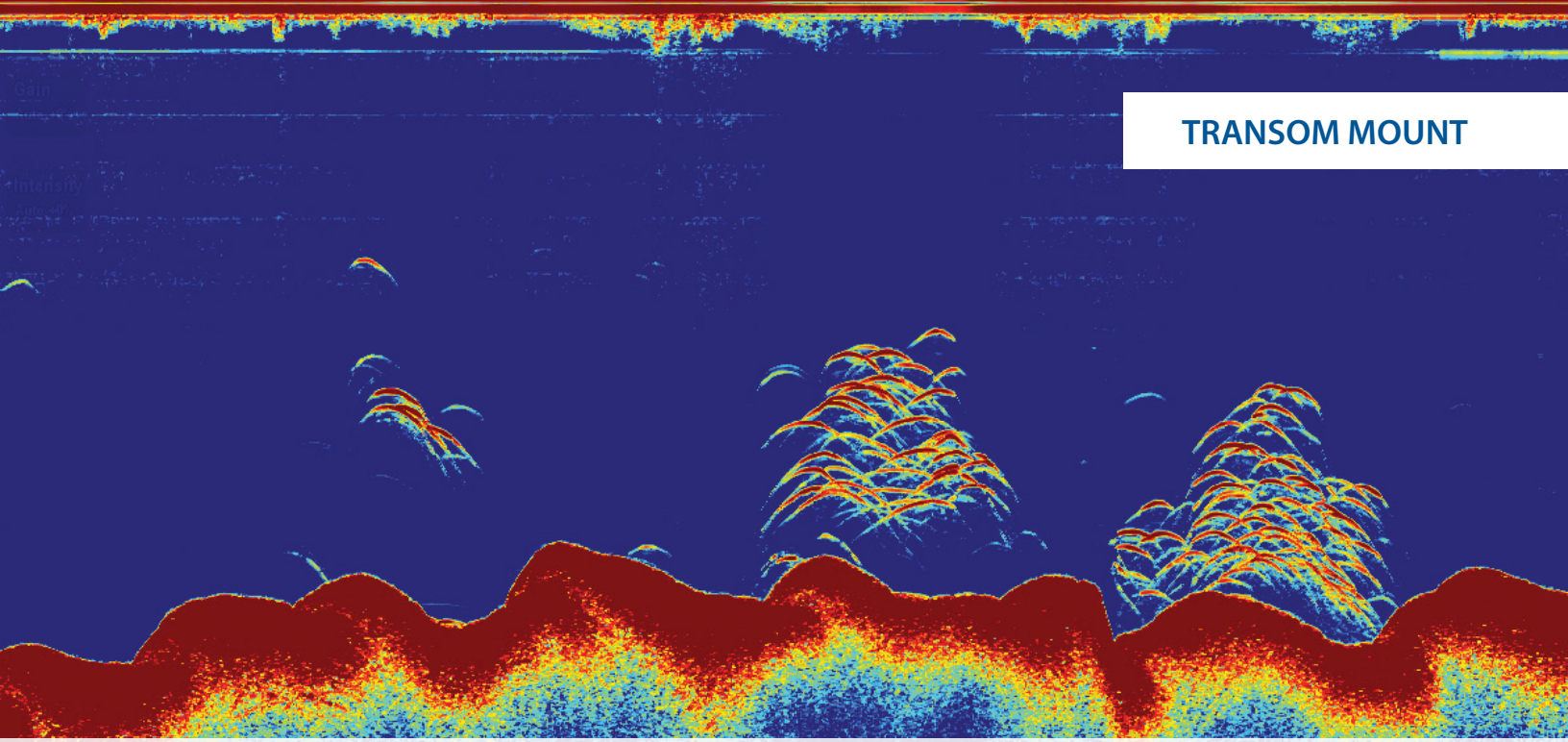


TRANSOM MOUNT

Transom Mount Chirp Transducers

Unlock the true potential of your fishfinder with the superior quality and performance of an AIRMAR Chirp-ready transducer.

TM275LHW screenshot courtesy of Raymarine

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 Transom Mount Transducers

Transom models are best suited for small and trailered vessels where a thru-hull installation is not practical. Perfect for freshwater boat styles and center consoles. Simple to install and ideal for small trailered vessels where a thru-hull may interfere with loading.

