



# **DYNAPLATE**

## Installation instructions

### **Description**

The Guest Dynaplate is made from thousands of tiny bronze spheres bonded together by heat and pressure into a porous plate. This porosity makes the Dynaplate ideal for use in electrical bonding systems. It can also be used in RF applications such as grounding SSB and LORAN antennas for improved performance. The model 4080C Dynaplate meets ABYC requirements for use in a lightning protection system. *NOTE: Minor discoloration does not effect performance.*

### **Installing the Dynaplate**

Required tools and materials

- Electric drill with drill bit (see table below)
- Wrench (see table below)
- Large slot-head screwdriver
- Caulking suitable for underwater use (StarBrite™83301 or similar)

<b>Dynaplate Model #</b>	<b>Wrench required</b>	<b>Drill bit required</b>
4006, 4008, 4080C	7/16"	1/4" (6mm)
4012, 4018	9/16"	3/8" (9mm)

### **Step 1: Choosing a mounting location**

Choose a mounting location that will always be submerged, even when the vessel is planning or heeling over.

- On a powerboat, the best location is usually any flat area on the aft third of the bottom of the hull within a few feet of the vessel's centerline. (Avoid mounting the Dynaplate on the vessel's transom. When underway, it may only have intermittent contact with the water.)
- On a sailboat, a flat location on the aft half of the hull and close to the centerline is best.

## Choosing a location (continued)

Avoid mounting your Dynaplate immediately forward of any depth finder or knot meter transducers. The gentle turbulence directly aft of the Dynaplate may affect the performance of some devices. Propellers are not affected.

Consider the thickness of the hull when choosing a mounting location. The combined thickness of the hull and a backing plate (not included) should not exceed 1½" (3.8 cm) to allow use of the supplied 3" (7.6 cm) fasteners.

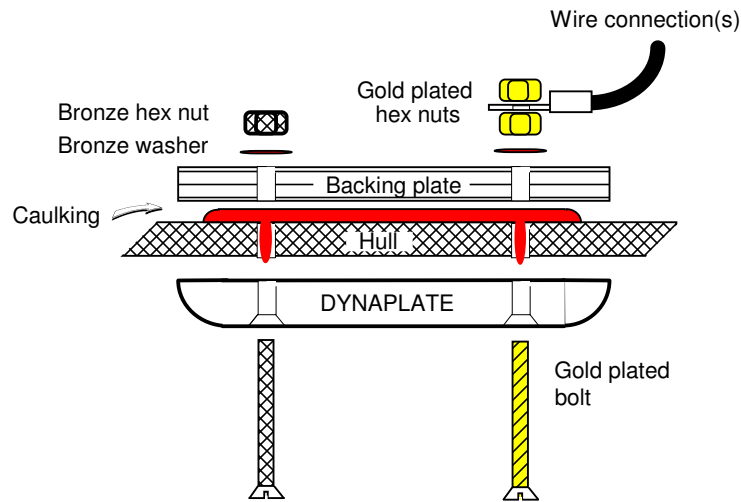
When choosing a mounting location, be sure you will have access to the inside of the hull in that area to tighten fasteners and make wiring connections. Avoid areas where drilling may damage fuel or water tanks, plumbing, or wiring.

### Step 2: Preparing the mounting location

After you have selected a location for your Dynaplate:

1. Prepare a backing plate to mount inside the hull behind the Dynaplate. This plate should be no smaller than the Dynaplate, and a minimum of 1/2" (12mm) thick. The backing plate can be made from marine-grade plywood, a hardwood such as mahogany or oak, or fiberglass.
2. Use the Dynaplate as a template to mark the locations of its mounting holes onto the backing plate. Use the table shown under "Required tools and materials" to determine which size drill bit you will need, then drill the holes in the backing plate at the marked locations.
4. Hold the Dynaplate against the outside of the hull where you plan to mount it. Align the Dynaplate parallel with the centerline of your vessel, with its sloped ends pointing fore and aft.
5. Observe the gap between the Dynaplate and hull. If any edge of the Dynaplate is more than 1/4" (6 mm) from the surface of the hull, select a flatter mounting location.
6. If the mounting location is suitable, use a pencil to mark the centers of the holes in the Dynaplate onto the hull.
7. Drill *one* hole at *one* marked location on the hull. Before drilling any other holes, examine the inside of the hull to confirm that the mounting location is suitable. Then drill the other hole(s) through the hull at the marked location(s).

