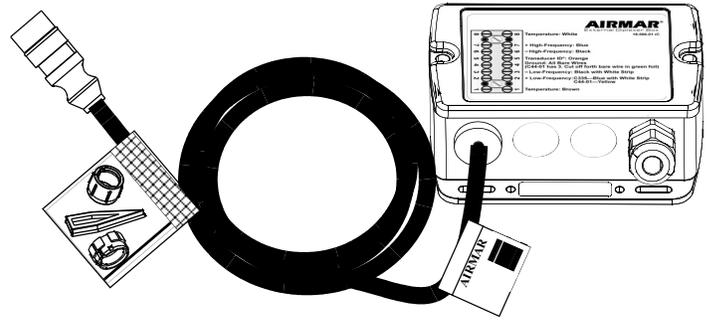


# INSTALLATION INSTRUCTIONS

## Convert transducer from dual to single transmission-line External Diplexer

Patent <http://www.airmar.com/patent.html>



**Follow the precautions below for optimal product performance and to reduce the risk of property damage, personal injury, and/or death.**

**WARNING:** Always wear safety glasses, a dust mask, and ear protection when installing.

**CAUTION:** To reduce electrical interference from other electrical wiring and any on-board equipment with strong magnetic fields such as radar equipment, radio transmitters, boat engines, generators, etc., separate the cables by at least 1 m (3').

**CAUTION:** Be careful not to tear the cable jackets when passing them through bulkheads and other parts of the boat. Use grommets to prevent chaffing. Use deck glands to prevent water seepage into the boat.

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

## Where to Purchase Parts

Gemeco

USA

Tel: 803-693-0777

email: [sales@gemeco.com](mailto:sales@gemeco.com)

Airmar EMEA

Europe, Middle East, Africa

Tel: +33.(0)2.23.52.06.48

email: [sales@airmar-emea.com](mailto:sales@airmar-emea.com)

## Applications

- Converts a dual transmission-line transducer to a single transmission-line.
- For use with 1 kW echosounders only

## Installation

### Mounting Location & Hole Drilling

1. Select a convenient, dry, mounting location for the water-resistant Diplexer, a minimum of 1 m (3') from other cables and electronic equipment.
2. Hold the Diplexer at the selected location and mark the position of the four screw holes.

**NOTE:** If the Diplexer will be mounted on a vertical surface, face the cordgrip downward to avoid any possibility of water seeping into the box.

3. At the marked locations, drill 3mm or 1/8" holes to a depth of 10mm (3/8"). Do not fasten the Diplexer in place at this time.

### Cable Routing

1. Route the transducer cable from the transducer to the Diplexer. Do not connect the transducer cable or fasten it in place at this time.
2. Route the fishfinder cable from the fishfinder to the Diplexer's cable. Do not connect the cables or fasten them in place at this time.

## Tools & Materials

Safety glasses  
Dust mask  
Ear protection  
Pencil  
Electric drill  
Drill bit                    3mm or 1/8"  
Grommets (some installations)  
Deck gland (some installations)  
Phillips screwdrivers  
Heat-shrink tubing  
Adjustable wrench  
Petroleum jelly (such as Vaseline® brand)  
Cable ties

## Connecting

**CAUTION:** When the connections are complete, be sure there are no frayed strands, or loose or bare ends to cause shorting.

1. Remove the cover of the Diplexer. Set it aside along with the two screws and the plastic bag containing the four mounting screws.
2. Push approximately 200mm (8") of the transducer cable through the cordgrip (Figure 1). To ease sliding, bend the wires back against the cable jacket or wrap electrical tape around them.
3. **C44-01 Cable Only**—Select the bundle wrapped in green foil, containing brown, white, and bare wires. Cut off the bare wire and the foil flush with the cable jacket.
4. Protect the cable's foil shielding from causing a short circuit inside the Diplexer. Use heat-shrink tubing around the jacket where the wires emerge from the cable. The tubing must overlap the wires a minimum of 6mm (1/4").
5. Twist the bare wires together.  
C44-01 has 3 bare wires. (A fourth bare wire was cut off.)  
C335 has 2 bare wires.
6. Following the label on the Diplexer cover and the list below, insert the stripped end of each colored wire /twisted bare wires into the appropriate opening in the side of the terminal block. Tighten the terminal screw until the wire(s) is held firmly.
 

1. Brown	Temperature
2. Yellow (C44-01 cable)	+ Low frequency
Blue with white stripe (C335 cable)	
3. Black with white stripe	- Low frequency
4. Bare wires	Ground
(C44-01 has 3 bare wires. The fourth bare was cut off.)	(C335 has 2 bare wires)
5. Orange	Transducer ID®
6. Black	- High frequency
7. Blue	+ High frequency
8. White	Temperature
7. Visually inspect all the wires. There should be no frayed strands or loose ends to cause shorting. If any colored wire has a visible bare end, reconnect it to the terminal.

## Completing the Installation

1. From outside the Diplexer, pull the transducer cable until only 51 mm (2") of jacket remains inside the box. Hand tighten the cordgrip. To make a watertight seal, use an adjustable wrench to tighten the cordgrip an additional 1/4 to 1/2 turn.
2. Arrange the wires neatly inside the Diplexer. Check to be sure the gasket is firmly installed in the channel on the back side of the cover (Figure 2). Lubricate the gasket with petroleum jelly. Screw the cover in place with the two long screws supplied.
3. Fasten the Diplexer in place at the mounting location with the four 6 x 1/2" screws supplied.
4. Plug the connector on the fishfinder cable into the Diplexer cable connector.
5. Fasten all the cables in place. Coil any excess cable and secure it with cable ties to prevent damage.

