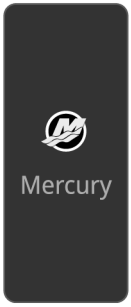
Mercury

App Guide

English

Software version: 2.1



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This product's warranty is supplied as a separate document.

Safety, disclaimer and compliance

This product's safety, disclaimer and compliance statements are supplied as a separate document.

Internet usage

Some features in this product use an internet connection to perform data downloads and uploads. Internet usage via a connected mobile/cell phone internet connection or a pay-per-MB type internet connection may require large data usage. Your service provider may charge you based on the amount of data you transfer. If you are unsure, contact your service provider to confirm rates and restrictions. Contact your service provider for information about charges and data download restrictions.

More information

Document version: 002

This document was prepared using software version 2.1

Features described and illustrated in this guide may vary from your unit due to continuous development of the software.

For the latest version of this document in supported languages, and other related documentation, visit:
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CONTENTS

OVERVIEW

The Mercury app and controller are navigation tools which help monitor engine performance, tank fuel levels, and automatically keep vessels with a Mercury Marine engine at a steady speed via cruise or troll control modes.

SAFETY

⚠ **WARNING:** An engine controller and autopilot are useful navigational aids, but do not replace a human navigator. Ensure the system has been installed correctly, commissioned and calibrated before use.

⚠ **WARNING:** When a positioning mode is in operation, there is a risk of propeller injury and lookout must be maintained.

Do not use cruise/troll control when in:

- Heavy marine traffic areas or narrow waters.
- Poor visibility or extreme sea conditions.
- Areas where use of a cruise control system is prohibited by law.

When using the cruise/troll control:

- Do not leave the helm unattended.
- Do not place magnetic material or equipment near the heading sensor used by the autopilot system.
- At regular intervals, verify the course and position of the vessel.
- Reduce speed in time to avoid hazardous situations.

REQUIREMENTS

To view the Mercury engine app and controller, you need a:

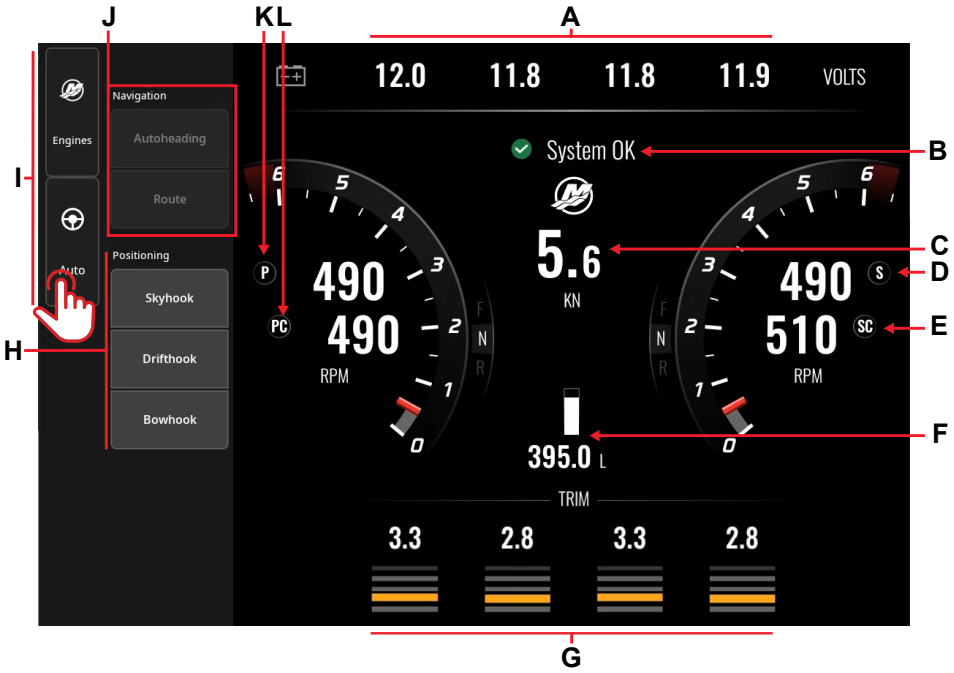
- NSX® MFD with software version 1.3.X or later.
- Fully installed and commissioned Mercury engine. Up to four engines are supported.
- Correctly configured Mercury SmartCraft Connect module.

For further information, visit **https://www.mercurymarine.com**.

➔ *Note: Contact Mercury for all information on hardware and installation procedures. We recommend professional installation of your Mercury engine, SmartCraft Connect gateway, and helm assignment.*

ENGINE GAUGES

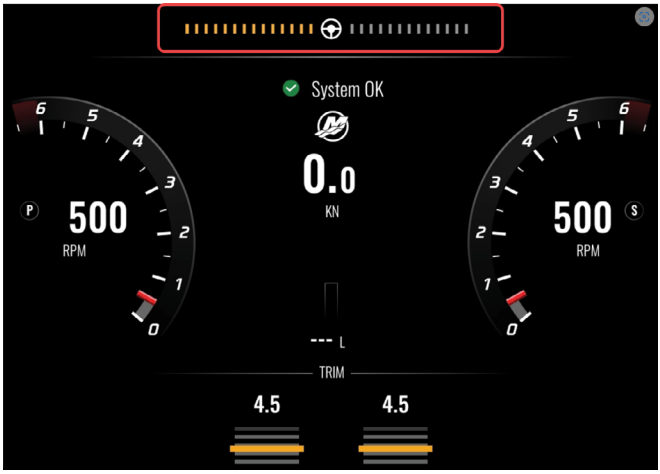
To launch the Mercury engine gauges, select the Mercury app icon on the home screen.

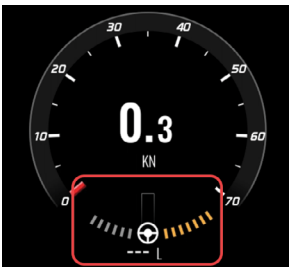


A Battery voltage
B System status — you can also see when cruise or troll mode is active here.
C Current speed over water
D RPM for starboard engine
E RPM for starboard center engine
F Fuel tank level and available quantity
G Engine trim
H Autopilot mode — Positioning features
I Control bar with cruise/troll functions and autopilot functions
J Autopilot mode — Navigation features
K RPM for port engine
L RPM for port center engine

V12 engine support

When a Mercury V12 engine is connected, an engine steering position indicator displays.

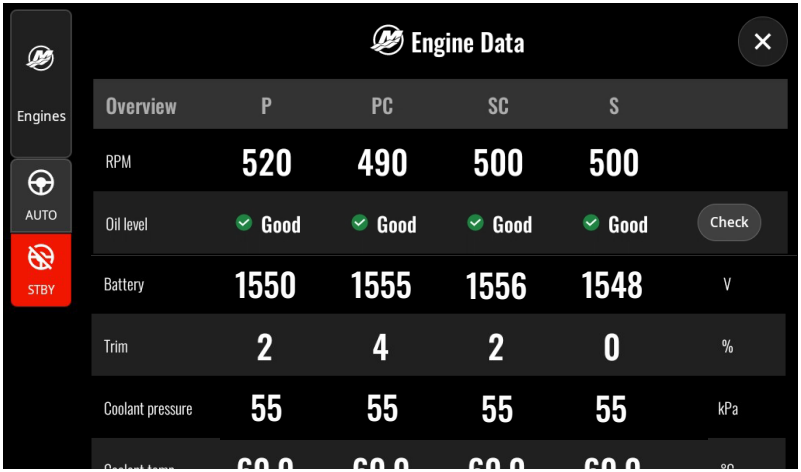




➔ *Note: V12 engines have an integrated gearbox, hence the engine speed and prop rotation speed are not the same. The gauge displays the engine speed. In Cruise control mode, the target RPM is the propeller RPM. The engine gauge displays engine RPM, so the two RPM values can differ when cruise is active. This is normal.*

