

**SIMRAD®**

Go With Confidence



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# **AUTOPILOT BUYERS GUIDE**

# THE AUTOPILOT ADVANTAGE

Whether you have already enjoyed it, or are yet to experience the freedom of a really good autopilot, you will see that Simrad autopilots reduce your workload and fatigue, improve your situational awareness and safety, helping you arrive fresher at your destination.

Simply put, an autopilot will lock a pre-set course in its memory and keep you on course by making small adjustments to the helm for you. Simrad's autopilot systems give you reliable and accurate control over your heading without years of experience at the helm – saving you time and fuel by making efficient turns, and keeping you closer to your planned course.

Compensating for wind and tide, a Simrad autopilot frees you from constant course corrections when you're busy trawling for game fish, planning your next destination, or just cruising. Set waypoints simply by tapping where you want to go on-screen, and your autopilot will take you there.

Need to navigate around an unexpected obstruction? Dodge functionality lets you do so without disengaging the autopilot. Once you've avoided the obstacle, your Simrad autopilot will bring you back on your original course.

An autopilot is one of the most satisfying upgrades you can add to any boat – an advantage you can't afford to be without.



# SIMRAD AT THE HELM

The current range of Simrad autopilots represent over 60 years of experience and development. The Simrad AP1 was the world's first auto-steering system, and has been winning awards for our auto-steering technology ever since.

We have a wide range of solutions to suit any vessel type and length. Design your own system one component at a time, or start by choosing one of our autopilot core packs.

**With our modular components, you can build an autopilot system in just a few steps:**

1. Select a drive unit compatible with your boat's steering system.
2. Choose a rudder feedback unit, or utilise our Virtual Rudder Feedback.
3. Select the autopilot computer that matches your drive unit.
4. Choose how you want to control your autopilot system – select a dedicated controller or a Simrad multifunction display with full autopilot integration.

Alternatively, start with a pack of core components that we have put together, and simply add a drive unit that suits your vessel and then customise your system with a controller of your choice.

# THE CONTINUUM ADVANTAGE



Steering your boat isn't just mechanical – your piloting skill is a product of your own unique experience on the water. When it comes to our autopilot systems, the skill to make smart steering decisions comes from the Simrad Continuum™ algorithm.

The software that drives our autopilots is the product of decades of development, distilling countless hours of real-world on-water experience into a system you can trust to take the helm.

# BUILDING A SYSTEM: THE MAIN COMPONENTS

There are a number of components that make up an autopilot system, but if you approach it in the right order, it's straight forward. A lot of the choices are made for you based on the type of steering system you have on your boat. Start by understanding what type of steering you have, then work

through the drive selection process, this will in turn select the right computer for you and help you understand if you need a rudder feedback unit, then you can you can select the controller and any additional accessories you may need.

## 1. Drive Unit



An autopilot drive unit translates instructions from your autopilot system into movements of your rudder or outboard. The drive unit you'll need depends on the type of steering system you have and the size of your boat. Is your steering system hydraulic or mechanical?

## 2. Rudder Feedback Units



Rudder feedback units are small sensors that measure and report rudder position, enabling precise rudder control for smooth and accurate steering. On smaller boats, Virtual Rudder Feedback (VRF) eliminates the need to install a physical sensor by using a software-based approach to calculate rudder position.

## 3. Autopilot Computer



An autopilot computer is the brains of your Simrad Continuum autopilot system. It continuously monitors data from compasses, rudder feedback units and other on-board instruments, and steers to your chosen heading or course. An autopilot computer also includes the electronics required to operate your drive unit.

## 4. Autopilot Controllers



Controllers provide a status display and a hands-on interface to your autopilot system, allowing you to set a course or use more advanced auto-steering features. Choose from a dedicated controller or control your autopilot system using a Simrad multifunction display.

## 5. Additional Components



A compass is always required plus you can add additional components like remotes for flexibility, convenience and accessibility.

