



## FIN STABILIZER SYSTEMS

### Quiet and precise stabilization

It is important to understand that there are many factors that go into selecting the optimal stabilizer system. Vessel characteristics such as LOA, weight, displacement, windage, roll period and metacentric height are all critical factors in selecting the best stabilizer system. How and where you Cruise are also important factors in your choice of a stabilizer system.

WESMAR's DSP5000 Wave-Smart uses predictive technology together with actual vessel motion to enhance the stabilization of the vessel. It brings a faster response, smoother stops and replaces chasing and wasted energy while minimizing noise.

The DSP5000 uses an integrated processor that combines the key elements of interfacing fin position, velocity, and acceleration with the characteristics of the vessel. Add WESMAR's legendary rugged and reliable, neutrally buoyant hydrodynamic fins and a whole new level of comfort and control is realized. This new stabilization method delivers maximum comfort, a smooth ride, and quiet operation backed by over 50 years of WESMAR's maritime pedigree.

The DSP5000 control is simple and intuitive with seamless interfaces to today's advanced technologies, such as integration with GPS, CANBUS, alarm suites, and more. The activation of the system is achieved by one touch of a button and is available on-demand with no warm up time.

#### Features:

- Programmable and Expandable display/controller with an easy-to-use settings menu.
- Real-time graphic display of fin reaction to roll that can be monitored by the end-user.
- Ability to add vessel-specific custom display screens.
- WESMAR's WaveSmart® control system provides rapid response and control of the hydraulic system resulting in quiet and smooth positioning of the stabilizer fins.
- All system operation data can be downloaded to a flash drive via the onboard USB port if required for system troubleshooting.
- Advanced Display with simple and intuitive User Interface.
- Two modes for beam and following seas.
- NMEA 2000 interface to vessel GPS systems automatically adjusts to boat speed and position.
- CANBUS compatible.
- Advanced proprietary internal electronic gyro provides control feedback for roll and horizon working in conjunction to keep the vessel level in a wide range of conditions.
- System remains stable in turns and remains stable as vessel accelerates or decelerates.
- Rugged, triple-layer fin construction features strong and lightweight structural foam.
- Available with single or dual actuators depending on fin size and system configuration.



### Fin Stabilization versus Inertial Gyro Stabilization?

There are two types of stabilization systems commonly in use today: fin stabilization and inertial gyro stabilization. Both have advantages and shortcomings.

Fin stabilization is most effective for stabilization "at speed", typically costs less, adds little weight to a vessel, takes up minimal real estate, has low power consumption, is quiet, and can be activated instantly with a touch of a button. Fin stabilization systems are not as effective for "at anchor" stabilization.

Inertial Gyro technology is new and novel and does a good job at "at anchor" for boaters who often anchor in rough seas. However, they are not as effective for "at speed" stabilization. They have a large footprint, consume more power, require a long warm-up and shut down cycle, and are typically more expensive to purchase, install, and maintain.



Celebrating  
Over 50 Years  
of Innovation

## A WESMAR ELECTRONIC GYRO UPGRADE MODERNIZES OTHER STABILIZERS TOO

### THE UPGRADE TO A NON-WESMAR STABILIZER IS EASY

#### Disassembly Process - Two Actuators

Remove and discard the following:

1. Signal line hoses to hydraulic gyro.
2. Servo assemblies.
3. Feedback roller assemblies.
4. Potentiometer assemblies.

#### Console

Remove and discard the control panel.

#### Fluid Conditioner

1. Remove and discard oil turbine.
2. Plug exposed orifices and cover open cavity with four-bolt top plate.

#### Leave Existing Actuator and Fins in Place and Install the WESMAR Retrofit Package

1. Place the WESMAR control console in pilot house.
2. Plug pre-wired electronic gyro assembly provided into back of console driver card (located in engine room for easy access).
3. Place the two magnetic potentiometers on top of existing fin shafts and calibrate according to installation instructions.
4. Connect the two hydraulic/electric servo valves to existing pressure/return lines and cylinder hydraulic lines on actuators.
5. Complete wiring to servo valves (modules) to valve driver card (modules) supplied.
6. Wire to 24VDC power supply.



#### WANT TO UPGRADE?

Contact WESMAR with information about the existing stabilizer on your vessel. We'll let you know the cable set needed and can recommend one of our factory-trained dealers close to you.

A unique WESMAR Retrofit Package allows boat yards and boat owners to upgrade older stabilizer systems to the state of the art electronic gyroscope and controls of the DSP5000. It has some unique advantages, including:

- No need to replace existing actuators and fins, therefore an expensive haul-out is not required.
- WESMAR's Hall effect sensors let you make fin position adjustments right from your DSP5000 console.
- The WESMAR DSP5000 upgrade works on all models of WESMAR Roll Fin Stabilizers AND those of most other fin stabilizer manufacturers.
- A DSP5000 upgrade can typically be done in 1-2 days.



Three simple components, plus a cable set (not shown), is all you need to transform your stabilizer to 'state-of-the-art' technology. Best of all, this conversion to the smoothest cruising available can be done within one to two days, including sea trial, while your boat remains in the water.

6108 188th Street NE | Bldg A100  
Arlington, WA 98223-7808 USA  
Main: 425-481-2296  
Fax: 425-486-0909

**WESMAR**

WESTERN MARINE ELECTRONICS  
[www.wesmar.com](http://www.wesmar.com)