- Simple installation on transom of the boat
- Great performance at boat speeds below 30 knots
- Easy maintenance and low-cost replacement

AIRMAR®, DEFINING CHIRP TECHNOLOGY.

AIRMAR® TECHNOLOGY CORPORATION

Why does frequency matter?

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)

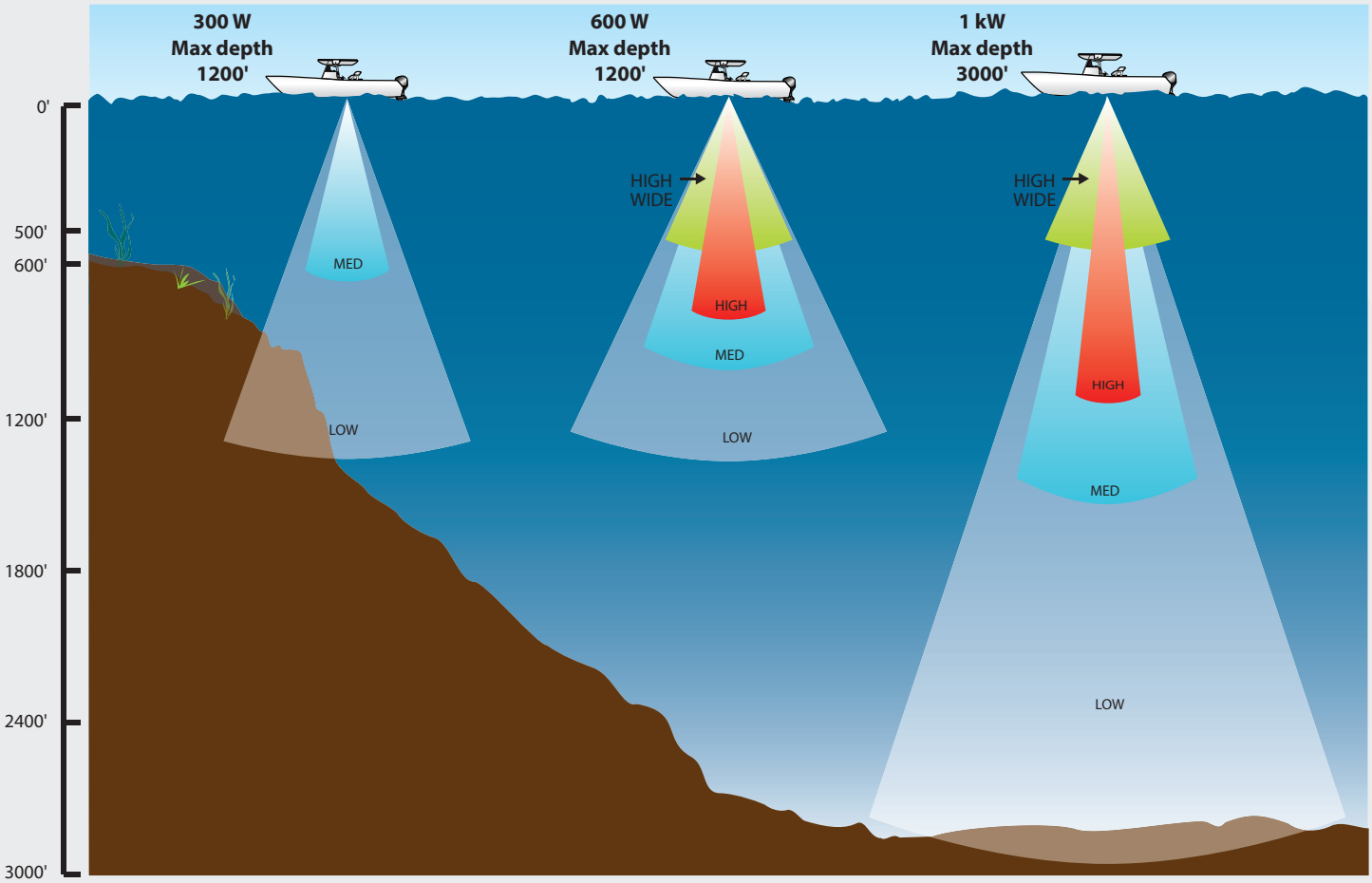
- Sound waves will not present as clear a picture of the bottom on the display, but will sound down in very deep areas where high frequency sound waves cannot reach
- Provides greater depth range, wider beamwidth, and ultimately more coverage under the boat
- Chirp signal processing technology used with 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)