## 6. Find an Authorised Dealer/ Installer



Contact your local authorised Simrad autopilot dealer/installer to help confirm you have the best system for your vessel and to professionally install it for optimum results and warranty cover.

# BUILDING A SYSTEM: WHAT'S RIGHT FOR YOUR BOAT?

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## 1. HOW TO SELECT THE RIGHT DRIVE UNIT FOR YOUR STEERING MECHANISM

Below deck, the steering mechanism and size of your boat decide what sort of autopilot computer and drive system you'll need –the hardware that actually moves your rudder and keeps track of its position.

There are two main types of drive unit:

**A)** A reversible hydraulic steering pump is used to add autopilot capabilities to outboard or sterndrive (inboard/outboard) vessels with existing hydraulic steering systems. Larger boats need larger pumps; your choice of pump will decide whether you need a standard NAC-2 or high-current NAC-3 autopilot computer.

**Tip on how to identify what kind of steering mechanism your boat has.....**



Locate the hydraulic RAM on your engine and check the label for the cylinder capacity (cubic inches or cc)

**B)** Helm drives and linear rams are used to add autopilot capabilities to vessels with mechanical (non-hydraulic) steering systems.

- Electronic helm drive units suit smaller cable steered runabouts.
- Linear rams operate rudders on power-driven boats, or steering quadrants on sailing vessels.

Helm drives and smaller rams work with a standard NAC-2 autopilot computer; more powerful rams for larger vessels are driven by a high-current NAC-3 autopilot computer.

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## 2. DO YOU NEED A RUDDER FEEDBACK UNIT?

For reliable and accurate auto-steering, your autopilot computer must also keep track of your rudder position, a rudder feedback unit provides that data. On smaller boats, Virtual Rudder Feedback (VRF) eliminates the need to install a physical sensor by using a software-based approach to calculate rudder position.

Rudder Feedback Units are typically used on larger boats or boats with inboard engines. A rudder feedback unit

physically connects to your rudder, continually measures its position, and reports it to your autopilot computer.

Boats with commercial electronic steering (e.g. Volvo IPS, Optimus EPS etc.) may not require a rudder feedback unit as this feedback is integrated into the existing system. There are Simrad autopilot solutions with Virtual Rudder Feedback (VRF) options.

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## 3. YOUR DRIVE SELECTION DICTATES YOUR AUTOPILOT COMPUTER

Whether you command your autopilot via multifunction display, dedicated autopilot controller or remote control, there's an autopilot computer sitting below deck that continuously monitors data from compasses, rudder feedback units and other on board instruments. Our autopilot

computers also looks at your current heading and works out how to move the rudder or outboard.

Depending on the size of your boat and drive unit required, you'll either need a standard or high-current computer.

## 4. CHOOSE YOUR CONTROLLER – IT'S UP TO YOU!

With a Simrad autopilot, the choice of display (controller) is up to you. Dedicated controllers offer an always-visible display and instantaneous control at the touch of a button. It's also possible to control your autopilot system using a Simrad

multifunction display for an on-screen touch interface. NMEA 2000® networking lets you connect multiple dedicated controllers and multifunction displays anywhere on board – perfect for dual-helm vessels.

