The Benefits of AIRMAR’s Chirp-ready Transducers

- One broadband transducer covers up to 117 kHz of bandwidth – greater opportunities to detect fish in the water column
- Superior resolution – precise separation between baitfish and gamefish represented on the display with crisp images
- Enhanced bottom fishing – resolve targets close to the bottom or near structure/wrecks
- Amazing detail – recognize haloclines and thermoclines
- Improved signal to noise ratio – find fish and track bottom at high boat speeds

Benefits of Tilted Element Transducers

- Ceramic elements are tilted inside the housing to compensate for the hull deadrise, ensuring the beam is aimed straight down...maximizing echo returns and eliminating the need for a fairing
- Low profile design extends only 6mm below the hull and is available in stainless steel and bronze
- Perfect for trailered or lifted boats
- For hulls under 36 feet, performance closely compares to that of a fairing type installation

Flush/tilted transducers mount through a hole drilled in any fiberglass, metal or wooden hull, with the outside of the fitting flush against the exterior hull surface. Inside the fitting, the transducer’s active elements are permanently tilted to 0, 12 or 20 degree angle to compensate for hull deadrise, ensuring the sonar beam is aimed straight down.
Selecting the best frequency for your specific application is very important. The good news is that once you know what frequency will work best for the type of fishing you do, there’s an AIRMAR transducer designed to maximize the performance of your sounder.

AIRMAR Chirp transducers are available in various frequency combinations:

- Dual Band:
  - Low/High (LH)
  - Low/Medium (LM)
  - Low/High Wide (LHW)
  - Low Wide/Medium (LWM)

- Single Band:
  - Low
  - Medium
  - High
  - High Wide

**Low Frequency = Greater Depth (ex. 42-65 kHz)**
- Sound waves will not present as clear a picture of the bottom on the display, but will sound down in very deep areas where high frequency sound waves cannot reach
- Provides greater depth range, wider beamwidth, and ultimately more coverage under the boat
- Chirp signal processing technology used with AIRMAR broadband, Chirp-ready transducers provides more detail at greater depths and is less susceptible to noise
- Great for operating at high boat speeds

**High Frequency = Greater Detail (ex. 130-210 kHz)**
- More sensitive to small targets and will send back detailed information which will display as crisp, high-resolution images on the echosounder screen
- Best for shallower water and popular with anglers fishing at depths less than 1500 feet

**Medium Frequency = The Best of Both Worlds (ex. 80-130 kHz)**
- Provides the ability to sound deeper than the high frequency, along with better resolution than the low frequency
- Wider beam than the high frequency, achieving more coverage under the boat and greater opportunity to find fish
- Clear images at higher boat speeds
Tilted Element
300 W

Features:
• Depth & fast-response water-temperature sensor
• Hull Type: Wood, fiberglass. Stepped, planing or displacement type hulls
• Hull Deadrise: Up to 24°
• Fixed 20° tilted version for 16° to 24° hull deadrise
• Fixed 12° tilted version for 8° to 15° hull deadrise
• Fixed 0° tilted version for 0° to 7° hull deadrise
• Engine Type: Can be used with all propulsion types
• Recommended for boats up to 25’

B150M
Medium Frequency
• Medium—95 kHz to 155 kHz
  26° to 17° beamwidth
  Maximum depth 600 ft
• 60 kHz of total bandwidth from one transducer

Bottom Coverage
Relative to Frequency and Depth

<table>
<thead>
<tr>
<th>Depth</th>
<th>Beam Coverage at Medium Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 ft</td>
<td>24 ft</td>
</tr>
<tr>
<td>100 ft</td>
<td>46 ft</td>
</tr>
<tr>
<td>300 ft</td>
<td>138 ft</td>
</tr>
<tr>
<td>600 ft</td>
<td>278 ft</td>
</tr>
<tr>
<td>1000 ft</td>
<td>Too Deep</td>
</tr>
</tbody>
</table>

This chart compares the medium ceramic element inside the transducer, showing the difference in bottom coverage under the boat.
**Tilted Element 600 W**

**Features:**
- Depth & fast-response water-temperature sensor
- Hull Type: Wood, fiberglass. Stepped, planing or displacement type hulls
- Metals hulls require Stainless Steel models
- Hull Deadrise: Up to 24°
- Fixed 20° tilted version for 16° to 24° hull deadrise. Not available in B75L.
- Fixed 12° tilted version for 8° to 15° hull deadrise
- Fixed 0° tilted version for 0° to 7° hull deadrise
- Engine Type: Can be used with all propulsion types
- Recommended for boats up to 25'

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**B75H**

**SS75H (Stainless Steel)**

**High Frequency**
- High—130 kHz to 210 kHz
  - 15° to 9° beamwidth
  - Maximum depth 700 ft
- 80 kHz of total bandwidth from one transducer

**B75M**

**SS75M (Stainless Steel)**

**Medium Frequency**
- Medium—80 kHz to 130 kHz
  - 24° to 16° beamwidth
  - Maximum depth 900 ft
- 50 kHz of total bandwidth from one transducer

**B75L**

**SS75L (Stainless Steel)**

**Low Frequency**
- Low—40 kHz to 75 kHz
  - 32° to 21° beamwidth
  - Maximum depth 1200 ft
- 35 kHz of total bandwidth from one transducer
* This model is 300 W. Available in 0° or 12° tilted versions only. 12° version covers 8° to 24° deadrise.

