

## MultiSea // Stabilizer Control System

*User-Friendly Reliable Performance*



Hargrave Custom Yachts 100' *La Marchesa* equipped with the NAIAD<sup>®</sup> MultiSea II Stabilizer Control System and IHS.

### Active Roll Stabilization

*Naiad Dynamics, a pioneer in yacht stabilization with unparalleled experience, sets the standard for modern stabilization controls. The MultiSea II fin stabilizer control system provides superior performance over a variety of sea conditions. The electronic processor and motion sensors respond instantly to the slightest roll, correct static heel and automatically adjust to changing hull speeds. This versatile system is ideal both for new yachts, and for upgrading existing control systems.*

### Proven Technology

The MultiSea // precisely manages fin position over the widest range of hull speeds, headings and weather conditions. Using US Department of Defense restricted sensors, the MS // processes roll angle, velocity and acceleration measurements, and issues blended and optimized control commands to the fin actuator units in direct proportion to the roll tendency. As the MS // senses the slightest roll motion, the fins respond instantly and in exactly the proper phase and degree to neutralize the vessel's tendency to roll, without over or under-correcting. Utilizing closed-loop electro-hydraulic control with continuous feedback, Naiad fins stop rotating the moment the roll tendency is neutralized, regardless of their position or the vessel's speed at the time. At that moment the MS // then begins to anticipate the next roll. MS // controlled Naiad systems have been proven to automatically reduce roll motion by up to 90% over a wide range of operating speeds.

### Reliable

The MS // stabilizer control system represents decades of Naiad experience in yacht roll stabilization technology. It is one of the world's first three-term AVA (roll angle, velocity and acceleration) controllers designed specifically for the modern yacht. Unlike most controllers, it provides maximum roll damping effectiveness while making headway in seas from any direction, including following seas. The MS // also senses and corrects list and rudder-induced heel. Specifically designed for yachts, it combines highly accurate fin management with remarkably easy installation and operation.

To date, over a thousand MS // control systems have been fitted to yachts of every description with excellent results.





## Elegantly Simple

The user control panel, designed for compact efficiency and ease of use, features lighted (dimnable) controls and overrides, hydraulic system alarms and bar graph-style fin position indicators. System alarms include explicit *Low Oil Level* and *High Oil Temperature* alarms and implicit alarms for *Loss of Serial Data Link*, *Fins Not Centered*, and others.

The MS II's sensitivity and response to roll angle and rate is easily optimized for various sea conditions through intuitive adjustments at the control panel. Additional control panels for system operation from remote locations, such as the flybridge, wing stations and engine room, are easily connected.

## Versatile

The MS II control system is GPS compatible (200 ppm, and NMEA 0183 compliant). It automatically centers the fins below a pre-set low-speed point (beneficial while maneuvering or moving astern) and above a pre-set high-speed point (if desired). It also features a *Fin Control Curve*, programmed into the system's micro-controller, to limit maximum fin angle as a function of vessel speed, which minimizes fin cavitation and drag. The *Fin Control Curve* is easily customized to exactly match the operating characteristics of any vessel.

## Stabilizer Control Conversions, Retrofits & Upgrades

MultiSea II stabilizer control conversion kits are designed to retrofit any existing NAIAD® stabilizer system. MS II conversion kits are also available for other stabilizer brands to obtain vastly improved performance from existing fin equipment, while adding control system reliability and long-term support. MS II kits, stocked and ready for immediate delivery, are pre-packaged with all necessary parts, adapters, brackets, fittings, hardware, and documentation for a complete conversion.



## Worldwide Customer Support

With dozens of authorized sales and service centers throughout the world, fully supported by Naiad Dynamics factory locations, MS II customers are assured of the highest levels of support— wherever your travels may take you.

## Controller Choices

NAIAD systems are available to control Roll while underway ("**Active Roll Stabilization**"), at zero speed ("**Stabilization at Anchor**"), and to control Roll and Pitch or other undesirable vessel motions ("**Ride Control**"). From our legendary proportional HMG controller, to the extraordinary performance of the MS II AVA controller, to the revolutionary DATUM™— the ultimate in digital and adaptive motion control technology— Naiad has the perfect stabilizer control solution for your yacht.

Contact us today to learn more.

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NAIAD DYNAMICS: World Leaders in Ship Motion Control Solutions™  
Where Old World Craftsmanship meets Cutting Edge Digital Electronics™