

# Bat-Hat / Solar System Instructions

Overview	3
System components and fit into the enclosure	4
Battery Charger	5
Solar panel mounting AE10	6
Instructions for replacing Battery	7



The Anabat Enclosure System provides both weather protection as well as a convenient way for powering one to two Anabats. Included are an enclosure, solar panel, battery, and battery charger. The following manual provides instructions for setting up the system.

### Arrangement inside the EFG1008 fiberglass enclosure:

System components are held in place and separated with pieces of pre-cut foam (illustrated above). When everything is in place and the lid of the enclosure is shut and latched, the pieces are held securely for installation and transport.

The battery sits in a recess in the bottom foam plate and is held at its top and bottom by two metal braces. When we supply the battery, we glue the metal brace to the battery with E6000 industrial adhesive (“Goop”).

The SD1/SD2 (or Anabat/Zcaim) also sit in a recess in the base plate and are held by a bungee stretch cord fastened over the top.

### Making Connections

The bat-hat microphone cable enters through the PG11 gland, which you must screw into the threaded hole in the side of the box (pictured to the right).

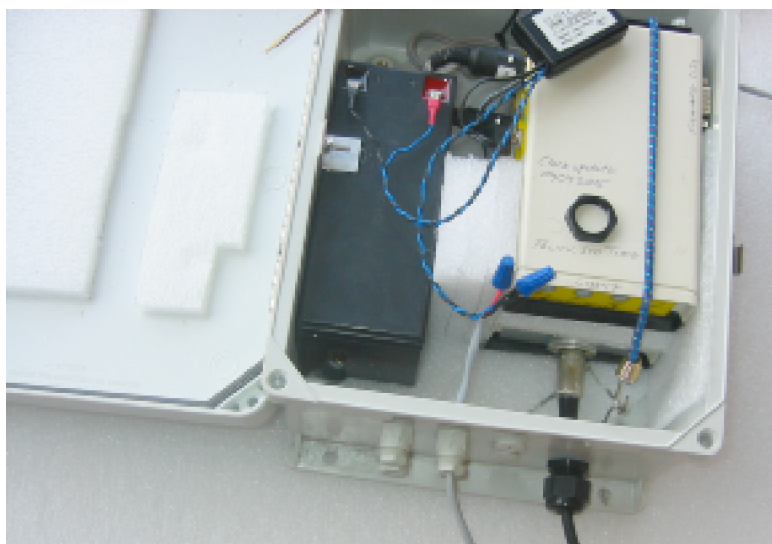
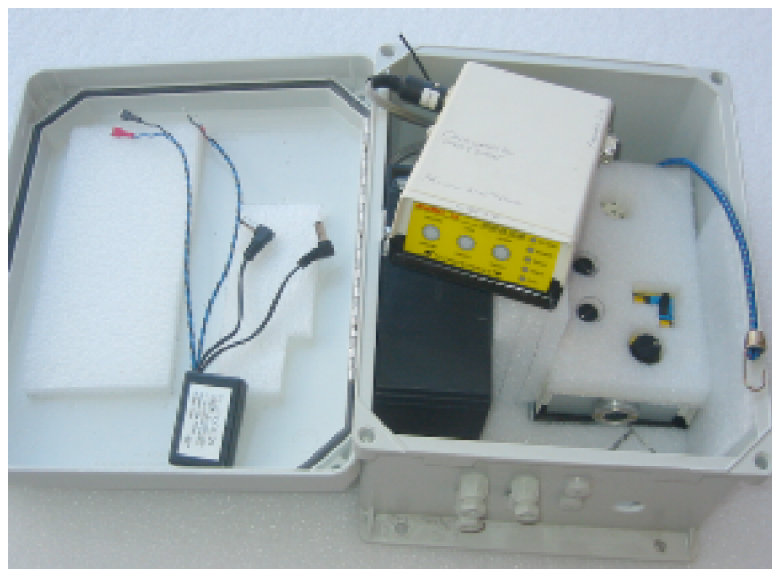
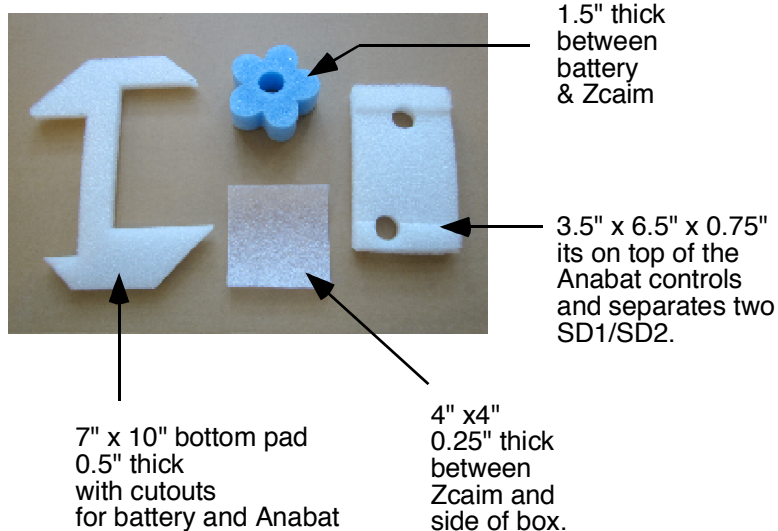
The solar panel cable enters through the grey PG7 gland nut and is connected to the charger using wire nuts. **Be sure to observe polarity.**

