

# WeatherStation® Instruments

## LB150



## PB150



## PB200



### Accurate weather monitoring of all your land based applications

- True wind speed and direction
- Apparent wind speed and direction
- Barometric pressure
- Air temperature
- Wind chill temperature
- Heat index temperature
- Relative humidity
- Dew point temperature
- Measures wind speed and direction ultrasonically
- Internal WAAS/EGNOS GPS
- Two-axis solid-state compass
- Three-axis accelerometer provides pitch & roll info.
- Plastic housing is less prone to lightning strikes
- RS232 or RS422 output
- 360° calibration results in precise wind direction accuracy
- Very easy installation and two-year warranty
- Maintenance-free operation—no moving parts
- Applications—Environmental monitoring

### Your all-in-one recreational marine weather solution

- True wind speed and direction
- Apparent wind speed and direction
- Barometric pressure
- Air temperature
- Wind chill temperature
- Measures wind speed and direction ultrasonically
- Internal WAAS/EGNOS GPS
- Two-axis solid-state compass
- Three-axis accelerometer provides pitch & roll info.
- Plastic housing is less prone to lightning strikes
- NMEA 0183 output
- 360° calibration results in precise wind direction accuracy
- Very easy installation and two-year warranty
- Maintenance-free operation—no moving parts
- Applications—Recreational powerboats

### Wind, Weather, Heading, and Navigation for Powerboats

- True wind speed and direction
- Apparent wind speed and direction
- Barometric pressure
- Air temperature
- Wind chill temperature
- Measures wind speed and direction ultrasonically
- Internal WAAS/EGNOS GPS
- Three-axis solid-state compass
- Three-axis accelerometer provides pitch & roll info.
- Plastic housing is less prone to lightning strikes
- Outputs both NMEA 0183 and NMEA 2000®
- 360° calibration results in precise wind direction accuracy
- Better than 1° static compass accuracy
- Best-in-class 2° dynamic compass accuracy
- Yaw rate gyro provides rate-of-turn data
- Very easy installation and two-year warranty
- Maintenance-free operation—no moving parts
- Applications—Large powerboats and commercial vessels

### WeatherCaster™ Software

- Included with every Airmar WeatherStation® Instrument
- Your own personal weatherman on your PC
- Analog and digital weather information
- Easy-to-use and customize
- Plug and play connectivity