ENGINE DATA PAGE

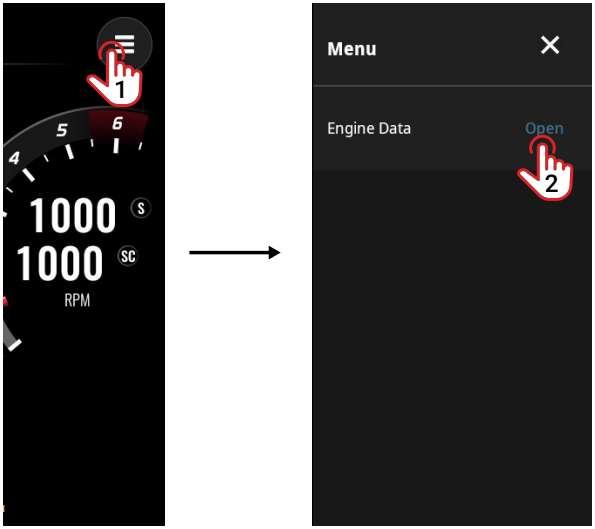
The engine data page presents live engine data. Scroll down the engine data page to see all the data. The **Overview** row identifies the connected engines from port to starboard across the vessel. You can change the units displayed for each measurement by closing the engine data page, and navigating to **Settings > Preferences**.



➔ *Note: The data includes engine-specific details such as trim and steering, among other features. Each row displays data only if the engine(s) can provide it.*

Access the engine data page

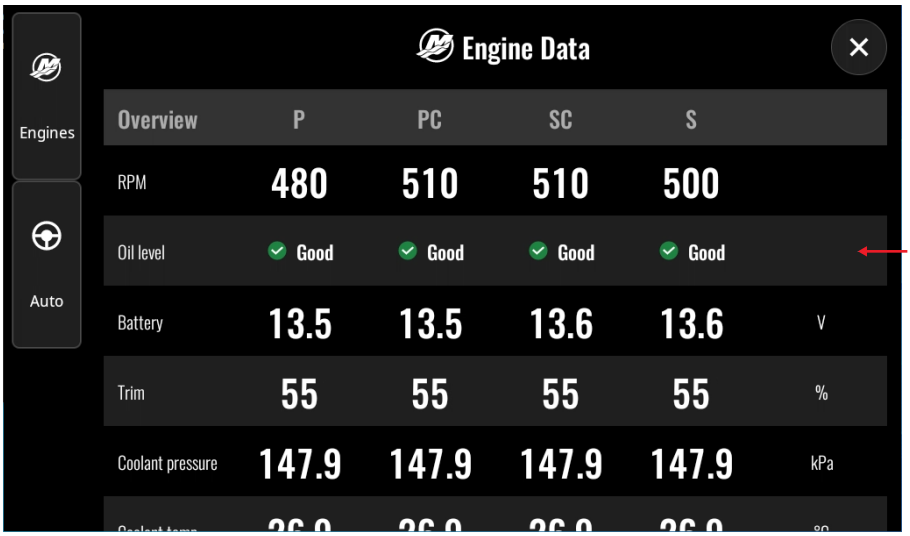
To access the engine data page, tap the touch screen anywhere on the gauges page. Select the settings icon (**1**) then select **Open** (**2**).



Oil level

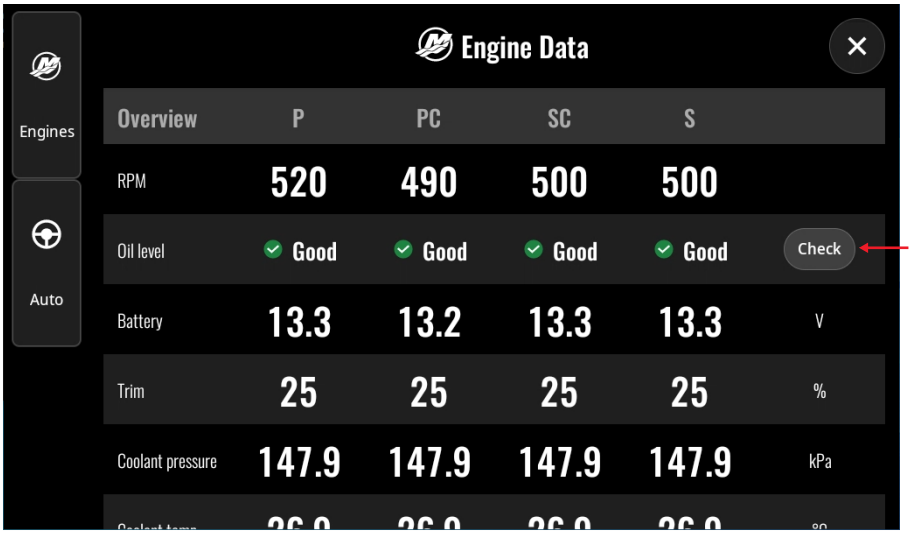
Compatible engines can report the **Oil level** (**A**) status for the engines at the time the engines are turned on.

➔ *Note: Not all engines support reporting their oil level upon startup.*



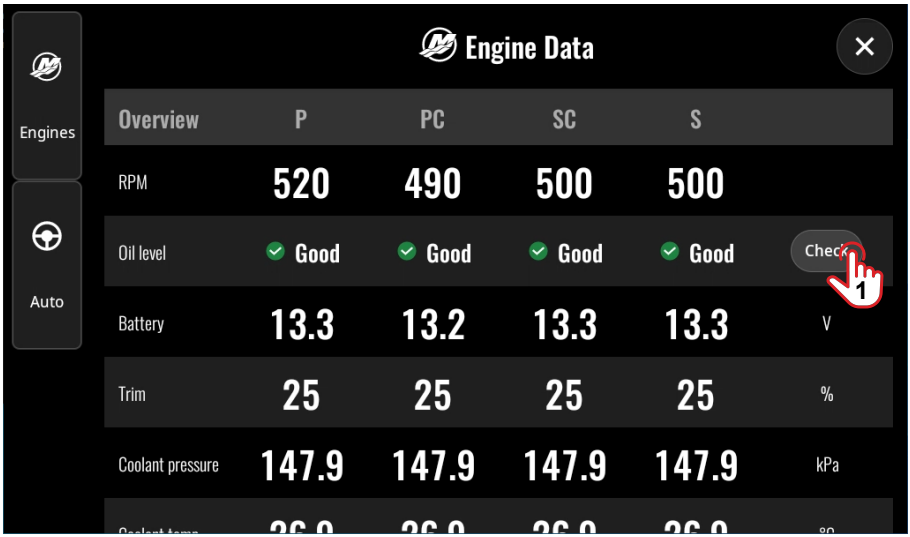
Some engines can carry out an oil level check on request. This is referred to as an active oil level check. If your Mercury engine supports the feature, select the **Check** (**B**) button to initiate it.

➔ *Note: Not all engines support active oil check. If the **Check** button is not present, your engines do not support the feature.*



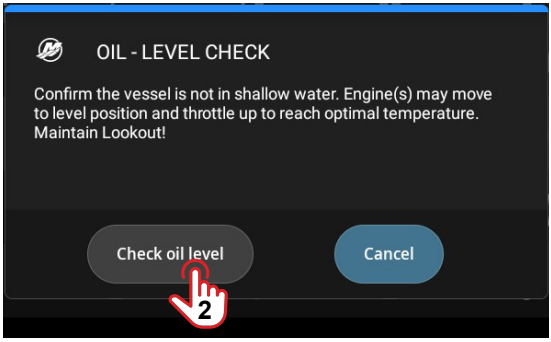
Active oil level check

To carry out an active oil check, press **Check** (**1**) on the **Engine Data** screen.



During a check the engines will move to a level position, and may throttle up to reach the correct temperature and pressure for the check.

