

Application Brief: Refitting with a WeatherDeck™ Circuit Breaker Panel

May 15, 2007

This is the second Application Brief describing the refit of the electrical system on a Harborcraft runabout. The first Application Brief described the installation of a second battery, battery switch, and automatic charging relay (ACR). [Click to view the first application brief](#). This Application Brief describes the replacement of the original fuse and switch distribution panel with a Blue Sea Systems WeatherDeck™ Circuit Breaker Panel.

The runabout is used as a mark boat and support tender for evening and weekend sailboat racing. When the boat arrived at Blue Sea Systems, it was equipped with the original metal distribution panel, one battery, no battery switch, and an AC shore charger. The boat is fitted with anchor lights, running lights, radio, depth meter, horn, and wipers.

Metal electrical distribution panels often have a short life when exposed to a harsh marine environment, especially when the boat is kept on the water at a pier. These panels may become corroded.

The main reason for replacing the distribution panel is because there was no way to identify which circuits operate each device. Over the life of the boat, devices and appliances were added and circuits were modified. Therefore, the permanent labels were no longer valid. The panel labels could not be replaced — labels were permanently etched into the panel face.

This boat is used by many people who are on the boat only occasionally. For most operators, there was no way of knowing which switch controlled each circuit. Also, the original panel had no backlighting, so circuit labels could not be seen at night. The boat needed a distribution panel with backlit labels that accurately identify each circuit.

The original panel was replaced with the WeatherDeck™ Circuit Breaker Panel. This panel is corrosion proof, water resistant, backlit, and can be easily labeled. The WeatherDeck™ also has integrated toggle guards that prevent accidental switching; this is important when a panel is mounted close to the steering wheel and companionway as it is on this boat. The circuit breaker version of this panel was selected instead of the fuse version so that operators didn't have to deal with replacing fuses. WeatherDeck™ Circuit Breaker Panel are available in 4 and 6 circuits. With square labels, the panels can be installed in any orientation. This installation required the use of Starboard® because the existing opening was about ½" too large to accommodate the WeatherDeck™ 6 circuit panel. The resulting refit is a clean installation that meets the needs of its users.



Before



After

