

Installation manual

Simrad PI

Catch monitoring system

Portable hydrophone with paravane arrangement



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MAXIMIZING YOUR PERFORMANCE AT SEA

SIMRAD
A KONGSBERG Company

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Simrad PI
Catch monitoring system
Portable hydrophone installation

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Introduction

The purpose of this document is to provide general guidelines for the installation and use of the PI portable hydrophone.

Order numbers

Portable hydrophone, complete; HYD-202713

Portable hydrophone, paravane arrangement kit: KIT-207284

Topics

- *General guidelines, page 2*
- *Deployment over the side, page 3*
- *Paravane arrangement, page 4*
- *Storage, page 7*

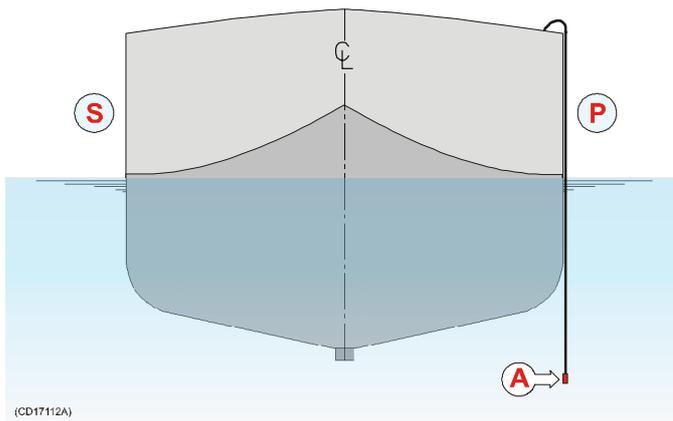
General guidelines

The following must be taken into consideration when using portable hydrophones:

- Sharp edges that could damage the hydrophone cable insulation must be avoided.
- Do step on cable lying on deck.
- Do not place any objects (light or heavy) on top of cable lying on the deck.
- The hydrophone cable must not be knotted, and kinking must be avoided.
- When used, the hydrophone should be lowered deeper than the vessel's keel.
- Special care must be taken so that the hydrophone an/or cable do not become fouled in the main propeller, thrusters or gear.

Deployment over the side

Unlike permanently mounted hydrophones, the portable hydrophone has an omni-directional beam. It can therefore be lowered below the level of high underwater noise and air bubbles generated by the main propeller and bow/sternthrusters which can block reception of hull mounted units.



(A) = *Portable hydrophone*

(P) = *Port*

(S) = *Starboard*

When the seine is normally located forward of the starboard beam when pursuing the following information should be taken into consideration:

