# AP28
## Autopilot

Simrad Autopilots are attractive, sophisticated and technically perfect, winning 39 NMEA awards since 1983.

# Powerful,
# fully featured…



**State of the art display and control functions and advanced SimNet networking, makes the all new AP28 the perfect autopilot for larger power and sail boats.**

The AP28 control unit features a large LCD display and operation via the brand new interface is intuitive to say the least. This simple display and control setup gives you access to a raft of features and performance options.

- Complete set of Turn Patterns – including Depth Contour Tracking, programmable S-turn, Zigzag, Continuous turn, Square patterns and many more.
- Improved steering algorithms – full Rate of Turn (ROT) control provides smooth and precise turns in any condition and improves tack and gybe performance on sailboats.
- No Drift Course – Maintain set Course over Ground even in severe wind and current conditions.
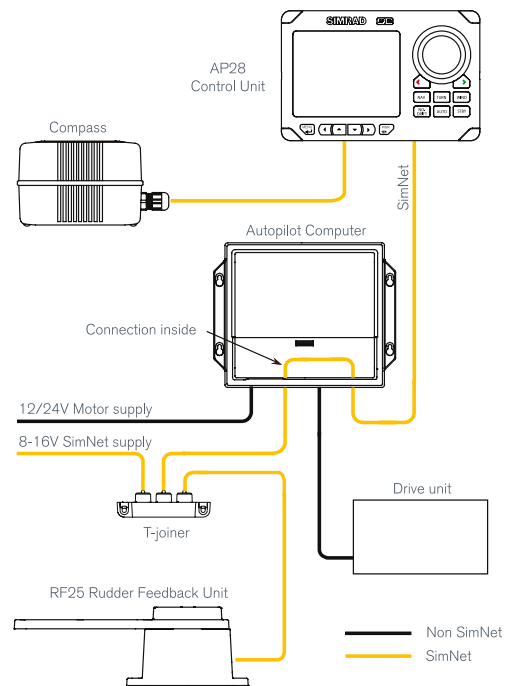
## Installation & Integration

Two new autopilot computers provide substantially more drive current than previous generations and incorporate our new SimNet plug and play sensor technology.

New SimNet compass and rudder sensor, are easier than ever to install; because you no longer have to run dedicated cables back to the autopilot computer. Instead the new SimNet sensors conveniently connect via the SimNet backbone.

The advanced nature of the SimNet network insures the compass and rudder data is automatically routed back to the AP28 autopilot, plus any other SimNet compatible instruments, such as IS20 Compass and Rudder displays.

SimNet also features Slim Line connectors for easy cable routing, so you'll be up and running in very little time.



## Virtual Rudder Feedback

This unique feature, recently introduced to Simrad autopilots means that no rudder feedback unit is needed for outboards and stern drive boats. In terms of installation, you will save a huge amount of time and aggravation thanks to this sophisticated new feature.

## Automatic Tuning

The AP28 include a number of self calibrating features that automatically compensate for the unique handling characteristics of your boat and sea conditions, insuring optimum performance without the need for expert manual calibration.



*Installation & Integration*



*Virtual Rudder Feedback*

# Do you have confidence in your autopilot?

Simrad engineering ensures that you can always go to sea in the confidence that your Autopilot is pin-point accurate and highly reliable. The AP28 boasts state of the art technology so you know you'll be safe, you know you'll hit your waypoints and you know that you'll arrive on time. But what about en-route? What can the AP28 do for you?

## Contour Steering

This unique Simrad feature utilizes data from your fishfinder or depth instrument to maintain a set water depth, just as if you were manually steering your boat along depth contours on a paper chart. This leaves you free to concentrate on the big catch, enjoy the shoreline view or trim your sail.

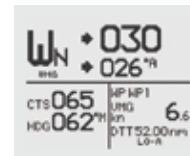*Depth Contour tracking (DCT)*

## Integrated Turn Patterns

When fishing or looking for a wreck, you might choose from a variety of automatic steering patterns that can help you in your search.
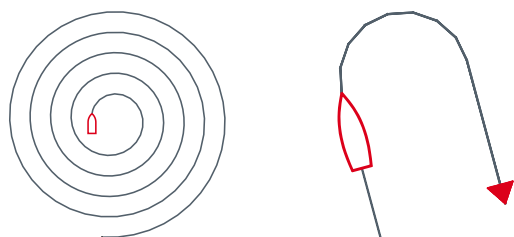
*Examples*

## Advanced Wind Steering

The AWS feature provides unbeatable autopilot performance for any sailing vessel. AWS is ideal for single-handed sailing or racing. Utilizing wind and GPS data simultaneously, it is possible to hit long distance waypoints dead-on, without deviating from the original course line or build-up of significant cross track error.

## Rate Of Turn Control

The AP28 is equipped with advanced control algorithms that enable smooth and precise turns regardless of sea conditions. This feature also improves tack and gybe performance on sailboats.

## Data Pages

The AP28 include a number of data pages where you can view autopilot parameters such as compass heading, set course, rudder position, as well as information received from other SimNet compatible equipment such as GPS navigation data and IS20 wind, depth and speed data.