The following warning appears:



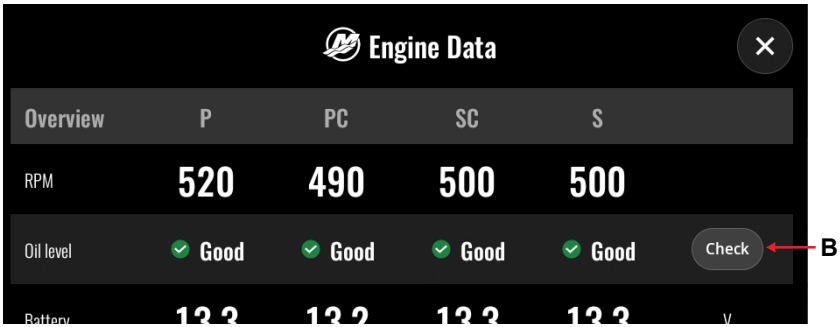
Select **Check oil level** (**2**) to proceed with the oil check, or select **Cancel** if you don't want to perform the oil level check.

When an oil level check for an engine is complete, the **Checking** status icon is replaced with the result of the check.

➔ ***Note:*** *The oil check sequence may take several minutes, and the check may be completed at different times for each engine.*

Active oil level check results

The **Oil level** row (**B**) displays the results of the most recent oil level check.

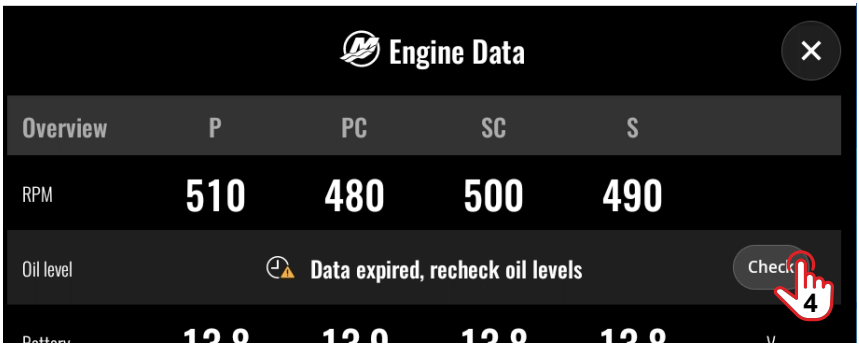


Result	Meaning
Good	The check was completed and the oil level for the engine is acceptable. Continue operating the engine.
Low	The check was completed and the oil level for the engine is low, but you can continue operating the engine.
Critically low	The check was completed and the oil level for the engine is too low. You should stop operating the engine and attend to the issue immediately.
High	The check was completed and the oil level for the engine is too high. You should stop operating the engine and attend to the issue immediately.
Unsupported	Check the engine configuration.

Unavailable	The check could not be completed for the engine because some data was not available. If the **Unavailable** status is triggered for an engine, a further dialog appears on screen advising you to carry out a manual check of the oil level for that engine. (Note: The engine must be turned OFF to carry out a manual oil level check.) Select **Oil level is OK** (**3**) to note in the system that you have performed the manual check. The status **Checked-OK** will display for that engine. Alternatively, select **Dismiss** to dismiss the dialog.

Approximately 10 minutes after the completion of an active oil level check, the results of the check on the engine data page are replaced by the prompt "**Data expired, recheck oil levels.**"

It is normal to see this prompt when the engine data page is first opened. To see updated oil levels for the engines, select **Check** (**1**) to perform a new oil level check.

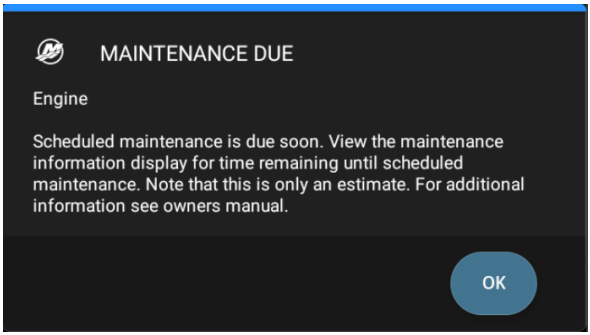


Transmission fluid level

For compatible engines, the engine data page displays the results of a passive check of transmission fluid level. The check is carried out automatically at engine startup.

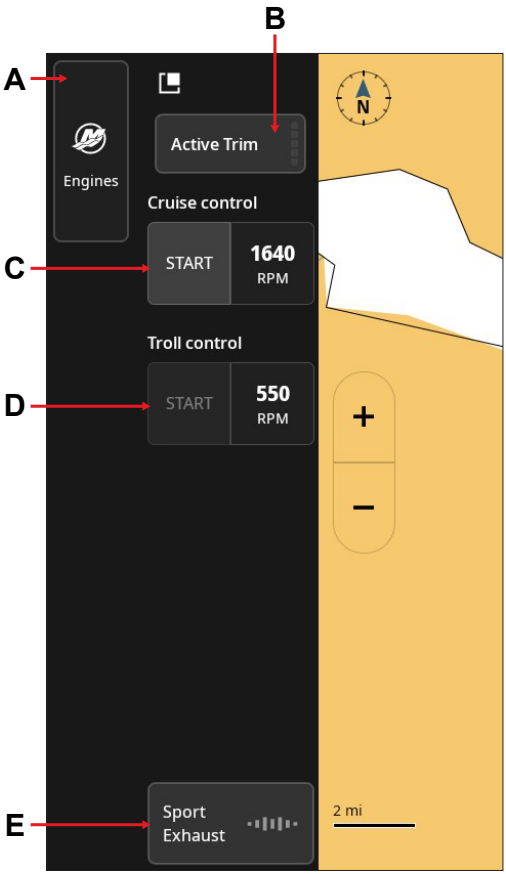
ENGINE MESSAGES

Your multi-function display presents maintenance and warning messages generated by the Mercury Marine engine.



➔ ***Note:*** *Consult the Mercury Marine engine operator manual or an authorized Mercury Marine engine specialist to resolve the displayed issue.*

ENGINE CONTROLLER



A Engine controller — use to show/hide the controller.
B Active Trim — use to turn on/off the active trim feature to enhance vessel performance and stability.
C Cruise control — use to set a speed control function at higher engine RPMs.
D Troll control — use to set a speed control function for use at lower speeds.
E Sport Exhaust — use to activate the sport exhaust mode on compatible Mercury engines.

➔ ***Note:*** *You can start and stop cruise control or troll control directly from this panel by pressing **C** or **D**.*

➔ ***Note:*** *The engine controller and options within the controller are only visible and enabled when the suitable hardware is configured on the vessel via the SmartCraft Connect gateway.*

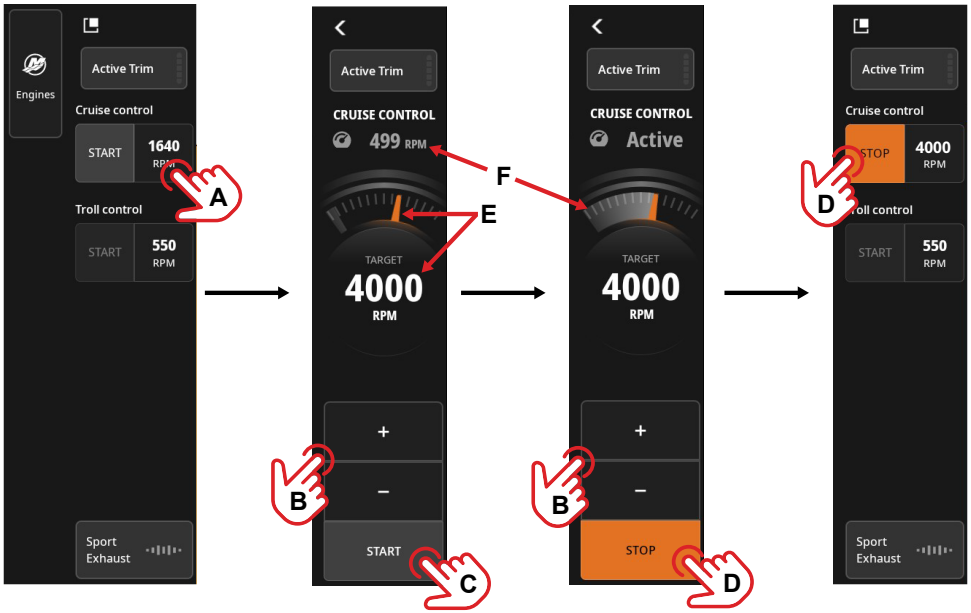
CRUISE CONTROL

Cruise control is a speed-limiting function which can be activated above trolling speed. The minimum and maximum engine RPM should be configured by your engine and/or SmartCraft Connect installer.