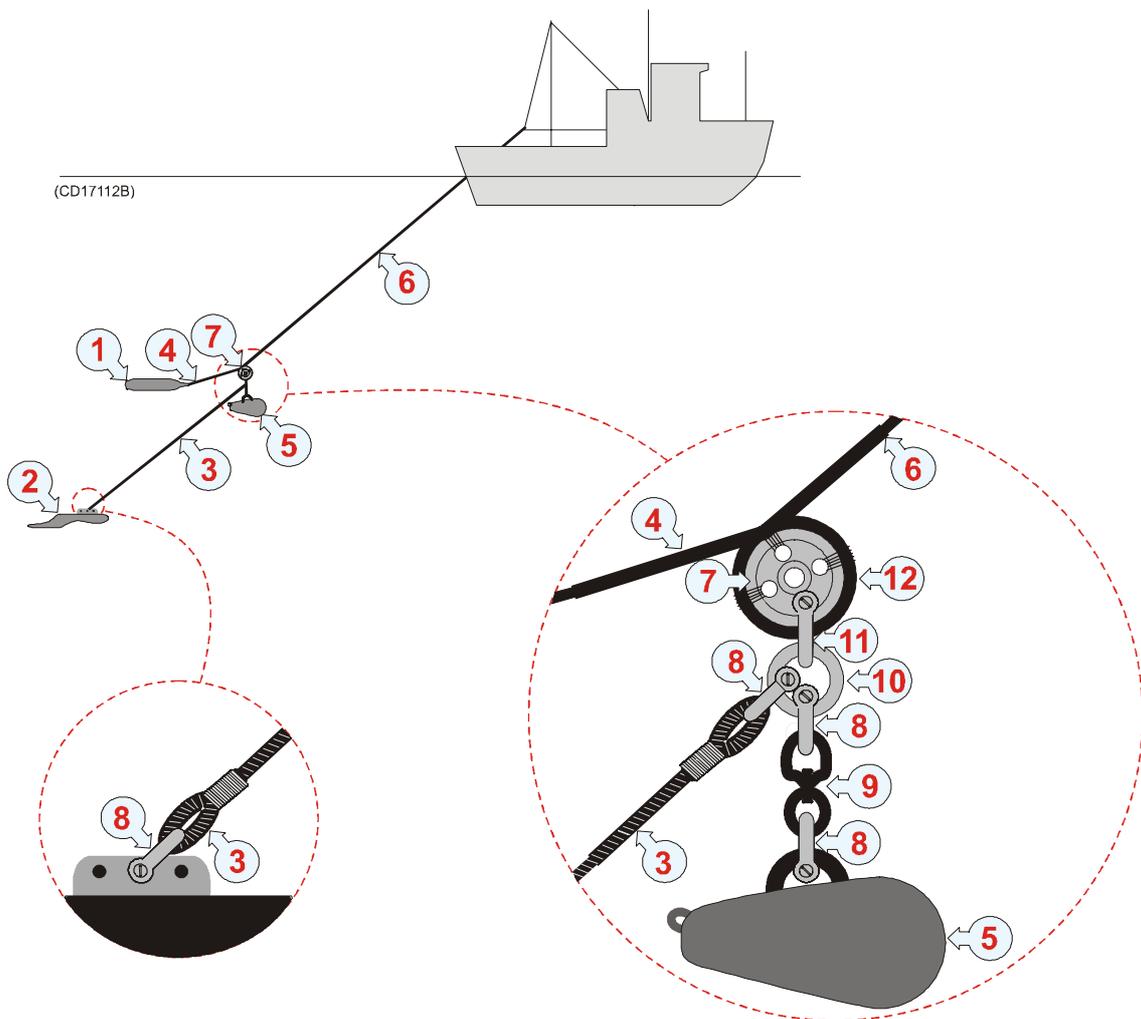
- The portable hydrophone is to be deployed over the port side of the vessel, midships, as far away from bow or stern thruster(s) used when pursuing as possible.
- Note that the portable hydrophone's location is opposite to that of a permanently mounted unit. When pursuing to **starboard** the hydrophone is normally lowered over on the **port** side of the vessel.
- The hydrophone cable should be made fast to the vessel's bulwarks.

Paravane arrangement

The portable hydrophone available with the PI system has a broad coverage area. For this reason, its orientation with regard to the sensors is not that critical.

The hydrophone weighs approximately 700 grams (in salt water) and can be mounted on a towed paravane. Simrad can supply a simple solution for this. This solution is suitable for smaller vessels, and it is made up of a little paravane and a weight. The arrangement is designed to draw the portable hydrophone down to approximate five to ten meters depth when towed at a moderate speed (maximum of three knots). The kit contains all necessary parts (except one!) as described in the following illustration.

Order number: KIT-207284



Paravane arrangement, parts

The relevant part numbers in the arrangement kit are provided in brackets.

(1) Towed hydrophone, portable type. Note that the hydrophone is NOT a part of the paravane kit, it must be ordered seperately. Order number is 314-203863.

(2) Paravane made of durable PVC plastic (598-079553).

(3) Paravane line, a two meter length of thin flag halyard (or the equivalent) shackled to the round thimble and the middle of the three holes available on the paravane (699-078608).

(4) Hydrophone cable, extending approximately a half meter aft of the round thimble. Note that the length of the paravane line (3) is four times longer than the hydrophone cable (4).

