



This guide provides basic information on key Ascent Acoustic Release (Ascent-AR) procedures.



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

Open Case

Place the Ascent-AR on a clean, stable surface so hydrophone hangs off edge. We recommend working in a controlled environment.

Insert the steel rod into the Bluetooth Activator hole. Hold the body of the Ascent-AR securely in place (a strap wrench on the Ascent-AR body can help).

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

Slide the 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 Ascent-AR won't close and seal properly.

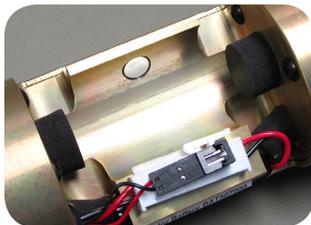


Electronics inside the case must **NEVER come in contact with any water** or the Ascent-AR will be damaged.

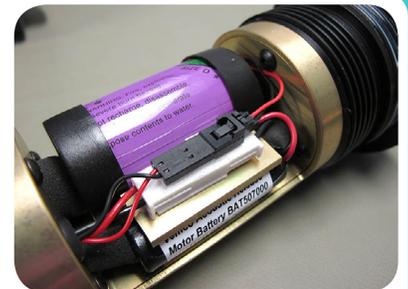


Main Battery

The battery used for acoustic purposes is the D-cell Lithium battery held in the battery compartment with a magnet and the compression of two pieces of foam. The motor battery should not need attention for many releases.



The battery connector is located next to the battery. When installing the battery, listen for a "click" and watch that the Status Light flashes. Be sure it flashes a **long green** to indicate the Ascent-AR started up properly. When disconnecting battery, press the release tab on the battery connector and then pull connector halves apart.



TIP: Write the date on the battery.

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 Ascent-AR has previously been deployed, remove the O-rings, clean them and inspect them for cracks or damage (replace if damaged).

Re-grease the O-rings (Molykote 55) and place them in the O-ring grooves.



Close Case

Close the Ascent-AR 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 bar when needed.

Stop turning when the gap between the two halves is closed. Over-tightening could damage the case.

NOTE: Desiccant packs help reduce the occurrence of condensation in the Ascent-AR.



Re-arming Acoustic Release

1. Remove the Retaining O-ring.
2. Remove the Retaining Pin.
3. Thread the new mooring lug clockwise into the Ascent-AR until it stops.

4. Slide the Retaining Pin back into its hole until it stops. Slowly turn the lug *counter-clockwise* until the pin slides farther into its hole; center the pin.
5. Slide the Retaining O-ring back into its groove.

Release will not function if pin is not properly installed.



Activate Bluetooth

Slide the smaller end of the Bluetooth Activator in the Bluetooth Activator Hole on the Ascent-AR, near the hydrophone.

Wait until the Status Light begins flashing a bright, long, steady **red** flash once a second. The wait time is *less than five seconds*.

Remove the Bluetooth Activator.



One bright flash every second.

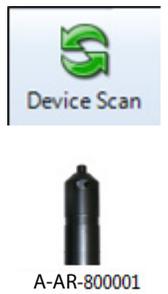
Connect to VUE

Open VUE and wait while software scans for the activated Ascent-AR. If it doesn't scan, then click the **Device Scan** button.

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

NOTE: Ascent-AR Status Light is continuously on during communication.

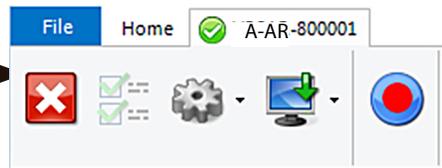
Bluetooth only works through air.



VUE Software

Actions such as starting a study, offloading data, and ending communication are performed from the **Receiver Tab** and are started by selecting the correct icon in the tab's ribbon.

Close View – Ends communication with Ascent-AR and closes Receiver tab. The receiver resumes recording (does not initialize).



Start Recording – Set up and begin a study; also erases Ascent-AR memory.

Device Options – Install Firmware, Reset Battery Usage Indicator, Logging Options, or setup the Acoustic Release.

Offload data – Choose to offload *all data* or just *new data*.

Status Light

No flashes = no power (battery is disconnected or has depleted)

2 quick **red** flashes every 5 sec = Logging mode (recording sensor data)

2 quick **red** flashes every 10 sec = memory is full

Continuous long **red** flashes (1 per second) = ready for *Bluetooth* wireless technology communication

Red light on constantly = communicating with VUE software using *Bluetooth* wireless technology communication

Basic instructions for communicating acoustically with an Ascent-AR while deployed are found in the **Ascent-AR Field Communication Quick Guide**.

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

Static depth rating: 500 meters (730 psi)

Safe working load: 250 lbs (113 kg)