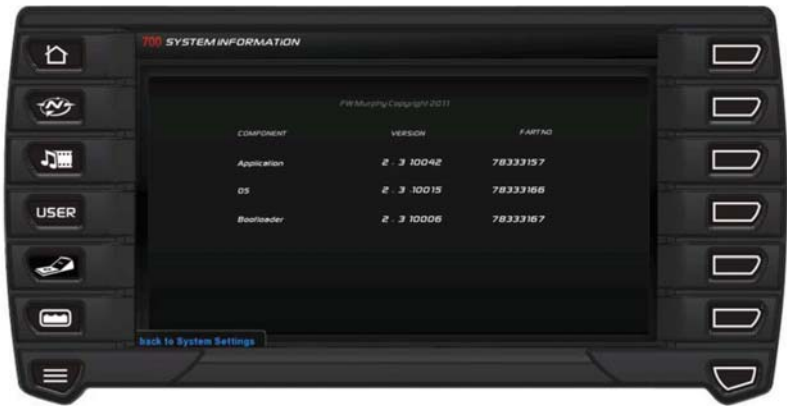
The following is a list of field definitions contained on the **ENGINE DIAGNOSTICS** screen:

- **Diagnostic Message** – displays the diagnostic message.
- **Description** – 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.
- **Corrective Action** – suggested action for correction.
- **SOURCE** – what the source of the message is.
- **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.

Soft Key	Description
	LEFT/RIGHT ARROWS – navigate through the fault list.
	GET FAULTS – query the engine(s) ECU for feedback on diagnostic codes that have been activated and stored in the ECU for service needs.



- **Count** – The number of times the event has been flagged.
- System Information**



Component	Version	Part No.
Application	The version number of the application installed on the hardware.	The part number for the application.
OS	The version number of the operating system installed on the hardware.	The part number for the operating system.
Bootloader	The version number for the bootloader.	The part number for the bootloader.



Nautique LINC 2.0 – River Mode

LINC's River Mode is a feature that allows the driver to keep the boat's speed-over-water constant at the push of a button when a current is present. To compensate for the current, the boat's speed-over-ground or "GPS speed" must be adjusted up or down, depending on the direction of the boat relative to the current.

Please follow the steps listed on the following pages to learn how to turn on, operate and adjust River Mode from the Home Screen and from 3 Event.

From the Home screen, press the seventh button down from the right (will be labeled either "users" or "SURF" depending upon the set speed).



LINC Home Screen with River Mode off



Press River Mode to toggle River Mode on.



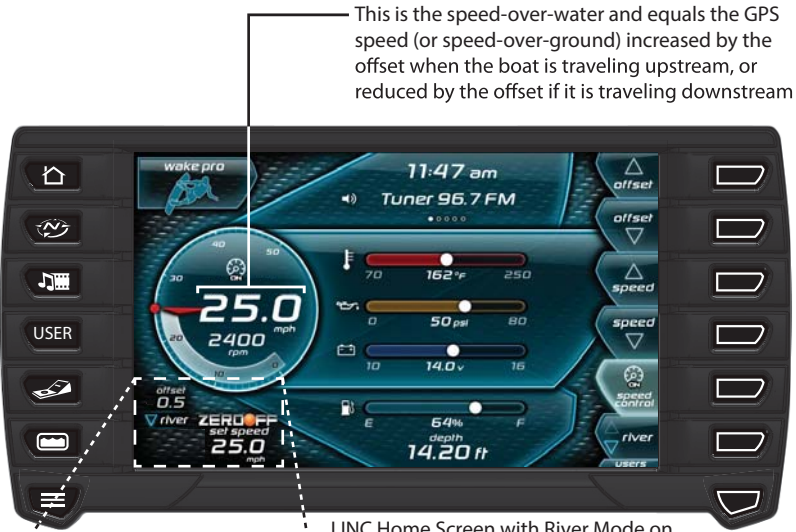
LINC Home Screen with River Mode off

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Press “main” to return the first menu of soft keys to control the set speed and offset for River Mode.



LINC Home Screen with River Mode on



Offset should be adjusted as described below to equal the estimated current speed

River Upstream/Downstream indicator (Depicted as downstream in the illustration)

Set speed equals the desired "water speed" and is adjusted using speed up or down soft keys

Soft Key	Description
	OFFSET UP and OFFSET DOWN – adjust the offset up or down to equal the estimated current speed. UP – increases the offset. DOWN – decreases the offset.
	RIVER MODE UPSTREAM/DOWNSTREAM – should be pressed when driver is changing directions from upstream to downstream or vice versa. If the boat is moving upriver, this function adds the offset to the GPS speed (or speed-over-ground) to display the estimated speed-over-water, or subtracts it, if the boat is moving downriver.



Operating and Adjusting River Mode Settings

First, ensure that River Mode is turned on and navigate to the Home screen.

Determine whether the boat will be traveling upstream or downstream and switch River Mode Upstream/Downstream on LINC accordingly.

Estimate the current speed and adjust the offset up or down accordingly.

When changing direction while driving (e.g., going from driving upstream to driving downstream, or vice versa) be sure to press the River Mode Upstream/Downstream on LINC.



Nautique Surf System

Basics/Activating NSS

NSS is a great tool for shaping the wakesurf wave to a user's personal preference by the press of a button in LINC. There are user settings within NSS that can be used to build the ultimate wakesurf wave for the user, but to get the most from NSS it is helpful to understand the basics of how it works first.