Figure 1



### Step 3: Mounting the Dynaplate (see figure 1)

8. Examine the mounting hardware supplied with the Dynaplate. Notice that one bolt and two hex nuts are shiny and gold in color. These pieces have been gold plated and will be used later to make the electrical connection to the Dynaplate. Put these pieces aside. The remaining hardware is bronze and will be used to attach the Dynaplate to the hull.
9. Clean and dry the inside surface of the hull around the mounting location. It is important to remove any oil or grease that could prevent the caulking from adhering to the hull.
10. Apply a bead of underwater caulking sealant, (StarBrite™83301 or similar), to the inside of the hull in a circle around each mounting hole. Squeeze a small amount of caulking into each mounting hole.  
(DO NOT coat the back of the Dynaplate with sealant.)
11. Place the backing plate on to the caulking, aligning the holes in the backing plate with the mounting holes in the hull. Press down on the backing plate firmly. Allow the caulking to cure for 15 minutes.
12. Align the Dynaplate over the mounting holes on the outside of the hull. Mount the Dynaplate by passing the bronze bolt(s) through the Dynaplate, hull and backing plate. Fasten with flat washer(s) and nut as shown in figure 1. Tighten the hex nut(s) hand-tight.
13. Use a wrench to tighten the hex nuts inside the hull while someone else uses a large slot head screwdriver to hold the bolts from outside the hull. Do not over tighten.
14. Make the electrical connections to the gold plated bolt ONLY. Use #8 gauge stranded copper wire with a ring terminal to connect the Dynaplate to your LORAN RF ground and/or your DC accessories' negative ground. Use a wire equal in size to the negative battery cable to connect the negative post of your battery to the Dynaplate.

## Maintenance

Do not paint the Dynaplate. Paint will prevent proper grounding. It is difficult for barnacles to attach themselves onto its porous surface. Clean with stiff brush and bleach. Inspect annually.

## Spare parts

P-12D34	1/4"-20 sil. brz. bolt	4006, 4008, 4080C
P-12D35	1/4"-20 sil. brz. bolt-gold plated	4006, 4008, 4080C
P-13A27	1/4"-20 sil. brz. nut	4006, 4008, 4080C
P-13A28	1/4"-20 sil. brz. nut-gold plated	4006, 4008, 4080C
P-11D03	1/4" sil. brz. washer	4006, 4008, 4080C
P-12D36	3/8"-16 sil. brz. bolt	4012, 4018
P-12D37	3/8"-16 sil. brz. bolt-gold plated	4012, 4018
P-12A29	3/8"-16 sil. brz. nut	4012, 4018
P-13A2A	3/8"-16 sil. brz. nut-gold plated	4012, 4018
P-11D04	3/8"-16 sil. brz. washer	4012, 4018

## LIMITED WARRANTY

For one (1) year from the date of original purchase, The Guest Co., will, at its discretion, repair or replace for the original consumer, free of charge, any part or parts found defective in material or workmanship. All transportation charges under this warranty must be borne by the consumer.

Proof of purchase is required. A computerized register receipt is required. Handwritten receipts are not accepted for warranty proof of purchase. In the absence of a receipt, warranty period will be calculated from date of manufacture printed or stamped on the product.

THERE IS NO OTHER EXPRESSED WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM THE DATE OF PURCHASE. THIS IS THE EXCLUSIVE REMEDY AND CONSEQUENTIAL DAMAGES ARE EXCLUDED WHERE PERMITTED BY LAW.

Tel: (707) 226-9600

Fax: (707) 226-9670

Email: [Info@marinco.com](mailto:Info@marinco.com)

Website: [www.marinco.com](http://www.marinco.com)