## Multi-Station Operation

Expanded multi-station compatibility offers several control options including use of the AP24 control unit. Any future autopilot control units will also work thanks to the SimNet system.

## Control Options

Simrad offers a range of extra display and control options for the AP28

- AP28 Control Unit
- AP24 Control Unit
- IS20 RUDDER Display
- IS20 COMPASS Display
- JS10 NFU-Joystick
- R3000X NFU Remote Control
- AT10 NMEA 0183 to SimNet converter(s)
- WR20 Wireless Remote Control

## The Brains Behind the Brawn

The new compact AC12 & AC42 autopilot computers are more powerful than ever and include all of the control functions expected from a Simrad autopilot. Both models are compatible with Hydraulic and Mechanical steering systems.

# Technical specifications

## AP28
### Autopilot System

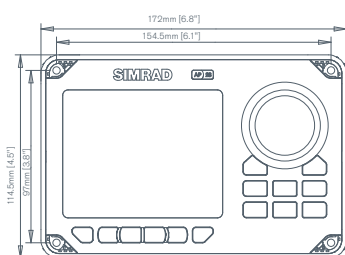| | | | |
|---|---|---|---|
| Multi-language display | √ | Advanced Wind Steering | √ |
| Transflective matrix LCD display | 130x104 pixels | Automatic Tack and Gybe inhibit | √ |
| Dedicated mode keys | √ | Wind Trim adjust | √ |
| Rotary course knob | √ | Automatic adjust of steering parameters | √ |
| 1° keys Dedicated/Selectable | S | Response control | √ |
| 10° keys Dedicated/selectable | S | Boat type preset | √ |
| Instrument data pages | √ | Autotune | √ |
| Analog graphics | √ | Multiple stations | √ |
| Remote station lock | √ | Off course alarm | √ |
| Button power steering | √ | Wind shift alarm | √ |
| Follow-Up power steering | √ | Shallow alarm | √ |
| Rudder angle bargraph | √ | Overload alarm | √ |
| DODGE: Return to last or new heading | √ | SimNet interface and control | √ |
| Heading capture | √ | Virtual Rudder Feedback VRF™ | √ |
| Automatic turn patterns | √ | Volvo Penta IPS interface | √ |
| Depth Contour Tracking DCT™ | √ | Multiple data source input | √ |
| WR20 Remote Commander compatible | √ | Multiple NMEA0183 interface via AT10 | √ |

### Autopilot computer specifications

| | Supply voltage | Motor current continuous/peak | Clutch/bypass current | Solenoid output | Weight Kg (lbs) |
|---|---|---|---|---|---|
| AC12 | 10-31VDC | 8/12 Amperes | 3 Amperes | Yes | 1.3 (2.9) |
| AC42 | 10-31VDC | 30/50 Amperes | 3 Amperes | No | 2.8 (6.2) |

### Drive unit specifications



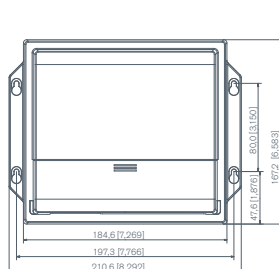| | RPU80 | RPU160 | RPU300 | MSD50 | DD15 | HLD350 | HLD2000L | HLD2000LD | SD10 |
|---|---|---|---|---|---|---|---|---|---|
| Volts | 12* | 12* | 12/24 | 12* | 12 only | 12* | 12* | 24 | 12 |
| Current (Amps) 12V battery | 2.5 – 6 | 3 – 10 | 5 – 20 | 0.8 – 2 | 1 – 4 | 2.5 – 6 | 3 – 10 | | 2.5 – 7 |
| Current (Amps) 24V battery | | | 2.5 – 12 | | | | | 2.7 - 12 | |
| Ram capacity cm³ | 80 – 250 | 160 – 550 9.8 | 290 – 960 17.7 | | | | | | |
| Ram capacity (inch³) | 4.9 –15.2 | - 33.5 | - 58.5 | | | | | | |
| Max. Pressure | 50 bar | 60 bar | 60 bar | | | | | | |
| Boat Length / displacement kg (lbs) | - 35 ft | 35 – 50 ft | 50 – 70 ft | | 45ft/10.500 (12.300) | 10.000 (26.400) | 20.000 (44.000) | 35.000 (77.000) | 37ft/6500 (14300) |
| Stroke mm (inch) | | | | 190 (7.5) | | 200 (8.0) | 340 (13.3) | 340 (13.3) | |
| Peak thrust kg (lbs) | | | | 60 (132) | | 350 (770) | 500 (1.100) | 1050 (2.310) | |
| Max. Torque Nm (lb.in) | | | | | 1.370 (12.000) | 610 (5.400) | 1.460 (15.900) | 3.180 (28.000) | 450 (4000) |
| Tiller arm mm (inch) | | | | | 250 (9.8) | 175 (6.9) | 298 (11.7) | 298 (11.7) | 354 (10) |
| Autopilot Computer | AC12 | AC42 | AC42 | AC12 | AC12 | AC12 | AC42 | AC42 | AC12 |

* The Autopilot computer transforms the battery voltage to the correct drive unit voltage



*AP28*



*AC12*



*AC42*