The first step to using NSS is to know how to access the NSS menu. **It is important to know that NSS settings are unavailable until the set speed has been moved below 13 mph (20.9 kph).** This means that LINC will appear as if it does not have NSS until you lower the set speed. Figure 1 is an example of how the LINC home screen looks with a set speed above 13 mph (left) and below 13 mph (right).



Figure 1: LINC home screen, NSS active (left) and the LINC home screen, NSS active (right)

With the set speed set below 13 mph the NSS settings are now visible on the right side of the of the LINC display near the hard buttons. NSS is now active and the wave plate will automatically deploy to the NSS setting once the set speed has been reached and Zero Off engages (Note: The waveplate will only deploy when speed control is “on” and NSS is “on” even though the NSS settings are visible.)



Now that NSS is active, to change the NSS settings you must navigate to the “surf” page of the LINC display. This can be done by pressing the last button on the right side of the LINC display (see Figure 2).



Figure 2: Location of surf button to access the surf page

Once the surf page has been loaded, the controls for the NSS settings will be visible and can be easily adjusted. Figure 3 displays the differences between the user page and the surf page which now populates the user page.



Figure 3: Speed page with NSS Inactive (left), Surf Page with NSS Active (right)

Also available on the surf page is the “switch surf” button and the NSS “on/off” button (see NSS soft key guide for details). When the set speed is moved back above 13 mph the “Surf” button and page will disappear and the “user” page will again populate this page.

Adjusting NSS Settings

NSS has 6 unique settings that change the shape of the wakesurf wave. The higher the number the steeper or more “vert” the wakesurf wave will become. 5 is associated with the most vert wakesurf wave, and is also the most likely to be “washy” due to how steep the wave is. The lower the NSS setting, the more “ramp” like the wakesurf wave will become. Having an NSS setting of 0 would create the mellowest or most ramp-like wakesurf wave, which would also create the “cleanest” wakesurf wave. So in general, to clean the wakesurf wave up, move the NSS settings toward 0. To make the wakesurf wave steeper or make the wave shorter, move the NSS setting toward 5. The factory NSS setting has been set you 0 because with factory ballast this creates the best all-around wave for the user.

How to Switch Wakesurf Sides

To change the wave side that can be surfed from one side of the boat to the other, the user can simply press the “switch surf” soft key (the second key from the bottom in Figure 2). Once the button has been pressed, the extended wave plate will retract and the inactive wave plate will be deployed to the current NSS setting almost instantly. The user should also notice that the icon indicating which side to surf has updated to indicate the side of the wave currently being surfed.

Other Ways to Adjust the Wakesurf Wave

NSS is a very effective tool to adjust the wakesurf wave; however it is not the only option available to you. To further adjust and change the shape of the wave for wakesurfing the boat can be slightly offloaded toward the side of the surfer. This should produce a cleaner wakesurf wave. Be sure to avoid offloading the side opposite the wakesurfer as this can be detrimental to the wakesurf wave. If the user prefers to wakesurf strictly by offloading the boat (without NSS) then NSS can be turned off by pressing the on/off button on the LINC surf page.



NSS Soft Key and Icon Guide

	NSS On/Off Key	Allows the user to choose if the designated wave plate will engage once the set speed is reached (on) or not (off)
	Switch Surf Key	Allows the user to choose the side on which to develop a wakesurf wave
	Surf Vert/Surf Ramp Keys	Allows the user to select a surf setting from 5-0 to adjust the shape of the wakesurf wave. 5 – Most vert and most likely to wash 0 – Most mellow/ramp-like and more clean
	Surf Side Indicator	Arrow points toward side of wave to surf
	Surf Page Soft Key	Icon next to button to access surf page

Editing NSS Settings in User Profiles

Much like on the LINC home screen, NSS settings will be unavailable when editing a user profile unless the profile set speed is moved below 13 mph. Until the set speed is moved below 13 mph (20.9 kph), a message notifying the user that NSS settings are only available below 13 mph will be visible (see Figure 4).





Figure 4: Profile with NSS settings inactive

Once the set speed is moved below 13 mph, two new settings will become available in the user profile, an NSS setting and a Surf Side setting. The Surf Side setting refers to the side of the boat the user would like to start to surf on. As an example, if the arrow points to the right, then the port side is being set as the side to surf. Changing and saving these settings will load them when the user profile is chosen.



Figure 5: User Profile with NSS Settings Active

If at any time the user would like to surf on the side opposite the side loaded from the user settings, this can be done by pressing the “switch sides” button. Figure 5 displays a user profile with NSS settings available.





Figure 6: Profile with NSS Settings Inactive

Once the set speed is moved below 13 mph, two new settings will become available in the user profile, an NSS setting and a Surf Side setting. The Surf Side setting refers to the side of the boat the user would like to start to surf on. As an example, if the arrow points to the right, then the port side is being set as the side to surf. Changing and saving these settings will load them when the user profile is chosen.



Figure 7: User Profile with NSS Settings Active

If at any time the user would like to surf on the side opposite the side loaded from the user settings, this can be done by pressing the “switch sides” button. Figure 11 displays a user profile with NSS settings available.



LINC 2.0 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 Nautique service center.

Display has no keypad backlight.

Contact your Nautique service center.





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