➔ *Note: Cruise control can be engaged at any time the engines are running but the limiting will only activate when in forward or reverse throttle positions.*

Engage cruise control

Follow these steps to engage cruise control when it's safe to do so.



- Select the cruise control **RPM** button (**A**).
- Use the +/- buttons (**B**) to set the cruise control target RPM (**E**). Select and hold to change the RPM rapidly.
- Select **START** (**C**) to engage cruise control.
- Move your throttle to match the cruise control target RPM. You can check the current engine RPM via the gray sweep indicator or engine RPM display (**F**).
- **Active** is displayed when the engine has reached the target RPM.
- Once active, you can adjust the cruise control RPM via the +/- buttons (**B**).

➔ *Note: If you move the throttle position beyond the cruise control target RPM, you may experience a momentary surge, but the cruise control system will rapidly match the engine RPM to the target RPM.*

⚠ **WARNING:** When you need to slow down in an emergency, lower the throttle position to override the cruise control. If you need to exceed the cruise control target RPM, select STOP (D) to disengage cruise control before increasing your throttle input.

Disengage cruise control

Your engine will maintain the target RPM until cruise control is disengaged or the throttle position is reduced below the cruise control target RPM.

To disengage cruise control select **STOP** (**D**), then move the throttle to neutral or idle position.

TROLL CONTROL

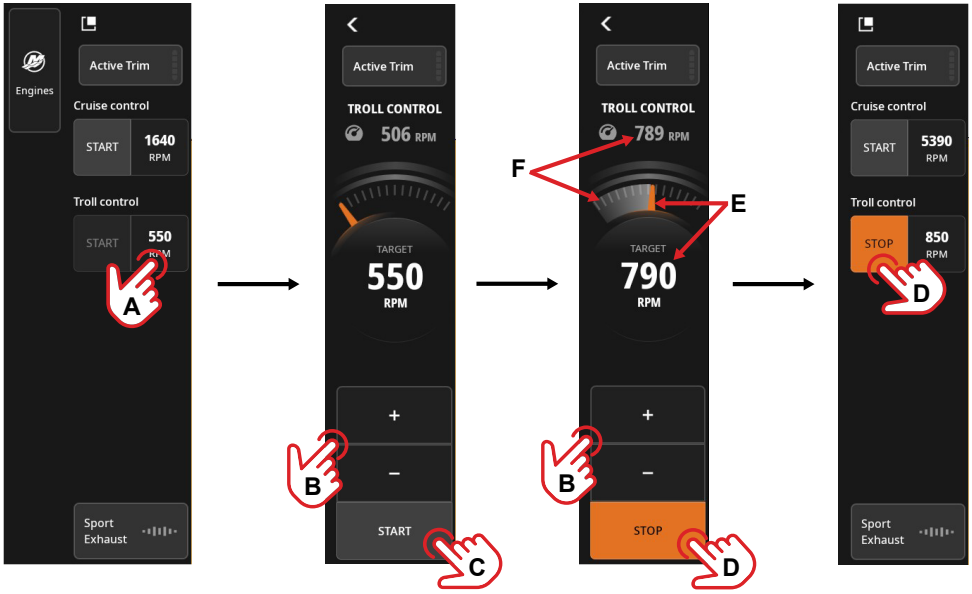
Use troll control as a low-speed engine RPM limiter when fishing, surveying, navigating a busy harbor/speed restricted area/no-wake zone, or when your maximum vessel speed must be lower than the minimum cruise RPM.

The minimum and maximum troll control RPM should be configured by your engine and/or SmartCraft Connect installer. The values for minimum and maximum limits are provided by the gateway, for both cruise and troll. Correct configuration of the gateway is required for these values to be correct on the MFD.

➔ *Note: Troll control can only be engaged with the throttle in the forward idle position, and engine RPMs are controlled via the Mercury engine controller.*

Engage troll control

Follow these steps to engage troll control when it's safe to do so.



- Set the throttle to the forward idle position.
- Select the troll control **RPM** panel (**A**).
- Use the +/- buttons (**B**) to set the troll control target RPM. Select and hold to change the RPM rapidly.
- Select **START** (**C**), and the engine RPM (**F**) will immediately match the target RPM.
- Once active, you can adjust the troll control RPM via the +/- buttons (**B**).
- Select **STOP** (**D**) to disengage troll control.

➔ *Note: Troll control is disengaged when the throttle position is changed.*

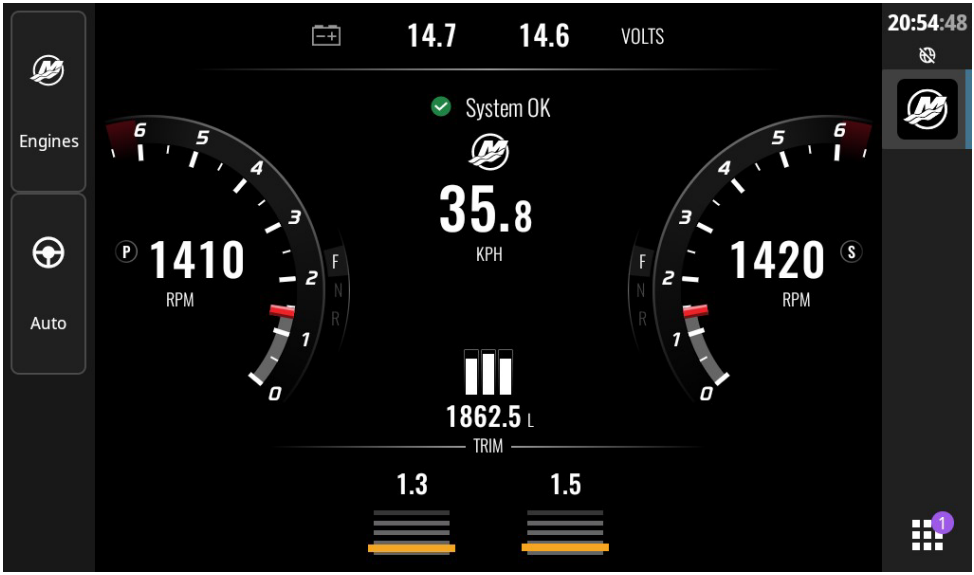
Disengage troll control

Troll control can be disengaged by selecting **STOP** or changing the throttle position.

ACTIVE TRIM

Active Trim is an integrated GPS, speed-based automatic engine trim system from Mercury Marine. This system continually adjusts engine trim based on changes in boat speed to improve performance, fuel economy, and ease of operation.

Active Trim should be configured by your engine and/or SmartCraft Connect installer.



Trim positions for all engines are shown (**A**).