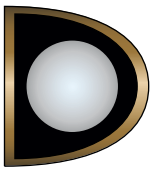
- Provides the ability to sound deeper than the high frequency, along with better resolution than the low frequency
- Wider beam than the high frequency, achieving more coverage under the boat and greater opportunity to find fish
- Clear images at higher boat speeds



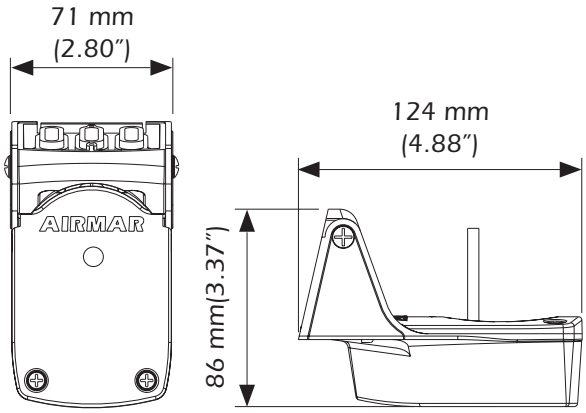
Transom Mount
300 W & 600 W

Features:

- Depth & fast-response water-temperature sensor
- Hull Type: For displacement or planing hulls (wood, fiberglass, aluminum or steel)
- Engine Type: Single or twin I/O, OB and jet drive systems



1-Internal Broadband Ceramic Assembly



TM150M

300 W

Medium Frequency

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

* This model is a 300 W.

WIDE BEAM

TM165HW

600 W

High Wide Frequency

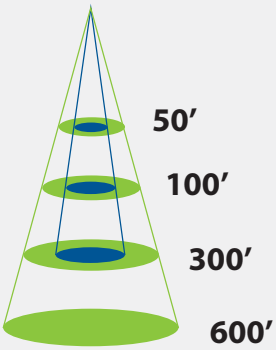
- High—150 kHz to 250 kHz
  30° average beamwidth
  Maximum depth 500 ft
- 100 kHz of total bandwidth from one transducer

* This model is a 600 W.

Bottom Coverage Relative to Frequency and Depth

Depth	Beam Coverage at Different Frequencies	
	TM150M 95 kHz-155 kHz	TM165HW 150 kHz-250 kHz
50 ft	24 ft	26 ft
100 ft	46 ft	54 ft
300 ft	138 ft	160 ft
600 ft	278 ft	Too Deep
1000 ft	Too Deep	Too Deep

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



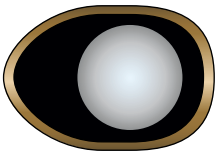
TM150M – Medium Frequency
95 kHz-155 kHz

TM165HW – High Frequency
150 kHz-250 kHz

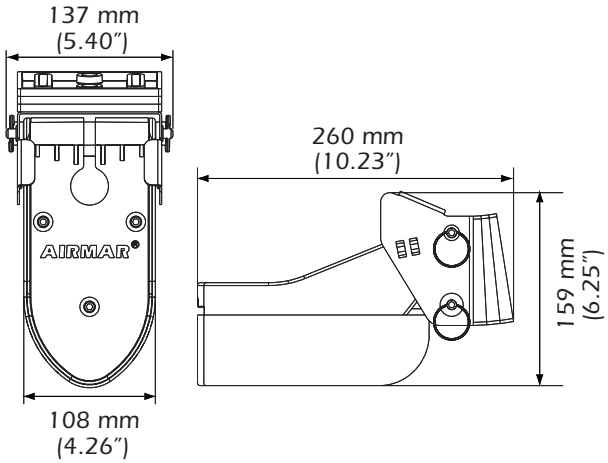
Transom Mount 1 kW

Features:

- Depth & fast-response water-temperature sensor
- Hull Type: For displacement or planing hulls (wood, fiberglass, aluminum or steel)
- Engine Type: Single or twin I/O, OB and jet drive systems



1-Internal Broadband Ceramic Assembly



TM185M

Medium Frequency

- Medium—85 kHz to 135 kHz
  16° to 11° beamwidth
  Maximum depth 1500 ft
- 50 kHz of total bandwidth from one transducer

WIDE BEAM

TM185HW

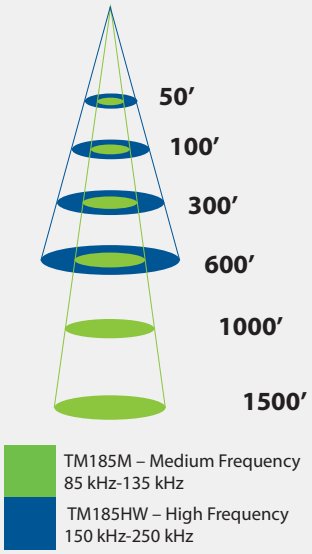
High Wide Frequency

- High—150 kHz to 250 kHz
  25° constant beamwidth
  Maximum depth 500 ft
- 100 kHz of total bandwidth from one transducer

Bottom Coverage Relative to Frequency and Depth

Depth	Beam Coverage at Different Frequencies	
	TM185M 85 kHz-135 kHz	TM185HW 150 kHz-250 kHz
50 ft	14 ft	22 ft
100 ft	28 ft	44 ft
300 ft	84 ft	134 ft
600 ft	168 ft	266 ft
1000 ft	282 ft	Too Deep
1500 ft	422 ft	Too Deep

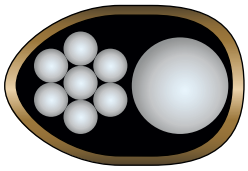
This chart compares the high wide and medium ceramic elements inside the transducer, showing the difference in bottom coverage under the boat.



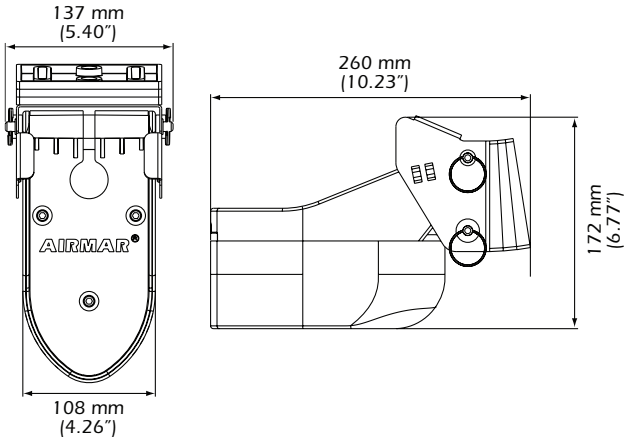
Transom Mount
1 kW

Features:

- Depth & fast-response water-temperature sensor
- Hull Type: For displacement or planing hulls (wood, fiberglass, aluminum or steel)
- Engine Type: Single or twin I/O, OB and jet drive systems



8-Internal Broadband Ceramic Assemblies



TM265LH

Low & High Frequency

- Low—42 kHz to 65 kHz
  25° to 16° beamwidth
  Maximum depth 3000 ft
- High—130 kHz to 210 kHz
  10° to 6° beamwidth
  Maximum depth 1000 ft
- 103 kHz of total bandwidth from one transducer

TM265LM

Low & Medium Frequency

- Low—42 kHz to 65 kHz
  25° to 16° beamwidth
  Maximum depth 3000 ft
- Medium—85 kHz to 135 kHz
  16° to 11° beamwidth
  Maximum depth 1500 ft
- 73 kHz of total bandwidth from one transducer

