

# The **S**OUNDER



**AIRMAR**  
TECHNOLOGY CORPORATION  
*Sensing Technology*

## Welcome

The **Sounder** is Airmar's bi-monthly newsletter that presents our newest innovative products, offers hands-on installation tips, explains our quality features, and acquaints OEMs, installers, and the press with our company's resources.

### February/March 2008 Features

- PB200 WeatherStation® Instrument is unveiled
- NEW SB264 Switchbox for use with the SS264W-200kHz transducer
- B164 / SS164 1kW Tilted Element™ Update

If you know someone who would like to receive this informative newsletter, or if you would like to unsubscribe, please email [mreedenaer@airmar.com](mailto:mreedenaer@airmar.com).

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# Airmar Introduces the PB200 WeatherStation® Instrument—Advanced Sensor for All Weather and Navigation Needs

**Compact Device Combines: Wind, Weather, Heading, and GPS Data—With No Moving Parts.**

The PB200 WeatherStation® Instrument is the first marine instrument combining instantaneous weather data with a three-axis compass, three-axis accelerometer, and yaw rate gyro. This single waterproof device replaces an array of sensors and is capable of providing navigation, heading, and weather data for today's marine electronics and on-board computers. Additionally, this all-in-one solution can be fully integrated with existing NMEA 0183 electronics or used as part of a NMEA 2000® network—and can even output both data formats simultaneously.

The heart of the PB200 is the ultrasonic weather sensing technology that uses four ultrasonic transducers to accurately calculate wind speed and direction. In addition to monitoring wind, the PB200's internal temperature and barometric pressure sensors can assist in predicting changing weather patterns, helping navigators plan safe travel. Coupled with our WeatherCaster™ PC software, the PB200 is a powerful stand-alone weather monitoring solution. The software graphically displays true and apparent wind speed and direction, air temperature, wind chill temperature, barometric pressure, heading, rate of turn, pitch and roll, and GPS information.

What truly sets this advanced sensor apart from the PB100 and the competition, is its ability to provide accurate and stable heading data in real-world conditions—such as rough seas and sharp turns. Our unique dynamic motion correction software is the key difference. Combined algorithms from the three-axis compass, three-axis accelerometer, and yaw rate gyro provide 2° or better heading accuracy—even if the vessel is pitching and rolling up to 20° in dynamic conditions. This level of accuracy allows the PB200 to measure true wind speed and direction, even when tilted up to 30°.

Sending the PB200's heading data to other on-board electronics will dramatically improve their performance as well. Autopilots will steer straighter than ever before—even in rough seas. Watch as radar targets on the radar screen or overlaid on the chartplotter stay in the precise position—even when making fast sharp turns.

Unlike the competition, there are no add-ons (needed to calculate true wind or provide GPS) that can complicate the installation and unexpectedly increase the price. With its rugged design and zero moving parts, the PB200 is engineered to provide reliable, accurate data under the harshest marine conditions, and do so over the long run. To ensure the highest possible level of accuracy, each Airmar WeatherStation instrument is tested and calibrated in our on-site wind tunnel, whose wind measurements are traceable to National Institute of Standards and Technology (NIST) Standard Reference Material.

## **Price and Availability**

Estimated Retail Price: \$1,495  
Available: Summer 2008  
For more information, visit [www.airmar.com](http://www.airmar.com)



# New SB264 Switchbox— An Easy Way to “Widen-Up” the Performance of Existing 1 kW, Thru-Hull Transducers

**SB264 Switchbox along with the SS264W 200 kHz transducer, gives fishermen a choice of narrow or wide-beam high-frequency operation.**

Airmar has now made it possible for saltwater fishermen to “widen-up” the high-frequency 200 kHz performance for most of today’s popular fishfinders. The new switchbox lets you wire your existing, 1 kW, Airmar transducer and a new SS264W, Wide-Beam, 200 kHz transducer for narrow and wide-beam selections at your fingertips.

The SB264 works with most of Airmar’s, popular, 1 kW transducers including: B260, M260, B258, and B256 that are found on boats ranging from center consoles to large sportfishing vessels. Installers can leave in any of these installed models and mount an additional, SS264W, 200 kHz, Tilted Element™ transducer. Then wire both into the SB264. The waterproof panel-mount switch is easily installed and takes minimal space. This lets the operator toggle between 200 kHz narrow (6°) or wide-beam (25°) fish finding, together with the 50 kHz low-frequency operation.

Traditionally at 200 kHz, most transducers provide a narrow focused beam in which fish swimming under and near the boat in the upper water column (10-50 feet) can go unmarked because they are not in the transducer beam. At 50 kHz, the beam is wider, thus marking more fish, though the resolution and detail are not as crisp. Tightly spaced fish tend to appear on the fishfinder screen as one large target or “blob”. The SS264W 200 kHz, wide-beam transducer gives the coverage and resolution needed so that fishermen do not miss any fish or bait lurking close to the boat. Additionally with the wide-beam, tightly-spaced fish appear on the fishfinder screen more as individual targets and as arches.

Wide-beam 200 kHz operation is great when trolling or searching for fish in the mid to upper portion of the water column. This makes it ideal for tuna and marlin fishing. Switching to a more traditional narrow-beam, 200 kHz operation works best when bottom fishing for cod or grouper in waters up to 400 feet—providing optimal bottom detail and separation between the bottom and tightly-spaced fish targets. A narrow and wide-beam 200 kHz combination on the boat caters to the versatile fishermen who may be bottom fishing with a narrow-beam in the morning and tuna or marlin fishing with the SS264W 200 kHz wide-beam by afternoon.