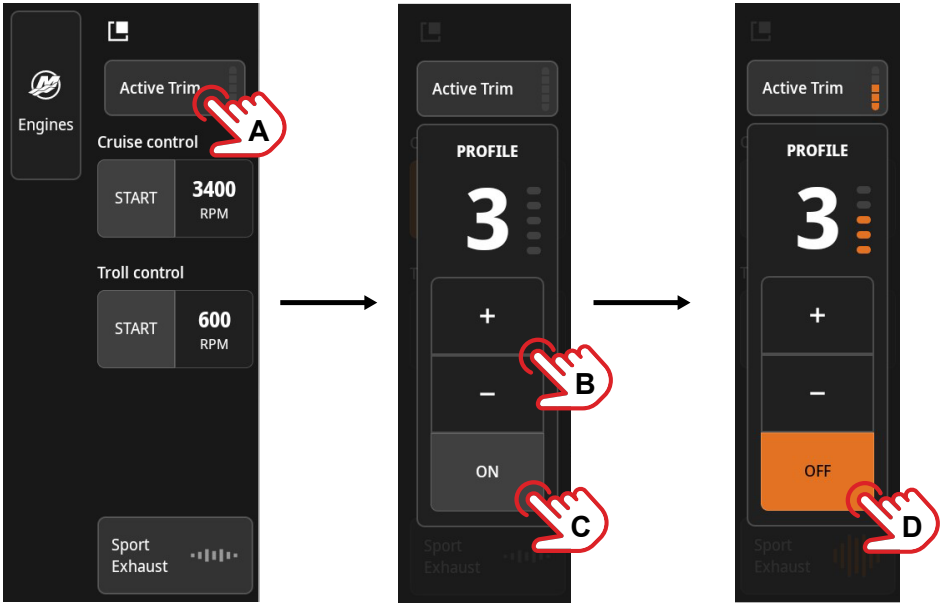
These displays change as the engine trim is adjusted, either manually or by Active Trim. The values displayed range from 0 (most inward engine position) to 10 (more outward engine position).

➔ ***Note:*** *Position 10 represents approximately 60% of the engines' full range of motion. Refer to the Active Trim setup wizard for steps to calibrate Active Trim.*

The trailer icon appears after position 10 and indicates an outward engine position suitable for trailering the boat.

Engage Active Trim

Follow these steps to engage **Active Trim** when it's safe to do so.



- Put the throttle into gear.
- Select **Active Trim** (**A**).
- Select **ON** (**C**) to engage Active Trim.
- Select +/- buttons (**B**) to change an **Active Trim** running profile (set up by your installer).
- Select **OFF** (**D**) to disengage Active Trim.

➔ ***Note:*** *Active Trim adjusts whenever the engines are running and the throttle is in forward or reverse. It ceases control if boat speed is excessive, manual adjustments are made, GPS is lost, or other errors occur, but automatically resumes or allows manual control once these issues are resolved.*

Refer to the section **Major profile selection** on page 23 in this document for further information.

Active Trim behavior

As the boat accelerates, the engine will trim out, and as the boat decelerates (e.g. when making a turn), the engine will trim in.

Follow the prompts and alerts, and take necessary action where required.

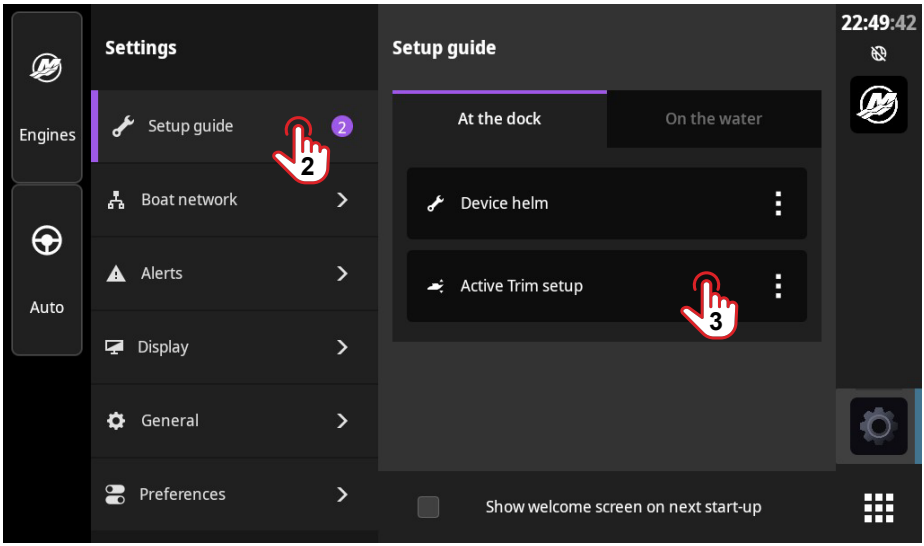
➔ ***Note:*** *Active Trim allows the boat operator to compensate for changes in boat load, driver preferences, and weather conditions while maintaining full automatic control. Use the manual trim buttons at any time to override Active Trim.*

Active Trim setup

The setup procedure establishes the range of engine trim positions so that Active Trim can work to optimize the trim.

Ensure the engines are powered on, but not running. You need to be able to move the engines through their full range of motion, including trailer position, to complete the setup procedure correctly.

To open the Active Trim setup wizard from the **Setup guide**, select the home button (**1**) open **Settings > Setup guide** (**2**) **> Active Trim setup** (**3**).



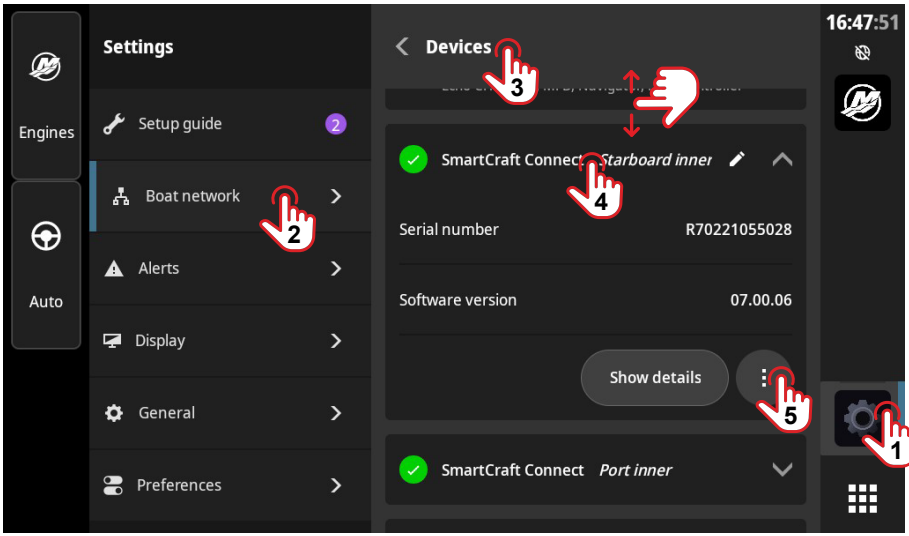
Access Active Trim setup via Boat Network

Active Trim is removed from the setup guide after setup is completed.

To access Active Trim setup another time, navigate to **Settings** (**1**) **> Boat network** (**2**) **> Devices** (**3**).

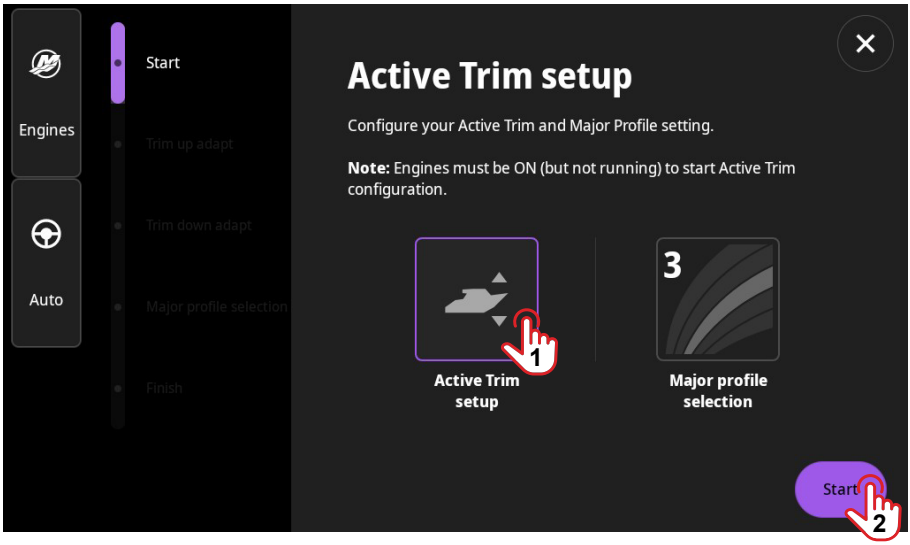
Open any one of the engines identified under **SmartCraft Connect** (**4**).