### DEDICATED:



AP44



IS42

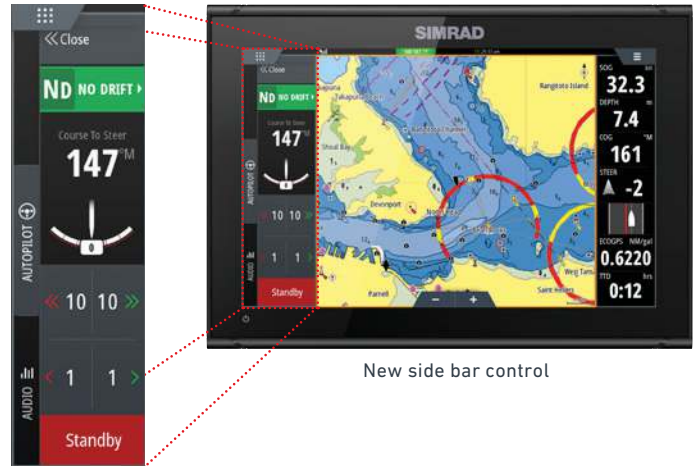


OP12



AP48

### INTEGRATED:



New side bar control

## 5. SELECT ADDITIONAL ACCESSORIES

**Compasses:** to set and hold a course, your autopilot needs to know your current heading. This is supplied by a position sensor – an electronic compass – below deck.

**Remote Controllers:** our autopilot remotes can be combined with a multifunction display at the helm to add traditional hands-on steering control, or mounted elsewhere aboard your vessel to provide autopilot heading control from a fly bridge or other convenient location.



Precision 9



HS60



HS70



OP12



WR10



NF80



QS80



FU80

## 6. FIND AN AUTHORISED DEALER/INSTALLER

Our global service program is world class and is designed to ensure you have the best possible experience with your products. When you choose a Simrad Autopilot, you are automatically protected by a standard service and support program. However, choosing to have your system installed by a Certified Dealer adds 2 Year Onboard Support and 24 Hour Replacement\* to your support package. This is available only on systems installed by a Certified Dealer and valued at over US\$2500\*.

Visit [www.simrad-yachting.com](http://www.simrad-yachting.com) to find your local certified Dealer/Installer. They will ensure you have the best system to suit your vessel and can assist with dock side commissioning to get your new Autopilot system working effectively and efficiently for the ultimate on water experience!

*\*subject to terms and conditions of the Navico Limited Warranty Policy.*

# DRIVE & COMPUTER SELECTION & COMPATIBILITY

Steering System	Typical Vessel	Steering Configuration	Required Drive Unit	Required Computer & RFU Drive
Hydraulic & Hydraulic Power Assisted (with RAM or Cylinder)	35ft & Under	Single Outboard	PUMP-1 RPU80	Outboard Pilot/ DrivePilot Hydraulic Pack NAC-2 & VRF
		Twin Outboards (Single hydraulic cylinder < 15 cubic in or 250cc)	RPU80	NAC-2 & VRF
		Inboards (Steering cylinder < 15 cubic in or 250cc)	RPU80	NAC-2 & RF25
	Over 35ft	Twin/Tripe/Quad Outboards (Dual Cylinder/Cylinder Capacities 10-33 cubic in or 160-550cc)	RPU160	NAC-3 & VRF
		Inboards (Dual Cylinder/Cylinder Capacities 10-33 cubic in or 160-550cc)	RPU160	NAC-3 & RF25
		Inboards (Dual Cylinder/Cylinder Capacities 17-58 cubic in or 290-960cc)	RPU300 (12 or 24V)	NAC-3 & RF25
Electronic Steering Systems (Steer by Wire)	Any	Seastar Optimus 360	Not Required	SG05 Autopilot Computer for Optimus/ CANbus Steering 000-10906-001
		Yamaha Helm Master™		YAMAHA H/MASTER AP KIT 000-11286-001
		Volvo IPS/EVC		SG05 Autopilot Pack for Volvo EVC 000-10402-001
Helm Drive Cable Steered	32ft and Under	Single Outboard	Helm-1	Cable Steer Pack NAC-2
Solenoid Steering	Any	Any	Not Required	NAC-2 or NAC-3 & RF25
Mechanical Steering	Sailing	Cable & Quadrant	For the best in Sailboat Autosteering applications, visit <a href="http://www.bandg.com">www.bandg.com</a>	





## Sales & service

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Visit our website for a  
list of certified dealers



Use a QR Code  
reader app on your  
smartphone to access  
[Simrad-Yachting.com](http://Simrad-Yachting.com)