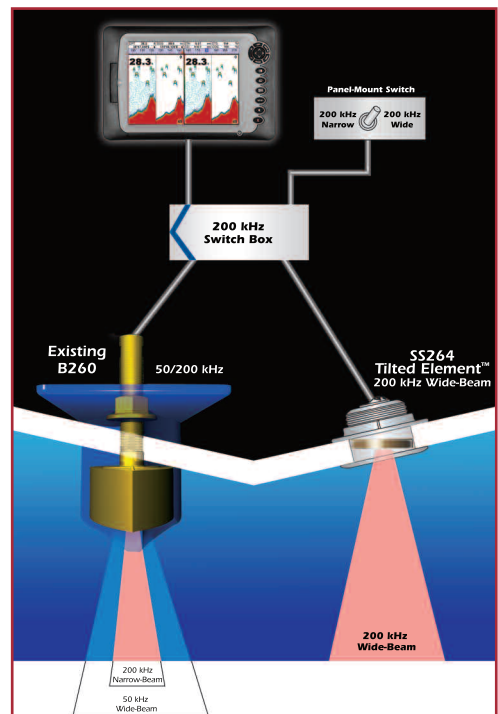
## Price and Availability

Estimated Retail Price:     \$495—SB264 Switchbox  
   \$895—SS264W 200 kHz, Wide-Beam Transducer

Available:                         Summer 2008



SB264 Switchbox

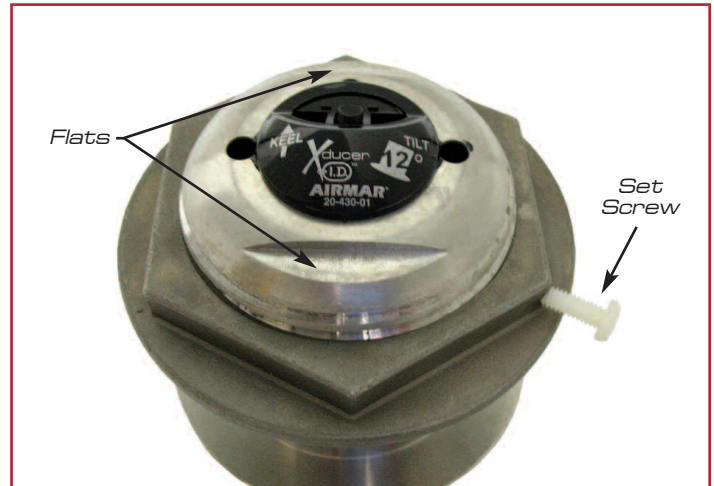
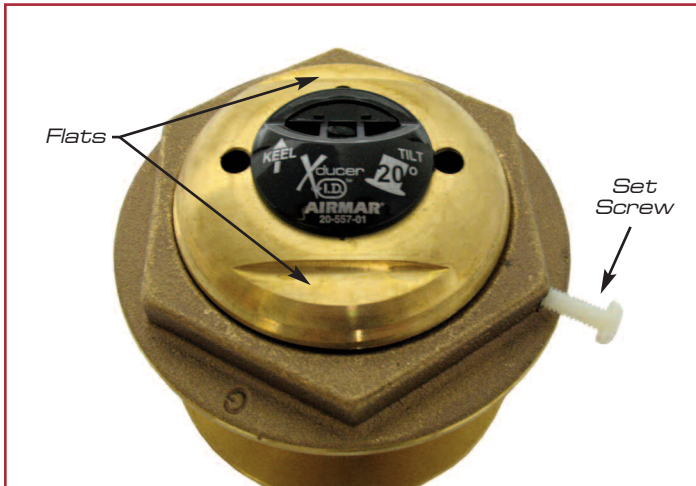


Connection Diagram

# B164, SS164 Product Enhancements

Based on your product suggestions, we have improved the popular B164 and SS164 by making them even easier for you to install. Beginning this month, all B164, SS164, and SS264 transducers will be shipped from Airmar with the following product enhancements:

- **Machined flats on the top of the housing** make it a lot easier for you to get a second set of pliers on the transducer while tightening the nut.
- **Set-screw on the side of the hull nut** secures it once it has been tightened and the sealant has been applied around the threads and housing lip. There are two holes opposite each other on the hull nut. Just thread and tighten the included nylon set-screw into the most conveniently located hole, and you're finished!



## B164, SS164 Resting on Trailer Rollers? No Problem!

Customers have asked how much weight the B164 transducer face can withstand if it is resting on a trailer roller of a large deep-vee center-console. The Airmar lab team put it to the test. We used the assumptions that a large center-console weighs about 10,000 pounds, and its trailer would have at least 24 rollers. The Airmar lab team was able to apply 2,000 pounds of directly centered force on a single trailer roller and B164 transducer, with no damage at all! (See photo to the right.)



*Trailer Roller Test*

## Hull Nut Wrenches

Hull Nut Wrenches are now available for the B164, SS164, B60, and B17 size hull nuts. Make your installation faster and easier with one of the three flavors of wrenches available from our distributors.



*Crows Foot Wrench*



*Single Handle Wrench*



*Double Handle Wrench*

For more information and pricing, contact:

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