Select the More icon (**5**) then **Active Trim setup**. The engines must be powered on, but not running, to proceed with Active Trim setup.



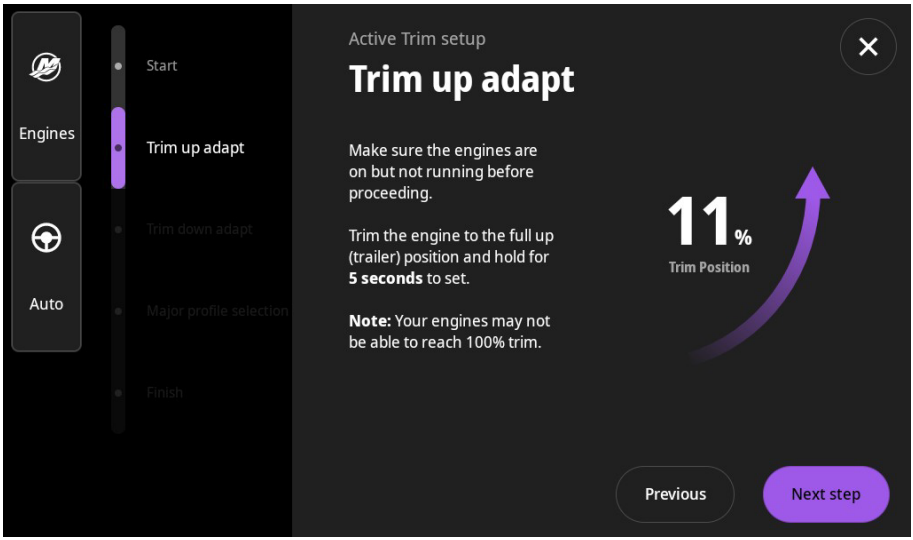
ActiveTrim setup wizard

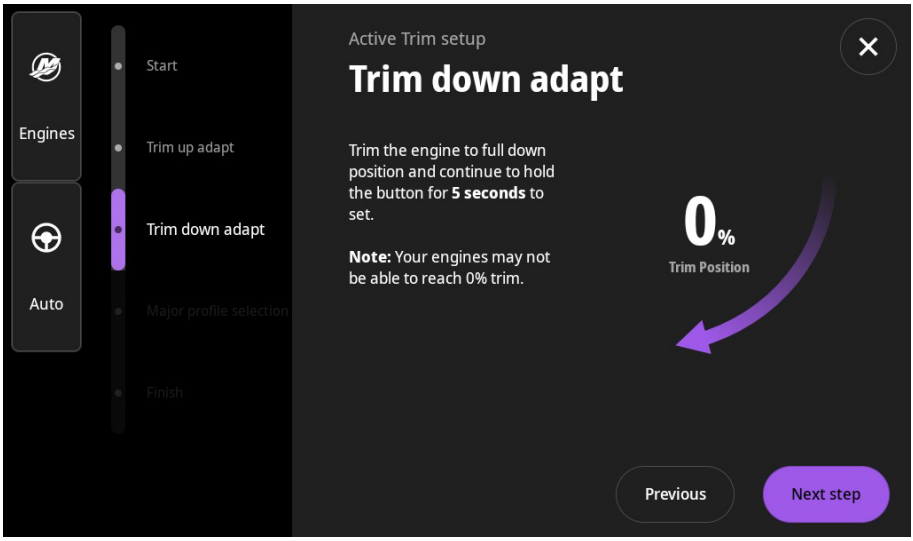
Select **Active Trim setup** (**1**), then **Start** (**2**).



Follow the on-screen prompts. The trim position shown on screen changes as the engine trim changes. At the end of the range of motion, continue to hold the engine trim button for 5 seconds, to set.

➔ *Note: The Active Trim module recognizes the end positions when the trim is no longer changing and the trim up/down button is still pressed.*





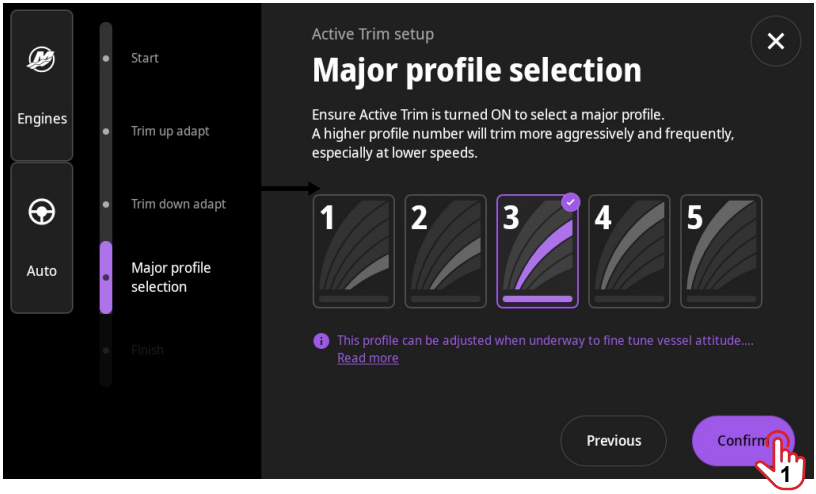
Major profile selection

The Active Trim major profile best suited to your vessel depends on your vessel and engines. Typically, the major profile for the vessel is set once and not changed. The running profile should be used to fine tune the Active Trim behavior.

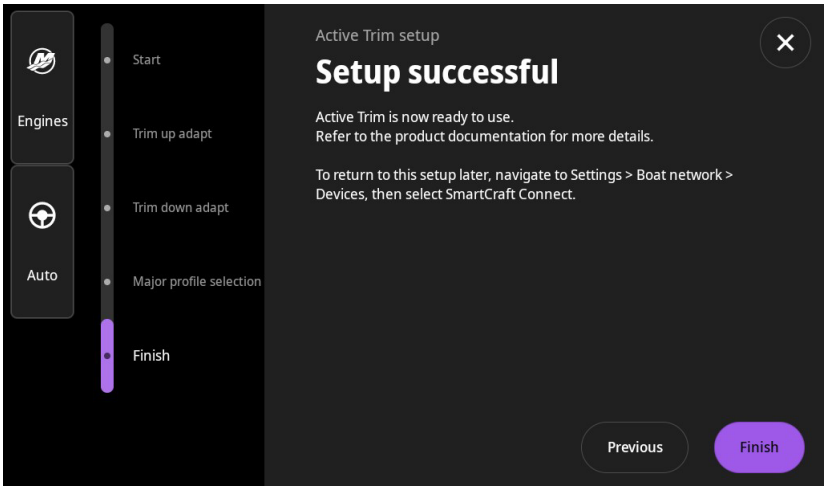
Major profile selection can be confirmed (and adjusted) in the last step of the Active Trim setup wizard. The engines must be running to access the major profile. To set or change the

major profile, first engage Active Trim by navigating to **Engines > Active Trim > ON**.

Follow the on-screen prompts to select the best major profile for your vessel. Take care if adjusting the major profile while the boat is underway. A higher profile number will trim more aggressively and frequently, especially at lower speeds. Select **Confirm** (**1**) to set the profile.



Below: Setup successful. Select **Finish** to exit the Active Trim setup wizard.



AUTOPILOT CONTROLLER

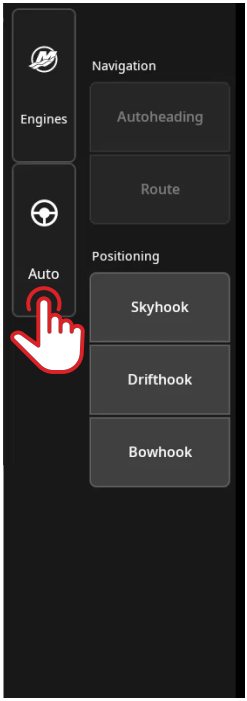
The Autopilot controller has two modes — **Navigation** and **Positioning**. Each mode has separate functions.