(5) Trolling weight, approximately 5 kg (598-079552).

(6) Hydrophone cable, maximum pay-out length approximately forty meters (total cable length is 50 meters).

(7) Round thimble, to which a bight in the hydrophone cable is seized to create an attachment point for the trolling weight and paravane line (598-079551).

(8) Shackle, made of brass (409-078633)

(9) Swivel, used between the trolling weight and the round thimble, shackles at each end (409-079550).

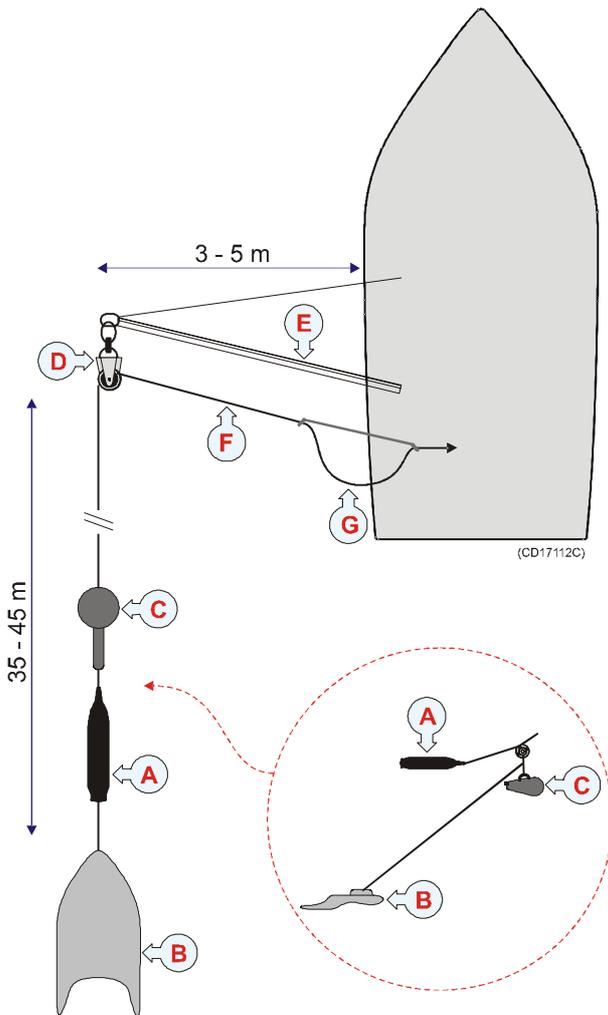
(10) Ring, made of stainless steel (409-078702).

(11) Shackle, made of stainless steel (409-086971).

(12) Seizing, used to secure a bight in the hydrophone cable to the round thimble (not supplied in kit).

Paravane deployment

All paravane installations require a boom or gantry capable of towing the hydrophone a minimum of three to five meters outboard of the vessel. This is important in order to avoid interference caused by the main propeller turbulence.



Should a portable hydrophone be towed in the wake of a vessel, its range will be severely reduced due to the associated main propeller wash which is saturated with air bubbles blocking the sensor signals. Systems incorporating hydrophones towed in this manner can be expected to barely work, if at all.

(A) Towed hydrophone, included with portable type hydrophone (314-203863).

(B) Paravane, included with KIT-207284.

(C) Trolling weight, included with KIT-207284.

(D) Snatch block, not available from Simrad.

(E) Boom, not available from Simrad.

(F) Hydrophone cable, included with the portable hydrophone.

(G) Bight, in hydrophone cable secured with an elastic stop to dampen dynamic stress on the hydrophone cable, not available from Simrad.

Portable hydrophone storage

The portable hydrophone and cable must not be left on deck unattended when not in use. When stored, observe the following precautions.

- Prior to storage, clean the hydrophone with fresh water.
- Take care so that the cable does not chafe due to the motion of the vessel.
- Avoid contact with sharp edges that could damage the hydrophone cable or the hydrophone.
- The hydrophone cable must not be knotted or kinked.

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