WIDE BEAM

TM275LHW

Low & High Wide Frequency

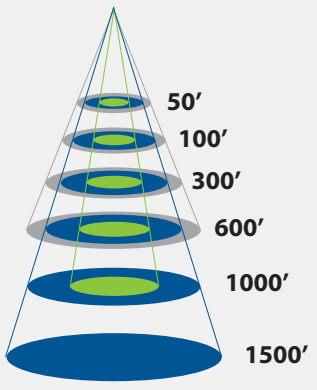
- Low—42 kHz to 65 kHz
  25° to 16° beamwidth
  Maximum depth 3000 ft
- High—150 kHz to 250 kHz
  25° constant beamwidth
  Maximum depth 500 ft
- 123 kHz of total bandwidth from one transducer

Bottom Coverage Relative to Frequency and Depth

Depth	Beam Coverage at High Frequency		
	TM265LH 130 kHz-210 kHz	TM265LM 85 kHz-135 kHz	TM275LHW 150 kHz-250 kHz
50 ft	10 ft	14 ft	22 ft
100 ft	20 ft	28 ft	44 ft
300 ft	58 ft	84 ft	134 ft
600 ft	104 ft	168 ft	266 ft
1000 ft	174 ft	282 ft	Too Deep
2000 ft	Too Deep	422 ft	Too Deep

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

Low frequency in each of these transducer models is the same (42 kHz - 65 kHz). The maximum depth range sounds to 3,000 ft.



TM265LH – High Frequency
130 kHz-210 kHz

TM265LM – Medium Frequency
85 kHz-135 kHz

TM275LHW – Wide beam Frequency
150 kHz-250 kHz

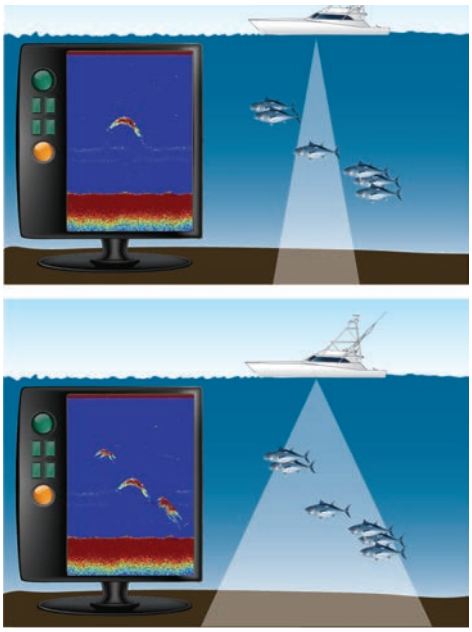
The Chirp Advantage

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.

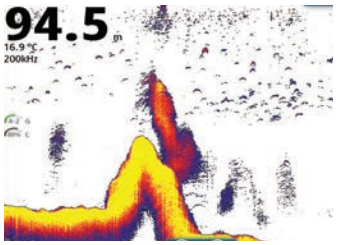
In contrast, AIRMAR's game-changing Chirp-ready transducers provide over 70+ kHz of bandwidth. Transmitting over a wide frequency band results in a greater opportunity to detect what is in the water column. As a result, all targets detected in the entire bandwidth will be seen on the display–even those 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.

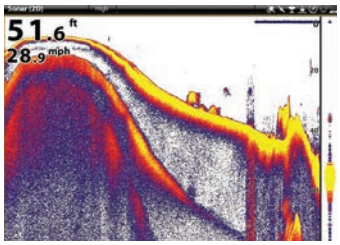
AIRMAR's new wide beam Chirp transducers are the exception to this rule and have a fixed beam width of either 25° or 40° across the frequency band. This translates into even more coverage under the boat, revealing more fish in the water column than ever before.



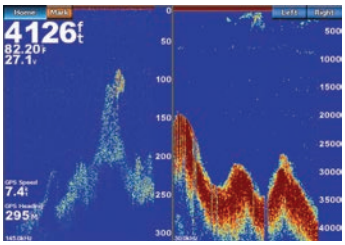
The fish must be in the beam to be represented on the display.



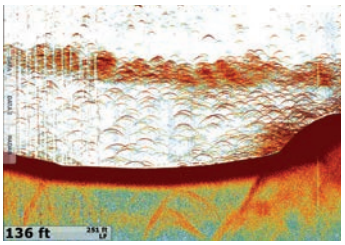
Courtesy of Navico



Courtesy of Humminbird



Courtesy of Garmin



Courtesy of Furuno

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.