Navigation mode offers:

- **Autoheading**
- **Route**

Positioning mode offers:

- **Skyhook**
- **Drifthook**
- **Bowhook**

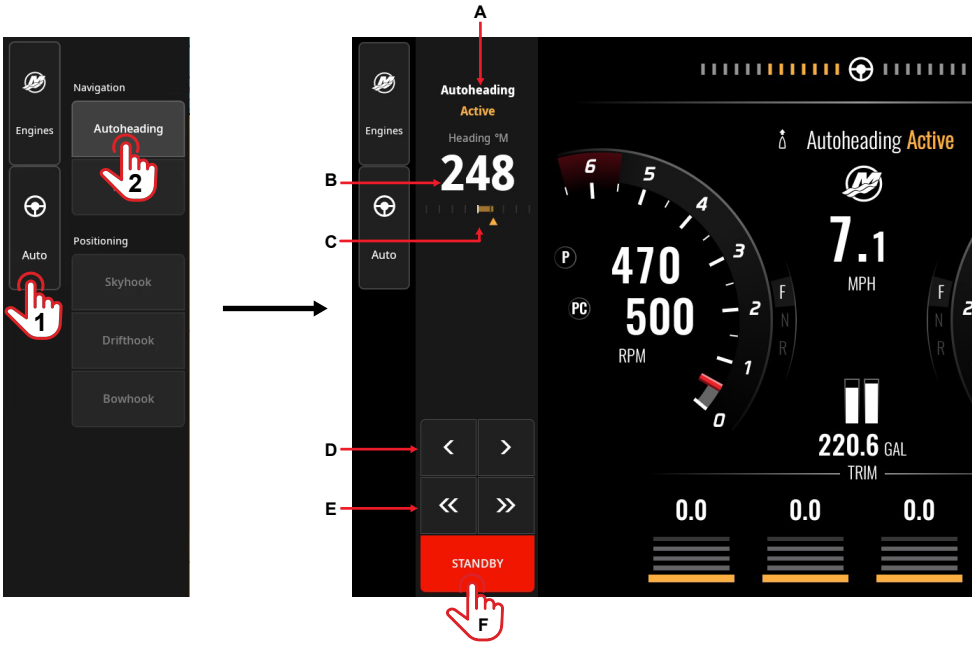


Navigation modes

Autoheading

In Autoheading mode, the autopilot will steer the vessel to a compass heading and maintain it.

➔ *Note: To activate this mode, the engines must be in forward gear and the vessel must be heading in the desired direction.*

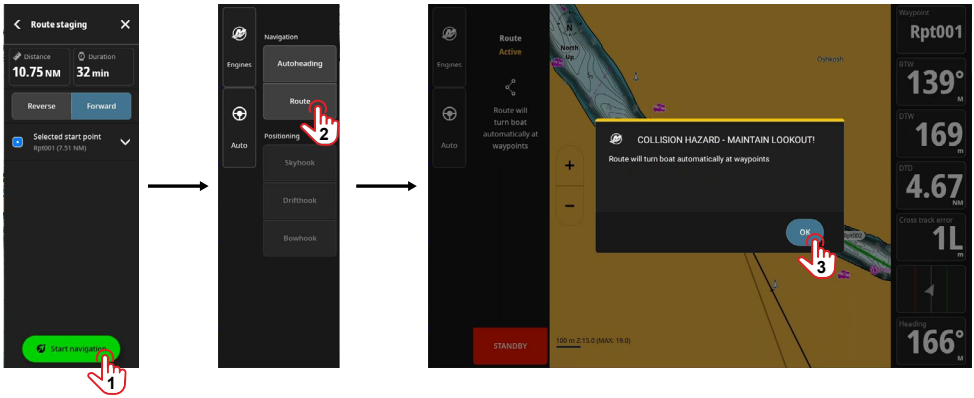


A Autoheading status
B Target heading from compass
C Heading difference
D 1° port and starboard course change buttons. Each press adjusts the intended heading (**B**) by 1° left or right.
E 10° port and starboard course change buttons. Each press adjusts the intended heading (**B**) by 10° left or right.
F Standby — select to disengage the autopilot and take immediate control of the helm.

Route

In Route mode, the autopilot will follow the active route from the Chart app.

➔ *Note: To activate this mode, the engines must be in forward gear, navigation data must be available, and the vessel must be heading in the desired direction.*



1 On the Chart app, select a navigation route, then **Start navigation**.

2 Select **Route** on the autopilot controller under **Navigation** mode.

3 If prompted, select **Engage Autopilot,** then select **OK** to acknowledge the collision hazard warning.

➔ *Note: Select **STANDBY** at any time to disengage the autopilot and take immediate control of the helm. The autopilot will also disengage if the steering wheel is turned, the DTS (throttle) lever is placed in neutral or the engines are turned off.*

- Stopping navigation will disengage route navigation and the system goes into standby.
- Navigation does not get cancelled by:
  - Switching to **Autoheading** or selecting **STANDBY**
  - Changing gear into neutral or reverse

➔ *Note: Acknowledge warning messages to continue safe operation of the vessel.*

Positioning modes

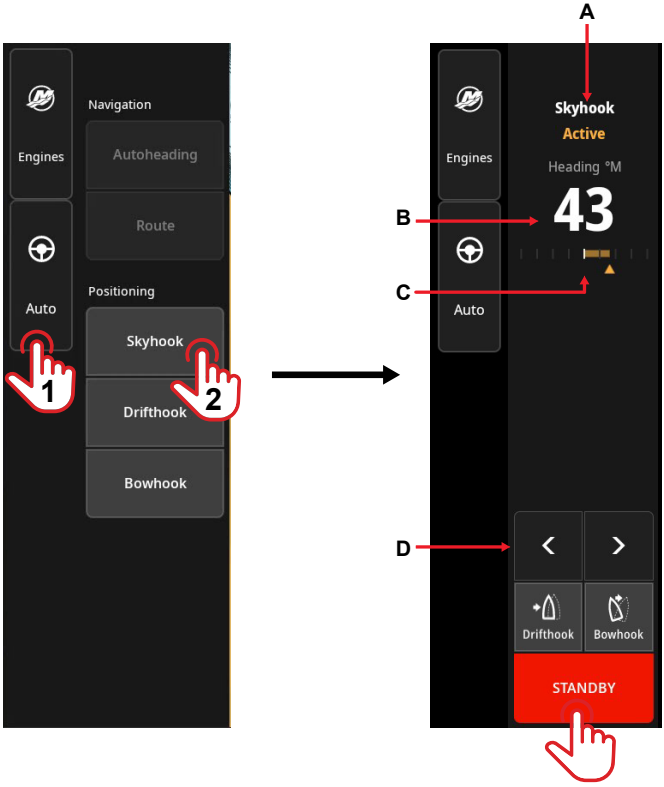
⚠ **WARNING:** When a positioning mode is operational, there is a risk of propeller injury and lookout must be maintained.

Skyhook

Mercury Skyhook digital anchor uses a GPS sensor to lock in your vessel position and heading, then works with the engines and drives to maintain position and heading regardless of wind or current.

This mode is useful when you're waiting for a bridge to open in heavy current or waiting for a fuel dock.

To activate, select **Auto** (**1**) then **Skyhook** (**2**), or press the **Skyhook** button on the joystick pilot system.



