

THE BOATYARD

WATER PROOF THE ELECTRONICS

The single largest problem that owners face is electronics that stop working. The reality is that all RC electronics are designed for model airplanes, not for a wet marine environment. All model boats get water inside in the electronics. That's the biggest problem, especially in saltwater.

It will ruin your day if while leading the fleet the boat starts circling out-of-control; or worse, it sails with good speed straight out towards the horizon.

When should you waterproof?

The options are:

1. Before the boat ever goes into the water the electronics should be waterproofed or,
2. Now, before they stop working.

It may be too late if done after they stop working. Recall the advice to lock the barn door after the horses are gone.

DISCIPLINE

It takes some personal discipline to make the effort BEFORE the boat stops working. To do everything describe below will take between 15 and 30 minutes. Do it now.

SERVOS

Used as received the servos will eventually get water inside and stop working. Here is a quick and easy way to make them more water-resistant:

1. Loosen the four screws that hold the three-piece servo case together.
2. Separate the cases about 1/16 inch so Vaseline© (petroleum jelly) can be smeared into the two gaps. Liberally apply Vaseline all around the wire where it exits the case at bottom.
3. Tighten the screws and wipe of excess Vaseline.
4. With the servo arm removed, smear Vaseline generously all around the servo output shaft and replace the arm.

RECEIVER

1. Open the receiver case. The stock Rx has two "latches" at each end that can be disengaged using a small screwdriver or the end of a paperclip. The Futaba Rx has hinges at one end and latches at the other.
2. Carefully remove the circuit board, coat it with Vaseline and reassemble.

(This was covered with photos in the Jan.-Feb. 2000 NEWS.)

SWITCH

Squirt WD-40 into the switch and cycle it on-off several times. If a boat won't turn on, doing this will often get it going.

(Convenient pocket size cans of WD-40 are available at ACE hardware stores.)

BATTERY

A **shrink rapped and soldered battery pack** is the most reliable. Use something like silicone sealant to seal the openings in the shrink rap.

A **battery case** with snap-in AA cells can be enclosed in a rubber glove or balloon with the wire exit well sealed. Water may still manage to get inside so it is good practice to dry out the inside of the glove or balloon after every sail.

Battery cases are notoriously cheaply made with material that quickly corrodes and stops the flow of electricity. It's good practice to spray the springs, contacts and connections with WD-40 or coat with Vaseline.

(Battery cases and their wires fail frequently. It is prudent to have a

spare.)

CONNECTORS

Use WD-40 or Vaseline on them all. For the battery connector, if you are able to solder, use Dean's connectors which are gold plated against corrosion. Always use the female connector on the battery wires.

AN EXCELLENT BOAT STAND

John Whalen, #911, from Boston, has discovered an excellent boat stand. It is a folding "camp table" sold at Sears and probably other sporting goods stores. It is inexpensive and folds into a small light package. The top is heavy canvas in which he cuts a slit large enough to accept the keel. The base is wide enough to resist strong winds (there have been a lot of boats damaged when blown over while on the stock stand). There are beverage pockets that can hold stuff like a beer or a jar of Vaseline©, etc. A net bag on one edge is the perfect size to hold the transmitter, too.



Chuck Winder Photo