



This HR2 Quick Guide provides basic information on key HR2 procedures. Full details for all HR2 procedures are found in the HR2 User manual. We strongly recommend you study the full user manual before using this quick guide.



Do not bump the HR2 hydrophone or expose it to extreme temperature variations. Doing so may damage the receiver and render it unable to detect transmitters.

Open Case

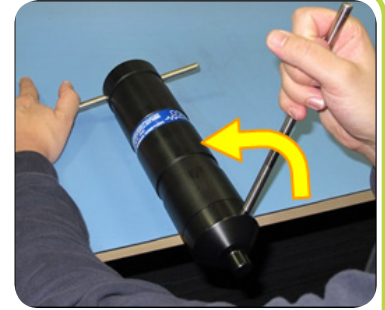
Place HR2 on clean, stable surface so hydrophone hangs off edge. We recommend working in a controlled environment.

Insert one steel rod into the bottom hole and other one in the top hole on the end-cap and hold on to the rods (*VR2Tx example shown*).

Apply pressure to the rod in the top hole to turn end-cap counter-clockwise when you are facing the hydrophone. Remove rod when end-cap turns easily and continue turning by hand.

NOTE: Do not overtwist as there is a cable connecting the end-cap to the inner cylinder.

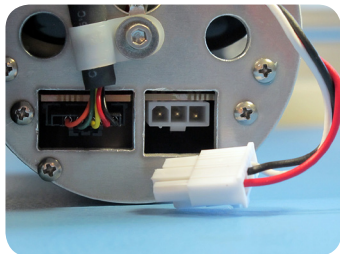
Slide end-cap and cylinder apart until the battery compartment has cleared the cylinder. Be very careful not to damage the threads on the end-cap or the HR2 won't close and seal properly.



Electronics inside the case must **NEVER come in contact with any water** or the HR2 will be damaged.

Battery Replacement

Grab the securing tape end and unwrap the tape that secures the battery to the cradle to remove it.



Press the release lever clip on the bottom of the battery connector and pull the connector out. Gently pull the connector wires up and out through the slot at the bottom of the battery tray.

The battery is held in place by the pressure of the foam cushions at each end. Push towards the top and pull the battery up.

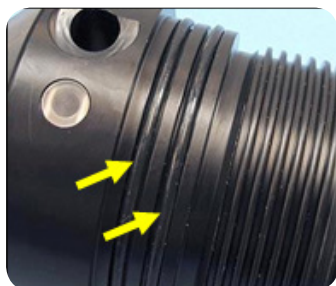
To install a new battery, reverse these steps.



O-rings

Make sure the two O-rings in the end-cap, and the corresponding O-ring surface inside the outer cylinder, are clean and debris-free.

If the HR2 has previously been deployed, replace the O-rings, and **re-grease** the rings before setting them in their grooves.



Close Case

Close the HR2 case by doing the reverse of opening it, but **first, put three new desiccant packs in the bottom of the tube**. Slide the flat end into the outer cylinder. Rotate the end-cap clockwise, using the steel bars when needed.

Stop turning when the gap between the two halves is closed. Over tightening could damage the case (*VR2Tx example shown*).

NOTE: Desiccant packs help reduce the occurrence of condensation in the HR2.



Connect Cable

To communicate with the HR2 receiver, Fathom uses a VEMCO high speed communication cable.

The cable consists of two parts:

- the main cable (black) which connects to the **receiver**, and
- the interface box with USB cable (white) that connects to the **computer**.

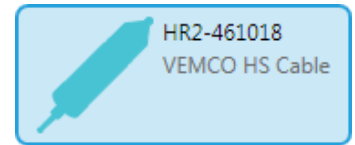


Connect to Fathom

Open Fathom and wait while software scans for the connected HR2. If it doesn't scan, then click the **Scan for Devices** button.



When the HR2 appears, double-click on the receiver icon with the correct serial number to open communication.



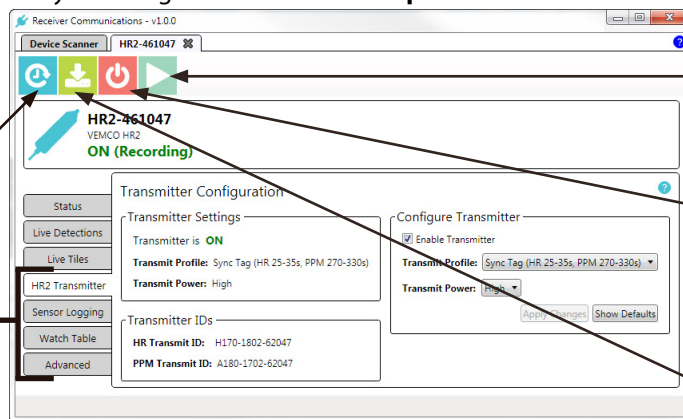
Fathom Software

Actions such as configuring the receiver, starting a study, offloading data and ending communication are performed from the **Receiver Tab**, and are started by selecting the correct icon or **Operations'** tab.

For details, see your HR2 user manual.

Set Receiver Clock - Sets the receiver's internal clock based on your computer's current time settings.

Receiver Configuration - Set various receiver configuration settings under the Operations tabs.



Start a New Study - Clears data on your receiver and starts a new study.

Suspend Receiver - Suspends receiver operation. Detections are not recorded when the receiver is in Suspend Mode.

Offload Data - Initiates data offload to your location of choice on your computer.

Attachment

The common method used to attach a HR2 receiver to mooring line is to use five cable ties (zip tie or tie-wrap) with the following characteristics (*VR2Tx example shown*):

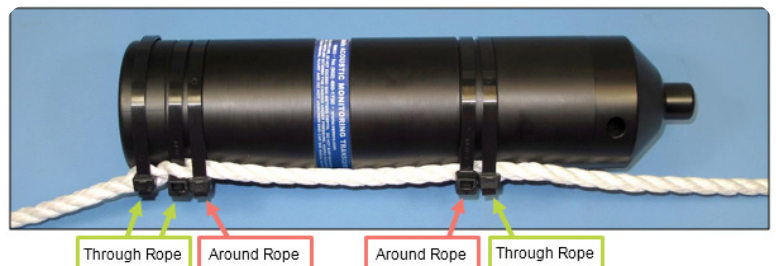
- 388 mm (15.25") long
- 7.5 mm (0.3") wide
- UV protected
- 120 lb tensile strength



Open the "wrap in the rope" to pass the cable tie through the rope.

Avoid shadowing or blocking the receiver with your mooring equipment. Line of sight is a must!

Suggested minimum: 3/8" diameter nylon rope



Status Light

- No flashes = no power or receiver is in Suspend Mode
- 2 quick **red** flashes every 5 sec = in Recording Mode
- 2 quick **red** flashes every 10 sec = memory is full
- 1 quick **red** flash = acoustic ping received
- 1 long **red** flash = PPM detection written to memory
- 1 short **blue** flash = HR detection written to memory
- 1 short **green** flash = acoustic ping was transmitted
- 1 long **green** flash = transmitted pings written to memory

Basic instructions for communicating acoustically with a HR2 while deployed are found in the Receiver Field Communication Quick Guide.

Operating temperature: -5 °C to 40 °C; Water in which the HR2 is deployed must not freeze.

Static depth rating: 300 meters (440 psi)