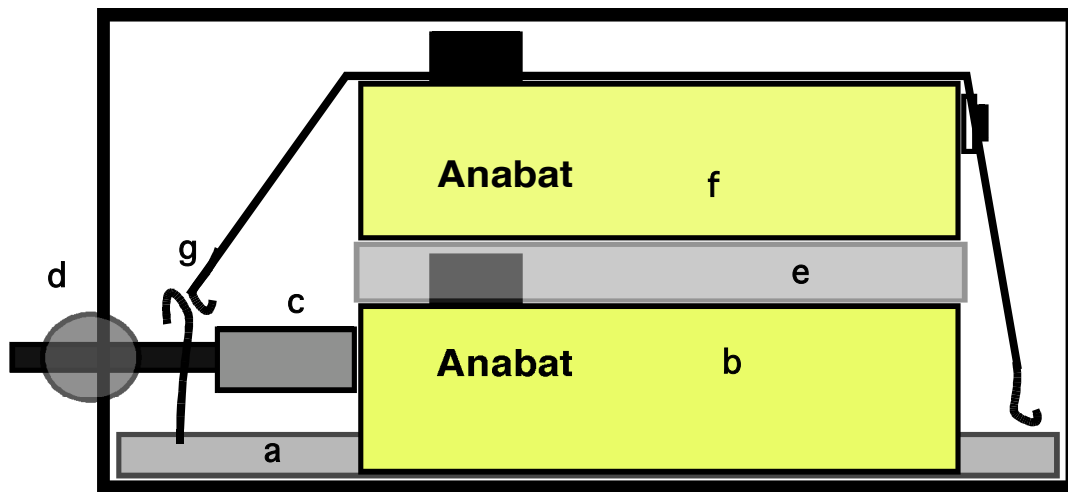
The barrel plugs from the battery charger plug into the power sockets on the SD1/SD2 (or Anabat/Zcaim). (It does not matter which plug goes into which socket).

Secure the fast-on tabs from the charger to the battery tabs. **Observe polarity.**

### Mounting the Enclosure

The enclosure can be mounted horizontally on a platform or cross-bar, or it can be mounted vertically on a pole, either with U-bolts through the enclosure flanges (extra holes will need to be drilled in the flange), or on a plate that is mounted on the pole. If a plate can be used, it is best to position it to help keep the direct sun off the enclosure. Allow an air space between the plate and the enclosure for a heat trap.