Download on the App Store

GET IT ON Google Play

iNstall

AIRMAR® TECHNOLOGY CORPORATION

Xducer ID CHIRP

broadband

Installation Supplement

REPLACEMENT TRANSDUCER SUPPORT FOR BRACKET

Transom Mount, 1kW Transducer models: TM258, TM260, TM265LH, TM265LM, TM270W
Manufactured between October 2011 and February 2012

05/21/12
17-299-03 rev. 01

WARNING

The plastic transducer support may break due to weak plastic.
If a failure occurs while the boat is underway, the transducer may break off and/or fly into the cockpit, causing property damage, personal injury, and/or death. Remove this bracket and discard it immediately. Install the replacement bracket supplied.

WARNING: Always wear safety goggles and a dust mask when installing to avoid personal injury.

WARNING: When the boat is placed in the water, immediately check for leaks around the screws and any other holes drilled in the hull.

CAUTION: Never pull, carry, or hold the transducer by the cable as this may sever internal connections.

CAUTION: Do not strike the transducer to release it. When mounted on the bracket, remove the transducer by removing the locking pin and hinge pin.

CAUTION: Never use solvents. Cleaners, fuel, sealants, paint, and other products may contain strong solvents, such as acetone, which attack many plastics, greatly reducing their strength.

IMPORTANT*:* Please read the instructions completely before proceeding with the installation. These instructions supersede any other instructions in your instrument manual if they differ.

Tools & Materials

Safety goggles
Dust mask
Carpenter's saw (recommended)
Marine sealant (suitable for below waterline)
Small screwdriver (some installations)

Removing the Old Transducer Support

1. Increase the slack in the cable by removing any cable clamps and cable cover (see Figure 1). Set the parts aside to reuse.
2. Remove the transducer support from the transducer using the Allen wrench supplied (see Figure 2). Set the three socket-head-cap screws and washers aside to reuse. **Be sure to temporarily support the weight of the transducer, so it does not sever the internal connections to the cable.**
3. Protect the cable by opening the slot in the cable protector supplied and pushing it around the cable (see Figure 3). Push the protector along the cable until it touches the top of the transducer.
4. Saw completely through the plastic transducer support, being sure to cut into the hole for the cable. **Avoid cutting the transducer by making the gap between the support and transducer as wide as possible** (see Figure 4).