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**Bottom Coverage Relative to Frequency and Depth**

<table>
<thead>
<tr>
<th>Depth</th>
<th>B75H 130 kHz-210 kHz</th>
<th>B75M 80 kHz-130 kHz</th>
<th>B75L 40 kHz-75 kHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 ft</td>
<td>14 ft</td>
<td>22 ft</td>
<td>28 ft</td>
</tr>
<tr>
<td>100 ft</td>
<td>26 ft</td>
<td>42 ft</td>
<td>58 ft</td>
</tr>
<tr>
<td>300 ft</td>
<td>78 ft</td>
<td>128 ft</td>
<td>172 ft</td>
</tr>
<tr>
<td>600 ft</td>
<td>158 ft</td>
<td>256 ft</td>
<td>344 ft</td>
</tr>
<tr>
<td>1000 ft</td>
<td>Too Deep</td>
<td>Too Deep</td>
<td>574 ft</td>
</tr>
<tr>
<td>1500 ft</td>
<td>Too Deep</td>
<td>Too Deep</td>
<td>Too Deep</td>
</tr>
</tbody>
</table>

*This chart compares the high, medium and low ceramic elements inside the transducer, showing the difference in bottom coverage under the boat. Models are also available in stainless steel.*
Tilted Element
1 kW

Features:
- Depth & fast-response water-temperature sensor
- Hull Type: Wood, fiberglass. Stepped, planing or displacement type hulls
- Metals hulls require Stainless Steel models
- Hull Deadrise: Up to 24°
- Fixed 20° tilted version for 16° to 24° hull deadrise
- Fixed 12° tilted version for 8° to 15° hull deadrise
- Fixed 0° tilted version for 0° to 7° hull deadrise
- Engine Type: Can be used with all propulsion types
- Recommended for boats up to 36'

B175H
SS175H (Stainless Steel)
High Frequency
- High—130 kHz to 210 kHz
- 10° to 6° beam
- Max. depth 1000 ft
- 80 kHz of total bandwidth from one transducer

B175M
SS175M (Stainless Steel)
Medium Frequency
- Medium—85 kHz to 135 kHz
- 16° to 11° beam
- Max. depth 1500 ft
- 50 kHz of total bandwidth from one transducer

B175L
SS175L (Stainless Steel)
Low Frequency
- Low—40 kHz to 60 kHz
- 32° to 21° beam
- Max. depth 2500 ft
- 20 kHz of total bandwidth from one transducer

B175HW
SS175HW (Stainless Steel)
High Wide Frequency
- High—150 kHz to 250 kHz
- 25° constant beam
- Max. depth 500 ft
- 100 kHz of total bandwidth from one transducer

Bottom Coverage
Relative to Frequency and Depth

<table>
<thead>
<tr>
<th>Depth</th>
<th>B175H 130 kHz-210 kHz</th>
<th>B175M 85 kHz-135 kHz</th>
<th>B175HW 150 kHz-250 kHz</th>
<th>B175L 40 kHz-60 kHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 ft</td>
<td>10 ft</td>
<td>14 ft</td>
<td>22 ft</td>
<td>28 ft</td>
</tr>
<tr>
<td>100 ft</td>
<td>20 ft</td>
<td>28 ft</td>
<td>44 ft</td>
<td>58 ft</td>
</tr>
<tr>
<td>300 ft</td>
<td>58 ft</td>
<td>84 ft</td>
<td>134 ft</td>
<td>166 ft</td>
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<tr>
<td>600 ft</td>
<td>116 ft</td>
<td>168 ft</td>
<td>266 ft</td>
<td>332 ft</td>
</tr>
<tr>
<td>1000 ft</td>
<td>192 ft</td>
<td>282 ft</td>
<td>Too Deep</td>
<td>554 ft</td>
</tr>
<tr>
<td>2000 ft</td>
<td>Too Deep</td>
<td>Too Deep</td>
<td>Too Deep</td>
<td>1110 ft</td>
</tr>
</tbody>
</table>

This chart compares the high, medium, low and high wide ceramic elements inside the transducer, showing the difference in bottom coverage under the boat.

Models are also available in stainless steel.
The Chirp Advantage

Traditional sounders operate at only two discrete frequencies – typically 50 kHz and 200 kHz. This results in limited depth range, resolution, and ultimately what targets can be detected in the water column.

In contrast, AIRMAR’s game-changing Chirp-ready transducers provide over 70+ kHz of bandwidth. Transmitting over a wide frequency band results in a greater opportunity to detect what is in the water column. As a result, all targets detected in the entire bandwidth will be seen on the display—even those fish holding close to the bottom—ultimately improving target detection, detail, and range resolution.

Most Chirp transducers vary their beam width as they sweep through their frequency range (low, medium, and high). At the lowest frequency the beam is the widest and it narrows as the frequency increases.

AIRMAR’s new wide beam Chirp transducers are the exception to this rule and have a fixed beam width of either 25° or 40° across the frequency band. This translates into even more coverage under the boat, revealing more fish in the water column than ever before.

Proper Installation with Tilt Compensation

Improper Installation without Tilt Compensation

The fish must be in the beam to be represented on the display.

Additional Mounting Options

Choosing your mounting option depends on the design of the hull as well as the material it’s manufactured with, the boats intended use, and the desired level of performance.

Need Help Choosing the Right Transducer?

Download the free, award-winning iNstall app! It’s a great tool that takes the guesswork out of selecting the right transducer for your application. Based on frequency, mounting, housing, and cable options, iNstall will reveal the available option(s) and give you instant access to their specifications. Designed for iPhone, iPad and iPod smart phones and tablets running iOS 6.1 and newer.

In a proper installation the ceramic element is tilted inside the housing, which compensates for your boats deadrise. This aims the beam straight toward the bottom, resulting in stronger echo returns and more accurate depth readings.