**Side view of VJ1008 enclosure showing stacking of Anabat & zcain.**

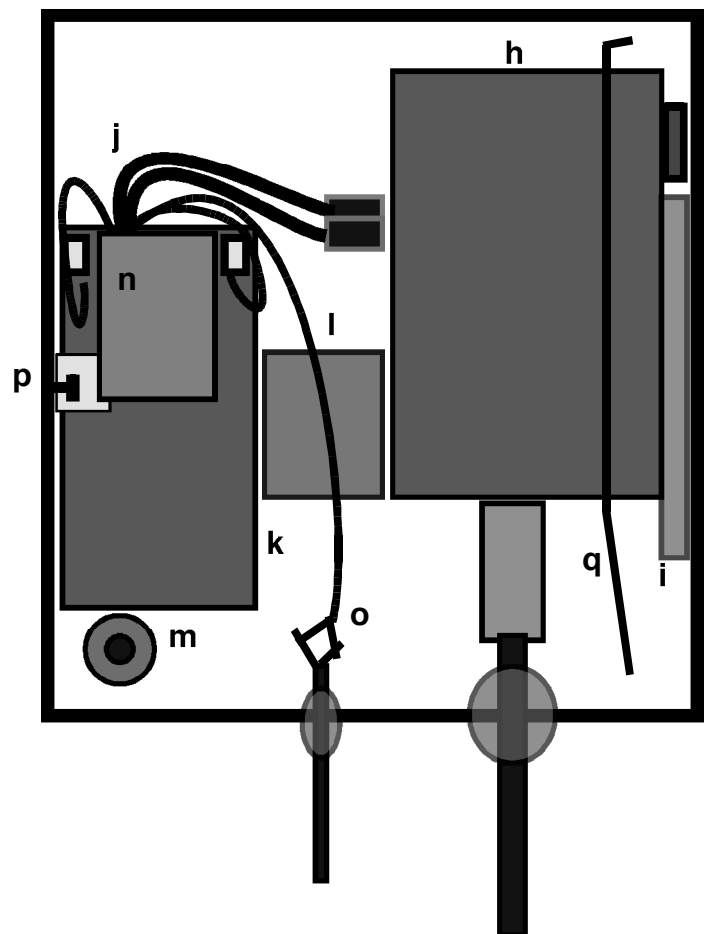
side view

- a) hard foam bottom rest
- b) Anabat
- c) cable from bat-hat
- d) PG11 gland nut threaded in enclosure.
- e) double layer foam with cutouts for Anabat knobs and switches.
- f) Zcain on top for access to CF card
- g) bungee cord between hooks on the enclosure bosses.

**Top view of VJ1008 enclosure, showing position of Anabat stack and battery & OWL2pe logger.**

Top view:

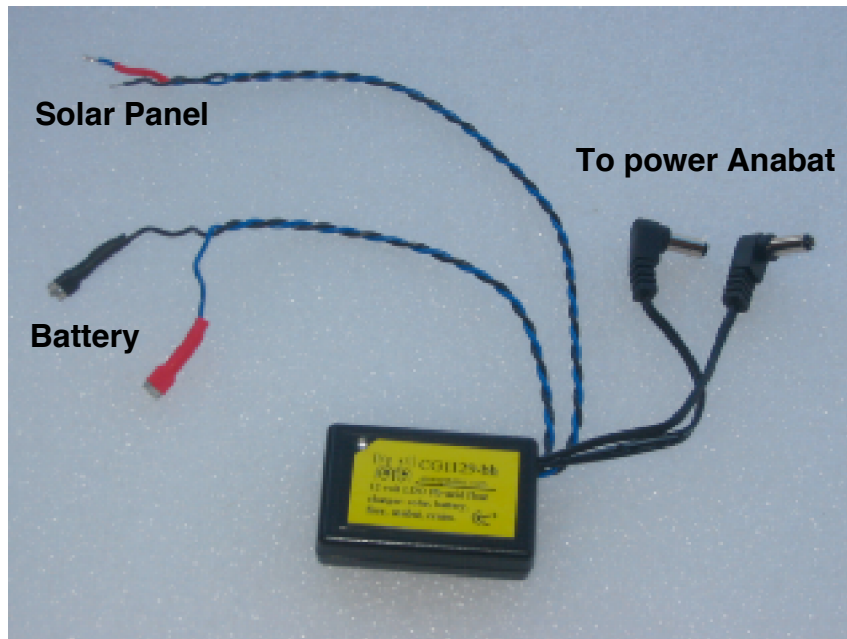
- h) Anabat(s)
- i) foam side panel
- j) power cables to Anabat(s)
- k) battery B1207 with faston tabs from charger.
- l) foam block between battery and Zcain
- m) battery up against mounting boss.
- n) battery charger (can be tucked in between battery and Anabat.)
- o) solar panel wiring
- p) battery retainer on #6 screw
- q) bungee cord holds stack, hooks to mounting boss.



The battery is retained by the brace that is attached to the #6-32-3/4" machine screw that comes into the enclosure through the hinge, and also by the cutout foam and by the mounting boss, "t".

The bungee stretch cord over the top of the Anabat(s) is held by a hook and can be easily pulled back in order to adjust the sensitivity of the Anabat or its other controls, and to access the CF card.





**Battery charger, CG1129BH.** -- for 12 volt sealed Pb-acid battery.

This is for systems that do not have the OWL2pe controller (which has the charger built into the top terminal board).

The input should be a 5 to 15 watt solar panel, and the output is up to 13.8 volts for charging a 0.5 to 10 amp-hour sealed Pb-acid battery. The charger is temperature compensated to supply the correct voltage and current.

Blue and black wires to solar panel:  
 Blue (with red tag) to solar panel (+).  
 Black to solar panel (-).  
 Use wire nuts for connection.