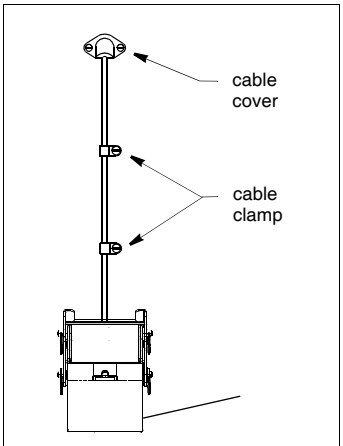


Figure 1. Cable clamps, cover

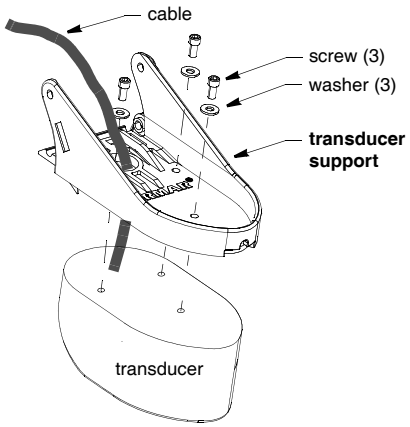


Figure 2. Detaching transducer support from transducer

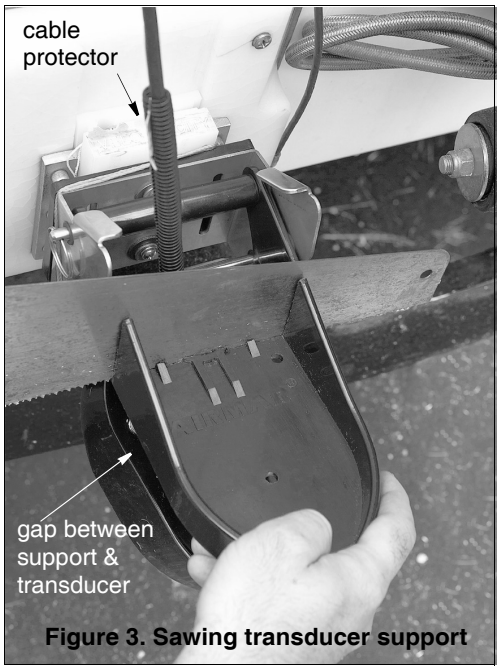


Figure 3. Sawing transducer support

5. Remove the remaining section of the transducer support from the bracket by remove one safety ring from the end of each pin (see Figure 5). Remove the pins. Set the two pins, two washers, and spacer aside to reuse. Discard the cut transducer support.

Installation

1. The replacement transducer support has a slot that allows it to slide onto the transducer cable (see Figure 6). Slide the support into place and align the screw holes with the transducer (see Figure 2). Fasten the transducer support to the transducer using the three socket-head-cap screws and washers. Tighten the screws with the 3/16" Allen wrench supplied.
2. While holding the transducer assembly against the bracket, insert one of the pins through the *upper* hole in the bracket and the transducer support (see Figure 5). Slide the spacer onto the pin and push it through the remaining hole in the support and the bracket. Attach a second safety ring to the free end. This pin will function as a hinge when the transducer is released.
3. Slide a washer onto the remaining pin. Push it through the *lower* hole in the bracket, sliding it along the channel in the transducer support and through the second hole in the bracket (see Figures 5 and 7). Slide the second washer onto the free end of the pin and attach the last safety ring. This pin will function as the locking pin to hold the transducer in the operational position when the boat is underway.
4. If you have removed the cable cover and/or cable clamps for easier installation, reattach them (see Figure 1). Apply marine sealant to the threads of the #6 x 1/2" self-tapping screws to prevent water from seeping into the transom. If there is a hole drilled through the transom, apply marine sealant to the space around the cable where it passes through the transom. Position the two cable clamps and fasten them in place. If used, push the cable cover over the cable and screw it in place.

Checking for Leaks

When the boat is placed in the water, **immediately** check for leaks around the screws and any other holes drilled in the hull. Note that very small leaks may not be readily observed. Do not leave the boat in the water unchecked for more than three hours.

Figure 6. Replacement transducer support

Figure 4. Severed transducer support

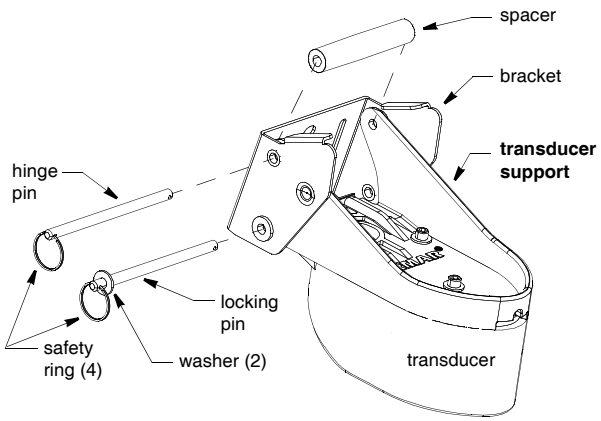


Figure 5. Detaching/attaching transducer assembly to bracket

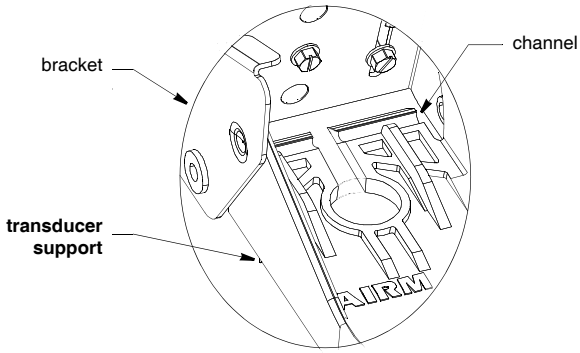


Figure 7. Detail: Attaching the locking pin

AIRMAR®
TECHNOLOGY CORPORATION

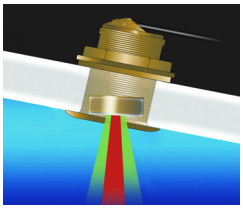
12/01/20
17-573-01-rev.12
D-17-573-01-rev.12
Airmar Technology Corporation

AVOID OVERHEATING

Installation Supplement: *Chirp Transducers*

CAUTION: Follow the instructions that came with your transducer. To install a Chirp transducer in a way other than intended by the manufacturer may lead to the transducer overheating, resulting in transducer failure.