FUNCTIONS	SPECIFICATIONS			LB150	PB150	PB200
Wind Speed Range	See Model Information			<ul style="list-style-type: none"> <li>0 knots to 80 knots</li> <li>0 MPH to 92 MPH</li> <li>0 m/s to 40 m/s</li> </ul>	<ul style="list-style-type: none"> <li>0 knots to 80 knots</li> <li>0 MPH to 92 MPH</li> <li>0 m/s to 40 m/s</li> </ul>	<ul style="list-style-type: none"> <li>0 knots to 80 knots</li> <li>0 MPH to 92 MPH</li> <li>0 m/s to 40 m/s</li> </ul>
Wind Speed Resolution	0.1 knot	0.1 MPH	0.1 m/s	●	●	●
Wind Speed Accuracy @ 0°C to 55°C (32°F to 131°F), No Precipitation**	<b>Low Wind Speeds</b> <ul style="list-style-type: none"> <li>0 knots to 10 knots ; RMS error of 1 knot +10% of reading</li> <li>0 MPH to 11.5 MPH ; RMS error of 1.1 MPH +10% of reading</li> <li>0 m/s to 5 m/s; RMS error of 0.5 m/s +10% of reading</li> </ul> <b>High Wind Speeds</b> <ul style="list-style-type: none"> <li>10 knots to 80 knots; RMS error of 2 knots or 5% RMS, whichever is greater</li> <li>11.5 MPH to 92 MPH; RMS error of 2.3 MPH or 5% RMS, whichever is greater</li> <li>5 m/s to 40 m/s; RMS error of 1 m/s or 5% RMS, whichever is greater</li> </ul>			●	●	●
Wind Speed Accuracy in Wet Conditions**	5 knots RMS	5.7 MPH RMS	2.5 m/s RMS	●	●	●
Wind Direction Range	0° to 360°			●	●	●
Wind Direction Resolution	0.1°			●	●	●
Wind Direction Accuracy @ 0°C to 55°C (32°F to 131°F), No Precipitation**	<b>Low Wind Speeds (5° RMS typical)</b> <ul style="list-style-type: none"> <li>4 knots to 10 knots</li> <li>4.6 MPH to 11.5 MPH</li> <li>2 m/s to 5 m/s</li> </ul> <b>High Wind Speeds (2° RMS typical)</b> <ul style="list-style-type: none"> <li>&gt;10 knots</li> <li>&gt;11.5 MPH</li> <li>&gt;5 m/s</li> </ul>			●	●	●
Wind Direction Accuracy in Wet Conditions (8° RMS typical)**	>8 knots	>9.2 MPH	>4 m/s	●	●	●
Compass Accuracy	See Model Information			1° RMS when level	1° RMS when level	<ul style="list-style-type: none"> <li>1° static heading accuracy</li> <li>2° dynamic heading accuracy</li> </ul>
Pitch and Roll Range/Accuracy	See Model Information			±50° / <1° static tested @ 25°C (77°F)	±50° / <1° static tested @ 25°C (77°F)	±50° / <1°
Air Temperature Range	-25°C to 55°C (-13°F to 131°F)			●	●	●
Air Temperature Resolution	0.1°C (0.1°F)			●	●	●
Air Temperature Accuracy—±1°C (±1.8°F)* @	>4 knots wind	>4.6 MPH wind	>2 m/s wind	●	●	●
Barometric Pressure Range	See Model Information			300 to 1100 mbar (8.86 to 32.48 inHg, 300 to 1100 hPa)	850 to 1150 mbar (25 to 34 inHg, 850 to 1150 hPa)	850 to 1150 mbar (25 to 34 inHg, 850 to 1150 hPa)
Barometric Pressure Resolution	0.1 mbar (0.029 inHg, 0.1 hPa)			●	●	●
Barometric Pressure Accuracy	±2 mbar (±0.059 inHg, ±2 hPa) when altitude correction is available			●	●	●
Relative Humidity Range	See Model Information			10% to 95% RH	N/A	N/A
Relative Humidity Accuracy*	See Model Information			±4% units RH	N/A	N/A
GPS Position Accuracy	3 m (10') with WAAS/EGNOS (95% of the time, SA off)			●	●	●
Operating Temperature Range	-25°C to 55°C (-13°F to 131°F)			●	●	●
Supply Voltage	See Model Information			9 VDC to 16 VDC	9 VDC to 16 VDC	9 VDC to 16 VDC
Supply Current	See Model Information			<150 mA	<150 mA	<220 mA
Weight	285 grams (0.7 lb)			●	●	●
Communication Interface	See Model Information			RS232 or RS422 with NMEA 0183	RS422 with NMEA 0183	RS422 with NMEA 0183 and NMEA 2000®
NMEA 2000® Load Equivalency Number (LEN)	See Model Information			N/A	N/A	5
Thread Size on Base	See Model Information			1"-14 UNS or 3/4" NPT	1"-14 UNS standard marine mount	1"-14 UNS standard marine mount
Certifications and Standards	See Model Information			CE, RoHS	CE, RoHS	CE, IPX6, RoHS, NMEA 2000®, IEC61000-4-2, IEC60945

RMS—Root Mean Square Humidity and temperature readings compared to Vaisala™ Instruments

\*When the wind speed is less than 4 knots (4.6 MPH) and/or air temperature is below 0°C (32°F), wind and temperature will be less accurate

\*\*Wet conditions include moisture, rain, frost, dew, snow, ice and/or sea spray in the wind channel