Faston tabs to battery:  
 Red tab to battery (+).  
 Black tab to battery (-).  
 Be sure the tabs are on fully and securely, use pliers to hold and push tabs  
 If the tabs seem too tight, push the blade of a 1/8" screwdriver into the tabs  
 to separate them slightly.

Barrel plugs:  
 One to each Anabat  
 It does not matter which plug goes to which Anabat. Both supply 13.8 volts  
 DC, fused.  
 If only one plug is used, insulate the other with a bag or electrical tape.

The indicator light will flash when there is enough power (>10 volts) to operate the equipment. If you unplug the battery, the light will still flash if power is available from the solar panel. If you shade or disconnect the solar panel, the light will flash if power is available from the battery.

# AE1210 solar panel, 12 volt, 10 watt



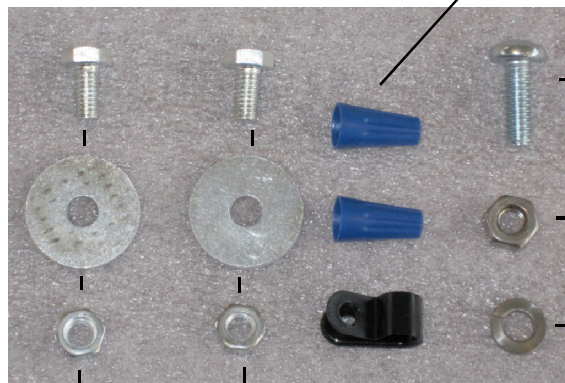
To fasten the solar panel to its bracket, first fasten the supplied brace to the bracket using one 1/4" x 5/8" truss machine screw. The screw passes through the hole in the middle of the bracket, then through the brace at its 90 degree bend side (shown right). Tighten using the supplied lock washer and nut.

To fasten the bracket assembly to the solar panel, pass the two 1/4" x 1/2" screws through the holes in the center of the edges of the solar panel frame and then through the slots in the bracket. Tighten using the supplied washers and nuts.

Use a thread lock compound or a little "Goop" if vibration is a concern (It usually is!). The bracket can be held onto a pole using stainless steel hose clamps of appropriate size (not included). It can also be affixed to a wood pole or to the roof of a weather shelter using screws.



Solar Panel Hardware:



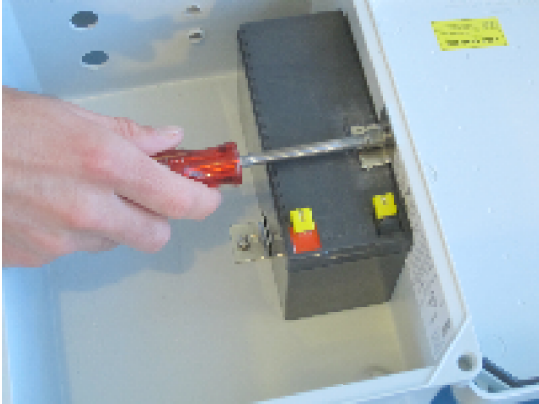
wire nuts  
for connecting  
solar panel cable  
to battery charger

use to fasten  
brace to  
bracket

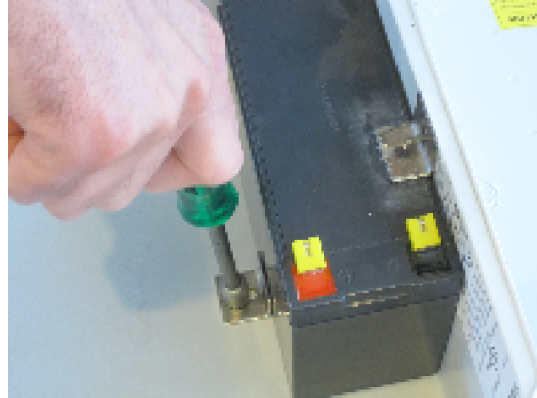
use to fasten bracket  
assembly to panel frame

# Instructions for replacing B1207 (12V Battery)

1) Unscrew the #6 nut that holds the top of the battery to the enclosure. Keep this nut, lock washer, and washer for installing the new battery.



2) Loosen the #8 nut that holds the bottom of the battery in place. Once the nut is loosened, slide the metal bracket away from the battery.



3) Remove the battery.



4) To install the new battery, follow steps 1-3 in reverse. Make sure the metal bracket that holds the bottom of the battery is flush against the battery before tightening. Do not over-tighten nuts.