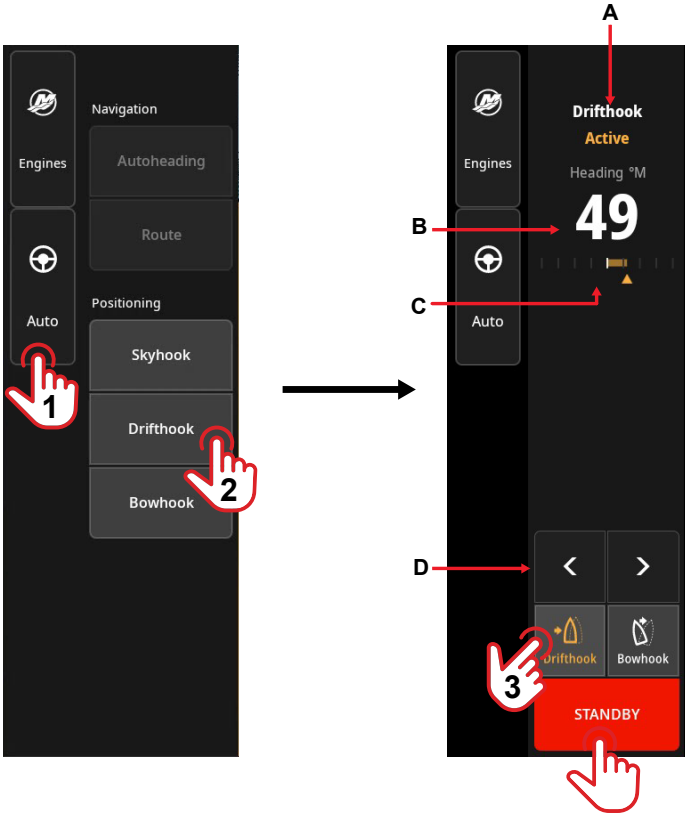
A Skyhook system status
B Target heading from compass
C Heading difference
D Heading change buttons — use to change the direction 1° left or right.
➔ ***Note:*** *Select **STANDBY** at any time to disengage the autopilot and take immediate control of the helm. You can also place the DTS (throttle) into gear to disengage any hook mode.*

Drifthook®

Drifthook® maintains the vessel heading but does not lock its position. The vessel movement is influenced by the wind and current. Adjustments in 1° increments can be made while drifting.

To activate, select **Auto** (**1**) then **Drifthook** (**2**), or select **Drifthook** (**3**) when another positioning mode is active.

Select **Drifthook** (**3**) again to return to **Skyhook** mode.



A Drifthook® status
B Target heading from compass
C Heading difference
D Heading change buttons — use to change the heading 1° left or right.

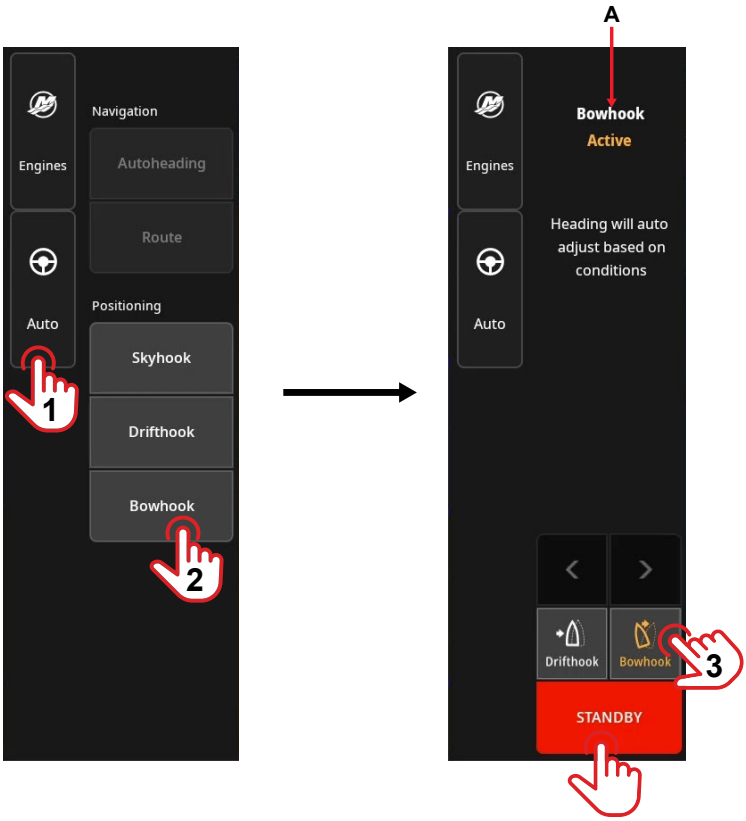
➔ ***Note:*** *Select* ***STANDBY*** *at any time to disengage the autopilot and take immediate control of the helm. You can also place the DTS (throttle) into gear to disengage any hook mode.*

Bowhook

Mercury Bowhook unlocks heading and just maintains position. This allows the vessel to point in whatever direction the winds and currents dictate. This feature is useful when a locked-in heading is not necessary.

To activate, select **Auto** (**1**) then **Bowhook** (**2**), or select **Bowhook** (**3**) when another positioning mode is active.

Select **Bowhook** (**3**) again to return to the **Skyhook** or **Drifthook** mode.

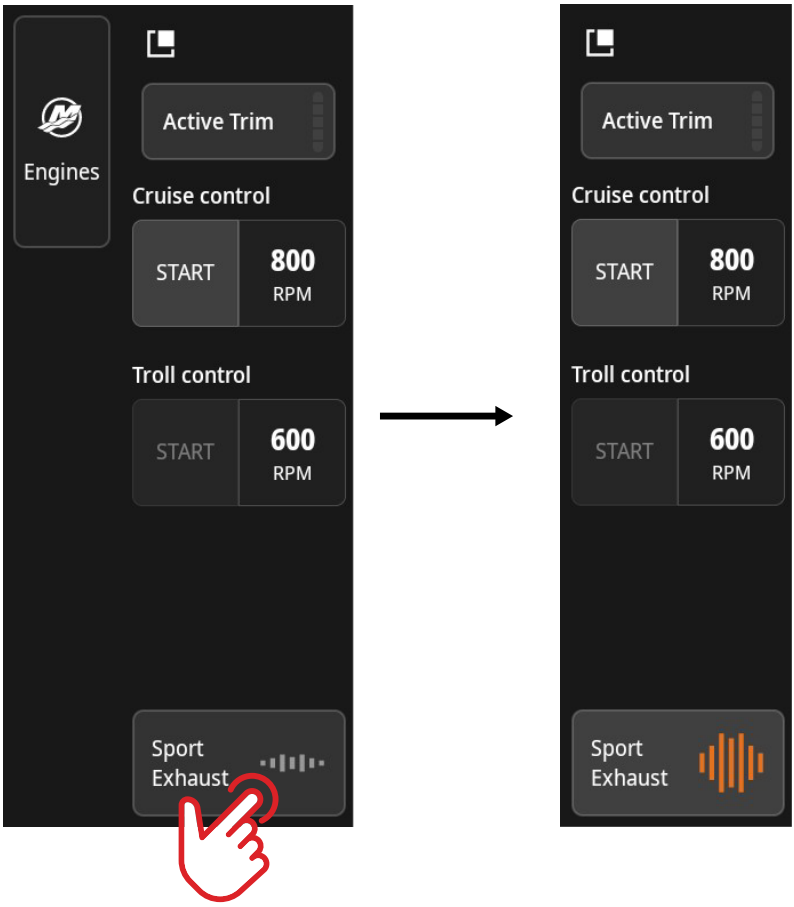


A Bowhook status

➔ ***Note:*** *Select* ***STANDBY*** *at any time to disengage the autopilot and take immediate control of the helm. You can also place the DTS (throttle) into gear to disengage any hook mode.*

SPORT EXHAUST

Some Mercury engines are equipped with a sport exhaust feature which makes the engine exhaust note sound louder and deeper at idle and low speeds.



Select **Sport Exhaust** to toggle between quiet operation and a 'throatier-sounding' sport mode.

➔ *Note: The **Sport Exhaust** button is enabled only when the Mercury engine has a sport exhaust feature.*