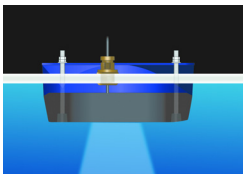
Due to the nature of Chirp technology, Chirp transducers generate more heat than traditional tone-burst transducers operating at the same frequency. Chirp transducers have heat sinks in their construction to dissipate heat. Airmar's Chirp transducers have been designed to be installed in specific ways according to the number and placement of these heat sinks.



Thru-Hull Mount: Low-Profile

Models: B75L/M/H, B150M, B175L/M/H, B175HW, SS75L/M/H, SS175L/M/H, SS175HW

Transducer is installed in a hole drilled through the hull at a cool location away from the engine compartment. During operation, the active face of the transducer is in contact with water.



Thru-Hull Mount: External or Stem

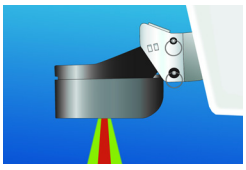
Models: B265LH/LM, B275LHW, B285HW, B285M, B765LH/LM, B785M, M188LH, R109LH/LM, R109LHW, R409LWM, R509LH/LM, R509LHW

Transducer is installed entirely outside of the hull. A stem or stuffing tube hole is drilled through the hull for the transducer cable. The active face and sides of the transducer are immersed in water.

In-Hull Mount

Models: M135M, M265LH/LM, M285HW, P75M, P95M, P155M, R111LH/LM, R599LH/LM

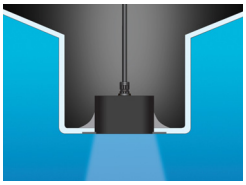
Transducer is installed within a wetbox/yellow plastic tank affixed inside the hull at a cool location. It must be away from the engine compartment and other hot places. No holes are drilled in the hull, however this installation is suitable for a solid fiberglass hull only. The active face and the sides of the transducer are immersed in propylene glycol (non-toxic marine/RV anti-freeze).



Transom Mount

Models: IC-TM90M, TM150M, TM165HW, TM185HW, TM185M, TM265LH/LM, TM275LHW

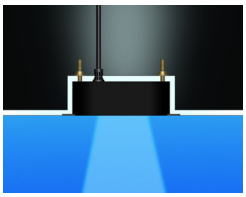
Transducer is bolted to the outside of the boat on the transom. During operation, the active face and sides of the transducer are immersed in water.



Cavity Mount: Keel

Models: CM265LH/LM, CM275LHW, CM510L, CM599LH/LM, CM599LHW, PM111LH/LM, PM111LHW, PM411LWM

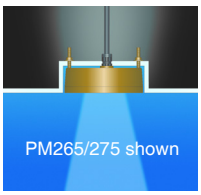
Transducer is installed in a cavity in the keel at a cool location away from the engine compartment. The active face of the transducer is flush with the outside of the hull and in contact with water.

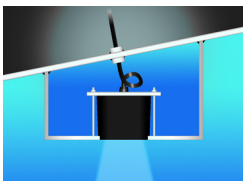


Cavity Mount: Pocket

Models: CM265LH/LM, CM275LHW, CM510L, CM599LH/LM, CM599LHW, PM111LH/LM, PM111LHW, PM265LH/LM, PM275LHW, PM411LWM

Transducer is installed in a cavity in the hull at a cool location away from the engine compartment. The active face of the transducer is flush with the outside of the hull and in contact with water.





Welded-tank Mount

Models: CM265LH/LM, CM275LHW, CM510L, CM599LH/LM, CM599LHW, PM111LH/LM, PM111LHW, PM411LWM

Transducer is installed in a water-filled, welded tank outside of the hull. The active face and sides of the transducer are immersed in water.